

Wednesday, February 17, 2010

# LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

REQUEST NUMBER: 10-1914

Page 1 of 2

These Samples are on:

LANL Request Number: 10-1914

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 2/17/2010

TURNAROUND/REPORT DUE: 3/19/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



| PRIORITY | METHOD CODE      | CNTNR | SAMPLE ID    | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|----------|------------------|-------|--------------|---------------|--------------|----------------------|
|          | SW-846:8260B     | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7424 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7427 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7428 | R             | 2/12/2010    |                      |
|          | SW-846:8270C     | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7424 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7427 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7428 | R             | 2/12/2010    |                      |
|          | SW-846:8321A_MOD | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |

Wednesday, February 17, 2010

Page 2 of 2  
REQUEST NUMBER: 10-1914

| PRIORITY         | METHOD CODE | CNTNR | SAMPLE ID    | SAMPLE<br>MATRIX | DATE SAMPLED | SPECIAL<br>INSTRUCTIONS |
|------------------|-------------|-------|--------------|------------------|--------------|-------------------------|
| SW-846:8321A_MOD |             |       |              |                  |              |                         |
|                  |             | 1     | RE36-10-7424 | R                | 2/12/2010    |                         |
|                  |             | 1     | RE36-10-7427 | R                | 2/12/2010    |                         |
|                  |             | 1     | RE36-10-7428 | R                | 2/12/2010    |                         |

Final Page of REQUEST NUMBER 10-1914

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1914

LOS ALAMOS

REQUEST NUMBER: 10-1914

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/19/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

| SAMPLE ID    | CTNR | CTNR DESC          | ORDER          | PRESERV | MATRIX |
|--------------|------|--------------------|----------------|---------|--------|
| RE36-10-7427 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7427 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7423 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7423 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7428 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7428 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7424 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7424 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |

Relinquished By:

Date Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7423

WORK ORDER:

| AS PLANNED                  |           | AS COLLECTED |  | AS PLANNED               |        | AS COLLECTED |     |
|-----------------------------|-----------|--------------|--|--------------------------|--------|--------------|-----|
| DATE COLLECTED(MM/DD/YYYY): |           | 02/12/2010   |  | MEDIA:                   | QBT3   |              | ALL |
| TIME COLLECTED (HH:MM)      |           | 1100         |  | SUB-MEDIA:               | TUFF 1 |              | ALL |
| PRS ID:                     | 36-008    | OK           |  | SAMPLE TECH CODE:        | HA     |              | OK  |
| LOCATION ID:                | 36-610584 |              |  | FIELD QC TYPE:           | NA     |              |     |
| LOCATION TYPE:              | GENERIC   |              |  | FIELD PREP:              | NA     |              |     |
| TOP DEPTH:                  | 0         | 0.0          |  | SAMPLE USAGE:            | INV    |              |     |
| BOTTOM DEPTH:               | 0         | 0.5          |  | SCREEN/PORT DESC:        | NA     |              |     |
| FIELD MATRIX:               | R         | S            |  | EXCAVATED: YES/NO/NA     | NA     |              |     |
| COMPOSITE TYPE:             | NA        |              |  | COMPOSITE TIME INTERVAL: | NA     |              |     |
| BOREHOLE: YES/NO/NA         | NA        |              |  | BOREHOLE DECLINATION:    | NA     |              |     |
|                             |           |              |  | BOREHOLE DIRECTION:      | NA     |              |     |

| # | PRIORITY | ORDER                 | CNTNR                         | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|----------|-----------------------|-------------------------------|--------------|---------------|----------------------|
| 1 | Reg      | 8260B                 | 125 ML SEPTUM AMBER GLASS     | Ice          | Y             |                      |
| 1 |          | 8270C+NMED Exp        | 500 ML AMBER GLASS            | Ice          |               |                      |
| 1 |          | AM241+GS+ISO PU+ISOU  | 1 LITER POLY                  | None         |               |                      |
| 1 |          | H3                    | 500 ML POLY                   | Ice          |               |                      |
| 1 |          | METALS+U-GEL          | 125 ML POLY                   | Ice          |               |                      |
| 1 |          | Perchlorate+CN+N03+pH | 500 ML POLY                   | Ice          |               |                      |
| 1 |          | RADVANA+B+G           | 1 EA 8 IN RESEALABLE POLY BAG | None         |               |                      |

SAMPLE DESC: Dry brown soft duff and top soil

SAMPLE COMMENTS: None

LOCATION DESC: 8-51

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 14 dpm  
Beta/Gamma = 1377 dpm

PID  $\frac{\text{Ambient Reading}}{0.0}$  ppm

COLLECTED BY (PRINT)

A. Gornal

REVIEWED BY (PRINT)

TLMcFarlane

|   |                              |   |                              |
|---|------------------------------|---|------------------------------|
| RELINQUISHED BY<br>(Printed Name) A. Gornal<br>(Signature) <i>A. Gornal</i> | Date/Time<br>2/12/10<br>1640 | RECEIVED BY<br>(Printed Name) S. WALKER<br>(Signature) <i>S. Walker</i> | Date/Time<br>2/12/10<br>1640 |
| RELINQUISHED BY   | Date/Time                    | RECEIVED BY   | Date/Time                    |



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7424

WORK ORDER:

| AS PLANNED                  |  | AS COLLECTED                |  | AS PLANNED               |  | AS COLLECTED |  |
|-----------------------------|--|-----------------------------|--|--------------------------|--|--------------|--|
| DATE COLLECTED(MM/DD/YYYY): |  | 02/12/2010                  |  | MEDIA: QBT3              |  | OK           |  |
| TIME COLLECTED (HH:MM)      |  | 1120                        |  | SUB-MEDIA: TUFF 1        |  | OK           |  |
| PRS ID: 36-008              |  | OK                          |  | SAMPLE TECH CODE: HA     |  | OK           |  |
| LOCATION ID: 36-610584      |  | ↓                           |  | FIELD QC TYPE: NA        |  | ↓            |  |
| LOCATION TYPE: GENERIC      |  | ↓                           |  | FIELD PREP: NA           |  | ↓            |  |
| TOP DEPTH: 0                |  | 2.0                         |  | SAMPLE USAGE: INV        |  | ↓            |  |
| BOTTOM DEPTH: 0             |  | 2.0                         |  | SCREEN/PORT DESC: NR     |  | ↓            |  |
| FIELD MATRIX: R             |  | OK                          |  | EXCAVATED: YES/NO/NA     |  | ↓            |  |
| COMPOSITE TYPE: NR          |  | COMPOSITE TIME INTERVAL: NR |  | WATER FLOWING: YES/NO/NA |  | NR           |  |
| BOREHOLE: YES/NO/NA         |  | BOREHOLE DECLINATION: NR    |  | BOREHOLE DIRECTION: NR   |  | NR           |  |

| # | PRIORITY | ORDER                 | CNTNR                         | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|----------|-----------------------|-------------------------------|--------------|---------------|----------------------|
| 1 | Reg      | 8260B                 | 125 ML SEPTUM AMBER GLASS     | Ice          | 2/12/10 y     |                      |
| 1 |          | 8270C+NMED Exp        | 500 ML AMBER GLASS            | Ice          |               |                      |
| 1 |          | AM241+GS+ISO PU+ISOU  | 1 LITER POLY                  | None         |               |                      |
| 1 |          | H3                    | 500 ML POLY                   | Ice          |               |                      |
| 1 |          | METALS+U-GEL          | 125 ML POLY                   | Ice          |               |                      |
| 1 |          | Perchlorate+CN+N03+pH | 500 ML POLY                   | Ice          |               |                      |
| 1 |          | RADVANA+B+G           | 1 EA 8 IN RESEALABLE POLY BAG | None         |               |                      |

SAMPLE DESC: Eroded and weathered light brown tuff

SAMPLE COMMENTS: 26 2/12/10  
26 2/12/10  
interface @ 2.0' bgs

LOCATION DESC: B-51

## FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 6 dpm  
Beta/Gamma = 323 dpmPID  $\frac{\text{Ambient Reading}}{0.0}$  0.0 ppm

COLLECTED BY (PRINT)

A. Gammas

REVIEWED BY (PRINT) Thmcfarland

|   |                              |   |                              |
|---|------------------------------|---|------------------------------|
| RELINQUISHED BY<br>(Printed Name) A. Gammas<br>(Signature) <i>A. Gammas</i> | Date/Time<br>2/12/10<br>1640 | RECEIVED BY<br>S. Maltz<br>(Printed Name)<br>(Signature) <i>M</i> | Date/Time<br>2/12/10<br>1640 |
| RELINQUISHED BY   | Date/Time                    | RECEIVED BY   | Date/Time                    |

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7427

WORK ORDER:

## AS PLANNED

## AS COLLECTED

## AS PLANNED

## AS COLLECTED

DATE COLLECTED(MM/DD/YYYY):

02/12/2010

MEDIA:

QBT3

Allh

TIME COLLECTED (HH:MM)

10:26

SUB-MEDIA:

TUFF 1

Allh

PRS ID: 36-008

OK

SAMPLE TECH CODE: HA

OK

LOCATION ID: 36-610586

↓

FIELD QC TYPE: NA

LOCATION TYPE: GENERIC

↓

FIELD PREP: NA

TOP DEPTH: 0

0.0

SAMPLE USAGE: INV

BOTTOM DEPTH: 0

0.5

SCREEN/PORT DESC:

NA

FIELD MATRIX: R

S

EXCAVATED: YES/NO/NA

COMPOSITE TYPE: NA

COMPOSITE TIME INTERVAL: NA

WATER FLOWING: YES/NO/NA

BOREHOLE: YES/NO/NA 2/12/10

BOREHOLE DECLINATION: NA

BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER                 | CNTNR                         | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|----------|-----------------------|-------------------------------|--------------|---------------|----------------------|
| 1 | Reg      | 8260B                 | 125 ML SEPTUM AMBER GLASS     | Ice          | Y             |                      |
| 1 |          | 8270C+NMED Exp        | 500 ML AMBER GLASS            | Ice          |               |                      |
| 1 |          | AM241+GS+ISO PU+ISOU  | 1 LITER POLY                  | None         |               |                      |
| 1 |          | H3                    | 500 ML POLY                   | Ice          |               |                      |
| 1 |          | METALS+U-GEL          | 125 ML POLY                   | Ice          |               |                      |
| 1 |          | Perchlorate+CN+N03+pH | 500 ML POLY                   | Ice          |               |                      |
| 1 |          | RADVANA+B+G           | 1 EA 8 IN RESEALABLE POLY BAG | None         |               |                      |

SAMPLE DESC: Brown, soft duff material with top soil

SAMPLE COMMENTS: None

LOCATION DESC: B-50

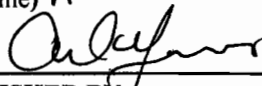
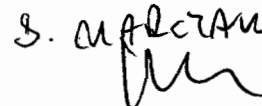
## FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 6 dpm  
Beta/Gamma = 9 dpmPID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

A. Goumas

REVIEWED BY (PRINT) TLMCFarland

|  |                                 |  |                              |
|--|---------------------------------|--|------------------------------|
| RELINQUISHED BY<br>(Printed Name) A. Goumas<br>(Signature)  | Date/Time<br>2/12/2010<br>18:46 | RECEIVED BY<br>(Printed Name) S. MAFERAM<br>(Signature)  | Date/Time<br>2/12/10<br>1846 |
| RELINQUISHED BY  | Date/Time                       | RECEIVED BY  | Date/Time                    |

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7428

WORK ORDER:

| AS PLANNED                  |  | AS COLLECTED                |  | AS PLANNED               |  | AS COLLECTED |  |
|-----------------------------|--|-----------------------------|--|--------------------------|--|--------------|--|
| DATE COLLECTED(MM/DD/YYYY): |  | 02/12/2010                  |  | MEDIA:                   |  | OBT3         |  |
| TIME COLLECTED (HH:MM)      |  | 10:44                       |  | SUB-MEDIA:               |  | TUFF 1       |  |
| PRS ID: 36-008              |  | OK                          |  | SAMPLE TECH CODE:        |  | HA           |  |
| LOCATION ID: 36-610586      |  | ↓                           |  | FIELD QC TYPE:           |  | NA           |  |
| LOCATION TYPE: GENERIC      |  | ↓                           |  | FIELD PREP:              |  | NA           |  |
| TOP DEPTH: 0                |  | 2.0                         |  | SAMPLE USAGE:            |  | INV          |  |
| BOTTOM DEPTH: 0             |  | 3.0                         |  | SCREEN/PORT DESC:        |  | NA           |  |
| FIELD MATRIX: R             |  | S                           |  | EXCAVATED: YES/NO/NA     |  | NA           |  |
| COMPOSITE TYPE: NA          |  | COMPOSITE TIME INTERVAL: NA |  | WATER FLOWING: YES/NO/NA |  | NA           |  |
| BOREHOLE: YES/NO/NA         |  | BOREHOLE DECLINATION: NA    |  | BOREHOLE DIRECTION: NA   |  | NA           |  |

| # | PRIORITY | ORDER                  | CNTNR                         | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|----------|------------------------|-------------------------------|--------------|---------------|----------------------|
| 1 | Reg      | 8260B                  | 125 ML SEPTUM AMBER GLASS     | Ice          | Y             |                      |
| 1 |          | 8270C+NMED Exp         | 500 ML AMBER GLASS            | Ice          |               |                      |
| 1 |          | AM241+GS+ISO PU+ISOU   | 1 LITER POLY                  | None         |               |                      |
| 1 |          | H3                     | 500 ML POLY                   | Ice          |               |                      |
| 1 |          | METALS+U-GEL           | 125 ML POLY                   | Ice          |               |                      |
| 1 |          | Perchlorate+CN+ N03+pH | 500 ML POLY                   | Ice          |               |                      |
| 1 |          | RADVANA+B+G            | 1 EA 8 IN RESEALABLE POLY BAG | None         |               |                      |

SAMPLE DESC: Brown soft, soil with some turf, some root material

SAMPLE COMMENTS: None

LOCATION DESC: 8-50

## FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 6 dpm  
Beta/Gamma = 211 dpmPID  $\frac{\text{Ambient Reading}}{0.0} = 0.0$  ppm

COLLECTED BY (PRINT)

P. Goumar

REVIEWED BY (PRINT) TLMcFarlane

|   |                               |  |                              |
|---|-------------------------------|--|------------------------------|
| RELINQUISHED BY<br>(Printed Name) P. Goumar<br>(Signature) <i>P. Goumar</i> | Date/Time<br>2/12/10<br>16:46 | RECEIVED BY<br>S. MARRAM<br>(Printed Name)<br>(Signature) <i>S. MARRAM</i> | Date/Time<br>2/12/10<br>1646 |
| RELINQUISHED BY   | Date/Time                     | RECEIVED BY  | Date/Time                    |

## DATA VALIDATION COVER SHEET

5114-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-1914 VALIDATION DATE: 04/02/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |  |  |   |  |
|--|--|---|--|
| <input type="checkbox"/> TPH-GRO           | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES |
| <input type="checkbox"/> TPH-DRO           | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS          | <input type="checkbox"/> ORGANOCHLORINE      |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | PESTICIDES/POLYCHLORINATED BIPHENYLS         |
- ☒ OTHER (DESCRIBE): VOCs

## Section II. Completeness Check

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                      | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. TICS MASS SPECTRA    |

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

- For the CCV associated with samples RE36-10-7427, -7423 and -7428 the %D was >20% for n-propylbenzene. The associated sample results were NDs and, thus, were qualified UJ,V7c.
- The toluene-d8 surrogate %R was > the laboratory for sample RE36-10-7427. The associated acetone, 1,1-dichloroethene and toluene sample results were detects and, thus, were qualified J+,V3b. The remaining associated sample results were NDs and, thus, were not qualified.
- The MS/MSD %Rs and/or RPDs for several compounds did not meet laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for VOCs, no sample data were qualified as a result. It should be noted that the parent sample for the QC analyses was from another LANL RN, and trichlorotrifluoroethane was not represented in the MS/MSD analyses. No sample data were qualified as a result.

Reviewed by: Mary Donovan

Level: I

Date: 04/02/10

VALIDATOR'S SIGNATURE:

A handwritten signature of Peter Steves.

M r. Peter Steves


DATE: 04/02/10

Form 5114-1, Revision 0.0


LOS ALAMOS

Environmental Restoration Project




| VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|--|---|
| <b>5114-2</b><br><br><b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A<br>(Check One)           |                                     |                                     |  | Assign Qualifier Listed Below If<br>Criterion = Yes |                     |
|-------------------------------------|-------------------------------------|-------------------------------------|--|---|---------------------|
|                                     |                                     |                                     |  | Non-detected<br>Analyte                             | Detected<br>Analyte |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1. The holding time was >1 and ≤2 times the applicable holding time requirement.   | UJ, V9  | J-, V9              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 2. The holding time was >2 times the applicable holding time requirement.  | R, V9a  | J-, V9a             |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 3. The instrument performance sample did not pass method acceptance criteria.  | R, V16  | R, V16              |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 4. Samples were analyzed outside specific method tune time criteria.   | N/A   | J, V16b             |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.  | R, V16c   | R, V16c             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.   | UJ or R, V7   | J, V7               |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995. | UJ, V7a   | J, V7a              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.   | R, V7b  | J, V7b              |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.  | UJ, V7c   | J, V7c              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 10. The ICV and/or CCV were not analyzed at the appropriate method frequency.  | UJ, V7d   | J, V7d              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.                              | R, V7f  | R, V7f              |


| VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|--|---|
| <b>5114-2</b><br><br><b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A<br>(Check One) |                                     |                                     | Assign Qualifier Listed Below If<br>Criterion = Yes   | Non-detected<br>Analyte | Detected<br>Analyte |
|---------------------------|-------------------------------------|-------------------------------------|---|-------------------------|---------------------|
|                           |                                     |                                     |   |                         |                     |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 12. The sample result is $\leq 5X$ (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.   | U, V4                   | N/A                 |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5X$ (10X for common laboratory contaminants).                                       | N/A                     | J, V4a              |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 14. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.   | U, V4d                  | N/A                 |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, V4e                  | R, V4e              |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 16. The IS retention time has shifted by more than 30 seconds.  | UJ, V0                  | J, V0               |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.   | N/A                     | J, V0a              |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.  | R, V0b                  | R, V0b              |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 19. The quantitating IS are count is $< 10\%$ of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows. | R, V1a                  | J, V1a              |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 20. The IS area count for the quantitating IS is $< 50\%$ but $> 10\%$ for organics window relation to the previous continuing calibration. Follow the method-specific windows.   | UJ, V1b                 | J, V1b              |

| VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|--|---|
| <b>5114-2</b><br><br><b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A                          |                                     |                                     |   | Assign Qualifier Listed Below If Criterion = Yes |                  |
|-------------------------------------|-------------------------------------|-------------------------------------|---|--|------------------|
| (Check One)                         |                                     |                                     |   | Non-detected Analyte                             | Detected Analyte |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows. | UJ, V1c  | J, V1c           |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.                           | R, V1d   | R, V1d           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.   | R, V3  | J-, V3           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.          | UJ, V3a  | J-, V3a          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.                  | N/A  | J+, V3b          |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.     | UJ, V3c  | J, V3c           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.                    | R, V3d   | R, V3d           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.                                      | R, V12   | J-, V12          |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.                       | UV, V12a   | J-, V12a         |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.                                  | N/A  | J+, V12b         |



| VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|--|---|
| <b>5114-2</b><br><br><b>Volatile Organic Compound (VOC) Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A                          |                                     |                                     |   | Assign Qualifier Listed Below If Criterion = Yes |                  |
|-------------------------------------|-------------------------------------|-------------------------------------|---|--|------------------|
| (Check One)                         |                                     |                                     |   | Non-detected Analyte                             | Detected Analyte |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, V12c  | R, V12c          |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 32. The affected analyte is considered not detected because mass spectrum did not meet specifications.  | N/A  | U, V8            |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.  | R, V8a   | R, V8a           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 34. Duplicate, dilution, or reanalysis.   | UJ, V88  | J, V88           |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference. | UJ, R, V15                                       | R, V15           |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.                        | U, U_LAB   | J, J_LAB, NQ, NQ |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.  | UJ, R, V19                                       | J, R, V19        |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AX01  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 51.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-7423  
 Batch ID: 956739  
 Run Date: 02/24/2010 04:31  
 Prep Date: 02/23/2010 15:58  
 Data File: 7a234.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 2.04   | ug/kg | 0.695   | 2.04    |
| 74-87-3    | Chloromethane               | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-01-4    | Vinyl chloride              | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-83-9    | Bromomethane                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-00-3    | Chloroethane                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-69-4    | Trichlorofluoromethane      | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 67-64-1    | Acetone                     |           | 23.6   | ug/kg | 3.39    | 10.2    |
| 75-35-4    | 1,1-Dichloroethylene        | J         | 0.846  | ug/kg | 0.613   | 2.04    |
| 74-88-4    | Iodomethane                 | U         | 10.2   | ug/kg | 3.27    | 10.2    |
| 75-09-2    | Methylene chloride          | U         | 10.2   | ug/kg | 4.09    | 10.2    |
| 75-15-0    | Carbon disulfide            | U         | 10.2   | ug/kg | 2.55    | 10.2    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 78-93-3    | 2-Butanone                  | U         | 10.2   | ug/kg | 3.07    | 10.2    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 67-66-3    | Chloroform                  | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-97-5    | Bromochloromethane          | U         | 2.04   | ug/kg | 0.674   | 2.04    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 56-23-5    | Carbon tetrachloride        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 71-43-2    | Benzene                     | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 79-01-6    | Trichloroethylene           | U         | 2.04   | ug/kg | 0.674   | 2.04    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-27-4    | Bromodichloromethane        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-95-3    | Dibromomethane              | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 10.2   | ug/kg | 2.55    | 10.2    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-88-3   | Toluene                     |           | 5.52   | ug/kg | 0.613   | 2.04    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 591-78-6   | 2-Hexanone                  | U         | 10.2   | ug/kg | 3.07    | 10.2    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 127-18-4   | Tetrachloroethylene         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 124-48-1   | Dibromochloromethane        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-90-7   | Chlorobenzene               | U         | 2.04   | ug/kg | 0.613   | 2.04    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

Page 2 of 3

SDG Number: 10-1914  
 Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.1  
 Analyst: AX01  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 51.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ     |
|-------------|---------------------------------------|-----------|--------|-------|---------|-------------|
| 100-41-4    | Ethylbenzene                          | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 179601-23-1 | m,p-Xylenes                           | J         | 0.720  | ug/kg | 0.613   | 4.09        |
| 95-47-6     | o-Xylene                              | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 100-42-5    | Styrene                               | J         | 1.97   | ug/kg | 0.613   | 2.04        |
| 75-25-2     | Bromoform                             | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 108-86-1    | Bromobenzene                          | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 103-65-1    | n-Propylbenzene                       | U         | 2.04   | ug/kg | 0.613   | 2.04 UJ,V7c |
| 95-49-8     | 2-Chlorotoluene                       | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 98-82-8     | Isopropylbenzene                      | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 106-43-4    | 4-Chlorotoluene                       | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 98-06-6     | tert-Butylbenzene                     | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 135-98-8    | sec-Butylbenzene                      | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 99-87-6     | 4-Isopropyltoluene                    |           | 69.6   | ug/kg | 0.613   | 2.04        |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 104-51-8    | n-Butylbenzene                        | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 10.2   | ug/kg | 3.27    | 10.2        |
|             | Trichlorotrifluoroethane              |           |        |       |         |             |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 2.04   | ug/kg | 0.613   | 2.04        |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04        |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown Alcohol                       | 9.4   | 27.6      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.54 | 63.9      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.65 | 463       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.96 | 874       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.15 | 19.4      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.19 | 82.7      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.33 | 234       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.62 | 55.2      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.7  | 48.4      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 21.14 | 65.7      | ug/kg |     | J    |

**Volatile  
Certificate of Analysis  
Sample Summary**

|                             |                                  |                      |
|-----------------------------|----------------------------------|----------------------|
| SDG Number: 10-1914         | Date Collected: 02/12/2010 12:00 | Matrix: R            |
| Lab Sample ID: 247358002    | Date Received: 02/18/2010 08:45  | %Moisture: 51.1      |
|                             | Client: LANL010                  | Project: LANL01004   |
| Client ID: RE36-10-7423     | Method: SW846 8260B              | SOP Ref: GL-OA-E-038 |
| Batch ID: 956739            | Inst: VOA7.I                     | Dilution: 1          |
| Run Date: 02/24/2010 04:31  | Analyst: AXO1                    | Purge Vol: 5 mL      |
| Prep Date: 02/23/2010 15:58 | Aliquot: 5 g                     | Final Volume: 5 mL   |
| Data File: 7a234.d          | Column: DB-624                   | Level: LOW           |

| CAS No.                                 | Parmname                              | Qualifier | Result | Units     | MDL/LOD | PQL/LOQ |      |
|---|---------------------------------------|-----------|--------|-----------|---------|---------|------|
| Tentatively Identified Compound Summary |                                       |           |        |           |         |         |      |
| CAS No.                                 | Tentatively Identified Compound (TIC) |           | RT     | Estimated | Units   | Fit     | Qual |
|   | Unknown Hydrocarbon                   |           | 21.55  | 42.6      | ug/kg   |         | J    |
|   | Unknown Hydrocarbon                   |           | 23.22  | 26.2      | ug/kg   |         | J    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

Client ID: RE36-10-7424  
Batch ID: 956739  
Run Date: 02/24/2010 17:43  
Prep Date: 02/24/2010 13:45  
Data File: 7a314.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.09   | ug/kg | 0.372   | 1.09    |
| 74-87-3    | Chloromethane               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-01-4    | Vinyl chloride              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-83-9    | Bromomethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-00-3    | Chloroethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-64-1    | Acetone                     | U         | 5.47   | ug/kg | 1.82    | 5.47    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-88-4    | Iodomethane                 | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 75-09-2    | Methylene chloride          | U         | 5.47   | ug/kg | 2.19    | 5.47    |
| 75-15-0    | Carbon disulfide            | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 78-93-3    | 2-Butanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-66-3    | Chloroform                  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-97-5    | Bromochloromethane          | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 71-43-2    | Benzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-01-6    | Trichloroethylene           | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-27-4    | Bromodichloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-95-3    | Dibromomethane              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-88-3   | Toluene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 591-78-6   | 2-Hexanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 124-48-1   | Dibromochloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-90-7   | Chlorobenzene               | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Allquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

Client ID: RE36-10-7424  
Batch ID: 956739  
Run Date: 02/24/2010 17:43  
Prep Date: 02/24/2010 13:45  
Data File: 7a314.d

| CAS No.     | Parmname                              | Qualfler | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 179601-23-1 | m,p-Xylenes                           | U        | 2.19   | ug/kg | 0.328   | 2.19    |
| 95-47-6     | o-Xylene                              | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 100-42-5    | Styrene                               | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-25-2     | Bromoform                             | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-18-4     | 1,2,3-Trichloropropane                | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-86-1    | Bromobenzene                          | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 103-65-1    | n-Propylbenzene                       | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-49-8     | 2-Chlorotoluene                       | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-82-8     | Isopropylbenzene                      | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-43-4    | 4-Chlorotoluene                       | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-06-6     | tert-Butylbenzene                     | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 135-98-8    | sec-Butylbenzene                      | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 99-87-6     | 4-Isopropyltoluene                    | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 104-51-8    | n-Butylbenzene                        | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U        | 5.47   | ug/kg | 1.75    | 5.47    |
|             | Trichlorotrifluoroethane              |          |        |       |         |         |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U        | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U        | 1.09   | ug/kg | 0.328   | 1.09    |

**Tentatively Identified Compound Summary**

| CAS No.                                   | Tentatively Identified Compound (TIC) | RT | Estimated | Units | Fit | Qual |
|---|---------------------------------------|----|-----------|-------|-----|------|
| No Tentatively Identified Compounds Found |                                       |    |           | ug/kg |     |      |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 2

SDG Number: 10-1914  
 Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AX01  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 36.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-7427  
 Batch ID: 956739  
 Run Date: 02/24/2010 03:57  
 Prep Date: 02/23/2010 15:56  
 Data File: 7a233.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ     |
|------------|-----------------------------|-----------|--------|-------|---------|-------------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.57   | ug/kg | 0.535   | 1.57        |
| 74-87-3    | Chloromethane               | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 75-01-4    | Vinyl chloride              | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 74-83-9    | Bromomethane                | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 75-00-3    | Chloroethane                | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 67-64-1    | Acetone                     |           | 9.50   | ug/kg | 2.61    | 7.87 J+,V3b |
| 75-35-4    | 1,1-Dichloroethylene        | J         | 0.495  | ug/kg | 0.472   | 1.57 J+,V3b |
| 74-88-4    | Iodomethane                 | U         | 7.87   | ug/kg | 2.52    | 7.87        |
| 75-09-2    | Methylene chloride          | U         | 7.87   | ug/kg | 3.15    | 7.87        |
| 75-15-0    | Carbon disulfide            | U         | 7.87   | ug/kg | 1.97    | 7.87        |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 78-93-3    | 2-Butanone                  | U         | 7.87   | ug/kg | 2.36    | 7.87        |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 67-66-3    | Chloroform                  | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 74-97-5    | Bromochloromethane          | U         | 1.57   | ug/kg | 0.519   | 1.57        |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 56-23-5    | Carbon tetrachloride        | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 71-43-2    | Benzene                     | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 79-01-6    | Trichloroethylene           | U         | 1.57   | ug/kg | 0.519   | 1.57        |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 75-27-4    | Bromodichloromethane        | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 74-95-3    | Dibromomethane              | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 7.87   | ug/kg | 1.97    | 7.87        |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 108-88-3   | Toluene                     | J         | 0.763  | ug/kg | 0.472   | 1.57 J+,V3b |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 591-78-6   | 2-Hexanone                  | U         | 7.87   | ug/kg | 2.36    | 7.87        |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 127-18-4   | Tetrachloroethylene         | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 124-48-1   | Dibromochloromethane        | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 108-90-7   | Chlorobenzene               | U         | 1.57   | ug/kg | 0.472   | 1.57        |

Volatile  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956739  
Run Date: 02/24/2010 03:57  
Prep Date: 02/23/2010 15:56  
Data File: 7a233.d

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ     |
|-------------|---------------------------------------|-----------|--------|-------|---------|-------------|
| 100-41-4    | Ethylbenzene                          | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 179601-23-1 | m,p-Xylenes                           | U         | 3.15   | ug/kg | 0.472   | 3.15        |
| 95-47-6     | o-Xylene                              | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 100-42-5    | Styrene                               | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 75-25-2     | Bromoform                             | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 108-86-1    | Bromobenzene                          | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 103-65-1    | n-Propylbenzene                       | U         | 1.57   | ug/kg | 0.472   | 1.57 UJ,V7c |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 98-82-8     | Isopropylbenzene                      | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 104-51-8    | n-Butylbenzene                        | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 7.87   | ug/kg | 2.52    | 7.87        |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.57   | ug/kg | 0.472   | 1.57        |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57        |

## Tentatively Identified Compound Summary

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Flt | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown Siloxane                      | 21.55 | 27        | ug/kg |     | J    |



**Volatile  
Certificate of Analysis  
Sample Summary**

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SDG Number: 10-1914  
Lab Sample ID: 247358003

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.1  
Analyst: AX01  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

Client ID: RE36-10-7428  
Batch ID: 956739  
Run Date: 02/24/2010 05:06  
Prep Date: 02/23/2010 16:00  
Data File: 7a235.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.09   | ug/kg | 0.372   | 1.09    |
| 74-87-3    | Chloromethane               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-01-4    | Vinyl chloride              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-83-9    | Bromomethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-00-3    | Chloroethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-64-1    | Acetone                     | U         | 5.47   | ug/kg | 1.82    | 5.47    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-88-4    | Iodomethane                 | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 75-09-2    | Methylene chloride          | U         | 5.47   | ug/kg | 2.19    | 5.47    |
| 75-15-0    | Carbon disulfide            | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 78-93-3    | 2-Butanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-66-3    | Chloroform                  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-97-5    | Bromochloromethane          | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 71-43-2    | Benzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-01-6    | Trichloroethylene           | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-27-4    | Bromodichloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-95-3    | Dibromomethane              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-88-3   | Toluene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 591-78-6   | 2-Hexanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 124-48-1   | Dibromochloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-90-7   | Chlorobenzene               | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Volatile  
Certificate of Analysis  
Sample Summary**

Page 2 of 2

SDG Number: 10-1914  
Lab Sample ID: 247358003

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Allquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

Client ID: RE36-10-7428  
Batch ID: 956739  
Run Date: 02/24/2010 05:06  
Prep Date: 02/23/2010 16:00  
Data File: 7a235.d

| CAS No.     | Parname                               | Qualifier | Result | Units | MDL/LOD | PQL/LOQ     |
|-------------|---------------------------------------|-----------|--------|-------|---------|-------------|
| 100-41-4    | Ethylbenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.19   | ug/kg | 0.328   | 2.19        |
| 95-47-6     | o-Xylene                              | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 100-42-5    | Styrene                               | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 75-25-2     | Bromoform                             | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 108-86-1    | Bromobenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 103-65-1    | n-Propylbenzene                       | U         | 1.09   | ug/kg | 0.328   | 1.09 UJ,V7c |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 98-82-8     | Isopropylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 104-51-8    | n-Butylbenzene                        | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 5.47   | ug/kg | 1.75    | 5.47        |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09        |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09        |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Flt | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown                               | 7.04  | 9.07      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.12 | 6.99      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 21.3  | 8.74      | ug/kg |     | J    |

## DATA VALIDATION COVER SHEET

5115-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-1914 VALIDATION DATE: 04/02/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |  |  |   |  |
|--|--|---|--|
| <input type="checkbox"/> TPH-GRO           | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES |
| <input type="checkbox"/> TPH-DRO           | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS          | <input type="checkbox"/> ORGANOCHLORINE      |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY  | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | PESTICIDES/POLYCHLORINATED BIPHENYLS         |
- ☒ OTHER (DESCRIBE): SVOCs

## Section II. Completeness Check

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                      | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. TICS MASS SPECTRA    |

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

- The CCV %Ds were > 20% for benzyl, alcohol, benzoic acid; hexachlorocyclopentadiene; 3-nitroaniline; 4-nitroaniline; indeno(1,2,3-cd)pyrene and dibenzo(a,h)anthracene.. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
- The MS/MSD %Rs and/or RPDs for several compounds did not meet laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for SVOCs, no sample data were qualified as a result. It should be noted that the parent sample for the QC analyses was from another LANL RN. No sample data were qualified as a result.

Reviewed by: Mary Donovan

Level: I

Date: 04/02/10

VALIDATOR'S SIGNATURE:

A handwritten signature of Mr. Peter Steves.


Mr. Peter Steves

DATE: 04/02/10


Form 5115-1, Revision 0.0

LOS ALAMOS


Environmental Restoration Project

| SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|---|---|
| <b>5115-2</b><br><br><b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b> | Records Use only<br><br> |


| Yes No N/A<br>(Check One)           |                                     |                                     |  | Assign Qualifier Listed Below If<br>Criterion = Yes |                     |
|-------------------------------------|-------------------------------------|-------------------------------------|--|---|---------------------|
|                                     |                                     |                                     |  | Non-detected<br>Analyte                             | Detected<br>Analyte |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1. The holding time was >1 and ≤2 times the applicable holding time requirement.   | UJ, SV9   | J-, SV9             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 2. The holding time was >2 times the applicable holding time requirement.  | R, SV9a   | J-, SV9a            |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.  | R, SV9b   | R, SV9b             |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 4. The instrument performance sample did not pass method acceptance criteria.  | R, SV16   | R, SV16             |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 5. Samples were analyzed outside specific method tune time criteria.   | N/A   | J, SV16b            |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.  | R, SV16c  | R, SV16c            |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.   | UJ, R, SV7  | J, SV7              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995. | UJ, SV7a  | J, SV7a             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).   | R, SV7b   | J, SV7b             |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.   | UJ, SV7c  | J, SV7c             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 11. The ICV and/or CCV were not analyzed at the appropriate method frequency.  | UJ, SV7d  | J, SV7d             |

| SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|---|---|
| <b>5115-2</b><br><br><b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A<br>(Check One) |                                     |                                     |   | Assign Qualifier Listed Below If<br>Criterion = Yes |                     |
|---------------------------|-------------------------------------|-------------------------------------|---|---|---------------------|
|                           |                                     |                                     |   | Non-detected<br>Analyte                             | Detected<br>Analyte |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.   | R, SV7f   | R, SV7f             |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 13. The sample result is $\leq 5X$ (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.   | U, SV4  | J, V4a              |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminants).                              | N/A   | J, SV4a             |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 15. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.   | UJ, SV4d  | N/A                 |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, SV4e   | R, SV4e             |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 17. The IS retention time has shifted by more than 30 seconds.  | UJ, SV0   | J, SV0              |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.   | N/A   | J, SV0a             |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.  | R, SV0b   | R, SV0b             |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 20. The quantitating IS area count is $<10\%$ of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows. | R, SV1a   | J, SV1a             |

| SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|---|---|
| <b>5115-2</b><br><br><b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A<br>(Check One) |                                     |                                     |  | Assign Qualifier Listed Below If<br>Criterion = Yes |                     |
|---------------------------|-------------------------------------|-------------------------------------|--|---|---------------------|
|                           |                                     |                                     |  | Non-detected<br>Analyte                             | Detected<br>Analyte |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.                | UJ, SV1b  | J, SV1b             |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.                                  | UJ, SV1c  | J, SV1c             |
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.  | R, SV1d   | R, SV1d             |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.  | R, SV3  | J-, SV3             |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 25. The surrogate is < the Lower Acceptance Level (LAL) but $\geq 10\%R$ . Follow the external laboratory limits located within the associated data package.                       | UJ, SV3a  | J-, SV3a            |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.   | N/A   | J+, SV3b            |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package. | UJ, SV3c  | J, SV3c             |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, SV3d   | R, SV3d             |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.   | R, SV12   | J-, SV12            |

| SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|---|---|
| <b>5115-2</b><br><br><b>Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A                          |                                     |                                     |   | Assign Qualifier Listed Below If Criterion = Yes |                  |
|-------------------------------------|-------------------------------------|-------------------------------------|---|--|------------------|
| (Check One)                         |                                     |                                     |   | Non-detected Analyte                             | Detected Analyte |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.  | UJ, SV12a  | J-, SV12a        |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.   | N/A  | J+, SV12b        |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, SV12c   | R, SV12c         |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 33. The affected analyte is considered not detected because mass spectrum did not meet specifications.  | N/A  | U, SV8           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.  | R, SV8a  | R, SV8a          |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 35. Duplicate, dilution, or reanalysis.   | UJ, SV88   | J, SV88          |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference. | UJ, R, SV15                                      | R, SV15          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.                        | U, U_LAB   | J, J_LAB, NQ, NQ |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.  | UJ, R, SV19                                      | J, R, SV19       |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Allquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7423  
Batch ID: 956285  
Run Date: 03/04/2010 23:45  
Prep Date: 02/23/2010 10:34  
Data File: s4c0431.d

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ      |
|------------|-------------------------------|-----------|--------|-------|---------|--------------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 681    | ug/kg | 136     | 681          |
| 108-95-2   | Phenol                        | U         | 681    | ug/kg | 136     | 681          |
| 95-57-8    | 2-Chlorophenol                | U         | 681    | ug/kg | 136     | 681          |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681          |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 681    | ug/kg | 136     | 681          |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 681    | ug/kg | 136     | 681          |
| 83-32-9    | Acenaphthene                  | U         | 68.1   | ug/kg | 22.5    | 68.1         |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 681    | ug/kg | 68.1    | 681          |
| 100-02-7   | 4-Nitrophenol                 | U         | 681    | ug/kg | 225     | 681          |
| 87-86-5    | Pentachlorophenol             | U         | 681    | ug/kg | 170     | 681          |
| 129-00-0   | Pyrene                        | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 110-86-1   | Pyridine                      | U         | 681    | ug/kg | 136     | 681          |
| 62-53-3    | Aniline                       | U         | 681    | ug/kg | 204     | 681          |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 681    | ug/kg | 136     | 681          |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681          |
| 100-51-6   | Benzyl alcohol                | U         | 681    | ug/kg | 204     | 681 UJ,SV7c  |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681          |
| 108-60-1   | bis(2-Chloroisopropyl) ether  | U         | 681    | ug/kg | 136     | 681          |
| 95-48-7    | o-Cresol                      | U         | 681    | ug/kg | 136     | 681          |
| 65794-96-9 | m,p-Cresols                   | U         | 681    | ug/kg | 204     | 681          |
| 67-72-1    | Hexachloroethane              | U         | 681    | ug/kg | 136     | 681          |
| 98-95-3    | Nitrobenzene                  | U         | 681    | ug/kg | 136     | 681          |
| 78-59-1    | Isophorone                    | U         | 681    | ug/kg | 136     | 681          |
| 88-75-5    | 2-Nitrophenol                 | U         | 681    | ug/kg | 136     | 681          |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 681    | ug/kg | 238     | 681          |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 681    | ug/kg | 136     | 681          |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 681    | ug/kg | 136     | 681          |
| 65-85-0    | Benzoic acid                  | U         | 1360   | ug/kg | 340     | 1360 UJ,SV7c |
| 91-20-3    | Naphthalene                   | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 106-47-8   | 4-Chloroaniline               | U         | 681    | ug/kg | 136     | 681          |
| 87-68-3    | Hexachlorobutadiene           | U         | 681    | ug/kg | 136     | 681          |
| 91-57-6    | 2-Methylnaphthalene           | U         | 68.1   | ug/kg | 13.6    | 68.1         |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 681    | ug/kg | 136     | 681 UJ,SV7c  |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 681    | ug/kg | 136     | 681          |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 681    | ug/kg | 136     | 681          |
| 91-58-7    | 2-Chloronaphthalene           | U         | 68.1   | ug/kg | 22.5    | 68.1         |
| 88-74-4    | 2-Nitroaniline                | U         | 681    | ug/kg | 136     | 681          |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |              |
| 99-09-2    | 3-Nitroaniline                | U         | 681    | ug/kg | 136     | 681 UJ,SV7c  |



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.   | Parmname                   | Qualifier | Result | Units | MDL/LOD | PQL/LOQ      |
|-----------|----------------------------|-----------|--------|-------|---------|--------------|
| 131-11-3  | <i>m</i> -Nitroaniline     |           |        |       |         |              |
|           | Dimethylphthalate          | U         | 681    | ug/kg | 136     | 681          |
| 606-20-2  | 2,6-Dinitrotoluene         | U         | 681    | ug/kg | 68.1    | 681          |
| 208-96-8  | Acenaphthylene             | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 51-28-5   | 2,4-Dinitrophenol          | U         | 1360   | ug/kg | 259     | 1360         |
| 132-64-9  | Dibenzofuran               | U         | 681    | ug/kg | 136     | 681          |
| 84-66-2   | Diethylphthalate           | U         | 681    | ug/kg | 136     | 681          |
| 86-73-7   | Fluorene                   | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 7005-72-3 | 4-Chlorophenylphenylether  | U         | 681    | ug/kg | 136     | 681          |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol | U         | 681    | ug/kg | 136     | 681          |
| 100-01-6  | 4-Nitroaniline             | U         | 681    | ug/kg | 204     | 681 UJ,V7c   |
|           | <i>p</i> -Nitroaniline     |           |        |       |         |              |
| 122-39-4  | Diphenylamine              | U         | 681    | ug/kg | 136     | 681          |
| 122-66-7  | Azobenzene                 | U         | 681    | ug/kg | 136     | 681          |
|           | 1,2-Diphenylhydrazine      |           |        |       |         |              |
| 101-55-3  | 4-Bromophenylphenylether   | U         | 681    | ug/kg | 136     | 681          |
| 118-74-1  | Hexachlorobenzene          | U         | 681    | ug/kg | 136     | 681          |
| 85-01-8   | Phenanthrene               | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 120-12-7  | Anthracene                 | U         | 68.1   | ug/kg | 13.6    | 68.1         |
| 84-74-2   | Di-n-butylphthalate        | U         | 681    | ug/kg | 136     | 681          |
| 206-44-0  | Fluoranthene               | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 85-68-7   | Butylbenzylphthalate       | U         | 681    | ug/kg | 136     | 681          |
| 56-55-3   | Benzo(a)anthracene         | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 91-94-1   | 3,3'-Dichlorobenzidine     | U         | 681    | ug/kg | 204     | 681          |
| 218-01-9  | Chrysene                   | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 117-81-7  | bis(2-Ethylhexyl)phthalate | U         | 681    | ug/kg | 136     | 681          |
| 117-84-0  | Di-n-octylphthalate        | U         | 681    | ug/kg | 136     | 681          |
| 205-99-2  | Benzo(b)fluoranthene       | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 207-08-9  | Benzo(k)fluoranthene       | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 50-32-8   | Benzo(a)pyrene             | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 193-39-5  | Indeno(1,2,3-cd)pyrene     | U         | 68.1   | ug/kg | 20.4    | 68.1 UJ,SV7c |
| 53-70-3   | Dibenzo(a,h)anthracene     | U         | 68.1   | ug/kg | 20.4    | 68.1 UJ,SV7c |
| 191-24-2  | Benzo(ghi)perylene         | U         | 68.1   | ug/kg | 20.4    | 68.1         |
| 120-82-1  | 1,2,4-Trichlorobenzene     | U         | 681    | ug/kg | 136     | 681          |

## Tentatively Identified Compound Summary

| CAS No.   | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|-----------|---------------------------------------|------|-----------|-------|-----|------|
|           | Unknown Aldol Condensate              | 2.87 | 1080      | ug/kg |     | J    |
| 7785-70-8 | 1R-.alpha.-Pinene                     | 3.4  | 4080      | ug/kg | 96  | NJ   |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Allquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7423  
Batch ID: 956285  
Run Date: 03/04/2010 23:45  
Prep Date: 02/23/2010 10:34  
Data File: s4c0431.d

| CAS No.  | Parmname                                 | Qualifier | Result    | Units | MDL/LOD | PQL/LOQ |
|--|--|-----------|-----------|-------|---------|---------|
| <b>Tentatively Identified Compound Summary</b> |  |           |           |       |         |         |
| CAS No.  | Tentatively Identified Compound (TIC)    | RT        | Estimated | Units | Flt     | Qual    |
| 79-92-5  | Camphene                                 | 3.51      | 3830      | ug/kg | 96      | NJ      |
| 18172-67-3                                     | Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me | 3.65      | 997       | ug/kg | 97      | NJ      |
| 498-15-7                                       | Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy | 3.78      | 1250      | ug/kg | 97      | NJ      |
| 5989-27-5                                      | D-Limonene                               | 3.88      | 1220      | ug/kg | 96      | NJ      |
| 5655-61-8                                      | Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth | 5.06      | 1940      | ug/kg | 99      | NJ      |
| 475-20-7                                       | 1,4-Methanoazulene, decahydro-4,8,8-trim | 5.67      | 1840      | ug/kg | 99      | NJ      |
| 23986-74-5                                     | 1,6-Cyclodecadiene, 1-methyl-5-methylene | 5.9       | 867       | ug/kg | 97      | NJ      |
| 483-76-1                                       | Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- | 5.99      | 499       | ug/kg | 97      | NJ      |
|  | Unknown                                  | 7.45      | 610       | ug/kg |         | J       |
| 1000197-14-1                                   | 4b,8-Dimethyl-2-isopropylphenanthrene, 4 | 7.48      | 517       | ug/kg | 92      | NJ      |
|  | Unknown                                  | 7.55      | 1140      | ug/kg |         | J       |
| 56554-35-9                                     | 9,17-Octadecadienal, (Z)-                | 7.62      | 679       | ug/kg | 86      | NJ      |
|  | Unknown                                  | 7.81      | 1010      | ug/kg |         | J       |
|  | Unknown                                  | 8.09      | 1040      | ug/kg |         | J       |
|  | Unknown                                  | 8.11      | 1440      | ug/kg |         | J       |
|  | Unknown                                  | 8.18      | 1440      | ug/kg |         | J       |
|  | Unknown                                  | 8.23      | 919       | ug/kg |         | J       |
|  | Unknown                                  | 8.28      | 3290      | ug/kg |         | J       |
| 5155-70-4                                      | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.43      | 1720      | ug/kg | 99      | NJ      |
|  | Unknown                                  | 8.56      | 769       | ug/kg |         | J       |
|  | Unknown                                  | 8.64      | 733       | ug/kg |         | J       |
|  | Unknown                                  | 8.79      | 862       | ug/kg |         | J       |
|  | Unknown                                  | 9.03      | 1620      | ug/kg |         | J       |
|  | Unknown                                  | 9.19      | 814       | ug/kg |         | J       |
|  | Unknown                                  | 10.5      | 11000     | ug/kg |         | J       |
|  | Unknown                                  | 11.15     | 1440      | ug/kg |         | J       |
| 1000214-20-7                                   | Stigmasterol, 22,23-dihydro-             | 12.38     | 1530      | ug/kg | 96      | NJ      |
| 1058-61-3                                      | Stigmast-4-en-3-one                      | 13.46     | 2530      | ug/kg | 94      | NJ      |

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 3

SDG Number: 10-1914  
Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7424  
Batch ID: 956285  
Run Date: 03/05/2010 00:29  
Prep Date: 02/23/2010 10:34  
Data File: s4c0433.d

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ     |
|------------|-------------------------------|-----------|--------|-------|---------|-------------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 364    | ug/kg | 72.9    | 364         |
| 108-95-2   | Phenol                        | U         | 364    | ug/kg | 72.9    | 364         |
| 95-57-8    | 2-Chlorophenol                | U         | 364    | ug/kg | 72.9    | 364         |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364         |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 364    | ug/kg | 72.9    | 364         |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 364    | ug/kg | 72.9    | 364         |
| 83-32-9    | Acenaphthene                  | U         | 36.4   | ug/kg | 12.0    | 36.4        |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364         |
| 100-02-7   | 4-Nitrophenol                 | U         | 364    | ug/kg | 120     | 364         |
| 87-86-5    | Pentachlorophenol             | U         | 364    | ug/kg | 91.1    | 364         |
| 129-00-0   | Pyrene                        | U         | 36.4   | ug/kg | 10.9    | 36.4        |
| 110-86-1   | Pyridine                      | U         | 364    | ug/kg | 72.9    | 364         |
| 62-53-3    | Aniline                       | U         | 364    | ug/kg | 109     | 364         |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 364    | ug/kg | 72.9    | 364         |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364         |
| 100-51-6   | Benzyl alcohol                | U         | 364    | ug/kg | 109     | 364 UJ,SV7c |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364         |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 364    | ug/kg | 72.9    | 364         |
| 95-48-7    | o-Cresol                      | U         | 364    | ug/kg | 72.9    | 364         |
| 65794-96-9 | m,p-Cresols                   | U         | 364    | ug/kg | 109     | 364         |
| 67-72-1    | Hexachloroethane              | U         | 364    | ug/kg | 72.9    | 364         |
| 98-95-3    | Nitrobenzene                  | U         | 364    | ug/kg | 72.9    | 364         |
| 78-59-1    | Isophorone                    | U         | 364    | ug/kg | 72.9    | 364         |
| 88-75-5    | 2-Nitrophenol                 | U         | 364    | ug/kg | 72.9    | 364         |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 364    | ug/kg | 128     | 364         |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 364    | ug/kg | 72.9    | 364         |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 364    | ug/kg | 72.9    | 364         |
| 65-85-0    | Benzoic acid                  | U         | 729    | ug/kg | 182     | 729 UJ,SV7c |
| 91-20-3    | Naphthalene                   | U         | 36.4   | ug/kg | 10.9    | 36.4        |
| 106-47-8   | 4-Chloroaniline               | U         | 364    | ug/kg | 72.9    | 364         |
| 87-68-3    | Hexachlorobutadiene           | U         | 364    | ug/kg | 72.9    | 364         |
| 91-57-6    | 2-Methylnaphthalene           | U         | 36.4   | ug/kg | 7.29    | 36.4        |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 364    | ug/kg | 72.9    | 364 UJ,SV7c |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364         |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364         |
| 91-58-7    | 2-Chloronaphthalene           | U         | 36.4   | ug/kg | 12.0    | 36.4        |
| 88-74-4    | 2-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364         |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |             |
| 99-09-2    | 3-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364 UJ,SV7c |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Allquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.   | Parmname                   | Qualifier | Result | Units | MDL/LOD | PQL/LOQ      |
|-----------|----------------------------|-----------|--------|-------|---------|--------------|
| 131-11-3  | <i>m</i> -Nitroaniline     |           |        |       |         |              |
| 131-11-3  | Dimethylphthalate          | U         | 364    | ug/kg | 72.9    | 364          |
| 606-20-2  | 2,6-Dinitrotoluene         | U         | 364    | ug/kg | 36.4    | 364          |
| 208-96-8  | Acenaphthylene             | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 51-28-5   | 2,4-Dinitrophenol          | U         | 729    | ug/kg | 138     | 729          |
| 132-64-9  | Dibenzofuran               | U         | 364    | ug/kg | 72.9    | 364          |
| 84-66-2   | Diethylphthalate           | U         | 364    | ug/kg | 72.9    | 364          |
| 86-73-7   | Fluorene                   | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 7005-72-3 | 4-Chlorophenylphenylether  | U         | 364    | ug/kg | 72.9    | 364          |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol | U         | 364    | ug/kg | 72.9    | 364          |
| 100-01-6  | 4-Nitroaniline             | U         | 364    | ug/kg | 109     | 364 UJ,V7c   |
|           | <i>p</i> -Nitroaniline     |           |        |       |         |              |
| 122-39-4  | Diphenylamine              | U         | 364    | ug/kg | 72.9    | 364          |
| 122-66-7  | Azobenzene                 | U         | 364    | ug/kg | 72.9    | 364          |
|           | 1,2-Diphenylhydrazine      |           |        |       |         |              |
| 101-55-3  | 4-Bromophenylphenylether   | U         | 364    | ug/kg | 72.9    | 364          |
| 118-74-1  | Hexachlorobenzene          | U         | 364    | ug/kg | 72.9    | 364          |
| 85-01-8   | Phenanthrene               | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 120-12-7  | Anthracene                 | U         | 36.4   | ug/kg | 7.29    | 36.4         |
| 84-74-2   | Di-n-butylphthalate        | U         | 364    | ug/kg | 72.9    | 364          |
| 206-44-0  | Fluoranthene               | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 85-68-7   | Butylbenzylphthalate       | U         | 364    | ug/kg | 72.9    | 364          |
| 56-55-3   | Benzo(a)anthracene         | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 91-94-1   | 3,3'-Dichlorobenzidine     | U         | 364    | ug/kg | 109     | 364          |
| 218-01-9  | Chrysene                   | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 117-81-7  | bis(2-Ethylhexyl)phthalate | U         | 364    | ug/kg | 72.9    | 364          |
| 117-84-0  | Di-n-octylphthalate        | U         | 364    | ug/kg | 72.9    | 364          |
| 205-99-2  | Benzo(b)fluoranthene       | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 207-08-9  | Benzo(k)fluoranthene       | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 50-32-8   | Benzo(a)pyrene             | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 193-39-5  | Indeno(1,2,3-cd)pyrene     | U         | 36.4   | ug/kg | 10.9    | 36.4 UJ,SV7c |
| 53-70-3   | Dibenzo(a,h)anthracene     | U         | 36.4   | ug/kg | 10.9    | 36.4 UJ,SV7c |
| 191-24-2  | Benzo(ghi)perylene         | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 120-82-1  | 1,2,4-Trichlorobenzene     | U         | 364    | ug/kg | 72.9    | 364          |

**Tentatively Identified Compound Summary**

| CAS No.  | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Flt | Qual |
|----------|---------------------------------------|------|-----------|-------|-----|------|
|          | Unknown Aldol Condensate              | 2.87 | 716       | ug/kg |     | J    |
| 112-84-5 | 13-Docosenamide, (Z)-                 | 9.18 | 216       | ug/kg | 86  | NJ   |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Allquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.  | Parmname                              | Qualifier | Result | Units     | MDL/LOD | PQL/LOQ  |
|--|---------------------------------------|-----------|--------|-----------|---------|----------|
| <b>Tentatively Identified Compound Summary</b> |                                       |           |        |           |         |          |
| CAS No.  | Tentatively Identified Compound (TIC) |           | RT     | Estimated | Units   | Flt Qual |
|  | Unknown                               |           | 9.62   | 151       | ug/kg   | J        |
|  | Unknown                               |           | 12.48  | 187       | ug/kg   | J        |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956285  
Run Date: 03/04/2010 23:23  
Prep Date: 02/23/2010 10:34  
Data File: s4c0430.d

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ      |
|------------|-------------------------------|-----------|--------|-------|---------|--------------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 525    | ug/kg | 105     | 525          |
| 108-95-2   | Phenol                        | U         | 525    | ug/kg | 105     | 525          |
| 95-57-8    | 2-Chlorophenol                | U         | 525    | ug/kg | 105     | 525          |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525          |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 525    | ug/kg | 105     | 525          |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 525    | ug/kg | 105     | 525          |
| 83-32-9    | Acenaphthene                  | U         | 52.5   | ug/kg | 17.3    | 52.5         |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 525    | ug/kg | 52.5    | 525          |
| 100-02-7   | 4-Nitrophenol                 | U         | 525    | ug/kg | 173     | 525          |
| 87-86-5    | Pentachlorophenol             | U         | 525    | ug/kg | 131     | 525          |
| 129-00-0   | Pyrene                        | J         | 31.5   | ug/kg | 15.7    | 52.5         |
| 110-86-1   | Pyridine                      | U         | 525    | ug/kg | 105     | 525          |
| 62-53-3    | Aniline                       | U         | 525    | ug/kg | 157     | 525          |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 525    | ug/kg | 105     | 525          |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525          |
| 100-51-6   | Benzyl alcohol                | U         | 525    | ug/kg | 157     | 525 UJ,SV7c  |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525          |
| 108-60-1   | bis(2-Chloroisopropyl) ether  | U         | 525    | ug/kg | 105     | 525          |
| 95-48-7    | o-Cresol                      | U         | 525    | ug/kg | 105     | 525          |
| 65794-96-9 | m,p-Cresols                   | U         | 525    | ug/kg | 157     | 525          |
| 67-72-1    | Hexachloroethane              | U         | 525    | ug/kg | 105     | 525          |
| 98-95-3    | Nitrobenzene                  | U         | 525    | ug/kg | 105     | 525          |
| 78-59-1    | Isophorone                    | U         | 525    | ug/kg | 105     | 525          |
| 88-75-5    | 2-Nitrophenol                 | U         | 525    | ug/kg | 105     | 525          |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 525    | ug/kg | 184     | 525          |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 525    | ug/kg | 105     | 525          |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 525    | ug/kg | 105     | 525          |
| 65-85-0    | Benzoic acid                  | U         | 1050   | ug/kg | 262     | 1050 UJ,SV7c |
| 91-20-3    | Naphthalene                   | U         | 52.5   | ug/kg | 15.7    | 52.5         |
| 106-47-8   | 4-Chloroaniline               | U         | 525    | ug/kg | 105     | 525          |
| 87-68-3    | Hexachlorobutadiene           | U         | 525    | ug/kg | 105     | 525          |
| 91-57-6    | 2-Methylnaphthalene           | U         | 52.5   | ug/kg | 10.5    | 52.5         |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 525    | ug/kg | 105     | 525 UJ,SV7c  |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 525    | ug/kg | 105     | 525          |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 525    | ug/kg | 105     | 525          |
| 91-58-7    | 2-Chloronaphthalene           | U         | 52.5   | ug/kg | 17.3    | 52.5         |
| 88-74-4    | 2-Nitroaniline                | U         | 525    | ug/kg | 105     | 525          |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |              |
| 99-09-2    | 3-Nitroaniline                | U         | 525    | ug/kg | 105     | 525 UJ,SV7c  |

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 3

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956285  
Run Date: 03/04/2010 23:23  
Prep Date: 02/23/2010 10:34  
Data File: s4c0430.d

| CAS No.   | Parmname                   | Qualifier | Result | Units | MDL/LOD | PQL/LOQ      |
|-----------|----------------------------|-----------|--------|-------|---------|--------------|
| 131-11-3  | <i>m</i> -Nitroaniline     |           |        |       |         |              |
| 606-20-2  | Dimethylphthalate          | U         | 525    | ug/kg | 105     | 525          |
| 208-96-8  | 2,6-Dinitrotoluene         | U         | 525    | ug/kg | 52.5    | 525          |
| 51-28-5   | Acenaphthylene             | U         | 52.5   | ug/kg | 15.7    | 52.5         |
| 132-64-9  | 2,4-Dinitrophenol          | U         | 1050   | ug/kg | 199     | 1050         |
| 84-66-2   | Dibenzofuran               | U         | 525    | ug/kg | 105     | 525          |
| 86-73-7   | Diethylphthalate           | U         | 525    | ug/kg | 105     | 525          |
| 7005-72-3 | Fluorene                   | U         | 52.5   | ug/kg | 15.7    | 52.5         |
| 534-52-1  | 4-Chlorophenylphenylether  | U         | 525    | ug/kg | 105     | 525          |
| 100-01-6  | 2-Methyl-4,6-dinitrophenol | U         | 525    | ug/kg | 105     | 525          |
| 122-39-4  | 4-Nitroaniline             | U         | 525    | ug/kg | 157     | 525 UJ,V7c   |
| 122-66-7  | <i>p</i> -Nitroaniline     |           |        |       |         |              |
| 101-55-3  | Diphenylamine              | U         | 525    | ug/kg | 105     | 525          |
| 118-74-1  | Azobenzene                 | U         | 525    | ug/kg | 105     | 525          |
| 85-01-8   | 1,2-Diphenylhydrazine      |           |        |       |         |              |
| 120-12-7  | 4-Bromophenylphenylether   | U         | 525    | ug/kg | 105     | 525          |
| 84-74-2   | Hexachlorobenzene          | U         | 525    | ug/kg | 105     | 525          |
| 206-44-0  | Phenanthrene               | J         | 17.9   | ug/kg | 15.7    | 52.5         |
| 85-68-7   | Anthracene                 | U         | 52.5   | ug/kg | 10.5    | 52.5         |
| 56-55-3   | Di-n-butylphthalate        | U         | 525    | ug/kg | 105     | 525          |
| 91-94-1   | Fluoranthene               | J         | 28.1   | ug/kg | 15.7    | 52.5         |
| 218-01-9  | Butylbenzylphthalate       | U         | 525    | ug/kg | 105     | 525          |
| 117-81-7  | Benzo(a)anthracene         | U         | 52.5   | ug/kg | 15.7    | 52.5         |
| 117-84-0  | 3,3'-Dichlorobenzidine     | U         | 525    | ug/kg | 157     | 525          |
| 205-99-2  | Chrysene                   | U         | 52.5   | ug/kg | 15.7    | 52.5         |
| 207-08-9  | bis(2-Ethylhexyl)phthalate | U         | 525    | ug/kg | 105     | 525          |
| 50-32-8   | Di-n-octylphthalate        | U         | 525    | ug/kg | 105     | 525          |
| 193-39-5  | Benzo(b)fluoranthene       | J         | 23.6   | ug/kg | 15.7    | 52.5         |
| 53-70-3   | Benzo(k)fluoranthene       | U         | 52.5   | ug/kg | 15.7    | 52.5         |
| 191-24-2  | Benzo(a)pyrene             | U         | 52.5   | ug/kg | 15.7    | 52.5         |
| 120-82-1  | Indeno(1,2,3-cd)pyrene     | U         | 52.5   | ug/kg | 15.7    | 52.5 UJ,SV7c |
|           | Dibenzo(a,h)anthracene     | U         | 52.5   | ug/kg | 15.7    | 52.5 UJ,SV7c |
|           | Benzo(ghi)perylene         | U         | 52.5   | ug/kg | 15.7    | 52.5         |
|           | 1,2,4-Trichlorobenzene     | U         | 525    | ug/kg | 105     | 525          |

## Tentatively Identified Compound Summary

| CAS No. | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|------|-----------|-------|-----|------|
|         | Unknown Aldol Condensate              | 2.87 | 836       | ug/kg |     | J    |
|         | Unknown                               | 3.51 | 1210      | ug/kg |     | J    |

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 3 of 3

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Allquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956285  
Run Date: 03/04/2010 23:23  
Prep Date: 02/23/2010 10:34  
Data File: s4c0430.d

| CAS No.                                 | Parmname                                 | Qualifier | Result    | Units | MDL/LOD | PQL/LOQ |
|---|--|-----------|-----------|-------|---------|---------|
| Tentatively Identified Compound Summary |  |           |           |       |         |         |
| CAS No.                                 | Tentatively Identified Compound (TIC)    | RT        | Estimated | Units | Flt     | Qual    |
| 121-33-5                                | Vanillin                                 | 5.53      | 299       | ug/kg | 98      | NJ      |
| 544-63-8                                | Tetradecanoic acid                       | 6.67      | 592       | ug/kg | 99      | NJ      |
| 57-10-3                                 | n-Hexadecanoic acid                      | 7.2       | 838       | ug/kg | 99      | NJ      |
|   | Unknown                                  | 7.38      | 367       | ug/kg |         | J       |
|   | Unknown                                  | 7.45      | 467       | ug/kg |         | J       |
| 1000197-14-1                            | 4b,8-Dimethyl-2-isopropylphenanthrene, 4 | 7.48      | 593       | ug/kg | 89      | NJ      |
|   | Unknown                                  | 7.55      | 445       | ug/kg |         | J       |
| 112-79-8                                | 9-Octadecenoic acid, (E)-                | 7.62      | 1090      | ug/kg | 91      | NJ      |
|   | Unknown                                  | 7.74      | 1130      | ug/kg |         | J       |
|   | Unknown                                  | 8.01      | 401       | ug/kg |         | J       |
|   | Unknown                                  | 8.04      | 529       | ug/kg |         | J       |
|   | Unknown                                  | 8.1       | 1180      | ug/kg |         | J       |
| 1235-74-1                               | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.16      | 361       | ug/kg | 95      | NJ      |
| 1000156-12-8                            | Alloaromadendrene oxide-(1)              | 8.24      | 768       | ug/kg | 91      | NJ      |
|   | Unknown                                  | 8.37      | 3230      | ug/kg |         | J       |
| 1740-19-8                               | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.44      | 2850      | ug/kg | 93      | NJ      |
|   | Unknown                                  | 8.54      | 2720      | ug/kg |         | J       |
|   | Unknown                                  | 8.72      | 291       | ug/kg |         | J       |
| 1000189-14-9                            | 1-Hydroxy-6-(3-isopropenyl-cycloprop-1-e | 8.82      | 495       | ug/kg | 86      | NJ      |
| 56221-91-1                              | 13-Tetradecen-1-ol acetate               | 8.97      | 501       | ug/kg | 96      | NJ      |
| 112-95-8                                | Eicosane                                 | 9.51      | 1590      | ug/kg | 96      | NJ      |
| 504-57-4                                | 10-Nonadecanone                          | 10.36     | 2830      | ug/kg | 96      | NJ      |
|   | Unknown                                  | 10.54     | 7300      | ug/kg |         | J       |
|   | Unknown                                  | 10.66     | 2330      | ug/kg |         | J       |
|   | Unknown                                  | 11.49     | 1620      | ug/kg |         | J       |
|   | Unknown                                  | 11.62     | 875       | ug/kg |         | J       |
| 1000214-20-7                            | Stigmasterol, 22,23-dihydro-             | 12.43     | 3840      | ug/kg | 97      | NJ      |
| 1058-61-3                               | Stigmast-4-en-3-one                      | 13.47     | 3400      | ug/kg | 96      | NJ      |



Semi-Volatile  
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Sample Summary

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SDG Number: 10-1914  
Lab Sample ID: 247358003

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Allquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7428  
Batch ID: 956285  
Run Date: 03/05/2010 00:07  
Prep Date: 02/23/2010 10:34  
Data File: s4c0432.d

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ     |
|------------|-------------------------------|-----------|--------|-------|---------|-------------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 364    | ug/kg | 72.9    | 364         |
| 108-95-2   | Phenol                        | U         | 364    | ug/kg | 72.9    | 364         |
| 95-57-8    | 2-Chlorophenol                | U         | 364    | ug/kg | 72.9    | 364         |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364         |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 364    | ug/kg | 72.9    | 364         |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 364    | ug/kg | 72.9    | 364         |
| 83-32-9    | Acenaphthene                  | U         | 36.4   | ug/kg | 12.0    | 36.4        |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364         |
| 100-02-7   | 4-Nitrophenol                 | U         | 364    | ug/kg | 120     | 364         |
| 87-86-5    | Pentachlorophenol             | U         | 364    | ug/kg | 91.1    | 364         |
| 129-00-0   | Pyrene                        | U         | 36.4   | ug/kg | 10.9    | 36.4        |
| 110-86-1   | Pyridine                      | U         | 364    | ug/kg | 72.9    | 364         |
| 62-53-3    | Aniline                       | U         | 364    | ug/kg | 109     | 364         |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 364    | ug/kg | 72.9    | 364         |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364         |
| 100-51-6   | Benzyl alcohol                | U         | 364    | ug/kg | 109     | 364 UJ,SV7c |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364         |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 364    | ug/kg | 72.9    | 364         |
| 95-48-7    | o-Cresol                      | U         | 364    | ug/kg | 72.9    | 364         |
| 65794-96-9 | m,p-Cresols                   | U         | 364    | ug/kg | 109     | 364         |
| 67-72-1    | Hexachloroethane              | U         | 364    | ug/kg | 72.9    | 364         |
| 98-95-3    | Nitrobenzene                  | U         | 364    | ug/kg | 72.9    | 364         |
| 78-59-1    | Isophorone                    | U         | 364    | ug/kg | 72.9    | 364         |
| 88-75-5    | 2-Nitrophenol                 | U         | 364    | ug/kg | 72.9    | 364         |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 364    | ug/kg | 128     | 364         |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 364    | ug/kg | 72.9    | 364         |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 364    | ug/kg | 72.9    | 364         |
| 65-85-0    | Benzoic acid                  | U         | 729    | ug/kg | 182     | 729 UJ,SV7c |
| 91-20-3    | Naphthalene                   | U         | 36.4   | ug/kg | 10.9    | 36.4        |
| 106-47-8   | 4-Chloroaniline               | U         | 364    | ug/kg | 72.9    | 364         |
| 87-68-3    | Hexachlorobutadiene           | U         | 364    | ug/kg | 72.9    | 364         |
| 91-57-6    | 2-Methylnaphthalene           | U         | 36.4   | ug/kg | 7.29    | 36.4        |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 364    | ug/kg | 72.9    | 364 UJ,SV7c |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364         |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364         |
| 91-58-7    | 2-Chloronaphthalene           | U         | 36.4   | ug/kg | 12.0    | 36.4        |
| 88-74-4    | 2-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364         |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |             |
| 99-09-2    | 3-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364 UJ,SV7c |

Semi-Volatile  
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Sample Summary

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SDG Number: 10-1914  
Lab Sample ID: 247358003

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7428  
Batch ID: 956285  
Run Date: 03/05/2010 00:07  
Prep Date: 02/23/2010 10:34  
Data File: s4c0432.d

| CAS No.   | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ      |
|-----------|-------------------------------|-----------|--------|-------|---------|--------------|
| 131-11-3  | <i>m</i> -Nitroaniline        |           |        |       |         |              |
| 606-20-2  | Dimethylphthalate             | U         | 364    | ug/kg | 72.9    | 364          |
| 208-96-8  | 2,6-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364          |
| 51-28-5   | Acenaphthylene                | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 132-64-9  | 2,4-Dinitrophenol             | U         | 729    | ug/kg | 138     | 729          |
| 84-66-2   | Dibenzofuran                  | U         | 364    | ug/kg | 72.9    | 364          |
| 86-73-7   | Diethylphthalate              | U         | 364    | ug/kg | 72.9    | 364          |
| 7005-72-3 | Fluorene                      | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 534-52-1  | 4-Chlorophenylphenylether     | U         | 364    | ug/kg | 72.9    | 364          |
| 100-01-6  | 2-Methyl-4,6-dinitrophenol    | U         | 364    | ug/kg | 72.9    | 364          |
| 122-39-4  | 4-Nitroaniline                | U         | 364    | ug/kg | 109     | 364 UJ,V7c   |
| 122-66-7  | <i>p</i> -Nitroaniline        |           |        |       |         |              |
| 101-55-3  | Diphenylamine                 | U         | 364    | ug/kg | 72.9    | 364          |
| 118-74-1  | Azobenzene                    | U         | 364    | ug/kg | 72.9    | 364          |
| 85-01-8   | <i>1,2</i> -Diphenylhydrazine |           |        |       |         |              |
| 120-12-7  | 4-Bromophenylphenylether      | U         | 364    | ug/kg | 72.9    | 364          |
| 84-74-2   | Hexachlorobenzene             | U         | 364    | ug/kg | 72.9    | 364          |
| 206-44-0  | Phenanthrene                  | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 85-68-7   | Anthracene                    | U         | 36.4   | ug/kg | 7.29    | 36.4         |
| 56-55-3   | Di-n-butylphthalate           | U         | 364    | ug/kg | 72.9    | 364          |
| 91-94-1   | Fluoranthene                  | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 218-01-9  | Butylbenzylphthalate          | U         | 364    | ug/kg | 72.9    | 364          |
| 117-81-7  | Benzo(a)anthracene            | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 117-84-0  | 3,3'-Dichlorobenzidine        | U         | 364    | ug/kg | 109     | 364          |
| 205-99-2  | Chrysene                      | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 207-08-9  | bis(2-Ethylhexyl)phthalate    | U         | 364    | ug/kg | 72.9    | 364          |
| 50-32-8   | Di-n-octylphthalate           | U         | 364    | ug/kg | 72.9    | 364          |
| 193-39-5  | Benzo(b)fluoranthene          | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 53-70-3   | Benzo(k)fluoranthene          | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 191-24-2  | Benzo(a)pyrene                | U         | 36.4   | ug/kg | 10.9    | 36.4         |
| 120-82-1  | Indeno(1,2,3-cd)pyrene        | U         | 36.4   | ug/kg | 10.9    | 36.4 UJ,SV7c |
|           | Dibenzo(a,h)anthracene        | U         | 36.4   | ug/kg | 10.9    | 36.4 UJ,SV7c |
|           | Benzo(ghi)perylene            | U         | 36.4   | ug/kg | 10.9    | 36.4         |
|           | 1,2,4-Trichlorobenzene        | U         | 364    | ug/kg | 72.9    | 364          |

## Tentatively Identified Compound Summary

| CAS No. | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|------|-----------|-------|-----|------|
|         | Unknown                               | 2.02 | 229       | ug/kg |     | J    |
|         | Unknown Aldol Condensate              | 2.88 | 665       | ug/kg |     | J    |

Semi-Volatile  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-1914  
Lab Sample ID: 247358003

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.                                 | Parmname                                 | Qualifier | Result    | Units | MDL/LOD | PQL/LOQ |
|---|--|-----------|-----------|-------|---------|---------|
| Tentatively Identified Compound Summary |  |           |           |       |         |         |
| CAS No.                                 | Tentatively Identified Compound (TIC)    | RT        | Estimated | Units | Flt     | Qual    |
| 475-20-7                                | 1,4-Methanoazulene, decahydro-4,8,8-trim | 5.67      | 412       | ug/kg | 99      | NJ      |
| 72120-50-4                              | 1-Hydroxy-1,7-dimethyl-4-isopropyl-2,7-c | 6.24      | 148       | ug/kg | 90      | NJ      |
|   | Unknown                                  | 7.82      | 8390      | ug/kg |         | J       |
|   | Unknown                                  | 8.08      | 1010      | ug/kg |         | J       |
| 511-15-9                                | 2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa | 8.12      | 535       | ug/kg | 96      | NJ      |
|   | Unknown                                  | 8.39      | 800       | ug/kg |         | J       |
| 295-48-7                                | Cyclopentadecane                         | 8.41      | 251       | ug/kg | 97      | NJ      |
|   | Unknown                                  | 8.81      | 728       | ug/kg |         | J       |
| 74339-54-1                              | Trichloroacetic acid, hexadecyl ester    | 8.95      | 265       | ug/kg | 93      | NJ      |
|   | Unknown                                  | 9.05      | 657       | ug/kg |         | J       |
| 301-02-0                                | 9-Octadecenamide, (Z)-                   | 9.18      | 147       | ug/kg | 97      | NJ      |
|   | Unknown                                  | 9.35      | 191       | ug/kg |         | J       |
| 112-95-8                                | Eicosane                                 | 9.5       | 155       | ug/kg | 95      | NJ      |
| 580-72-3                                | 2(3H)-Furanone, dihydro-3,4-bis[(4-hydro | 10.8      | 417       | ug/kg | 92      | NJ      |
| 34444-37-6                              | (-)-Nortrachelogenin                     | 11.14     | 688       | ug/kg | 90      | NJ      |
|   | Unknown                                  | 11.47     | 746       | ug/kg |         | J       |
|   | Unknown                                  | 11.75     | 163       | ug/kg |         | J       |
| 83-46-5                                 | .beta.-Sitosterol                        | 12.39     | 1060      | ug/kg | 97      | NJ      |

## DATA VALIDATION COVER SHEET

5122-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-1914 VALIDATION DATE: 04/02/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- |  |  |  |  |
|--|--|--|--|
| <input type="checkbox"/> TPH-GRO                 | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS                     | <input type="checkbox"/> LCMSMS PERCHLORATES |
| <input type="checkbox"/> TPH-DRO                 | <input type="checkbox"/> METALS          | <input type="checkbox"/> PCB CONGENERS                     | <input type="checkbox"/> ORGANOCHLORINE      |
| <input type="checkbox"/> GENERAL CHEMISTRY       | <input type="checkbox"/> RADIOCHEMISTRY  | <input checked="" type="checkbox"/> LCMSMS HIGH EXPLOSIVES | PESTICIDES/POLYCHLORINATED BIPHENYLS         |
| <input type="checkbox"/> OTHER (DESCRIBE): _____ |  |  |  |

## Section II. Completeness Check

- | YES                                 | NO                       | N/A                                 | (CHECK ONE)                 | YES                                 | NO                       | N/A                                 | (CHECK ONE)              |
|-------------------------------------|--------------------------|-------------------------------------|-----------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 1. CHAIN-OF-CUSTODY FORM(S) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 6. RAW/BSS DATA          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 2. CASE NARRATIVE           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 7. QUALITY CONTROL FORMS |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 3. SAMPLE RESULT FORMS      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 8. QUANTITATION REPORTS  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | 4. SAMPLE CHROMATOGRAMS     | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 9. TICS FORMS            |
| <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 5. STANDARD CHROMATOGRAMS   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 10. TICS MASS SPECTRA    |

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):


1. The ICV %D was >20% with a positive bias for RDX. The associated sample results were NDs and, thus, were not qualified.
2. The LCS %R was < the laboratory LAL but  $\geq 10\%$  for tetra. The associated sample results were NDs and, thus, were qualified UJ,HE12a.
3. The MS/MSD %Rs were < the laboratory LAL but  $\geq 10\%$  for tetra. The associated sample results were NDs and, thus, were qualified UJ,HE12e. The MS/MSD %Rs were > the laboratory UAL for TATB. The associated sample results were NDs and, thus, were not qualified. The MS/MSD RPD was > the laboratory control limit for TATB. The associated sample results were NDs and, thus, were qualified UJ,HE12g. It should be noted that the parent sample for the QC analyses was from another LANL RN. No sample data were qualified as a result.
4. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.


Reviewed by: Mary DonovanLevel: IDate: 04/02/10

VALIDATOR'S SIGNATURE: \_\_\_\_\_


M r. Peter Steves

DATE: 04/02/10


| DATA VALIDATION COVER SHEET                             |  |
|---|--|
| <b>5122-1</b><br><br><b>Data Validation Cover Sheet</b> | <b>Records Use only</b><br><br><br><small>NATIONAL LABORATORY<br/>EST. 1945</small> |
| Form 5122-1, Revision 0.0                               | LOS ALAMOS<br>Environmental Restoration Project  |

| LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|--|---|
| <b>5122-2</b><br><br><b>LC/MS/MS High Explosive Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes   No   N/A           |                                     |                                     |   | Assign Qualifier Listed Below If<br>Criterion = Yes |                     |
|--------------------------|-------------------------------------|-------------------------------------|---|---|---------------------|
| (Check One)              |                                     |                                     |   | Non-detected<br>Analyte                             | Detected<br>Analyte |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 1. The IS retention time has shifted by more than 30 seconds.   | R, UJ, HE0  | J, HE0              |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, HE0b   | R, HE0b             |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows. | R, HE1a   | J, HE1a             |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.   | UJ, HE1b  | J+, HE1b            |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.   | UJ, HE1c  | J-, HE1c            |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.  | R, HE1d   | R, HE1d             |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 7. The surrogate is <10%R. Follow the external laboratory limits.   | R, HE3  | J-, HE3             |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.  | UJ, HE3a  | J-, HE3a            |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.   | N/A   | J+, HE3b            |
| <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.  | UJ, HE3c  | J, HE3c             |


| LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|--|---|
| <b>5122-2</b><br><br><b>LC/MS/MS High Explosive Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A<br>(Check One)           |                                     |                                     |   | Assign Qualifier Listed Below if<br>Criterion = Yes |                     |
|-------------------------------------|-------------------------------------|-------------------------------------|---|---|---------------------|
|                                     |                                     |                                     |   | Non-detected<br>Analyte                             | Detected<br>Analyte |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.  | R, HE3d   | R, HE3d             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 12. The sample result is $\leq 5$ times the concentration of the related analyte in the method blank.   | U, HE4  | N/A                 |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5x$ .   | N/A   | J, HE4a             |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 14. The sample result is $\leq 5$ times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.  | U, HE4d   | N/A                 |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, HE4e   | R, HE4e             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 16. The absence of sample carry-over must be determined and verified.   | N/A   | R, N, HE4f          |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.   | UJ, HE7   | J, HE7              |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less $< 0.99$ . | UJ, R, HE7a   | J, HE7a             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 19. The affected analytes were analyzed with a RRF of $< 0.05$ in the initial calibration and/or CCV.   | UJ, R, HE7b   | J, HE7b             |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 20. The ICV and/or CCV were recovered outside the method limits.  | UJ, R, HE7c   | J, HE7c             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 21. The ICV and/or CCV were not analyzed at the appropriate method frequency.   | UJ, R, HE7d   | J, HE7d             |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.                                       | R, HE7f   | R, HE7f             |

| LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|--|---|
| <b>5122-2</b><br><br><b>LC/MS/MS High Explosive Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes No N/A                          |                                     |                                     |   | Assign Qualifier Listed Below If Criterion = Yes |                  |
|-------------------------------------|-------------------------------------|-------------------------------------|---|--|------------------|
| (Check One)                         |                                     |                                     |   | Non-detected Analyte                             | Detected Analyte |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, HE8a  | R, HE8a          |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24. The holding time was >1 and ≤2 times the applicable holding time requirement.   | UJ, HE9  | J-, HE9          |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 25. The holding time was >2 times the applicable holding time requirement.  | R, HE9a  | J-, HE9a         |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 26. The LCS percent recovery was <10%. Follow the external laboratory limits.   | R, HE12  | J-, HE12         |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.  | UJ, HE12a  | J-, HE12a        |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.   | N/A  | J+, HE12b        |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.   | R, HE12c   | R, HE12c         |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 30. The MS/MSD percent recovery was <10%.   | R, HE12d   | R, HE12d         |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 31. The MS/MSD percent recovery was >10% but <70%.  | UJ, HE12e  | J, HE12e         |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 32. The MS/MSD percent recover was >70%.  | N/A  | J+, HE12f        |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 33. The MS/MSD relative percent difference was >30%.  | UJ, HE12g  | J, HE12g         |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.) | UJ, R, HE15                                      | R, HE15          |
| <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 35. The sample was diluted because target analytes were > the initial verification calibration.   | UJ, HE15a  | J, HE15a         |



| LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST                             |   |
|--|---|
| <b>5122-2</b><br><br><b>LC/MS/MS High Explosive Analytical Data Validation Checklist</b> | Records Use only<br><br> |

| Yes   No   N/A<br>(Check One) |                                     |                                     |  | Assign Qualifier Listed Below If<br>Criterion = Yes |                     |
|-------------------------------|-------------------------------------|-------------------------------------|--|---|---------------------|
|                               |                                     |                                     |  | Non-detected<br>Analyte                             | Detected<br>Analyte |
| <input type="checkbox"/>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.   | UJ, R, HE16   | J, HE16             |
| <input type="checkbox"/>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.  | R, HE16c  | R, HE16c            |
| <input type="checkbox"/>      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist. | UJ, R, HE19   | J, R, HE19          |
| <input type="checkbox"/>      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 39. Duplicate, dilution, or reanalysis.  | UJ, HE88  | J, HE88             |

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7427

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358001

Sample Amount 2

Moisture: 36.4

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319018a

Date Analyzed: 20-MAR-10 01:15

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl UJ,HE12a            | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

|            |   |                                    |   |          |
|------------|---|------------------------------------|---|----------|
| Instrument | X | <u>Concentrated Extract Volume</u> | X | Dilution |
| Value      |   | <u>Sample Amount</u>               |   | Factor   |

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7427

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358001

Sample Amount 2

Moisture: 36.4

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050114.wiff

Date Analyzed: 06-MAR-10 22:41

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB UJ,HE12g              | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

|                  |   |                                    |   |                 |
|------------------|---|------------------------------------|---|-----------------|
| Instrument Value | X | <u>Concentrated Extract Volume</u> | X | Dilution Factor |
|                  |   | <u>Sample Amount</u>               |   |                 |

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7423

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358002

Sample Amount 2

Moisture: 51.1

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319019a

Date Analyzed: 20-MAR-10 01:45

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl UJ,HE12a            | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7423

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358002

Sample Amount 2

Moisture: 51.1

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050115.wiff

Date Analyzed: 06-MAR-10 22:57

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB UJ,HE12g              | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7428

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358003

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319020a

Date Analyzed: 20-MAR-10 02:14

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl UJ,HE12a            | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7428

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358003

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050116.wiff

Date Analyzed: 06-MAR-10 23:13

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB UJ,HE12g              | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

|                  |   |                                    |   |                 |
|------------------|---|------------------------------------|---|-----------------|
| Instrument Value | X | <u>Concentrated Extract Volume</u> | X | Dilution Factor |
|                  |   | Sample Amount                      |   |                 |

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7424

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358004

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319021a

Date Analyzed: 20-MAR-10 02:44

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl UJ,HE12a            | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7424

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358004

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050117.wiff

Date Analyzed: 06-MAR-10 23:29

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB UJ,HE12g              | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

|            |   |                                    |   |          |
|------------|---|------------------------------------|---|----------|
| Instrument | X | <u>Concentrated Extract Volume</u> | X | Dilution |
| Value      |   | <u>Sample Amount</u>               |   | Factor   |

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1914

**LOS ALAMOS**

REQUEST NUMBER: 10-1914

**NATIONAL LABORATORY**

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/19/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

247358%

| SAMPLE ID    | CTNR | CTNR DESC          | ORDER          | PRESERV | MATRIX |
|--------------|------|--------------------|----------------|---------|--------|
| RE36-10-7427 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7427 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7423 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7423 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7428 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7428 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7424 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7424 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Wednesday, February 17, 2010

**LOS ALAMOS**  
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.  
2040 Savage Rd  
Charleston, SC 29407

These Samples are on:  
LANL Request Number: 10-1914  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

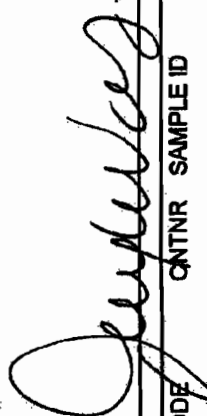
Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 2/17/2010  
TURNAROUND/REPORT DUE: 3/19/2010  
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



| PRIORITY | METHOD CODE      | QNTNR | SAMPLE ID    | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|----------|------------------|-------|--------------|---------------|--------------|----------------------|
|          | SW-846:8260B     | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7424 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7427 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7428 | R             | 2/12/2010    |                      |
|          | SW-846:8270C     | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7424 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7427 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7428 | R             | 2/12/2010    |                      |
|          | SW-846:8321A_MOD | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |

REQUEST NUMBER: 10-1914

Wednesday, February 17, 2010

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|----------|-------------|-------|-----------|---------------|--------------|----------------------|
|----------|-------------|-------|-----------|---------------|--------------|----------------------|

|  |                  |   |              |   |           |  |
|--|------------------|---|--------------|---|-----------|--|
|  | SW-846:8321A_MOD | 1 | RE36-10-7424 | R | 2/12/2010 |  |
|  |                  | 1 | RE36-10-7427 | R | 2/12/2010 |  |
|  |                  | 1 | RE36-10-7428 | R | 2/12/2010 |  |

Final Page of REQUEST NUMBER 10-1914



February 22, 2010

www.gel.com

Ms. Joylene Valdez  
Los Alamos National Laboratory  
PO Box 1663  
TA-03, SM271, Drop Pt. 02U, Rm111  
Los Alamos, New Mexico 87545

Re: LANL ER Project  
Work Order: 247358  
SDG: 10-1914

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 18, 2010, and analyzed for Explosives by LCMSMS, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis  
Project Manager

Purchase Order: 72733-001-09  
Chain of Custody: 10-1914  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 247358**  
**SDG: 10-1914**

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# Case Narrative



Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 247358  
SDG # : 10-1914

February 22, 2010

**Laboratory Identification:**

GEL Laboratories LLC  
2040 Savage Road  
Charleston, South Carolina 29407  
(843) 556-8171

**Summary**

**Sample receipt** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 18, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

**Sample Identification** The laboratory received the following samples:

| <u>Laboratory ID</u> | <u>Client ID</u> |
|----------------------|------------------|
| 247358001            | RE36-10-7427     |
| 247358002            | RE36-10-7423     |
| 247358003            | RE36-10-7428     |
| 247358004            | RE36-10-7424     |

**Case Narrative**

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

**Data Package** The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.



Valerie Davis

Project Manager

**List of current GEL Certifications as of 22 February 2010**

| <b>State</b>              | <b>Certification</b> |
|---------------------------|----------------------|
| Arizona                   | AZ0668               |
| Arkansas                  | 88-0651              |
| CLIA                      | 42D0904046           |
| California – NELAP        | 01151CA              |
| Colorado                  | GEL                  |
| Connecticut               | PH-0169              |
| Dept. of Navy             | NFESC 413            |
| EPA Region 5              | WG-15J               |
| Florida – NELAP           | E87156               |
| Georgia                   | E87156 (FL/NELAP)    |
| Georgia DW                | 967                  |
| Hawaii                    | N/A                  |
| ISO 17025                 | 2567.01              |
| Idaho                     | SC00012              |
| Illinois – NELAP          | 200029               |
| Indiana                   | C-SC-01              |
| Kansas – NELAP            | E-10332              |
| Kentucky                  | 90129                |
| Louisiana – NELAP         | 03046                |
| Maryland                  | 270                  |
| Massachusetts             | M-SC012              |
| Nevada                    | SC00012              |
| New Jersey – NELAP        | SC002                |
| New Mexico                | FL NELAP E87156      |
| New York – NELAP          | 11501                |
| North Carolina            | 233                  |
| North Carolina DW         | 45709                |
| Oklahoma                  | 9904                 |
| Pennsylvania – NELAP      | 68-00485             |
| South Carolina            | 10120001/10120002    |
| Tennessee                 | TN 02934             |
| Texas – NELAP             | T104704235-07B-TX    |
| U.S. Dept. of Agriculture | S-52597              |
| Utah – NELAP              | GEL                  |
| Vermont                   | VT87156              |
| Virginia                  | 00151                |
| Washington                | C1641                |

# **Chain of Custody and Supporting Documentation**

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1914

LOS ALAMOS

REQUEST NUMBER: 10-1914

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/19/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

247358%

| SAMPLE ID    | CTNR | CTNR DESC          | ORDER          | PRESERV | MATRIX |
|--------------|------|--------------------|----------------|---------|--------|
| RE36-10-7427 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7427 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7423 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7423 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7428 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7428 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |
| RE36-10-7424 | 1    | SEPTUM AMBER GLASS | 8260B          | Ice     | R      |
| RE36-10-7424 | 1    | AMBER GLASS        | 8270C+NMED Exp | Ice     | R      |

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

2/17/10

1:40

Patricia D. Dent

Printed Name

Signature

P.W. Dent

2/18/10

08:45

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Wednesday, February 17, 2010


**LOS ALAMOS**  
NATIONAL LABORATORY

ATTN: Valerie Davis  
General Engineering Laboratories, Inc., Charleston, SC.  
2040 Savage Rd  
Charleston, SC 29407

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 2/17/2010**  
**TURNAROUND/REPORT DUE: 3/19/2010**  
**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**  
**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:  
Signature: 

These Samples are on:  
LANL Request Number: 10-1914  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

REQUEST NUMBER: 10-1914

| PRIORITY | METHOD CODE      | QNTNR | SAMPLE ID    | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|----------|------------------|-------|--------------|---------------|--------------|----------------------|
|          | SW-846:8260B     | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7424 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7427 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7428 | R             | 2/12/2010    |                      |
|          | SW-846:8270C     | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7424 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7427 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7428 | R             | 2/12/2010    |                      |
|          | SW-846:8321A_MOD | 1     | RE36-10-7423 | R             | 2/12/2010    |                      |

Wednesday, February 17, 2010

Page 2 of 2

REQUEST NUMBER: 10-1914

| PRIORITY | METHOD CODE      | CNTNR | SAMPLE ID    | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|----------|------------------|-------|--------------|---------------|--------------|----------------------|
|          | SW-846:8321A_MOD | 1     | RE36-10-7424 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7427 | R             | 2/12/2010    |                      |
|          |                  | 1     | RE36-10-7428 | R             | 2/12/2010    |                      |

Final Page of REQUEST NUMBER 10-1914



## SAMPLE RECEIPT &amp; REVIEW FORM

|                                     |     |                                  |   |
|-------------------------------------|-----|----------------------------------|---|
| Client: LANL                        |     | SDG/ARCO/Work Order: 10-1914     |   |
| Received By: Patricia Dover-Dent    |     | Date Received: February 18, 2009 |   |
| Suspected Hazard Information        | Yes | No                               | *If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation. |
| COC/Samples marked as radioactive?  |     | X                                | Maximum Counts Observed*: 60 CPM  |
| Classified Radioactive II by RSO?   |     | X                                |   |
| COC/Samples marked containing PCBs? |     | X                                |   |
| Shipped as a DOT Hazardous?         |     | X                                | Hazard Class Shipped: UN#:  |
| Samples identified as Foreign Soil? |     | X                                |   |

| Sample Receipt Criteria |  | Yes | NA | No | Comments/Qualifiers (Required for Non-Conforming Items)                                       |
|-------------------------|--|-----|----|----|---|
| 1                       | Shipping containers received intact and sealed?                | X   |    |    | Circle Applicable:<br>seals broken   damaged container   leaking container   other (describe) |
| 2                       | Samples requiring cold preservation within 0 ≤ 6 deg. C?       | X   |    |    | Preservation Method:<br>ice bags   blue ice   dry ice   none   other (describe)<br>1,2   10C  |
| 3                       | Chain of custody documents included with shipment?             | X   |    |    |   |
| 4                       | Sample containers intact and sealed?                           | X   |    |    | Circle Applicable:<br>seals broken   damaged container   leaking container   other (describe) |
| 5                       | Samples requiring chemical preservation at proper pH?          |     | X  |    | Sample ID's, containers affected and observed pH:<br>If Preservation added, Lot#:             |
| 6                       | VOA vials free of headspace (defined as < 6mm bubble)?         |     | X  |    | Sample ID's and containers affected:  |
| 7                       | Are Encore containers present?                                 |     |    | X  | (If yes, immediately deliver to Volatiles laboratory)   |
| 8                       | Samples received within holding time?                          | X   |    |    | Id's and tests affected:  |
| 9                       | Sample ID's on COC match ID's on bottles?                      | X   |    |    | Sample ID's and containers affected:  |
| 10                      | Date & time on COC match date & time on bottles?               |     |    | X  | Sample ID's affected:<br>time written on containers, not on COC                               |
| 11                      | Number of containers received match number indicated on COC?   | X   |    |    | Sample ID's affected:   |
| 12                      | COC form is properly signed in relinquished/received sections? | X   |    |    |   |

## Comments: FEDEX#S

7209 7850 1047 1C

7209 7850 1014 2C

7209 7850 1036 2C

7209 7850 1025 2C

7209 7850 0990 10C

7209 7850 1003 10C

ORIGIN ID: SAFA (505) 666-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
T800 BLDG 1237 DPU 63

LOS ALAMOS, NM 87545  
UNITED STATES US

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 68010AMR3A05529E00

10



TRKH 7209 7850 1047  
0201

THU - 18FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 68010AMR3A05529E00

2°

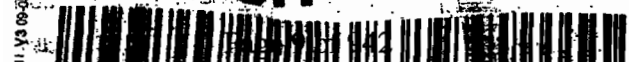


2 of 2  
MPS# 7209 7850 1036  
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T800 BLDG 1237 DPU 63

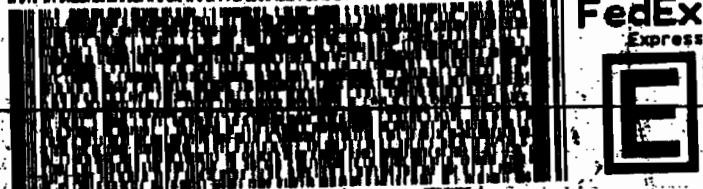
LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 68010AMR2A05158YDO

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SC-US  
CHS

XX CHSA



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
T800 BLDG 1237 DPU 63  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 17FEB10  
ACTWGT: 57.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 68010AMR3A05529E00

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PRIORITY OVERNIGHT

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SC-US  
CHS

XX CHSA





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# **Data Review Qualifier Flag Definition Sheet**

## Data Review Qualifier Definitions

Qualifier    Explanation

- \*    A quality control analyte recovery is outside of specified acceptance criteria
- \*\*   Analyte is a surrogate compound
- <    Result is less than value reported
- >    Result is greater than value reported
- ^    RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- A    The TIC is a suspected aldol-condensation product
- B    Target analyte was detected in the associated blank
- B    Metals-Either presence of analyte detected in the associated blank, or  
MDL/IDL < sample value < PQL
- BD   Results are either below the MDC or tracer recovery is low
- C    Analyte has been confirmed by GC/MS analysis
- D    Results are reported from a diluted aliquot of the sample
- d    5-day BOD-The 2:1 depletion requirement was not met for this sample
- E    Organics-Concentration of the target analyte exceeds the instrument calibration range
- E    Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- H    Analytical holding time was exceeded
- h    Preparation or preservation holding time was exceeded
- J    Value is estimated
- N    Metals-The Matrix spike sample recovery is not within specified control limits
- N    Organics-Presumptive evidence based on mass spectral library search to make a tentative  
identification of the analyte (TIC). Quantitation is based on nearest internal standard  
response factor
- N/A   Spike recovery limits do not apply. Sample concentration exceeds spike concentration  
by 4X or more
- ND   Analyte concentration is not detected above the reporting limit
- UI   Gamma Spectroscopy-Uncertain identification
- X    Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y    QC Samples were not spiked with this compound
- Z    Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

# **GC/MS Volatile Analysis**

**GC/MS Volatile Organics  
Los Alamos National Laboratory (LANL)  
SDG 10-1914**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 956739  
Prep Batch Number: 956738

**Sample Analysis**

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

| <b>Sample ID</b> | <b>Client ID</b>                                   |
|------------------|--|
| 247358001        | RE36-10-7427                                       |
| 247358002        | RE36-10-7423                                       |
| 247358003        | RE36-10-7428                                       |
| 247358004        | RE36-10-7424                                       |
| 1202051370       | Method Blank (MB)                                  |
| 1202051373       | Laboratory Control Sample (LCS)                    |
| 1202051374       | Laboratory Control Sample (LCS)                    |
| 1202065431       | Method Blank (MB)                                  |
| 1202065432       | Laboratory Control Sample (LCS)                    |
| 1202065433       | Laboratory Control Sample (LCS)                    |
| 1202051371       | 247332002(RE15-10-8346) Post Spike (PS)            |
| 1202051372       | 247332002(RE15-10-8346) Post Spike Duplicate (PSD) |

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

The samples in this SDG were analyzed on a "dry weight" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

#### **Initial Calibration**

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **Continuing Calibration Verification Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MBs analyzed with this SDG met the acceptance criteria.

##### **Surrogate Recoveries**

The surrogate recovery, in the following sample, was above the acceptance limits. Sample re-analysis confirmed matrix interference. Sample 247358001 (RE36-10-7427) did not pass surrogate recoveries. The sample was re-analyzed and confirmed the results. See DER 803938.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

##### **QC Sample Designation**

Sample 247332002(RE15-10-8346) was used for spike analysis.

##### **Matrix Spike (PS) Recovery Statement**

The spike recoveries were not all within the acceptance limits. The spike duplicate did not pass all recoveries. The unacceptable recoveries are attributed to possible inconsistent matrix effect. Please see the Form III for a complete list of recoveries. The results are reported. See DER 803938.

##### **Matrix Spike Duplicate (PSD) Recovery Statement**

The spike duplicate recoveries were not all within the acceptance limits. The spike did not pass all recoveries. The unacceptable recoveries are attributed to possible inconsistent matrix effect. Please see the Form III for a complete list of recoveries. The results are reported. See DER 803938.

##### **Relative Percent Difference (RPD) Statement**

The RPD between the matrix spike pair were not all within the acceptance limits. The results are reported. See DER 803938.

##### **Internal Standard (ISTD) Acceptance**

In samples 247358001 (RE36-10-7427) and 247358002 (RE36-10-7423), internal standard responses were outside the required acceptance criteria. The sample was re-analyzed and confirmed the results. See DER 803938.

## **Technical Information**

### **Holding Time Specifications**

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

### **Sample Preservation and Integrity**

All samples met the sample preservation and integrity requirements.

### **Sample Dilutions**

The samples in this SDG did not require dilutions.

### **Sample Re-extraction/Re-analysis**

Samples 247358001 (RE36-10-7427), 247358002 (RE36-10-7423) and 247358004 (RE36-10-7424) were re-analyzed due to unacceptable recoveries in the initial analysis.

## **Miscellaneous Information**

### **Electronic Package Comment**

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

### **Data Exception (DER) Documentation**

DER # 803938 was generated for this SDG.

### **Manual Integrations**

Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

### **TIC Comment**

Tentatively identified compounds (TIC) were required for this SDG.

### **Additional Comments**

Additional comments were not required for this SDG.

### **Residual Chlorine**

Residual Chlorine was not detected in any of the samples in this SDG.

### **System Configuration**

The Volatile-GC/MS analysis was performed on the following instrument configuration:

| <b>Instrument ID</b> | <b>Instrument</b>                   | <b>System Configuration</b> | <b>Column ID</b> | <b>Column Description</b> | <b>P &amp; T Trap</b> |
|----------------------|-------------------------------------|-----------------------------|------------------|---------------------------|-----------------------|
| VOA7.I               | Gas Chromatograph/Mass Spectrometer | HP6890N/HP5973N             | DB-624           | J&W, 60m x 0.25mm x 1.4um | Trap 10               |

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1914 GEL Work Order: 247358

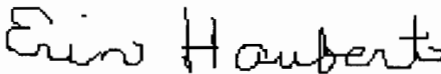
**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Review/Validation**

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: 

Name: Erin Haubert

Date: 17 MAR 2010

Title: Data Validator

## Roadmap for LANL 10-1914 VOA

This roadmap was analyzed by ale01592 on 03-15-2010, 05:34.

Sample

| exclude                             | manual | datafile                      | smpid     | clientid     | injdate     | injtime | sublist     | dilution | batchid | comment              |
|-------------------------------------|--------|-------------------------------|-----------|--------------|-------------|---------|-------------|----------|---------|----------------------|
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022310v7/7a233.d | 247358001 | RE36-10-7427 | 24-FEB-2010 | 03:57   | 10-1914.sub | 1        | 956739  | <input type="text"/> |
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022310v7/7a234.d | 247358002 | RE36-10-7423 | 24-FEB-2010 | 04:31   | 10-1914.sub | 1        | 956739  | <input type="text"/> |
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022310v7/7a235.d | 247358003 | RE36-10-7428 | 24-FEB-2010 | 05:06   | 10-1914.sub | 1        | 956739  | <input type="text"/> |
| <input checked="" type="checkbox"/> | N      | /chem/VOA7.i/022310v7/7a236.d | 247358004 | RE36-10-7424 | 24-FEB-2010 | 05:42   | 10-1914.sub | 1        | 956739  | <input type="text"/> |
| <input checked="" type="checkbox"/> | N      | /chem/VOA7.i/022410v7/7a312.d | 247358001 | RE36-10-7427 | 24-FEB-2010 | 16:32   | 10-1914.sub | 1        | 956739  | <input type="text"/> |
| <input checked="" type="checkbox"/> | N      | /chem/VOA7.i/022410v7/7a313.d | 247358002 | RE36-10-7423 | 24-FEB-2010 | 17:07   | 10-1914.sub | 1        | 956739  | <input type="text"/> |
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022410v7/7a314.d | 247358004 | RE36-10-7424 | 24-FEB-2010 | 17:43   | 10-1914.sub | 1        | 956739  | <input type="text"/> |

QC Sample

| exclude                             | manual | datafile                        | smpid      | clientid        | sampletype | injdate     | injtime | sublist     | dilution | batchid | comment              |
|-------------------------------------|--------|---------------------------------|------------|-----------------|------------|-------------|---------|-------------|----------|---------|----------------------|
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022310v7/7a22011.d | 1202051373 | LCS             | lcs        | 23-FEB-2010 | 20:30   | all.sub     | 1        | 956739  | <input type="text"/> |
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022310v7/7a22211.d | 1202051374 | SLCS            | lcs        | 23-FEB-2010 | 21:37   | all.sub     | 1        | 956739  | <input type="text"/> |
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022310v7/7a22411.d | 1202051370 | BLANK           | mb         | 23-FEB-2010 | 22:45   | all.sub     | 1        | 956739  | <input type="text"/> |
| <input checked="" type="checkbox"/> | N      | /chem/VOA7.i/022310v7/7a237.d   | 1202051371 | RE15-10-8346MS  | ms         | 24-FEB-2010 | 06:17   | 10-1905.sub | 1        | 956739  | <input type="text"/> |
| <input checked="" type="checkbox"/> | N      | /chem/VOA7.i/022310v7/7a238.d   | 1202051372 | RE15-10-8346MSD | msd        | 24-FEB-2010 | 06:51   | 10-1905.sub | 1        | 956739  | <input type="text"/> |
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022410v7/7a30411.d | 1202065432 | LCS             | lcs        | 24-FEB-2010 | 11:59   | all.sub     | 1        | 956739  | <input type="text"/> |
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022410v7/7a30611.d | 1202065433 | SLCS            | lcs        | 24-FEB-2010 | 13:07   | all.sub     | 1        | 956739  | <input type="text"/> |
| <input type="checkbox"/>            | N      | /chem/VOA7.i/022410v7/7a30811.d | 1202065431 | BLANK           | mb         | 24-FEB-2010 | 14:15   | all.sub     | 1        | 956739  | <input type="text"/> |

# Sample Data Summary

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 51.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-7423  
 Batch ID: 956739  
 Run Date: 02/24/2010 04:31  
 Prep Date: 02/23/2010 15:58  
 Data File: 7a234.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 2.04   | ug/kg | 0.695   | 2.04    |
| 74-87-3    | Chloromethane               | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-01-4    | Vinyl chloride              | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-83-9    | Bromomethane                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-00-3    | Chloroethane                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-69-4    | Trichlorofluoromethane      | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 67-64-1    | Acetone                     |           | 23.6   | ug/kg | 3.39    | 10.2    |
| 75-35-4    | 1,1-Dichloroethylene        | J         | 0.846  | ug/kg | 0.613   | 2.04    |
| 74-88-4    | Iodomethane                 | U         | 10.2   | ug/kg | 3.27    | 10.2    |
| 75-09-2    | Methylene chloride          | U         | 10.2   | ug/kg | 4.09    | 10.2    |
| 75-15-0    | Carbon disulfide            | U         | 10.2   | ug/kg | 2.55    | 10.2    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 78-93-3    | 2-Butanone                  | U         | 10.2   | ug/kg | 3.07    | 10.2    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 67-66-3    | Chloroform                  | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-97-5    | Bromochloromethane          | U         | 2.04   | ug/kg | 0.674   | 2.04    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 56-23-5    | Carbon tetrachloride        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 71-43-2    | Benzene                     | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 79-01-6    | Trichloroethylene           | U         | 2.04   | ug/kg | 0.674   | 2.04    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-27-4    | Bromodichloromethane        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-95-3    | Dibromomethane              | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 10.2   | ug/kg | 2.55    | 10.2    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-88-3   | Toluene                     |           | 5.52   | ug/kg | 0.613   | 2.04    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 591-78-6   | 2-Hexanone                  | U         | 10.2   | ug/kg | 3.07    | 10.2    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 127-18-4   | Tetrachloroethylene         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 124-48-1   | Dibromochloromethane        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-90-7   | Chlorobenzene               | U         | 2.04   | ug/kg | 0.613   | 2.04    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002  
  
Client ID: RE36-10-7423  
Batch ID: 956739  
Run Date: 02/24/2010 04:31  
Prep Date: 02/23/2010 15:58  
Data File: 7a234.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.1  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 179601-23-1 | m,p-Xylenes                           | J         | 0.720  | ug/kg | 0.613   | 4.09    |
| 95-47-6     | o-Xylene                              | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 100-42-5    | Styrene                               | J         | 1.97   | ug/kg | 0.613   | 2.04    |
| 75-25-2     | Bromoform                             | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-86-1    | Bromobenzene                          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 103-65-1    | n-Propylbenzene                       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 98-82-8     | Isopropylbenzene                      | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 98-06-6     | tert-Butylbenzene                     | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 135-98-8    | sec-Butylbenzene                      | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 99-87-6     | 4-Isopropyltoluene                    |           | 69.6   | ug/kg | 0.613   | 2.04    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 104-51-8    | n-Butylbenzene                        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 10.2   | ug/kg | 3.27    | 10.2    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04    |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown Alcohol                       | 9.4   | 27.6      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.54 | 63.9      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.65 | 463       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.96 | 874       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.15 | 19.4      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.19 | 82.7      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.33 | 234       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.62 | 55.2      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.7  | 48.4      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 21.14 | 65.7      | ug/kg |     | J    |

**Volatile  
Certificate of Analysis  
Sample Summary**

|                             |                                  |                      |
|-----------------------------|----------------------------------|----------------------|
| SDG Number: 10-1914         | Date Collected: 02/12/2010 12:00 | Matrix: R            |
| Lab Sample ID: 247358002    | Date Received: 02/18/2010 08:45  | %Moisture: 51.1      |
|                             | Client: LANL010                  | Project: LANL01004   |
| Client ID: RE36-10-7423     | Method: SW846 8260B              | SOP Ref: GL-OA-E-038 |
| Batch ID: 956739            | Inst: VOA7.I                     | Dilution: 1          |
| Run Date: 02/24/2010 04:31  | Analyst: AXO1                    | Purge Vol: 5 mL      |
| Prep Date: 02/23/2010 15:58 | Aliquot: 5 g                     | Final Volume: 5 mL   |
| Data File: 7a234.d          | Column: DB-624                   | Level: LOW           |

| CAS No.                                 | Parname                               | Qualifier | Result | Units     | MDL/LOD | PQL/LOQ |      |
|---|---------------------------------------|-----------|--------|-----------|---------|---------|------|
| Tentatively Identified Compound Summary |                                       |           |        |           |         |         |      |
| CAS No.                                 | Tentatively Identified Compound (TIC) |           | RT     | Estimated | Units   | Fit     | Qual |
|   | Unknown Hydrocarbon                   |           | 21.55  | 42.6      | ug/kg   |         | J    |
|   | Unknown Hydrocarbon                   |           | 23.22  | 26.2      | ug/kg   |         | J    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-7424  
 Batch ID: 956739  
 Run Date: 02/24/2010 17:43  
 Prep Date: 02/24/2010 13:45  
 Data File: 7a314.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.09   | ug/kg | 0.372   | 1.09    |
| 74-87-3    | Chloromethane               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-01-4    | Vinyl chloride              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-83-9    | Bromomethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-00-3    | Chloroethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-64-1    | Acetone                     | U         | 5.47   | ug/kg | 1.82    | 5.47    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-88-4    | Iodomethane                 | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 75-09-2    | Methylene chloride          | U         | 5.47   | ug/kg | 2.19    | 5.47    |
| 75-15-0    | Carbon disulfide            | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 78-93-3    | 2-Butanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-66-3    | Chloroform                  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-97-5    | Bromochloromethane          | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 71-43-2    | Benzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-01-6    | Trichloroethylene           | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-27-4    | Bromodichloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-95-3    | Dibromomethane              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-88-3   | Toluene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 591-78-6   | 2-Hexanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 124-48-1   | Dibromochloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-90-7   | Chlorobenzene               | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.19   | ug/kg | 0.328   | 2.19    |
| 95-47-6     | o-Xylene                              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 100-42-5    | Styrene                               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-25-2     | Bromoform                             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-86-1    | Bromobenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Tentatively Identified Compound Summary**

| CAS No.                                   | Tentatively Identified Compound (TIC) | RT | Estimated | Units | Fit | Qual |
|---|---------------------------------------|----|-----------|-------|-----|------|
| No Tentatively Identified Compounds Found |                                       |    |           | ug/kg |     |      |



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956739  
Run Date: 02/24/2010 03:57  
Prep Date: 02/23/2010 15:56  
Data File: 7a233.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.57   | ug/kg | 0.535   | 1.57    |
| 74-87-3    | Chloromethane               | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-01-4    | Vinyl chloride              | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 74-83-9    | Bromomethane                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-00-3    | Chloroethane                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 67-64-1    | Acetone                     |           | 9.50   | ug/kg | 2.61    | 7.87    |
| 75-35-4    | 1,1-Dichloroethylene        | J         | 0.495  | ug/kg | 0.472   | 1.57    |
| 74-88-4    | Iodomethane                 | U         | 7.87   | ug/kg | 2.52    | 7.87    |
| 75-09-2    | Methylene chloride          | U         | 7.87   | ug/kg | 3.15    | 7.87    |
| 75-15-0    | Carbon disulfide            | U         | 7.87   | ug/kg | 1.97    | 7.87    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 78-93-3    | 2-Butanone                  | U         | 7.87   | ug/kg | 2.36    | 7.87    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 67-66-3    | Chloroform                  | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 74-97-5    | Bromochloromethane          | U         | 1.57   | ug/kg | 0.519   | 1.57    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 71-43-2    | Benzene                     | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 79-01-6    | Trichloroethylene           | U         | 1.57   | ug/kg | 0.519   | 1.57    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-27-4    | Bromodichloromethane        | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 74-95-3    | Dibromomethane              | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 7.87   | ug/kg | 1.97    | 7.87    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-88-3   | Toluene                     | J         | 0.763  | ug/kg | 0.472   | 1.57    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 591-78-6   | 2-Hexanone                  | U         | 7.87   | ug/kg | 2.36    | 7.87    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 124-48-1   | Dibromochloromethane        | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-90-7   | Chlorobenzene               | U         | 1.57   | ug/kg | 0.472   | 1.57    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956739  
Run Date: 02/24/2010 03:57  
Prep Date: 02/23/2010 15:56  
Data File: 7a233.d

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 179601-23-1 | m,p-Xylenes                           | U         | 3.15   | ug/kg | 0.472   | 3.15    |
| 95-47-6     | o-Xylene                              | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 100-42-5    | Styrene                               | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-25-2     | Bromoform                             | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-86-1    | Bromobenzene                          | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 7.87   | ug/kg | 2.52    | 7.87    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57    |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown Siloxane                      | 21.55 | 27        | ug/kg |     | J    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

|                                    |   |                             |
|------------------------------------|---|-----------------------------|
| <b>SDG Number:</b> 10-1914         | <b>Date Collected:</b> 02/12/2010 12:00 | <b>Matrix:</b> R            |
| <b>Lab Sample ID:</b> 247358003    | <b>Date Received:</b> 02/18/2010 08:45  | <b>%Moisture:</b> 8.6       |
|                                    | <b>Client:</b> LANL010                  | <b>Project:</b> LANL01004   |
| <b>Client ID:</b> RE36-10-7428     | <b>Method:</b> SW846 8260B              | <b>SOP Ref:</b> GL-OA-E-038 |
| <b>Batch ID:</b> 956739            | <b>Inst:</b> VOA7.I                     | <b>Dilution:</b> 1          |
| <b>Run Date:</b> 02/24/2010 05:06  | <b>Analyst:</b> AXO1                    | <b>Purge Vol:</b> 5 mL      |
| <b>Prep Date:</b> 02/23/2010 16:00 | <b>Aliquot:</b> 5 g                     | <b>Final Volume:</b> 5 mL   |
| <b>Data File:</b> 7a235.d          | <b>Column:</b> DB-624                   | <b>Level:</b> LOW           |

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.09   | ug/kg | 0.372   | 1.09    |
| 74-87-3    | Chloromethane               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-01-4    | Vinyl chloride              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-83-9    | Bromomethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-00-3    | Chloroethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-64-1    | Acetone                     | U         | 5.47   | ug/kg | 1.82    | 5.47    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-88-4    | Iodomethane                 | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 75-09-2    | Methylene chloride          | U         | 5.47   | ug/kg | 2.19    | 5.47    |
| 75-15-0    | Carbon disulfide            | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 78-93-3    | 2-Butanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-66-3    | Chloroform                  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-97-5    | Bromochloromethane          | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 71-43-2    | Benzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-01-6    | Trichloroethylene           | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-27-4    | Bromodichloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-95-3    | Dibromomethane              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-88-3   | Toluene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 591-78-6   | 2-Hexanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 124-48-1   | Dibromochloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-90-7   | Chlorobenzene               | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358003  
  
Client ID: RE36-10-7428  
Batch ID: 956739  
Run Date: 02/24/2010 05:06  
Prep Date: 02/23/2010 16:00  
Data File: 7a235.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.19   | ug/kg | 0.328   | 2.19    |
| 95-47-6     | o-Xylene                              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 100-42-5    | Styrene                               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-25-2     | Bromoform                             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-86-1    | Bromobenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown                               | 7.04  | 9.07      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.12 | 6.99      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 21.3  | 8.74      | ug/kg |     | J    |

# QC Summary

Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-1914

Matrix Type: SOLID

CAP Column (1) : DB-624

| Sample ID  | Client ID            | DCED4<br>%REC | TOL<br>%REC | BFB<br>%REC |
|------------|----------------------|---------------|-------------|-------------|
| 1202051373 | LCS for batch 956738 | 97            | 93          | 97          |
| 1202051374 | LCS for batch 956738 | 99            | 99          | 96          |
| 1202051370 | MB for batch 956738  | 102           | 98          | 98          |
| 247358001  | RE36-10-7427         | 97            | 132 *       | 127         |
| 247358002  | RE36-10-7423         | 91            | 120         | 120         |
| 247358003  | RE36-10-7428         | 102           | 98          | 92          |
| 1202065432 | LCS for batch 956738 | 102           | 92          | 98          |
| 1202065433 | LCS for batch 956738 | 102           | 99          | 97          |
| 1202065431 | MB for batch 956738  | 110           | 99          | 99          |
| 247358004  | RE36-10-7424         | 97            | 98          | 92          |

## Surrogate

## Acceptance Limits

DCED4 = 1,2-Dichloroethane-d4

(66%-134%)

TOL = Toluene-d8

(71%-128%)

BFB = Bromofluorobenzene

(65%-130%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Client ID: RE15-10-8346PS

Lab Sample ID: 1202051371

Instrument: VOA7.I

Analyst: AXO1

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: R

%Moisture: 10.5

Analysis Date: 02/24/2010 06:17

Dilution: 1

Pre Batch ID: 956738

Batch ID: 956739

| CAS No   | Parmname                      | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|----------|-------------------------------|-----------------------|-----------------------|----------------------|---------------|----------------------|
| 75-71-8  | PS Dichlorodifluoromethane    | 50.0                  | 0.00 U                | 39.3                 | 79            | 39-148               |
| 74-87-3  | PS Chloromethane              | 50.0                  | 0.00 U                | 40.4                 | 81            | 42-131               |
| 75-01-4  | PS Vinyl chloride             | 50.0                  | 0.00 U                | 44.5                 | 89            | 50-127               |
| 74-83-9  | PS Bromomethane               | 50.0                  | 0.00 U                | 41.0                 | 82            | 26-135               |
| 75-00-3  | PS Chloroethane               | 50.0                  | 0.00 U                | 41.4                 | 83            | 54-128               |
| 75-69-4  | PS Trichlorofluoromethane     | 50.0                  | 0.00 U                | 39.3                 | 79            | 55-138               |
| 67-64-1  | PS Acetone                    | 250                   | 8.62                  | 190                  | 72            | 20-144               |
| 75-35-4  | PS 1,1-Dichloroethylene       | 50.0                  | 0.00 U                | 40.4                 | 81            | 55-128               |
| 74-88-4  | PS Iodomethane                | 250                   | 0.00 U                | 198                  | 79            | 47-132               |
| 75-09-2  | PS Methylene chloride         | 50.0                  | 0.00 U                | 43.1                 | 86            | 56-123               |
| 75-15-0  | PS Carbon disulfide           | 250                   | 0.00 U                | 174                  | 70            | 53-133               |
| 156-60-5 | PS trans-1,2-Dichloroethylene | 50.0                  | 0.00 U                | 39.5                 | 79            | 57-119               |
| 75-34-3  | PS 1,1-Dichloroethane         | 50.0                  | 0.00 U                | 42.0                 | 84            | 62-125               |
| 78-93-3  | PS 2-Butanone                 | 250                   | 0.00 U                | 181                  | 72            | 30-150               |
| 156-59-2 | PS cis-1,2-Dichloroethylene   | 50.0                  | 0.00 U                | 40.9                 | 82            | 60-124               |
| 594-20-7 | PS 2,2-Dichloropropane        | 50.0                  | 0.00 U                | 37.2                 | 74            | 56-129               |
| 67-66-3  | PS Chloroform                 | 50.0                  | 0.00 U                | 41.1                 | 82            | 62-120               |
| 74-97-5  | PS Bromochloromethane         | 50.0                  | 0.00 U                | 43.7                 | 87            | 51-135               |
| 71-55-6  | PS 1,1,1-Trichloroethane      | 50.0                  | 0.00 U                | 39.8                 | 80            | 58-129               |
| 563-58-6 | PS 1,1-Dichloropropene        | 50.0                  | 0.00 U                | 38.8                 | 78            | 59-126               |
| 56-23-5  | PS Carbon tetrachloride       | 50.0                  | 0.00 U                | 38.8                 | 78            | 55-132               |
| 107-06-2 | PS 1,2-Dichloroethane         | 50.0                  | 0.00 U                | 42.5                 | 85            | 54-121               |

**Volatile**  
**Quality Control Summary**  
**Spike Recovery Report**

SDG Number: 10-1914

Sample Type: Post Spike

Client ID: RE15-10-8346PS

Matrix: R

Lab Sample ID: 1202051371

%Moisture: 10.5

Instrument: VOA7.I

Analysis Date: 02/24/2010 06:17

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No      | Parmname                       | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery % | Acceptance Limits |
|-------------|--------------------------------|-----------------------|-----------------------|----------------------|------------|-------------------|
| 71-43-2     | PS Benzene                     | 50.0                  | 0.00 U                | 41.2                 | 82         | 58-120            |
| 79-01-6     | PS Trichloroethylene           | 50.0                  | 0.00 U                | 70.5                 | 141 *      | 54-130            |
| 78-87-5     | PS 1,2-Dichloropropane         | 50.0                  | 0.00 U                | 43.2                 | 86         | 59-121            |
| 75-27-4     | PS Bromodichloromethane        | 50.0                  | 0.00 U                | 42.0                 | 84         | 57-130            |
| 74-95-3     | PS Dibromomethane              | 50.0                  | 0.00 U                | 42.4                 | 85         | 57-124            |
| 108-10-1    | PS 4-Methyl-2-pentanone        | 250                   | 0.00 U                | 205                  | 82         | 40-137            |
| 10061-01-5  | PS cis-1,3-Dichloropropylene   | 50.0                  | 0.00 U                | 40.0                 | 80         | 50-131            |
| 108-88-3    | PS Toluene                     | 50.0                  | 0.00 U                | 38.2                 | 76         | 54-119            |
| 10061-02-6  | PS trans-1,3-Dichloropropylene | 50.0                  | 0.00 U                | 37.3                 | 75         | 47-133            |
| 79-00-5     | PS 1,1,2-Trichloroethane       | 50.0                  | 0.00 U                | 39.7                 | 79         | 60-130            |
| 591-78-6    | PS 2-Hexanone                  | 250                   | 0.00 U                | 172                  | 69         | 30-139            |
| 142-28-9    | PS 1,3-Dichloropropane         | 50.0                  | 0.00 U                | 42.7                 | 85         | 59-125            |
| 127-18-4    | PS Tetrachloroethylene         | 50.0                  | 0.00 U                | 36.5                 | 73         | 50-126            |
| 124-48-1    | PS Dibromochloromethane        | 50.0                  | 0.00 U                | 40.3                 | 81         | 54-131            |
| 106-93-4    | PS 1,2-Dibromoethane           | 50.0                  | 0.00 U                | 41.0                 | 82         | 55-127            |
| 108-90-7    | PS Chlorobenzene               | 50.0                  | 0.00 U                | 37.3                 | 75         | 50-130            |
| 100-41-4    | PS Ethylbenzene                | 50.0                  | 0.00 U                | 35.6                 | 71         | 50-121            |
| 179601-23-1 | PS m,p-Xylenes                 | 100                   | 0.00 U                | 74.9                 | 75         | 47-125            |
| 95-47-6     | PS o-Xylene                    | 50.0                  | 0.00 U                | 38.4                 | 77         | 51-127            |
| 100-42-5    | PS Styrene                     | 50.0                  | 0.00 U                | 37.3                 | 75         | 41-136            |
| 75-25-2     | PS Bromoform                   | 50.0                  | 0.00 U                | 40.6                 | 81         | 48-143            |
| 79-34-5     | PS 1,1,2,2-Tetrachloroethane   | 50.0                  | 0.00 U                | 0.759                | 2 *        | 52-129            |



## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Post Spike

Client ID: RE15-10-8346PS

Matrix: R

Lab Sample ID: 1202051371

%Moisture: 10.5

Instrument: VOA7.I

Analysis Date: 02/24/2010 06:17

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No   | Parmname                       | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | U | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|----------|--------------------------------|--------------------------|--------------------------|---|-------------------------|---------------|----------------------|
| 96-18-4  | PS 1,2,3-Trichloropropane      | 50.0                     | 0.00                     | U | 38.2                    | 76            | 56-139               |
| 108-86-1 | PS Bromobenzene                | 50.0                     | 0.00                     | U | 35.0                    | 70            | 54-125               |
| 103-65-1 | PS n-Propylbenzene             | 50.0                     | 0.00                     | U | 32.0                    | 64            | 46-127               |
| 95-49-8  | PS 2-Chlorotoluene             | 50.0                     | 0.00                     | U | 33.3                    | 67            | 47-130               |
| 98-82-8  | PS Isopropylbenzene            | 50.0                     | 0.00                     | U | 34.1                    | 68            | 42-126               |
| 108-67-8 | PS 1,3,5-Trimethylbenzene      | 50.0                     | 0.00                     | U | 33.4                    | 67            | 44-132               |
| 106-43-4 | PS 4-Chlorotoluene             | 50.0                     | 0.00                     | U | 31.3                    | 63            | 46-127               |
| 98-06-6  | PS tert-Butylbenzene           | 50.0                     | 0.00                     | U | 33.2                    | 66            | 48-136               |
| 95-63-6  | PS 1,2,4-Trimethylbenzene      | 50.0                     | 0.00                     | U | 32.8                    | 66            | 42-132               |
| 135-98-8 | PS sec-Butylbenzene            | 50.0                     | 0.00                     | U | 30.9                    | 62            | 47-130               |
| 99-87-6  | PS 4-Isopropyltoluene          | 50.0                     | 0.00                     | U | 31.3                    | 63            | 36-142               |
| 541-73-1 | PS 1,3-Dichlorobenzene         | 50.0                     | 0.00                     | U | 30.3                    | 61            | 41-130               |
| 106-46-7 | PS 1,4-Dichlorobenzene         | 50.0                     | 0.00                     | U | 30.6                    | 61            | 41-126               |
| 104-51-8 | PS n-Butylbenzene              | 50.0                     | 0.00                     | U | 27.5                    | 55            | 37-136               |
| 96-12-8  | PS 1,2-Dibromo-3-chloropropane | 50.0                     | 0.00                     | U | 37.7                    | 75            | 42-143               |
| 630-20-6 | PS 1,1,1,2-Tetrachloroethane   | 50.0                     | 0.00                     | U | 41.0                    | 82            | 58-127               |
| 95-50-1  | PS 1,2-Dichlorobenzene         | 50.0                     | 0.00                     | U | 30.4                    | 61            | 42-128               |

## Volatile

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Post Spike Duplicate

Client ID: RE15-10-8346PSD

Matrix: R

Lab Sample ID: 1202051372

% Moisture: 10.5

Instrument: VOA7.I

Analysis Date: 02/24/2010 06:51

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No   | Parmname                       | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery<br>% | Acceptance Limits | RPD<br>% | Acceptance Limits |
|----------|--------------------------------|-----------------------|-----------------------|----------------------|---------------|-------------------|----------|-------------------|
| 75-71-8  | PSD Dichlorodifluoromethane    | 50.0                  | 0.00                  | U 29.0               | 58            | 39-148            | 30 *     | 0-19              |
| 74-87-3  | PSD Chloromethane              | 50.0                  | 0.00                  | U 26.6               | 53            | 42-131            | 41 *     | 0-23              |
| 75-01-4  | PSD Vinyl chloride             | 50.0                  | 0.00                  | U 28.6               | 57            | 50-127            | 44 *     | 0-23              |
| 74-83-9  | PSD Bromomethane               | 50.0                  | 0.00                  | U 27.6               | 55            | 26-135            | 39 *     | 0-22              |
| 75-00-3  | PSD Chloroethane               | 50.0                  | 0.00                  | U 29.1               | 58            | 54-128            | 35 *     | 0-25              |
| 75-69-4  | PSD Trichlorofluoromethane     | 50.0                  | 0.00                  | U 28.4               | 57            | 55-138            | 32 *     | 0-21              |
| 67-64-1  | PSD Acetone                    | 250                   | 8.62                  | 208                  | 80            | 20-144            | 9        | 0-22              |
| 75-35-4  | PSD 1,1-Dichloroethylene       | 50.0                  | 0.00                  | U 29.0               | 58            | 55-128            | 33 *     | 0-20              |
| 74-88-4  | PSD Iodomethane                | 250                   | 0.00                  | U 140                | 56            | 47-132            | 35 *     | 0-20              |
| 75-09-2  | PSD Methylene chloride         | 50.0                  | 0.00                  | U 32.7               | 65            | 56-123            | 27 *     | 0-20              |
| 75-15-0  | PSD Carbon disulfide           | 250                   | 0.00                  | U 107                | 43 *          | 53-133            | 48 *     | 0-22              |
| 156-60-5 | PSD trans-1,2-Dichloroethylene | 50.0                  | 0.00                  | U 29.1               | 58            | 57-119            | 30 *     | 0-20              |
| 75-34-3  | PSD 1,1-Dichloroethane         | 50.0                  | 0.00                  | U 32.2               | 64            | 62-125            | 26 *     | 0-20              |
| 78-93-3  | PSD 2-Butanone                 | 250                   | 0.00                  | U 194                | 78            | 30-150            | 7        | 0-21              |
| 156-59-2 | PSD cis-1,2-Dichloroethylene   | 50.0                  | 0.00                  | U 32.1               | 64            | 60-124            | 24 *     | 0-20              |
| 594-20-7 | PSD 2,2-Dichloropropane        | 50.0                  | 0.00                  | U 28.9               | 58            | 56-129            | 25 *     | 0-20              |
| 67-66-3  | PSD Chloroform                 | 50.0                  | 0.00                  | U 31.7               | 63            | 62-120            | 26 *     | 0-25              |
| 74-97-5  | PSD Bromochloromethane         | 50.0                  | 0.00                  | U 36.6               | 73            | 51-135            | 18       | 0-20              |
| 71-55-6  | PSD 1,1,1-Trichloroethane      | 50.0                  | 0.00                  | U 31.3               | 63            | 58-129            | 24 *     | 0-20              |
| 563-58-6 | PSD 1,1-Dichloropropene        | 50.0                  | 0.00                  | U 28.6               | 57 *          | 59-126            | 31 *     | 0-20              |
| 56-23-5  | PSD Carbon tetrachloride       | 50.0                  | 0.00                  | U 28.3               | 57            | 55-132            | 31 *     | 0-20              |
| 107-06-2 | PSD 1,2-Dichloroethane         | 50.0                  | 0.00                  | U 37.5               | 75            | 54-121            | 12       | 0-20              |

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Post Spike Duplicate

Client ID: RE15-10-8346PSD

Matrix: R

Lab Sample ID: 1202051372

% Moisture: 10.5

Instrument: VOA7.I

Analysis Date: 02/24/2010 06:51

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No      | Parmname                        | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits | RPD<br>% | Acceptance<br>Limits |
|-------------|---------------------------------|-----------------------|-----------------------|----------------------|---------------|----------------------|----------|----------------------|
| 71-43-2     | PSD Benzene                     | 50.0                  | 0.00                  | U 31.7               | 63            | 58-120               | 26 *     | 0-20                 |
| 79-01-6     | PSD Trichloroethylene           | 50.0                  | 0.00                  | U 55.9               | 112           | 54-130               | 23       | 0-23                 |
| 78-87-5     | PSD 1,2-Dichloropropane         | 50.0                  | 0.00                  | U 36.0               | 72            | 59-121               | 18       | 0-20                 |
| 75-27-4     | PSD Bromodichloromethane        | 50.0                  | 0.00                  | U 34.6               | 69            | 57-130               | 19       | 0-20                 |
| 74-95-3     | PSD Dibromomethane              | 50.0                  | 0.00                  | U 38.1               | 76            | 57-124               | 11       | 0-20                 |
| 108-10-1    | PSD 4-Methyl-2-pentanone        | 250                   | 0.00                  | U 216                | 86            | 40-137               | 5        | 0-25                 |
| 10061-01-5  | PSD cis-1,3-Dichloropropylene   | 50.0                  | 0.00                  | U 33.3               | 67            | 50-131               | 18       | 0-20                 |
| 108-88-3    | PSD Toluene                     | 50.0                  | 0.00                  | U 29.7               | 59            | 54-119               | 25 *     | 0-23                 |
| 10061-02-6  | PSD trans-1,3-Dichloropropylene | 50.0                  | 0.00                  | U 31.8               | 64            | 47-133               | 16       | 0-24                 |
| 79-00-5     | PSD 1,1,2-Trichloroethane       | 50.0                  | 0.00                  | U 33.2               | 66            | 60-130               | 18       | 0-20                 |
| 591-78-6    | PSD 2-Hexanone                  | 250                   | 0.00                  | U 181                | 72            | 30-139               | 5        | 0-21                 |
| 142-28-9    | PSD 1,3-Dichloropropane         | 50.0                  | 0.00                  | U 37.9               | 76            | 59-125               | 12       | 0-20                 |
| 127-18-4    | PSD Tetrachloroethylene         | 50.0                  | 0.00                  | U 27.7               | 55            | 50-126               | 27 *     | 0-20                 |
| 124-48-1    | PSD Dibromochloromethane        | 50.0                  | 0.00                  | U 35.4               | 71            | 54-131               | 13       | 0-23                 |
| 106-93-4    | PSD 1,2-Dibromoethane           | 50.0                  | 0.00                  | U 38.9               | 78            | 55-127               | 5        | 0-23                 |
| 108-90-7    | PSD Chlorobenzene               | 50.0                  | 0.00                  | U 30.9               | 62            | 50-130               | 19       | 0-24                 |
| 100-41-4    | PSD Ethylbenzene                | 50.0                  | 0.00                  | U 29.3               | 59            | 50-121               | 19       | 0-24                 |
| 179601-23-1 | PSD m,p-Xylenes                 | 100                   | 0.00                  | U 60.2               | 60            | 47-125               | 22       | 0-25                 |
| 95-47-6     | PSD o-Xylene                    | 50.0                  | 0.00                  | U 31.7               | 63            | 51-127               | 19       | 0-24                 |
| 100-42-5    | PSD Styrene                     | 50.0                  | 0.00                  | U 30.7               | 61            | 41-136               | 19       | 0-24                 |
| 75-25-2     | PSD Bromoform                   | 50.0                  | 0.00                  | U 39.7               | 79            | 48-143               | 2        | 0-20                 |
| 79-34-5     | PSD 1,1,2,2-Tetrachloroethane   | 50.0                  | 0.00                  | U 0.783              | 2 *           | 52-129               | 3        | 0-20                 |

### Quality Control Summary Spike Recovery Report

SDG Number: 10-1914

Sample Type: Post Spike Duplicate

Client ID: RE15-10-8346PSD

Matrix: R

Lab Sample ID: 1202051372

%Moisture: 10.5

Instrument: VOA7.I

Analysis Date: 02/24/2010 06:51

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No   | Parmname                        | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits | RPD<br>% | Acceptance<br>Limits |
|----------|---------------------------------|-----------------------|-----------------------|----------------------|---------------|----------------------|----------|----------------------|
| 96-18-4  | PSD 1,2,3-Trichloropropane      | 50.0                  | 0.00 U                | 39.2                 | 78            | 56-139               | 3        | 0-34                 |
| 108-86-1 | PSD Bromobenzene                | 50.0                  | 0.00 U                | 32.2                 | 64            | 54-125               | 8        | 0-22                 |
| 103-65-1 | PSD n-Propylbenzene             | 50.0                  | 0.00 U                | 27.3                 | 55            | 46-127               | 16       | 0-25                 |
| 95-49-8  | PSD 2-Chlorotoluene             | 50.0                  | 0.00 U                | 28.3                 | 57            | 47-130               | 16       | 0-24                 |
| 98-82-8  | PSD Isopropylbenzene            | 50.0                  | 0.00 U                | 28.8                 | 58            | 42-126               | 17       | 0-22                 |
| 108-67-8 | PSD 1,3,5-Trimethylbenzene      | 50.0                  | 0.00 U                | 27.9                 | 56            | 44-132               | 18       | 0-25                 |
| 106-43-4 | PSD 4-Chlorotoluene             | 50.0                  | 0.00 U                | 27.4                 | 55            | 46-127               | 14       | 0-26                 |
| 98-06-6  | PSD tert-Butylbenzene           | 50.0                  | 0.00 U                | 28.9                 | 58            | 48-136               | 14       | 0-24                 |
| 95-63-6  | PSD 1,2,4-Trimethylbenzene      | 50.0                  | 0.00 U                | 28.4                 | 57            | 42-132               | 14       | 0-26                 |
| 135-98-8 | PSD sec-Butylbenzene            | 50.0                  | 0.00 U                | 25.4                 | 51            | 47-130               | 20       | 0-27                 |
| 99-87-6  | PSD 4-Isopropyltoluene          | 50.0                  | 0.00 U                | 26.7                 | 53            | 36-142               | 16       | 0-27                 |
| 541-73-1 | PSD 1,3-Dichlorobenzene         | 50.0                  | 0.00 U                | 26.7                 | 53            | 41-130               | 12       | 0-25                 |
| 106-46-7 | PSD 1,4-Dichlorobenzene         | 50.0                  | 0.00 U                | 26.9                 | 54            | 41-126               | 13       | 0-25                 |
| 104-51-8 | PSD n-Butylbenzene              | 50.0                  | 0.00 U                | 24.0                 | 48            | 37-136               | 14       | 0-29                 |
| 96-12-8  | PSD 1,2-Dibromo-3-chloropropane | 50.0                  | 0.00 U                | 35.7                 | 71            | 42-143               | 5        | 0-21                 |
| 630-20-6 | PSD 1,1,1,2-Tetrachloroethane   | 50.0                  | 0.00 U                | 33.8                 | 68            | 58-127               | 19       | 0-20                 |
| 95-50-1  | PSD 1,2-Dichlorobenzene         | 50.0                  | 0.00 U                | 28.3                 | 57            | 42-128               | 7        | 0-24                 |

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956738

Matrix: SOIL

Lab Sample ID: 1202051373

Instrument: VOA7.I

Analysis Date: 02/23/2010 20:30

Dilution: 1

Analyst: AXO1

Preo Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No   | Parmname                       | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|----------|--------------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 75-71-8  | LCS Dichlorodifluoromethane    | 50.0                     | 0.0                      | 42.8                    | 86            | 52-151               |
| 74-87-3  | LCS Chloromethane              | 50.0                     | 0.0                      | 40.0                    | 80            | 56-130               |
| 75-01-4  | LCS Vinyl chloride             | 50.0                     | 0.0                      | 42.4                    | 85            | 66-130               |
| 74-83-9  | LCS Bromomethane               | 50.0                     | 0.0                      | 45.2                    | 90            | 70-126               |
| 75-00-3  | LCS Chloroethane               | 50.0                     | 0.0                      | 45.0                    | 90            | 67-129               |
| 75-69-4  | LCS Trichlorofluoromethane     | 50.0                     | 0.0                      | 46.7                    | 93            | 73-143               |
| 67-64-1  | LCS Acetone                    | 250                      | 0.0                      | 180                     | 72            | 30-140               |
| 75-35-4  | LCS 1,1-Dichloroethylene       | 50.0                     | 0.0                      | 42.8                    | 86            | 71-129               |
| 74-88-4  | LCS Iodomethane                | 250                      | 0.0                      | 228                     | 91            | 72-125               |
| 75-09-2  | LCS Methylene chloride         | 50.0                     | 0.0                      | 44.3                    | 89            | 64-121               |
| 75-15-0  | LCS Carbon disulfide           | 250                      | 0.0                      | 221                     | 88            | 70-133               |
| 156-60-5 | LCS trans-1,2-Dichloroethylene | 50.0                     | 0.0                      | 43.2                    | 86            | 73-120               |
| 75-34-3  | LCS 1,1-Dichloroethane         | 50.0                     | 0.0                      | 46.1                    | 92            | 73-120               |
| 78-93-3  | LCS 2-Butanone                 | 250                      | 0.0                      | 185                     | 74            | 32-145               |
| 156-59-2 | LCS cis-1,2-Dichloroethylene   | 50.0                     | 0.0                      | 43.8                    | 88            | 74-124               |
| 594-20-7 | LCS 2,2-Dichloropropane        | 50.0                     | 0.0                      | 47.5                    | 95            | 73-134               |
| 67-66-3  | LCS Chloroform                 | 50.0                     | 0.0                      | 44.4                    | 89            | 74-120               |
| 74-97-5  | LCS Bromochloromethane         | 50.0                     | 0.0                      | 45.5                    | 91            | 73-122               |
| 71-55-6  | LCS 1,1,1-Trichloroethane      | 50.0                     | 0.0                      | 48.0                    | 96            | 74-132               |
| 563-58-6 | LCS 1,1-Dichloropropene        | 50.0                     | 0.0                      | 46.0                    | 92            | 79-128               |
| 56-23-5  | LCS Carbon tetrachloride       | 50.0                     | 0.0                      | 46.5                    | 93            | 75-135               |
| 107-06-2 | LCS 1,2-Dichloroethane         | 50.0                     | 0.0                      | 44.0                    | 88            | 65-120               |

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956738

Matrix: SOIL

Lab Sample ID: 1202051373

Instrument: VOA7.I

Analysis Date: 02/23/2010 20:30

Dilution: 1

Analyst: AXO1

Prep Batch II 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No      | Parmname                        | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|-------------|---------------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 71-43-2     | LCS Benzene                     | 50.0                     | 0.0                      | 43.7                    | 87            | 74-120               |
| 79-01-6     | LCS Trichloroethylene           | 50.0                     | 0.0                      | 46.9                    | 94            | 77-124               |
| 78-87-5     | LCS 1,2-Dichloropropane         | 50.0                     | 0.0                      | 44.6                    | 89            | 73-120               |
| 75-27-4     | LCS Bromodichloromethane        | 50.0                     | 0.0                      | 47.3                    | 95            | 75-128               |
| 74-95-3     | LCS Dibromomethane              | 50.0                     | 0.0                      | 47.1                    | 94            | 75-120               |
| 108-10-1    | LCS 4-Methyl-2-pentanone        | 250                      | 0.0                      | 214                     | 86            | 63-133               |
| 10061-01-5  | LCS cis-1,3-Dichloropropylene   | 50.0                     | 0.0                      | 46.8                    | 94            | 78-127               |
| 108-88-3    | LCS Toluene                     | 50.0                     | 0.0                      | 43.7                    | 87            | 74-120               |
| 10061-02-6  | LCS trans-1,3-Dichloropropylene | 50.0                     | 0.0                      | 46.4                    | 93            | 70-125               |
| 79-00-5     | LCS 1,1,2-Trichloroethane       | 50.0                     | 0.0                      | 43.6                    | 87            | 75-120               |
| 591-78-6    | LCS 2-Hexanone                  | 250                      | 0.0                      | 171                     | 68            | 40-153               |
| 142-28-9    | LCS 1,3-Dichloropropane         | 50.0                     | 0.0                      | 44.7                    | 89            | 73-120               |
| 127-18-4    | LCS Tetrachloroethylene         | 50.0                     | 0.0                      | 43.3                    | 87            | 72-126               |
| 124-48-1    | LCS Dibromochloromethane        | 50.0                     | 0.0                      | 46.6                    | 93            | 74-126               |
| 106-93-4    | LCS 1,2-Dibromoethane           | 50.0                     | 0.0                      | 46.1                    | 92            | 79-120               |
| 108-90-7    | LCS Chlorobenzene               | 50.0                     | 0.0                      | 43.4                    | 87            | 76-120               |
| 100-41-4    | LCS Ethylbenzene                | 50.0                     | 0.0                      | 40.9                    | 82            | 74-120               |
| 179601-23-1 | LCS m,p-Xylenes                 | 100                      | 0.0                      | 88.3                    | 88            | 76-120               |
| 95-47-6     | LCS o-Xylene                    | 50.0                     | 0.0                      | 45.6                    | 91            | 76-122               |
| 100-42-5    | LCS Styrene                     | 50.0                     | 0.0                      | 45.5                    | 91            | 75-125               |
| 75-25-2     | LCS Bromoform                   | 50.0                     | 0.0                      | 48.1                    | 96            | 68-135               |
| 79-34-5     | LCS 1,1,2,2-Tetrachloroethane   | 50.0                     | 0.0                      | 42.2                    | 84            | 72-122               |

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956738

Matrix: SOIL

Lab Sample ID: 1202051373

Instrument: VOA7.I

Analysis Date: 02/23/2010 20:30

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No   | Parmname                        | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|----------|---------------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 96-18-4  | LCS 1,2,3-Trichloropropane      | 50.0                     | 0.0                      | 44.4                    | 89            | 72-129               |
| 108-86-1 | LCS Bromobenzene                | 50.0                     | 0.0                      | 44.8                    | 90            | 74-120               |
| 103-65-1 | LCS n-Propylbenzene             | 50.0                     | 0.0                      | 40.3                    | 81            | 70-120               |
| 95-49-8  | LCS 2-Chlorotoluene             | 50.0                     | 0.0                      | 41.9                    | 84            | 70-120               |
| 98-82-8  | LCS Isopropylbenzene            | 50.0                     | 0.0                      | 41.3                    | 83            | 60-121               |
| 108-67-8 | LCS 1,3,5-Trimethylbenzene      | 50.0                     | 0.0                      | 43.7                    | 87            | 71-121               |
| 106-43-4 | LCS 4-Chlorotoluene             | 50.0                     | 0.0                      | 42.0                    | 84            | 71-120               |
| 98-06-6  | LCS tert-Butylbenzene           | 50.0                     | 0.0                      | 43.7                    | 87            | 75-123               |
| 95-63-6  | LCS 1,2,4-Trimethylbenzene      | 50.0                     | 0.0                      | 43.8                    | 88            | 73-120               |
| 135-98-8 | LCS sec-Butylbenzene            | 50.0                     | 0.0                      | 42.6                    | 85            | 74-123               |
| 99-87-6  | LCS 4-Isopropyltoluene          | 50.0                     | 0.0                      | 43.8                    | 88            | 76-127               |
| 541-73-1 | LCS 1,3-Dichlorobenzene         | 50.0                     | 0.0                      | 42.8                    | 86            | 75-120               |
| 106-46-7 | LCS 1,4-Dichlorobenzene         | 50.0                     | 0.0                      | 43.6                    | 87            | 73-120               |
| 104-51-8 | LCS n-Butylbenzene              | 50.0                     | 0.0                      | 42.2                    | 84            | 73-128               |
| 96-12-8  | LCS 1,2-Dibromo-3-chloropropane | 50.0                     | 0.0                      | 45.5                    | 91            | 69-136               |
| 630-20-6 | LCS 1,1,1,2-Tetrachloroethane   | 50.0                     | 0.0                      | 46.7                    | 93            | 75-124               |
| 95-50-1  | LCS 1,2-Dichlorobenzene         | 50.0                     | 0.0                      | 43.9                    | 88            | 75-120               |

## Volatile

Page 1 of 1

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956738

Matrix: SOIL

Lab Sample ID:1202051374

Instrument: VOA7.I

Analysis Date: 02/23/2010 21:37

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No  | Parmname   | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|---------|--|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 76-13-1 | LCS 1,1,2-Trichloro-1,2,2-Trifluor<br>Trichlorotrifluoroethane | 250                      | 0.0                      | 235                     | 94            | 67-140               |



## Volatile

Page 1 of 3

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956738

Matrix: SOIL

Lab Sample ID: 1202065432

Instrument: VOA7.I

Analysis Date: 02/24/2010 11:59

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No   | Parmname                       | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery % | Acceptance Limits |
|----------|--------------------------------|-----------------------|-----------------------|----------------------|------------|-------------------|
| 75-71-8  | LCS Dichlorodifluoromethane    | 50.0                  | 0.0                   | 44.1                 | 88         | 52-151            |
| 74-87-3  | LCS Chloromethane              | 50.0                  | 0.0                   | 39.5                 | 79         | 56-130            |
| 75-01-4  | LCS Vinyl chloride             | 50.0                  | 0.0                   | 43.1                 | 86         | 66-130            |
| 74-83-9  | LCS Bromomethane               | 50.0                  | 0.0                   | 45.9                 | 92         | 70-126            |
| 75-00-3  | LCS Chloroethane               | 50.0                  | 0.0                   | 46.6                 | 93         | 67-129            |
| 75-69-4  | LCS Trichlorofluoromethane     | 50.0                  | 0.0                   | 48.5                 | 97         | 73-143            |
| 67-64-1  | LCS Acetone                    | 250                   | 0.0                   | 199                  | 79         | 30-140            |
| 75-35-4  | LCS 1,1-Dichloroethylene       | 50.0                  | 0.0                   | 45.4                 | 91         | 71-129            |
| 74-88-4  | LCS Iodomethane                | 250                   | 0.0                   | 233                  | 93         | 72-125            |
| 75-09-2  | LCS Methylene chloride         | 50.0                  | 0.0                   | 45.2                 | 90         | 64-121            |
| 75-15-0  | LCS Carbon disulfide           | 250                   | 0.0                   | 225                  | 90         | 70-133            |
| 156-60-5 | LCS trans-1,2-Dichloroethylene | 50.0                  | 0.0                   | 44.2                 | 88         | 73-120            |
| 75-34-3  | LCS 1,1-Dichloroethane         | 50.0                  | 0.0                   | 46.3                 | 93         | 73-120            |
| 78-93-3  | LCS 2-Butanone                 | 250                   | 0.0                   | 199                  | 80         | 32-145            |
| 156-59-2 | LCS cis-1,2-Dichloroethylene   | 50.0                  | 0.0                   | 44.4                 | 89         | 74-124            |
| 594-20-7 | LCS 2,2-Dichloropropane        | 50.0                  | 0.0                   | 49.5                 | 99         | 73-134            |
| 67-66-3  | LCS Chloroform                 | 50.0                  | 0.0                   | 45.5                 | 91         | 74-120            |
| 74-97-5  | LCS Bromochloromethane         | 50.0                  | 0.0                   | 46.6                 | 93         | 73-122            |
| 71-55-6  | LCS 1,1,1-Trichloroethane      | 50.0                  | 0.0                   | 49.5                 | 99         | 74-132            |
| 563-58-6 | LCS 1,1-Dichloropropene        | 50.0                  | 0.0                   | 47.0                 | 94         | 79-128            |
| 56-23-5  | LCS Carbon tetrachloride       | 50.0                  | 0.0                   | 49.0                 | 98         | 75-135            |
| 107-06-2 | LCS 1,2-Dichloroethane         | 50.0                  | 0.0                   | 45.4                 | 91         | 65-120            |

## Volatile

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956738

Matrix: SOIL

Lab Sample ID: 1202065432

Instrument: VOA7.I

Analysis Date: 02/24/2010 11:59

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No      | Parmname                        | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|-------------|---------------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 71-43-2     | LCS Benzene                     | 50.0                     | 0.0                      | 44.6                    | 89            | 74-120               |
| 79-01-6     | LCS Trichloroethylene           | 50.0                     | 0.0                      | 47.0                    | 94            | 77-124               |
| 78-87-5     | LCS 1,2-Dichloropropane         | 50.0                     | 0.0                      | 44.9                    | 90            | 73-120               |
| 75-27-4     | LCS Bromodichloromethane        | 50.0                     | 0.0                      | 47.9                    | 96            | 75-128               |
| 74-95-3     | LCS Dibromomethane              | 50.0                     | 0.0                      | 48.9                    | 98            | 75-120               |
| 108-10-1    | LCS 4-Methyl-2-pentanone        | 250                      | 0.0                      | 226                     | 91            | 63-133               |
| 10061-01-5  | LCS cis-1,3-Dichloropropylene   | 50.0                     | 0.0                      | 49.1                    | 98            | 78-127               |
| 108-88-3    | LCS Toluene                     | 50.0                     | 0.0                      | 43.4                    | 87            | 74-120               |
| 10061-02-6  | LCS trans-1,3-Dichloropropylene | 50.0                     | 0.0                      | 47.4                    | 95            | 70-125               |
| 79-00-5     | LCS 1,1,2-Trichloroethane       | 50.0                     | 0.0                      | 44.5                    | 89            | 75-120               |
| 591-78-6    | LCS 2-Hexanone                  | 250                      | 0.0                      | 180                     | 72            | 40-153               |
| 142-28-9    | LCS 1,3-Dichloropropane         | 50.0                     | 0.0                      | 45.2                    | 90            | 73-120               |
| 127-18-4    | LCS Tetrachloroethylene         | 50.0                     | 0.0                      | 42.8                    | 86            | 72-126               |
| 124-48-1    | LCS Dibromochloromethane        | 50.0                     | 0.0                      | 48.2                    | 96            | 74-126               |
| 106-93-4    | LCS 1,2-Dibromoethane           | 50.0                     | 0.0                      | 47.2                    | 94            | 79-120               |
| 108-90-7    | LCS Chlorobenzene               | 50.0                     | 0.0                      | 44.0                    | 88            | 76-120               |
| 100-41-4    | LCS Ethylbenzene                | 50.0                     | 0.0                      | 40.9                    | 82            | 74-120               |
| 179601-23-1 | LCS m,p-Xylenes                 | 100                      | 0.0                      | 88.5                    | 88            | 76-120               |
| 95-47-6     | LCS o-Xylene                    | 50.0                     | 0.0                      | 45.2                    | 90            | 76-122               |
| 100-42-5    | LCS Styrene                     | 50.0                     | 0.0                      | 45.7                    | 91            | 75-125               |
| 75-25-2     | LCS Bromoform                   | 50.0                     | 0.0                      | 49.8                    | 100           | 68-135               |
| 79-34-5     | LCS 1,1,2,2-Tetrachloroethane   | 50.0                     | 0.0                      | 44.2                    | 88            | 72-122               |

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956738

Matrix: SOIL

Lab Sample ID:1202065432

Instrument: VOA7.I

Analysis Date: 02/24/2010 11:59

Dilution: 1

Analyst: AXO1

Prep Batch ID: 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No   | Parmname                        | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|----------|---------------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 96-18-4  | LCS 1,2,3-Trichloropropane      | 50.0                     | 0.0                      | 45.6                    | 91            | 72-129               |
| 108-86-1 | LCS Bromobenzene                | 50.0                     | 0.0                      | 45.2                    | 90            | 74-120               |
| 103-65-1 | LCS n-Propylbenzene             | 50.0                     | 0.0                      | 40.5                    | 81            | 70-120               |
| 95-49-8  | LCS 2-Chlorotoluene             | 50.0                     | 0.0                      | 42.0                    | 84            | 70-120               |
| 98-82-8  | LCS Isopropylbenzene            | 50.0                     | 0.0                      | 41.3                    | 83            | 60-121               |
| 108-67-8 | LCS 1,3,5-Trimethylbenzene      | 50.0                     | 0.0                      | 43.6                    | 87            | 71-121               |
| 106-43-4 | LCS 4-Chlorotoluene             | 50.0                     | 0.0                      | 42.5                    | 85            | 71-120               |
| 98-06-6  | LCS tert-Butylbenzene           | 50.0                     | 0.0                      | 44.0                    | 88            | 75-123               |
| 95-63-6  | LCS 1,2,4-Trimethylbenzene      | 50.0                     | 0.0                      | 43.2                    | 86            | 73-120               |
| 135-98-8 | LCS sec-Butylbenzene            | 50.0                     | 0.0                      | 42.9                    | 86            | 74-123               |
| 99-87-6  | LCS 4-Isopropyltoluene          | 50.0                     | 0.0                      | 44.5                    | 89            | 76-127               |
| 541-73-1 | LCS 1,3-Dichlorobenzene         | 50.0                     | 0.0                      | 42.9                    | 86            | 75-120               |
| 106-46-7 | LCS 1,4-Dichlorobenzene         | 50.0                     | 0.0                      | 43.5                    | 87            | 73-120               |
| 104-51-8 | LCS n-Butylbenzene              | 50.0                     | 0.0                      | 43.5                    | 87            | 73-128               |
| 96-12-8  | LCS 1,2-Dibromo-3-chloropropane | 50.0                     | 0.0                      | 48.9                    | 98            | 69-136               |
| 630-20-6 | LCS 1,1,1,2-Tetrachloroethane   | 50.0                     | 0.0                      | 46.8                    | 94            | 75-124               |
| 95-50-1  | LCS 1,2-Dichlorobenzene         | 50.0                     | 0.0                      | 44.7                    | 89            | 75-120               |

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956738

Matrix: SOIL

Lab Sample ID:1202065433

Instrument: VOA7.I

Analysis Date: 02/24/2010 13:07

Dilution: 1

Analyst: AXO1

Prep Batch II 956738

Purge Vol: 5 mL

Batch ID: 956739

| CAS No  | Parmname   | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|---------|--|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 76-13-1 | LCS 1,1,2-Trichloro-1,2,2-Trifluor<br>Trichlorotrifluoroethane | 250                      | 0.0                      | 258                     | 103           | 67-140               |

## Method Blank Summary

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|                |                     |                |                  |            |                |
|----------------|---------------------|----------------|------------------|------------|----------------|
| SDG Number:    | 10-1914             | Client:        | LANL010          | Matrix:    | SOIL           |
| Client ID:     | MB for batch 956738 | Instrument ID: | VOA7.I           | Data File: | 7a22411.d      |
| Lab Sample ID: | 1202051370          | Prep Date:     | 02/23/2010 15:00 | Analyzed:  | 02/23/10 22:45 |
| Column:        | DB-624              | Heated Purge:  | Yes              |            |                |

This method blank applies to the following samples and quality control samples:

| Client Sample ID        | Lab Sample ID | File ID   | Date Analyzed | Time Analyzed |
|-------------------------|---------------|-----------|---------------|---------------|
| 01 LCS for batch 956738 | 1202051373    | 7a22011.d | 02/23/10      | 2030          |
| 02 LCS for batch 956738 | 1202051374    | 7a22211.d | 02/23/10      | 2137          |
| 03 RE36-10-7427         | 247358001     | 7a233.d   | 02/24/10      | 0357          |
| 04 RE36-10-7423         | 247358002     | 7a234.d   | 02/24/10      | 0431          |
| 05 RE36-10-7428         | 247358003     | 7a235.d   | 02/24/10      | 0506          |

## Method Blank Summary

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|                |                     |                |                  |            |                |
|----------------|---------------------|----------------|------------------|------------|----------------|
| SDG Number:    | 10-1914             | Client:        | LANL010          | Matrix:    | SOIL           |
| Client ID:     | MB for batch 956738 | Instrument ID: | VOA7.I           | Data File: | 7a30811.d      |
| Lab Sample ID: | 1202065431          | Prep Date:     | 02/24/2010 10:00 | Analyzed:  | 02/24/10 14:15 |
| Column:        | DB-624              | Heated Purge:  | Yes              |            |                |

This method blank applies to the following samples and quality control samples:

| Client Sample ID        | Lab Sample ID | File ID   | Date Analyzed | Time Analyzed |
|-------------------------|---------------|-----------|---------------|---------------|
| 01 LCS for batch 956738 | 1202065432    | 7a30411.d | 02/24/10      | 1159          |
| 02 LCS for batch 956738 | 1202065433    | 7a30611.d | 02/24/10      | 1307          |
| 03 RE36-10-7424         | 247358004     | 7a314.d   | 02/24/10      | 1743          |

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-1914

Instrument ID: VOA7.I

Injection Date/Time: 17-FEB-10 15:29

Column Description: db624

Lab File ID /021710v7/7z309.d

| m/e | Ion Abundance Criteria             | % Relative Abundance |
|-----|------------------------------------|----------------------|
| 95  | Base Peak, 100% Relative Abundance | 100                  |
| 50  | 15.0 - 40.0% of mass 95            | 30.8                 |
| 75  | 30.0 - 60.0% of mass 95            | 54.2                 |
| 96  | 5.0 - 9.0% of mass 95              | 7                    |
| 173 | Less than 2.0% of mass 174         | 0.6                  |
| 174 | 50.0 - 100.0% of mass 95           | 63                   |
| 175 | 5.0 - 9.0% of mass 174             | 7.2                  |
| 176 | 95.0 - 101.0% of mass 174          | 97.2                 |
| 177 | 5.0 - 9.0% of mass 176             | 6.9                  |

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

| Client Sample ID | Lab Sample ID | Lab File ID | Time Analyzed   |
|------------------|---------------|-------------|-----------------|
| VSTD001          | W7VM100217-06 | 7z310.d     | 17-FEB-10 16:02 |
| VSTD002          | W7VM100217-07 | 7z311.d     | 17-FEB-10 16:35 |
| VSTD005          | W7VM100217-08 | 7z312.d     | 17-FEB-10 17:09 |
| VSTD010          | W7VM100217-09 | 7z313.d     | 17-FEB-10 17:44 |
| VSTD020          | W7VM100217-10 | 7z314.d     | 17-FEB-10 18:20 |
| VSTD050          | W7VM100217-11 | 7z315.d     | 17-FEB-10 18:55 |
| VSTD100          | W7VM100217-12 | 7z316.d     | 17-FEB-10 19:30 |
| VSTD0005         | W7VM100217-13 | 7z318.d     | 17-FEB-10 20:39 |
| VSTD005S         | W7VM100217-14 | 7z319.d     | 17-FEB-10 21:14 |
| VSTD010S         | W7VM100217-15 | 7z320.d     | 17-FEB-10 21:49 |
| VSTD025S         | W7VM100217-16 | 7z321.d     | 17-FEB-10 22:24 |
| VSTD050S         | W7VM100217-17 | 7z322.d     | 17-FEB-10 22:59 |
| VSTD100S         | W7VM100217-18 | 7z323.d     | 17-FEB-10 23:33 |
| VSTD250S         | W7VM100217-19 | 7z324.d     | 18-FEB-10 00:08 |
| VSTD500S         | W7VM100217-20 | 7z325.d     | 18-FEB-10 00:42 |
| ICV              | W7VM100217-22 | 7z328.d     | 18-FEB-10 02:27 |
| SICV             | W7VM100217-23 | 7z329.d     | 18-FEB-10 03:03 |

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-1914

Instrument ID: VOA7.I

Injection Date/Time: 23-FEB-10 19:23

Column Description: db624

Lab File ID /022310v7/7a218BFB.d

| m/e | Ion Abundance Criteria             | % Relative Abundance |
|-----|------------------------------------|----------------------|
| 95  | Base Peak, 100% Relative Abundance | 100                  |
| 50  | 15.0 - 40.0% of mass 95            | 29                   |
| 75  | 30.0 - 60.0% of mass 95            | 54.7                 |
| 96  | 5.0 - 9.0% of mass 95              | 6.9                  |
| 173 | Less than 2.0% of mass 174         | 0.5                  |
| 174 | 50.0 - 100.0% of mass 95           | 66.7                 |
| 175 | 5.0 - 9.0% of mass 174             | 7.4                  |
| 176 | 95.0 - 101.0% of mass 174          | 97.1                 |
| 177 | 5.0 - 9.0% of mass 176             | 7.4                  |

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

| Client Sample ID | Lab Sample ID | Lab File ID | Time Analyzed   |
|------------------|---------------|-------------|-----------------|
| VSTD050          | W7VM100223-01 | 7a218.d     | 23-FEB-10 19:23 |
| LCS              | 1202051373    | 7a220ll.d   | 23-FEB-10 20:30 |
| VSTD250S         | W7VM100223-04 | 7a221.d     | 23-FEB-10 21:04 |
| SLCS             | 1202051374    | 7a222ll.d   | 23-FEB-10 21:37 |
| BLANK            | 1202051370    | 7a224ll.d   | 23-FEB-10 22:45 |
| RE36-10-7427     | 247358001     | 7a233.d     | 24-FEB-10 03:57 |
| RE36-10-7423     | 247358002     | 7a234.d     | 24-FEB-10 04:31 |
| RE36-10-7428     | 247358003     | 7a235.d     | 24-FEB-10 05:06 |



## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-1914

Instrument ID: VOA7.I

Injection Date/Time: 24-FEB-10 10:51

Column Description: db624

Lab File ID /022410v7/7a302BFB.d

| m/e | Ion Abundance Criteria             | % Relative Abundance |
|-----|------------------------------------|----------------------|
| 95  | Base Peak, 100% Relative Abundance | 100                  |
| 50  | 15.0 - 40.0% of mass 95            | 28.5                 |
| 75  | 30.0 - 60.0% of mass 95            | 53.4                 |
| 96  | 5.0 - 9.0% of mass 95              | 7.3                  |
| 173 | Less than 2.0% of mass 174         | 0.5                  |
| 174 | 50.0 - 100.0% of mass 95           | 66.4                 |
| 175 | 5.0 - 9.0% of mass 174             | 7.3                  |
| 176 | 95.0 - 101.0% of mass 174          | 96.3                 |
| 177 | 5.0 - 9.0% of mass 176             | 7                    |

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

| Client Sample ID | Lab Sample ID | Lab File ID | Time Analyzed   |
|------------------|---------------|-------------|-----------------|
| VSTD050          | W7VM100224-01 | 7a302.d     | 24-FEB-10 10:51 |
| LCS              | 1202065432    | 7a304ll.d   | 24-FEB-10 11:59 |
| VSTD250S         | W7VM100224-04 | 7a305.d     | 24-FEB-10 12:33 |
| SLCS             | 1202065433    | 7a306ll.d   | 24-FEB-10 13:07 |
| BLANK            | 1202065431    | 7a308ll.d   | 24-FEB-10 14:15 |
| RE36-10-7424     | 247358004     | 7a314.d     | 24-FEB-10 17:43 |

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1914

Instrument: VOA7.I

STD Analysis Time: 23-FEB-10 19:23

GC Column: DB-624

Data File: 7a218.d

|              | Fluorobenzene |   |      | Chlorobenzene-d5 |   |      | 1,4-Dichlorobenzene-d4 |   |      |
|--------------|---------------|---|------|------------------|---|------|------------------------|---|------|
|              | Area          | # | RT # | Area             | # | RT # | Area                   | # | RT # |
| 12 Hour STD  | 953093        |   | 15.3 | 720451           |   | 18.7 | 360058                 |   | 21.0 |
| Upper Limit  | 1906186       |   | 15.8 | 1440902          |   | 19.2 | 720116                 |   | 21.5 |
| Lower Limit  | 476547        |   | 14.8 | 360226           |   | 18.2 | 180029                 |   | 20.5 |
| Sample ID    |               |   |      |                  |   |      |                        |   |      |
| BLK01LCS     | 1088491       |   | 15.3 | 818888           |   | 18.7 | 409430                 |   | 21.0 |
| BLK01SLCS    | 1131225       |   | 15.3 | 792646           |   | 18.7 | 396360                 |   | 21.0 |
| BLK01        | 1013136       |   | 15.3 | 722262           |   | 18.7 | 344727                 |   | 21.0 |
| RE36-10-7427 | 673782        |   | 15.3 | 319030           | * | 18.7 | 76981                  | * | 21.0 |
| RE36-10-7423 | 752588        |   | 15.3 | 397123           |   | 18.7 | 106473                 | * | 21.0 |
| RE36-10-7428 | 709018        |   | 15.3 | 506361           |   | 18.7 | 246415                 |   | 21.0 |

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 values outside QC limits with an asterisk

\* Value outside of QC Limits

Internal Standard  
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA7.1

GC Column: DB-624

Client SDG: 10-1914

STD Analysis Time: 24-FEB-10 10:51

Data File: 7a302.d

|              | Fluorobenzene |   |      | Chlorobenzene-d5 |   |      | 1,4-Dichlorobenzene-d4 |   |      |
|--------------|---------------|---|------|------------------|---|------|------------------------|---|------|
|              | Area          | # | RT # | Area             | # | RT # | Area                   | # | RT # |
| 12 Hour STD  | 943299        |   | 15.3 | 717031           |   | 18.7 | 374293                 |   | 21.0 |
| Upper Limit  | 1886598       |   | 15.8 | 1434062          |   | 19.2 | 748586                 |   | 21.5 |
| Lower Limit  | 471650        |   | 14.8 | 358516           |   | 18.2 | 187147                 |   | 20.5 |
| Sample ID    |               |   |      |                  |   |      |                        |   |      |
| BLK02LCS     | 1028640       |   | 15.3 | 792257           |   | 18.7 | 396872                 |   | 21.0 |
| BLK02SLCS    | 1106631       |   | 15.3 | 789464           |   | 18.7 | 398542                 |   | 21.0 |
| BLK02        | 966921        |   | 15.3 | 691748           |   | 18.7 | 338261                 |   | 21.0 |
| RE36-10-7424 | 811118        |   | 15.3 | 586440           |   | 18.7 | 274084                 |   | 21.0 |

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 values outside QC limits with an asterisk  
\* Value outside of QC Limits

# Sample Data

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

Client ID: RE36-10-7423  
Batch ID: 956739  
Run Date: 02/24/2010 04:31  
Prep Date: 02/23/2010 15:58  
Data File: 7a234.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 2.04   | ug/kg | 0.695   | 2.04    |
| 74-87-3    | Chloromethane               | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-01-4    | Vinyl chloride              | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-83-9    | Bromomethane                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-00-3    | Chloroethane                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-69-4    | Trichlorofluoromethane      | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 67-64-1    | Acetone                     |           | 23.6   | ug/kg | 3.39    | 10.2    |
| 75-35-4    | 1,1-Dichloroethylene        | J         | 0.846  | ug/kg | 0.613   | 2.04    |
| 74-88-4    | Iodomethane                 | U         | 10.2   | ug/kg | 3.27    | 10.2    |
| 75-09-2    | Methylene chloride          | U         | 10.2   | ug/kg | 4.09    | 10.2    |
| 75-15-0    | Carbon disulfide            | U         | 10.2   | ug/kg | 2.55    | 10.2    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 78-93-3    | 2-Butanone                  | U         | 10.2   | ug/kg | 3.07    | 10.2    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 67-66-3    | Chloroform                  | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-97-5    | Bromochloromethane          | U         | 2.04   | ug/kg | 0.674   | 2.04    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 56-23-5    | Carbon tetrachloride        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 71-43-2    | Benzene                     | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 79-01-6    | Trichloroethylene           | U         | 2.04   | ug/kg | 0.674   | 2.04    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 75-27-4    | Bromodichloromethane        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 74-95-3    | Dibromomethane              | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 10.2   | ug/kg | 2.55    | 10.2    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-88-3   | Toluene                     |           | 5.52   | ug/kg | 0.613   | 2.04    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 591-78-6   | 2-Hexanone                  | U         | 10.2   | ug/kg | 3.07    | 10.2    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 127-18-4   | Tetrachloroethylene         | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 124-48-1   | Dibromochloromethane        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-90-7   | Chlorobenzene               | U         | 2.04   | ug/kg | 0.613   | 2.04    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002  
  
Client ID: RE36-10-7423  
Batch ID: 956739  
Run Date: 02/24/2010 04:31  
Prep Date: 02/23/2010 15:58  
Data File: 7a234.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 179601-23-1 | m,p-Xylenes                           | J         | 0.720  | ug/kg | 0.613   | 4.09    |
| 95-47-6     | o-Xylene                              | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 100-42-5    | Styrene                               | J         | 1.97   | ug/kg | 0.613   | 2.04    |
| 75-25-2     | Bromoform                             | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-86-1    | Bromobenzene                          | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 103-65-1    | n-Propylbenzene                       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 98-82-8     | Isopropylbenzene                      | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 98-06-6     | tert-Butylbenzene                     | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 135-98-8    | sec-Butylbenzene                      | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 99-87-6     | 4-Isopropyltoluene                    |           | 69.6   | ug/kg | 0.613   | 2.04    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 104-51-8    | n-Butylbenzene                        | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 10.2   | ug/kg | 3.27    | 10.2    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 2.04   | ug/kg | 0.613   | 2.04    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 2.04   | ug/kg | 0.613   | 2.04    |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown Alcohol                       | 9.4   | 27.6      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.54 | 63.9      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.65 | 463       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 19.96 | 874       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.15 | 19.4      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.19 | 82.7      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.33 | 234       | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.62 | 55.2      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.7  | 48.4      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 21.14 | 65.7      | ug/kg |     | J    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002  
  
Client ID: RE36-10-7423  
Batch ID: 956739  
Run Date: 02/24/2010 04:31  
Prep Date: 02/23/2010 15:58  
Data File: 7a234.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

| CAS No.  | Parmname                              | Qualifier | Result | Units     | MDL/LOD | PQL/LOQ  |
|--|---------------------------------------|-----------|--------|-----------|---------|----------|
| <b>Tentatively Identified Compound Summary</b> |                                       |           |        |           |         |          |
| CAS No.  | Tentatively Identified Compound (TIC) |           | RT     | Estimated | Units   | Fit Qual |
|  | Unknown Hydrocarbon                   |           | 21.55  | 42.6      | ug/kg   | J        |
|  | Unknown Hydrocarbon                   |           | 23.22  | 26.2      | ug/kg   | J        |

Data File: /chem/VOA7.i/022310v7/7a234.d  
Report Date: 08-Mar-2010 14:41

Page 1

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022310v7/7a234.d

Lab Smp Id: 247358002

Client Smp ID: RE36-10-7423

Inj Date : 24-FEB-2010 04:31

Operator : AX01

Inst ID: VOA7.i

Smp Info : |247358002|956739|1|VOAF|1|

Misc Info : LANL 5g N/A

Comment :

Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 34

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-1914.sub

Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 51.07200  | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

| Compounds                    | QUANT SIG |        |                | RESPONSE | CONCENTRATIONS       |                  |
|------------------------------|-----------|--------|----------------|----------|----------------------|------------------|
|                              | MASS      | RT     | EXP RT REL RT  |          | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| * 51 Fluorobenzene           | 96        | 15.317 | 15.317 (1.000) | 752588   | 50.0000              |                  |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 (1.000) | 397123   | 50.0000              |                  |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.992 | 20.992 (1.000) | 106473   | 50.0000              |                  |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 (0.971) | 296260   | 45.5631              | 93.1             |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 (0.918) | 777819   | 60.1788              | 123              |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 (0.944) | 168410   | 60.1306              | 123              |
| 13 Acetone                   | 43        | 10.454 | 10.413 (0.683) | 58275    | 11.5602              | 23.6             |
| 14 1,1-Dichloroethylene      | 96        | 10.332 | 10.312 (0.675) | 1354     | 0.41371              | 0.84 (a)         |
| 65 Toluene                   | 92        | 17.215 | 17.215 (0.922) | 19328    | 2.70325              | 5.5              |
| 79 m,p-Xylenes               | 106       | 18.870 | 18.870 (1.011) | 1772     | 0.35246              | 0.72 (aQ)        |
| 81 Styrene                   | 104       | 19.286 | 19.286 (1.033) | 8204     | 0.96192              | 2.0 (a)          |
| 99 4-Isopropyltoluene        | 119       | 20.860 | 20.860 (0.994) | 186790   | 34.0354              | 69.6 (Q)         |



QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

## ION RATIO REPORT

## VOA REPORT

Data file: 7a234.d

Report Date: 02/24/2010 09:28

Lab. ID: 247358002

SampleType: SAMPLE

Injection Date: 24-FEB-2010 04:31

Operator: AX01

Instrument: VOA7.i

Sample Info: |247358002|956739|1|VOAF|1|

Miscellaneous Info: LANL 5g N/A

Comment:

Method used: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS  | RESPONSE             | RT    | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|-------|----------------------|-------|-----------|----------------|-------|------|
| ===== |                      |       |           |                |       |      |
| 14    | 1,1-Dichloroethylene |       |           | CAS#: 75-35-4  |       |      |
| 96    | 1354                 | 10.33 | 10.31     | 80-120         | 100   | ( )  |
| 61    | 2515                 | 10.33 | 10.31     | 184-244        | 186   | ( )  |
| 63    | 618                  | 10.34 | 10.31     | 37- 97         | 46    | ( )  |
| ----- |                      |       |           |                |       |      |
| 13    | Acetone              |       |           | CAS#: 67-64-1  |       |      |
| 43    | 58275                | 10.45 | 10.41     | 80-120         | 100   | ( )  |
| 58    | 13915                | 10.44 | 10.41     | 0- 59          | 24    | ( )  |
| ----- |                      |       |           |                |       |      |
| 63    | 4-Methyl-2-pentanone |       |           | CAS#: 108-10-1 |       |      |
| 58    | 9513                 | 17.13 | 16.93     | 80-120         | 100   | (T)  |
| 43    | 7078                 | 17.13 | 16.93     | 221-281        | 74    | (QT) |
| 100   | 528675               | 17.13 | 16.94     | 0- 57          | 5557  | (QT) |
| ----- |                      |       |           |                |       |      |
| 65    | Toluene              |       |           | CAS#: 108-88-3 |       |      |
| 92    | 19328                | 17.22 | 17.22     | 80-120         | 100   | ( )  |
| 91    | 33422                | 17.22 | 17.22     | 132-192        | 173   | ( )  |
| ----- |                      |       |           |                |       |      |
| 78    | Ethylbenzene         |       |           | CAS#: 100-41-4 |       |      |
| 91    | 6594                 | 18.86 | 18.76     | 80-120         | 100   | (T)  |
| 106   | 1772                 | 18.87 | 18.77     | 1- 61          | 27    | (T)  |
| ----- |                      |       |           |                |       |      |
| 80    | o-Xylene             |       |           | CAS#: 95-47-6  |       |      |
| 106   | 4470                 | 19.54 | 19.29     | 80-120         | 100   | (T)  |
| 91    | 65316                | 19.54 | 19.29     | 175-235        | 1461  | (QT) |
| ----- |                      |       |           |                |       |      |

| MASS                      | RESPONSE | RT    | EXPECT RT | TARGET RANGE | RATIO | QUAL |
|---------------------------|----------|-------|-----------|--------------|-------|------|
| <hr/>                     |          |       |           |              |       |      |
| 79 m,p-Xylenes            |          |       | CAS#:     |              |       |      |
| 106                       | 1772     | 18.87 | 18.87     | 80-120       | 100   | ( )  |
| 91                        | 6594     | 18.86 | 18.87     | 165-225      | 372   | (Q)  |
| <hr/>                     |          |       |           |              |       |      |
| 81 Styrene                |          |       | CAS#:     | 100-42-5     |       |      |
| 104                       | 8204     | 19.29 | 19.29     | 80-120       | 100   | ( )  |
| 78                        | 3862     | 19.29 | 19.29     | 26- 86       | 47    | ( )  |
| <hr/>                     |          |       |           |              |       |      |
| 83 Isopropylbenzene       |          |       | CAS#:     | 98-82-8      |       |      |
| 105                       | 150623   | 19.65 | 19.63     | 80-120       | 100   | ( )  |
| 120                       | 5373     | 19.65 | 19.63     | 0- 57        | 4     | ( )  |
| <hr/>                     |          |       |           |              |       |      |
| 91 n-Propylbenzene        |          |       | CAS#:     | 103-65-1     |       |      |
| 91                        | 498468   | 19.97 | 20.03     | 80-120       | 100   | (T)  |
| 120                       | 3721     | 19.97 | 20.03     | 0- 51        | 1     | (T)  |
| <hr/>                     |          |       |           |              |       |      |
| 92 1,3,5-Trimethylbenzene |          |       | CAS#:     | 108-67-8     |       |      |
| 105                       | 6766     | 20.20 | 20.17     | 80-120       | 100   | ( )  |
| 120                       | 1956     | 20.24 | 20.17     | 17- 77       | 29    | (T)  |
| <hr/>                     |          |       |           |              |       |      |
| 96 1,2,4-Trimethylbenzene |          |       | CAS#:     | 95-63-6      |       |      |
| 105                       | 12282    | 20.62 | 20.57     | 80-120       | 100   | ( )  |
| 120                       | 1389     | 20.57 | 20.57     | 19- 79       | 11    | (Q)  |
| <hr/>                     |          |       |           |              |       |      |
| 95 tert-Butylbenzene      |          |       | CAS#:     | 98-06-6      |       |      |
| 119                       | 5289     | 20.62 | 20.52     | 80-120       | 100   | (T)  |
| 91                        | 47899    | 20.62 | 20.52     | 51-111       | 906   | (QT) |
| 134                       | 1383     | 20.55 | 20.52     | 0- 53        | 26    | ( )  |
| <hr/>                     |          |       |           |              |       |      |
| 98 sec-Butylbenzene       |          |       | CAS#:     | 135-98-8     |       |      |
| 105                       | 14986    | 20.70 | 20.75     | 80-120       | 100   | ( )  |
| 134                       | 3631     | 20.70 | 20.75     | 0- 50        | 24    | ( )  |
| <hr/>                     |          |       |           |              |       |      |
| 99 4-Isopropyltoluene     |          |       | CAS#:     | 99-87-6      |       |      |
| 119                       | 186790   | 20.86 | 20.86     | 80-120       | 100   | ( )  |
| 134                       | 52893    | 20.86 | 20.86     | 0- 59        | 28    | ( )  |
| 91                        | 126288   | 20.84 | 20.86     | 0- 58        | 68    | (Q)  |
| <hr/>                     |          |       |           |              |       |      |
| 104 n-Butylbenzene        |          |       | CAS#:     | 104-51-8     |       |      |
| 91                        | 71684    | 21.14 | 21.30     | 80-120       | 100   | (T)  |
| 92                        | 28885    | 21.14 | 21.30     | 26- 86       | 40    | (T)  |
| 134                       | 4408     | 21.13 | 21.30     | 0- 55        | 6     | (T)  |

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022310v7/7a234.d  
Lab Smp Id: 247358002 Client Smp ID: RE36-10-7423  
Inj Date : 24-FEB-2010 04:31  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |247358002|956739|1|VOAF|1|  
Misc Info : LANL 5g N/A  
Comment :  
Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 34  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M)) \* (Vt/Ws) \* (Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 51.07200  | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable Local Compound Variable

| ISTD                         | RT     | AREA    | AMOUNT |
|------------------------------|--------|---------|--------|
| =====                        | =====  | =====   | =====  |
| * 51 Fluorobenzene           | 15.317 | 1798276 | 50.000 |
| * 75 Chlorobenzene-d5        | 18.667 | 1474056 | 50.000 |
| * 101 1,4-Dichlorobenzene-d4 | 20.992 | 1057210 | 50.000 |

| CONCENTRATIONS  |        |                |               | QUANT |         |           |        |
|-----------------|--------|----------------|---------------|-------|---------|-----------|--------|
| RT              | AREA   | ON-COL ( ug/l) | FINAL (ug/Kg) | QUAL  | LIBRARY | LIB ENTRY | CPND # |
| =====           | =====  | =====          | =====         | ===== | =====   | =====     | =====  |
| Unknown Alcohol |        |                |               |       |         |           |        |
| 9.398           | 486364 | 13.5230556     | 27.6          | 0     |         | 0         | 51     |

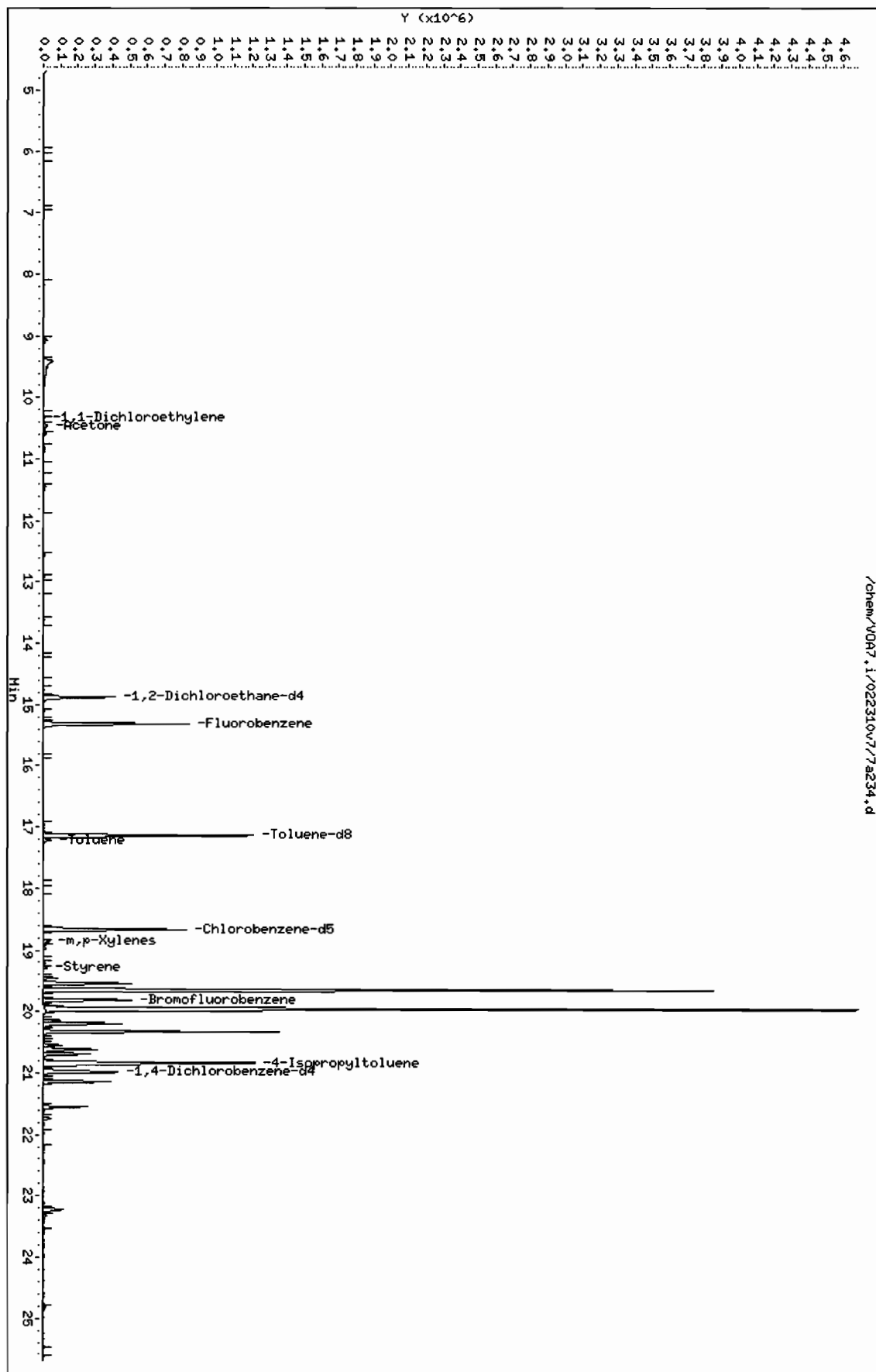
| RT                  | CONCENTRATIONS |                |               | QUAL | QUANT   |           | CPND # |
|---------------------|----------------|----------------|---------------|------|---------|-----------|--------|
|                     | AREA           | ON-COL ( ug/l) | FINAL (ug/Kg) |      | LIBRARY | LIB ENTRY |        |
| ====                | ----           | -----          | -----         | ---- | -----   | -----     | -----  |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 19.540              | 922162         | 31.2797520     | 63.9          | 0    |         | 0         | 75     |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 19.651              | 6679998        | 226.585531     | 463           | 0    |         | 0         | 75     |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 19.956              | 9041219        | 427.598079     | 874           | 0    |         | 0         | 101    |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 20.149              | 200648         | 9.48951539     | 19.4          | 0    |         | 0         | 101    |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 20.190              | 855671         | 40.4683405     | 82.7          | 0    |         | 0         | 101    |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 20.332              | 2419997        | 114.452068     | 234           | 0    |         | 0         | 101    |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 20.616              | 570924         | 27.0014630     | 55.2          | 0    |         | 0         | 101    |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 20.697              | 500657         | 23.6782075     | 48.4          | 0    |         | 0         | 101    |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 21.144              | 679492         | 32.1361018     | 65.7          | 0    |         | 0         | 101    |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 21.550              | 440508         | 20.8335061     | 42.6          | 0    |         | 0         | 101    |
| Unknown Hydrocarbon |                |                |               |      | CAS #:  |           |        |
| 23.225              | 271526         | 12.8416155     | 26.2          | 0    |         | 0         | 101    |

Data File: /chem/V007.i/022310v7/7a234.d  
Date : 24-FEB-2010 04:31  
Client ID: RE36-10-7423  
Sample Info: 1247358002|95673911|V00AF111

Column phase: DB-624

Instrument: V007.i  
Operator: AX01  
Column diameter: 0.25

Page 1



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

Sample Info: I247358002I9567391I1VOAFI1I

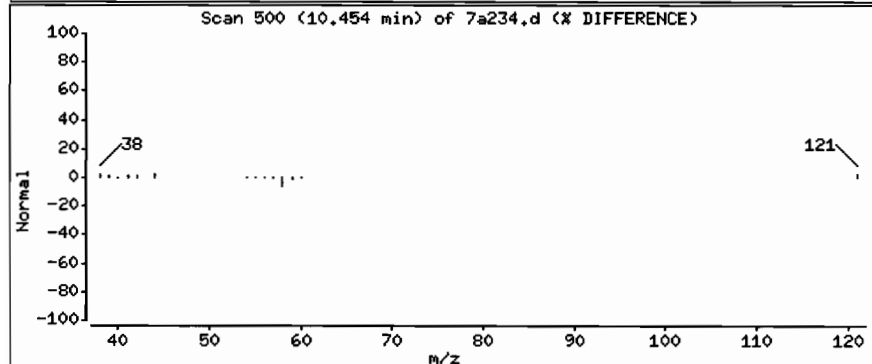
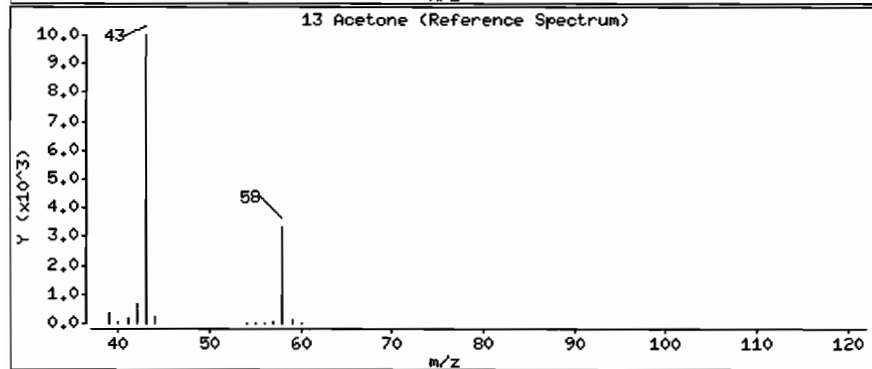
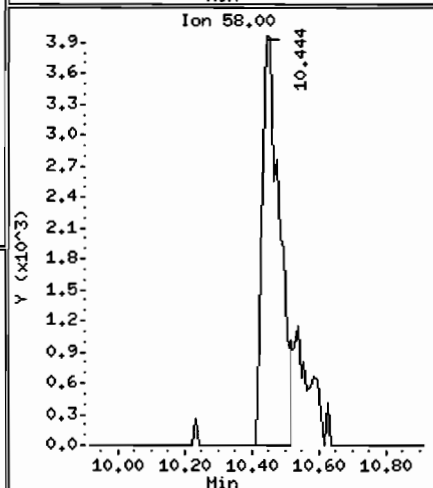
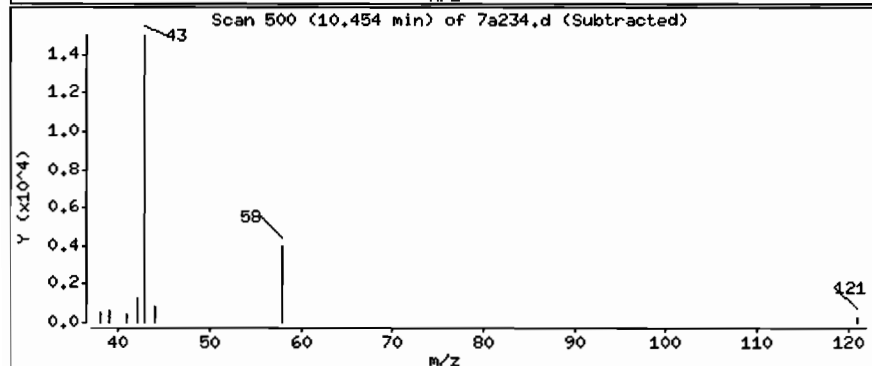
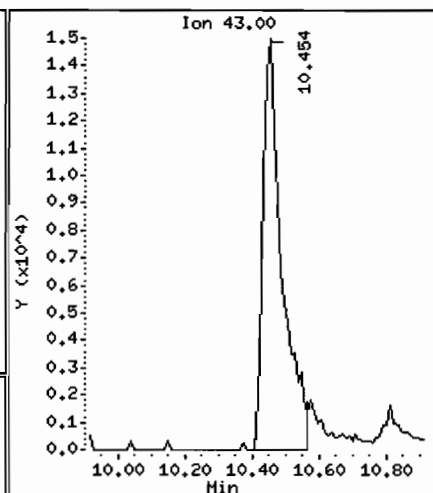
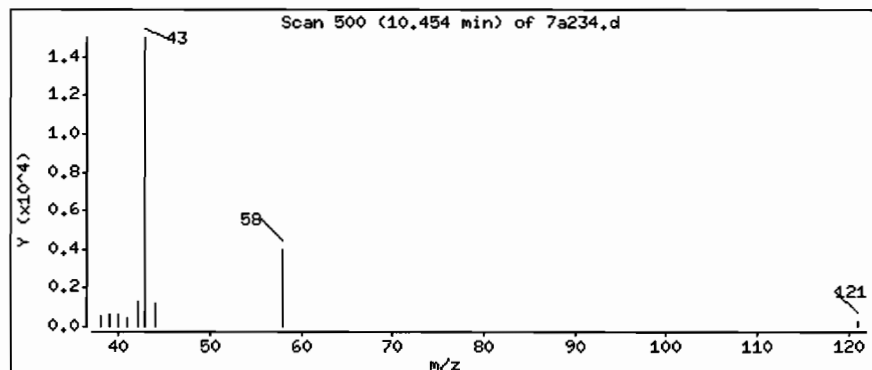
Operator: AX01

Column phase: DB-624

Column diameter: 0,25

13 Acetone

Concentration: 23,6 ug/Kg



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

Sample Info: 12473580021956739111VOAF111

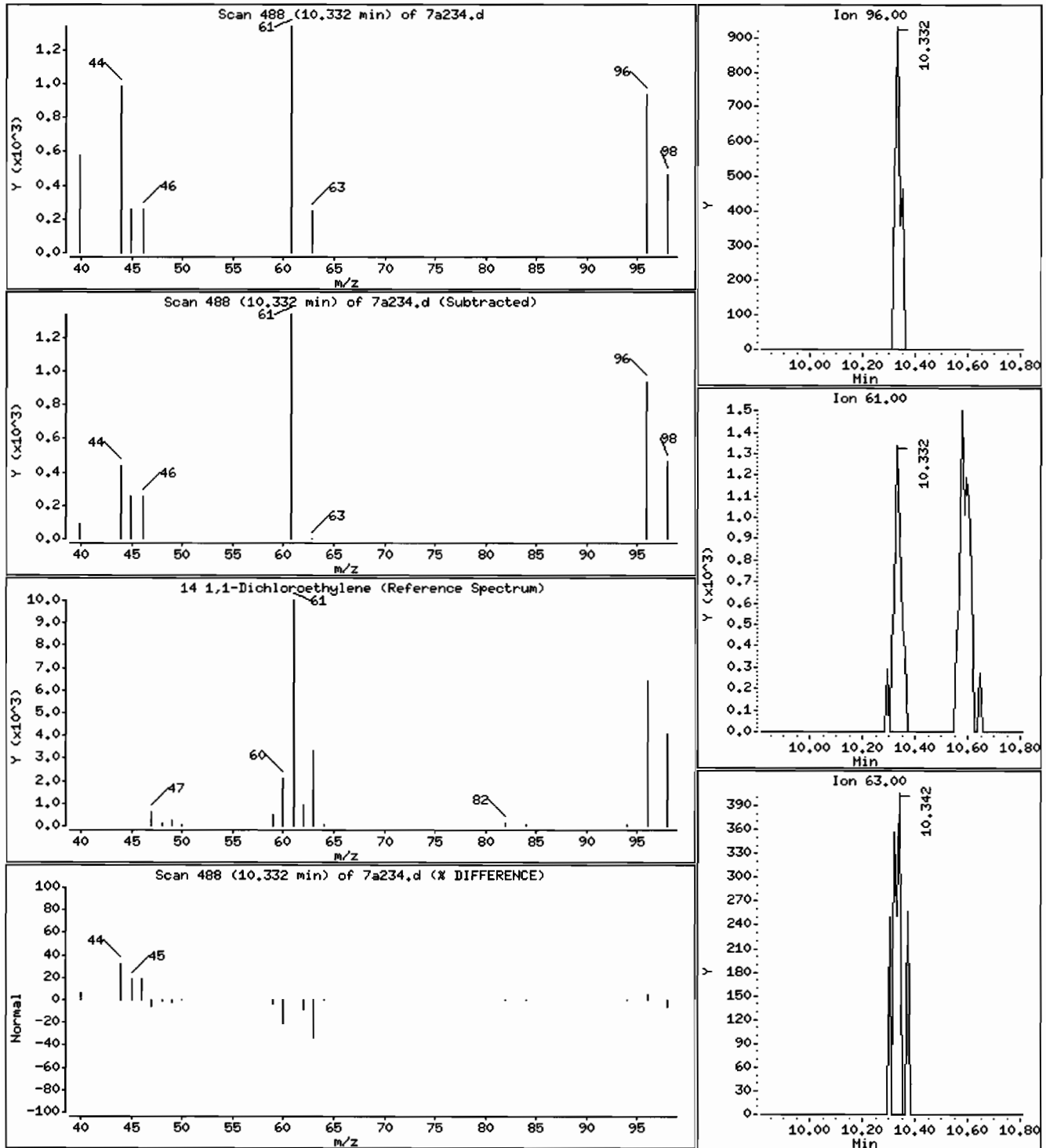
Operator: AX01

Column phase: DB-624

Column diameter: 0.25

14 1,1-Dichloroethylene

Concentration: 0.84 ug/Kg





Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

Sample Info: 12473580021956739111VOAF111

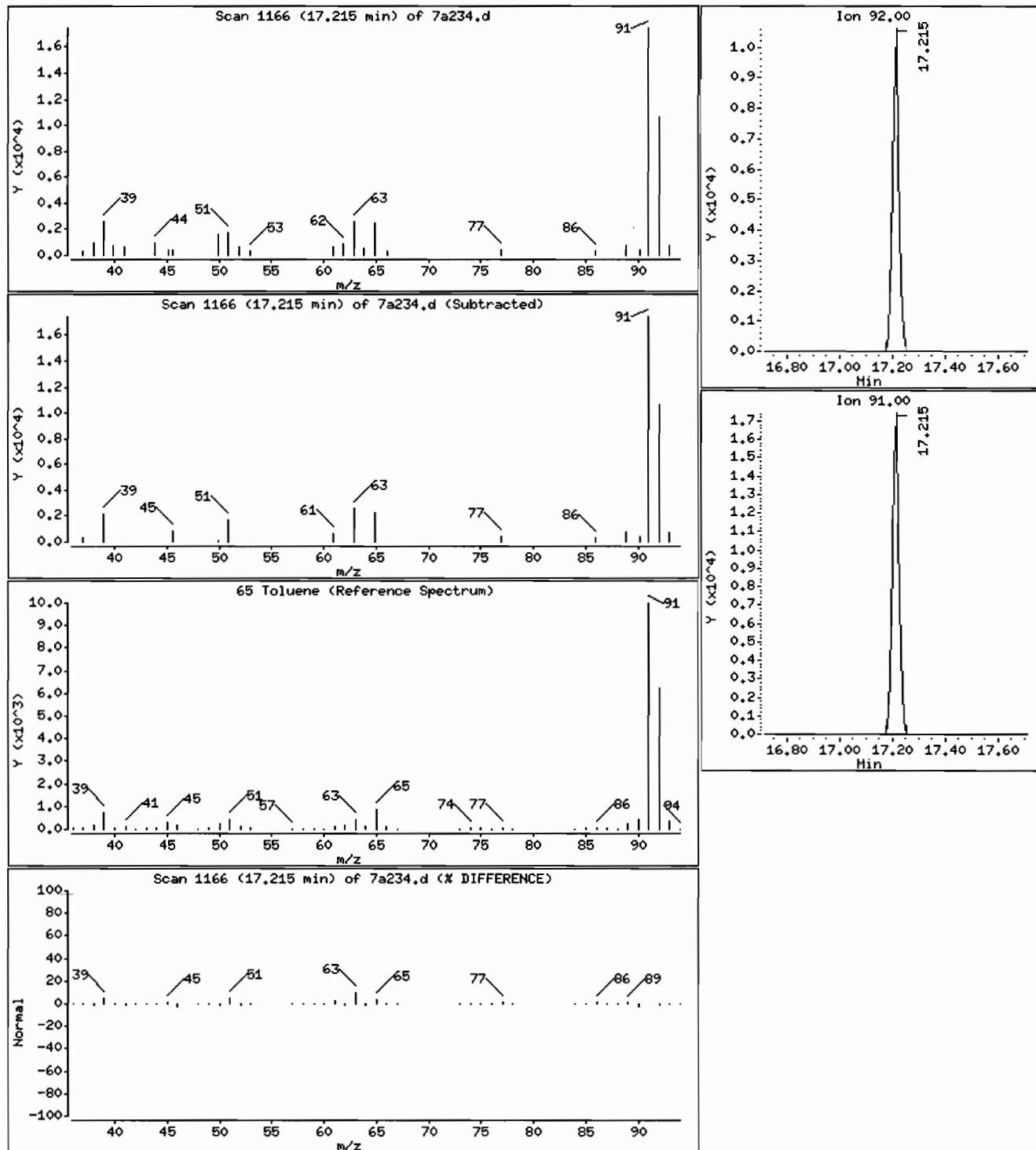
Operator: AX01

Column phase: DB-624

Column diameter: 0.25

65 Toluene

Concentration: 5.5 ug/Kg



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

Sample Info: I247358002195673911VOAF111

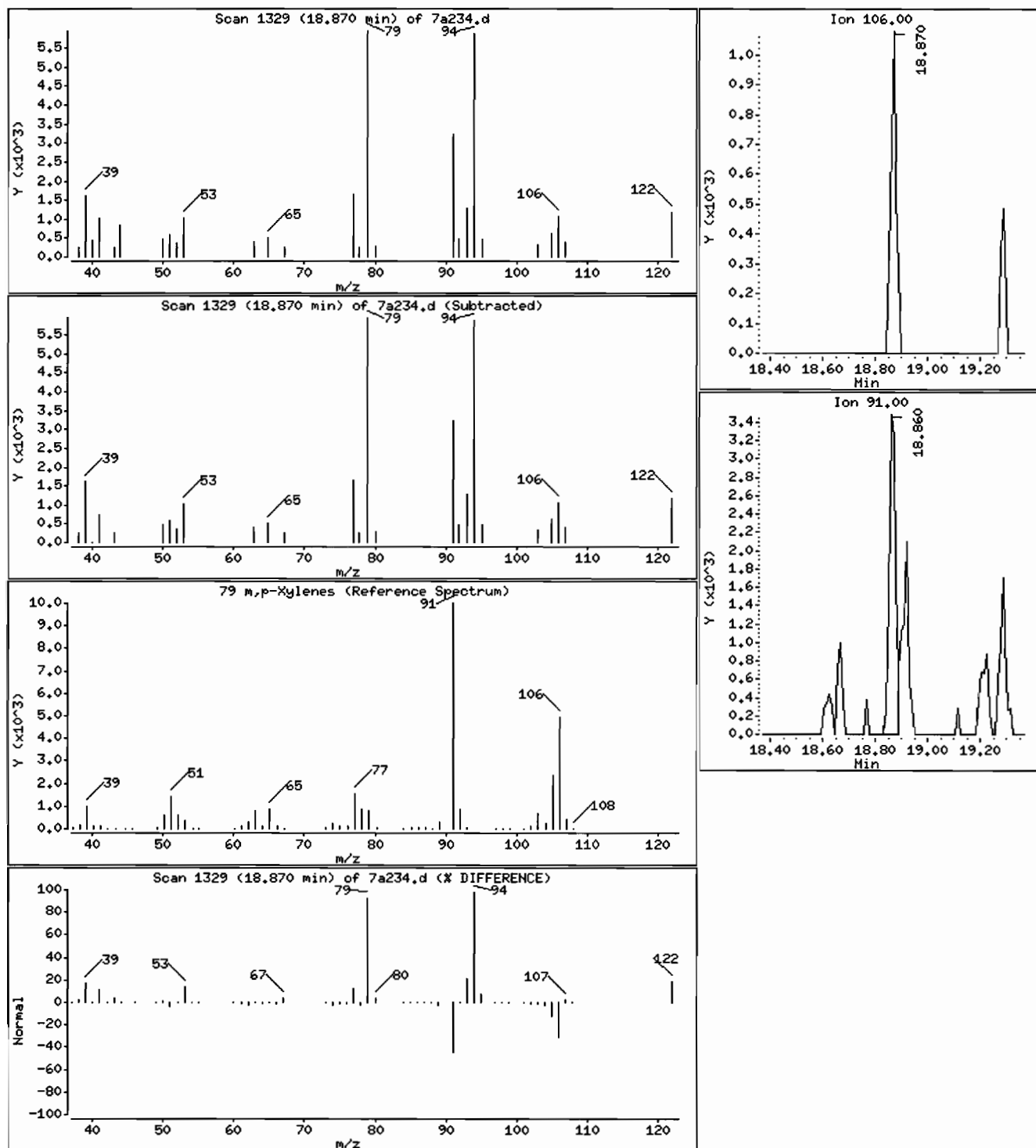
Operator: AXD1

Column phase: DB-624

Column diameter: 0.25

79 m,p-Xylenes

Concentration: 0.72 ug/Kg



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

Sample Info: I247358002I956739I1I1VOAFI1I

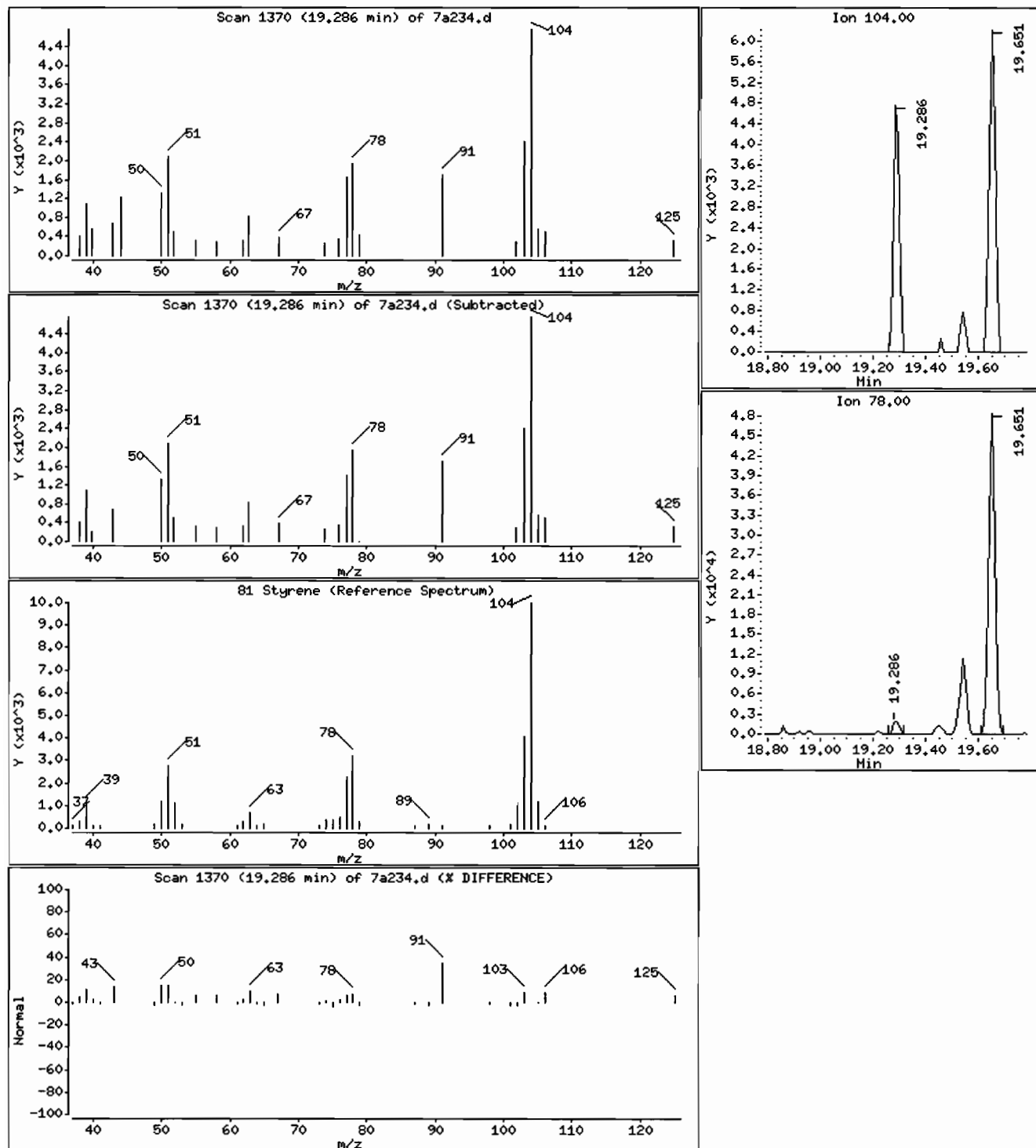
Operator: AX01

Column phase: DB-624

Column diameter: 0,25

81 Styrene

Concentration: 2,0 ug/Kg



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: V0A7.i

Sample Info: I247358002I956739I1I\VOAF\1I

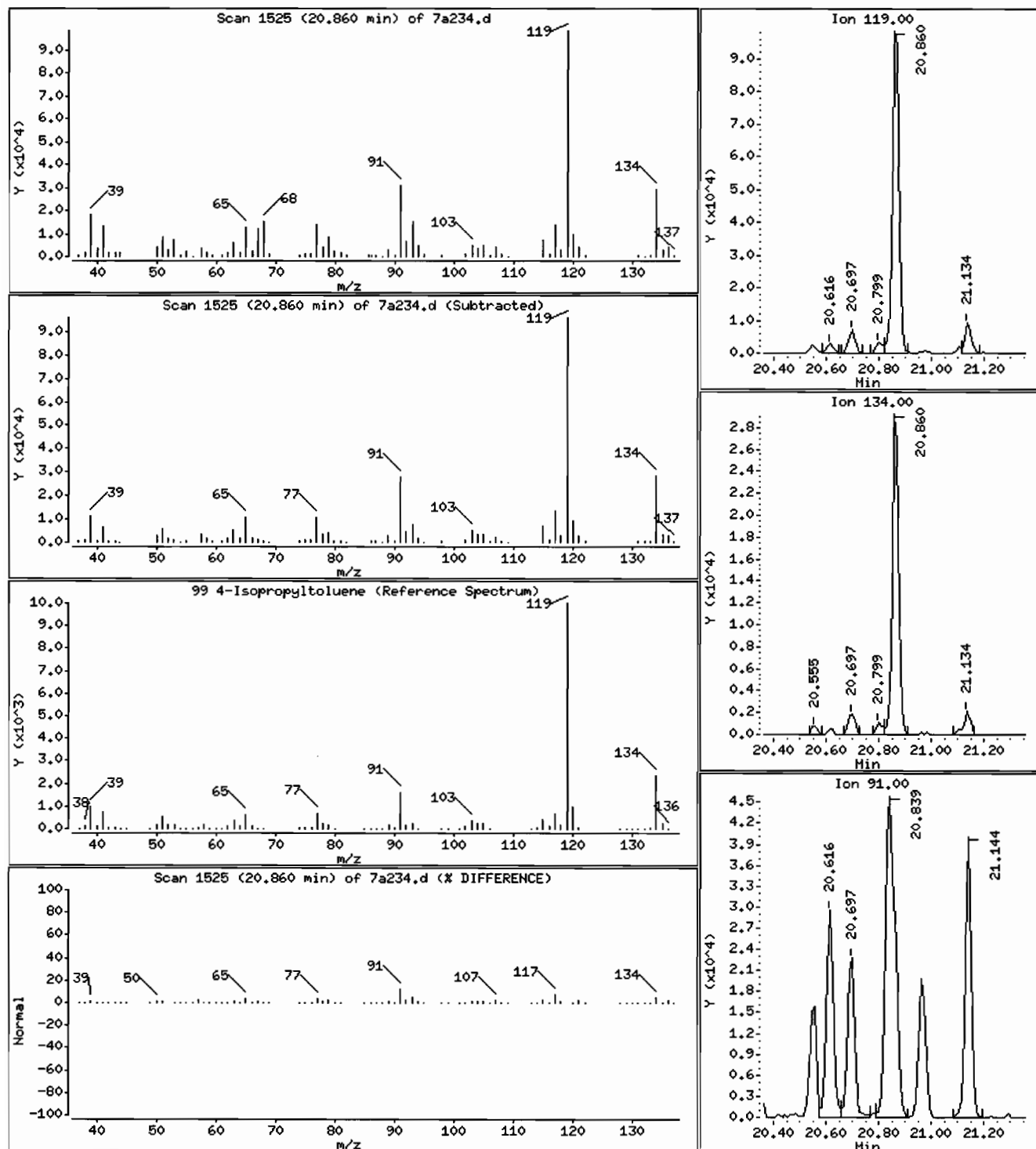
Operator: AX01

Column phase: DB-624

Column diameter: 0.25

99 4-Isopropyltoluene

Concentration: 69.6 ug/Kg



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: V0A7.i

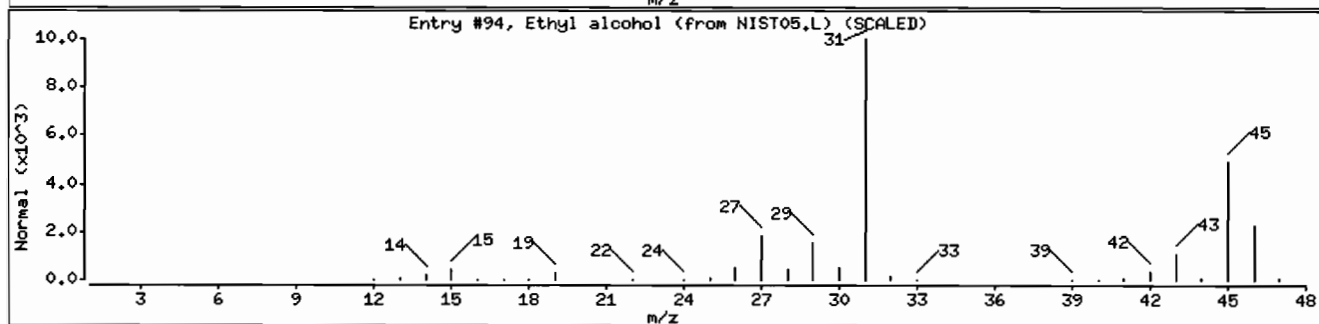
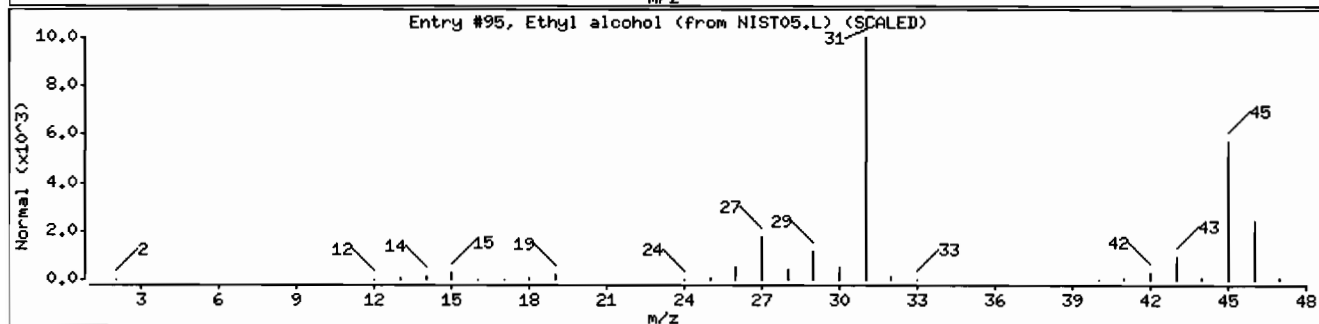
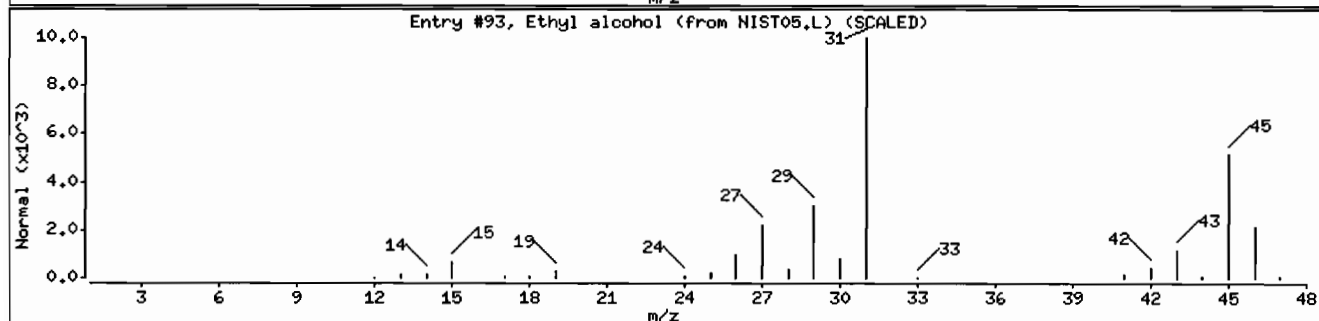
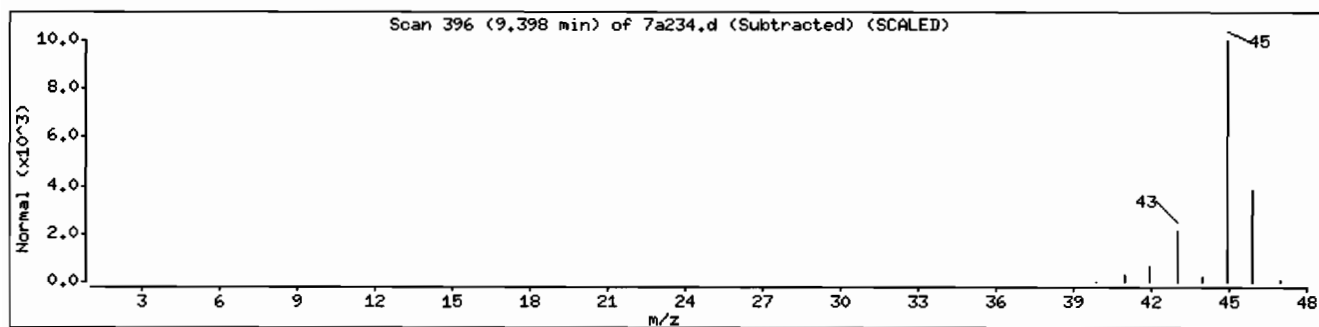
Sample Info: I247358002I956739I1IV0AF11I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula                         | Weight |
|-------------------------------|------------|----------|-------|---------|---------------------------------|--------|
| Unknown Alcohol               |            |          |       |         |                                 |        |
| Ethyl alcohol                 | 64-17-5    | NIST05.L | 93    | 74      | C <sub>2</sub> H <sub>6</sub> O | 46     |
| Ethyl alcohol                 | 64-17-5    | NIST05.L | 95    | 74      | C <sub>2</sub> H <sub>6</sub> O | 46     |
| Ethyl alcohol                 | 64-17-5    | NIST05.L | 94    | 74      | C <sub>2</sub> H <sub>6</sub> O | 46     |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

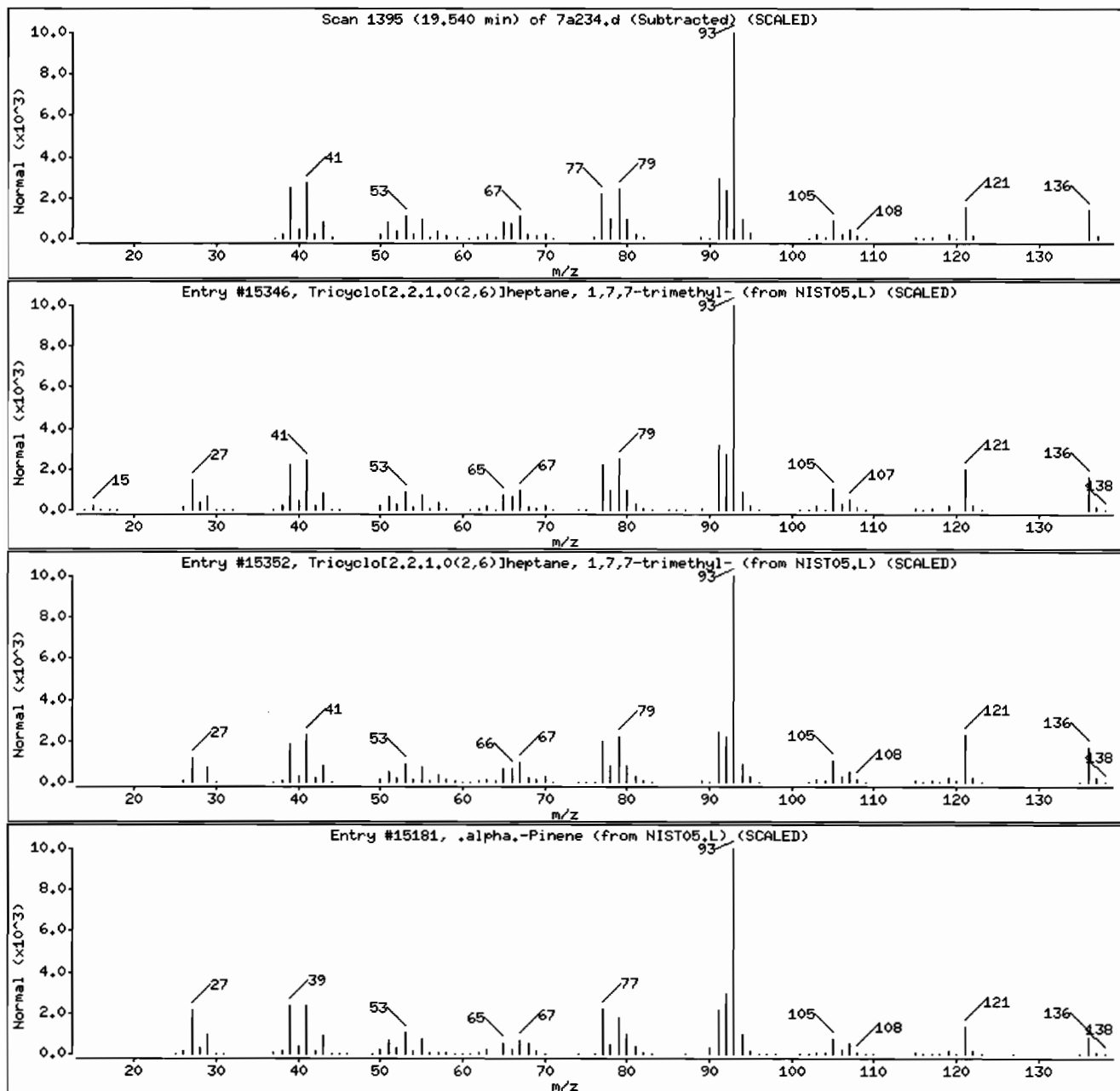
Sample Info: I247358002195673911VOAF111

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |         |        |
| Tricyclo[2.2.1.0(2,6)]heptane, 1,7,7-tri | 508-32-7   | NIST05.L | 15346 | 96      | C10H16  | 136    |
| Tricyclo[2.2.1.0(2,6)]heptane, 1,7,7-tri | 508-32-7   | NIST05.L | 15352 | 95      | C10H16  | 136    |
| ,alpha.-Pinene                           | 80-56-8    | NIST05.L | 15181 | 94      | C10H16  | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

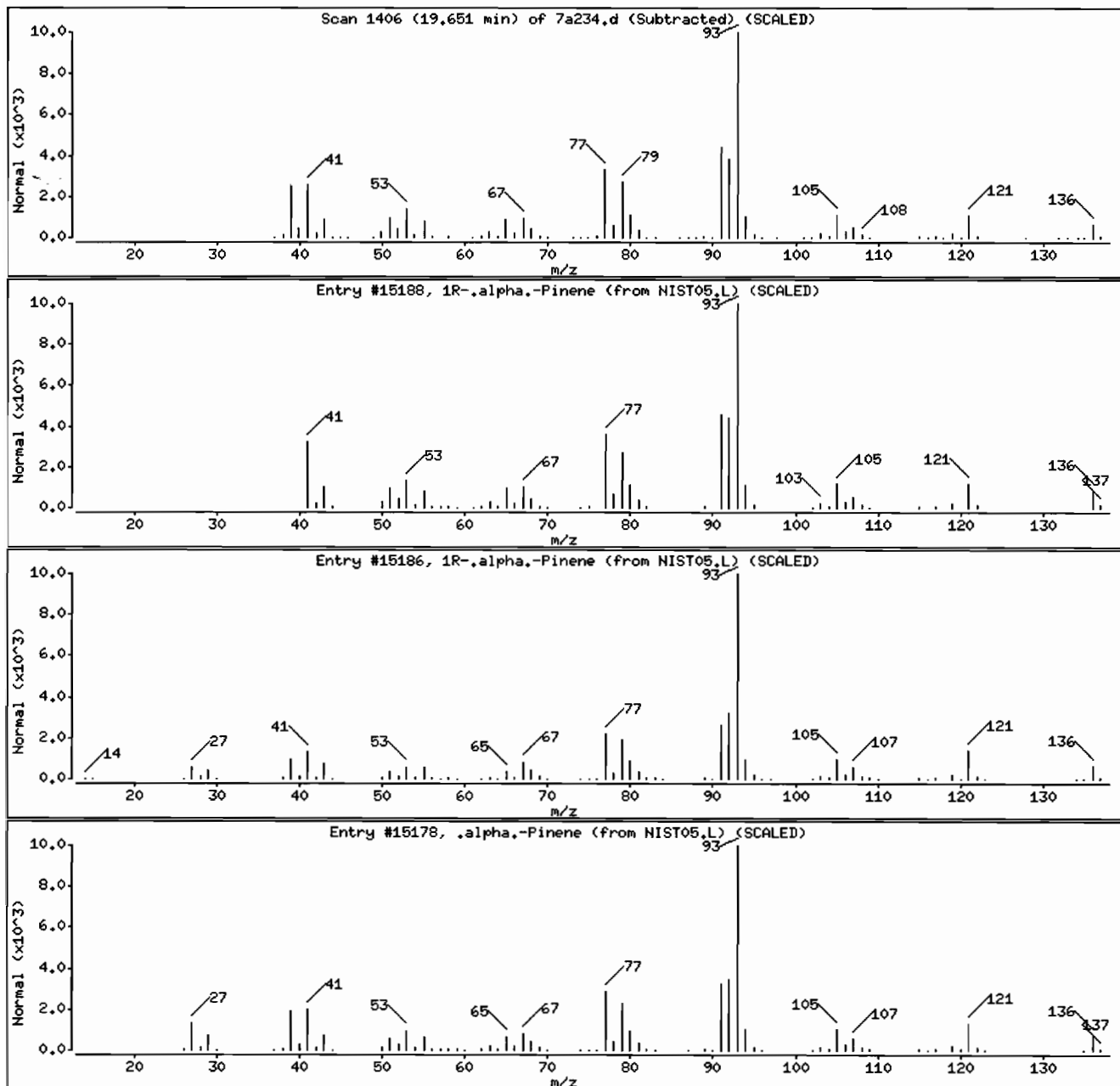
Sample Info: I247358002I956739I1VOAFI1I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula | Weight |
|-------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon           |            |          |       |         |         |        |
| 1R-.alpha.-Pinene             | 7785-70-8  | NIST05.L | 15188 | 97      | C10H16  | 136    |
| 1R-.alpha.-Pinene             | 7785-70-8  | NIST05.L | 15186 | 96      | C10H16  | 136    |
| .alpha.-Pinene                | 80-56-8    | NIST05.L | 15178 | 95      | C10H16  | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: V0A7.i

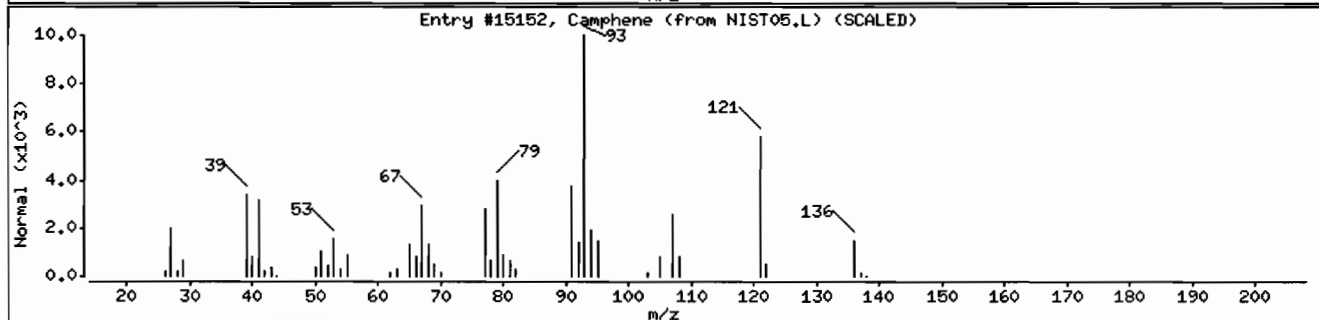
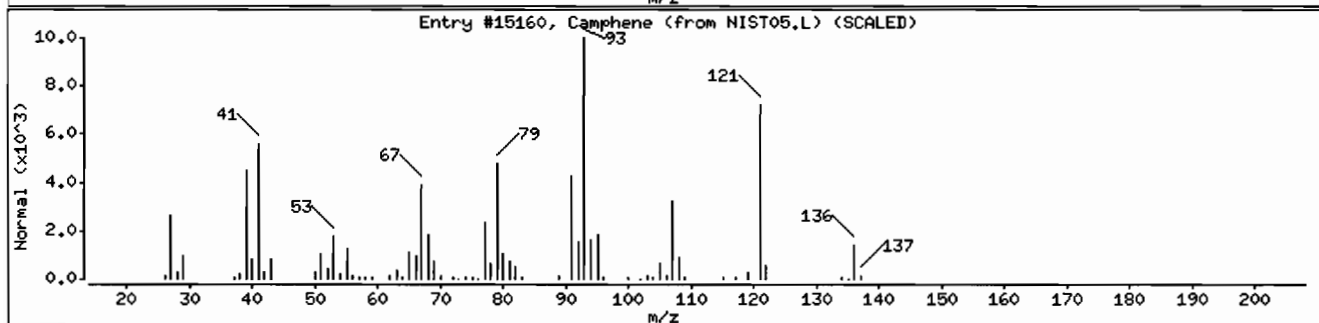
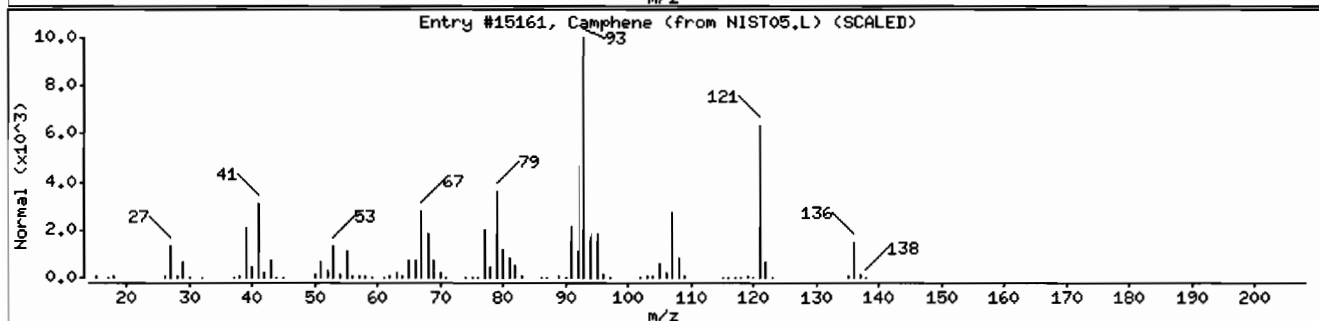
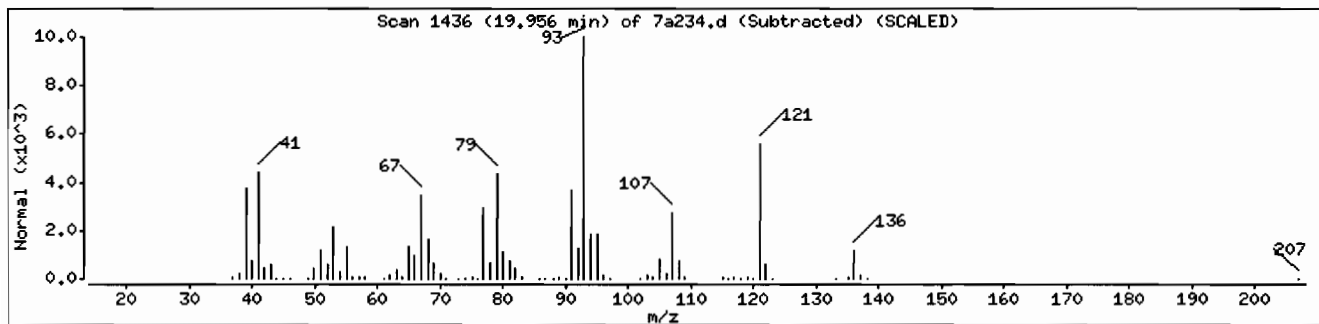
Sample Info: I247358002195673911V0AF11I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula | Weight |
|-------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon           |            |          |       |         |         |        |
| Camphene                      | 79-92-5    | NIST05.L | 15161 | 97      | C10H16  | 136    |
| Camphene                      | 79-92-5    | NIST05.L | 15160 | 97      | C10H16  | 136    |
| Camphene                      | 79-92-5    | NIST05.L | 15152 | 97      | C10H16  | 136    |





Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: V0A7.i

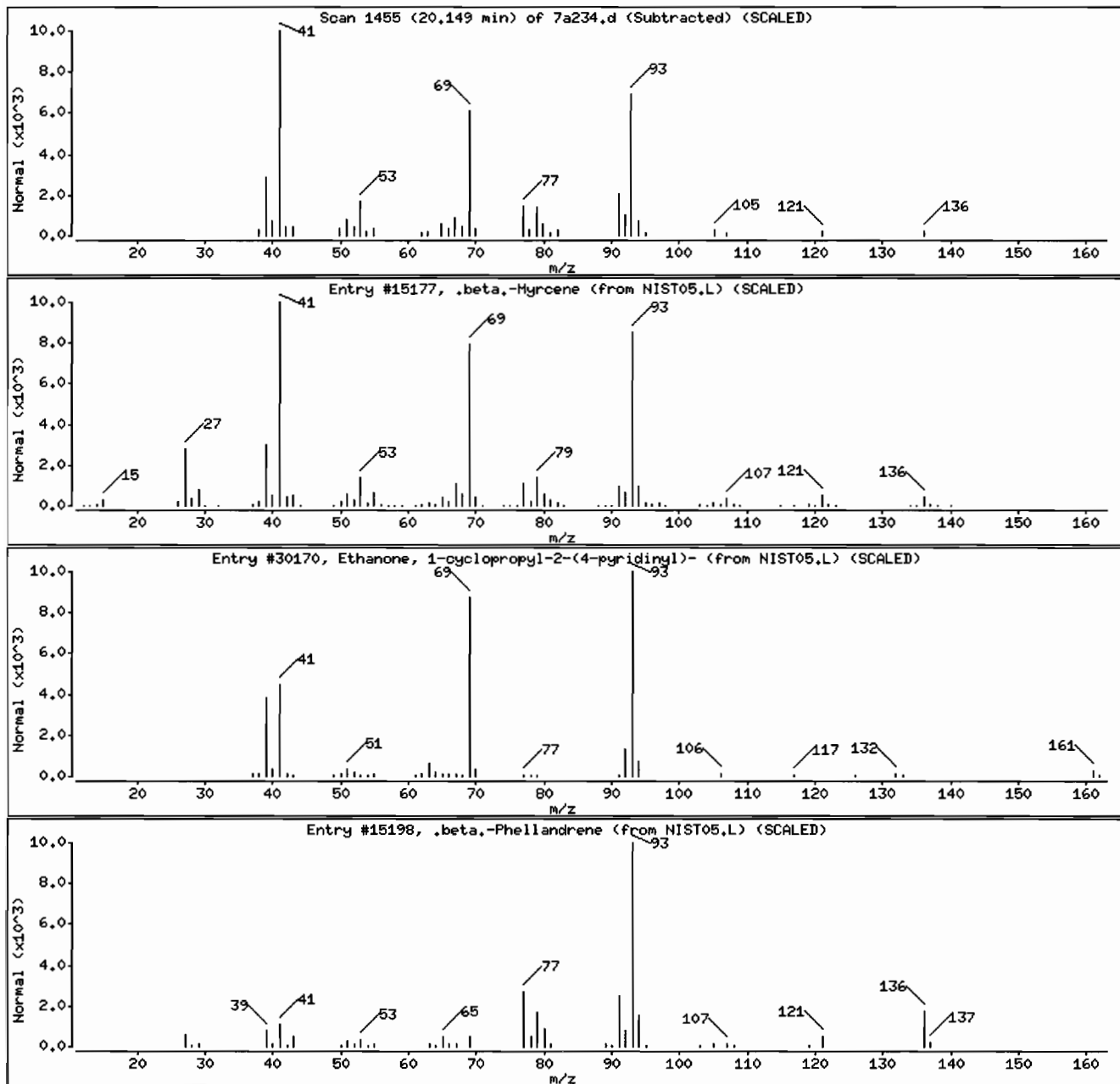
Sample Info: I247358002I956739I1I1V0AF11I

Operator: AXD1

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula  | Weight |
|--|------------|----------|-------|---------|----------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |          |        |
| .beta.-Myrcene                           | 123-35-3   | NIST05.L | 15177 | 74      | C10H16   | 136    |
| Ethanone, 1-cyclopropyl-2-(4-pyridinyl)- | 6580-95-6  | NIST05.L | 30170 | 53      | C10H11NO | 161    |
| .beta.-Phellandrene                      | 555-10-2   | NIST05.L | 15198 | 47      | C10H16   | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

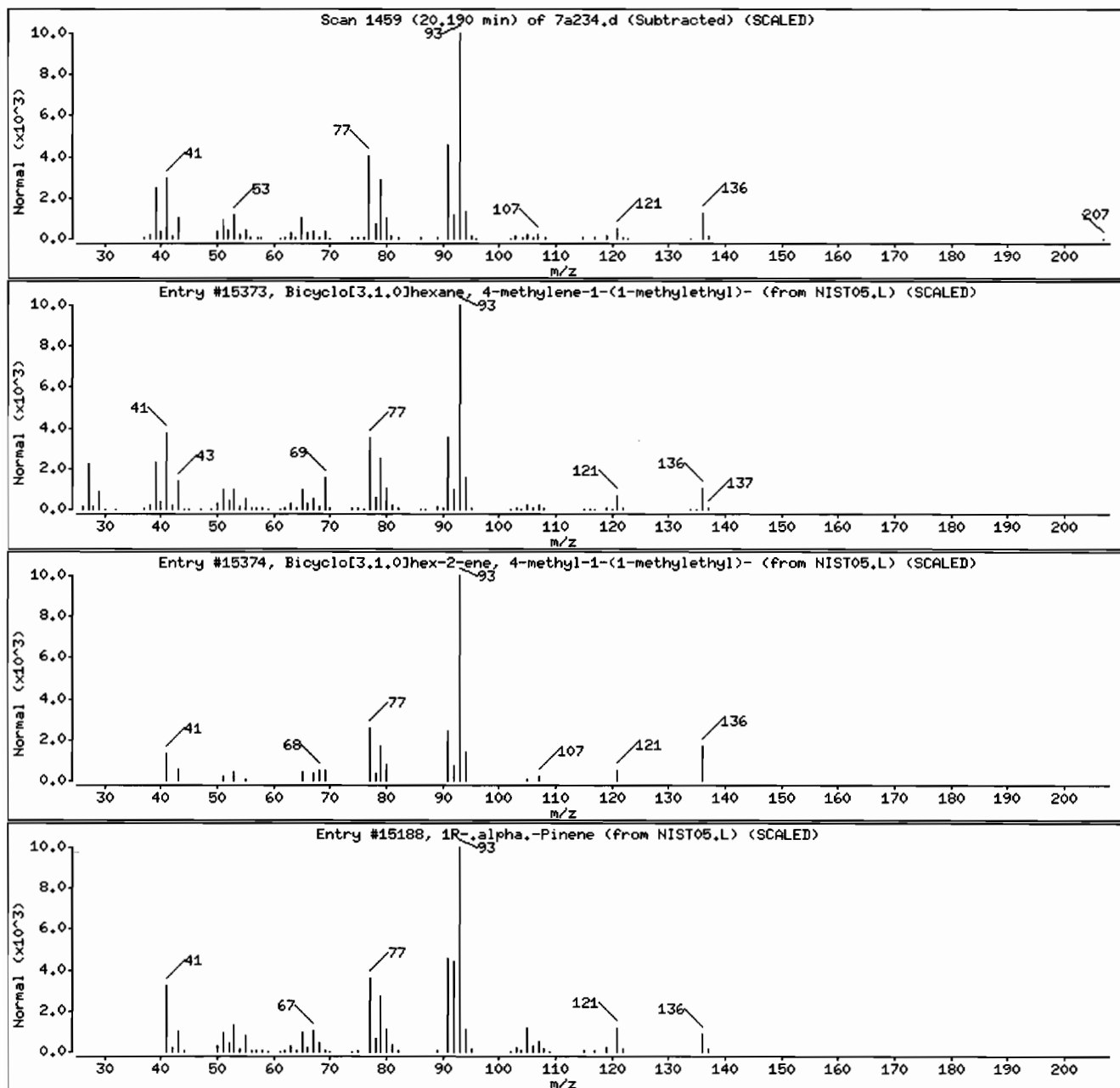
Sample Info: I247358002I956739I1I1VOAFI1I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |         |        |
| Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m | 3387-41-5  | NIST05.L | 15373 | 94      | C10H16  | 136    |
| Bicyclo[3.1.0]hex-2-ene, 4-methyl-1-(1-m | 28634-89-1 | NIST05.L | 15374 | 91      | C10H16  | 136    |
| 1R-.alpha.-Pinene                        | 7785-70-8  | NIST05.L | 15188 | 90      | C10H16  | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: V0A7.i

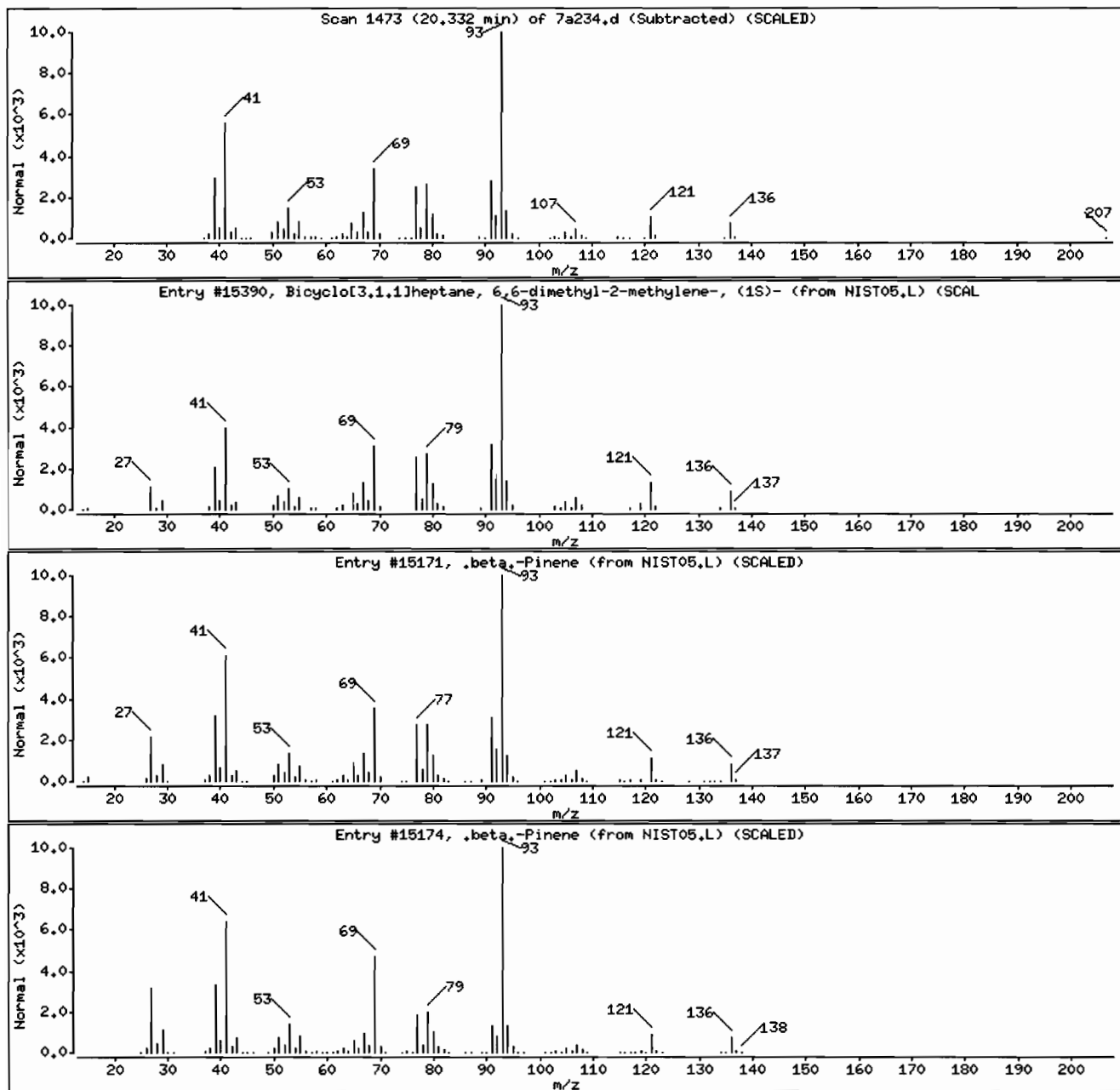
Sample Info: I247358002I956739I1I1V0AFI1I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |         |        |
| Bicyclo[3,1,1]heptane, 6,6-dimethyl-2-me | 18172-67-3 | NIST05.L | 15390 | 97      | C10H16  | 136    |
| .beta.-Pinene                            | 127-91-3   | NIST05.L | 15171 | 97      | C10H16  | 136    |
| .beta.-Pinene                            | 127-91-3   | NIST05.L | 15174 | 94      | C10H16  | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

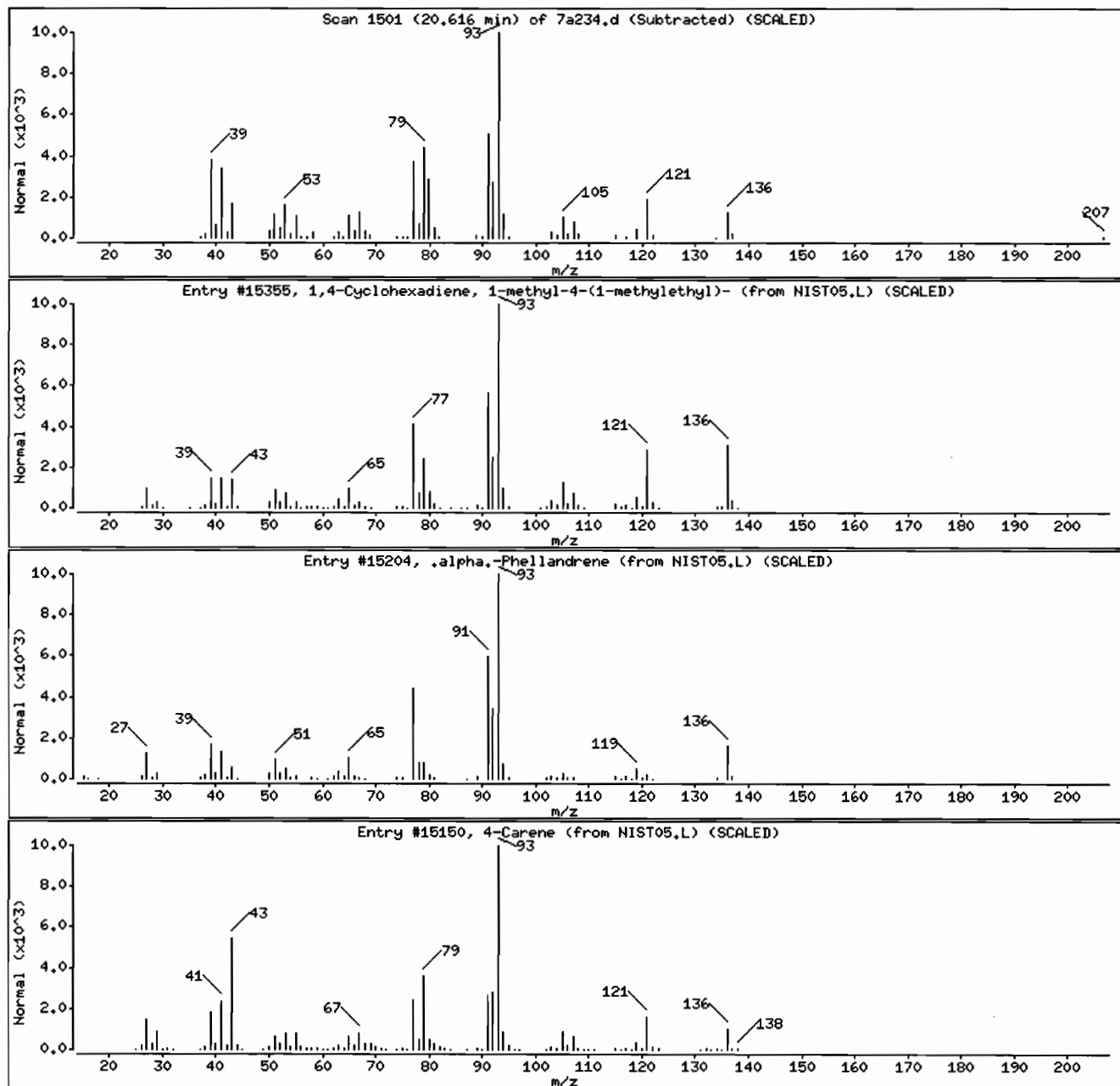
Sample Info: I247358002I956739I1I1VOAFI1I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula | Weight |
|--|--------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |              |          |       |         |         |        |
| 1,4-Cyclohexadiene, 1-methyl-4-(1-methyl | 99-85-4      | NIST05.L | 15355 | 92      | C10H16  | 136    |
| ,alpha,-Phellandrene                     | 99-83-2      | NIST05.L | 15204 | 90      | C10H16  | 136    |
| 4-Carene                                 | 1000150-36-1 | NIST05.L | 15150 | 76      | C10H16  | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: V0A7.i

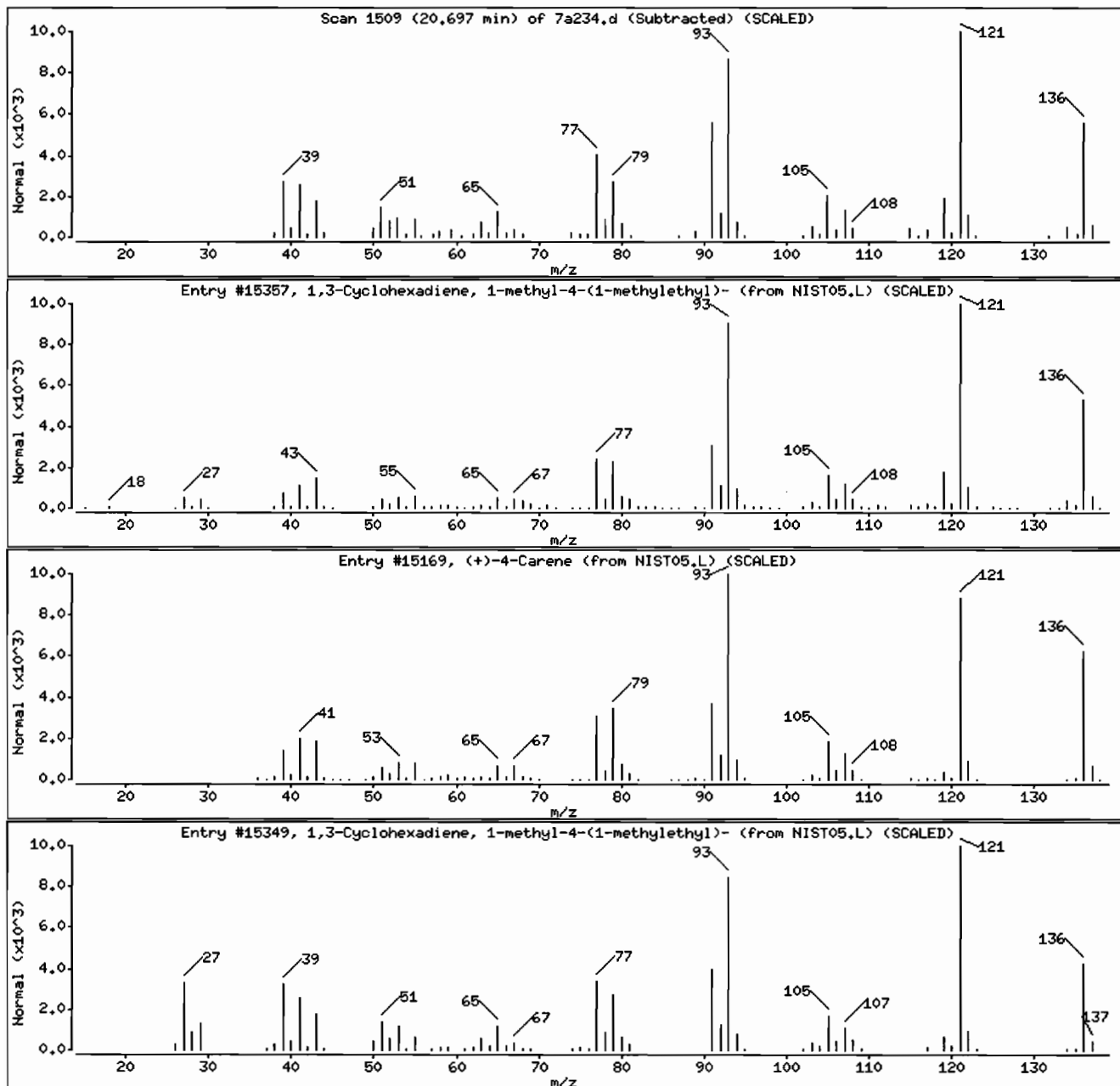
Sample Info: I247358002I956739I1I1V0AF11I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |         |        |
| 1,3-Cyclohexadiene, 1-methyl-4-(1-methyl | 99-86-5    | NIST05.L | 15357 | 96      | C10H16  | 136    |
| (+)-4-Carene                             | 29050-33-7 | NIST05.L | 15169 | 96      | C10H16  | 136    |
| 1,3-Cyclohexadiene, 1-methyl-4-(1-methyl | 99-86-5    | NIST05.L | 15349 | 93      | C10H16  | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

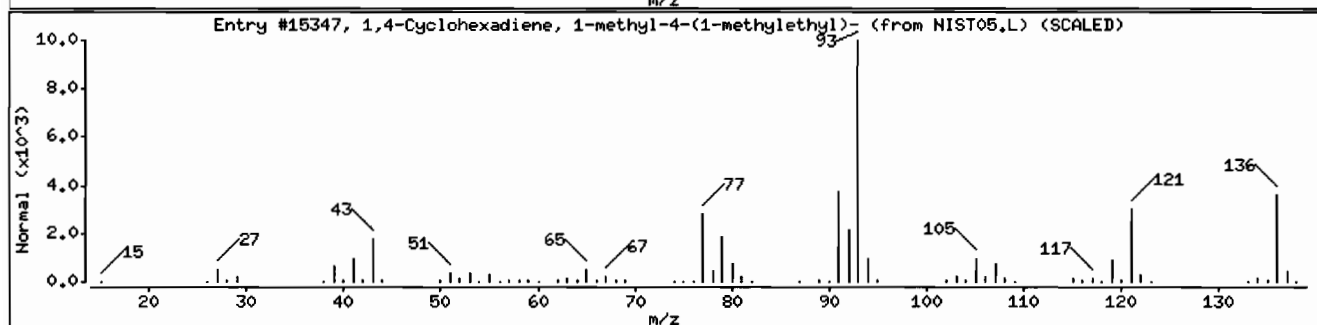
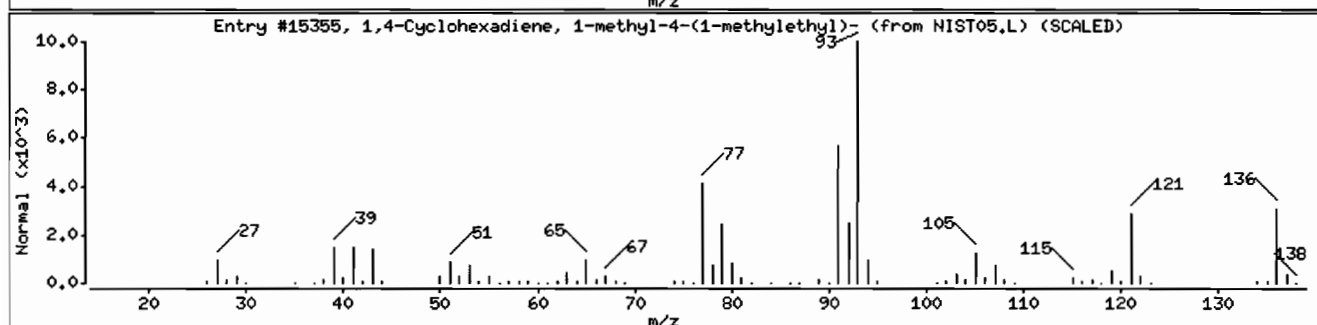
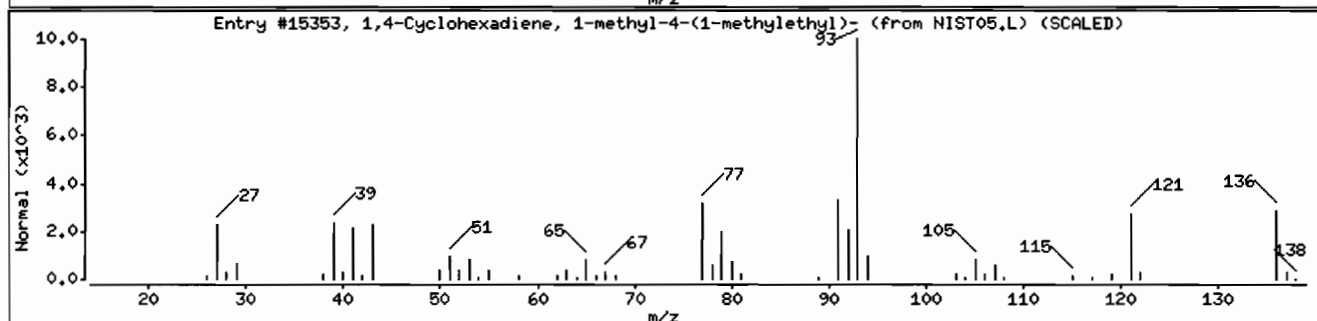
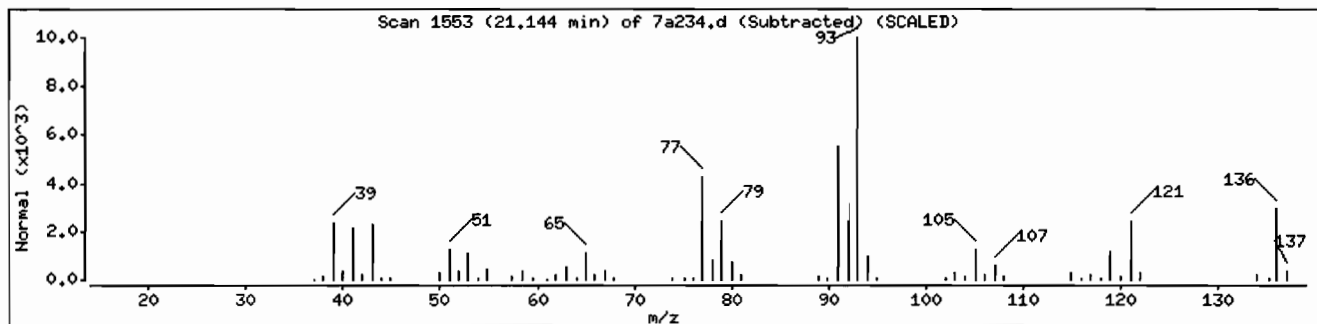
Sample Info: I247358002I956739I1I\VOAFI1I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |         |        |
| 1,4-Cyclohexadiene, 1-methyl-4-(1-methyl | 99-85-4    | NIST05.L | 15353 | 97      | C10H16  | 136    |
| 1,4-Cyclohexadiene, 1-methyl-4-(1-methyl | 99-85-4    | NIST05.L | 15355 | 96      | C10H16  | 136    |
| 1,4-Cyclohexadiene, 1-methyl-4-(1-methyl | 99-85-4    | NIST05.L | 15347 | 94      | C10H16  | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: V0A7.i

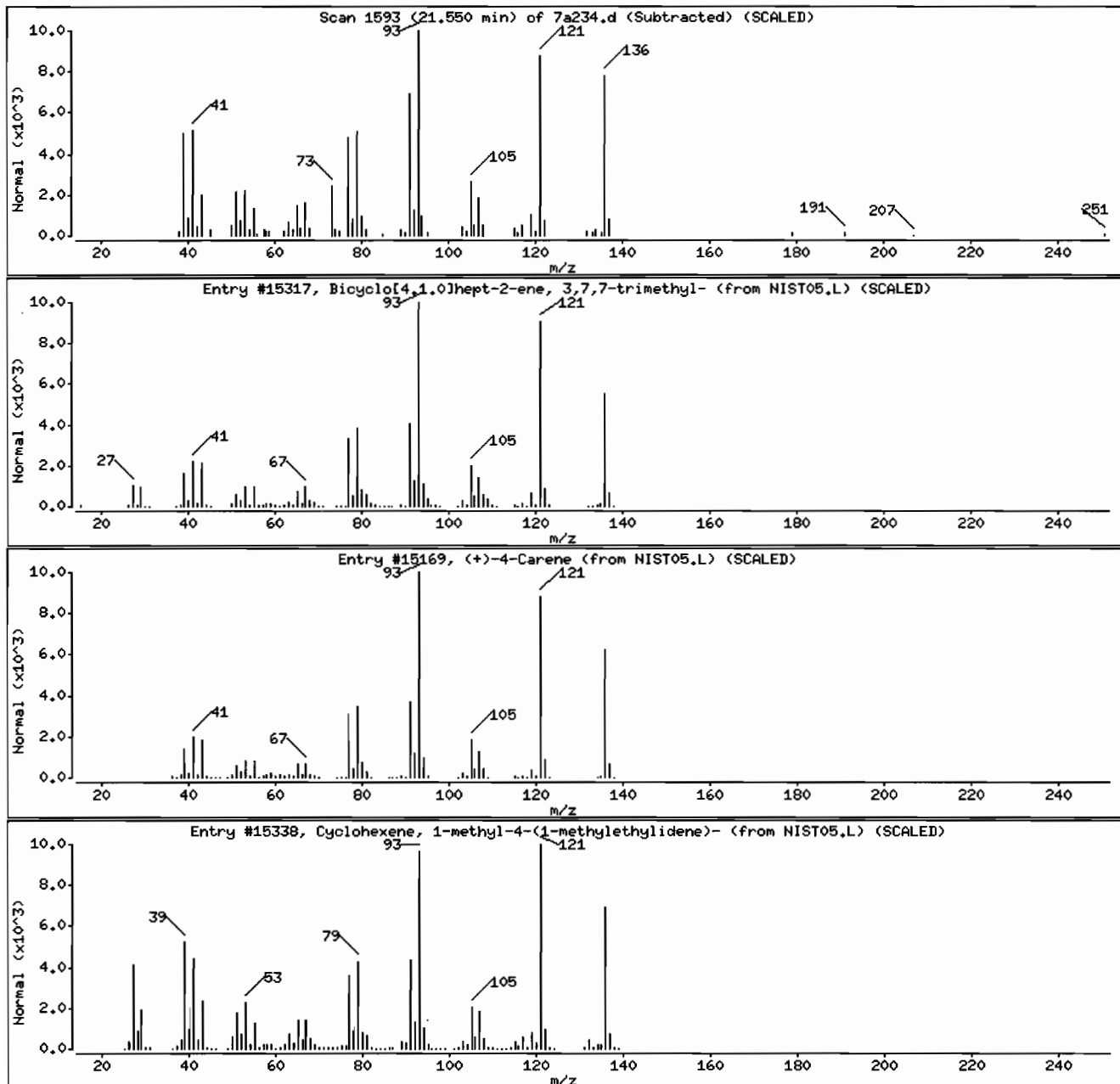
Sample Info: 1247358002195673911V0AF111

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match                 | CAS Number | Library  | Entry | Quality | Formula                         | Weight |
|---|------------|----------|-------|---------|---------------------------------|--------|
| Unknown Hydrocarbon                           |            |          |       |         |                                 |        |
| Bicyclo[4.1.0]hept-2-ene, 3,7,7-trimethyl     | 554-61-0   | NIST05.L | 15317 | 94      | C <sub>10</sub> H <sub>16</sub> | 136    |
| (+)-4-Carene                                  | 29050-33-7 | NIST05.L | 15169 | 93      | C <sub>10</sub> H <sub>16</sub> | 136    |
| Cyclohexene, 1-methyl-4-(1-methylethylidene)- | 586-62-9   | NIST05.L | 15338 | 93      | C <sub>10</sub> H <sub>16</sub> | 136    |



Date : 24-FEB-2010 04:31

Client ID: RE36-10-7423

Instrument: VOA7.i

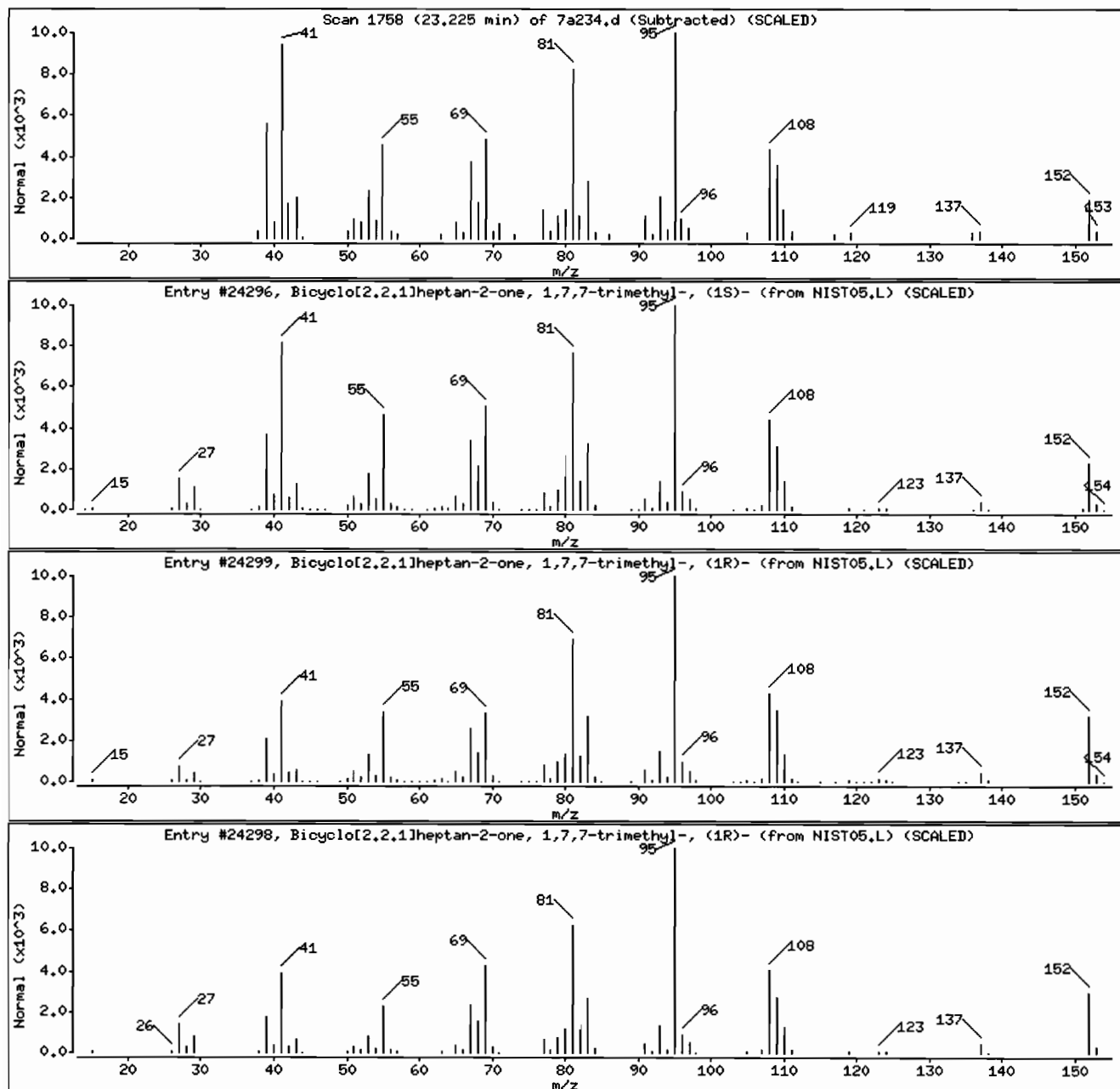
Sample Info: I2473580021956739111VOAF111

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |         |        |
| Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet | 464-48-2   | NIST05.L | 24296 | 98      | C10H16O | 152    |
| Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet | 464-49-3   | NIST05.L | 24299 | 97      | C10H16O | 152    |
| Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet | 464-49-3   | NIST05.L | 24298 | 96      | C10H16O | 152    |





**Volatile  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-1914  
**Lab Sample ID:** 247358004

**Date Collected:** 02/12/2010 12:00  
**Date Received:** 02/18/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8260B  
**Inst:** VOA7.I  
**Analyst:** AXO1  
**Aliquot:** 5 g  
**Column:** DB-624

**Matrix:** R  
**%Moisture:** 8.6  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-038  
**Dilution:** 1  
**Purge Vol:** 5 mL  
**Final Volume:** 5 mL  
**Level:** LOW

**Client ID:** RE36-10-7424  
**Batch ID:** 956739  
**Run Date:** 02/24/2010 17:43  
**Prep Date:** 02/24/2010 13:45  
**Data File:** 7a314.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.09   | ug/kg | 0.372   | 1.09    |
| 74-87-3    | Chloromethane               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-01-4    | Vinyl chloride              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-83-9    | Bromomethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-00-3    | Chloroethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-64-1    | Acetone                     | U         | 5.47   | ug/kg | 1.82    | 5.47    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-88-4    | Iodomethane                 | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 75-09-2    | Methylene chloride          | U         | 5.47   | ug/kg | 2.19    | 5.47    |
| 75-15-0    | Carbon disulfide            | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 78-93-3    | 2-Butanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-66-3    | Chloroform                  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-97-5    | Bromochloromethane          | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 71-43-2    | Benzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-01-6    | Trichloroethylene           | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-27-4    | Bromodichloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-95-3    | Dibromomethane              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-88-3   | Toluene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 591-78-6   | 2-Hexanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 124-48-1   | Dibromochloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-90-7   | Chlorobenzene               | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Volatile  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-1914  
**Lab Sample ID:** 247358004

**Date Collected:** 02/12/2010 12:00  
**Date Received:** 02/18/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8260B  
**Inst:** VOA7.I  
**Analyst:** AXO1  
**Aliquot:** 5 g  
**Column:** DB-624

**Matrix:** R  
**%Moisture:** 8.6  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-038  
**Dilution:** 1  
**Purge Vol:** 5 mL  
**Final Volume:** 5 mL  
**Level:** LOW

**Client ID:** RE36-10-7424  
**Batch ID:** 956739  
**Run Date:** 02/24/2010 17:43  
**Prep Date:** 02/24/2010 13:45  
**Data File:** 7a314.d

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.19   | ug/kg | 0.328   | 2.19    |
| 95-47-6     | o-Xylene                              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 100-42-5    | Styrene                               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-25-2     | Bromoform                             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-86-1    | Bromobenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Tentatively Identified Compound Summary**

| CAS No.                                   | Tentatively Identified Compound (TIC) | RT | Estimated | Units | Fit | Qual |
|---|---------------------------------------|----|-----------|-------|-----|------|
| No Tentatively Identified Compounds Found |                                       |    |           | ug/kg |     |      |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022410v7/7a314.d

Lab Smp Id: 247358004

Client Smp ID: RE36-10-7424

Inj Date : 24-FEB-2010 17:43

Operator : AX01

Inst ID: VOA7.i

Smp Info : |247358004|956739|1|VOAF|1|

Misc Info : LANL 5g N/A

Comment :

Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

Meth Date : 08-Mar-2010 14:52 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 14

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-1914.sub

Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 8.59380   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

| Compounds                    | QUANT SIG |        |        |         |          | CONCENTRATIONS       |                  |
|------------------------------|-----------|--------|--------|---------|----------|----------------------|------------------|
|                              | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| * 51 Fluorobenzene           | 96        | 15.316 | 15.317 | (1.000) | 811118   | 50.0000              |                  |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 | (1.000) | 586440   | 50.0000              |                  |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.991 | 20.992 | (1.000) | 274084   | 50.0000              |                  |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 | (0.971) | 341615   | 48.7473              | 53.3             |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 | (0.918) | 931381   | 48.7971              | 53.4             |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 | (0.944) | 332963   | 46.1827              | 50.5             |

## ION RATIO REPORT

## VOA REPORT

Data file: 7a314.d

Report Date: 02/25/2010 06:33

Lab. ID: 247358004

SampleType: SAMPLE

Injection Date: 24-FEB-2010 17:43

Operator: AX01

Instrument: VOA7.i

Sample Info: |247358004|956739|1|VOAF|1|

Miscellaneous Info: LANL 5g N/A

Comment:

Method used: /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS                    | RESPONSE | RT    | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|-------------------------|----------|-------|-----------|----------------|-------|------|
| =====                   |          |       |           |                |       |      |
| 63 4-Methyl-2-pentanone |          |       |           | CAS#: 108-10-1 |       |      |
| 58                      | 11468    | 17.13 | 16.94     | 80-120         | 100   | (T)  |
| 43                      | 7502     | 17.13 | 16.93     | 219-279        | 65    | (QT) |
| 100                     | 636210   | 17.13 | 16.94     | 0- 57          | 5548  | (QT) |
| -----                   |          |       |           |                |       |      |
| 82 Bromoform            |          |       |           | CAS#: 75-25-2  |       |      |
| 173                     | 1041     | 19.82 | 19.54     | 80-120         | 100   | (T)  |
| 175                     | 17057    | 19.81 | 19.54     | 18- 78         | 1637  | (QT) |

-----  
Q qualifier indicates ion failed ratio requirement

Data File: /chem/VOA7.i/022410v7/7a314.d  
Report Date: 08-Mar-2010 15:12

Page 1

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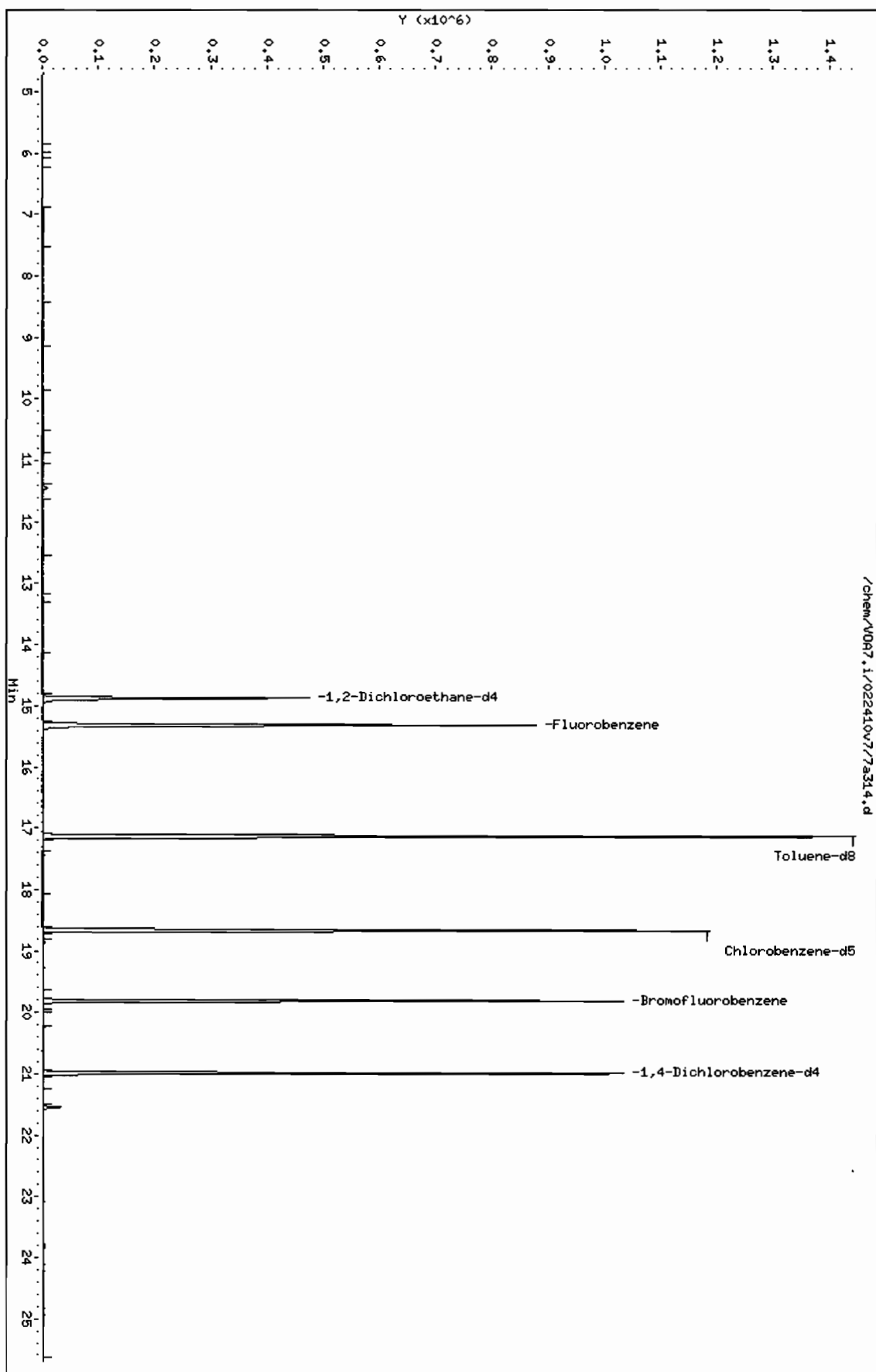
VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022410v7/7a314.d  
Lab Smp Id: 247358004 Client Smp ID: RE36-10-7424  
Inj Date : 24-FEB-2010 17:43  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |247358004|956739|1|VOAF|1|  
Misc Info : LANL 5g N/A  
Comment :  
Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
Meth Date : 08-Mar-2010 14:52 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 14  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/022410v7/7a314.d  
Date : 24-FEB-2010 17:43  
Client ID: RE36-10-7424  
Sample Info: 1247358004195673911V0AFL11

Column Phase: DB-624

Instrument: VOA7.1  
Operator: AX01  
Column diameter: 0.25



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 36.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-7427  
 Batch ID: 956739  
 Run Date: 02/24/2010 03:57  
 Prep Date: 02/23/2010 15:56  
 Data File: 7a233.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.57   | ug/kg | 0.535   | 1.57    |
| 74-87-3    | Chloromethane               | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-01-4    | Vinyl chloride              | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 74-83-9    | Bromomethane                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-00-3    | Chloroethane                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 67-64-1    | Acetone                     |           | 9.50   | ug/kg | 2.61    | 7.87    |
| 75-35-4    | 1,1-Dichloroethylene        | J         | 0.495  | ug/kg | 0.472   | 1.57    |
| 74-88-4    | Iodomethane                 | U         | 7.87   | ug/kg | 2.52    | 7.87    |
| 75-09-2    | Methylene chloride          | U         | 7.87   | ug/kg | 3.15    | 7.87    |
| 75-15-0    | Carbon disulfide            | U         | 7.87   | ug/kg | 1.97    | 7.87    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 78-93-3    | 2-Butanone                  | U         | 7.87   | ug/kg | 2.36    | 7.87    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 67-66-3    | Chloroform                  | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 74-97-5    | Bromochloromethane          | U         | 1.57   | ug/kg | 0.519   | 1.57    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 71-43-2    | Benzene                     | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 79-01-6    | Trichloroethylene           | U         | 1.57   | ug/kg | 0.519   | 1.57    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-27-4    | Bromodichloromethane        | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 74-95-3    | Dibromomethane              | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 7.87   | ug/kg | 1.97    | 7.87    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-88-3   | Toluene                     | J         | 0.763  | ug/kg | 0.472   | 1.57    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 591-78-6   | 2-Hexanone                  | U         | 7.87   | ug/kg | 2.36    | 7.87    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 124-48-1   | Dibromochloromethane        | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-90-7   | Chlorobenzene               | U         | 1.57   | ug/kg | 0.472   | 1.57    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 247358001

Client ID: RE36-10-7427  
 Batch ID: 956739  
 Run Date: 02/24/2010 03:57  
 Prep Date: 02/23/2010 15:56  
 Data File: 7a233.d

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 36.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 179601-23-1 | m,p-Xylenes                           | U         | 3.15   | ug/kg | 0.472   | 3.15    |
| 95-47-6     | o-Xylene                              | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 100-42-5    | Styrene                               | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 75-25-2     | Bromoform                             | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-86-1    | Bromobenzene                          | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 7.87   | ug/kg | 2.52    | 7.87    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.57   | ug/kg | 0.472   | 1.57    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.57   | ug/kg | 0.472   | 1.57    |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown Siloxane                      | 21.55 | 27        | ug/kg |     | J    |



GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022310v7/7a233.d

Lab Smp Id: 247358001

Client Smp ID: RE36-10-7427

Inj Date : 24-FEB-2010 03:57

Operator : AX01

Inst ID: VOA7.i

Smp Info : |247358001|956739|1|VOAF|1|

Misc Info : LANL 5g N/A

Comment :

Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 33

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-1914.sub

Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 36.44900  | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

| Compounds                    | QUANT SIG |        |        |         |          |           | CONCENTRATIONS |       |
|------------------------------|-----------|--------|--------|---------|----------|-----------|----------------|-------|
|                              | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN | FINAL          |       |
| =====                        | =====     | ==     | =====  | =====   | =====    | ( ug/l)   | (ug/Kg)        | ===== |
| * 51 Fluorobenzene           | 96        | 15.317 | 15.317 | (1.000) | 673782   | 50.0000   |                |       |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 | (1.000) | 319030   | 50.0000   |                |       |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.992 | 20.992 | (1.000) | 76981    | 50.0000   |                |       |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 | (0.972) | 283583   | 48.7145   | 76.6           |       |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 | (0.918) | 686407   | 66.1058   | 104 (R)        |       |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 | (0.944) | 128897   | 63.6536   | 100            |       |
| 13 Acetone                   | 43        | 10.464 | 10.413 | (0.683) | 27252    | 6.03852   | 9.5            |       |
| 14 1,1-Dichloroethylene      | 96        | 10.342 | 10.312 | (0.675) | 922      | 0.31488   | 0.50 (aQ)      |       |
| 65 Toluene                   | 92        | 17.215 | 17.215 | (0.922) | 2786     | 0.48507   | 0.76 (aQ)      |       |

QC Flag Legend

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

## ION RATIO REPORT

## VOA REPORT

Data file: 7a233.d

Report Date: 02/24/2010 09:27

Lab. ID: 247358001

SampleType: SAMPLE

Injection Date: 24-FEB-2010 03:57

Operator: AX01

Instrument: VOA7.i

Sample Info: |247358001|956739|1|VOAF|1|

Miscellaneous Info: LANL 5g N/A

Comment:

Method used: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS  | RESPONSE                  | RT    | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|-------|---------------------------|-------|-----------|----------------|-------|------|
| ===== |                           |       |           |                |       |      |
| 14    | 1,1-Dichloroethylene      |       |           | CAS#: 75-35-4  |       |      |
| 96    | 922                       | 10.34 | 10.31     | 80-120         | 100   | ( )  |
| 61    | 2449                      | 10.33 | 10.31     | 184-244        | 266   | (Q)  |
| 63    | 406                       | 10.33 | 10.31     | 37- 97         | 44    | ( )  |
| ----- |                           |       |           |                |       |      |
| 13    | Acetone                   |       |           | CAS#: 67-64-1  |       |      |
| 43    | 24328                     | 10.46 | 10.41     | 80-120         | 100   | ( )  |
| 58    | 6027                      | 10.46 | 10.41     | 0- 59          | 25    | ( )  |
| ----- |                           |       |           |                |       |      |
| 63    | 4-Methyl-2-pentanone      |       |           | CAS#: 108-10-1 |       |      |
| 58    | 8481                      | 17.13 | 16.93     | 80-120         | 100   | (T)  |
| 43    | 5110                      | 17.13 | 16.93     | 221-281        | 60    | (QT) |
| 100   | 467692                    | 17.13 | 16.94     | 0- 57          | 5514  | (QT) |
| ----- |                           |       |           |                |       |      |
| 65    | Toluene                   |       |           | CAS#: 108-88-3 |       |      |
| 92    | 2786                      | 17.22 | 17.22     | 80-120         | 100   | ( )  |
| 91    | 5715                      | 17.22 | 17.22     | 132-192        | 205   | (Q)  |
| ----- |                           |       |           |                |       |      |
| 73    | 1,2-Dibromoethane         |       |           | CAS#: 106-93-4 |       |      |
| 107   | 2597                      | 18.13 | 18.22     | 80-120         | 100   | (T)  |
| 109   | 869                       | 18.14 | 18.22     | 67-127         | 33    | (QT) |
| ----- |                           |       |           |                |       |      |
| 77    | 1,1,1,2-Tetrachloroethane |       |           | CAS#: 630-20-6 |       |      |
| 131   | 1601                      | 18.66 | 18.76     | 80-120         | 100   | (T)  |
| 133   | 22882                     | 18.63 | 18.76     | 72-132         | 1429  | (QT) |
| 119   | 138087                    | 18.67 | 18.76     | 39- 99         | 8621  | (QT) |
| ----- |                           |       |           |                |       |      |

| MASS                      | RESPONSE | RT    | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|---------------------------|----------|-------|-----------|----------------|-------|------|
| =====                     |          |       |           |                |       |      |
| 78 Ethylbenzene           |          |       |           | CAS#: 100-41-4 |       |      |
| 91                        | 29636    | 18.65 | 18.76     | 80-120         | 100   | (T)  |
| 106                       | 7709     | 18.65 | 18.77     | 1- 61          | 26    | (T)  |
| -----                     |          |       |           |                |       |      |
| 79 m,p-Xylenes            |          |       |           | CAS#:          |       |      |
| 106                       | 1851     | 18.86 | 18.87     | 80-120         | 100   | ( )  |
| 91                        | 3685     | 18.87 | 18.87     | 165-225        | 199   | ( )  |
| -----                     |          |       |           |                |       |      |
| 92 1,3,5-Trimethylbenzene |          |       |           | CAS#: 108-67-8 |       |      |
| 105                       | 1429     | 20.58 | 20.17     | 80-120         | 100   | (T)  |
| 120                       | 629      | 20.58 | 20.17     | 17- 77         | 44    | (T)  |
| -----                     |          |       |           |                |       |      |
| 96 1,2,4-Trimethylbenzene |          |       |           | CAS#: 95-63-6  |       |      |
| 105                       | 1429     | 20.58 | 20.57     | 80-120         | 100   | ( )  |
| 120                       | 629      | 20.58 | 20.57     | 19- 79         | 44    | ( )  |
| -----                     |          |       |           |                |       |      |
| 95 tert-Butylbenzene      |          |       |           | CAS#: 98-06-6  |       |      |
| 119                       | 3566     | 20.37 | 20.52     | 80-120         | 100   | (T)  |
| 91                        | 495      | 20.37 | 20.52     | 51-111         | 14    | (QT) |
| 134                       | 314      | 20.86 | 20.52     | 0- 53          | 9     | (T)  |
| -----                     |          |       |           |                |       |      |
| 104 n-Butylbenzene        |          |       |           | CAS#: 104-51-8 |       |      |
| 91                        | 3660     | 21.56 | 21.30     | 80-120         | 100   | (T)  |
| 92                        | 1320     | 21.56 | 21.30     | 26- 86         | 36    | (T)  |
| 134                       | 314      | 20.86 | 21.30     | 0- 55          | 9     | (T)  |

-----  
Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
 Data file : /chem/VOA7.i/022310v7/7a233.d  
 Lab Smp Id: 247358001 Client Smp ID: RE36-10-7427  
 Inj Date : 24-FEB-2010 03:57  
 Operator : AX01 Inst ID: VOA7.i  
 Smp Info : |247358001|956739|1|VOAF|1|  
 Misc Info : LANL 5g N/A  
 Comment :  
 Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
 Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
 Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
 Als bottle: 33  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1914.sub  
 Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M)) \* (Vt/Ws) \* (Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 36.44900  | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable Local Compound Variable

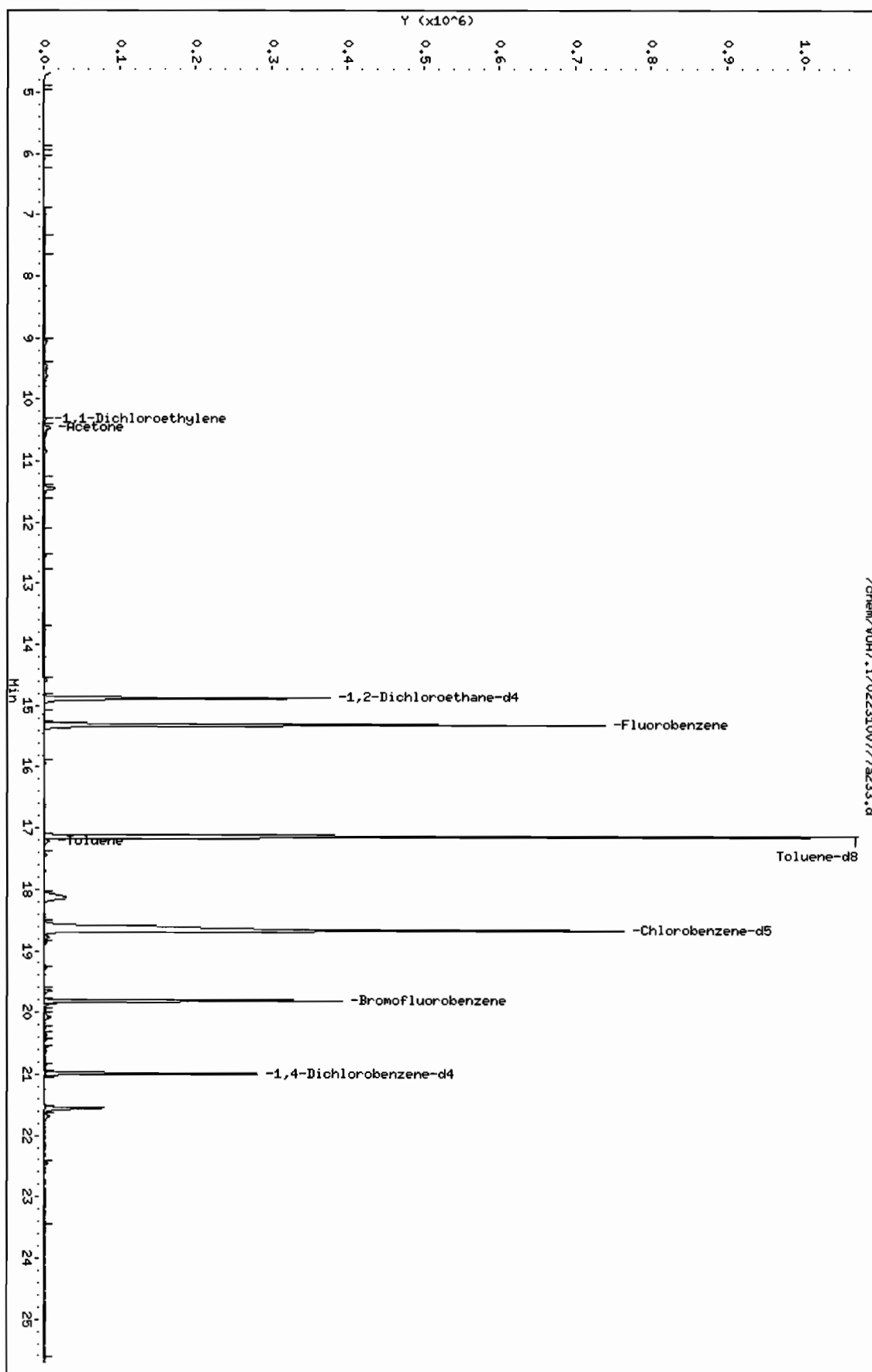
| ISTD                         | RT     | AREA   | AMOUNT |
|------------------------------|--------|--------|--------|
| =====                        | =====  | =====  | =====  |
| * 101 1,4-Dichlorobenzene-d4 | 20.992 | 544442 | 50.000 |

| CONCENTRATIONS   |        |                |               | QUANT |         |           |        |
|------------------|--------|----------------|---------------|-------|---------|-----------|--------|
| RT               | AREA   | ON-COL ( ug/l) | FINAL (ug/Kg) | QUAL  | LIBRARY | LIB ENTRY | CPND # |
| ----             | ----   | -----          | -----         | ----  | -----   | -----     | -----  |
| Unknown Siloxane |        |                |               |       |         |           |        |
| 21.550           | 186918 | 17.1660116     | 27.0          | 0     |         | 0         | 101    |

Data File: /chem/V0A7.i/022310v7/7a233.d  
Date : 24-FEB-2010 03:57  
Client ID: RE36-10-7427  
Sample Info: 124735800195673911V0AF11  
Column phase: DB-624

Instrument: V0A7.i  
Operator: AX01  
Column diameter: 0.25

Page 1



Date : 24-FEB-2010 03:57

Client ID: RE36-10-7427

Instrument: V0A7.i

Sample Info: I247358001195673911V0AF11I

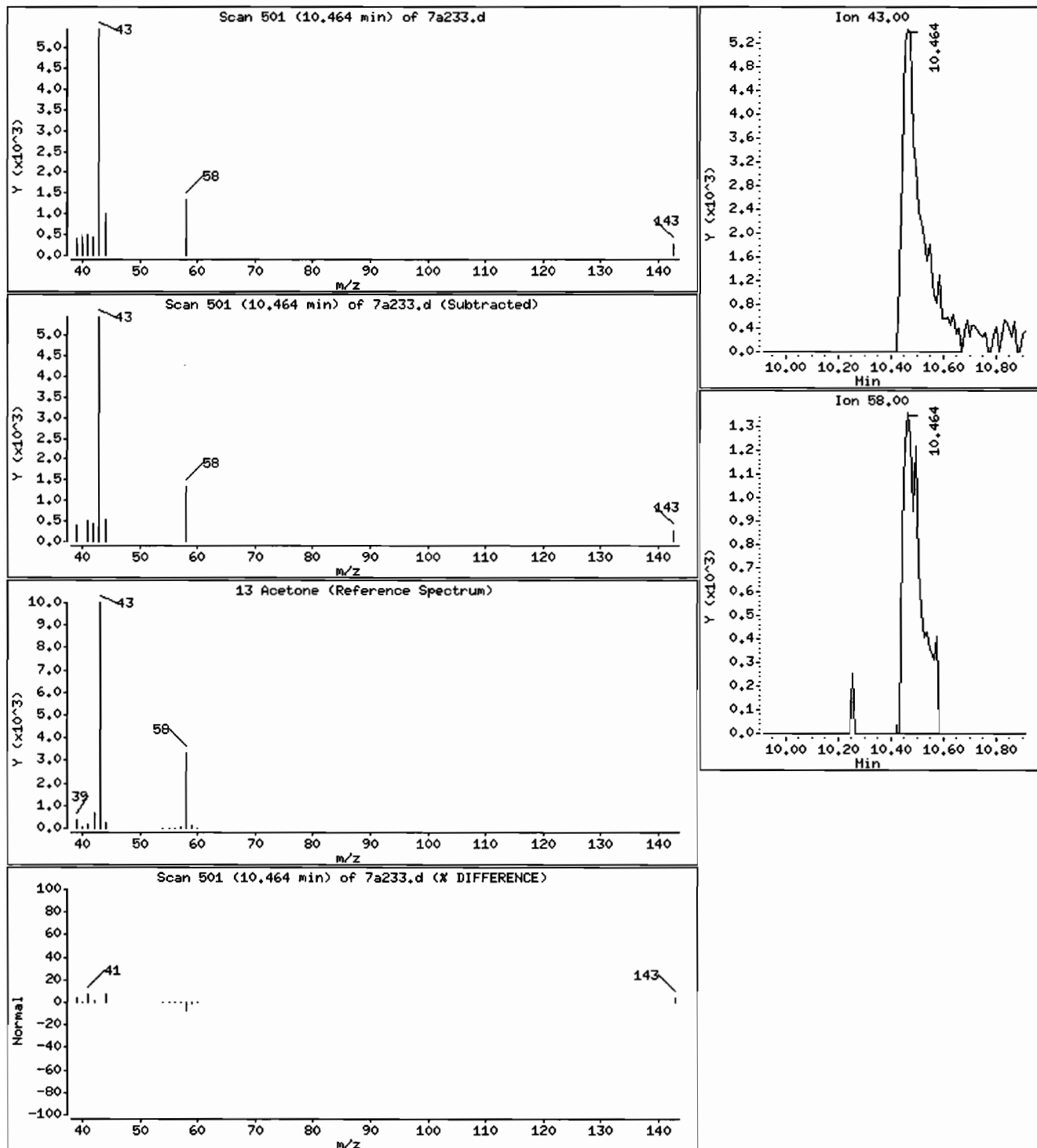
Operator: AX01

Column phase: DB-624

Column diameter: 0.25

13 Acetone

Concentration: 9.5 ug/Kg



Date : 24-FEB-2010 03:57

Client ID: RE36-10-7427

Instrument: V0A7.i

Sample Info: I247358001I956739I1I1V0AFI1I

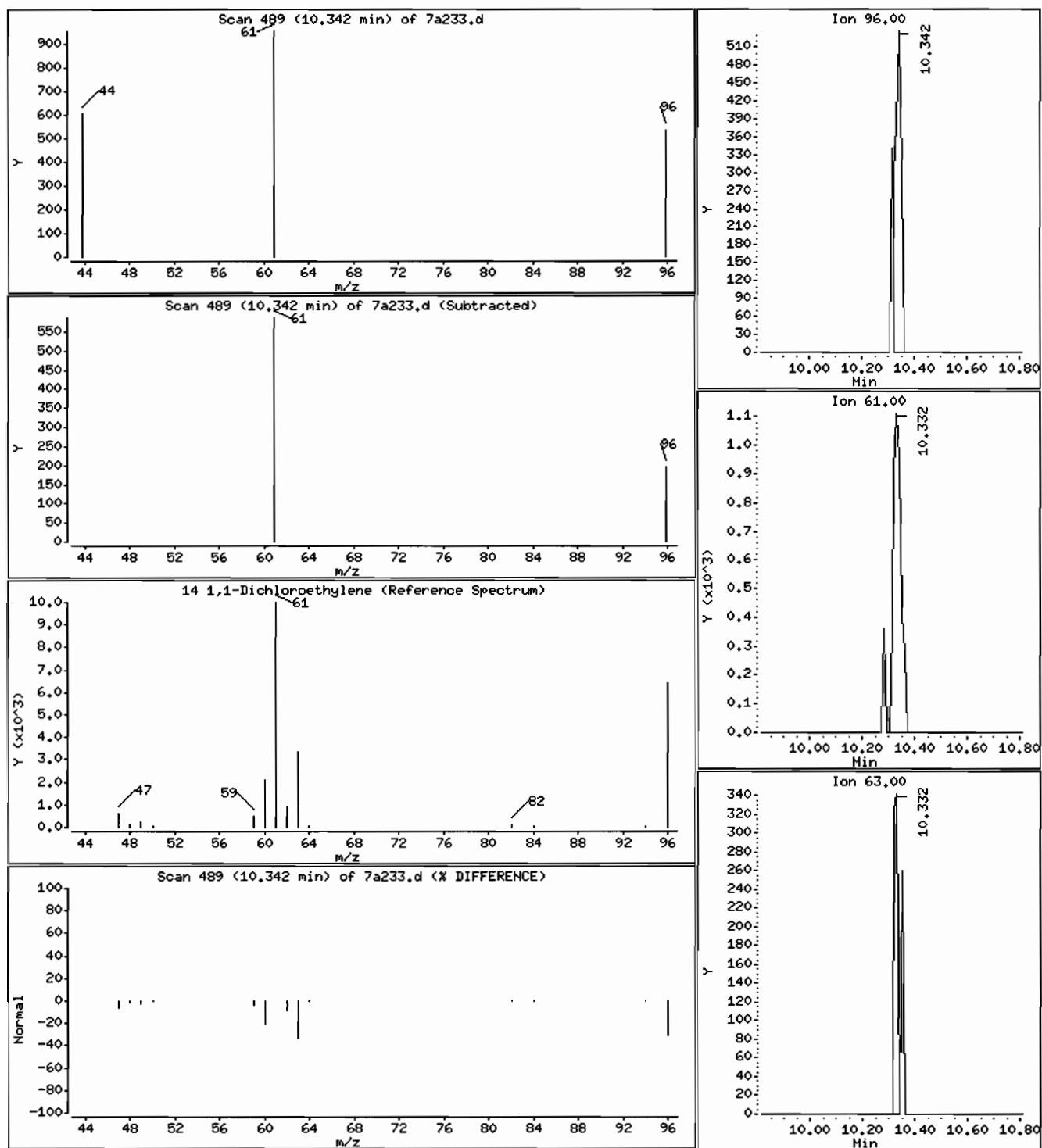
Operator: AX01

Column phase: DB-624

Column diameter: 0,25

14 1,1-Dichloroethylene

Concentration: 0.50 ug/Kg





Date : 24-FEB-2010 03:57

Client ID: RE36-10-7427

Instrument: V0A7.i

Sample Info: I247358001I9567391IIV0AFI1I

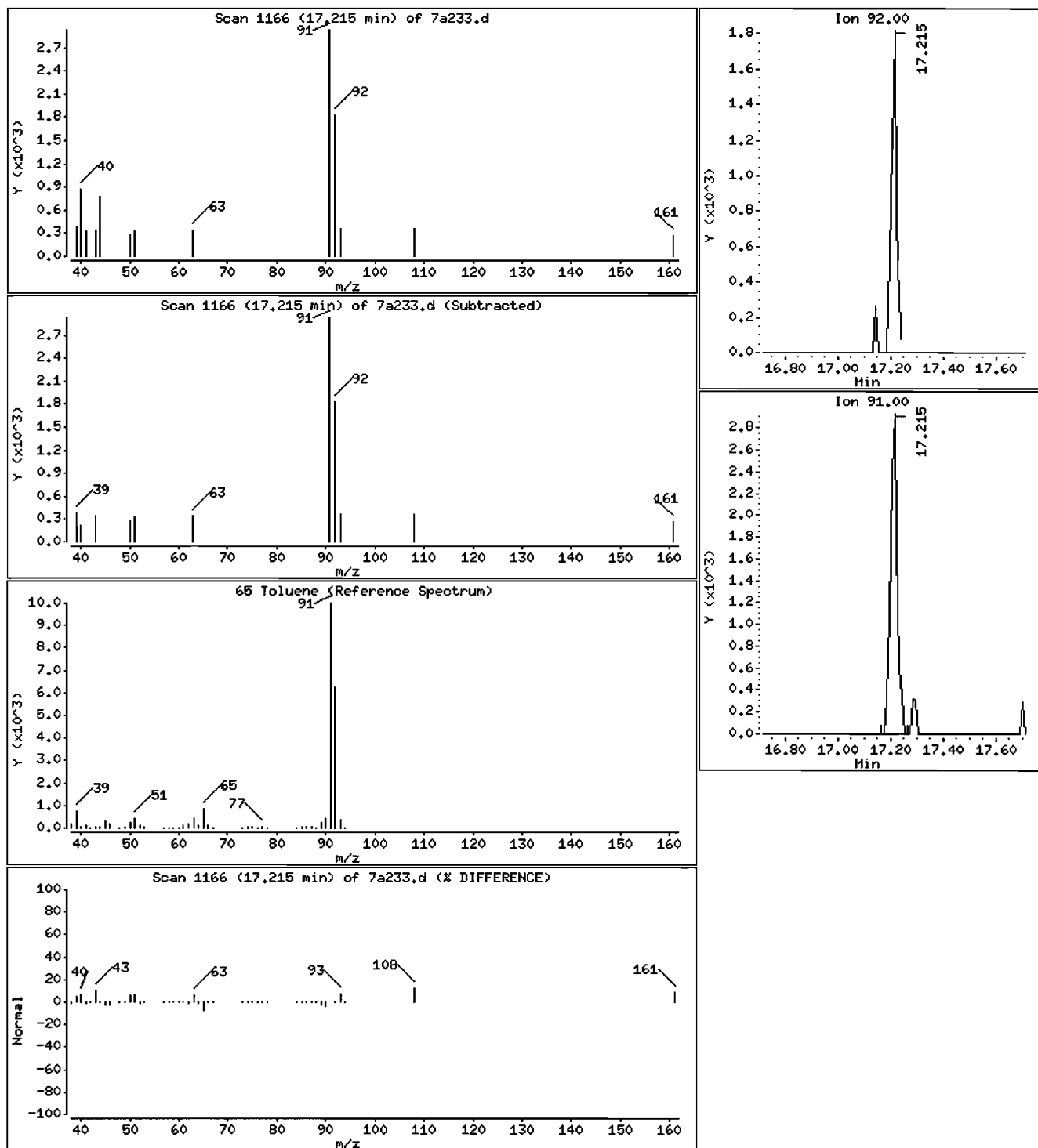
Operator: AX01

Column phase: DB-624

Column diameter: 0.25

65 Toluene

Concentration: 0.76 ug/Kg



Date : 24-FEB-2010 03:57

Client ID: RE36-10-7427

Instrument: V0A7.i

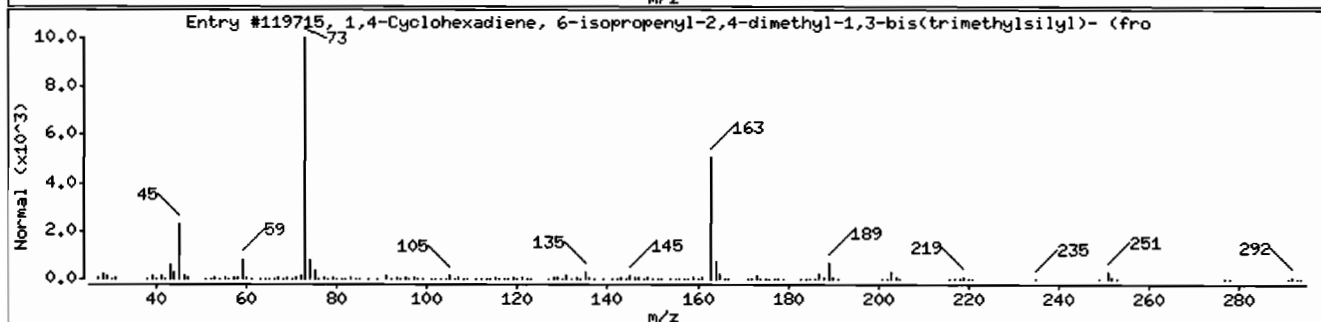
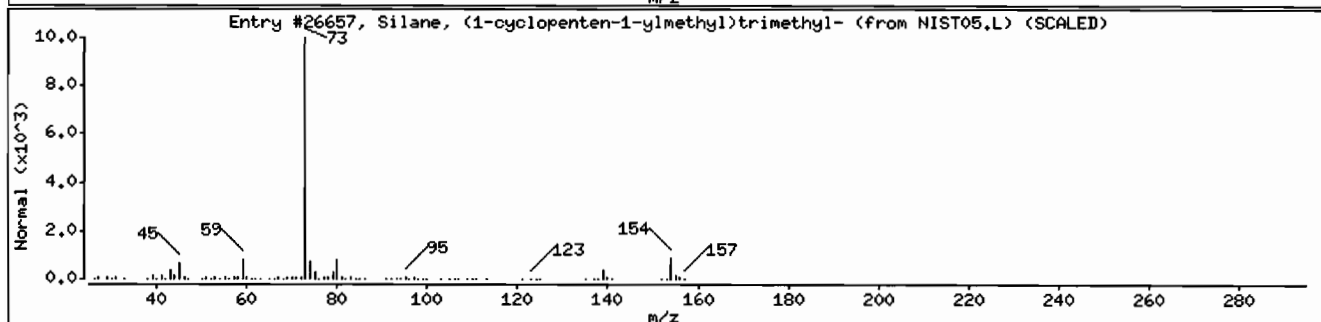
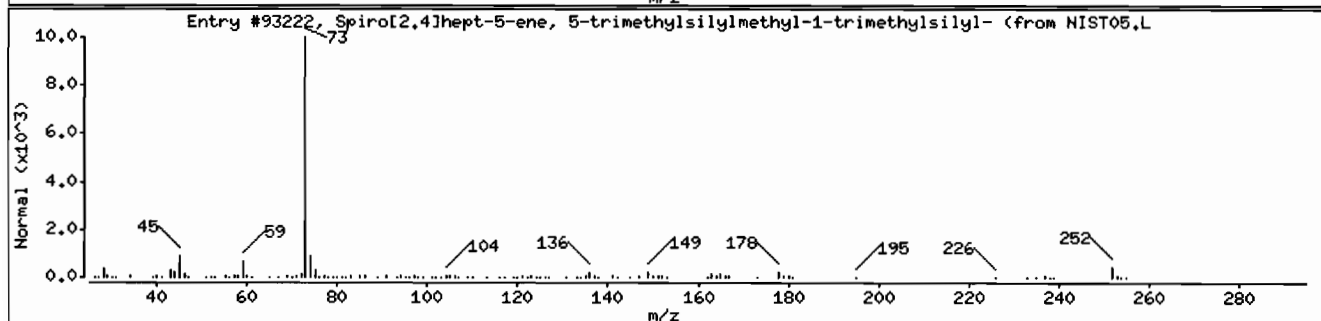
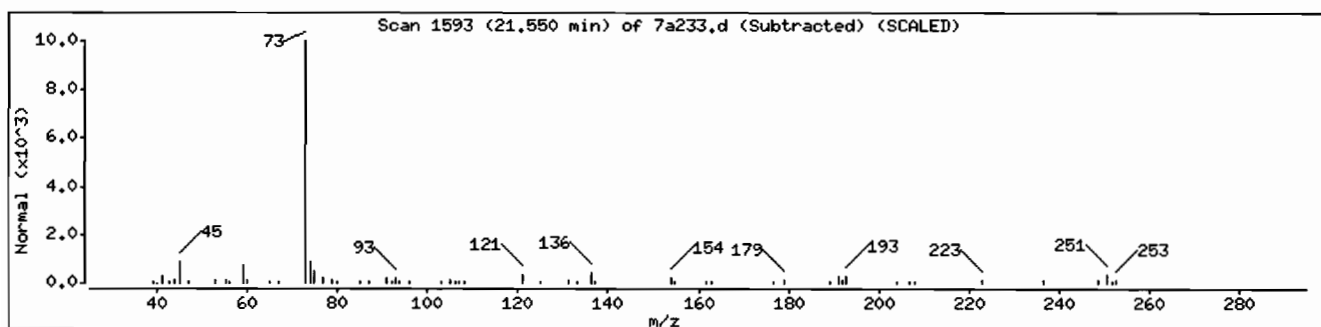
Sample Info: I2473580011956739111V0AF111

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|--|--------------|----------|--------|---------|---|--------|
| Unknown Siloxane                         |              |          |        |         |   |        |
| Spiro[2.4]hept-5-ene, 5-trimethylsilylme | 1000153-96-9 | NIST05.L | 93222  | 43      | C <sub>14</sub> H <sub>28</sub> Si <sub>2</sub> | 252    |
| Silane, (1-cyclopenten-1-ylmethyl)trimet | 75311-60-3   | NIST05.L | 26657  | 25      | C <sub>9</sub> H <sub>18</sub> Si               | 154    |
| 1,4-Cyclohexadiene, 6-isopropenyl-2,4-di | 1000160-89-8 | NIST05.L | 119715 | 25      | C <sub>17</sub> H <sub>32</sub> Si <sub>2</sub> | 292    |



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 247358003

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-7428  
 Batch ID: 956739  
 Run Date: 02/24/2010 05:06  
 Prep Date: 02/23/2010 16:00  
 Data File: 7a235.d

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.09   | ug/kg | 0.372   | 1.09    |
| 74-87-3    | Chloromethane               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-01-4    | Vinyl chloride              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-83-9    | Bromomethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-00-3    | Chloroethane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-64-1    | Acetone                     | U         | 5.47   | ug/kg | 1.82    | 5.47    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-88-4    | Iodomethane                 | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 75-09-2    | Methylene chloride          | U         | 5.47   | ug/kg | 2.19    | 5.47    |
| 75-15-0    | Carbon disulfide            | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 78-93-3    | 2-Butanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 67-66-3    | Chloroform                  | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-97-5    | Bromochloromethane          | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 71-43-2    | Benzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-01-6    | Trichloroethylene           | U         | 1.09   | ug/kg | 0.361   | 1.09    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-27-4    | Bromodichloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 74-95-3    | Dibromomethane              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.47   | ug/kg | 1.37    | 5.47    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-88-3   | Toluene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 591-78-6   | 2-Hexanone                  | U         | 5.47   | ug/kg | 1.64    | 5.47    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 124-48-1   | Dibromochloromethane        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-90-7   | Chlorobenzene               | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 247358003

Date Collected: 02/12/2010 12:00  
 Date Received: 02/18/2010 08:45  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

Client ID: RE36-10-7428  
 Batch ID: 956739  
 Run Date: 02/24/2010 05:06  
 Prep Date: 02/23/2010 16:00  
 Data File: 7a235.d

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.19   | ug/kg | 0.328   | 2.19    |
| 95-47-6     | o-Xylene                              | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 100-42-5    | Styrene                               | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 75-25-2     | Bromoform                             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-86-1    | Bromobenzene                          | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 5.47   | ug/kg | 1.75    | 5.47    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.09   | ug/kg | 0.328   | 1.09    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.09   | ug/kg | 0.328   | 1.09    |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT    | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|-------|-----------|-------|-----|------|
|         | Unknown                               | 7.04  | 9.07      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 20.12 | 6.99      | ug/kg |     | J    |
|         | Unknown Hydrocarbon                   | 21.3  | 8.74      | ug/kg |     | J    |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022310v7/7a235.d  
Lab Smp Id: 247358003 Client Smp ID: RE36-10-7428  
Inj Date : 24-FEB-2010 05:06  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |247358003|956739|1|VOAF|1|  
Misc Info : LANL 5g N/A  
Comment :  
Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 35  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 8.63400   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable Local Compound Variable

| Compounds                    | QUANT SIG |        |        |         |          |  | CONCENTRATIONS |         |
|------------------------------|-----------|--------|--------|---------|----------|--|----------------|---------|
|                              | MASS      | RT     | EXP RT | REL RT  | RESPONSE |  | ON-COLUMN      | FINAL   |
|                              |           |        |        |         |          |  | ( ug/l)        | (ug/Kg) |
| * 51 Fluorobenzene           | 96        | 15.316 | 15.317 | (1.000) | 709018   |  | 50.0000        |         |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 | (1.000) | 506361   |  | 50.0000        |         |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.991 | 20.992 | (1.000) | 246415   |  | 50.0000        |         |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 | (0.971) | 311424   |  | 50.8385        | 55.6    |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 | (0.918) | 807356   |  | 48.9886        | 53.6    |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 | (0.944) | 299429   |  | 46.1949        | 50.6    |

## ION RATIO REPORT

## VOA REPORT

Data file: 7a235.d

Report Date: 02/24/2010 09:28

Lab. ID: 247358003

SampleType: SAMPLE

Injection Date: 24-FEB-2010 05:06

Operator: AX01

Instrument: VOA7.i

Sample Info: |247358003|956739|1|VOAF|1|

Miscellaneous Info: LANL 5g N/A

Comment:

Method used: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS  | RESPONSE               | RT    | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|-------|------------------------|-------|-----------|----------------|-------|------|
| ===== |                        |       |           |                |       |      |
| 63    | 4-Methyl-2-pentanone   |       |           | CAS#: 108-10-1 |       |      |
| 58    | 9523                   | 17.14 | 16.93     | 80-120         | 100   | (T)  |
| 43    | 6329                   | 17.13 | 16.93     | 221-281        | 66    | (QT) |
| 100   | 541503                 | 17.13 | 16.94     | 0- 57          | 5686  | (QT) |
| ----- |                        |       |           |                |       |      |
| 73    | 1,2-Dibromoethane      |       |           | CAS#: 106-93-4 |       |      |
| 107   | 1183                   | 18.62 | 18.22     | 80-120         | 100   | (T)  |
| 109   | 582                    | 18.63 | 18.22     | 67-127         | 49    | (QT) |
| ----- |                        |       |           |                |       |      |
| 78    | Ethylbenzene           |       |           | CAS#: 100-41-4 |       |      |
| 91    | 5803                   | 18.88 | 18.76     | 80-120         | 100   | (T)  |
| 106   | 1674                   | 18.87 | 18.77     | 1- 61          | 29    | (T)  |
| ----- |                        |       |           |                |       |      |
| 92    | 1,3,5-Trimethylbenzene |       |           | CAS#: 108-67-8 |       |      |
| 105   | 6876                   | 20.12 | 20.17     | 80-120         | 100   | ( )  |
| 120   | 873                    | 20.13 | 20.17     | 17- 77         | 13    | (Q)  |
| ----- |                        |       |           |                |       |      |
| 96    | 1,2,4-Trimethylbenzene |       |           | CAS#: 95-63-6  |       |      |
| 105   | 10371                  | 20.69 | 20.57     | 80-120         | 100   | (T)  |
| 120   | 361                    | 20.80 | 20.57     | 19- 79         | 3     | (QT) |
| ----- |                        |       |           |                |       |      |
| 95    | tert-Butylbenzene      |       |           | CAS#: 98-06-6  |       |      |
| 119   | 5852                   | 20.11 | 20.52     | 80-120         | 100   | (T)  |
| 91    | 3825                   | 20.11 | 20.52     | 51-111         | 65    | (T)  |
| 134   | 154                    | 20.17 | 20.52     | 0- 53          | 3     | (T)  |
| ----- |                        |       |           |                |       |      |

| MASS   | RESPONSE | RT             | EXPECT RT | TARGET RANGE | RATIO | QUAL |
|--|----------|----------------|-----------|--------------|-------|------|
| =====  |          |                |           |              |       |      |
| 98 sec-Butylbenzene                                |          | CAS#: 135-98-8 |           |              |       |      |
| 105  | 10371    | 20.69          | 20.75     | 80-120       | 100   | (T)  |
| 134  | 193      | 20.97          | 20.75     | 0- 50        | 2     | (T)  |
| -----  |          |                |           |              |       |      |
| 99 4-Isopropyltoluene                              |          | CAS#: 99-87-6  |           |              |       |      |
| 119  | 7613     | 21.30          | 20.86     | 80-120       | 100   | (T)  |
| 134  | 8514     | 21.30          | 20.86     | 0- 59        | 112   | (QT) |
| 91   | 5915     | 21.28          | 20.86     | 0- 58        | 78    | (QT) |
| -----  |          |                |           |              |       |      |
| 104 n-Butylbenzene                                 |          | CAS#: 104-51-8 |           |              |       |      |
| 91   | 6690     | 21.31          | 21.30     | 80-120       | 100   | ( )  |
| 92   | 2792     | 21.29          | 21.30     | 26- 86       | 42    | ( )  |
| 134  | 9688     | 21.30          | 21.30     | 0- 55        | 145   | (Q)  |
| -----  |          |                |           |              |       |      |
| Q qualifier indicates ion failed ratio requirement |          |                |           |              |       |      |

Data File: /chem/VOA7.i/022310v7/7a235.d  
Report Date: 08-Mar-2010 14:45

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022310v7/7a235.d  
Lab Smp Id: 247358003 Client Smp ID: RE36-10-7428  
Inj Date : 24-FEB-2010 05:06  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |247358003|956739|1|VOAF|1|  
Misc Info : LANL 5g N/A  
Comment :  
Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 35  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M)) \* (Vt/Ws) \* (Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 8.63400   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable Local Compound Variable

| ISTD                         | RT     | AREA    | AMOUNT |
|------------------------------|--------|---------|--------|
| =====                        | =====  | =====   | =====  |
| * 51 Fluorobenzene           | 15.316 | 1692430 | 50.000 |
| * 101 1,4-Dichlorobenzene-d4 | 20.991 | 1761886 | 50.000 |

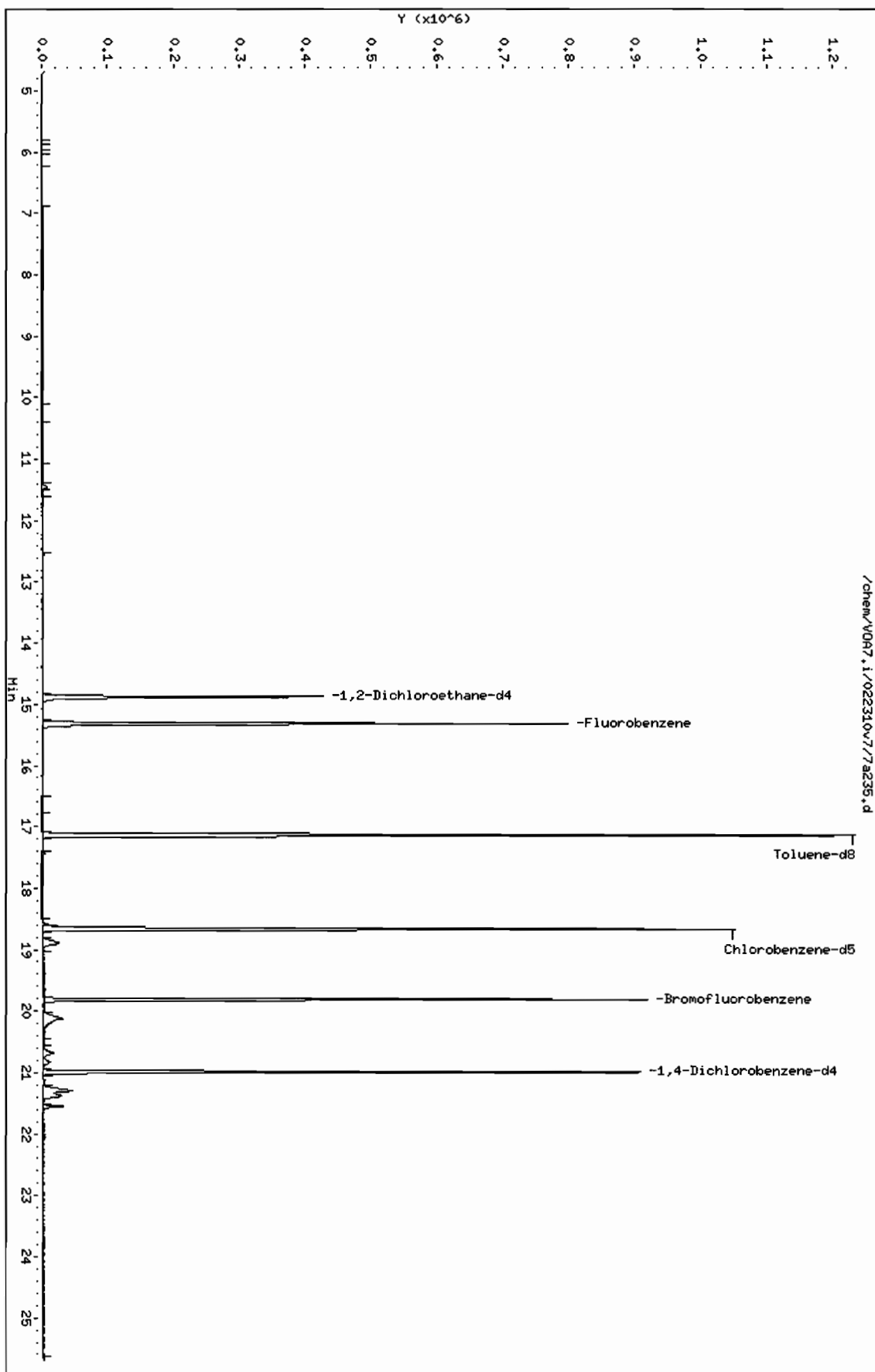
| CONCENTRATIONS |        |                |               | QUANT |         |           |        |
|----------------|--------|----------------|---------------|-------|---------|-----------|--------|
| RT             | AREA   | ON-COL ( ug/l) | FINAL (ug/Kg) | QUAL  | LIBRARY | LIB ENTRY | CPND # |
| =====          | =====  | =====          | =====         | ===== | =====   | =====     | =====  |
| Unknown        |        |                |               |       | CAS #:  |           |        |
| 7.043          | 280601 | 8.28989736     | 9.1           | 0     |         | 0         | 51     |



|                     |        | CONCENTRATIONS |               |       | QUANT   |           |        |  |
|---------------------|--------|----------------|---------------|-------|---------|-----------|--------|--|
| RT                  | AREA   | ON-COL ( ug/l) | FINAL (ug/Kg) | QUAL  | LIBRARY | LIB ENTRY | CPND # |  |
| ====                | ====   | =====          | =====         | ===== | =====   | =====     | =====  |  |
| Unknown Hydrocarbon |        |                |               |       | CAS #:  |           |        |  |
| 20.118              | 225073 | 6.38727280     | 7.0           | 0     |         | 0         | 101    |  |
| Unknown Hydrocarbon |        |                |               |       | CAS #:  |           |        |  |
| 21.296              | 281349 | 7.98430550     | 8.7           | 0     |         | 0         | 101    |  |

Data File: /chem/V007.i/022310v7/7a235.d  
Date : 24-FEB-2010 05:06  
Client ID: RE36-10-7428  
Sample Info: 1247368003195673911.V007.i1  
Column phase: DB-624

Instrument: V007.i  
Operator: AXD1  
Column diameter: 0.25



Data File: /chem/V0A7.i/022310v7/7a235.d

Page 1

Date : 24-FEB-2010 05:06

Client ID: RE36-10-7428

Instrument: V0A7.i

Sample Info: 1247358003195673911V0AF111

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

Library Search Compound Match

CAS Number

Library

Entry

Quality

Formula

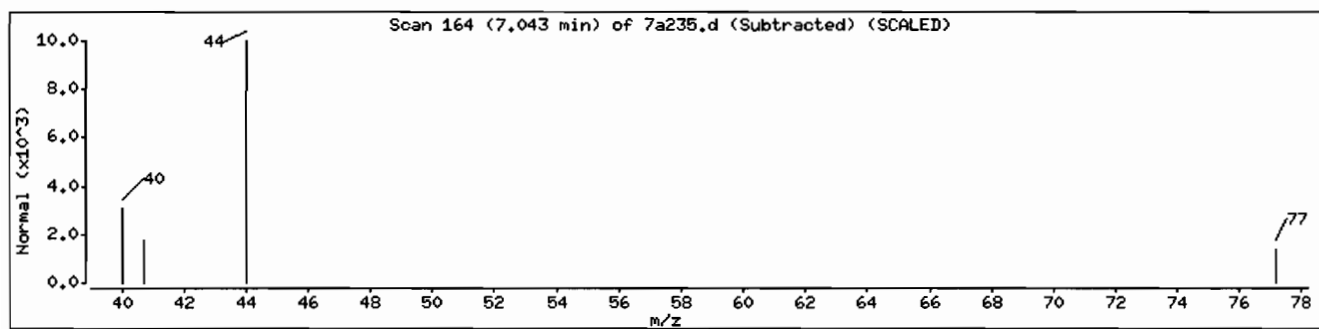
Weight

Unknown

0

0

0



Date : 24-FEB-2010 05:06

Client ID: RE36-10-7428

Instrument: V0A7.i

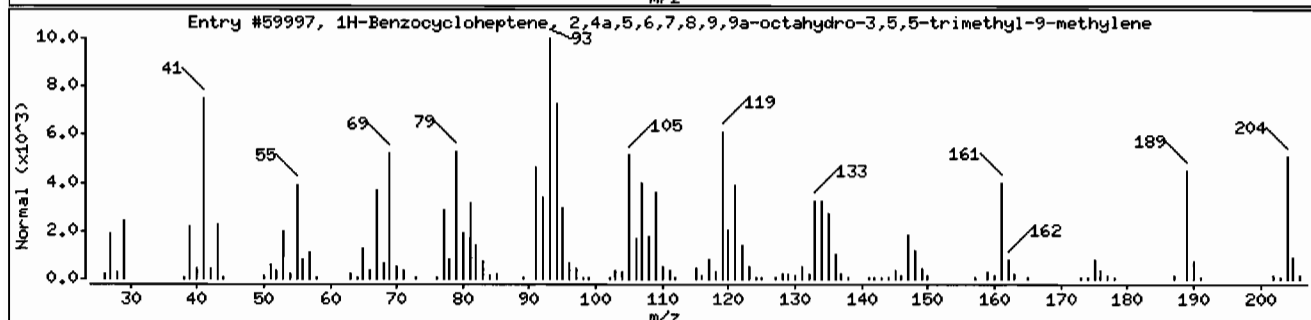
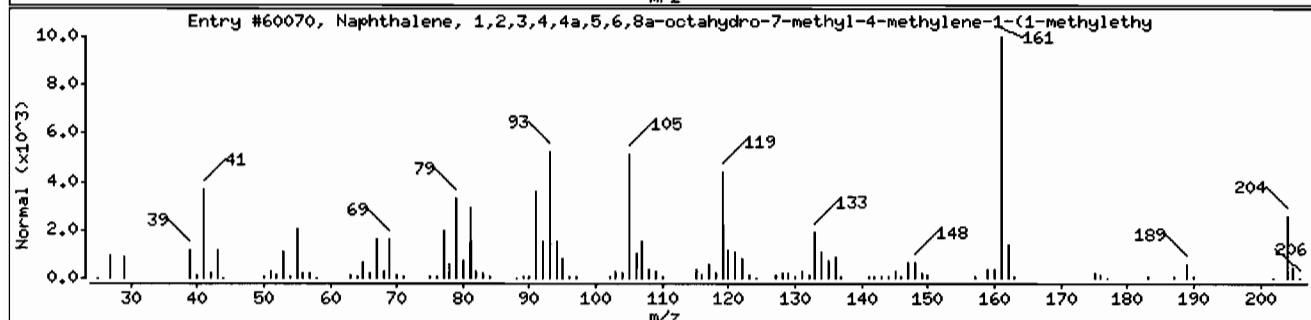
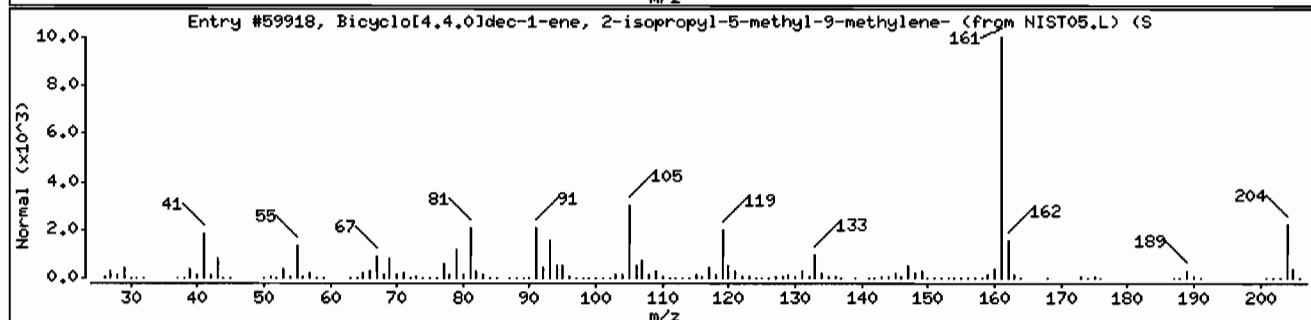
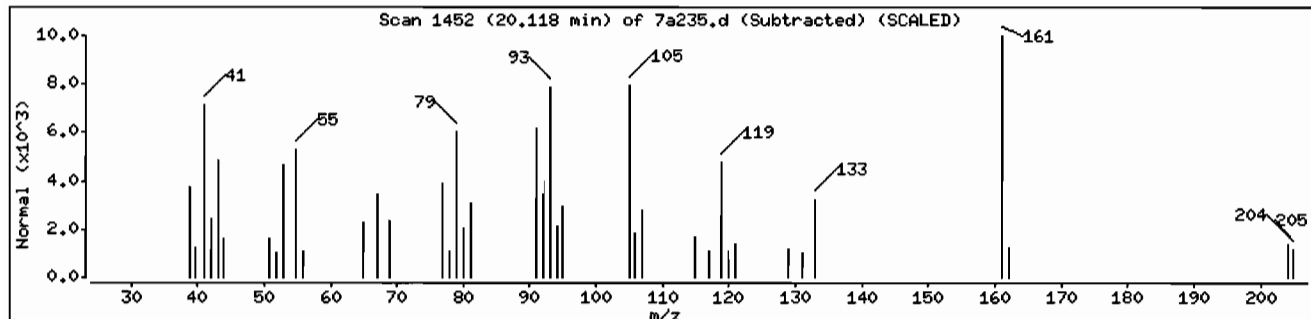
Sample Info: I247358003I956739I1IIV0AFI1I

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number  | Library  | Entry | Quality | Formula | Weight |
|--|-------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |             |          |       |         |         |        |
| Bicyclo[4.4.0]dec-1-ene, 2-isopropyl-5-m | 150320-52-8 | NIST05.L | 59918 | 84      | C15H24  | 204    |
| Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro | 30021-74-0  | NIST05.L | 60070 | 50      | C15H24  | 204    |
| 1H-Benzocycloheptene, 2,4a,5,6,7,8,9,9a- | 3853-83-6   | NIST05.L | 59997 | 46      | C15H24  | 204    |



Date : 24-FEB-2010 05:06

Client ID: RE36-10-7428

Instrument: VOA7.i

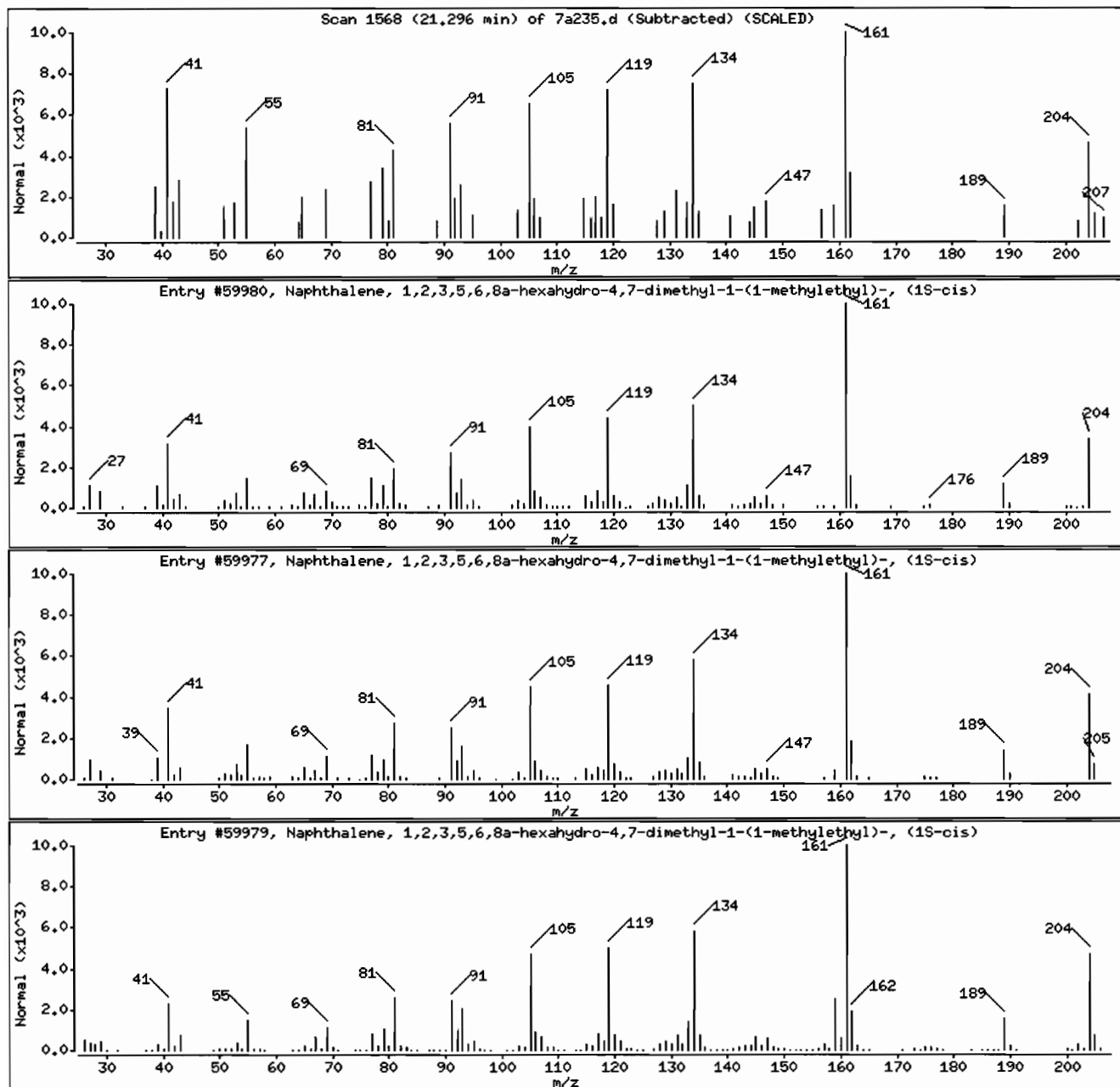
Sample Info: 1247358003195673911\VOAF11

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |         |        |
| Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- | 483-76-1   | NIST05.L | 59980 | 93      | C15H24  | 204    |
| Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- | 483-76-1   | NIST05.L | 59977 | 93      | C15H24  | 204    |
| Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- | 483-76-1   | NIST05.L | 59979 | 89      | C15H24  | 204    |



# Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624  
Calibration Standard Concentration Levels

|                                | Level 1 | Level 1a | Level 2 | Level 3 | Level 4 # | Level 5 | Level 6 | Level 7 ! | Level 7a |
|--------------------------------|---------|----------|---------|---------|-----------|---------|---------|-----------|----------|
| Fluorobenzene (IS)             |         |          |         |         |           |         |         |           |          |
| 1,2-Dichloroethane-d4(surr)    |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Dichlorodifluoromethane        |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Chloromethane                  |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Vinyl chloride                 |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Bromomethane                   |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Chloroethane                   |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Trichlorofluoromethane         |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 1,1-Dichloroethene             |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Acetone                        | 1       | 2.5      | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Iodomethane                    | 1       | 2.5      | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Carbon disulfide               | 1       | 2.5      | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Methylene chloride             |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| trans-1,2-Dichloroethene       |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 1,1-Dichloroethane             |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Ethyl ether                    |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Vinyl acetate                  | 1       | 2.5      | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| cis-1,2-Dichloroethene         |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 1,2-Dichloroethene (total)     |         | 1        | 2       | 4       | 10        | 20      | 40      | 100       | 200      |
| Cyclohexene                    |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 2-Chloroethylvinyl ether       |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| 2,2-Dichloropropane            |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 2-Butanone                     | 1       | 2.5      | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Bromochloromethane             |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Chloroform                     |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 1,1,1-Trichloroethane          |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 1,1-Dichloropropene            |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Carbon tetrachloride           |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Benzene                        |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 1,2-Dichloroethane             |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Trichloroethene                |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| 1,2-Dichloropropane            |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Dibromomethane                 |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Bromodichloromethane           |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| cis-1,3-Dichloropropene        |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| tert-Butylmethylether          |         | 0.5      | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Ethyl Ether                    |         |          | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Acetonitrile                   |         |          | 25      | 50      | 125       | 250     | 500     | 1250      | 2500     |
| Methyl acetate                 |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Cyclohexane                    |         |          | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| Methylcyclohexane              |         |          | 1       | 2       | 5         | 10      | 20      | 50        | 100      |
| n-Butyl alcohol                |         |          | 50      | 100     | 250       | 500     | 1000    | 2500      | 5000     |
| 2-Nitropropane                 |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Ethyl acetate                  |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Acrolein                       |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Trichlorotrifluoroethane       |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Allyl chloride                 |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Acrylonitrile                  |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| 1,4-Dioxane                    |         |          | 50      | 100     | 250       | 500     | 1000    | 2500      | 5000     |
| Isobutyl alcohol               |         |          | 50      | 100     | 250       | 500     | 1000    | 2500      | 5000     |
| Methacrylonitrile              |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Propionitrile                  |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Methyl methacrylate            |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| Chlorotrifluoroethylene        |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |
| 2-Chloro-1,1,1-trifluoroethane |         |          | 5       | 10      | 25        | 50      | 100     | 250       | 500      |

|                                     |   |     |    |     |     |     |      |      |      |
|-------------------------------------|---|-----|----|-----|-----|-----|------|------|------|
| tert-Butyl alcohol                  |   |     | 50 | 100 | 250 | 500 | 1000 | 2500 | 5000 |
| Isopropyl ether                     |   |     | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Ethyl tert-butyl ether              |   |     | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Isopropyl alcohol                   |   |     | 50 | 100 | 250 | 500 | 1000 | 2500 | 5000 |
| Methyl tert-amyl ether              |   |     | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1-Chlorohexane                      |   |     | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 2-Chloro-1,3-butadiene(chloroprene) |   |     | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Chlorobenzene-d5 (IS)               |   |     |    |     |     |     |      |      |      |
| Toluene-d8 (surr)                   |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 4-Methyl-2-pentanone                | 1 | 2.5 | 5  | 10  | 25  | 50  | 100  | 250  | 500  |
| Toluene                             |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| trans-1,3-Dichloropropene           |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,1,2-Trichloroethane               |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Tetrachloroethene                   |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,3-Dichloropropane                 |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 2-Hexanone                          | 1 | 2.5 | 5  | 10  | 25  | 50  | 20   | 250  | 500  |
| Dibromochloromethane                |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,2-Dibromoethane                   |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Chlorobenzene                       |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,1,1,2-Tetrachloroethane           |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Ethylbenzene                        |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| m,p-Xylene                          |   | 1   | 2  | 4   | 10  | 20  | 20   | 100  | 200  |
| o-Xylene                            |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Xylenes (total)                     |   | 1.5 | 3  | 6   | 15  | 30  | 60   | 150  | 300  |
| Stryene                             |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Cyclohexanone                       |   |     | 50 | 100 | 250 | 500 | 1000 | 2500 | 5000 |
| Ethyl methacrylate                  |   |     | 5  | 10  | 25  | 50  | 100  | 250  | 500  |
| 1,4-Dichlorobenzene-d4 (IS)         |   |     |    |     |     |     |      |      |      |
| Bromofluorobenzene (surr)           |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Bromoform                           |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Isopropylbenzene                    |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,1,2,2-Tetrachloroethane           |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Bromobenzene                        |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,2,3-Trichloropropane              |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| n-Propylbenzene                     |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 2-Chlorotoluene                     |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,3,5-Trimethylbenzene              |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 4-Chlorotoluene                     |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,2,4-Trimethylbenzene              |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| sec-Butylbenzene                    |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,3-Dichlorobenzene                 |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| tert-Butylbenzene                   |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Isopropyltoluene                    |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,4-Dichlorobenzene                 |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| n-Butylbenzene                      |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,2-Dichlorobenzene                 |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,2-Dibromo-3-chloropropa           |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,2,4-Trichlorobenzene              |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Hexachlorobutadiene                 |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| Naphthalene                         |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| 1,2,3-Trichlorobenzene              |   | 0.5 | 1  | 2   | 5   | 10  | 20   | 50   | 100  |
| cis-1,4-Dichloro-2-butene           |   |     | 5  | 10  | 25  | 50  | 100  | 250  | 500  |
| trans-1,4-Dichloro-2-butene         |   |     | 5  | 10  | 25  | 50  | 100  | 250  | 500  |
| Tetrahydrofuran                     |   |     | 5  | 10  | 25  | 50  | 100  | 250  | 500  |
| Pentachloroethane                   |   |     | 5  | 10  | 25  | 50  | 100  | 250  | 500  |
| Benzyl chloride                     |   |     | 5  | 10  | 25  | 50  | 100  | 250  | 500  |
| bis(2-Chloro-isopropyl)ether        |   |     | 5  | 10  | 25  | 50  | 100  | 250  | 500  |



Report Date: 25-Feb-2010 08:03

### Calibration History

Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

Start Cal Date: 17-FEB-2010 16:02

End Cal Date : 18-FEB-2010 00:42

#### Initial Calibration

| Injection Date                       | Sublist   | Calibration File              |
|--------------------------------------|-----------|-------------------------------|
| Cal Level: 1 , Cal Amount: 1.00000   |           |                               |
| 17-FEB-2010 21:14                    | ICALsubS  | /chem/VOA7.i/021710v7/7z319.d |
| 17-FEB-2010 16:02                    | ICALsubL+ | /chem/VOA7.i/021710v7/7z310.d |
| Cal Level: 2 , Cal Amount: 2.00000   |           |                               |
| 17-FEB-2010 21:49                    | ICALsubS  | /chem/VOA7.i/021710v7/7z320.d |
| 17-FEB-2010 16:35                    | ICALsubL+ | /chem/VOA7.i/021710v7/7z311.d |
| Cal Level: 3 , Cal Amount: 5.00000   |           |                               |
| 17-FEB-2010 22:24                    | ICALsubS  | /chem/VOA7.i/021710v7/7z321.d |
| 17-FEB-2010 17:09                    | ICALsubL+ | /chem/VOA7.i/021710v7/7z312.d |
| Cal Level: 4 , Cal Amount: 10.00000  |           |                               |
| 17-FEB-2010 22:59                    | ICALsubS  | /chem/VOA7.i/021710v7/7z322.d |
| 17-FEB-2010 17:44                    | ICALsubL+ | /chem/VOA7.i/021710v7/7z313.d |
| Cal Level: 5 , Cal Amount: 20.00000  |           |                               |
| 17-FEB-2010 23:33                    | ICALsubS  | /chem/VOA7.i/021710v7/7z323.d |
| 17-FEB-2010 18:20                    | ICALsubL+ | /chem/VOA7.i/021710v7/7z314.d |
| Cal Level: 6 , Cal Amount: 50.00000  |           |                               |
| 18-FEB-2010 00:08                    | ICALsubS  | /chem/VOA7.i/021710v7/7z324.d |
| 17-FEB-2010 18:55                    | ICALsubL+ | /chem/VOA7.i/021710v7/7z315.d |
| Cal Level: 7 , Cal Amount: 100.00000 |           |                               |
| 18-FEB-2010 00:42                    | ICALsubS  | /chem/VOA7.i/021710v7/7z325.d |
| 17-FEB-2010 19:30                    | ICALsubL+ | /chem/VOA7.i/021710v7/7z316.d |
| Cal Level: 8 , Cal Amount: 200.00000 |           |                               |
| 17-FEB-2010 20:39                    | BENZENE+  | /chem/VOA7.i/021710v7/7z318.d |

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 6

|  |         |
|--|---------|
| Ccal Level: 6 , Ccal Amount: 50.0                              |         |
| +=====+  | +=====+ |
| 24-FEB-2010 10:51   CALsubL+   /chem/VOA7.i/022410v7/7a302.d   |         |
| +-----+  | +-----+ |
| Ccal Level: 6 , Ccal Amount: 50.0                              |         |
| +=====+  | +=====+ |
| 24-FEB-2010 12:33   CALsubS+SS   /chem/VOA7.i/022410v7/7a305.d |         |
| +-----+  | +-----+ |

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02  
 End Cal Date : 18-FEB-2010 00:42  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
 Cal Date : 25-Feb-2010 07:37 ale01592

## Calibration File Names:

Level 1: /chem/VOA7.i/021710v7/7z319.d  
 Level 2: /chem/VOA7.i/021710v7/7z320.d  
 Level 3: /chem/VOA7.i/021710v7/7z321.d  
 Level 4: /chem/VOA7.i/021710v7/7z322.d  
 Level 5: /chem/VOA7.i/021710v7/7z323.d  
 Level 6: /chem/VOA7.i/021710v7/7z324.d  
 Level 7: /chem/VOA7.i/021710v7/7z325.d  
 Level 8: /chem/VOA7.i/021710v7/7z318.d

| Compound                           | Level 1            | Level 2         | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|------------------------------------|--------------------|-----------------|---------|---------|---------|---------|-------|---|--------------------|----|----------------|
| 1 1,3-Dichloropropylene            | 0.42063<br>0.47574 | 0.42665<br>++++ | 0.45952 | 0.44593 | 0.48874 | 0.44785 | AVRG  |   | 0.45215            |    | 5.45519        |
| 2 Xylenes (total)                  | 0.62830<br>0.62692 | 0.67143<br>++++ | 0.66860 | 0.64173 | 0.68474 | 0.59685 | AVRG  |   | 0.64551            |    | 4.80271        |
| 3 1,2-Dichloroethylene (total)     | 0.54927<br>0.46213 | 0.50779<br>++++ | 0.51933 | 0.49776 | 0.47859 | 0.45089 | AVRG  |   | 0.49511            |    | 6.90087        |
| 147 Chlorotrifluoroethylene        | ++++<br>++++       | 0.10076<br>++++ | 0.11210 | 0.09704 | 0.11905 | 0.10241 | AVRG  |   | 0.10627            |    | 8.51602        |
| 148 2-Chloro-1,1,1-trifluoroethane | ++++<br>0.18804    | 0.23271<br>++++ | 0.22089 | 0.21365 | 0.20617 | 0.20476 | AVRG  |   | 0.21104            |    | 7.23518        |

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 Cal Date : 25-Feb-2010 07:37 ale01592

| Compound                    | 1<br>Level 1        | 2<br>Level 2     | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 50<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|-----------------------------|---------------------|------------------|--------------|---------------|---------------|---------------|-------|---|--------------------|----|----------------|
|                             | 100                 | 200              |              |               |               |               |       |   |                    |    |                |
|                             | Level 7             | Level 8          |              |               |               |               |       |   |                    |    |                |
| 4 Dichlorodifluoromethane   | 0.14689 <br>0.14671 | 0.16337 <br>++++ | 0.17771 <br> | 0.15010 <br>  | 0.15669 <br>  | 0.14834 <br>  | AVRG  |   | 0.15569            |    | 7.36086        |
| 5 Chloromethane             | 0.52870 <br>0.38772 | 0.50818 <br>++++ | 0.48152 <br> | 0.45665 <br>  | 0.48246 <br>  | 0.42873 <br>  | AVRG  |   | 0.46771            |    | 10.25591       |
| 6 Vinyl chloride            | 0.50952 <br>0.32494 | 0.46079 <br>++++ | 0.43218 <br> | 0.40625 <br>  | 0.41055 <br>  | 0.36375 <br>  | AVRG  |   | 0.41543            |    | 14.62877       |
| 7 Bromomethane              | 0.25780 <br>0.22760 | 0.23623 <br>++++ | 0.23278 <br> | 0.22734 <br>  | 0.24344 <br>  | 0.23277 <br>  | AVRG  |   | 0.23685            |    | 4.53392        |
| 8 Chloroethane              | 0.22734 <br>0.20451 | 0.22323 <br>++++ | 0.21132 <br> | 0.20164 <br>  | 0.21135 <br>  | 0.20785 <br>  | AVRG  |   | 0.21246            |    | 4.47108        |
| 9 Trichlorofluoromethane    | 0.35996 <br>0.28982 | 0.35068 <br>++++ | 0.30112 <br> | 0.30563 <br>  | 0.31443 <br>  | 0.30426 <br>  | AVRG  |   | 0.31799            |    | 8.38225        |
| 10 Ethyl Ether              | 0.28008 <br>0.29597 | 0.32062 <br>++++ | 0.28724 <br> | 0.29016 <br>  | 0.29781 <br>  | 0.29886 <br>  | AVRG  |   | 0.29582            |    | 4.32385        |
| 11 Acrolein                 | 0.04418 <br>0.06092 | 0.03949 <br>++++ | 0.04544 <br> | 0.04756 <br>  | 0.04531 <br>  | 0.05365 <br>  | AVRG  |   | 0.04808            |    | 14.70368       |
| 12 Trichlorotrifluoroethane | 0.10245 <br>0.07720 | 0.09727 <br>++++ | 0.09404 <br> | 0.09075 <br>  | 0.07953 <br>  | 0.07034 <br>  | AVRG  |   | 0.08737            |    | 13.51328       |

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## INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02  
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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
 Cal Date : 25-Feb-2010 07:37 ale01592

| Compound                | Level 1             | Level 2          | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b | Coeficients<br>m1 | m2 | %RSD<br>or R^2 |
|-------------------------|---------------------|------------------|---------|---------|---------|---------|-------|---|-------------------|----|----------------|
|                         | 100                 | 200              |         |         |         |         |       |   |                   |    |                |
|                         | Level 7             | Level 8          |         |         |         |         |       |   |                   |    |                |
| 13 Acetone              | 0.37122 <br>0.30889 | 0.36279 <br>++++ | 0.32383 | 0.32614 | 0.34124 | 0.31027 | AVRG  |   | 0.33491           |    | 7.33338        |
| 14 1,1-Dichloroethylene | 0.23466 <br>0.20998 | 0.22304 <br>++++ | 0.23525 | 0.21218 | 0.20855 | 0.19843 | AVRG  |   | 0.21744           |    | 6.41898        |
| 15 Isopropyl Alcohol    | 0.03379 <br>0.03385 | 0.02848 <br>++++ | 0.03362 | 0.03382 | 0.03438 | 0.02970 | AVRG  |   | 0.03252           |    | 7.32915        |
| 16 Iodomethane          | 0.39608 <br>0.38094 | 0.36645 <br>++++ | 0.40560 | 0.38566 | 0.35788 | 0.35975 | AVRG  |   | 0.37891           |    | 4.84456        |
| 17 Acetonitrile         | 0.06193 <br>0.05095 | 0.06381 <br>++++ | 0.05756 | 0.05797 | 0.05730 | 0.06594 | AVRG  |   | 0.05935           |    | 8.41770        |
| 18 Methyl acetate       | 0.35515 <br>0.27857 | 0.29749 <br>++++ | 0.32852 | 0.31506 | 0.29869 | 0.29447 | AVRG  |   | 0.30971           |    | 8.25337        |
| 19 Carbon disulfide     | 0.89266 <br>0.65599 | 0.79048 <br>++++ | 0.83100 | 0.78713 | 0.71568 | 0.68163 | AVRG  |   | 0.76494           |    | 11.07438       |
| 20 Allyl chloride       | 0.53968 <br>0.39621 | 0.50526 <br>++++ | 0.50958 | 0.48676 | 0.45362 | 0.42965 | AVRG  |   | 0.47439           |    | 10.59305       |
| 21 tert-Butyl Alcohol   | 0.05167 <br>0.04776 | 0.04139 <br>++++ | 0.04764 | 0.04767 | 0.05022 | 0.04265 | AVRG  |   | 0.04700           |    | 7.96307        |

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 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
 Cal Date : 25-Feb-2010 07:37 ale01592

| Compound                      | 1<br>Level 1       | 2<br>Level 2    | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 50<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|-------------------------------|--------------------|-----------------|--------------|---------------|---------------|---------------|-------|---|--------------------|----|----------------|
|                               | 100                | 200             |              |               |               |               |       |   |                    |    |                |
|                               | Level 7            | Level 8         |              |               |               |               |       |   |                    |    |                |
| 22 Methylene chloride         | ++++<br>0.19549    | 0.23820<br>++++ | 0.21441      | 0.20090       | 0.19068       | 0.18599       | AVRG  |   | 0.20428            |    | 9.44493        |
| 23 Acrylonitrile              | 0.13731<br>0.13157 | 0.12635<br>++++ | 0.14147      | 0.13774       | 0.13619       | 0.13170       | AVRG  |   | 0.13462            |    | 3.74591        |
| 24 tert-Butyl methyl ether    | 0.80994<br>0.78981 | 0.81750<br>++++ | 0.75450      | 0.77254       | 0.73118       | 0.73829       | AVRG  |   | 0.77339            |    | 4.39216        |
| 25 trans-1,2-Dichloroethylene | 0.50384<br>0.42206 | 0.46689<br>++++ | 0.48692      | 0.46195       | 0.45327       | 0.42294       | AVRG  |   | 0.45970            |    | 6.61934        |
| 26 Vinyl acetate              | 0.77450<br>0.60197 | 0.85406<br>++++ | 0.75761      | 0.81966       | 0.81586       | 0.69432       | AVRG  |   | 0.75971            |    | 11.40322       |
| 27 Isopropyl ether            | ++++<br>1.18690    | 1.28662<br>++++ | 1.29461      | 1.35198       | 1.29488       | 1.24203       | AVRG  |   | 1.27617            |    | 4.38816        |
| 28 1,1-Dichloroethane         | 0.61604<br>0.58003 | 0.62372<br>++++ | 0.63881      | 0.58962       | 0.58167       | 0.55743       | AVRG  |   | 0.59819            |    | 4.80576        |
| 29 2-Chloro-1,3-butadiene     | 0.41421<br>0.37943 | 0.42657<br>++++ | 0.42523      | 0.41666       | 0.39568       | 0.39845       | AVRG  |   | 0.40803            |    | 4.26210        |
| 30 Ethyl tert-butyl ether     | ++++<br>0.90285    | 0.84231<br>++++ | 0.83069      | 0.85509       | 0.90158       | 0.89776       | AVRG  |   | 0.87171            |    | 3.75724        |

## GEL Laboratories LLC

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 Integrator : HP RTE  
 Method file : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
 Cal Date : 25-Feb-2010 07:37 ale01592

| Compound                    | 1<br>Level 1 | 2<br>Level 2 | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 50<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|-----------------------------|--------------|--------------|--------------|---------------|---------------|---------------|-------|---|--------------------|----|----------------|
|                             | 100          | 200          |              |               |               |               |       |   |                    |    |                |
|                             | Level 7      | Level 8      |              |               |               |               |       |   |                    |    |                |
| 31 2-Butanone               | 0.38771      | 0.40391      | 0.35922      | 0.36946       | 0.40769       | 0.34405       | AVRG  |   | 0.37353            |    | 7.19573        |
|                             | 0.34266      | ++++         |              |               |               |               |       |   |                    |    |                |
| 32 Ethyl acetate            | 0.44278      | 0.41784      | 0.45125      | 0.42632       | 0.40256       | 0.35807       | AVRG  |   | 0.40471            |    | 10.77753       |
|                             | 0.33414      | ++++         |              |               |               |               |       |   |                    |    |                |
| 33 cis-1,2-Dichloroethylene | 0.59471      | 0.54869      | 0.55173      | 0.53357       | 0.50390       | 0.47885       | AVRG  |   | 0.53052            |    | 7.33716        |
|                             | 0.50219      | ++++         |              |               |               |               |       |   |                    |    |                |
| 34 2,2-Dichloropropane      | 0.29938      | 0.24188      | 0.25597      | 0.23681       | 0.21790       | 0.23089       | AVRG  |   | 0.24848            |    | 10.56617       |
|                             | 0.25653      | ++++         |              |               |               |               |       |   |                    |    |                |
| 35 Propionitrile            | 0.07002      | 0.05258      | 0.06457      | 0.05980       | 0.05683       | 0.05325       | AVRG  |   | 0.05907            |    | 10.68190       |
|                             | 0.05642      | ++++         |              |               |               |               |       |   |                    |    |                |
| 36 Methacrylonitrile        | 0.25818      | 0.24456      | 0.27034      | 0.26013       | 0.24380       | 0.22478       | AVRG  |   | 0.24530            |    | 8.04738        |
|                             | 0.21528      | ++++         |              |               |               |               |       |   |                    |    |                |
| 37 Bromochloromethane       | 0.40223      | 0.39817      | 0.41300      | 0.40043       | 0.38909       | 0.36555       | AVRG  |   | 0.39220            |    | 4.15023        |
|                             | 0.37692      | ++++         |              |               |               |               |       |   |                    |    |                |
| 38 Chloroform               | 0.58519      | 0.49407      | 0.49340      | 0.48912       | 0.49932       | 0.45410       | AVRG  |   | 0.49798            |    | 8.35869        |
|                             | 0.47062      | ++++         |              |               |               |               |       |   |                    |    |                |
| 39 Tetrahydrofuran          | 0.47764      | 0.44454      | 0.45944      | 0.42050       | 0.41053       | 0.36338       | AVRG  |   | 0.41916            |    | 10.93258       |
|                             | 0.35812      | ++++         |              |               |               |               |       |   |                    |    |                |

## GEL Laboratories LLC

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 Cal Date : 25-Feb-2010 07:37 ale01592

| Compound                  | 1<br>Level 1       | 2<br>Level 2       | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 50<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | MRSD<br>or R^2 |
|---------------------------|--------------------|--------------------|--------------|---------------|---------------|---------------|-------|---|--------------------|----|----------------|
| 41 1,1,1-Trichloroethane  | 0.33463<br>0.34747 | 0.35201<br>++++    | 0.35980      | 0.33703       | 0.33680       | 0.32438       | AVRG  |   | 0.34173            |    | 3.50911        |
| 42 Isobutyl alcohol       | 0.01894<br>0.01640 | 0.01694<br>++++    | 0.01962      | 0.01852       | 0.01823       | 0.01675       | AVRG  |   | 0.01791            |    | 6.84459        |
| 43 Cyclohexane            | 0.66684<br>0.48668 | 0.57907<br>++++    | 0.60139      | 0.53233       | 0.53775       | 0.48436       | AVRG  |   | 0.55549            |    | 11.78390       |
| 44 1,1-Dichloropropene    | 0.37354<br>0.33295 | 0.38678<br>++++    | 0.36871      | 0.36553       | 0.35185       | 0.32521       | AVRG  |   | 0.35780            |    | 6.23018        |
| 45 Carbon tetrachloride   | 0.30369<br>0.27553 | 0.24799<br>++++    | 0.29060      | 0.26048       | 0.26806       | 0.25705       | AVRG  |   | 0.27191            |    | 7.21748        |
| 47 1,2-Dichloroethane     | 0.54033<br>0.47861 | 0.47238<br>++++    | 0.50508      | 0.49698       | 0.49337       | 0.45253       | AVRG  |   | 0.49133            |    | 5.66795        |
| 48 Benzene                | 1.15482<br>0.99723 | 1.06364<br>1.32285 | 1.13097      | 1.06471       | 1.03320       | 0.97886       | AVRG  |   | 1.09329            |    | 10.11080       |
| 49 Methyl tert-amyl ether | ++++<br>0.72584    | 0.62391<br>++++    | 0.62516      | 0.64841       | 0.70561       | 0.68979       | AVRG  |   | 0.66978            |    | 6.46614        |
| 50 Cyclohexene            | 0.56390<br>0.48987 | 0.50610<br>++++    | 0.54171      | 0.51654       | 0.51454       | 0.47290       | AVRG  |   | 0.51508            |    | 5.92603        |



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 Integrator : HP RTE  
 Method file : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
 Cal Date : 25-Feb-2010 07:37 ale01592

| Compound                | 1<br>Level 1 | 2<br>Level 2 | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 50<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|-------------------------|--------------|--------------|--------------|---------------|---------------|---------------|-------|---|--------------------|----|----------------|
|                         | 100          | 200          |              |               |               |               |       |   |                    |    |                |
|                         | Level 7      | Level 8      |              |               |               |               |       |   |                    |    |                |
| 52 n-Butyl alcohol      | 0.011791     | 0.012411     | 0.012161     | 0.013411      | 0.014031      | 0.013991      | AVRG  |   | 0.013001           |    | 7.095481       |
|                         | 0.013881     | 0.012341     |              |               |               |               |       |   |                    |    |                |
| 53 Trichloroethylene    | 0.274301     | 0.264381     | 0.273971     | 0.265191      | 0.276181      | 0.243871      | AVRG  |   | 0.264891           |    | 4.395861       |
|                         | 0.256371     | ++++         |              |               |               |               |       |   |                    |    |                |
| 54 Methyl methacrylate  | 0.223361     | 0.206711     | 0.229311     | 0.220551      | 0.218091      | 0.212281      | AVRG  |   | 0.216841           |    | 3.872321       |
|                         | 0.207561     | ++++         |              |               |               |               |       |   |                    |    |                |
| 55 Methylcyclohexane    | 0.499661     | 0.438611     | 0.444811     | 0.440061      | 0.436121      | 0.403831      | AVRG  |   | 0.440551           |    | 6.730241       |
|                         | 0.420781     | ++++         |              |               |               |               |       |   |                    |    |                |
| 56 1,2-Dichloropropane  | 0.392451     | 0.368971     | 0.381771     | 0.371421      | 0.365831      | 0.331201      | AVRG  |   | 0.364061           |    | 6.168451       |
|                         | 0.336771     | ++++         |              |               |               |               |       |   |                    |    |                |
| 57 1,4-Dioxane          | 0.003481     | 0.002501     | 0.003541     | 0.003341      | 0.003231      | 0.003131      | AVRG  |   | 0.003261           |    | 11.429361      |
|                         | 0.003591     | ++++         |              |               |               |               |       |   |                    |    |                |
| 58 Dibromomethane       | 0.191961     | 0.197231     | 0.199391     | 0.197271      | 0.198891      | 0.190461      | AVRG  |   | 0.196381           |    | 1.868811       |
|                         | 0.199441     | ++++         |              |               |               |               |       |   |                    |    |                |
| 59 Bromodichloromethane | 0.397321     | 0.369091     | 0.396311     | 0.385931      | 0.414321      | 0.376051      | AVRG  |   | 0.390441           |    | 3.840341       |
|                         | 0.394101     | ++++         |              |               |               |               |       |   |                    |    |                |
| 60 2-Nitropropane       | 0.133851     | 0.119191     | 0.146521     | 0.145311      | 0.147501      | 0.143291      | AVRG  |   | 0.140351           |    | 7.438541       |
|                         | 0.146801     | ++++         |              |               |               |               |       |   |                    |    |                |

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| Compound                       | Level 1             | Level 2          | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b | ml      | m2 | %RSD<br>or R^2 |
|--------------------------------|---------------------|------------------|---------|---------|---------|---------|-------|---|---------|----|----------------|
|                                | Level 1             | Level 2          | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b | ml      | m2 | %RSD<br>or R^2 |
|                                | 100                 | 200              |         |         |         |         |       |   |         |    |                |
|                                | Level 7             | Level 8          |         |         |         |         |       |   |         |    |                |
| 61 2-Chloroethylvinyl ether    | 0.13828 <br>0.14819 | 0.13131 <br>++++ | 0.13224 | 0.14312 | 0.14531 | 0.15383 | AVRG  |   | 0.14176 |    | 5.85520        |
| 62 cis-1,3-Dichloropropylene   | 0.44683 <br>0.48927 | 0.46424 <br>++++ | 0.48235 | 0.47289 | 0.50753 | 0.46544 | AVRG  |   | 0.47551 |    | 4.13438        |
| 63 4-Methyl-2-pentanone        | 0.24889 <br>0.23121 | 0.25775 <br>++++ | 0.24134 | 0.24113 | 0.27708 | 0.22508 | AVRG  |   | 0.24607 |    | 7.06681        |
| 65 Toluene                     | 0.99540 <br>0.84445 | 0.91525 <br>++++ | 0.94675 | 0.88594 | 0.89959 | 0.81410 | AVRG  |   | 0.90021 |    | 6.75427        |
| 66 Ethyl methacrylate          | 0.58277 <br>0.50204 | 0.54247 <br>++++ | 0.62302 | 0.60387 | 0.58118 | 0.57129 | AVRG  |   | 0.57238 |    | 6.98256        |
| 67 trans-1,3-Dichloropropylene | 0.57975             | 0.56956          | 0.63061 | 0.60000 | 0.66595 | 0.59758 | AVRG  |   | 0.61004 |    | 5.45435        |
| 68 1,1,2-Trichloroethane       | 0.62680 <br>0.34428 | 0.35523 <br>++++ | 0.35299 | 0.34101 | 0.36031 | 0.31095 | AVRG  |   | 0.33917 |    | 6.14376        |
| 69 2-Hexanone                  | 0.73685 <br>0.50687 | 0.78422 <br>++++ | 0.70044 | 0.68470 | 0.76383 | 0.58953 | AVRG  |   | 0.68092 |    | 14.65103       |
| 70 1,3-Dichloropropane         | 0.69293 <br>0.63986 | 0.71194 <br>++++ | 0.70218 | 0.70482 | 0.75363 | 0.66338 | AVRG  |   | 0.69553 |    | 5.22166        |

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| Compound                     | Level 1             | Level 2          | Level 3      | Level 4      | Level 5      | Level 6      | Curve     | b | ml           | m2 | %RSD<br>or R^2 |
|------------------------------|---------------------|------------------|--------------|--------------|--------------|--------------|-----------|---|--------------|----|----------------|
|                              | 100                 | 200              |              |              |              |              |           |   |              |    |                |
|                              | Level 7             | Level 8          |              |              |              |              |           |   |              |    |                |
| 71 Tetrachloroethylene       | 0.28354 <br>0.24094 | 0.25342 <br>++++ | 0.26414 <br> | 0.23364 <br> | 0.24287 <br> | 0.22289 <br> | AVRG <br> |   | 0.24878 <br> |    | 8.14204 <br>   |
| 72 Dibromochloromethane      | 0.33269 <br>0.39353 | 0.34579 <br>++++ | 0.36231 <br> | 0.35639 <br> | 0.40520 <br> | 0.36488 <br> | AVRG <br> |   | 0.36583 <br> |    | 6.98702 <br>   |
| 73 1,2-Dibromoethane         | 0.36328 <br>0.37253 | 0.35222 <br>++++ | 0.36077 <br> | 0.36799 <br> | 0.40005 <br> | 0.35812 <br> | AVRG <br> |   | 0.36785 <br> |    | 4.25309 <br>   |
| 74 1-Chlorohexane            | 0.34706 <br>0.30890 | 0.30121 <br>++++ | 0.31913 <br> | 0.33191 <br> | 0.32325 <br> | 0.30402 <br> | AVRG <br> |   | 0.31936 <br> |    | 5.13508 <br>   |
| 76 Chlorobenzene             | 1.01098 <br>0.86362 | 0.95127 <br>++++ | 0.95000 <br> | 0.91236 <br> | 0.96965 <br> | 0.82857 <br> | AVRG <br> |   | 0.92664 <br> |    | 6.81260 <br>   |
| 77 1,1,1,2-Tetrachloroethane | 0.30146 <br>0.35239 | 0.31109 <br>++++ | 0.30197 <br> | 0.30384 <br> | 0.34945 <br> | 0.31502 <br> | AVRG <br> |   | 0.31932 <br> |    | 6.94131 <br>   |
| 78 Ethylbenzene              | 1.85154 <br>1.43524 | 1.82479 <br>++++ | 1.76134 <br> | 1.68668 <br> | 1.76608 <br> | 1.44831 <br> | AVRG <br> |   | 1.68200 <br> |    | 10.24073 <br>  |
| 79 m,p-Xylenes               | 0.62114 <br>0.60453 | 0.67062 <br>++++ | 0.65895 <br> | 0.62920 <br> | 0.66820 <br> | 0.57827 <br> | AVRG <br> |   | 0.63299 <br> |    | 5.50638 <br>   |
| 80 o-Xylene                  | 0.64264 <br>0.67170 | 0.67305 <br>++++ | 0.68788 <br> | 0.66680 <br> | 0.71782 <br> | 0.63403 <br> | AVRG <br> |   | 0.67056 <br> |    | 4.16006 <br>   |

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| Compound                       | 1<br>Level 1 | 2<br>Level 2 | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 50<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R <sup>2</sup> |
|--------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|-------|---|--------------------|----|---------------------------|
|                                | 100          | 200          |              |               |               |               |       |   |                    |    |                           |
|                                | Level 7      | Level 8      |              |               |               |               |       |   |                    |    |                           |
| 81 Styrene                     | 1.03480      | 1.05435      | 1.09579      | 1.08161       | 1.17767       | 1.02490       | AVRG  |   | 1.07382            |    | 4.85533                   |
|                                | 1.04761      | ++++         |              |               |               |               |       |   |                    |    |                           |
| 82 Bromoform                   | 0.44800      | 0.46729      | 0.45445      | 0.44703       | 0.54809       | 0.46991       | AVRG  |   | 0.47906            |    | 8.15291                   |
|                                | 0.51866      | ++++         |              |               |               |               |       |   |                    |    |                           |
| 83 Isopropylbenzene            | 3.49497      | 3.66615      | 3.43580      | 3.19632       | 3.44542       | 2.75679       | AVRG  |   | 3.23464            |    | 12.06581                  |
|                                | 2.64705      | ++++         |              |               |               |               |       |   |                    |    |                           |
| 84 cis-1,4-Dichloro-2-butene   | 0.38069      | 0.31673      | 0.41215      | 0.40845       | 0.41138       | 0.39737       | AVRG  |   | 0.38900            |    | 8.67306                   |
|                                | 0.39623      | ++++         |              |               |               |               |       |   |                    |    |                           |
| 85 Cyclohexanone               | 0.03195      | 0.02350      | 0.02895      | 0.02863       | 0.02827       | ++++          |       |   |                    |    |                           |
|                                | ++++         | ++++         |              |               |               |               | AVRG  |   | 0.02826            |    | 10.75061                  |
| 87 1,1,2,2-Tetrachloroethane   | 1.19265      | 1.21572      | 1.15731      | 1.10829       | 1.25926       | 1.00651       |       |   |                    |    |                           |
|                                | 0.98082      | ++++         |              |               |               |               | AVRG  |   | 1.13151            |    | 9.31719                   |
| 88 trans-1,4-Dichloro-2-butene | 0.31891      | 0.31312      | 0.36778      | 0.36391       | 0.36234       | 0.36318       |       |   |                    |    |                           |
|                                | 0.36821      | ++++         |              |               |               |               | AVRG  |   | 0.35107            |    | 6.86595                   |
| 89 1,2,3-Trichloropropane      | 0.28647      | 0.24666      | 0.22625      | 0.24828       | 0.25953       | 0.22210       |       |   |                    |    |                           |
|                                | 0.23411      | ++++         |              |               |               |               | AVRG  |   | 0.24620            |    | 8.97349                   |
| 90 Bromobenzene                | 0.76034      | 0.78745      | 0.77871      | 0.75408       | 0.80267       | 0.68660       |       |   |                    |    |                           |
|                                | 0.73175      | ++++         |              |               |               |               | AVRG  |   | 0.75737            |    | 5.14118                   |

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| Compound                  | 1<br>Level 1        | 2<br>Level 2     | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 50<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|---------------------------|---------------------|------------------|--------------|---------------|---------------|---------------|-------|---|--------------------|----|----------------|
|                           | 100                 | 200              |              |               |               |               |       |   |                    |    |                |
|                           | Level 7             | Level 8          |              |               |               |               |       |   |                    |    |                |
| 91 n-Propylbenzene        | 4.68347 <br>3.27290 | 4.56352 <br>++++ | 4.37500      | 4.07800       | 4.36558       | 3.44795       | AVRG  |   | 4.11235            |    | 13.35638       |
| 92 1,3,5-Trimethylbenzene | 2.81587 <br>2.37547 | 2.87105 <br>++++ | 2.68849      | 2.60394       | 2.92918       | 2.42595       | AVRG  |   | 2.67285            |    | 8.07975        |
| 93 2-Chlorotoluene        | 3.05461 <br>2.42881 | 3.13194 <br>++++ | 2.82160      | 2.73305       | 3.05604       | 2.48242       | AVRG  |   | 2.81550            |    | 10.07173       |
| 94 4-Chlorotoluene        | 2.83303 <br>2.18348 | 2.73655 <br>++++ | 2.57278      | 2.45072       | 2.69458       | 2.22008       | AVRG  |   | 2.52732            |    | 10.03292       |
| 95 tert-Butylbenzene      | 2.54254 <br>2.18802 | 2.53348 <br>++++ | 2.52529      | 2.35277       | 2.63624       | 2.17076       | AVRG  |   | 2.42130            |    | 7.65601        |
| 96 1,2,4-Trimethylbenzene | 2.83048 <br>2.43799 | 2.81952 <br>++++ | 2.78705      | 2.63535       | 2.97059       | 2.45445       | AVRG  |   | 2.70506            |    | 7.47088        |
| 97 Pentachloroethane      | 0.26106 <br>0.27493 | 0.28148 <br>++++ | 0.29783      | 0.29968       | 0.26523       | 0.29207       | AVRG  |   | 0.28176            |    | 5.48711        |
| 98 sec-Butylbenzene       | 3.89578 <br>2.97444 | 3.94634 <br>++++ | 3.68073      | 3.52735       | 3.87381       | 3.06099       | AVRG  |   | 3.56563            |    | 11.26370       |
| 99 4-Isopropyltoluene     | 2.79121 <br>2.29722 | 2.68596 <br>++++ | 2.60196      | 2.47043       | 2.87417       | 2.31964       | AVRG  |   | 2.57723            |    | 8.71312        |

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| Compound                        | 1<br>Level 1        | 2<br>Level 2     | 5<br>Level 3 | 10<br>Level 4 | 20<br>Level 5 | 50<br>Level 6 | Curve | b       | Coeficients<br>m1 | m2 | %RSD<br>or R^2 |
|---------------------------------|---------------------|------------------|--------------|---------------|---------------|---------------|-------|---------|-------------------|----|----------------|
| 100 1,3-Dichlorobenzene         | 1.69373 <br>1.32887 | 1.54028 <br>++++ | 1.50003      | 1.42658       | 1.57954       | 1.28805       | AVRG  |         | 1.47958           |    | 9.64386        |
| 102 1,4-Dichlorobenzene         | 1.53770 <br>1.34055 | 1.53666 <br>++++ | 1.49633      | 1.39235       | 1.50686       | 1.30262       | AVRG  |         | 1.44472           |    | 6.77070        |
| 103 Benzyl chloride             | 1.17587 <br>1.21970 | 1.11939 <br>++++ | 1.30663      | 1.30678       | 1.28136       | 1.26359       | AVRG  |         | 1.23904           |    | 5.72889        |
| 104 n-Butylbenzene              | 3.34819 <br>2.50844 | 3.21649 <br>++++ | 3.03466      | 2.89314       | 3.28392       | 2.61464       | AVRG  |         | 2.98564           |    | 11.02434       |
| 105 1,2-Dichlorobenzene         | 1.50083 <br>1.36521 | 1.58906 <br>++++ | 1.51728      | 1.49969       | 1.60799       | 1.32336       | AVRG  |         | 1.48620           |    | 7.15929        |
| 106 bis(2-Chloroisopropyl)ether | 0.83007 <br>0.64789 | 0.63325 <br>++++ | 0.75441      | 0.70073       | 0.68867       | 0.64153       | AVRG  |         | 0.69951           |    | 10.20844       |
| 107 1,2-Dibromo-3-chloropropane | 584 <br>176713      | 2275 <br>++++    | 5481         | 11354         | 29844         | 73362         | LINR  | 0.02102 | 0.19109           |    | 0.99838        |
| 108 1,2,4-Trichlorobenzene      | 1.00820 <br>0.86464 | 0.98539 <br>++++ | 0.92239      | 0.88204       | 1.01161       | 0.84337       | AVRG  |         | 0.93109           |    | 7.59068        |
| 109 Hexachlorobutadiene         | 0.50497 <br>0.45720 | 0.57866 <br>++++ | 0.51670      | 0.47693       | 0.53727       | 0.42764       | AVRG  |         | 0.49991           |    | 10.16033       |

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| Compound                    | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b | Coeficients<br>m1 | m2 | %RSD<br>or R^2 |
|-----------------------------|---------|---------|---------|---------|---------|---------|-------|---|-------------------|----|----------------|
|                             | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b | Coeficients<br>m1 | m2 | %RSD<br>or R^2 |
|                             | 100     | 200     |         |         |         |         |       |   |                   |    |                |
|                             | Level 7 | Level 8 |         |         |         |         |       |   |                   |    |                |
| 110 Naphthalene             | 2.39039 | 2.32801 | 2.24690 | 2.18867 | 2.66812 | 2.25278 | AVRG  |   | 2.33792           |    | 6.80664        |
|                             | 2.29053 | ++++    |         |         |         |         |       |   |                   |    |                |
| 111 1,2,3-Trichlorobenzene  | 0.99358 | 0.85784 | 0.84533 | 0.78975 | 0.93501 | 0.79611 | AVRG  |   | 0.86076           |    | 8.92879        |
|                             | 0.80769 | ++++    |         |         |         |         |       |   |                   |    |                |
| \$ 46 1,2-Dichloroethane-d4 | 0.42538 | 0.44520 | 0.42789 | 0.43782 | 0.42368 | 0.42998 | AVRG  |   | 0.43199           |    | 1.75777        |
|                             | 0.43397 | ++++    |         |         |         |         |       |   |                   |    |                |
| \$ 64 Toluene-d8            | 1.62293 | 1.66865 | 1.68737 | 1.64500 | 1.61861 | 1.59016 | AVRG  |   | 1.62735           |    | 2.72640        |
|                             | 1.55870 | ++++    |         |         |         |         |       |   |                   |    |                |
| \$ 86 Bromofluorobenzene    | 1.29606 | 1.36624 | 1.35275 | 1.32744 | 1.29510 | 1.29800 | AVRG  |   | 1.31523           |    | 2.62999        |
|                             | 1.27105 | ++++    |         |         |         |         |       |   |                   |    |                |

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End Cal Date : 18-FEB-2010 00:42  
Quant Method : ISTD  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
Cal Date : 25-Feb-2010 07:37 ale01592

| Curve    | Formula           | Units    |
|----------|-------------------|----------|
| Averaged | Amnt = Rsp/ml     | Response |
| Linear   | Amnt = b + Rsp/ml | Response |



GEL Laboratories LLC  
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-FEB-2010 02:27  
Lab File ID: 7z328.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100217-22 Quant Type: ISTD  
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

| COMPOUND                         | RRF / AMOUNT | RF50    | CCAL<br>RRF50 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE    |
|----------------------------------|--------------|---------|---------------|------------|-------------|--------------------|---------------|
| M 2 Xylenes (total)              | 0.64551      | 0.62451 | 0.62451       | 0.050      | -3.25377    | 30.00000           | Averaged      |
| M 3 1,2-Dichloroethylene (total) | 0.49511      | 0.45815 | 0.45815       | 0.050      | -7.46472    | 30.00000           | Averaged      |
| M 1 1,3-Dichloropropylene        | 0.45215      | 0.46016 | 0.46016       | 0.050      | 1.77148     | 30.00000           | Averaged      |
| 4 Dichlorodifluoromethane        | 0.15569      | 0.13873 | 0.13873       | 0.050      | -10.89039   | 30.00000           | Averaged      |
| 5 Chloromethane                  | 0.46771      | 0.40064 | 0.40064       | 0.100      | -14.34049   | 30.00000           | Averaged spcc |
| 6 Vinyl chloride                 | 0.41543      | 0.34912 | 0.34912       | 0.050      | -15.96116   | 20.00000           | Averaged ccc  |
| 7 Bromomethane                   | 0.23685      | 0.22892 | 0.22892       | 0.050      | -3.35016    | 30.00000           | Averaged      |
| 8 Chloroethane                   | 0.21246      | 0.20582 | 0.20582       | 0.010      | -3.12447    | 30.00000           | Averaged      |
| 9 Trichlorofluoromethane         | 0.31799      | 0.29248 | 0.29248       | 0.050      | -8.02212    | 30.00000           | Averaged      |
| 10 Ethyl Ether                   | 0.29582      | 0.29735 | 0.29735       | 0.001      | 0.51656     | 30.00000           | Averaged      |
| 13 Acetone                       | 0.33491      | 0.29721 | 0.29721       | 0.050      | -11.25680   | 40.00000           | Averaged      |
| 17 Acetonitrile                  | 0.05935      | 0.07072 | 0.07072       | 0.010      | 19.15195    | 30.00000           | Averaged      |
| 14 1,1-Dichloroethylene          | 0.21744      | 0.19489 | 0.19489       | 0.050      | -10.37135   | 20.00000           | Averaged ccc  |
| 18 Methyl acetate                | 0.30971      | 0.30162 | 0.30162       | 0.010      | -2.61040    | 40.00000           | Averaged      |
| 16 Iodomethane                   | 0.37891      | 0.36309 | 0.36309       | 0.050      | -4.17398    | 30.00000           | Averaged      |
| 22 Methylene chloride            | 0.20428      | 0.19326 | 0.19326       | 0.050      | -5.39206    | 30.00000           | Averaged      |
| 19 Carbon disulfide              | 0.76494      | 0.70918 | 0.70918       | 0.050      | -7.28904    | 30.00000           | Averaged      |
| 24 tert-Butyl methyl ether       | 0.77339      | 0.77741 | 0.77741       | 0.050      | 0.51971     | 30.00000           | Averaged      |
| 25 trans-1,2-Dichloroethylene    | 0.45970      | 0.42331 | 0.42331       | 0.050      | -7.91447    | 30.00000           | Averaged      |
| 26 Vinyl acetate                 | 0.75971      | 0.65453 | 0.65453       | 0.010      | -13.84562   | 40.00000           | Averaged      |
| 28 1,1-Dichloroethane            | 0.59819      | 0.58345 | 0.58345       | 0.100      | -2.46329    | 30.00000           | Averaged spcc |
| 31 2-Butanone                    | 0.37353      | 0.32999 | 0.32999       | 0.030      | -11.65784   | 40.00000           | Averaged      |
| 33 cis-1,2-Dichloroethylene      | 0.53052      | 0.49299 | 0.49299       | 0.050      | -7.07501    | 30.00000           | Averaged      |
| 34 2,2-Dichloropropane           | 0.24848      | 0.22525 | 0.22525       | 0.050      | -9.35079    | 30.00000           | Averaged      |
| 38 Chloroform                    | 0.49798      | 0.47145 | 0.47145       | 0.010      | -5.32731    | 20.00000           | Averaged ccc  |
| 37 Bromochloromethane            | 0.39220      | 0.37710 | 0.37710       | 0.010      | -3.84914    | 30.00000           | Averaged      |
| 41 1,1,1-Trichloroethane         | 0.34173      | 0.33281 | 0.33281       | 0.010      | -2.61185    | 30.00000           | Averaged      |
| 43 Cyclohexane                   | 0.55549      | 0.48819 | 0.48819       | 0.010      | -12.11548   | 30.00000           | Averaged      |
| 44 1,1-Dichloropropene           | 0.35780      | 0.33377 | 0.33377       | 0.010      | -6.71432    | 30.00000           | Averaged      |
| 52 n-Butyl alcohol               | 0.01300      | 0.01560 | 0.01560       | 0.001      | 20.00901    | 40.00000           | Averaged      |
| 45 Carbon tetrachloride          | 0.27191      | 0.26041 | 0.26041       | 0.010      | -4.22921    | 30.00000           | Averaged      |
| \$ 46 1,2-Dichloroethane-d4      | 0.43199      | 0.41602 | 0.41602       | 0.010      | -3.69539    | 30.00000           | Averaged      |
| 47 1,2-Dichloroethane            | 0.49133      | 0.47654 | 0.47654       | 0.010      | -3.00919    | 30.00000           | Averaged      |
| 48 Benzene                       | 1.09329      | 1.01770 | 1.01770       | 0.010      | -6.91346    | 30.00000           | Averaged      |
| 50 Cyclohexene                   | 0.51508      | 0.47503 | 0.47503       | 0.010      | -7.77517    | 30.00000           | Averaged      |

GEL Laboratories LLC  
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-FEB-2010 02:27  
Lab File ID: 7z328.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100217-22 Quant Type: ISTD  
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

| COMPOUND                       | RRF / AMOUNT | RF50    | CCAL<br>RRF50 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE    |
|--------------------------------|--------------|---------|---------------|------------|-------------|--------------------|---------------|
| 53 Trichloroethylene           | 0.26489      | 0.25884 | 0.25884       | 0.010      | -2.28485    | 30.00000           | Averaged      |
| 56 1,2-Dichloropropane         | 0.36406      | 0.34276 | 0.34276       | 0.010      | -5.85033    | 20.00000           | Averaged ccc  |
| 55 Methylcyclohexane           | 0.44055      | 0.40776 | 0.40776       | 0.010      | -7.44328    | 30.00000           | Averaged      |
| 59 Bromodichloromethane        | 0.39044      | 0.39204 | 0.39204       | 0.010      | 0.40888     | 30.00000           | Averaged      |
| 58 Dibromomethane              | 0.19638      | 0.19614 | 0.19614       | 0.010      | -0.12043    | 30.00000           | Averaged      |
| 61 2-Chloroethylvinyl ether    | 0.14176      | 0.13312 | 0.13312       | 0.010      | -6.08895    | 30.00000           | Averaged      |
| 63 4-Methyl-2-pentanone        | 0.24607      | 0.23847 | 0.23847       | 0.010      | -3.08660    | 40.00000           | Averaged      |
| 62 cis-1,3-Dichloropropylene   | 0.47551      | 0.47478 | 0.47478       | 0.010      | -0.15161    | 30.00000           | Averaged      |
| \$ 64 Toluene-d8               | 1.62735      | 1.59462 | 1.59462       | 0.010      | -2.01081    | 30.00000           | Averaged      |
| 65 Toluene                     | 0.90021      | 0.86882 | 0.86882       | 0.010      | -3.48730    | 20.00000           | Averaged ccc  |
| 67 trans-1,3-Dichloropropylene | 0.61004      | 0.62998 | 0.62998       | 0.010      | 3.26982     | 30.00000           | Averaged      |
| 68 1,1,2-Trichloroethane       | 0.33917      | 0.33086 | 0.33086       | 0.010      | -2.45158    | 30.00000           | Averaged      |
| 69 2-Hexanone                  | 0.68092      | 0.56308 | 0.56308       | 0.010      | -17.30573   | 40.00000           | Averaged      |
| 70 1,3-Dichloropropane         | 0.69553      | 0.70217 | 0.70217       | 0.010      | 0.95395     | 30.00000           | Averaged      |
| 71 Tetrachloroethylene         | 0.24878      | 0.23181 | 0.23181       | 0.010      | -6.82091    | 30.00000           | Averaged      |
| 72 Dibromochloromethane        | 0.36583      | 0.38883 | 0.38883       | 0.010      | 6.28730     | 30.00000           | Averaged      |
| 73 1,2-Dibromoethane           | 0.36785      | 0.38653 | 0.38653       | 0.010      | 5.07802     | 30.00000           | Averaged      |
| 76 Chlorobenzene               | 0.92664      | 0.90044 | 0.90044       | 0.300      | -2.82685    | 30.00000           | Averaged spcc |
| 77 1,1,1,2-Tetrachloroethane   | 0.31932      | 0.33458 | 0.33458       | 0.010      | 4.77841     | 30.00000           | Averaged      |
| 78 Ethylbenzene                | 1.68200      | 1.51733 | 1.51733       | 0.010      | -9.78969    | 20.00000           | Averaged ccc  |
| 79 m,p-Xylenes                 | 0.63299      | 0.60842 | 0.60842       | 0.010      | -3.88083    | 30.00000           | Averaged      |
| 80 o-Xylene                    | 0.67056      | 0.65668 | 0.65668       | 0.010      | -2.06991    | 30.00000           | Averaged      |
| 81 Styrene                     | 1.07382      | 1.07422 | 1.07422       | 0.010      | 0.03737     | 30.00000           | Averaged      |
| 82 Bromoform                   | 0.47906      | 0.50547 | 0.50547       | 0.100      | 5.51185     | 30.00000           | Averaged spcc |
| 83 Isopropylbenzene            | 3.23464      | 2.86304 | 2.86304       | 0.010      | -11.48816   | 30.00000           | Averaged      |
| 87 1,1,2,2-Tetrachloroethane   | 1.13151      | 1.04885 | 1.04885       | 0.300      | -7.30521    | 30.00000           | Averaged spcc |
| \$ 86 Bromofluorobenzene       | 1.31523      | 1.28244 | 1.28244       | 0.010      | -2.49352    | 30.00000           | Averaged      |
| 89 1,2,3-Trichloropropane      | 0.24620      | 0.24376 | 0.24376       | 0.010      | -0.99197    | 30.00000           | Averaged      |
| 90 Bromobenzene                | 0.75737      | 0.73368 | 0.73368       | 0.010      | -3.12821    | 30.00000           | Averaged      |
| 91 n-Propylbenzene             | 4.11235      | 3.55350 | 3.55350       | 0.010      | -13.58941   | 30.00000           | Averaged      |
| 93 2-Chlorotoluene             | 2.81550      | 2.61345 | 2.61345       | 0.010      | -7.17611    | 30.00000           | Averaged      |
| 92 1,3,5-Trimethylbenzene      | 2.67285      | 2.53769 | 2.53769       | 0.010      | -5.05667    | 30.00000           | Averaged      |
| 94 4-Chlorotoluene             | 2.52732      | 2.34633 | 2.34633       | 0.010      | -7.16112    | 30.00000           | Averaged      |
| 95 tert-Butylbenzene           | 2.42130      | 2.26973 | 2.26973       | 0.010      | -6.25993    | 30.00000           | Averaged      |
| 96 1,2,4-Trimethylbenzene      | 2.70506      | 2.55659 | 2.55659       | 0.010      | -5.48856    | 30.00000           | Averaged      |
| 98 sec-Butylbenzene            | 3.56563      | 3.18076 | 3.18076       | 0.010      | -10.79408   | 30.00000           | Averaged      |

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-FEB-2010 02:27  
Lab File ID: 7z328.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100217-22 Quant Type: ISTD  
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

| COMPOUND                        | RRF / AMOUNT | RF50     | CCAL<br>RRF50 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE |
|---------------------------------|--------------|----------|---------------|------------|-------------|--------------------|------------|
| 99 4-Isopropyltoluene           | 2.57723      | 2.40283  | 2.40283       | 0.010      | -6.76672    | 30.00000           | Averaged   |
| 100 1,3-Dichlorobenzene         | 1.47958      | 1.37420  | 1.37420       | 0.010      | -7.12232    | 30.00000           | Averaged   |
| 102 1,4-Dichlorobenzene         | 1.44472      | 1.35364  | 1.35364       | 0.010      | -6.30431    | 30.00000           | Averaged   |
| 104 n-Butylbenzene              | 2.98564      | 2.67527  | 2.67527       | 0.010      | -10.39534   | 30.00000           | Averaged   |
| 105 1,2-Dichlorobenzene         | 1.48620      | 1.41959  | 1.41959       | 0.010      | -4.48214    | 30.00000           | Averaged   |
| 107 1,2-Dibromo-3-chloropropane | 53.98003     | 50.00000 | 0.20228       | 0.010      | 7.96006     | 30.00000           | Linear     |
| 108 1,2,4-Trichlorobenzene      | 0.93109      | 0.87331  | 0.87331       | 0.010      | -6.20563    | 30.00000           | Averaged   |
| 109 Hexachlorobutadiene         | 0.49991      | 0.45648  | 0.45648       | 0.010      | -8.68867    | 30.00000           | Averaged   |
| 110 Naphthalene                 | 2.33792      | 2.47041  | 2.47041       | 0.010      | 5.66713     | 30.00000           | Averaged   |
| 111 1,2,3-Trichlorobenzene      | 0.86076      | 0.87276  | 0.87276       | 0.010      | 1.39435     | 30.00000           | Averaged   |

Average %D / Drift Results.

Calculated Average %D/Drift = 7.69699  
Maximum Average %D/Drift = 20.00000  
\* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/021710v7/7z328.d

Lab Smp Id: W7VM100217-22 Client Smp ID: ICV

Inj Date : 18-FEB-2010 02:27

Operator : AX01 Inst ID: VOA7.i

Smp Info : |W7VM100217-22|ICV|1|VOAF|1|

Misc Info : GEL 5mL N/A UVM100126-01E/IVM100214-01

Comment :

Method : /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

Meth Date : 18-Feb-2010 06:55 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d

Als bottle: 21 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: CALsubL+.sub

Target Version: 3.50

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

| Name | Value   | Description               |
|------|---------|---------------------------|
| DF   | 1.00000 | Dilution Factor           |
| Uf   | 5.00000 | ng unit correction factor |
| Vo   | 5.00000 | sample purged             |

Cpnd Variable Local Compound Variable

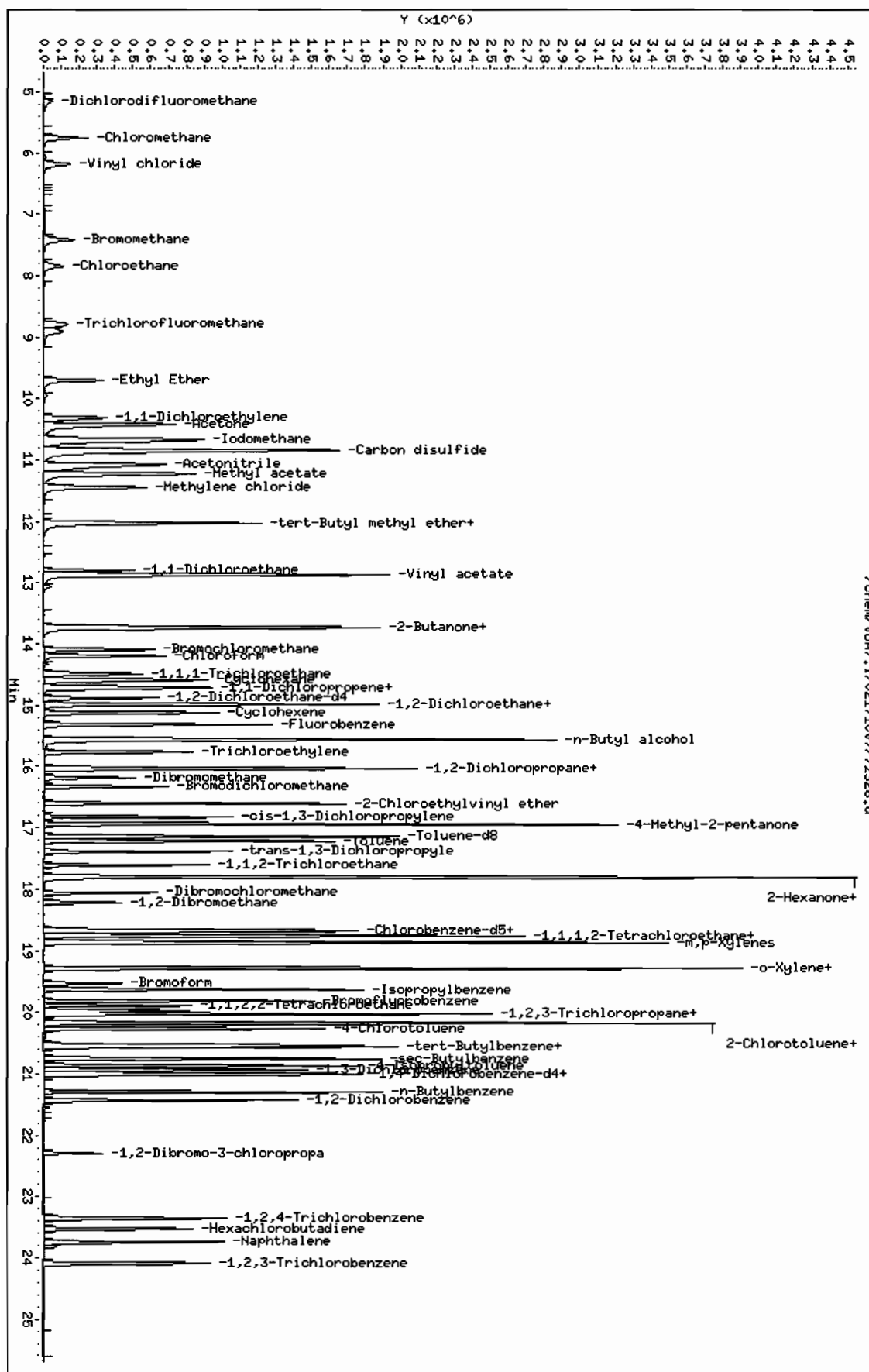
|                                  |      | QUANT SIG |        |         |          | AMOUNTS            |                   |
|----------------------------------|------|-----------|--------|---------|----------|--------------------|-------------------|
| Compounds                        | MASS | RT        | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| M 2 Xylenes (total)              | 106  |           |        |         | 1553189  | 150.000            | 145               |
| M 3 1,2-Dichloroethylene (total) | 96   |           |        |         | 1074106  | 100.000            | 92.5              |
| M 1 1,3-Dichloropropylene        | 75   |           |        |         | 1078824  | 100.000            | 102               |
| 4 Dichlorodifluoromethane        | 85   | 5.147     | 5.147  | (0.336) | 162626   | 50.0000            | 44.6              |
| 5 Chloromethane                  | 50   | 5.757     | 5.757  | (0.376) | 469635   | 50.0000            | 42.8              |
| 6 Vinyl chloride                 | 62   | 6.187     | 6.187  | (0.404) | 409246   | 50.0000            | 42.0              |
| 7 Bromomethane                   | 94   | 7.418     | 7.418  | (0.484) | 268342   | 50.0000            | 48.3              |
| 8 Chloroethane                   | 64   | 7.845     | 7.845  | (0.512) | 241269   | 50.0000            | 48.4              |
| 9 Trichlorofluoromethane         | 101  | 8.789     | 8.789  | (0.574) | 342848   | 50.0000            | 46.0              |
| 10 Ethyl Ether                   | 59   | 9.703     | 9.692  | (0.633) | 348559   | 50.0000            | 50.2              |
| 13 Acetone                       | 43   | 10.413    | 10.413 | (0.680) | 1741994  | 250.000            | 222               |
| 17 Acetonitrile                  | 41   | 11.073    | 11.073 | (0.723) | 1657956  | 1000.00            | 1190              |
| 14 1,1-Dichloroethylene          | 96   | 10.312    | 10.312 | (0.673) | 228453   | 50.0000            | 44.8              |
| 18 Methyl acetate                | 43   | 11.215    | 11.215 | (0.732) | 1767842  | 250.000            | 243               |
| 16 Iodomethane                   | 142  | 10.667    | 10.667 | (0.696) | 2128132  | 250.000            | 240               |
| 22 Methylene chloride            | 86   | 11.439    | 11.439 | (0.747) | 226549   | 50.0000            | 47.3              |

| Compounds                      | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|--------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| =====                          | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| 19 Carbon disulfide            | 76        | 10.840 | 10.840 | (0.708) | 4156596  | 250.000            | 232               |
| 24 tert-Butyl methyl ether     | 73        | 12.017 | 12.017 | (0.785) | 911300   | 50.0000            | 50.2              |
| 25 trans-1,2-Dichloroethylene  | 61        | 12.027 | 12.017 | (0.785) | 496217   | 50.0000            | 46.0              |
| 26 Vinyl acetate               | 43        | 12.860 | 12.860 | (0.840) | 3836252  | 250.000            | 215               |
| 28 1,1-Dichloroethane          | 63        | 12.799 | 12.789 | (0.836) | 683938   | 50.0000            | 48.8              |
| 31 2-Butanone                  | 43        | 13.723 | 13.723 | (0.896) | 1934081  | 250.000            | 221               |
| 33 cis-1,2-Dichloroethylene    | 61        | 13.733 | 13.733 | (0.897) | 577889   | 50.0000            | 46.5              |
| 34 2,2-Dichloropropane         | 77        | 13.743 | 13.743 | (0.897) | 264039   | 50.0000            | 45.3              |
| 38 Chloroform                  | 83        | 14.190 | 14.190 | (0.926) | 552641   | 50.0000            | 47.3              |
| 37 Bromochloromethane          | 49        | 14.088 | 14.088 | (0.920) | 442048   | 50.0000            | 48.1              |
| 41 1,1,1-Trichloroethane       | 97        | 14.484 | 14.484 | (0.946) | 390122   | 50.0000            | 48.7              |
| 43 Cyclohexane                 | 56        | 14.586 | 14.586 | (0.952) | 572266   | 50.0000            | 43.9              |
| 44 1,1-Dichloropropene         | 75        | 14.697 | 14.697 | (0.960) | 391255   | 50.0000            | 46.6              |
| 52 n-Butyl alcohol             | 56        | 15.560 | 15.560 | (1.016) | 1829150  | 5000.00            | 6000              |
| 45 Carbon tetrachloride        | 117       | 14.718 | 14.718 | (0.961) | 305263   | 50.0000            | 47.9              |
| \$ 46 1,2-Dichloroethane-d4    | 65        | 14.880 | 14.880 | (0.971) | 487674   | 50.0000            | 48.2              |
| 47 1,2-Dichloroethane          | 62        | 14.982 | 14.982 | (0.978) | 558613   | 50.0000            | 48.5              |
| 48 Benzene                     | 78        | 14.982 | 14.982 | (0.978) | 1192975  | 50.0000            | 46.5              |
| 50 Cyclohexene                 | 67        | 15.114 | 15.114 | (0.987) | 556844   | 50.0000            | 46.1              |
| * 51 Fluorobenzene             | 96        | 15.317 | 15.317 | (1.000) | 1172223  | 50.0000            |                   |
| 53 Trichloroethylene           | 95        | 15.763 | 15.763 | (1.029) | 303421   | 50.0000            | 48.8              |
| 56 1,2-Dichloropropane         | 63        | 16.037 | 16.037 | (1.047) | 401792   | 50.0000            | 47.1              |
| 55 Methylcyclohexane           | 83        | 16.027 | 16.027 | (1.046) | 477986   | 50.0000            | 46.3              |
| 59 Bromodichloromethane        | 83        | 16.332 | 16.332 | (1.066) | 459560   | 50.0000            | 50.2              |
| 58 Dibromomethane              | 93        | 16.179 | 16.179 | (1.056) | 229919   | 50.0000            | 49.9              |
| 61 2-Chloroethylvinyl ether    | 63        | 16.606 | 16.606 | (1.084) | 780259   | 250.000            | 235               |
| 63 4-Methyl-2-pentanone        | 58        | 16.941 | 16.941 | (0.908) | 988490   | 250.000            | 242               |
| 62 cis-1,3-Dichloropropylene   | 75        | 16.819 | 16.819 | (1.098) | 556553   | 50.0000            | 49.9              |
| \$ 64 Toluene-d8               | 98        | 17.134 | 17.134 | (0.918) | 1321978  | 50.0000            | 49.0              |
| 65 Toluene                     | 92        | 17.215 | 17.215 | (0.922) | 720271   | 50.0000            | 48.2              |
| 67 trans-1,3-Dichloropropylene | 75        | 17.388 | 17.388 | (0.931) | 522271   | 50.0000            | 51.6              |
| 68 1,1,2-Trichloroethane       | 83        | 17.611 | 17.611 | (0.943) | 274288   | 50.0000            | 48.8              |
| 69 2-Hexanone                  | 43        | 17.804 | 17.794 | (0.954) | 2334037  | 250.000            | 207               |
| 70 1,3-Dichloropropane         | 76        | 17.794 | 17.794 | (0.953) | 582114   | 50.0000            | 50.5              |
| 71 Tetrachloroethylene         | 164       | 17.814 | 17.814 | (0.954) | 192175   | 50.0000            | 46.6              |
| 72 Dibromochloromethane        | 129       | 18.058 | 18.058 | (0.967) | 322348   | 50.0000            | 53.1              |
| 73 1,2-Dibromoethane           | 107       | 18.220 | 18.220 | (0.976) | 320442   | 50.0000            | 52.5              |
| * 75 Chlorobenzene-d5          | 117       | 18.667 | 18.667 | (1.000) | 829022   | 50.0000            |                   |
| 76 Chlorobenzene               | 112       | 18.697 | 18.697 | (1.002) | 746485   | 50.0000            | 48.6              |
| 77 1,1,1,2-Tetrachloroethane   | 131       | 18.758 | 18.758 | (1.005) | 277371   | 50.0000            | 52.4              |
| 78 Ethylbenzene                | 91        | 18.768 | 18.758 | (1.005) | 1257903  | 50.0000            | 45.1              |
| 79 m,p-Xylenes                 | 106       | 18.870 | 18.870 | (1.011) | 1008788  | 100.000            | 96.1              |
| 80 o-Xylene                    | 106       | 19.286 | 19.286 | (1.033) | 544401   | 50.0000            | 49.0              |
| 81 Styrene                     | 104       | 19.286 | 19.286 | (1.033) | 890551   | 50.0000            | 50.0              |
| 82 Bromoform                   | 173       | 19.540 | 19.540 | (0.931) | 209984   | 50.0000            | 52.8              |
| 83 Isopropylbenzene            | 105       | 19.631 | 19.631 | (0.935) | 1189382  | 50.0000            | 44.2              |
| 87 1,1,2,2-Tetrachloroethane   | 83        | 19.885 | 19.885 | (0.947) | 435719   | 50.0000            | 46.3              |

| Compounds                       | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|---------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| =====                           | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| \$ 86 Bromofluorobenzene        | 95        | 19.814 | 19.814 | (0.944) | 532758   | 50.0000            | 48.8              |
| 89 1,2,3-Trichloropropane       | 110       | 19.966 | 19.966 | (0.951) | 101263   | 50.0000            | 49.5              |
| 90 Bromobenzene                 | 156       | 20.017 | 20.017 | (0.954) | 304789   | 50.0000            | 48.4              |
| 91 n-Propylbenzene              | 91        | 20.027 | 20.027 | (0.954) | 1476217  | 50.0000            | 43.2              |
| 93 2-Chlorotoluene              | 91        | 20.169 | 20.169 | (0.961) | 1085697  | 50.0000            | 46.4              |
| 92 1,3,5-Trimethylbenzene       | 105       | 20.169 | 20.169 | (0.961) | 1054223  | 50.0000            | 47.5              |
| 94 4-Chlorotoluene              | 91        | 20.271 | 20.271 | (0.966) | 974728   | 50.0000            | 46.4              |
| 95 tert-Butylbenzene            | 119       | 20.535 | 20.524 | (0.978) | 942904   | 50.0000            | 46.9              |
| 96 1,2,4-Trimethylbenzene       | 105       | 20.565 | 20.565 | (0.980) | 1062075  | 50.0000            | 47.2              |
| 98 sec-Butylbenzene             | 105       | 20.748 | 20.748 | (0.988) | 1321369  | 50.0000            | 44.6              |
| 99 4-Isopropyltoluene           | 119       | 20.859 | 20.859 | (0.994) | 998200   | 50.0000            | 46.6              |
| 100 1,3-Dichlorobenzene         | 146       | 20.931 | 20.930 | (0.997) | 570879   | 50.0000            | 46.4              |
| * 101 1,4-Dichlorobenzene-d4    | 152       | 20.991 | 20.991 | (1.000) | 415426   | 50.0000            |                   |
| 102 1,4-Dichlorobenzene         | 146       | 21.012 | 21.012 | (1.001) | 562339   | 50.0000            | 46.8              |
| 104 n-Butylbenzene              | 91        | 21.296 | 21.296 | (1.014) | 1111378  | 50.0000            | 44.8              |
| 105 1,2-Dichlorobenzene         | 146       | 21.438 | 21.438 | (1.021) | 589734   | 50.0000            | 47.8              |
| 107 1,2-Dibromo-3-chloropropane | 157       | 22.301 | 22.291 | (1.062) | 84034    | 50.0000            | 54.0              |
| 108 1,2,4-Trichlorobenzene      | 180       | 23.357 | 23.357 | (1.113) | 362796   | 50.0000            | 46.9              |
| 109 Hexachlorobutadiene         | 225       | 23.529 | 23.529 | (1.121) | 189632   | 50.0000            | 45.6              |
| 110 Naphthalene                 | 128       | 23.743 | 23.743 | (1.131) | 1026272  | 50.0000            | 52.8              |
| 111 1,2,3-Trichlorobenzene      | 180       | 24.098 | 24.098 | (1.148) | 362567   | 50.0000            | 50.7              |

Data File: /chem/V007.1/021710v7/7Z328.d  
 Date : 18-FEB-2010 02:27  
 Client ID: ICV  
 Sample Info: 1M7VH100217-221ICV11V00F111  
 Purge Volume: 5.0  
 Column phase: DB-624

Instrument: V007.1  
 Operator: AX01  
 Column diameter: 0.25



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-FEB-2010 03:03  
Lab File ID: 7z329.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100217-23 Quant Type: ISTD  
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

| COMPOUND                        | RRF / AMOUNT | RF50    | CCAL    | MIN   | MAX         | CURVE TYPE  |
|---------------------------------|--------------|---------|---------|-------|-------------|-------------|
|                                 |              |         | RRF50   | RRF   | %D / %DRIFT | %D / %DRIFT |
| 147 Chlorotrifluoroethylene     | 0.10627      | 0.08440 | 0.08440 | 0.010 | -20.57911   | 30.00000    |
| 148 2-Chloro-1,1,1-trifluoroeth | 0.21104      | 0.19071 | 0.19071 | 0.010 | -9.63206    | 30.00000    |
| 11 Acrolein                     | 0.04808      | 0.06342 | 0.06342 | 0.001 | 31.90544    | 30.00000    |
| 12 Trichlorotrifluoroethane     | 0.08737      | 0.09264 | 0.09264 | 0.010 | 6.03207     | 30.00000    |
| 15 Isopropyl Alcohol            | 0.03252      | 0.03340 | 0.03340 | 0.010 | 2.69600     | 40.00000    |
| 20 Allyl chloride               | 0.47439      | 0.45060 | 0.45060 | 0.010 | -5.01522    | 30.00000    |
| 21 tert-Butyl Alcohol           | 0.04700      | 0.04729 | 0.04729 | 0.001 | 0.60763     | 40.00000    |
| 23 Acrylonitrile                | 0.13462      | 0.13550 | 0.13550 | 0.010 | 0.65548     | 30.00000    |
| 27 Isopropyl ether              | 1.27617      | 1.16451 | 1.16451 | 0.010 | -8.74982    | 30.00000    |
| 29 2-Chloro-1,3-butadiene       | 0.40803      | 0.40855 | 0.40855 | 0.010 | 0.12766     | 30.00000    |
| 30 Ethyl tert-butyl ether       | 0.87171      | 0.84896 | 0.84896 | 0.010 | -2.60957    | 30.00000    |
| 35 Propionitrile                | 0.05907      | 0.05400 | 0.05400 | 0.010 | -8.58473    | 30.00000    |
| 32 Ethyl acetate                | 0.40471      | 0.34558 | 0.34558 | 0.010 | -14.60985   | 40.00000    |
| 36 Methacrylonitrile            | 0.24530      | 0.22257 | 0.22257 | 0.010 | -9.26511    | 30.00000    |
| 39 Tetrahydrofuran              | 0.41916      | 0.38326 | 0.38326 | 0.010 | -8.56559    | 30.00000    |
| 42 Isobutyl alcohol             | 0.01791      | 0.01700 | 0.01700 | 0.005 | -5.09066    | 40.00000    |
| 49 Methyl tert-amyl ether       | 0.66978      | 0.66370 | 0.66370 | 0.010 | -0.90825    | 30.00000    |
| 54 Methyl methacrylate          | 0.21684      | 0.20990 | 0.20990 | 0.010 | -3.19904    | 30.00000    |
| 66 Ethyl methacrylate           | 0.57238      | 0.56268 | 0.56268 | 0.010 | -1.69472    | 30.00000    |
| 74 1-Chlorohexane               | 0.31936      | 0.29112 | 0.29112 | 0.010 | -8.83992    | 30.00000    |
| 57 1,4-Dioxane                  | 0.00326      | 0.00349 | 0.00349 | 0.001 | 7.06816     | 40.00000    |
| 60 2-Nitropropane               | 0.14035      | 0.14903 | 0.14903 | 0.010 | 6.18586     | 30.00000    |
| 84 cis-1,4-Dichloro-2-butene    | 0.38900      | 0.41782 | 0.41782 | 0.010 | 7.40931     | 30.00000    |
| 85 Cyclohexanone                | 0.02826      | 0.03489 | 0.03489 | 0.010 | 23.43653    | 40.00000    |
| 88 trans-1,4-Dichloro-2-butene  | 0.35107      | 0.38019 | 0.38019 | 0.010 | 8.29533     | 30.00000    |
| 97 Pentachloroethane            | 0.28176      | 0.23364 | 0.23364 | 0.010 | -17.07604   | 30.00000    |
| 103 Benzyl chloride             | 1.23904      | 1.13837 | 1.13837 | 0.010 | -8.12535    | 30.00000    |
| 106 bis(2-Chloroisopropyl)ether | 0.69951      | 0.66981 | 0.66981 | 0.010 | -4.24580    | 30.00000    |
| 46 1,2-Dichloroethane-d4        | 0.43199      | 0.41798 | 0.41798 | 0.010 | -3.24324    | 30.00000    |
| 64 Toluene-d8                   | 1.62735      | 1.64351 | 1.64351 | 0.010 | 0.99350     | 30.00000    |
| 86 Bromofluorobenzene           | 1.31523      | 1.27368 | 1.27368 | 0.010 | -3.15966    | 30.00000    |



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i                      Injection Date: 18-FEB-2010 03:03  
Lab File ID: 7z329.d                      Init. Cal. Date(s): 17-FEB-2010    18-FEB-2010  
Analysis Type: WATER                      Init. Cal. Times:    16:02                      00:42  
Lab Sample ID: W7VM100217-23    Quant Type:    ISTD  
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

|                                 |          |
|---------------------------------|----------|
| Average %D / Drift Results.     |          |
| =====                           |          |
| Calculated Average %D/Drift =   | 7.69699  |
| Maximum Average %D/Drift =      | 20.00000 |
| * Passed Average %D/Drift Test. |          |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/021710v7/7z329.d  
Lab Smp Id: W7VM100217-23 Client Smp ID: SICV  
Inj Date : 18-FEB-2010 03:03  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |W7VM100217-23|SICV|1|VOAF|1|  
Misc Info : GEL 5mL N/A UVM091216-08B/UVM100125-08C  
Comment :  
Method : /chem/VOA7.i/021710v7/VOA7-8260B-021710.m  
Meth Date : 18-Feb-2010 06:55 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 22 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub  
Target Version: 3.50

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

| Name | Value   | Description               |
|------|---------|---------------------------|
| DF   | 1.00000 | Dilution Factor           |
| Uf   | 5.00000 | ng unit correction factor |
| Vo   | 5.00000 | sample purged             |

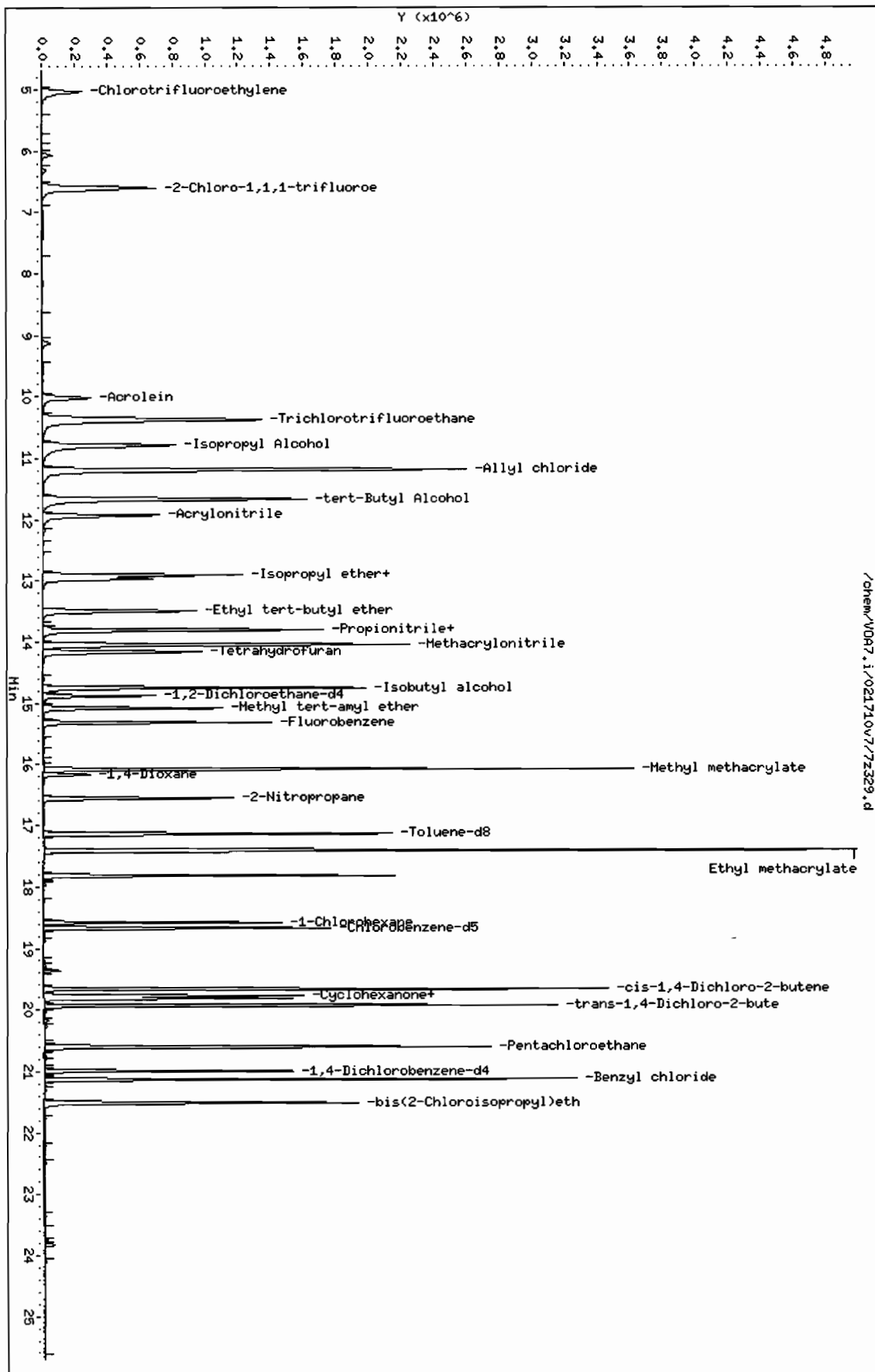
Cpnd Variable Local Compound Variable

| Compounds                          | QUANT SIG |  | RT     | EXP RT | REL RT  | RESPONSE | AMOUNTS            |                   |
|------------------------------------|-----------|--|--------|--------|---------|----------|--------------------|-------------------|
|                                    | MASS      |  |        |        |         |          | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| 147 Chlorotrifluoroethylene        | 116       |  | 5.029  | 5.029  | (0.328) | 321831   | 150.000            | 119               |
| 148 2-Chloro-1,1,1-trifluoroethane | 118       |  | 6.604  | 6.604  | (0.431) | 727177   | 150.000            | 136               |
| 11 Acrolein                        | 56        |  | 10.017 | 10.017 | (0.654) | 403023   | 250.000            | 330               |
| 12 Trichlorotrifluoroethane        | 85        |  | 10.373 | 10.373 | (0.677) | 588697   | 250.000            | 265               |
| 15 Isopropyl Alcohol               | 45        |  | 10.779 | 10.779 | (0.704) | 2122372  | 2500.00            | 2570              |
| 20 Allyl chloride                  | 41        |  | 11.185 | 11.185 | (0.730) | 2863564  | 250.000            | 237               |
| 21 tert-Butyl Alcohol              | 59        |  | 11.662 | 11.662 | (0.761) | 3005064  | 2500.00            | 2520              |
| 23 Acrylonitrile                   | 53        |  | 11.926 | 11.926 | (0.779) | 861102   | 250.000            | 252               |
| 27 Isopropyl ether                 | 45        |  | 12.901 | 12.901 | (0.842) | 1480087  | 50.0000            | 45.6              |
| 29 2-Chloro-1,3-butadiene          | 53        |  | 12.961 | 12.961 | (0.846) | 519270   | 50.0000            | 50.1              |
| 30 Ethyl tert-butyl ether          | 59        |  | 13.489 | 13.489 | (0.881) | 1079030  | 50.0000            | 48.7              |
| 35 Propionitrile                   | 54        |  | 13.804 | 13.804 | (0.901) | 343144   | 250.000            | 228               |
| 32 Ethyl acetate                   | 43        |  | 13.804 | 13.804 | (0.901) | 2196159  | 250.000            | 213               |
| 36 Methacrylonitrile               | 41        |  | 14.038 | 14.038 | (0.916) | 1414418  | 250.000            | 227               |
| 39 Tetrahydrofuran                 | 42        |  | 14.159 | 14.159 | (0.675) | 797978   | 250.000            | 228               |
| 42 Isobutyl alcohol                | 41        |  | 14.748 | 14.748 | (0.963) | 1080518  | 2500.00            | 2370              |

| Compounds                       | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|---------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| =====                           | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| 49 Methyl tert-amyl ether       | 73        | 15.073 | 15.073 | (0.984) | 843562   | 50.0000            | 49.5              |
| 54 Methyl methacrylate          | 69        | 16.078 | 16.078 | (1.050) | 1333906  | 250.000            | 242               |
| 66 Ethyl methacrylate           | 69        | 17.408 | 17.408 | (0.933) | 2383055  | 250.000            | 246               |
| 74 1-Chlorohexane               | 55        | 18.575 | 18.575 | (1.213) | 370019   | 50.0000            | 45.6              |
| 57 1,4-Dioxane                  | 88        | 16.159 | 16.159 | (1.055) | 221750   | 2500.00            | 2680              |
| 60 2-Nitropropane               | 43        | 16.555 | 16.555 | (1.081) | 947088   | 250.000            | 265               |
| 84 cis-1,4-Dichloro-2-butene    | 53        | 19.662 | 19.662 | (0.937) | 869937   | 250.000            | 268               |
| 85 Cyclohexanone                | 55        | 19.773 | 19.773 | (1.059) | 738736   | 1250.00            | 1540              |
| 88 trans-1,4-Dichloro-2-butene  | 53        | 19.926 | 19.926 | (0.949) | 791580   | 250.000            | 271               |
| 97 Pentachloroethane            | 167       | 20.596 | 20.596 | (0.981) | 486462   | 250.000            | 207               |
| 103 Benzyl chloride             | 91        | 21.124 | 21.124 | (1.006) | 2370168  | 250.000            | 230               |
| 106 bis(2-Chloroisopropyl)ether | 45        | 21.509 | 21.509 | (1.025) | 1394590  | 250.000            | 239               |
| * 51 Fluorobenzene              | 96        | 15.317 | 15.317 | (1.000) | 1270997  | 50.0000            |                   |
| * 75 Chlorobenzene-d5           | 117       | 18.667 | 18.667 | (1.000) | 847043   | 50.0000            |                   |
| * 101 1,4-Dichlorobenzene-d4    | 152       | 20.992 | 20.991 | (1.000) | 416415   | 50.0000            |                   |
| \$ 46 1,2-Dichloroethane-d4     | 65        | 14.880 | 14.880 | (0.971) | 531249   | 50.0000            | 48.4              |
| \$ 64 Toluene-d8                | 98        | 17.134 | 17.134 | (0.918) | 1392127  | 50.0000            | 50.5              |
| \$ 86 Bromofluorobenzene        | 95        | 19.814 | 19.814 | (0.944) | 530378   | 50.0000            | 48.4              |

Data File: /chem/V047.1/021710v7/77329.d  
Date : 18-FEB-2010 03:03  
Client ID: SICV  
Sample Info: 147VH100217-231SICV11V047.11  
Purge Volume: 5.0  
Column phase: DB-624

Instrument: V047.1  
Operator: RM01  
Column diameter: 0.25



GEL Laboratories LLC  
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 23-FEB-2010 19:23  
Lab File ID: 7a218.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100223-01 Quant Type: ISTD  
Method: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

| COMPOUND                         | RRF / AMOUNT | RF50    | CCAL<br>RRF50 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE    |
|----------------------------------|--------------|---------|---------------|------------|-------------|--------------------|---------------|
| M 2 Xylenes (total)              | 0.64551      | 0.55969 | 0.55969       | 0.050      | -13.29560   | 30.00000           | Averaged      |
| M 3 1,2-Dichloroethylene (total) | 0.49511      | 0.42321 | 0.42321       | 0.050      | -14.52245   | 30.00000           | Averaged      |
| M 1 1,3-Dichloropropylene        | 0.45215      | 0.42239 | 0.42239       | 0.050      | -6.58201    | 30.00000           | Averaged      |
| 4 Dichlorodifluoromethane        | 0.15569      | 0.13388 | 0.13388       | 0.050      | -14.01027   | 30.00000           | Averaged      |
| 5 Chloromethane                  | 0.46771      | 0.40931 | 0.40931       | 0.100      | -12.48697   | 30.00000           | Averaged spcc |
| 6 Vinyl chloride                 | 0.41543      | 0.37858 | 0.37858       | 0.050      | -8.86853    | 20.00000           | Averaged ccc  |
| 7 Bromomethane                   | 0.23685      | 0.22206 | 0.22206       | 0.050      | -6.24522    | 30.00000           | Averaged      |
| 8 Chloroethane                   | 0.21246      | 0.20086 | 0.20086       | 0.010      | -5.45949    | 30.00000           | Averaged      |
| 9 Trichlorodifluoromethane       | 0.31799      | 0.29598 | 0.29598       | 0.050      | -6.91960    | 30.00000           | Averaged      |
| 10 Ethyl Ether                   | 0.29582      | 0.28563 | 0.28563       | 0.001      | -3.44449    | 30.00000           | Averaged      |
| 13 Acetone                       | 0.33491      | 0.30110 | 0.30110       | 0.050      | -10.09651   | 40.00000           | Averaged      |
| 17 Acetonitrile                  | 0.05935      | 0.06369 | 0.06369       | 0.010      | 7.31739     | 30.00000           | Averaged      |
| 14 1,1-Dichloroethylene          | 0.21744      | 0.18149 | 0.18149       | 0.050      | -16.53232   | 20.00000           | Averaged ccc  |
| 18 Methyl acetate                | 0.30971      | 0.29717 | 0.29717       | 0.010      | -4.04781    | 40.00000           | Averaged      |
| 16 Iodomethane                   | 0.37891      | 0.33427 | 0.33427       | 0.050      | -11.78175   | 30.00000           | Averaged      |
| 22 Methylene chloride            | 0.20428      | 0.16925 | 0.16925       | 0.050      | -17.14620   | 30.00000           | Averaged      |
| 19 Carbon disulfide              | 0.76494      | 0.62615 | 0.62615       | 0.050      | -18.14368   | 30.00000           | Averaged      |
| 24 tert-Butyl methyl ether       | 0.77339      | 0.69372 | 0.69372       | 0.050      | -10.30110   | 30.00000           | Averaged      |
| 25 trans-1,2-Dichloroethylene    | 0.45970      | 0.39314 | 0.39314       | 0.050      | -14.47721   | 30.00000           | Averaged      |
| 26 Vinyl acetate                 | 0.75971      | 0.66441 | 0.66441       | 0.010      | -12.54517   | 40.00000           | Averaged      |
| 28 1,1-Dichloroethane            | 0.59819      | 0.51421 | 0.51421       | 0.100      | -14.03834   | 30.00000           | Averaged spcc |
| 31 2-Butanone                    | 0.37353      | 0.34155 | 0.34155       | 0.030      | -8.56050    | 40.00000           | Averaged      |
| 33 cis-1,2-Dichloroethylene      | 0.53052      | 0.45327 | 0.45327       | 0.050      | -14.56165   | 30.00000           | Averaged      |
| 34 2,2-Dichloropropane           | 0.24848      | 0.21246 | 0.21246       | 0.050      | -14.49624   | 30.00000           | Averaged      |
| 38 Chloroform                    | 0.49798      | 0.42064 | 0.42064       | 0.010      | -15.53044   | 20.00000           | Averaged ccc  |
| 37 Bromochloromethane            | 0.39220      | 0.34383 | 0.34383       | 0.010      | -12.33186   | 30.00000           | Averaged      |
| 41 1,1,1-Trichloroethane         | 0.34173      | 0.29190 | 0.29190       | 0.010      | -14.58060   | 30.00000           | Averaged      |
| 43 Cyclohexane                   | 0.55549      | 0.46166 | 0.46166       | 0.010      | -16.89139   | 30.00000           | Averaged      |
| 44 1,1-Dichloropropene           | 0.35780      | 0.30795 | 0.30795       | 0.010      | -13.93007   | 30.00000           | Averaged      |
| 52 n-Butyl alcohol               | 0.01300      | 0.01382 | 0.01382       | 0.001      | 6.31981     | 40.00000           | Averaged      |
| 45 Carbon tetrachloride          | 0.27191      | 0.23351 | 0.23351       | 0.010      | -14.12489   | 30.00000           | Averaged      |
| \$ 46 1,2-Dichloroethane-d4      | 0.43199      | 0.41980 | 0.41980       | 0.010      | -2.82138    | 30.00000           | Averaged      |
| 47 1,2-Dichloroethane            | 0.49133      | 0.41912 | 0.41912       | 0.010      | -14.69652   | 30.00000           | Averaged      |
| 48 Benzene                       | 1.09329      | 0.93001 | 0.93001       | 0.010      | -14.93423   | 30.00000           | Averaged      |
| 50 Cyclohexene                   | 0.51508      | 0.45322 | 0.45322       | 0.010      | -12.00970   | 30.00000           | Averaged      |

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 23-FEB-2010 19:23  
Lab File ID: 7a218.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100223-01 Quant Type: ISTD  
Method: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

| COMPOUND                       | RRF / AMOUNT | RF50    | CCAL RRF50 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE    |
|--------------------------------|--------------|---------|------------|---------|-------------|-----------------|---------------|
| 53 Trichloroethylene           | 0.26489      | 0.23547 | 0.23547    | 0.010   | -11.10765   | 30.00000        | Averaged      |
| 56 1,2-Dichloropropane         | 0.36406      | 0.31684 | 0.31684    | 0.010   | -12.96909   | 20.00000        | Averaged ccc  |
| 55 Methylcyclohexane           | 0.44055      | 0.39448 | 0.39448    | 0.010   | -10.45849   | 30.00000        | Averaged      |
| 59 Bromodichloromethane        | 0.39044      | 0.33995 | 0.33995    | 0.010   | -12.93374   | 30.00000        | Averaged      |
| 58 Dibromomethane              | 0.19638      | 0.17714 | 0.17714    | 0.010   | -9.79428    | 30.00000        | Averaged      |
| 61 2-Chloroethylvinyl ether    | 0.14176      | 0.15804 | 0.15804    | 0.010   | 11.48960    | 30.00000        | Averaged      |
| 63 4-Methyl-2-pentanone        | 0.24607      | 0.21453 | 0.21453    | 0.010   | -12.81451   | 40.00000        | Averaged      |
| 62 cis-1,3-Dichloropropylene   | 0.47551      | 0.43716 | 0.43716    | 0.010   | -8.06368    | 30.00000        | Averaged      |
| 64 Toluene-d8                  | 1.62735      | 1.57520 | 1.57520    | 0.010   | -3.20424    | 30.00000        | Averaged      |
| 65 Toluene                     | 0.90021      | 0.75799 | 0.75799    | 0.010   | -15.79832   | 20.00000        | Averaged ccc  |
| 67 trans-1,3-Dichloropropylene | 0.61004      | 0.53925 | 0.53925    | 0.010   | -11.60450   | 30.00000        | Averaged      |
| 68 1,1,2-Trichloroethane       | 0.33917      | 0.28725 | 0.28725    | 0.010   | -15.30919   | 30.00000        | Averaged      |
| 69 2-Hexanone                  | 0.68092      | 0.56109 | 0.56109    | 0.010   | -17.59776   | 40.00000        | Averaged      |
| 70 1,3-Dichloropropane         | 0.69553      | 0.61021 | 0.61021    | 0.010   | -12.26715   | 30.00000        | Averaged      |
| 71 Tetrachloroethylene         | 0.24878      | 0.21133 | 0.21133    | 0.010   | -15.05448   | 30.00000        | Averaged      |
| 72 Dibromochloromethane        | 0.36583      | 0.32475 | 0.32475    | 0.010   | -11.22907   | 30.00000        | Averaged      |
| 73 1,2-Dibromoethane           | 0.36785      | 0.31813 | 0.31813    | 0.010   | -13.51618   | 30.00000        | Averaged      |
| 76 Chlorobenzene               | 0.92664      | 0.77311 | 0.77311    | 0.300   | -16.56770   | 30.00000        | Averaged spcc |
| 77 1,1,1,2-Tetrachloroethane   | 0.31932      | 0.28580 | 0.28580    | 0.010   | -10.49753   | 30.00000        | Averaged      |
| 78 Ethylbenzene                | 1.68200      | 1.35540 | 1.35540    | 0.010   | -19.41702   | 20.00000        | Averaged ccc  |
| 79 m,p-Xylenes                 | 0.63299      | 0.54489 | 0.54489    | 0.010   | -13.91771   | 30.00000        | Averaged      |
| 80 o-Xylene                    | 0.67056      | 0.58928 | 0.58928    | 0.010   | -12.12109   | 30.00000        | Averaged      |
| 81 Styrene                     | 1.07382      | 0.94981 | 0.94981    | 0.010   | -11.54823   | 30.00000        | Averaged      |
| 82 Bromoform                   | 0.47906      | 0.44283 | 0.44283    | 0.100   | -7.56214    | 30.00000        | Averaged spcc |
| 83 Isopropylbenzene            | 3.23464      | 2.59029 | 2.59029    | 0.010   | -19.92025   | 30.00000        | Averaged      |
| 87 1,1,2,2-Tetrachloroethane   | 1.13151      | 0.93651 | 0.93651    | 0.300   | -17.23342   | 30.00000        | Averaged spcc |
| 86 Bromofluorobenzene          | 1.31523      | 1.27471 | 1.27471    | 0.010   | -3.08077    | 30.00000        | Averaged      |
| 89 1,2,3-Trichloropropane      | 0.24620      | 0.20151 | 0.20151    | 0.010   | -18.15085   | 30.00000        | Averaged      |
| 90 Bromobenzene                | 0.75737      | 0.64458 | 0.64458    | 0.010   | -14.89206   | 30.00000        | Averaged      |
| 91 n-Propylbenzene             | 4.11235      | 3.26904 | 3.26904    | 0.010   | -20.50661   | 30.00000        | Averaged      |
| 93 2-Chlorotoluene             | 2.81550      | 2.29504 | 2.29504    | 0.010   | -18.48541   | 30.00000        | Averaged      |
| 92 1,3,5-Trimethylbenzene      | 2.67285      | 2.28249 | 2.28249    | 0.010   | -14.60478   | 30.00000        | Averaged      |
| 94 4-Chlorotoluene             | 2.52732      | 2.02558 | 2.02558    | 0.010   | -19.85251   | 30.00000        | Averaged      |
| 95 tert-Butylbenzene           | 2.42130      | 2.04445 | 2.04445    | 0.010   | -15.56412   | 30.00000        | Averaged      |
| 96 1,2,4-Trimethylbenzene      | 2.70506      | 2.26665 | 2.26665    | 0.010   | -16.20702   | 30.00000        | Averaged      |
| 98 sec-Butylbenzene            | 3.56563      | 2.94334 | 2.94334    | 0.010   | -17.45264   | 30.00000        | Averaged      |

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 23-FEB-2010 19:23  
 Lab File ID: 7a218.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
 Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
 Lab Sample ID: W7VM100223-01 Quant Type: ISTD  
 Method: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

| COMPOUND                        | RRF / AMOUNT | RF50     | CCAL    | MIN   | MAX         | CURVE TYPE        |
|---------------------------------|--------------|----------|---------|-------|-------------|-------------------|
|                                 |              |          | RRF50   | RRF   | %D / %DRIFT | %D / %DRIFT       |
| 99 4-Isopropyltoluene           | 2.57723      | 2.22400  | 2.22400 | 0.010 | -13.70564   | 30.00000 Averaged |
| 100 1,3-Dichlorobenzene         | 1.47958      | 1.22204  | 1.22204 | 0.010 | -17.40664   | 30.00000 Averaged |
| 102 1,4-Dichlorobenzene         | 1.44472      | 1.20551  | 1.20551 | 0.010 | -16.55787   | 30.00000 Averaged |
| 104 n-Butylbenzene              | 2.98564      | 2.48981  | 2.48981 | 0.010 | -16.60709   | 30.00000 Averaged |
| 105 1,2-Dichlorobenzene         | 1.48620      | 1.23736  | 1.23736 | 0.010 | -16.74319   | 30.00000 Averaged |
| 107 1,2-Dibromo-3-chloropropane | 45.10260     | 50.00000 | 0.16836 | 0.010 | -9.79480    | 30.00000 Linear   |
| 108 1,2,4-Trichlorobenzene      | 0.93109      | 0.80035  | 0.80035 | 0.010 | -14.04151   | 30.00000 Averaged |
| 109 Hexachlorobutadiene         | 0.49991      | 0.40449  | 0.40449 | 0.010 | -19.08818   | 30.00000 Averaged |
| 110 Naphthalene                 | 2.33792      | 2.01239  | 2.01239 | 0.010 | -13.92378   | 30.00000 Averaged |
| 111 1,2,3-Trichlorobenzene      | 0.86076      | 0.73727  | 0.73727 | 0.010 | -14.34669   | 30.00000 Averaged |

Average %D / Drift Results.

Calculated Average %D/Drift = 12.95136  
 Maximum Average %D/Drift = 20.00000  
 \* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022310v7/7a218.d  
Lab Smp Id: W7VM100223-01 Client Smp ID: VSTD050  
Inj Date : 23-FEB-2010 19:23  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |W7VM100223-01|BFB/CCV|1|VOAF|1|  
Misc Info : GEL 5mL N/A UVM100106-07C/UVM100202-07D  
Comment :  
Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 18 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: CALsubL+.sub  
Target Version: 3.50  
Processing Host: prdsvr07

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

| Name | Value   | Description               |
|------|---------|---------------------------|
| DF   | 1.00000 | Dilution Factor           |
| Uf   | 5.00000 | ng unit correction factor |
| Vo   | 5.00000 | sample purged             |

Cpnd Variable Local Compound Variable

|           |                                |       |     |        |                | AMOUNTS  |              |
|-----------|--------------------------------|-------|-----|--------|----------------|----------|--------------|
|           |                                | QUANT | SIG |        |                | CAL-AMT  | ON-COL       |
| Compounds |                                | MASS  |     | RT     | EXP RT REL RT  | RESPONSE |              |
|           |                                | ===== |     | ==     | =====          | =====    | =====        |
| M         | 2 Xylenes (total)              | 106   |     |        |                | 1209678  | 150.000 130  |
| M         | 3 1,2-Dichloroethylene (total) | 96    |     |        |                | 806709   | 100.000 85.5 |
| M         | 1 1,3-Dichloropropylene        | 75    |     |        |                | 805156   | 100.000 93.4 |
|           | 4 Dichlorodifluoromethane      | 85    |     | 5.148  | 5.148 (0.336)  | 127596   | 50.0000 43.0 |
|           | 5 Chloromethane                | 50    |     | 5.757  | 5.757 (0.376)  | 390106   | 50.0000 43.8 |
|           | 6 Vinyl chloride               | 62    |     | 6.188  | 6.188 (0.404)  | 360826   | 50.0000 45.6 |
|           | 7 Bromomethane                 | 94    |     | 7.419  | 7.419 (0.484)  | 211644   | 50.0000 46.9 |
|           | 8 Chloroethane                 | 64    |     | 7.845  | 7.845 (0.512)  | 191439   | 50.0000 47.3 |
|           | 9 Trichlorofluoromethane       | 101   |     | 8.799  | 8.799 (0.574)  | 282099   | 50.0000 46.5 |
|           | 10 Ethyl Ether                 | 59    |     | 9.693  | 9.693 (0.633)  | 272233   | 50.0000 48.3 |
|           | 13 Acetone                     | 43    |     | 10.413 | 10.413 (0.680) | 1434872  | 250.000 225  |
|           | 17 Acetonitrile                | 41    |     | 11.073 | 11.073 (0.723) | 1214135  | 1000.00 1070 |
|           | 14 1,1-Dichloroethylene        | 96    |     | 10.312 | 10.312 (0.673) | 172979   | 50.0000 41.7 |
|           | 18 Methyl acetate              | 43    |     | 11.215 | 11.215 (0.732) | 1416155  | 250.000 240  |
|           | 16 Iodomethane                 | 142   |     | 10.667 | 10.667 (0.696) | 1592937  | 250.000 220  |

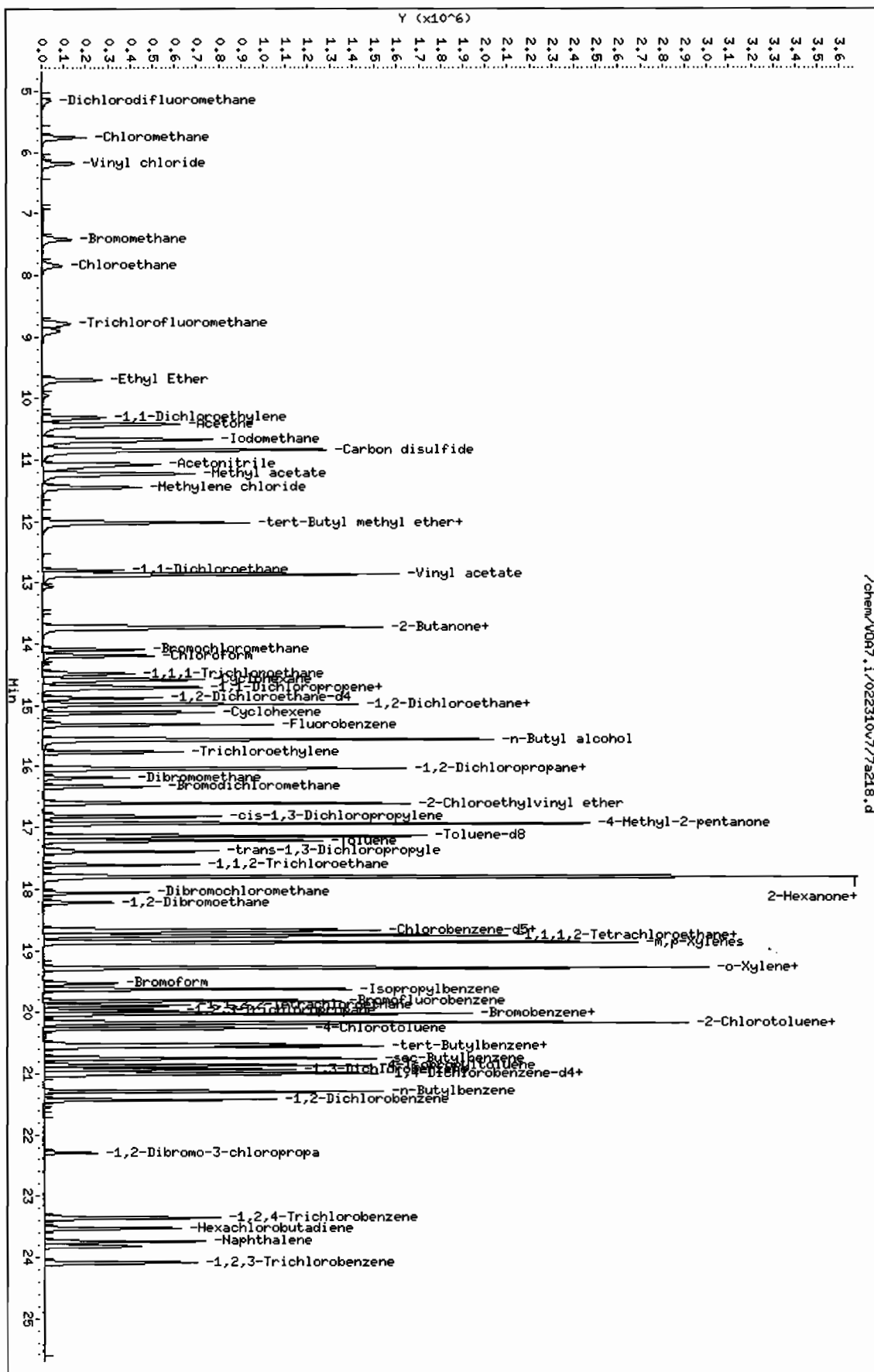


| Compounds                      | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|--------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| =====                          | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| 22 Methylene chloride          | 86        | 11.439 | 11.439 | (0.747) | 161314   | 50.0000            | 41.4              |
| 19 Carbon disulfide            | 76        | 10.840 | 10.840 | (0.708) | 2983898  | 250.000            | 205               |
| 24 tert-Butyl methyl ether     | 73        | 12.017 | 12.017 | (0.785) | 661184   | 50.0000            | 44.8              |
| 25 trans-1,2-Dichloroethylene  | 61        | 12.017 | 12.017 | (0.785) | 374703   | 50.0000            | 42.8              |
| 26 Vinyl acetate               | 43        | 12.860 | 12.860 | (0.840) | 3166202  | 250.000            | 219               |
| 28 1,1-Dichloroethane          | 63        | 12.799 | 12.799 | (0.836) | 490093   | 50.0000            | 43.0              |
| 31 2-Butanone                  | 43        | 13.723 | 13.723 | (0.896) | 1627667  | 250.000            | 228               |
| 33 cis-1,2-Dichloroethylene    | 61        | 13.733 | 13.733 | (0.897) | 432006   | 50.0000            | 42.7              |
| 34 2,2-Dichloropropane         | 77        | 13.743 | 13.743 | (0.897) | 202495   | 50.0000            | 42.8              |
| 38 Chloroform                  | 83        | 14.190 | 14.190 | (0.926) | 400907   | 50.0000            | 42.2              |
| 37 Bromochloromethane          | 49        | 14.088 | 14.088 | (0.920) | 327705   | 50.0000            | 43.8              |
| 41 1,1,1-Trichloroethane       | 97        | 14.484 | 14.484 | (0.946) | 278212   | 50.0000            | 42.7              |
| 43 Cyclohexane                 | 56        | 14.586 | 14.586 | (0.952) | 440004   | 50.0000            | 41.6              |
| 44 1,1-Dichloropropene         | 75        | 14.697 | 14.697 | (0.960) | 293509   | 50.0000            | 43.0              |
| 52 n-Butyl alcohol             | 56        | 15.560 | 15.560 | (1.016) | 1317573  | 5000.00            | 5320              |
| 45 Carbon tetrachloride        | 117       | 14.728 | 14.728 | (0.962) | 222553   | 50.0000            | 42.9              |
| \$ 46 1,2-Dichloroethane-d4    | 65        | 14.880 | 14.880 | (0.971) | 400109   | 50.0000            | 48.6              |
| 47 1,2-Dichloroethane          | 62        | 14.982 | 14.982 | (0.978) | 399459   | 50.0000            | 42.6              |
| 48 Benzene                     | 78        | 14.982 | 14.982 | (0.978) | 886389   | 50.0000            | 42.5              |
| 50 Cyclohexene                 | 67        | 15.114 | 15.114 | (0.987) | 431962   | 50.0000            | 44.0              |
| * 51 Fluorobenzene             | 96        | 15.317 | 15.317 | (1.000) | 953093   | 50.0000            |                   |
| 53 Trichloroethylene           | 95        | 15.763 | 15.763 | (1.029) | 224426   | 50.0000            | 44.4              |
| 56 1,2-Dichloropropane         | 63        | 16.037 | 16.037 | (1.047) | 301982   | 50.0000            | 43.5              |
| 55 Methylcyclohexane           | 83        | 16.027 | 16.027 | (1.046) | 375973   | 50.0000            | 44.8              |
| 59 Bromodichloromethane        | 83        | 16.332 | 16.332 | (1.066) | 324000   | 50.0000            | 43.5              |
| 58 Dibromomethane              | 93        | 16.180 | 16.180 | (1.056) | 168833   | 50.0000            | 45.1              |
| 61 2-Chloroethylvinyl ether    | 63        | 16.606 | 16.606 | (1.084) | 753150   | 250.000            | 279               |
| 63 4-Methyl-2-pentanone        | 58        | 16.931 | 16.931 | (0.907) | 772807   | 250.000            | 218               |
| 62 cis-1,3-Dichloropropylene   | 75        | 16.819 | 16.819 | (1.098) | 416656   | 50.0000            | 46.0              |
| \$ 64 Toluene-d8               | 98        | 17.134 | 17.134 | (0.918) | 1134856  | 50.0000            | 48.4              |
| 65 Toluene                     | 92        | 17.215 | 17.215 | (0.922) | 546098   | 50.0000            | 42.1              |
| 67 trans-1,3-Dichloropropylene | 75        | 17.388 | 17.388 | (0.931) | 388500   | 50.0000            | 44.2              |
| 68 1,1,2-Trichloroethane       | 83        | 17.611 | 17.611 | (0.943) | 206948   | 50.0000            | 42.3              |
| 69 2-Hexanone                  | 43        | 17.794 | 17.794 | (0.953) | 2021202  | 250.000            | 206               |
| 70 1,3-Dichloropropane         | 76        | 17.794 | 17.794 | (0.953) | 439628   | 50.0000            | 43.9              |
| 71 Tetrachloroethylene         | 164       | 17.814 | 17.814 | (0.954) | 152250   | 50.0000            | 42.5              |
| 72 Dibromochloromethane        | 129       | 18.058 | 18.058 | (0.967) | 233966   | 50.0000            | 44.4              |
| 73 1,2-Dibromoethane           | 107       | 18.220 | 18.220 | (0.976) | 229198   | 50.0000            | 43.2              |
| * 75 Chlorobenzene-d5          | 117       | 18.667 | 18.667 | (1.000) | 720451   | 50.0000            |                   |
| 76 Chlorobenzene               | 112       | 18.697 | 18.697 | (1.002) | 556990   | 50.0000            | 41.7              |
| 77 1,1,1,2-Tetrachloroethane   | 131       | 18.758 | 18.758 | (1.005) | 205903   | 50.0000            | 44.8              |
| 78 Ethylbenzene                | 91        | 18.758 | 18.758 | (1.005) | 976501   | 50.0000            | 40.3              |
| 79 m,p-Xylenes                 | 106       | 18.870 | 18.870 | (1.011) | 785131   | 100.000            | 86.1              |
| 80 o-Xylene                    | 106       | 19.286 | 19.286 | (1.033) | 424547   | 50.0000            | 43.9              |
| 81 Styrene                     | 104       | 19.286 | 19.286 | (1.033) | 684292   | 50.0000            | 44.2              |
| 82 Bromoform                   | 173       | 19.540 | 19.540 | (0.931) | 159446   | 50.0000            | 46.2              |
| 83 Isopropylbenzene            | 105       | 19.631 | 19.631 | (0.935) | 932656   | 50.0000            | 40.0              |

|                                 |       |        |        |         |          | AMOUNTS |         |
|---------------------------------|-------|--------|--------|---------|----------|---------|---------|
| QUANT SIG                       |       |        |        |         |          | CAL-AMT | ON-COL  |
| Compounds                       | MASS  | RT     | EXP RT | REL RT  | RESPONSE | ( ug/l) | ( ug/l) |
| =====                           | ===== | ==     | =====  | =====   | =====    | =====   | =====   |
| 87 1,1,2,2-Tetrachloroethane    | 83    | 19.885 | 19.885 | (0.947) | 337198   | 50.0000 | 41.4    |
| \$ 86 Bromofluorobenzene        | 95    | 19.814 | 19.814 | (0.944) | 458971   | 50.0000 | 48.4    |
| 89 1,2,3-Trichloropropane       | 110   | 19.966 | 19.966 | (0.951) | 72556    | 50.0000 | 40.9    |
| 90 Bromobenzene                 | 156   | 20.017 | 20.017 | (0.954) | 232087   | 50.0000 | 42.6    |
| 91 n-Propylbenzene              | 91    | 20.027 | 20.027 | (0.954) | 1177045  | 50.0000 | 39.7    |
| 93 2-Chlorotoluene              | 91    | 20.169 | 20.169 | (0.961) | 826348   | 50.0000 | 40.8    |
| 92 1,3,5-Trimethylbenzene       | 105   | 20.169 | 20.169 | (0.961) | 821827   | 50.0000 | 42.7    |
| 94 4-Chlorotoluene              | 91    | 20.261 | 20.261 | (0.965) | 729327   | 50.0000 | 40.1    |
| 95 tert-Butylbenzene            | 119   | 20.525 | 20.525 | (0.978) | 736119   | 50.0000 | 42.2    |
| 96 1,2,4-Trimethylbenzene       | 105   | 20.565 | 20.565 | (0.980) | 816126   | 50.0000 | 41.9    |
| 98 sec-Butylbenzene             | 105   | 20.748 | 20.748 | (0.988) | 1059772  | 50.0000 | 41.3    |
| 99 4-Isopropyltoluene           | 119   | 20.860 | 20.860 | (0.994) | 800770   | 50.0000 | 43.1    |
| 100 1,3-Dichlorobenzene         | 146   | 20.931 | 20.931 | (0.997) | 440004   | 50.0000 | 41.3    |
| * 101 1,4-Dichlorobenzene-d4    | 152   | 20.992 | 20.992 | (1.000) | 360058   | 50.0000 |         |
| 102 1,4-Dichlorobenzene         | 146   | 21.012 | 21.012 | (1.001) | 434053   | 50.0000 | 41.7    |
| 104 n-Butylbenzene              | 91    | 21.296 | 21.296 | (1.014) | 896477   | 50.0000 | 41.7    |
| 105 1,2-Dichlorobenzene         | 146   | 21.438 | 21.438 | (1.021) | 445523   | 50.0000 | 41.6    |
| 107 1,2-Dibromo-3-chloropropane | 157   | 22.301 | 22.301 | (1.062) | 60618    | 50.0000 | 45.1    |
| 108 1,2,4-Trichlorobenzene      | 180   | 23.357 | 23.357 | (1.113) | 288173   | 50.0000 | 43.0    |
| 109 Hexachlorobutadiene         | 225   | 23.529 | 23.529 | (1.121) | 145639   | 50.0000 | 40.4    |
| 110 Naphthalene                 | 128   | 23.743 | 23.743 | (1.131) | 724577   | 50.0000 | 43.0    |
| 111 1,2,3-Trichlorobenzene      | 180   | 24.088 | 24.088 | (1.147) | 265459   | 50.0000 | 42.8    |

Data File: /chem/V007.1/022310v7/7a218.d  
 Date: 23-FEB-2010 19:23  
 Client ID: VSTD050  
 Sample Info: 1M7VH100223-01.BFB/CCV11V0AF1.1  
 Purge Volume: 5.0  
 Column phase: DB-624

Instrument: V007.1  
 Operator: AX01  
 Column diameter: 0.25



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 23-FEB-2010 21:04  
Lab File ID: 7a221.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100223-04 Quant Type: ISTD  
Method: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

| COMPOUND                        | RRF / AMOUNT | RF50    | CCAL<br>RRF50 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE |
|---------------------------------|--------------|---------|---------------|------------|-------------|--------------------|------------|
| 147 Chlorotrifluoroethylene     | 0.10627      | 0.09624 | 0.09624       | 0.010      | -9.43988    | 30.00000           | Averaged   |
| 148 2-Chloro-1,1,1-trifluoroeth | 0.21104      | 0.21524 | 0.21524       | 0.010      | 1.99046     | 30.00000           | Averaged   |
| 11 Acrolein                     | 0.04808      | 0.05754 | 0.05754       | 0.001      | 19.67087    | 30.00000           | Averaged   |
| 12 Trichlorotrifluoroethane     | 0.08737      | 0.09175 | 0.09175       | 0.010      | 5.01472     | 30.00000           | Averaged   |
| 15 Isopropyl Alcohol            | 0.03252      | 0.03167 | 0.03167       | 0.010      | -2.62691    | 40.00000           | Averaged   |
| 20 Allyl chloride               | 0.47439      | 0.42392 | 0.42392       | 0.010      | -10.63973   | 30.00000           | Averaged   |
| 21 tert-Butyl Alcohol           | 0.04700      | 0.04519 | 0.04519       | 0.001      | -3.84894    | 40.00000           | Averaged   |
| 23 Acrylonitrile                | 0.13462      | 0.12332 | 0.12332       | 0.010      | -8.39578    | 30.00000           | Averaged   |
| 27 Isopropyl ether              | 1.27617      | 1.22441 | 1.22441       | 0.010      | -4.05601    | 30.00000           | Averaged   |
| 29 2-Chloro-1,3-butadiene       | 0.40803      | 0.39791 | 0.39791       | 0.010      | -2.48104    | 30.00000           | Averaged   |
| 30 Ethyl tert-butyl ether       | 0.87171      | 0.92065 | 0.92065       | 0.010      | 5.61459     | 30.00000           | Averaged   |
| 35 Propionitrile                | 0.05907      | 0.04852 | 0.04852       | 0.010      | -17.85002   | 30.00000           | Averaged   |
| 32 Ethyl acetate                | 0.40471      | 0.31045 | 0.31045       | 0.010      | -23.29037   | 40.00000           | Averaged   |
| 36 Methacrylonitrile            | 0.24530      | 0.19852 | 0.19852       | 0.010      | -19.06987   | 30.00000           | Averaged   |
| 39 Tetrahydrofuran              | 0.41916      | 0.32362 | 0.32362       | 0.010      | -22.79355   | 30.00000           | Averaged   |
| 42 Isobutyl alcohol             | 0.01791      | 0.01505 | 0.01505       | 0.005      | -15.98974   | 40.00000           | Averaged   |
| 49 Methyl tert-amyl ether       | 0.66978      | 0.71619 | 0.71619       | 0.010      | 6.92872     | 30.00000           | Averaged   |
| 54 Methyl methacrylate          | 0.21684      | 0.19613 | 0.19613       | 0.010      | -9.54923    | 30.00000           | Averaged   |
| 66 Ethyl methacrylate           | 0.57238      | 0.50796 | 0.50796       | 0.010      | -11.25340   | 30.00000           | Averaged   |
| 74 1-Chlorohexane               | 0.31936      | 0.33141 | 0.33141       | 0.010      | 3.77381     | 30.00000           | Averaged   |
| 57 1,4-Dioxane                  | 0.00326      | 0.00296 | 0.00296       | 0.001      | -9.16264    | 40.00000           | Averaged   |
| 60 2-Nitropropane               | 0.14035      | 0.13017 | 0.13017       | 0.010      | -7.25564    | 30.00000           | Averaged   |
| 84 cis-1,4-Dichloro-2-butene    | 0.38900      | 0.37752 | 0.37752       | 0.010      | -2.95060    | 30.00000           | Averaged   |
| 85 Cyclohexanone                | 0.02826      | 0.03001 | 0.03001       | 0.010      | 6.18128     | 40.00000           | Averaged   |
| 88 trans-1,4-Dichloro-2-butene  | 0.35107      | 0.34560 | 0.34560       | 0.010      | -1.55621    | 30.00000           | Averaged   |
| 97 Pentachloroethane            | 0.28176      | 0.24369 | 0.24369       | 0.010      | -13.50884   | 30.00000           | Averaged   |
| 103 Benzyl chloride             | 1.23904      | 1.32086 | 1.32086       | 0.010      | 6.60323     | 30.00000           | Averaged   |
| 106 bis(2-Chloroisopropyl)ether | 0.69951      | 0.57344 | 0.57344       | 0.010      | -18.02247   | 30.00000           | Averaged   |
| 46 1,2-Dichloroethane-d4        | 0.43199      | 0.41792 | 0.41792       | 0.010      | -3.25700    | 30.00000           | Averaged   |
| 64 Toluene-d8                   | 1.62735      | 1.66365 | 1.66365       | 0.010      | 2.23104     | 30.00000           | Averaged   |
| 86 Bromofluorobenzene           | 1.31523      | 1.27168 | 1.27168       | 0.010      | -3.31152    | 30.00000           | Averaged   |

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i                      Injection Date: 23-FEB-2010 21:04  
Lab File ID: 7a221.d                      Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER                      Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100223-04 Quant Type: ISTD  
Method: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

|                                 |          |
|---------------------------------|----------|
| Average %D / Drift Results.     |          |
| =====                           |          |
| Calculated Average %D/Drift =   | 12.95136 |
| Maximun Average %D/Drift =      | 20.00000 |
| * Passed Average %D/Drift Test. |          |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022310v7/7a221.d  
Lab Smp Id: W7VM100223-04 Client Smp ID: VSTD250S  
Inj Date : 23-FEB-2010 21:04  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |W7VM100223-04|SHORT/SLCS|1|VOAF|1|  
Misc Info : GEL 5mL N/A UVM091216-08B/UVM100125-08D  
Comment :  
Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
Meth Date : 25-Feb-2010 07:24 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 21 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub  
Target Version: 3.50

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

| Name | Value   | Description               |
|------|---------|---------------------------|
| DF   | 1.00000 | Dilution Factor           |
| Uf   | 5.00000 | ng unit correction factor |
| Vo   | 5.00000 | sample purged             |

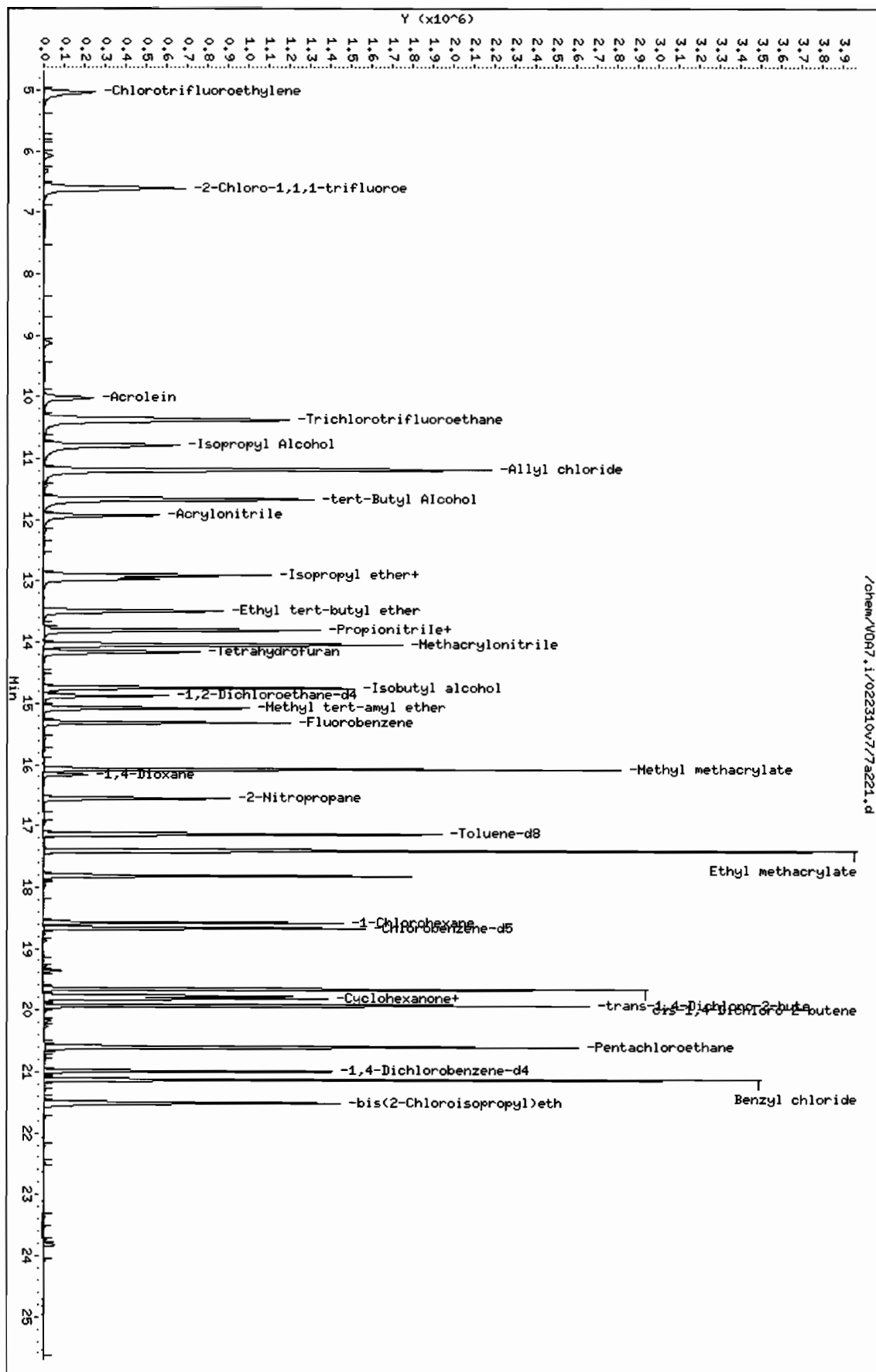
Cpnd Variable Local Compound Variable

| Compounds                          | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|------------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                    | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| 147 Chlorotrifluoroethylene        | 116       | 5.029  | 5.029  | (0.328) | 316775   | 150.000            | 136               |
| 148 2-Chloro-1,1,1-trifluoroethane | 118       | 6.603  | 6.603  | (0.431) | 708446   | 150.000            | 153               |
| 11 Acrolein                        | 56        | 10.017 | 10.017 | (0.654) | 315629   | 250.000            | 299               |
| 12 Trichlorotrifluoroethane        | 85        | 10.373 | 10.373 | (0.677) | 503299   | 250.000            | 262               |
| 15 Isopropyl Alcohol               | 45        | 10.779 | 10.779 | (0.704) | 1737114  | 2500.00            | 2430              |
| 20 Allyl chloride                  | 41        | 11.185 | 11.185 | (0.730) | 2325513  | 250.000            | 223               |
| 21 tert-Butyl Alcohol              | 59        | 11.662 | 11.662 | (0.761) | 2479125  | 2500.00            | 2400              |
| 23 Acrylonitrile                   | 53        | 11.926 | 11.926 | (0.779) | 676478   | 250.000            | 229               |
| 27 Isopropyl ether                 | 45        | 12.900 | 12.900 | (0.842) | 1343361  | 50.0000            | 48.0              |
| 29 2-Chloro-1,3-butadiene          | 53        | 12.961 | 12.961 | (0.846) | 436565   | 50.0000            | 48.8              |
| 30 Ethyl tert-butyl ether          | 59        | 13.489 | 13.489 | (0.881) | 1010096  | 50.0000            | 52.8              |
| 35 Propionitrile                   | 54        | 13.804 | 13.804 | (0.901) | 266186   | 250.000            | 205               |
| 32 Ethyl acetate                   | 43        | 13.804 | 13.804 | (0.901) | 1703050  | 250.000            | 192               |
| 36 Methacrylonitrile               | 41        | 14.037 | 14.037 | (0.916) | 1089018  | 250.000            | 202               |
| 39 Tetrahydrofuran                 | 42        | 14.159 | 14.159 | (0.675) | 612391   | 250.000            | 193               |
| 42 Isobutyl alcohol                | 41        | 14.748 | 14.748 | (0.963) | 825613   | 2500.00            | 2100              |

| Compounds                       | QUANT SIG |        |        |         | AMOUNTS  |                    |                   |
|---------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
|                                 | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| 49 Methyl tert-amyl ether       | 73        | 15.073 | 15.073 | (0.984) | 785770   | 50.0000            | 53.5              |
| 54 Methyl methacrylate          | 69        | 16.078 | 16.078 | (1.050) | 1075918  | 250.000            | 226               |
| 66 Ethyl methacrylate           | 69        | 17.408 | 17.408 | (0.933) | 1934146  | 250.000            | 222               |
| 74 1-Chlorohexane               | 55        | 18.575 | 18.575 | (1.213) | 363604   | 50.0000            | 51.9              |
| 57 1,4-Dioxane                  | 88        | 16.159 | 16.159 | (1.055) | 162401   | 2500.00            | 2270              |
| 60 2-Nitropropane               | 43        | 16.555 | 16.555 | (1.081) | 714056   | 250.000            | 232               |
| 84 cis-1,4-Dichloro-2-butene    | 53        | 19.661 | 19.661 | (0.937) | 714386   | 250.000            | 243               |
| 85 Cyclohexanone                | 55        | 19.773 | 19.773 | (1.059) | 571312   | 1250.00            | 1330              |
| 88 trans-1,4-Dichloro-2-butene  | 53        | 19.925 | 19.925 | (0.949) | 653984   | 250.000            | 246               |
| 97 Pentachloroethane            | 167       | 20.595 | 20.595 | (0.981) | 461142   | 250.000            | 216               |
| 103 Benzyl chloride             | 91        | 21.123 | 21.123 | (1.006) | 2499471  | 250.000            | 266               |
| 106 bis(2-Chloroisopropyl)ether | 45        | 21.509 | 21.509 | (1.025) | 1085120  | 250.000            | 205               |
| * 51 Fluorobenzene              | 96        | 15.316 | 15.317 | (1.000) | 1097150  | 50.0000            |                   |
| * 75 Chlorobenzene-d5           | 117       | 18.667 | 18.667 | (1.000) | 761527   | 50.0000            |                   |
| * 101 1,4-Dichlorobenzene-d4    | 152       | 20.991 | 20.992 | (1.000) | 378460   | 50.0000            |                   |
| \$ 46 1,2-Dichloroethane-d4     | 65        | 14.880 | 14.880 | (0.972) | 458519   | 50.0000            | 48.4              |
| \$ 64 Toluene-d8                | 98        | 17.134 | 17.134 | (0.918) | 1266918  | 50.0000            | 51.1              |
| \$ 86 Bromofluorobenzene        | 95        | 19.814 | 19.814 | (0.944) | 481280   | 50.0000            | 48.3              |

Data File: /chem/V007.i/022310v7/7a221.d  
 Date: 23-FEB-2010 21:04  
 Client ID: VSTD2505  
 Sample Info: 147VH100223-041SHORT/SLCS11V0AF111  
 Purge Volume: 5.0  
 Column phase: DB-624

Instrument: V007.i  
 Operator: AXD1  
 Column diameter: 0.25





GEL Laboratories LLC  
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-FEB-2010 10:51  
Lab File ID: 7a302.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100224-01 Quant Type: ISTD  
Method: /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

| COMPOUND                          | RRF / AMOUNT | RF50    | CCAL<br>RRF50 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE    |
|-----------------------------------|--------------|---------|---------------|------------|-------------|--------------------|---------------|
| IM 2 Xylenes (total)              | 0.64551      | 0.59048 | 0.59048       | 0.050      | -8.52470    | 30.00000           | Averaged      |
| IM 3 1,2-Dichloroethylene (total) | 0.49511      | 0.44348 | 0.44348       | 0.050      | -10.42674   | 30.00000           | Averaged      |
| IM 1 1,3-Dichloropropylene        | 0.45215      | 0.45241 | 0.45241       | 0.050      | 0.05795     | 30.00000           | Averaged      |
| 4 Dichlorodifluoromethane         | 0.15569      | 0.14145 | 0.14145       | 0.050      | -9.14294    | 30.00000           | Averaged      |
| 5 Chloromethane                   | 0.46771      | 0.42449 | 0.42449       | 0.100      | -9.24079    | 30.00000           | Averaged spcc |
| 6 Vinyl chloride                  | 0.41543      | 0.40259 | 0.40259       | 0.050      | -3.09040    | 20.00000           | Averaged ccc  |
| 7 Bromomethane                    | 0.23685      | 0.24344 | 0.24344       | 0.050      | 2.78201     | 30.00000           | Averaged      |
| 8 Chloroethane                    | 0.21246      | 0.21773 | 0.21773       | 0.010      | 2.48072     | 30.00000           | Averaged      |
| 9 Trichlorofluoromethane          | 0.31799      | 0.32458 | 0.32458       | 0.050      | 2.07235     | 30.00000           | Averaged      |
| 10 Ethyl Ether                    | 0.29582      | 0.30277 | 0.30277       | 0.001      | 2.34860     | 30.00000           | Averaged      |
| 13 Acetone                        | 0.33491      | 0.30813 | 0.30813       | 0.050      | -7.99740    | 40.00000           | Averaged      |
| 17 Acetonitrile                   | 0.05935      | 0.06332 | 0.06332       | 0.010      | 6.69424     | 30.00000           | Averaged      |
| 14 1,1-Dichloroethylene           | 0.21744      | 0.19425 | 0.19425       | 0.050      | -10.66402   | 20.00000           | Averaged ccc  |
| 18 Methyl acetate                 | 0.30971      | 0.30327 | 0.30327       | 0.010      | -2.07918    | 40.00000           | Averaged      |
| 16 Iodomethane                    | 0.37891      | 0.35091 | 0.35091       | 0.050      | -7.39016    | 30.00000           | Averaged      |
| 22 Methylene chloride             | 0.20428      | 0.17284 | 0.17284       | 0.050      | -15.39180   | 30.00000           | Averaged      |
| 19 Carbon disulfide               | 0.76494      | 0.65940 | 0.65940       | 0.050      | -13.79717   | 30.00000           | Averaged      |
| 24 tert-Butyl methyl ether        | 0.77339      | 0.72131 | 0.72131       | 0.050      | -6.73374    | 30.00000           | Averaged      |
| 25 trans-1,2-Dichloroethylene     | 0.45970      | 0.41132 | 0.41132       | 0.050      | -10.52235   | 30.00000           | Averaged      |
| 26 Vinyl acetate                  | 0.75971      | 0.71941 | 0.71941       | 0.010      | -5.30454    | 40.00000           | Averaged      |
| 28 1,1-Dichloroethane             | 0.59819      | 0.54860 | 0.54860       | 0.100      | -8.28929    | 30.00000           | Averaged spcc |
| 31 2-Butanone                     | 0.37353      | 0.35085 | 0.35085       | 0.030      | -6.07196    | 40.00000           | Averaged      |
| 33 cis-1,2-Dichloroethylene       | 0.53052      | 0.47564 | 0.47564       | 0.050      | -10.34389   | 30.00000           | Averaged      |
| 34 2,2-Dichloropropane            | 0.24848      | 0.24932 | 0.24932       | 0.050      | 0.33652     | 30.00000           | Averaged      |
| 38 Chloroform                     | 0.49798      | 0.43500 | 0.43500       | 0.010      | -12.64699   | 20.00000           | Averaged ccc  |
| 37 Bromochloromethane             | 0.39220      | 0.36170 | 0.36170       | 0.010      | -7.77691    | 30.00000           | Averaged      |
| 41 1,1,1-Trichloroethane          | 0.34173      | 0.32555 | 0.32555       | 0.010      | -4.73401    | 30.00000           | Averaged      |
| 43 Cyclohexane                    | 0.55549      | 0.49498 | 0.49498       | 0.010      | -10.89349   | 30.00000           | Averaged      |
| 44 1,1-Dichloropropene            | 0.35780      | 0.32809 | 0.32809       | 0.010      | -8.30232    | 30.00000           | Averaged      |
| 52 n-Butyl alcohol                | 0.01300      | 0.01365 | 0.01365       | 0.001      | 4.97701     | 40.00000           | Averaged      |
| 45 Carbon tetrachloride           | 0.27191      | 0.25531 | 0.25531       | 0.010      | -6.10723    | 30.00000           | Averaged      |
| \$ 46 1,2-Dichloroethane-d4       | 0.43199      | 0.43123 | 0.43123       | 0.010      | -0.17630    | 30.00000           | Averaged      |
| 47 1,2-Dichloroethane             | 0.49133      | 0.43929 | 0.43929       | 0.010      | -10.59120   | 30.00000           | Averaged      |
| 48 Benzene                        | 1.09329      | 0.97847 | 0.97847       | 0.010      | -10.50189   | 30.00000           | Averaged      |
| 50 Cyclohexene                    | 0.51508      | 0.49191 | 0.49191       | 0.010      | -4.49875    | 30.00000           | Averaged      |

## GEL Laboratories LLC

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-FEB-2010 10:51  
Lab File ID: 7a302.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100224-01 Quant Type: ISTD  
Method: /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

| COMPOUND                       | RRF / AMOUNT | RF50    | CCAL<br>RRF50 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE    |
|--------------------------------|--------------|---------|---------------|------------|-------------|--------------------|---------------|
| 53 Trichloroethylene           | 0.26489      | 0.25109 | 0.25109       | 0.010      | -5.21062    | 30.00000           | Averaged      |
| 56 1,2-Dichloropropane         | 0.36406      | 0.33086 | 0.33086       | 0.010      | -9.11891    | 20.00000           | Averaged ccc  |
| 55 Methylcyclohexane           | 0.44055      | 0.42634 | 0.42634       | 0.010      | -3.22665    | 30.00000           | Averaged      |
| 59 Bromodichloromethane        | 0.39044      | 0.36407 | 0.36407       | 0.010      | -6.75507    | 30.00000           | Averaged      |
| 58 Dibromomethane              | 0.19638      | 0.18516 | 0.18516       | 0.010      | -5.70937    | 30.00000           | Averaged      |
| 61 2-Chloroethylvinyl ether    | 0.14176      | 0.16612 | 0.16612       | 0.010      | 17.19059    | 30.00000           | Averaged      |
| 63 4-Methyl-2-pentanone        | 0.24607      | 0.22331 | 0.22331       | 0.010      | -9.24978    | 40.00000           | Averaged      |
| 62 cis-1,3-Dichloropropylene   | 0.47551      | 0.46469 | 0.46469       | 0.010      | -2.27548    | 30.00000           | Averaged      |
| 64 Toluene-d8                  | 1.62735      | 1.57855 | 1.57855       | 0.010      | -2.99829    | 30.00000           | Averaged      |
| 65 Toluene                     | 0.90021      | 0.80691 | 0.80691       | 0.010      | -10.36465   | 20.00000           | Averaged ccc  |
| 67 trans-1,3-Dichloropropylene | 0.61004      | 0.57903 | 0.57903       | 0.010      | -5.08205    | 30.00000           | Averaged      |
| 68 1,1,2-Trichloroethane       | 0.33917      | 0.29585 | 0.29585       | 0.010      | -12.77323   | 30.00000           | Averaged      |
| 69 2-Hexanone                  | 0.68092      | 0.58352 | 0.58352       | 0.010      | -14.30379   | 40.00000           | Averaged      |
| 70 1,3-Dichloropropane         | 0.69553      | 0.62548 | 0.62548       | 0.010      | -10.07154   | 30.00000           | Averaged      |
| 71 Tetrachloroethylene         | 0.24878      | 0.23215 | 0.23215       | 0.010      | -6.68493    | 30.00000           | Averaged      |
| 72 Dibromochloromethane        | 0.36583      | 0.34666 | 0.34666       | 0.010      | -5.23898    | 30.00000           | Averaged      |
| 73 1,2-Dibromoethane           | 0.36785      | 0.33820 | 0.33820       | 0.010      | -8.05970    | 30.00000           | Averaged      |
| 76 Chlorobenzene               | 0.92664      | 0.81577 | 0.81577       | 0.300      | -11.96447   | 30.00000           | Averaged spcc |
| 77 1,1,1,2-Tetrachloroethane   | 0.31932      | 0.30341 | 0.30341       | 0.010      | -4.98243    | 30.00000           | Averaged      |
| 78 Ethylbenzene                | 1.68200      | 1.44914 | 1.44914       | 0.010      | -13.84413   | 20.00000           | Averaged ccc  |
| 79 m,p-Xylenes                 | 0.63299      | 0.57645 | 0.57645       | 0.010      | -8.93214    | 30.00000           | Averaged      |
| 80 o-Xylene                    | 0.67056      | 0.61855 | 0.61855       | 0.010      | -7.75549    | 30.00000           | Averaged      |
| 81 Styrene                     | 1.07382      | 1.00900 | 1.00900       | 0.010      | -6.03621    | 30.00000           | Averaged      |
| 82 Bromoform                   | 0.47906      | 0.44667 | 0.44667       | 0.100      | -6.76171    | 30.00000           | Averaged spcc |
| 83 Isopropylbenzene            | 3.23464      | 2.65446 | 2.65446       | 0.010      | -17.93668   | 30.00000           | Averaged      |
| 87 1,1,2,2-Tetrachloroethane   | 1.13151      | 0.92591 | 0.92591       | 0.300      | -18.17039   | 30.00000           | Averaged spcc |
| 86 Bromofluorobenzene          | 1.31523      | 1.27612 | 1.27612       | 0.010      | -2.97383    | 30.00000           | Averaged      |
| 89 1,2,3-Trichloropropane      | 0.24620      | 0.20381 | 0.20381       | 0.010      | -17.21599   | 30.00000           | Averaged      |
| 90 Bromobenzene                | 0.75737      | 0.64900 | 0.64900       | 0.010      | -14.30882   | 30.00000           | Averaged      |
| 91 n-Propylbenzene             | 4.11235      | 3.32993 | 3.32993       | 0.010      | -19.02591   | 30.00000           | Averaged      |
| 93 2-Chlorotoluene             | 2.81550      | 2.31520 | 2.31520       | 0.010      | -17.76934   | 30.00000           | Averaged      |
| 92 1,3,5-Trimethylbenzene      | 2.67285      | 2.33388 | 2.33388       | 0.010      | -12.68192   | 30.00000           | Averaged      |
| 94 4-Chlorotoluene             | 2.52732      | 2.07013 | 2.07013       | 0.010      | -18.08965   | 30.00000           | Averaged      |
| 95 tert-Butylbenzene           | 2.42130      | 2.11198 | 2.11198       | 0.010      | -12.77475   | 30.00000           | Averaged      |
| 96 1,2,4-Trimethylbenzene      | 2.70506      | 2.34258 | 2.34258       | 0.010      | -13.40005   | 30.00000           | Averaged      |
| 98 sec-Butylbenzene            | 3.56563      | 3.01519 | 3.01519       | 0.010      | -15.43737   | 30.00000           | Averaged      |

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-FEB-2010 10:51  
Lab File ID: 7a302.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100224-01 Quant Type: ISTD  
Method: /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

| COMPOUND                        | RRF / AMOUNT | RF50     | CCAL    | MIN   | MAX         | CURVE TYPE  |
|---------------------------------|--------------|----------|---------|-------|-------------|-------------|
|                                 |              |          | RRF50   | RRF   | %D / %DRIFT | %D / %DRIFT |
| 99 4-Isopropyltoluene           | 2.57723      | 2.28414  | 2.28414 | 0.010 | -11.37220   | 30.00000    |
| 100 1,3-Dichlorobenzene         | 1.47958      | 1.24259  | 1.24259 | 0.010 | -16.01727   | 30.00000    |
| 102 1,4-Dichlorobenzene         | 1.44472      | 1.21724  | 1.21724 | 0.010 | -15.74556   | 30.00000    |
| 104 n-Butylbenzene              | 2.98564      | 2.56663  | 2.56663 | 0.010 | -14.03434   | 30.00000    |
| 105 1,2-Dichlorobenzene         | 1.48620      | 1.25814  | 1.25814 | 0.010 | -15.34530   | 30.00000    |
| 107 1,2-Dibromo-3-chloropropane | 45.43847     | 50.00000 | 0.16964 | 0.010 | -9.12307    | 30.00000    |
| 108 1,2,4-Trichlorobenzene      | 0.93109      | 0.81205  | 0.81205 | 0.010 | -12.78556   | 30.00000    |
| 109 Hexachlorobutadiene         | 0.49991      | 0.42492  | 0.42492 | 0.010 | -15.00022   | 30.00000    |
| 110 Naphthalene                 | 2.33792      | 2.02668  | 2.02668 | 0.010 | -13.31232   | 30.00000    |
| 111 1,2,3-Trichlorobenzene      | 0.86076      | 0.75537  | 0.75537 | 0.010 | -12.24318   | 30.00000    |

Average %D / Drift Results.

Calculated Average %D/Drift = 9.28819

Maximum Average %D/Drift = 20.00000

\* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022410v7/7a302.d

Lab Smp Id: W7VM100224-01

Client Smp ID: VSTD050

Inj Date : 24-FEB-2010 10:51

Operator : AX01

Inst ID: VOA7.i

Smp Info : |W7VM100224-01|BFB/CCV|1|VOAF|1|

Misc Info : GEL 5mL N/A UVM100106-07C/UVM100202-07D

Comment :

Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

Meth Date : 08-Mar-2010 14:52 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: CALsubL+.sub

Target Version: 3.50

Processing Host: prdsrv07

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

| Name | Value   | Description               |
|------|---------|---------------------------|
| DF   | 1.00000 | Dilution Factor           |
| Uf   | 5.00000 | ng unit correction factor |
| Vo   | 5.00000 | sample purged             |

Cpnd Variable

Local Compound Variable

|           |                                |           |        |        |         | AMOUNTS  |         |         |
|-----------|--------------------------------|-----------|--------|--------|---------|----------|---------|---------|
|           |                                | QUANT SIG |        |        |         | CAL-AMT  | ON-COL  |         |
| Compounds |                                | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ( ug/l) | ( ug/l) |
| =====     |                                | =====     | ==     | =====  | =====   | =====    | =====   | =====   |
| M         | 2 Xylenes (total)              | 106       |        |        |         | 1270182  | 150.000 | 137     |
| M         | 3 1,2-Dichloroethylene (total) | 96        |        |        |         | 836676   | 100.000 | 89.6    |
| M         | 1 1,3-Dichloropropylene        | 75        |        |        |         | 853523   | 100.000 | 100     |
|           | 4 Dichlorodifluoromethane      | 85        | 5.148  | 5.148  | (0.336) | 133433   | 50.0000 | 45.4    |
|           | 5 Chloromethane                | 50        | 5.757  | 5.757  | (0.376) | 400419   | 50.0000 | 45.4    |
|           | 6 Vinyl chloride               | 62        | 6.188  | 6.188  | (0.404) | 379761   | 50.0000 | 48.4    |
|           | 7 Bromomethane                 | 94        | 7.418  | 7.418  | (0.484) | 229638   | 50.0000 | 51.4    |
|           | 8 Chloroethane                 | 64        | 7.845  | 7.845  | (0.512) | 205385   | 50.0000 | 51.2    |
|           | 9 Trichlorofluoromethane       | 101       | 8.789  | 8.789  | (0.574) | 306172   | 50.0000 | 51.0    |
|           | 10 Ethyl Ether                 | 59        | 9.703  | 9.703  | (0.633) | 285601   | 50.0000 | 51.2    |
|           | 13 Acetone                     | 43        | 10.413 | 10.413 | (0.680) | 1453285  | 250.000 | 230     |
|           | 17 Acetonitrile                | 41        | 11.073 | 11.073 | (0.723) | 1194681  | 1000.00 | 1070    |
|           | 14 1,1-Dichloroethylene        | 96        | 10.312 | 10.312 | (0.673) | 183238   | 50.0000 | 44.7    |
|           | 18 Methyl acetate              | 43        | 11.225 | 11.225 | (0.733) | 1430359  | 250.000 | 245     |
|           | 16 Iodomethane                 | 142       | 10.667 | 10.667 | (0.696) | 1655051  | 250.000 | 232     |

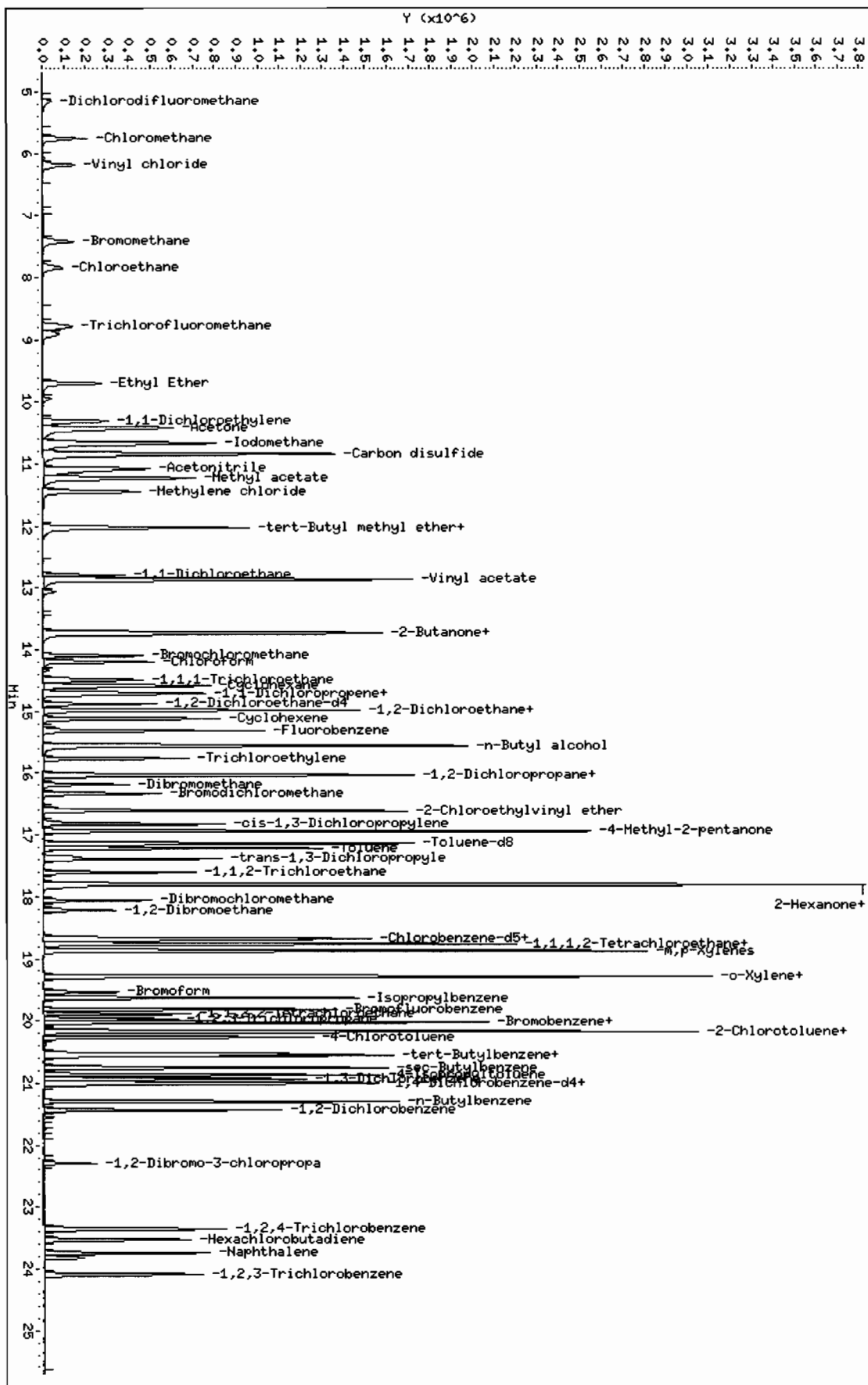
| Compounds                      | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|--------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| 22 Methylene chloride          | 86        | 11.449 | 11.449 | (0.747) | 163037   | 50.0000            | 42.3              |
| 19 Carbon disulfide            | 76        | 10.840 | 10.840 | (0.708) | 3110050  | 250.000            | 216               |
| 24 tert-Butyl methyl ether     | 73        | 12.017 | 12.017 | (0.785) | 680415   | 50.0000            | 46.6              |
| 25 trans-1,2-Dichloroethylene  | 61        | 12.027 | 12.027 | (0.785) | 388002   | 50.0000            | 44.7              |
| 26 Vinyl acetate               | 43        | 12.860 | 12.860 | (0.840) | 3393111  | 250.000            | 237               |
| 28 1,1-Dichloroethane          | 63        | 12.799 | 12.799 | (0.836) | 517497   | 50.0000            | 45.8              |
| 31 2-Butanone                  | 43        | 13.723 | 13.723 | (0.896) | 1654783  | 250.000            | 235               |
| 33 cis-1,2-Dichloroethylene    | 61        | 13.733 | 13.733 | (0.897) | 448674   | 50.0000            | 44.8              |
| 34 2,2-Dichloropropane         | 77        | 13.743 | 13.743 | (0.897) | 235181   | 50.0000            | 50.2              |
| 38 Chloroform                  | 83        | 14.190 | 14.190 | (0.926) | 410332   | 50.0000            | 43.7              |
| 37 Bromochloromethane          | 49        | 14.088 | 14.088 | (0.920) | 341189   | 50.0000            | 46.1              |
| 41 1,1,1-Trichloroethane       | 97        | 14.484 | 14.484 | (0.946) | 307094   | 50.0000            | 47.6              |
| 43 Cyclohexane                 | 56        | 14.586 | 14.586 | (0.952) | 466911   | 50.0000            | 44.6              |
| 44 1,1-Dichloropropene         | 75        | 14.697 | 14.697 | (0.960) | 309487   | 50.0000            | 45.8              |
| 52 n-Butyl alcohol             | 56        | 15.560 | 15.560 | (1.016) | 1287564  | 5000.00            | 5250              |
| 45 Carbon tetrachloride        | 117       | 14.718 | 14.718 | (0.961) | 240831   | 50.0000            | 46.9              |
| \$ 46 1,2-Dichloroethane-d4    | 65        | 14.880 | 14.880 | (0.971) | 406776   | 50.0000            | 49.9              |
| 47 1,2-Dichloroethane          | 62        | 14.982 | 14.982 | (0.978) | 414381   | 50.0000            | 44.7              |
| 48 Benzene                     | 78        | 14.982 | 14.982 | (0.978) | 922991   | 50.0000            | 44.7              |
| 50 Cyclohexene                 | 67        | 15.114 | 15.114 | (0.987) | 464017   | 50.0000            | 47.8              |
| * 51 Fluorobenzene             | 96        | 15.317 | 15.317 | (1.000) | 943299   | 50.0000            |                   |
| 53 Trichloroethylene           | 95        | 15.763 | 15.763 | (1.029) | 236855   | 50.0000            | 47.4              |
| 56 1,2-Dichloropropane         | 63        | 16.037 | 16.037 | (1.047) | 312101   | 50.0000            | 45.4              |
| 55 Methylcyclohexane           | 83        | 16.027 | 16.027 | (1.046) | 402163   | 50.0000            | 48.4              |
| 59 Bromodichloromethane        | 83        | 16.332 | 16.332 | (1.066) | 343427   | 50.0000            | 46.6              |
| 58 Dibromomethane              | 93        | 16.180 | 16.180 | (1.056) | 174665   | 50.0000            | 47.1              |
| 61 2-Chloroethylvinyl ether    | 63        | 16.606 | 16.606 | (1.084) | 783527   | 250.000            | 293               |
| 63 4-Methyl-2-pentanone        | 58        | 16.941 | 16.941 | (0.908) | 800586   | 250.000            | 227               |
| 62 cis-1,3-Dichloropropylene   | 75        | 16.819 | 16.819 | (1.098) | 438337   | 50.0000            | 48.9              |
| \$ 64 Toluene-d8               | 98        | 17.134 | 17.134 | (0.918) | 1131872  | 50.0000            | 48.5              |
| 65 Toluene                     | 92        | 17.215 | 17.215 | (0.922) | 578579   | 50.0000            | 44.8              |
| 67 trans-1,3-Dichloropropylene | 75        | 17.388 | 17.388 | (0.931) | 415186   | 50.0000            | 47.4              |
| 68 1,1,2-Trichloroethane       | 83        | 17.601 | 17.601 | (0.943) | 212133   | 50.0000            | 43.6              |
| 69 2-Hexanone                  | 43        | 17.794 | 17.794 | (0.953) | 2092020  | 250.000            | 214               |
| 70 1,3-Dichloropropane         | 76        | 17.794 | 17.794 | (0.953) | 448491   | 50.0000            | 45.0              |
| 71 Tetrachloroethylene         | 164       | 17.814 | 17.814 | (0.954) | 166457   | 50.0000            | 46.6              |
| 72 Dibromochloromethane        | 129       | 18.058 | 18.058 | (0.967) | 248568   | 50.0000            | 47.4              |
| 73 1,2-Dibromoethane           | 107       | 18.220 | 18.220 | (0.976) | 242502   | 50.0000            | 46.0              |
| * 75 Chlorobenzene-d5          | 117       | 18.667 | 18.667 | (1.000) | 717031   | 50.0000            |                   |
| 76 Chlorobenzene               | 112       | 18.697 | 18.697 | (1.002) | 584931   | 50.0000            | 44.0              |
| 77 1,1,1,2-Tetrachloroethane   | 131       | 18.758 | 18.758 | (1.005) | 217553   | 50.0000            | 47.5              |
| 78 Ethylbenzene                | 91        | 18.758 | 18.758 | (1.005) | 1039077  | 50.0000            | 43.1              |
| 79 m,p-Xylenes                 | 106       | 18.870 | 18.870 | (1.011) | 826660   | 100.000            | 91.1              |
| 80 o-Xylene                    | 106       | 19.286 | 19.286 | (1.033) | 443522   | 50.0000            | 46.1              |
| 81 Styrene                     | 104       | 19.286 | 19.286 | (1.033) | 723484   | 50.0000            | 47.0              |
| 82 Bromoform                   | 173       | 19.540 | 19.540 | (0.931) | 167185   | 50.0000            | 46.6              |
| 83 Isopropylbenzene            | 105       | 19.631 | 19.631 | (0.935) | 993544   | 50.0000            | 41.0              |

| Compounds                       | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|---------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| =====                           | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| 87 1,1,2,2-Tetrachloroethane    | 83        | 19.885 | 19.885 | (0.947) | 346561   | 50.0000            | 40.9              |
| \$ 86 Bromofluorobenzene        | 95        | 19.814 | 19.814 | (0.944) | 477643   | 50.0000            | 48.5              |
| 89 1,2,3-Trichloropropane       | 110       | 19.966 | 19.966 | (0.951) | 76286    | 50.0000            | 41.4              |
| 90 Bromobenzene                 | 156       | 20.017 | 20.017 | (0.954) | 242916   | 50.0000            | 42.8              |
| 91 n-Propylbenzene              | 91        | 20.027 | 20.027 | (0.954) | 1246371  | 50.0000            | 40.5              |
| 93 2-Chlorotoluene              | 91        | 20.169 | 20.169 | (0.961) | 866564   | 50.0000            | 41.1              |
| 92 1,3,5-Trimethylbenzene       | 105       | 20.169 | 20.169 | (0.961) | 873555   | 50.0000            | 43.6              |
| 94 4-Chlorotoluene              | 91        | 20.261 | 20.261 | (0.965) | 774837   | 50.0000            | 41.0              |
| 95 tert-Butylbenzene            | 119       | 20.525 | 20.525 | (0.978) | 790501   | 50.0000            | 43.6              |
| 96 1,2,4-Trimethylbenzene       | 105       | 20.565 | 20.565 | (0.980) | 876812   | 50.0000            | 43.3              |
| 98 sec-Butylbenzene             | 105       | 20.748 | 20.748 | (0.988) | 1128566  | 50.0000            | 42.3              |
| 99 4-Isopropyltoluene           | 119       | 20.860 | 20.860 | (0.994) | 854938   | 50.0000            | 44.3              |
| 100 1,3-Dichlorobenzene         | 146       | 20.931 | 20.931 | (0.997) | 465094   | 50.0000            | 42.0              |
| * 101 1,4-Dichlorobenzene-d4    | 152       | 20.992 | 20.992 | (1.000) | 374293   | 50.0000            |                   |
| 102 1,4-Dichlorobenzene         | 146       | 21.012 | 21.012 | (1.001) | 455606   | 50.0000            | 42.1              |
| 104 n-Butylbenzene              | 91        | 21.296 | 21.296 | (1.014) | 960670   | 50.0000            | 43.0              |
| 105 1,2-Dichlorobenzene         | 146       | 21.438 | 21.438 | (1.021) | 470913   | 50.0000            | 42.3              |
| 107 1,2-Dibromo-3-chloropropane | 157       | 22.291 | 22.291 | (1.062) | 63495    | 50.0000            | 45.4              |
| 108 1,2,4-Trichlorobenzene      | 180       | 23.357 | 23.357 | (1.113) | 303943   | 50.0000            | 43.6              |
| 109 Hexachlorobutadiene         | 225       | 23.529 | 23.529 | (1.121) | 159046   | 50.0000            | 42.5              |
| 110 Naphthalene                 | 128       | 23.743 | 23.743 | (1.131) | 758574   | 50.0000            | 43.3              |
| 111 1,2,3-Trichlorobenzene      | 180       | 24.088 | 24.088 | (1.147) | 282731   | 50.0000            | 43.9              |

Data File: /chem/V007.i/022410v7/7a302.d  
 Date: 24-FEB-2010 10:51  
 Client ID: VSTD050  
 Sample Info: 1M7VH100224-01.BFB/CCV11.V00AF111  
 Purge Volume: 5.0  
 Column phase: DB-624

Instrument: V007.i  
 Operator: RX01  
 Column diameter: 0.25

/chem/V007.i/022410v7/7a302.d



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-FEB-2010 12:33  
Lab File ID: 7a305.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 16:02 00:42  
Lab Sample ID: W7VM100224-04 Quant Type: ISTD  
Method: /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

| COMPOUND                        | RRF / AMOUNT | RF50    | CCAL<br>RRF50 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE |
|---------------------------------|--------------|---------|---------------|------------|-------------|--------------------|------------|
| 147 Chlorotrifluoroethylene     | 0.10627      | 0.09286 | 0.09286       | 0.010      | -12.61950   | 30.00000           | Averaged   |
| 148 2-Chloro-1,1,1-trifluoroeth | 0.21104      | 0.20844 | 0.20844       | 0.010      | -1.23020    | 30.00000           | Averaged   |
| 11 Acrolein                     | 0.04808      | 0.06492 | 0.06492       | 0.001      | 35.03246    | 30.00000           | Averaged<- |
| 12 Trichlorotrifluoroethane     | 0.08737      | 0.09778 | 0.09778       | 0.010      | 11.91491    | 30.00000           | Averaged   |
| 15 Isopropyl Alcohol            | 0.03252      | 0.03156 | 0.03156       | 0.010      | -2.95251    | 40.00000           | Averaged   |
| 20 Allyl chloride               | 0.47439      | 0.45910 | 0.45910       | 0.010      | -3.22473    | 30.00000           | Averaged   |
| 21 tert-Butyl Alcohol           | 0.04700      | 0.04517 | 0.04517       | 0.001      | -3.89737    | 40.00000           | Averaged   |
| 23 Acrylonitrile                | 0.13462      | 0.13870 | 0.13870       | 0.010      | 3.02951     | 30.00000           | Averaged   |
| 27 Isopropyl ether              | 1.27617      | 1.23471 | 1.23471       | 0.010      | -3.24869    | 30.00000           | Averaged   |
| 29 2-Chloro-1,3-butadiene       | 0.40803      | 0.47510 | 0.47510       | 0.010      | 16.43601    | 30.00000           | Averaged   |
| 30 Ethyl tert-butyl ether       | 0.87171      | 0.93480 | 0.93480       | 0.010      | 7.23789     | 30.00000           | Averaged   |
| 35 Propionitrile                | 0.05907      | 0.05668 | 0.05668       | 0.010      | -4.04232    | 30.00000           | Averaged   |
| 32 Ethyl acetate                | 0.40471      | 0.34530 | 0.34530       | 0.010      | -14.68011   | 40.00000           | Averaged   |
| 36 Methacrylonitrile            | 0.24530      | 0.22427 | 0.22427       | 0.010      | -8.57024    | 30.00000           | Averaged   |
| 39 Tetrahydrofuran              | 0.41916      | 0.35080 | 0.35080       | 0.010      | -16.31047   | 30.00000           | Averaged   |
| 42 Isobutyl alcohol             | 0.01791      | 0.01667 | 0.01667       | 0.005      | -6.94898    | 40.00000           | Averaged   |
| 49 Methyl tert-amyl ether       | 0.66978      | 0.74299 | 0.74299       | 0.010      | 10.92984    | 30.00000           | Averaged   |
| 54 Methyl methacrylate          | 0.21684      | 0.22274 | 0.22274       | 0.010      | 2.72233     | 30.00000           | Averaged   |
| 66 Ethyl methacrylate           | 0.57238      | 0.55216 | 0.55216       | 0.010      | -3.53264    | 30.00000           | Averaged   |
| 74 1-Chlorohexane               | 0.31936      | 0.33649 | 0.33649       | 0.010      | 5.36449     | 30.00000           | Averaged   |
| 57 1,4-Dioxane                  | 0.00326      | 0.00349 | 0.00349       | 0.001      | 7.17443     | 40.00000           | Averaged   |
| 60 2-Nitropropane               | 0.14035      | 0.14982 | 0.14982       | 0.010      | 6.74745     | 30.00000           | Averaged   |
| 84 cis-1,4-Dichloro-2-butene    | 0.38900      | 0.41770 | 0.41770       | 0.010      | 7.37784     | 30.00000           | Averaged   |
| 85 Cyclohexanone                | 0.02826      | 0.05597 | 0.05597       | 0.010      | 98.04102    | 40.00000           | Averaged<- |
| 88 trans-1,4-Dichloro-2-butene  | 0.35107      | 0.37599 | 0.37599       | 0.010      | 7.09912     | 30.00000           | Averaged   |
| 97 Pentachloroethane            | 0.28176      | 0.42900 | 0.42900       | 0.010      | 52.25980    | 30.00000           | Averaged<- |
| 103 Benzyl chloride             | 1.23904      | 1.54986 | 1.54986       | 0.010      | 25.08483    | 30.00000           | Averaged   |
| 106 bis(2-Chloroisopropyl)ether | 0.69951      | 0.61193 | 0.61193       | 0.010      | -12.51920   | 30.00000           | Averaged   |
| 46 1,2-Dichloroethane-d4        | 0.43199      | 0.43096 | 0.43096       | 0.010      | -0.23753    | 30.00000           | Averaged   |
| 64 Toluene-d8                   | 1.62735      | 1.63008 | 1.63008       | 0.010      | 0.16771     | 30.00000           | Averaged   |
| 86 Bromofluorobenzene           | 1.31523      | 1.26383 | 1.26383       | 0.010      | -3.90810    | 30.00000           | Averaged   |



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i                      Injection Date: 24-FEB-2010 12:33  
Lab File ID: 7a305.d                      Init. Cal. Date(s): 17-FEB-2010    18-FEB-2010  
Analysis Type: WATER                      Init. Cal. Times:    16:02                      00:42  
Lab Sample ID: W7VM100224-04 Quant Type: ISTD  
Method: /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

|                                 |          |
|---------------------------------|----------|
| Average %D / Drift Results.     |          |
| =====                           |          |
| Calculated Average %D/Drift =   | 9.28819  |
| Maximum Average %D/Drift =      | 20.00000 |
| * Passed Average %D/Drift Test. |          |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022410v7/7a305.d

Lab Smp Id: W7VM100224-04

Client Smp ID: VSTD250S

Inj Date : 24-FEB-2010 12:33

Operator : AX01

Inst ID: VOA7.i

Smp Info : |W7VM100224-04|SHORT/SLCS|1|VOAF|1|

Misc Info : GEL 5mL N/A UVM091216-08B/UVM100125-08D

Comment :

Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

Meth Date : 25-Feb-2010 07:37 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: CALsubS+SS.sub

Target Version: 3.50

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

| Name | Value   | Description               |
|------|---------|---------------------------|
| DF   | 1.00000 | Dilution Factor           |
| Uf   | 5.00000 | ng unit correction factor |
| Vo   | 5.00000 | sample purged             |

Cpnd Variable

Local Compound Variable

| Compounds                          | QUANT SIG |        |        |         | RESPONSE | AMOUNTS            |                   |
|------------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                    | MASS      | RT     | EXP RT | REL RT  |          | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| 147 Chlorotrifluoroethylene        | 116       | 5.029  | 5.029  | (0.328) | 308410   | 150.000            | 131               |
| 148 2-Chloro-1,1,1-trifluoroethane | 118       | 6.604  | 6.604  | (0.431) | 692264   | 150.000            | 148               |
| 11 Acrolein                        | 56        | 10.017 | 10.017 | (0.654) | 359357   | 250.000            | 338               |
| 12 Trichlorotrifluoroethane        | 85        | 10.373 | 10.373 | (0.677) | 541208   | 250.000            | 280               |
| 15 Isopropyl Alcohol               | 45        | 10.779 | 10.779 | (0.704) | 1746925  | 2500.00            | 2430              |
| 20 Allyl chloride                  | 41        | 11.185 | 11.185 | (0.730) | 2541202  | 250.000            | 242               |
| 21 tert-Butyl Alcohol              | 59        | 11.662 | 11.662 | (0.761) | 2500230  | 2500.00            | 2400              |
| 23 Acrylonitrile                   | 53        | 11.926 | 11.926 | (0.779) | 767716   | 250.000            | 258               |
| 27 Isopropyl ether                 | 45        | 12.901 | 12.901 | (0.842) | 1366886  | 50.0000            | 48.4              |
| 29 2-Chloro-1,3-butadiene          | 53        | 12.961 | 12.961 | (0.846) | 525954   | 50.0000            | 58.2              |
| 30 Ethyl tert-butyl ether          | 59        | 13.489 | 13.489 | (0.881) | 1034874  | 50.0000            | 53.6              |
| 35 Propionitrile                   | 54        | 13.804 | 13.804 | (0.901) | 313732   | 250.000            | 240               |
| 32 Ethyl acetate                   | 43        | 13.794 | 13.794 | (0.901) | 1911297  | 250.000            | 213               |
| 36 Methacrylonitrile               | 41        | 14.038 | 14.038 | (0.916) | 1241403  | 250.000            | 228               |
| 39 Tetrahydrofuran                 | 42        | 14.159 | 14.159 | (0.675) | 699690   | 250.000            | 209               |
| 42 Isobutyl alcohol                | 41        | 14.748 | 14.748 | (0.963) | 922712   | 2500.00            | 2330              |

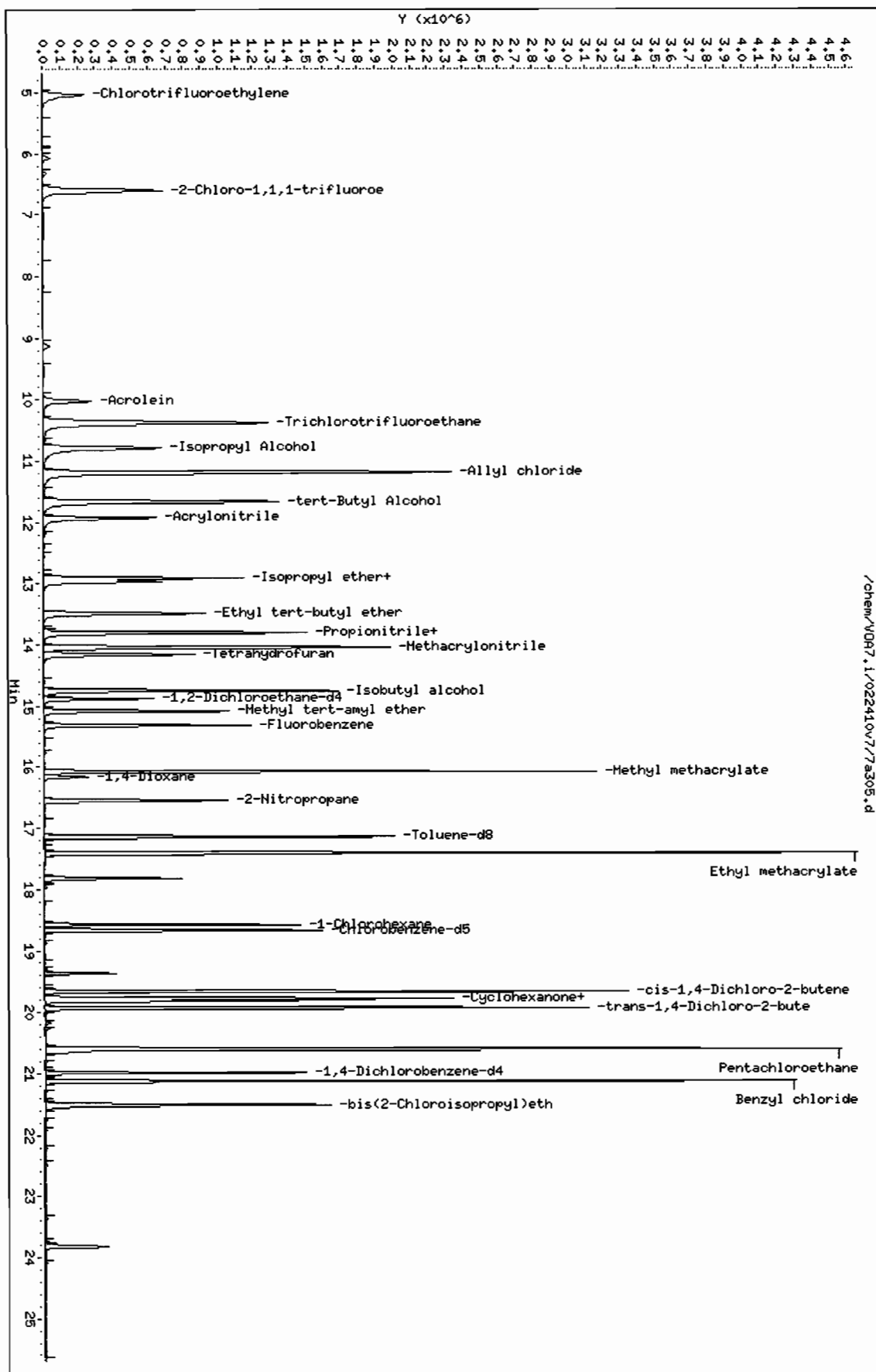
| Compounds                       | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|---------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>( ug/l) | ON-COL<br>( ug/l) |
| =====                           | ====      | ==     | =====  | =====   | =====    | =====              | =====             |
| 49 Methyl tert-amyl ether       | 73        | 15.073 | 15.073 | (0.984) | 822526   | 50.0000            | 55.5              |
| 54 Methyl methacrylate          | 69        | 16.078 | 16.078 | (1.050) | 1232913  | 250.000            | 257               |
| 66 Ethyl methacrylate           | 69        | 17.408 | 17.408 | (0.933) | 2200256  | 250.000            | 241               |
| 74 1-Chlorohexane               | 55        | 18.575 | 18.575 | (1.213) | 372507   | 50.0000            | 52.7              |
| 57 1,4-Dioxane                  | 88        | 16.159 | 16.159 | (1.055) | 193337   | 2500.00            | 2680              |
| 60 2-Nitropropane               | 43        | 16.555 | 16.555 | (1.081) | 829283   | 250.000            | 267               |
| 84 cis-1,4-Dichloro-2-butene    | 53        | 19.662 | 19.662 | (0.937) | 833133   | 250.000            | 268               |
| 85 Cyclohexanone                | 55        | 19.773 | 19.773 | (1.059) | 1115157  | 1250.00            | 2480              |
| 88 trans-1,4-Dichloro-2-butene  | 53        | 19.926 | 19.926 | (0.949) | 749936   | 250.000            | 268               |
| 97 Pentachloroethane            | 167       | 20.596 | 20.596 | (0.981) | 855673   | 250.000            | 381 (A)           |
| 103 Benzyl chloride             | 91        | 21.124 | 21.124 | (1.006) | 3091305  | 250.000            | 313               |
| 106 bis(2-Chloroisopropyl)ether | 45        | 21.509 | 21.509 | (1.025) | 1220549  | 250.000            | 219               |
| * 51 Fluorobenzene              | 96        | 15.317 | 15.317 | (1.000) | 1107048  | 50.0000            |                   |
| * 75 Chlorobenzene-d5           | 117       | 18.667 | 18.667 | (1.000) | 796968   | 50.0000            |                   |
| * 101 1,4-Dichlorobenzene-d4    | 152       | 20.992 | 20.992 | (1.000) | 398914   | 50.0000            |                   |
| \$ 46 1,2-Dichloroethane-d4     | 65        | 14.880 | 14.880 | (0.971) | 477096   | 50.0000            | 49.9              |
| \$ 64 Toluene-d8                | 98        | 17.134 | 17.134 | (0.918) | 1299118  | 50.0000            | 50.1              |
| \$ 86 Bromofluorobenzene        | 95        | 19.814 | 19.814 | (0.944) | 504161   | 50.0000            | 48.0              |

#### QC Flag Legend

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

Data File: /chem/V007.i/022410v7/7a305.d  
 Date: 24-FEB-2010 12:33  
 Client ID: VSTD2505  
 Sample Info: 147VH100224-04 | SHORT/SLCS11 | V007.i11  
 Purge Volume: 5.0  
 Column Phase: DB-624

Instrument: V007.i  
 Operator: AXD1  
 Column diameter: 0.25



# QC Data

Data File: /chem/V0A7,i/021710v7/7z309.d

Page 1

Date : 17-FEB-2010 15:29

Client ID: BFB01

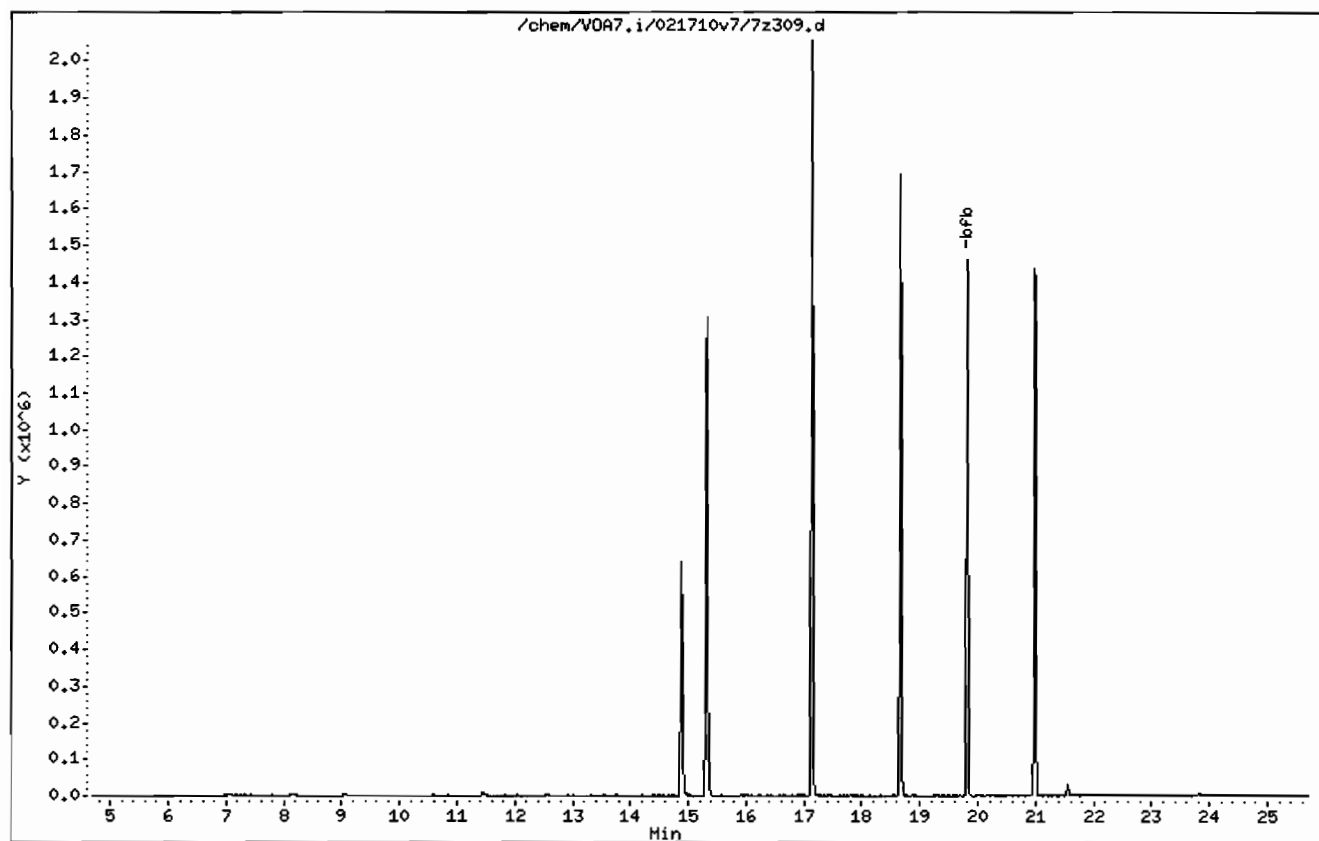
Instrument: V0A7,i

Sample Info: I120200-----IRINSEI1IV0AF111

Operator: CDS1

Column phase: db624

Column diameter: 0.25



Date : 17-FEB-2010 15:29

Client ID: BFB01

Instrument: VOA7.i

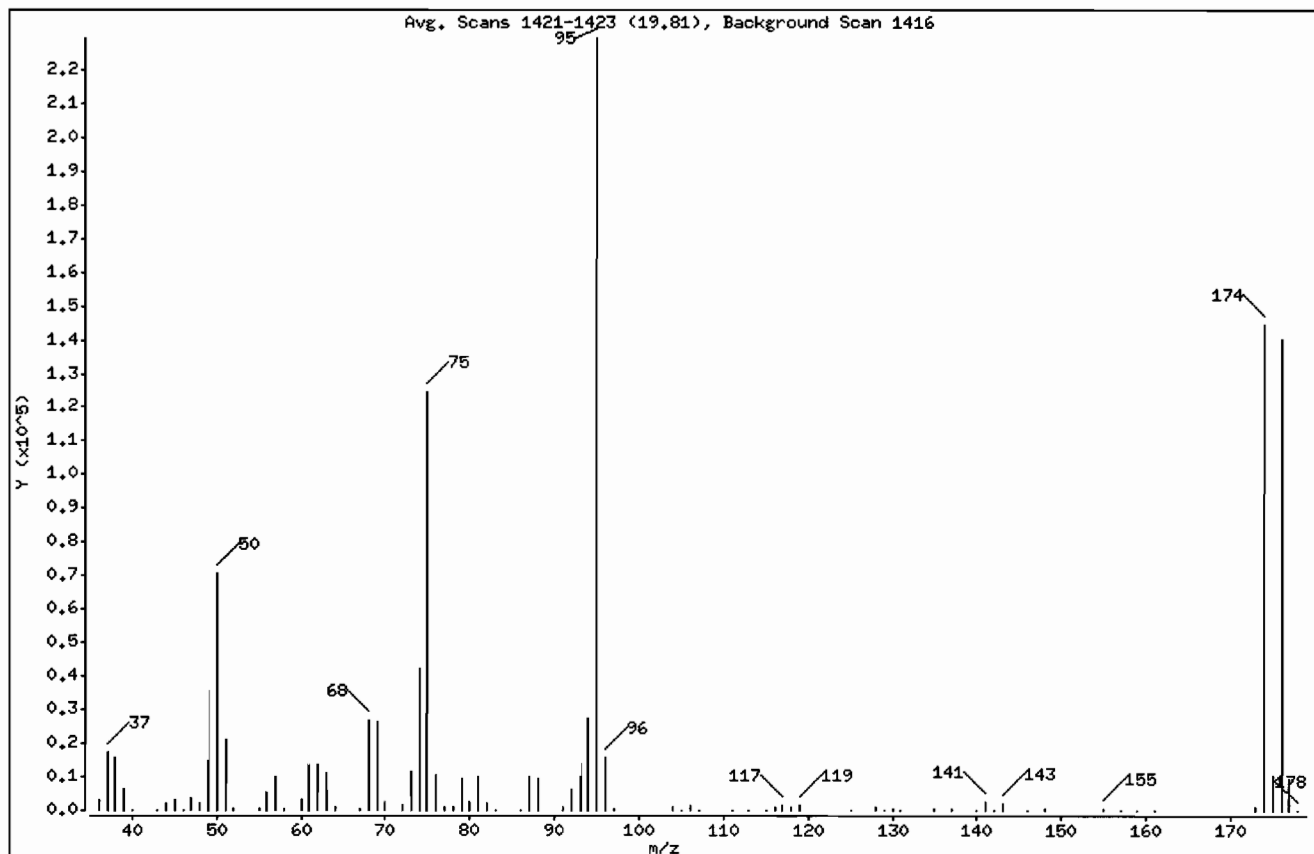
Sample Info: I120200-----IRINSEI1VOAFI1I

Operator: CDS1

Column phase: db624

Column diameter: 0.25

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          | 30.76                |
| 75  | 30.00 - 60.00% of mass 95          | 54.23                |
| 96  | 5.00 - 9.00% of mass 95            | 6.98                 |
| 173 | Less than 2.00% of mass 174        | 0.36 ( 0.57)         |
| 174 | 50.00 - 100.00% of mass 95         | 63.04                |
| 175 | 5.00 - 9.00% of mass 174           | 4.53 ( 7.18)         |
| 176 | 95.00 - 101.00% of mass 174        | 61.26 ( 97.17)       |
| 177 | 5.00 - 9.00% of mass 176           | 4.24 ( 6.92)         |

Date : 17-FEB-2010 15:29

Client ID: BFB01

Instrument: VOA7.i

Sample Info: I120200-----IRINSEI1VOAFI1I

Operator: CDS1

Column phase: db624

Column diameter: 0,25

|  |       |         |        |          |        |          |        |
|--|-------|---------|--------|----------|--------|----------|--------|
| Data File: 7z309.d   |       |         |        |          |        |          |        |
| Spectrum: Avg. Scans 1421-1423 (19,81), Background Scan 1416 |       |         |        |          |        |          |        |
| Location of Maximum: 95,00                                   |       |         |        |          |        |          |        |
| Number of points: 84   |       |         |        |          |        |          |        |
| m/z  | Y     | m/z     | Y      | m/z      | Y      | m/z      | Y      |
| +-----+-----+-----+-----+-----+-----+-----+-----+            |       |         |        |          |        |          |        |
| I 36,00  | 3286  | I 63,00 | 11103  | I 92,00  | 6546   | I 135,00 | 493    |
| I 37,00  | 17472 | I 64,00 | 947    | I 93,00  | 9939   | I 137,00 | 490    |
| I 38,00  | 16055 | I 67,00 | 680    | I 94,00  | 27256  | I 140,00 | 87     |
| I 39,00  | 6161  | I 68,00 | 26752  | I 95,00  | 229440 | I 141,00 | 2431   |
| I 40,00  | 202   | I 69,00 | 26480  | I 96,00  | 16004  | I 142,00 | 224    |
| +-----+-----+-----+-----+-----+-----+-----+-----+            |       |         |        |          |        |          |        |
| I 43,00  | 96    | I 70,00 | 2378   | I 97,00  | 507    | I 143,00 | 2362   |
| I 44,00  | 2000  | I 72,00 | 1351   | I 104,00 | 1056   | I 146,00 | 133    |
| I 45,00  | 3186  | I 73,00 | 11623  | I 105,00 | 224    | I 148,00 | 278    |
| I 46,00  | 155   | I 74,00 | 42264  | I 106,00 | 1400   | I 155,00 | 331    |
| I 47,00  | 3534  | I 75,00 | 124432 | I 107,00 | 195    | I 157,00 | 97     |
| +-----+-----+-----+-----+-----+-----+-----+-----+            |       |         |        |          |        |          |        |
| I 48,00  | 1953  | I 76,00 | 10309  | I 111,00 | 126    | I 159,00 | 99     |
| I 49,00  | 14857 | I 77,00 | 1286   | I 113,00 | 145    | I 161,00 | 134    |
| I 50,00  | 70568 | I 78,00 | 973    | I 115,00 | 130    | I 173,00 | 824    |
| I 51,00  | 20904 | I 79,00 | 9389   | I 116,00 | 905    | I 174,00 | 144640 |
| I 52,00  | 786   | I 80,00 | 2629   | I 117,00 | 1450   | I 175,00 | 10392  |
| +-----+-----+-----+-----+-----+-----+-----+-----+            |       |         |        |          |        |          |        |
| I 55,00  | 762   | I 81,00 | 10002  | I 118,00 | 842    | I 176,00 | 140544 |
| I 56,00  | 5200  | I 82,00 | 2048   | I 119,00 | 1357   | I 177,00 | 9727   |
| I 57,00  | 9767  | I 83,00 | 119    | I 125,00 | 98     | I 178,00 | 196    |
| I 58,00  | 507   | I 86,00 | 242    | I 128,00 | 824    |          |        |
| I 60,00  | 2962  | I 87,00 | 10165  | I 129,00 | 258    |          |        |
| +-----+-----+-----+-----+-----+-----+-----+-----+            |       |         |        |          |        |          |        |
| I 61,00  | 13385 | I 88,00 | 9659   | I 130,00 | 689    |          |        |
| I 62,00  | 13596 | I 91,00 | 822    | I 131,00 | 232    |          |        |
| +-----+-----+-----+-----+-----+-----+-----+-----+            |       |         |        |          |        |          |        |



Data File: /chem/V0A7.i/022310v7/7a218BFB.d

Page 1

Date : 23-FEB-2010 19:23

Client ID: BFB01

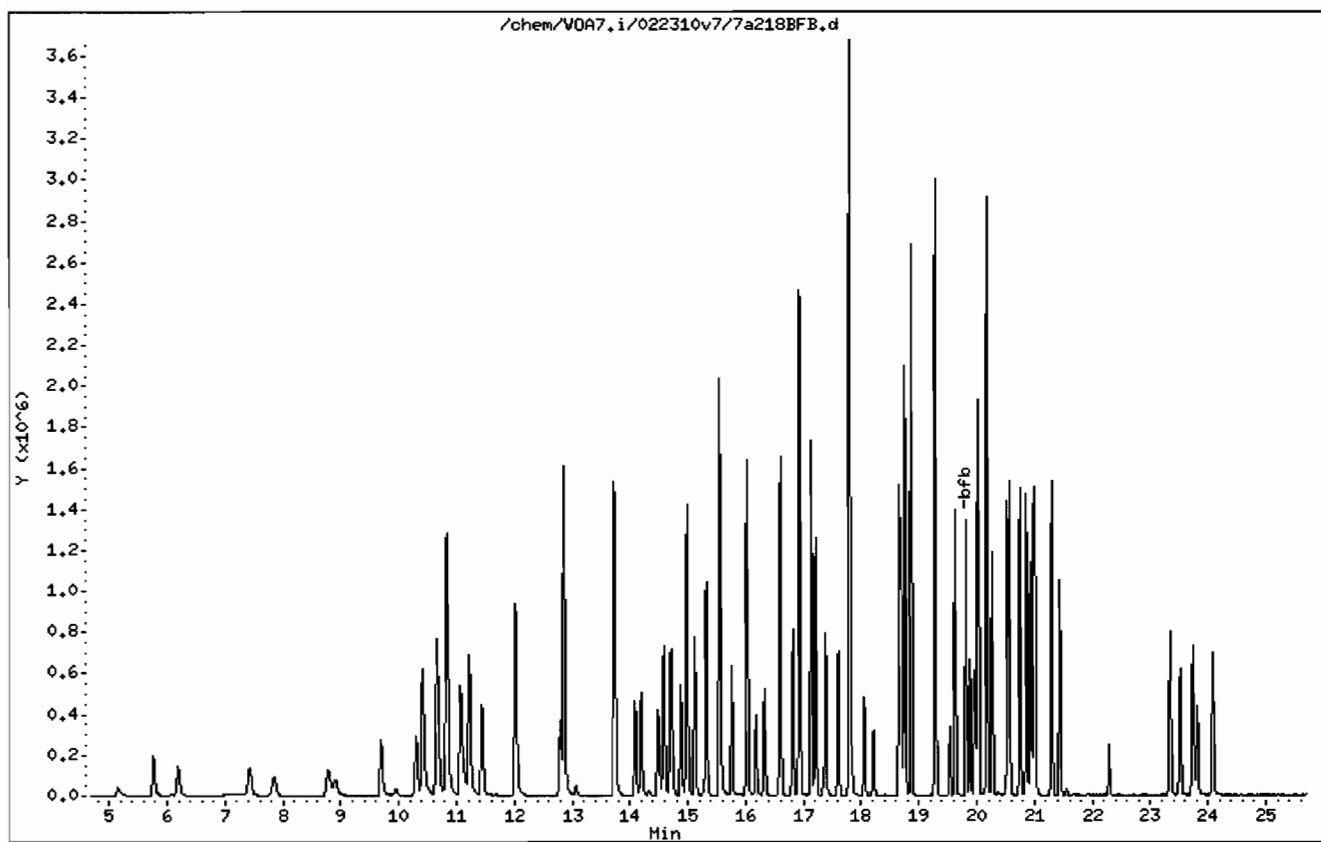
Instrument: V0A7.i

Sample Info: IW7VH100223-01|BFB/CCV|1|V0AF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25



Date : 23-FEB-2010 19:23

Client ID: BFB01

Instrument: VOA7.i

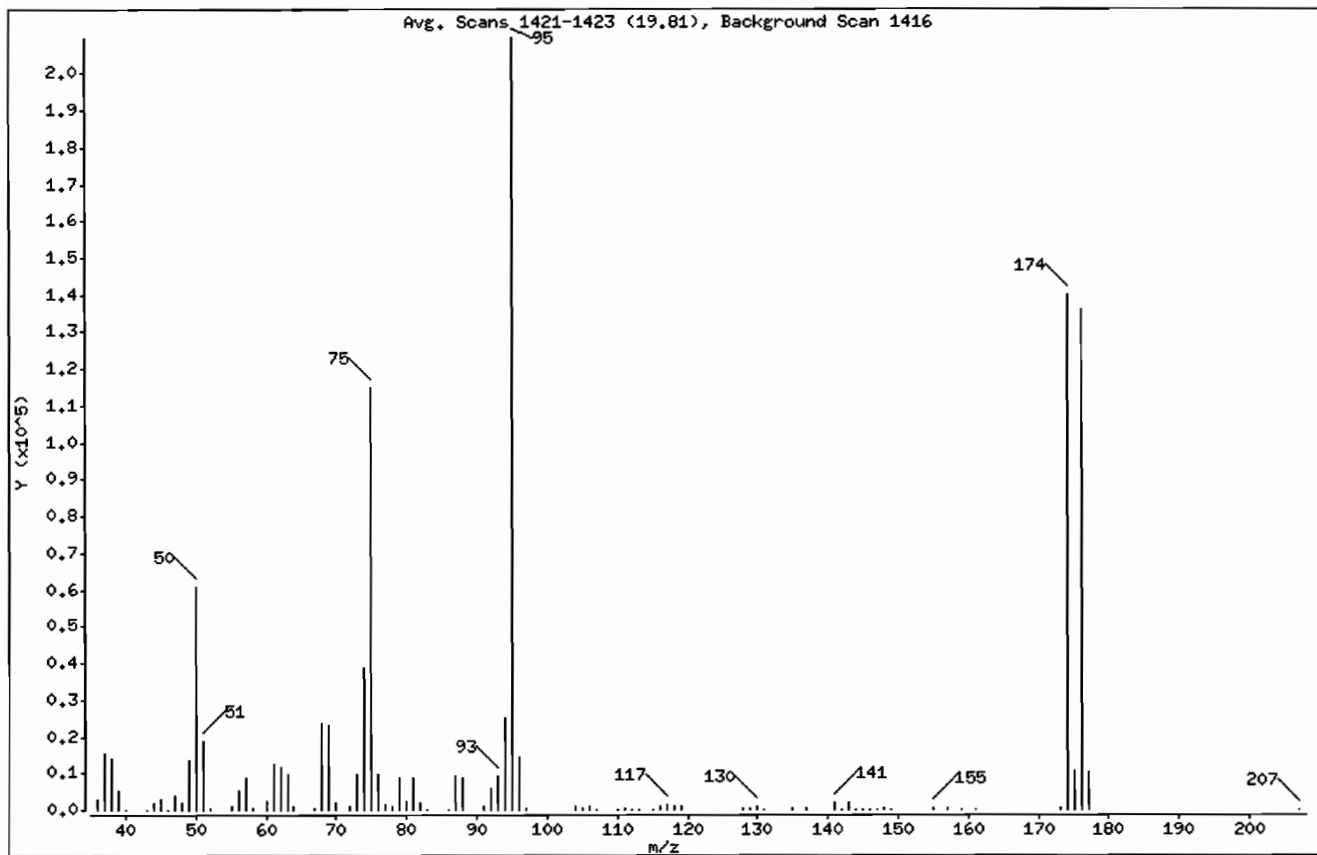
Sample Info: IW7VH100223-01BFB/CCV111VOAF111

Operator: AX01

Column phase: db624

Column diameter: 0.25

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          | 29.05                |
| 75  | 30.00 - 60.00% of mass 95          | 54.72                |
| 96  | 5.00 - 9.00% of mass 95            | 6.87                 |
| 173 | Less than 2.00% of mass 174        | 0.31 ( 0.46)         |
| 174 | 50.00 - 100.00% of mass 95         | 66.69                |
| 175 | 5.00 - 9.00% of mass 174           | 4.94 ( 7.41)         |
| 176 | 95.00 - 101.00% of mass 174        | 64.73 ( 97.07)       |
| 177 | 5.00 - 9.00% of mass 176           | 4.82 ( 7.45)         |

Date : 23-FEB-2010 19:23

Client ID: BFB01

Instrument: VOA7.i

Sample Info: IW7VM100223-01|BFB/CCV|1|VOAF|1|

Operator: AXD1

Column phase: db624

Column diameter: 0.25

| Data File: 7a218BFB.d  |       |       |        |        |        |        |        |
|--|-------|-------|--------|--------|--------|--------|--------|
| Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1416 |       |       |        |        |        |        |        |
| Location of Maximum: 95.00                                   |       |       |        |        |        |        |        |
| Number of points: 88   |       |       |        |        |        |        |        |
| m/z  | Y     | m/z   | Y      | m/z    | Y      | m/z    | Y      |
| 36.00  | 2928  | 64.00 | 949    | 94.00  | 24968  | 141.00 | 2016   |
| 37.00  | 15587 | 67.00 | 677    | 95.00  | 209792 | 142.00 | 99     |
| 38.00  | 14082 | 68.00 | 23824  | 96.00  | 14417  | 143.00 | 1967   |
| 39.00  | 5534  | 69.00 | 23336  | 97.00  | 402    | 144.00 | 122    |
| 40.00  | 205   | 70.00 | 1807   | 104.00 | 1096   | 145.00 | 208    |
| 43.00  | 97    | 72.00 | 1176   | 105.00 | 435    | 146.00 | 193    |
| 44.00  | 2092  | 73.00 | 9775   | 106.00 | 1130   | 147.00 | 125    |
| 45.00  | 2737  | 74.00 | 38424  | 107.00 | 97     | 148.00 | 426    |
| 46.00  | 231   | 75.00 | 114800 | 110.00 | 85     | 149.00 | 119    |
| 47.00  | 3713  | 76.00 | 9429   | 111.00 | 246    | 155.00 | 326    |
| 48.00  | 1861  | 77.00 | 1472   | 112.00 | 102    | 157.00 | 278    |
| 49.00  | 13695 | 78.00 | 967    | 113.00 | 85     | 159.00 | 123    |
| 50.00  | 60944 | 79.00 | 8796   | 115.00 | 148    | 161.00 | 114    |
| 51.00  | 18784 | 80.00 | 2584   | 116.00 | 752    | 173.00 | 646    |
| 52.00  | 606   | 81.00 | 8849   | 117.00 | 1321   | 174.00 | 139904 |
| 55.00  | 867   | 82.00 | 1777   | 118.00 | 769    | 175.00 | 10373  |
| 56.00  | 5225  | 83.00 | 96     | 119.00 | 1152   | 176.00 | 135808 |
| 57.00  | 8840  | 86.00 | 177    | 128.00 | 588    | 177.00 | 10116  |
| 58.00  | 389   | 87.00 | 9103   | 129.00 | 387    | 207.00 | 90     |
| 60.00  | 2281  | 88.00 | 8735   | 130.00 | 862    |        |        |
| 61.00  | 12467 | 91.00 | 876    | 131.00 | 216    |        |        |
| 62.00  | 11539 | 92.00 | 5690   | 135.00 | 336    |        |        |
| 63.00  | 9679  | 93.00 | 9327   | 137.00 | 462    |        |        |

Data File: /chem/VOA7.i/022410v7/7a302BFB.d

Page 1

Date : 24-FEB-2010 10:51

Client ID: BFB01

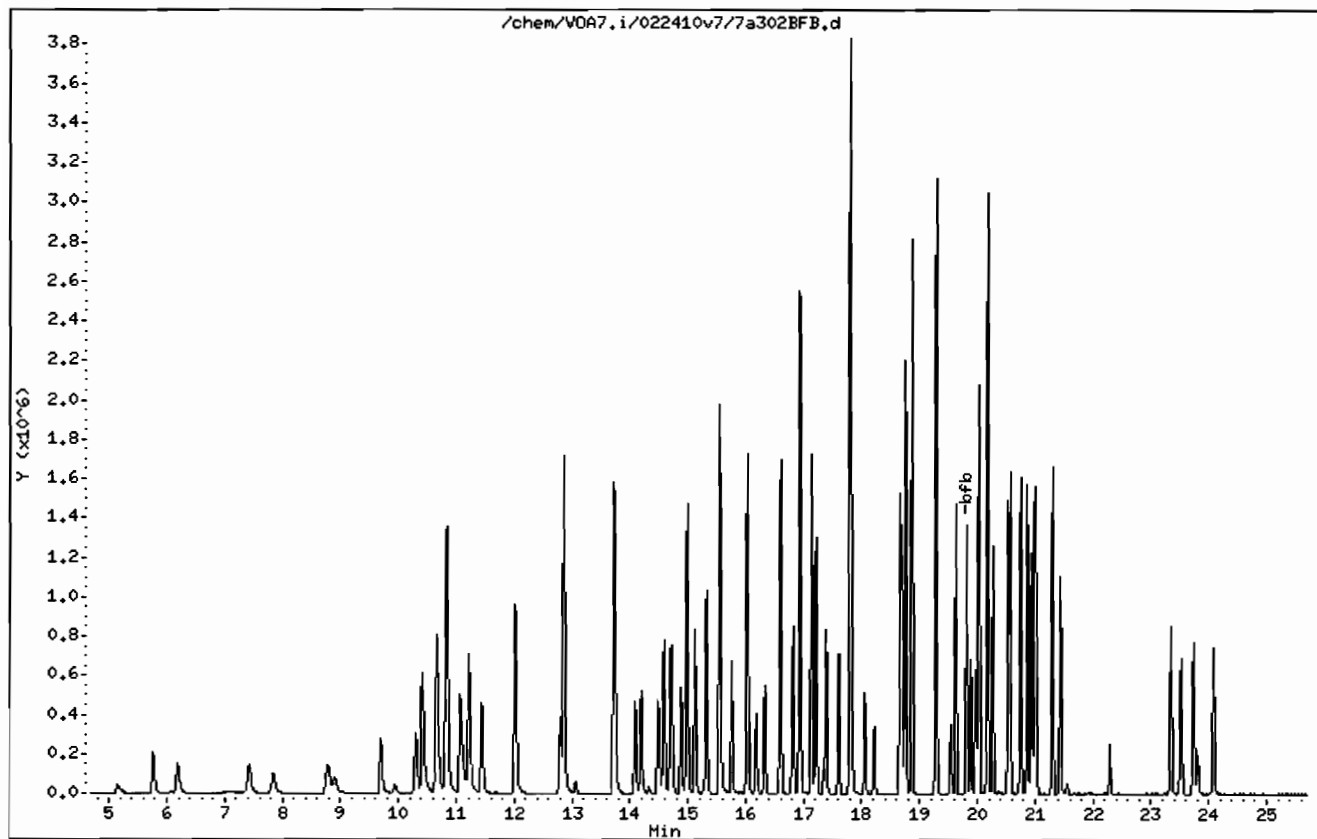
Instrument: VOA7.i

Sample Info: IW7VM100224-01|BFB/CCVI1|VOAF11|

Operator: AX01

Column phase: db624

Column diameter: 0.25



Date : 24-FEB-2010 10:51

Client ID: BFB01

Instrument: VOA7.i

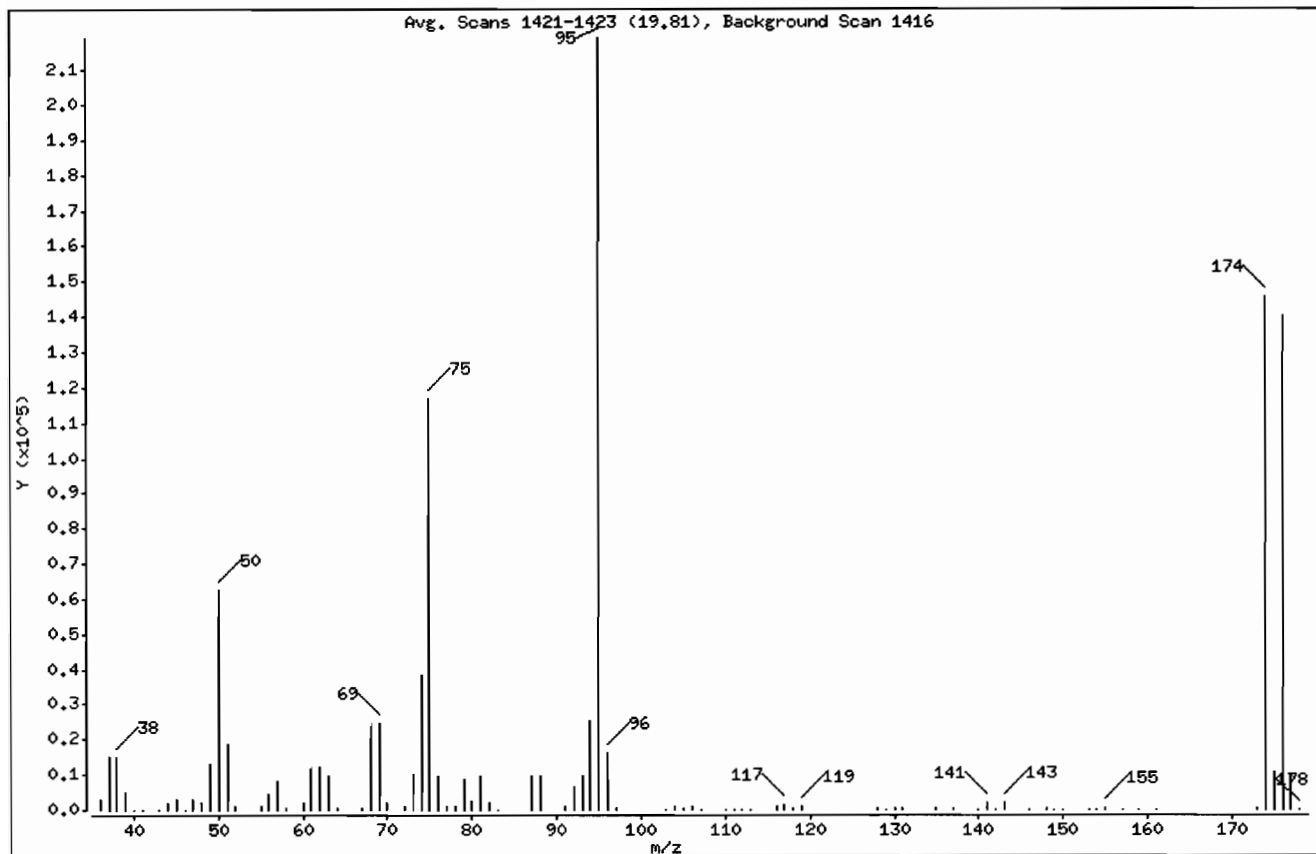
Sample Info: IW7VM100224-01|BFB/CCV11|VOAF11|

Operator: AX01

Column phase: db624

Column diameter: 0.25

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          | 28.46                |
| 75  | 30.00 - 60.00% of mass 95          | 53.42                |
| 96  | 5.00 - 9.00% of mass 95            | 7.29                 |
| 173 | Less than 2.00% of mass 174        | 0.33 ( 0.50)         |
| 174 | 50.00 - 100.00% of mass 95         | 66.39                |
| 175 | 5.00 - 9.00% of mass 174           | 4.84 ( 7.29)         |
| 176 | 95.00 - 101.00% of mass 174        | 63.91 ( 96.26)       |
| 177 | 5.00 - 9.00% of mass 176           | 4.49 ( 7.03)         |

Date : 24-FEB-2010 10:51

Client ID: BFB01

Instrument: VOA7.i

Sample Info: IW7VH100224-011BFB/CCV11|VOAF11|

Operator: AX01

Column phase: db624

Column diameter: 0.25

Data File: 7a302BFB.d

Spectrum: Avg. Scans 1421-1423 (19,81), Background Scan 1416

Location of Maximum: 95.00

Number of points: 89

| m/z   | Y     | m/z   | Y      | m/z    | Y      | m/z    | Y      |
|-------|-------|-------|--------|--------|--------|--------|--------|
| 36.00 | 2899  | 63.00 | 9452   | 94.00  | 25072  | 140.00 | 109    |
| 37.00 | 15195 | 64.00 | 752    | 95.00  | 219200 | 141.00 | 2114   |
| 38.00 | 15268 | 67.00 | 631    | 96.00  | 15971  | 142.00 | 210    |
| 39.00 | 5291  | 68.00 | 23616  | 97.00  | 541    | 143.00 | 1950   |
| 40.00 | 138   | 69.00 | 24816  | 103.00 | 223    | 146.00 | 193    |
| 41.00 | 91    | 70.00 | 1952   | 104.00 | 986    | 148.00 | 528    |
| 43.00 | 198   | 72.00 | 1208   | 105.00 | 532    | 149.00 | 110    |
| 44.00 | 1912  | 73.00 | 9925   | 106.00 | 1133   | 150.00 | 86     |
| 45.00 | 3014  | 74.00 | 38376  | 107.00 | 212    | 153.00 | 83     |
| 46.00 | 103   | 75.00 | 117088 | 110.00 | 91     | 154.00 | 129    |
| 47.00 | 3184  | 76.00 | 9706   | 111.00 | 202    | 155.00 | 439    |
| 48.00 | 1800  | 77.00 | 1249   | 112.00 | 243    | 157.00 | 211    |
| 49.00 | 13262 | 78.00 | 1067   | 113.00 | 129    | 159.00 | 125    |
| 50.00 | 62384 | 79.00 | 8523   | 116.00 | 790    | 161.00 | 95     |
| 51.00 | 18768 | 80.00 | 2575   | 117.00 | 1641   | 173.00 | 731    |
| 52.00 | 930   | 81.00 | 9381   | 118.00 | 724    | 174.00 | 145536 |
| 55.00 | 992   | 82.00 | 2089   | 119.00 | 1061   | 175.00 | 10603  |
| 56.00 | 4675  | 83.00 | 200    | 128.00 | 719    | 176.00 | 140096 |
| 57.00 | 8159  | 87.00 | 9663   | 129.00 | 235    | 177.00 | 9842   |
| 58.00 | 280   | 88.00 | 9449   | 130.00 | 578    | 178.00 | 124    |
| 60.00 | 2249  | 91.00 | 1015   | 131.00 | 310    |        |        |
| 61.00 | 11581 | 92.00 | 6423   | 135.00 | 335    |        |        |
| 62.00 | 12172 | 93.00 | 9438   | 137.00 | 427    |        |        |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 1202051370  
Client Sample: QC for batch 956738  
Client ID: MB for batch 956738  
Batch ID: 956739  
Run Date: 02/23/2010 22:45  
Prep Date: 02/23/2010 15:00  
Data File: 7a224ll.d

Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.00   | ug/kg | 0.340   | 1.00    |
| 74-87-3    | Chloromethane               | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-01-4    | Vinyl chloride              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-83-9    | Bromomethane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-00-3    | Chloroethane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 67-64-1    | Acetone                     | U         | 5.00   | ug/kg | 1.66    | 5.00    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-88-4    | Iodomethane                 | U         | 5.00   | ug/kg | 1.60    | 5.00    |
| 75-09-2    | Methylene chloride          | U         | 5.00   | ug/kg | 2.00    | 5.00    |
| 75-15-0    | Carbon disulfide            | U         | 5.00   | ug/kg | 1.25    | 5.00    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 78-93-3    | 2-Butanone                  | U         | 5.00   | ug/kg | 1.50    | 5.00    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 67-66-3    | Chloroform                  | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-97-5    | Bromochloromethane          | U         | 1.00   | ug/kg | 0.330   | 1.00    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 71-43-2    | Benzene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-01-6    | Trichloroethylene           | U         | 1.00   | ug/kg | 0.330   | 1.00    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-27-4    | Bromodichloromethane        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-95-3    | Dibromomethane              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.00   | ug/kg | 1.25    | 5.00    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-88-3   | Toluene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 591-78-6   | 2-Hexanone                  | U         | 5.00   | ug/kg | 1.50    | 5.00    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 124-48-1   | Dibromochloromethane        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-90-7   | Chlorobenzene               | U         | 1.00   | ug/kg | 0.300   | 1.00    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914

Matrix: SOIL

Lab Sample ID: 1202051370

Client Sample: QC for batch 956738

Client: LANL010

Project: QC

Client ID: MB for batch 956738

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 956739

Inst: VOA7.I

Dilution: 1

Run Date: 02/23/2010 22:45

Analyst: AXO1

Purge Vol: 5 mL

Prep Date: 02/23/2010 15:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 7a224ll.d

Column: DB-624

Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.00   | ug/kg | 0.300   | 2.00    |
| 95-47-6     | o-Xylene                              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 100-42-5    | Styrene                               | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-25-2     | Bromoform                             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-86-1    | Bromobenzene                          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 5.00   | ug/kg | 1.60    | 5.00    |
|             | <i>Trichlorotrifluoroethane</i>       |           |        |       |         |         |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |

**Tentatively Identified Compound Summary**

| CAS No.                                   | Tentatively Identified Compound (TIC) | RT | Estimated | Units | Fit | Qual |
|---|---------------------------------------|----|-----------|-------|-----|------|
| No Tentatively Identified Compounds Found |                                       |    |           | ug/kg |     |      |



GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022310v7/7a22411.d  
Lab Smp Id: 1202051370 Client Smp ID: BLANK  
Inj Date : 23-FEB-2010 22:45  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |1202051370|956739|1|VOAF|1|  
Misc Info : GEL 5g N/A  
Comment :  
Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 24 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 3.50  
Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M)) \* (Vt/Ws) \* (Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 0.00000   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable Local Compound Variable

| Compounds                    | QUANT SIG |        |        |         |          |           |       | CONCENTRATIONS |         |
|------------------------------|-----------|--------|--------|---------|----------|-----------|-------|----------------|---------|
|                              | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN | FINAL | ( ug/l)        | (ug/Kg) |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 | (0.972) | 447943   | 51.1744   | 51.2  |                |         |
| * 51 Fluorobenzene           | 96        | 15.317 | 15.317 | (1.000) | 1013136  | 50.0000   |       |                |         |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 | (0.918) | 1151875  | 49.0005   | 49.0  |                |         |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 | (1.000) | 722262   | 50.0000   |       |                |         |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 | (0.944) | 444093   | 48.9740   | 49.0  |                |         |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.992 | 20.992 | (1.000) | 344727   | 50.0000   |       |                |         |

Data File: /chem/VOA7.i/022310v7/7a22411.d  
Report Date: 08-Mar-2010 13:22

Page 2

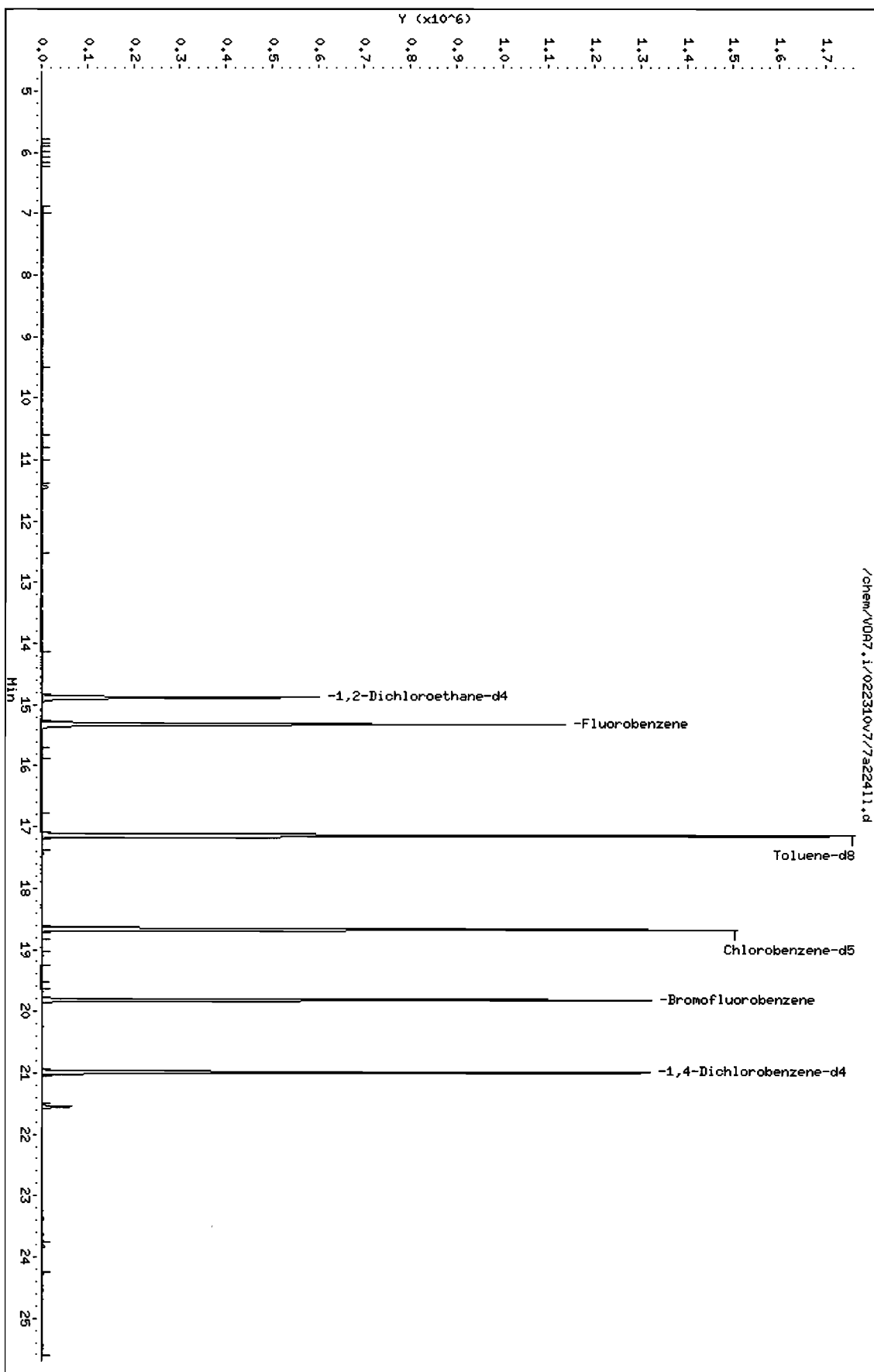
GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022310v7/7a22411.d  
Lab Smp Id: 1202051370 Client Smp ID: BLANK  
Inj Date : 23-FEB-2010 22:45  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |1202051370|956739|1|VOAF|1|  
Misc Info : GEL 5g N/A  
Comment :  
Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 24 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 3.50  
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/022310v7/7a22411.d  
Date : 23-FEB-2010 22:45  
Client ID: BLANK  
Sample Info: 11202051370195673911.VOA7.11  
Column phase: DB-624

Instrument: VOA7.i  
Operator: AXD1  
Column diameter: 0.25



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 1202065431  
Client Sample: QC for batch 956738  
Client ID: MB for batch 956738  
Batch ID: 956739  
Run Date: 02/24/2010 14:15  
Prep Date: 02/24/2010 10:00  
Data File: 7a30811.d

Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.00   | ug/kg | 0.340   | 1.00    |
| 74-87-3    | Chloromethane               | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-01-4    | Vinyl chloride              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-83-9    | Bromomethane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-00-3    | Chloroethane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 67-64-1    | Acetone                     | U         | 5.00   | ug/kg | 1.66    | 5.00    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-88-4    | Iodomethane                 | U         | 5.00   | ug/kg | 1.60    | 5.00    |
| 75-09-2    | Methylene chloride          | U         | 5.00   | ug/kg | 2.00    | 5.00    |
| 75-15-0    | Carbon disulfide            | U         | 5.00   | ug/kg | 1.25    | 5.00    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 78-93-3    | 2-Butanone                  | U         | 5.00   | ug/kg | 1.50    | 5.00    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 67-66-3    | Chloroform                  | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-97-5    | Bromochloromethane          | U         | 1.00   | ug/kg | 0.330   | 1.00    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 71-43-2    | Benzene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-01-6    | Trichloroethylene           | U         | 1.00   | ug/kg | 0.330   | 1.00    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-27-4    | Bromodichloromethane        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-95-3    | Dibromomethane              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.00   | ug/kg | 1.25    | 5.00    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-88-3   | Toluene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 591-78-6   | 2-Hexanone                  | U         | 5.00   | ug/kg | 1.50    | 5.00    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 124-48-1   | Dibromochloromethane        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-90-7   | Chlorobenzene               | U         | 1.00   | ug/kg | 0.300   | 1.00    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 1202065431  
Client Sample: QC for batch 956738  
Client ID: MB for batch 956738  
Batch ID: 956739  
Run Date: 02/24/2010 14:15  
Prep Date: 02/24/2010 10:00  
Data File: 7a308ll.d

Client: LANL010  
Method: SW846 8260B  
Inst: VOA7.I  
Analyst: AXO1  
Aliquot: 5 g  
Column: DB-624

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL  
Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.00   | ug/kg | 0.300   | 2.00    |
| 95-47-6     | o-Xylene                              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 100-42-5    | Styrene                               | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-25-2     | Bromoform                             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-86-1    | Bromobenzene                          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 5.00   | ug/kg | 1.60    | 5.00    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |

**Tentatively Identified Compound Summary**

| CAS No.                                   | Tentatively Identified Compound (TIC) | RT | Estimated | Units | Fit | Qual |
|---|---------------------------------------|----|-----------|-------|-----|------|
| No Tentatively Identified Compounds Found |                                       |    |           | ug/kg |     |      |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022410v7/7a30811.d

Lab Smp Id: 1202065431

Client Smp ID: BLANK

Inj Date : 24-FEB-2010 14:15

Operator : AX01

Inst ID: VOA7.i

Smp Info : |1202065431|956739|1|VOAF|1|

Misc Info : GEL 5g N/A

Comment :

Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

Meth Date : 08-Mar-2010 14:52 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 8

QC Sample: BLANK

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: all.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 0.00000   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

| Compounds                    | QUANT SIG |        |        |         |          |  | CONCENTRATIONS |         |
|------------------------------|-----------|--------|--------|---------|----------|--|----------------|---------|
|                              | MASS      | RT     | EXP RT | REL RT  | RESPONSE |  | ON-COLUMN      | FINAL   |
|                              |           |        |        |         |          |  | ( ug/l)        | (ug/Kg) |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 | (0.971) | 457608   |  | 54.7773        | 54.8    |
| * 51 Fluorobenzene           | 96        | 15.317 | 15.317 | (1.000) | 966921   |  | 50.0000        |         |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 | (0.918) | 1117271  |  | 49.6250        | 49.6    |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 | (1.000) | 691748   |  | 50.0000        |         |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 | (0.944) | 440308   |  | 49.4848        | 49.5    |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.991 | 20.992 | (1.000) | 338261   |  | 50.0000        |         |

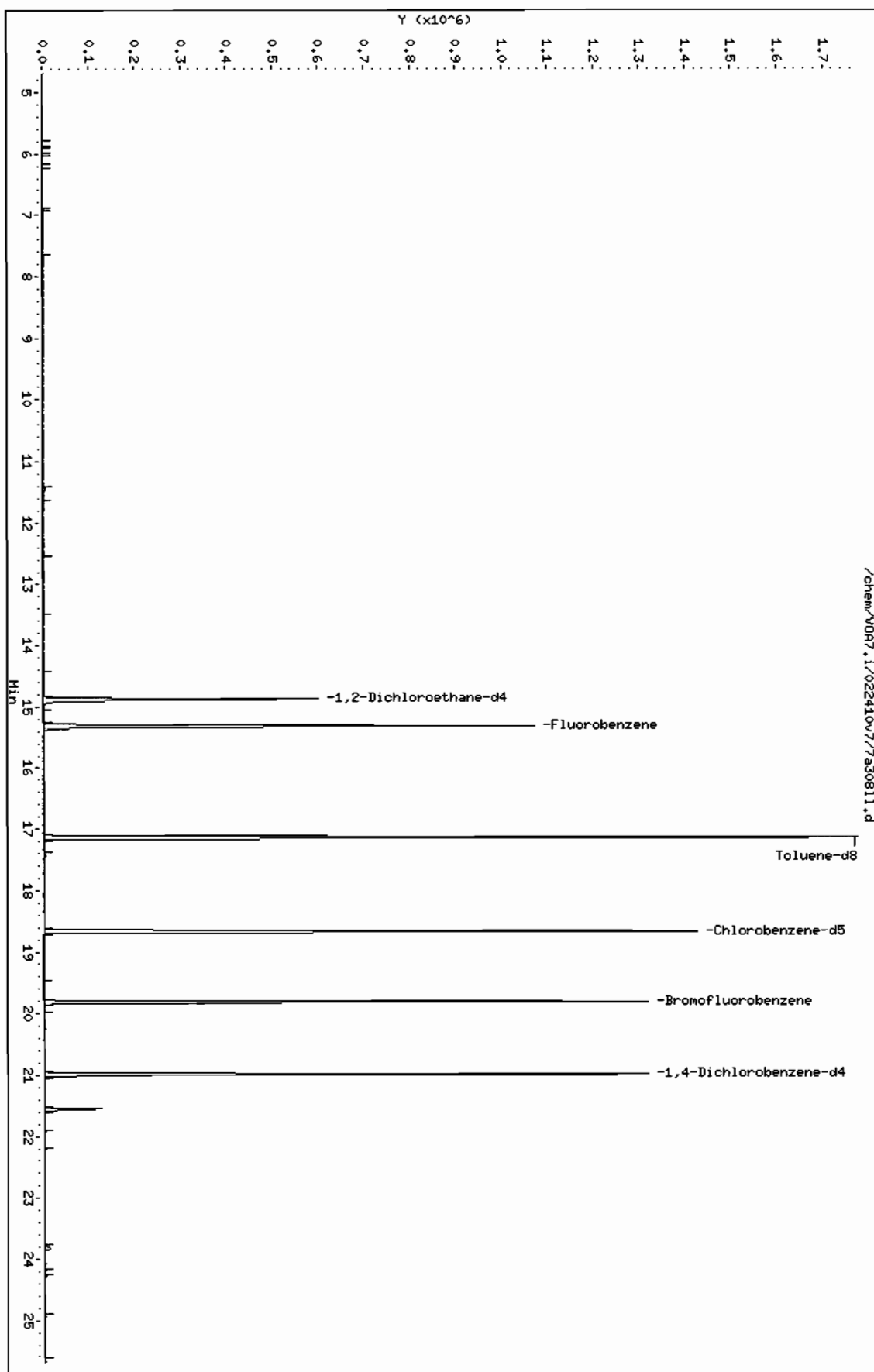
GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022410v7/7a30811.d  
Lab Smp Id: 1202065431 Client Smp ID: BLANK  
Inj Date : 24-FEB-2010 14:15  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |1202065431|956739|1|VOAF|1|  
Misc Info : GEL 5g N/A  
Comment :  
Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
Meth Date : 08-Mar-2010 14:52 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 8 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 3.50  
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/V097.i/022410v7/7a30811.d  
Date : 24-FEB-2010 14:15  
Client ID: BLANK  
Sample Info: 1120206543195673911.V097.11  
Column phase: DB-624

Instrument: V097.i  
Operator: AXD1  
Column diameter: 0.25





**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

|   |                            |                             |
|---|----------------------------|-----------------------------|
| <b>SDG Number:</b> 10-1914                | <b>Matrix:</b> SOIL        |                             |
| <b>Lab Sample ID:</b> 1202051373          |                            |                             |
| <b>Client Sample:</b> QC for batch 956738 | <b>Client:</b> LANL010     | <b>Project:</b> QC          |
| <b>Client ID:</b> LCS for batch 956738    | <b>Method:</b> SW846 8260B | <b>SOP Ref:</b> GL-OA-E-038 |
| <b>Batch ID:</b> 956739                   | <b>Inst:</b> VOA7.I        | <b>Dilution:</b> 1          |
| <b>Run Date:</b> 02/23/2010 20:30         | <b>Analyst:</b> AXO1       | <b>Purge Vol:</b> 5 mL      |
| <b>Prep Date:</b> 02/23/2010 15:00        | <b>Aliquot:</b> 5 g        | <b>Final Volume:</b> 5 mL   |
| <b>Data File:</b> 7a22011.d               | <b>Column:</b> DB-624      | <b>Level:</b> LOW           |

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     |           | 42.8   | ug/kg | 0.340   | 1.00    |
| 74-87-3    | Chloromethane               |           | 40.0   | ug/kg | 0.300   | 1.00    |
| 75-01-4    | Vinyl chloride              |           | 42.4   | ug/kg | 0.300   | 1.00    |
| 74-83-9    | Bromomethane                |           | 45.2   | ug/kg | 0.300   | 1.00    |
| 75-00-3    | Chloroethane                |           | 45.0   | ug/kg | 0.300   | 1.00    |
| 75-69-4    | Trichlorofluoromethane      |           | 46.7   | ug/kg | 0.300   | 1.00    |
| 67-64-1    | Acetone                     |           | 180    | ug/kg | 1.66    | 5.00    |
| 75-35-4    | 1,1-Dichloroethylene        |           | 42.8   | ug/kg | 0.300   | 1.00    |
| 74-88-4    | Iodomethane                 |           | 228    | ug/kg | 1.60    | 5.00    |
| 75-09-2    | Methylene chloride          |           | 44.3   | ug/kg | 2.00    | 5.00    |
| 75-15-0    | Carbon disulfide            |           | 221    | ug/kg | 1.25    | 5.00    |
| 156-60-5   | trans-1,2-Dichloroethylene  |           | 43.2   | ug/kg | 0.300   | 1.00    |
| 75-34-3    | 1,1-Dichloroethane          |           | 46.1   | ug/kg | 0.300   | 1.00    |
| 78-93-3    | 2-Butanone                  |           | 185    | ug/kg | 1.50    | 5.00    |
| 156-59-2   | cis-1,2-Dichloroethylene    |           | 43.8   | ug/kg | 0.300   | 1.00    |
| 594-20-7   | 2,2-Dichloropropane         |           | 47.5   | ug/kg | 0.300   | 1.00    |
| 67-66-3    | Chloroform                  |           | 44.4   | ug/kg | 0.300   | 1.00    |
| 74-97-5    | Bromochloromethane          |           | 45.5   | ug/kg | 0.330   | 1.00    |
| 71-55-6    | 1,1,1-Trichloroethane       |           | 48.0   | ug/kg | 0.300   | 1.00    |
| 563-58-6   | 1,1-Dichloropropene         |           | 46.0   | ug/kg | 0.300   | 1.00    |
| 56-23-5    | Carbon tetrachloride        |           | 46.5   | ug/kg | 0.300   | 1.00    |
| 107-06-2   | 1,2-Dichloroethane          |           | 44.0   | ug/kg | 0.300   | 1.00    |
| 71-43-2    | Benzene                     |           | 43.7   | ug/kg | 0.300   | 1.00    |
| 79-01-6    | Trichloroethylene           |           | 46.9   | ug/kg | 0.330   | 1.00    |
| 78-87-5    | 1,2-Dichloropropane         |           | 44.6   | ug/kg | 0.300   | 1.00    |
| 75-27-4    | Bromodichloromethane        |           | 47.3   | ug/kg | 0.300   | 1.00    |
| 74-95-3    | Dibromomethane              |           | 47.1   | ug/kg | 0.300   | 1.00    |
| 108-10-1   | 4-Methyl-2-pentanone        |           | 214    | ug/kg | 1.25    | 5.00    |
| 10061-01-5 | cis-1,3-Dichloropropylene   |           | 46.8   | ug/kg | 0.300   | 1.00    |
| 108-88-3   | Toluene                     |           | 43.7   | ug/kg | 0.300   | 1.00    |
| 10061-02-6 | trans-1,3-Dichloropropylene |           | 46.4   | ug/kg | 0.300   | 1.00    |
| 79-00-5    | 1,1,2-Trichloroethane       |           | 43.6   | ug/kg | 0.300   | 1.00    |
| 591-78-6   | 2-Hexanone                  | E         | 171    | ug/kg | 1.50    | 5.00    |
| 142-28-9   | 1,3-Dichloropropane         |           | 44.7   | ug/kg | 0.300   | 1.00    |
| 127-18-4   | Tetrachloroethylene         |           | 43.3   | ug/kg | 0.300   | 1.00    |
| 124-48-1   | Dibromochloromethane        |           | 46.6   | ug/kg | 0.300   | 1.00    |
| 106-93-4   | 1,2-Dibromoethane           |           | 46.1   | ug/kg | 0.300   | 1.00    |
| 108-90-7   | Chlorobenzene               |           | 43.4   | ug/kg | 0.300   | 1.00    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 1202051373  
 Client Sample: QC for batch 956738  
 Client ID: LCS for batch 956738  
 Batch ID: 956739  
 Run Date: 02/23/2010 20:30  
 Prep Date: 02/23/2010 15:00  
 Data File: 7a22011.d

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

| CAS No.     | Parmname  | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene  |           | 40.9   | ug/kg | 0.300   | 1.00    |
| 179601-23-1 | m,p-Xylenes   |           | 88.3   | ug/kg | 0.300   | 2.00    |
| 95-47-6     | o-Xylene  |           | 45.6   | ug/kg | 0.300   | 1.00    |
| 100-42-5    | Styrene   |           | 45.5   | ug/kg | 0.300   | 1.00    |
| 75-25-2     | Bromoform   |           | 48.1   | ug/kg | 0.300   | 1.00    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane   |           | 42.2   | ug/kg | 0.300   | 1.00    |
| 96-18-4     | 1,2,3-Trichloropropane  |           | 44.4   | ug/kg | 0.300   | 1.00    |
| 108-86-1    | Bromobenzene  |           | 44.8   | ug/kg | 0.300   | 1.00    |
| 103-65-1    | n-Propylbenzene   |           | 40.3   | ug/kg | 0.300   | 1.00    |
| 95-49-8     | 2-Chlorotoluene   |           | 41.9   | ug/kg | 0.300   | 1.00    |
| 98-82-8     | Isopropylbenzene  |           | 41.3   | ug/kg | 0.300   | 1.00    |
| 108-67-8    | 1,3,5-Trimethylbenzene  |           | 43.7   | ug/kg | 0.300   | 1.00    |
| 106-43-4    | 4-Chlorotoluene   |           | 42.0   | ug/kg | 0.300   | 1.00    |
| 98-06-6     | tert-Butylbenzene   |           | 43.7   | ug/kg | 0.300   | 1.00    |
| 95-63-6     | 1,2,4-Trimethylbenzene  |           | 43.8   | ug/kg | 0.300   | 1.00    |
| 135-98-8    | sec-Butylbenzene  |           | 42.6   | ug/kg | 0.300   | 1.00    |
| 99-87-6     | 4-Isopropyltoluene  |           | 43.8   | ug/kg | 0.300   | 1.00    |
| 541-73-1    | 1,3-Dichlorobenzene   |           | 42.8   | ug/kg | 0.300   | 1.00    |
| 106-46-7    | 1,4-Dichlorobenzene   |           | 43.6   | ug/kg | 0.300   | 1.00    |
| 104-51-8    | n-Butylbenzene  |           | 42.2   | ug/kg | 0.300   | 1.00    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane                                       |           | 45.5   | ug/kg | 0.300   | 1.00    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane<br>Trichlorotrifluoroethane | U         | 5.00   | ug/kg | 1.60    | 5.00    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane   |           | 46.7   | ug/kg | 0.300   | 1.00    |
| 95-50-1     | 1,2-Dichlorobenzene   |           | 43.9   | ug/kg | 0.300   | 1.00    |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022310v7/7a22011.d

Lab Smp Id: 1202051373

Client Smp ID: LCS

Inj Date : 23-FEB-2010 20:30

Operator : AX01

Inst ID: VOA7.i

Smp Info : |1202051373|956739|1|VOAF|1|

Misc Info : GEL 5g N/A UVM100220-01A/IVM100218-01

Comment :

Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 20

QC Sample: LCS

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: all.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 0.00000   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

|                                  |       |       |        |                | CONCENTRATIONS |              |
|----------------------------------|-------|-------|--------|----------------|----------------|--------------|
|                                  |       |       |        |                | ON-COLUMN      | FINAL        |
|                                  |       |       |        |                | ( ug/l)        | (ug/Kg)      |
| Compounds                        | QUANT | SIG   | RT     | EXP RT REL RT  | RESPONSE       |              |
| =====                            | ===== | ===== | =====  | =====          | =====          | =====        |
| M 1 1,3-Dichloropropylene        | 75    |       |        |                | 948774         | 96.3882 96.4 |
| M 2 Xylenes (total)              | 106   |       |        |                | 1415361        | 133.822 134  |
| M 3 1,2-Dichloroethylene (total) | 96    |       |        |                | 937929         | 86.9760 87.0 |
| 4 Dichlorodifluoromethane        | 85    |       | 5.148  | 5.148 (0.336)  | 145068         | 42.8018 42.8 |
| 5 Chloromethane                  | 50    |       | 5.757  | 5.757 (0.376)  | 407415         | 40.0136 40.0 |
| 6 Vinyl chloride                 | 62    |       | 6.188  | 6.188 (0.404)  | 383759         | 42.4336 42.4 |
| 7 Bromomethane                   | 94    |       | 7.419  | 7.419 (0.484)  | 233192         | 45.2253 45.2 |
| 8 Chloroethane                   | 64    |       | 7.855  | 7.845 (0.513)  | 207917         | 44.9529 45.0 |
| 9 Trichlorofluoromethane         | 101   |       | 8.789  | 8.799 (0.574)  | 323456         | 46.7253 46.7 |
| 10 Ethyl Ether                   | 59    |       | 9.703  | 9.693 (0.633)  | 300546         | 46.6689 46.7 |
| 13 Acetone                       | 43    |       | 10.413 | 10.413 (0.680) | 1309602        | 179.619 180  |
| 14 1,1-Dichloroethylene          | 96    |       | 10.312 | 10.312 (0.673) | 202678         | 42.8166 42.8 |

| Compounds                      | QUANT SIG | MASS  | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |         |
|--------------------------------|-----------|-------|--------|--------|---------|----------|----------------|---------|
|                                |           |       |        |        |         |          | ON-COLUMN      | FINAL   |
|                                |           |       |        |        |         |          | ( ug/l)        | (ug/Kg) |
| =====                          | =====     | ===== | =====  | =====  | =====   | =====    | =====          | =====   |
| 16 Iodomethane                 |           | 142   | 10.667 | 10.667 | (0.696) | 1884011  | 228.399        | 228     |
| 17 Acetonitrile                |           | 41    | 11.073 | 11.073 | (0.723) | 1412071  | 1092.87        | 1090    |
| 18 Methyl acetate              |           | 43    | 11.225 | 11.215 | (0.733) | 1515915  | 224.838        | 225     |
| 19 Carbon disulfide            |           | 76    | 10.840 | 10.840 | (0.708) | 3681780  | 221.094        | 221     |
| 22 Methylene chloride          |           | 86    | 11.439 | 11.439 | (0.747) | 197074   | 44.3149        | 44.3    |
| 24 tert-Butyl methyl ether     |           | 73    | 12.017 | 12.017 | (0.785) | 805313   | 47.8311        | 47.8    |
| 25 trans-1,2-Dichloroethylene  |           | 61    | 12.027 | 12.017 | (0.785) | 432179   | 43.1856        | 43.2    |
| 26 Vinyl acetate               |           | 43    | 12.860 | 12.860 | (0.840) | 3603658  | 217.891        | 218     |
| 28 1,1-Dichloroethane          |           | 63    | 12.799 | 12.799 | (0.836) | 599753   | 46.0553        | 46.0    |
| 31 2-Butanone                  |           | 43    | 13.723 | 13.723 | (0.896) | 1503336  | 184.874        | 185     |
| 33 cis-1,2-Dichloroethylene    |           | 61    | 13.733 | 13.733 | (0.897) | 505750   | 43.7904        | 43.8    |
| 34 2,2-Dichloropropane         |           | 77    | 13.743 | 13.743 | (0.897) | 256806   | 47.4741        | 47.5    |
| 37 Bromochloromethane          |           | 49    | 14.088 | 14.088 | (0.920) | 388736   | 45.5296        | 45.5    |
| 38 Chloroform                  |           | 83    | 14.190 | 14.190 | (0.926) | 481265   | 44.3937        | 44.4    |
| 41 1,1,1-Trichloroethane       |           | 97    | 14.484 | 14.484 | (0.946) | 356814   | 47.9626        | 48.0    |
| 43 Cyclohexane                 |           | 56    | 14.586 | 14.586 | (0.952) | 534321   | 44.1847        | 44.2    |
| 44 1,1-Dichloropropene         |           | 75    | 14.697 | 14.697 | (0.960) | 358264   | 45.9953        | 46.0    |
| 45 Carbon tetrachloride        |           | 117   | 14.728 | 14.728 | (0.962) | 275199   | 46.4902        | 46.5    |
| \$ 46 1,2-Dichloroethane-d4    |           | 65    | 14.880 | 14.880 | (0.972) | 457512   | 48.6492        | 48.6    |
| 47 1,2-Dichloroethane          |           | 62    | 14.982 | 14.982 | (0.978) | 470981   | 44.0330        | 44.0    |
| 48 Benzene                     |           | 78    | 14.982 | 14.982 | (0.978) | 1041235  | 43.7481        | 43.7    |
| 50 Cyclohexene                 |           | 67    | 15.114 | 15.114 | (0.987) | 500299   | 44.6169        | 44.6    |
| * 51 Fluorobenzene             |           | 96    | 15.317 | 15.317 | (1.000) | 1088491  | 50.0000        |         |
| 52 n-Butyl alcohol             |           | 56    | 15.560 | 15.560 | (1.016) | 1518591  | 5364.89        | 5360    |
| 53 Trichloroethylene           |           | 95    | 15.763 | 15.763 | (1.029) | 270612   | 46.9266        | 46.9    |
| 55 Methylcyclohexane           |           | 83    | 16.027 | 16.027 | (1.046) | 449698   | 46.8888        | 46.9    |
| 56 1,2-Dichloropropane         |           | 63    | 16.037 | 16.037 | (1.047) | 353081   | 44.5500        | 44.5    |
| 58 Dibromomethane              |           | 93    | 16.180 | 16.180 | (1.056) | 201309   | 47.0891        | 47.1    |
| 59 Bromodichloromethane        |           | 83    | 16.332 | 16.332 | (1.066) | 402445   | 47.3469        | 47.3    |
| 61 2-Chloroethylvinyl ether    |           | 63    | 16.606 | 16.606 | (1.084) | 670755   | 217.354        | 217     |
| 62 cis-1,3-Dichloropropylene   |           | 75    | 16.819 | 16.819 | (1.098) | 484898   | 46.8425        | 46.8    |
| 63 4-Methyl-2-pentanone        |           | 58    | 16.941 | 16.931 | (0.908) | 861841   | 213.855        | 214     |
| \$ 64 Toluene-d8               |           | 98    | 17.134 | 17.134 | (0.918) | 1232951  | 46.2606        | 46.3    |
| 65 Toluene                     |           | 92    | 17.215 | 17.215 | (0.922) | 643664   | 43.6575        | 43.6    |
| 67 trans-1,3-Dichloropropylene |           | 75    | 17.388 | 17.388 | (0.931) | 463876   | 46.4292        | 46.4    |
| 68 1,1,2-Trichloroethane       |           | 83    | 17.601 | 17.611 | (0.943) | 242324   | 43.6236        | 43.6    |
| 69 2-Hexanone                  |           | 43    | 17.794 | 17.794 | (0.953) | 1902581  | 170.605        | 171 (A) |
| 70 1,3-Dichloropropane         |           | 76    | 17.794 | 17.794 | (0.953) | 509303   | 44.7098        | 44.7    |
| 71 Tetrachloroethylene         |           | 164   | 17.814 | 17.814 | (0.954) | 176307   | 43.2716        | 43.3    |
| 72 Dibromochloromethane        |           | 129   | 18.058 | 18.058 | (0.967) | 279193   | 46.5986        | 46.6    |
| 73 1,2-Dibromoethane           |           | 107   | 18.220 | 18.220 | (0.976) | 277526   | 46.0657        | 46.1    |
| * 75 Chlorobenzene-d5          |           | 117   | 18.667 | 18.667 | (1.000) | 818888   | 50.0000        |         |
| 76 Chlorobenzene               |           | 112   | 18.697 | 18.697 | (1.002) | 659225   | 43.4381        | 43.4    |
| 77 1,1,1,2-Tetrachloroethane   |           | 131   | 18.758 | 18.758 | (1.005) | 244127   | 46.6808        | 46.7    |
| 78 Ethylbenzene                |           | 91    | 18.758 | 18.758 | (1.005) | 1127603  | 40.9333        | 40.9    |
| 79 m,p-Xylenes                 |           | 106   | 18.870 | 18.870 | (1.011) | 914962   | 88.2581        | 88.2    |
| 80 o-Xylene                    |           | 106   | 19.286 | 19.286 | (1.033) | 500399   | 45.5644        | 45.6    |

| Compounds                       | QUANT SIG | MASS  | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |         |
|---------------------------------|-----------|-------|--------|--------|---------|----------|----------------|---------|
|                                 |           |       |        |        |         |          | ON-COLUMN      | FINAL   |
|                                 |           |       |        |        |         |          | ( ug/l)        | (ug/Kg) |
| =====                           | =====     | ===== | =====  | =====  | =====   | =====    | =====          | =====   |
| 81 Styrene                      |           | 104   | 19.286 | 19.286 | (1.033) | 799756   | 45.4750        | 45.5    |
| 82 Bromoform                    |           | 173   | 19.540 | 19.540 | (0.931) | 188730   | 48.1105        | 48.1    |
| 83 Isopropylbenzene             |           | 105   | 19.631 | 19.631 | (0.935) | 1094332  | 41.3155        | 41.3    |
| \$ 86 Bromofluorobenzene        |           | 95    | 19.814 | 19.814 | (0.944) | 521056   | 48.3807        | 48.4    |
| 87 1,1,2,2-Tetrachloroethane    |           | 83    | 19.885 | 19.885 | (0.947) | 391334   | 42.2358        | 42.2    |
| 89 1,2,3-Trichloropropane       |           | 110   | 19.966 | 19.966 | (0.951) | 89525    | 44.4066        | 44.4    |
| 90 Bromobenzene                 |           | 156   | 20.017 | 20.017 | (0.954) | 277639   | 44.7675        | 44.8    |
| 91 n-Propylbenzene              |           | 91    | 20.027 | 20.027 | (0.954) | 1356830  | 40.2927        | 40.3    |
| 92 1,3,5-Trimethylbenzene       |           | 105   | 20.169 | 20.169 | (0.961) | 955422   | 43.6527        | 43.6    |
| 93 2-Chlorotoluene              |           | 91    | 20.169 | 20.169 | (0.961) | 966528   | 41.9227        | 41.9    |
| 94 4-Chlorotoluene              |           | 91    | 20.271 | 20.261 | (0.966) | 869523   | 42.0157        | 42.0    |
| 95 tert-Butylbenzene            |           | 119   | 20.525 | 20.525 | (0.978) | 867218   | 43.7391        | 43.7    |
| 96 1,2,4-Trimethylbenzene       |           | 105   | 20.565 | 20.565 | (0.980) | 969209   | 43.7553        | 43.8    |
| 98 sec-Butylbenzene             |           | 105   | 20.748 | 20.748 | (0.988) | 1245240  | 42.6488        | 42.6    |
| 99 4-Isopropyltoluene           |           | 119   | 20.860 | 20.860 | (0.994) | 924907   | 43.8264        | 43.8    |
| 100 1,3-Dichlorobenzene         |           | 146   | 20.931 | 20.931 | (0.997) | 518015   | 42.7557        | 42.8    |
| * 101 1,4-Dichlorobenzene-d4    |           | 152   | 20.992 | 20.992 | (1.000) | 409430   | 50.0000        |         |
| 102 1,4-Dichlorobenzene         |           | 146   | 21.012 | 21.012 | (1.001) | 515331   | 43.5604        | 43.6    |
| 104 n-Butylbenzene              |           | 91    | 21.296 | 21.296 | (1.014) | 1032147  | 42.2177        | 42.2    |
| 105 1,2-Dichlorobenzene         |           | 146   | 21.438 | 21.438 | (1.021) | 534053   | 43.8830        | 43.9    |
| 107 1,2-Dibromo-3-chloropropane |           | 157   | 22.291 | 22.301 | (1.062) | 69533    | 45.4879        | 45.5    |
| 108 1,2,4-Trichlorobenzene      |           | 180   | 23.357 | 23.357 | (1.113) | 326516   | 42.8255        | 42.8    |
| 109 Hexachlorobutadiene         |           | 225   | 23.530 | 23.529 | (1.121) | 172448   | 42.1265        | 42.1    |
| 110 Naphthalene                 |           | 128   | 23.743 | 23.743 | (1.131) | 828480   | 43.2756        | 43.3    |
| 111 1,2,3-Trichlorobenzene      |           | 180   | 24.088 | 24.088 | (1.147) | 308505   | 43.7695        | 43.8    |

# QC Flag Legend

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

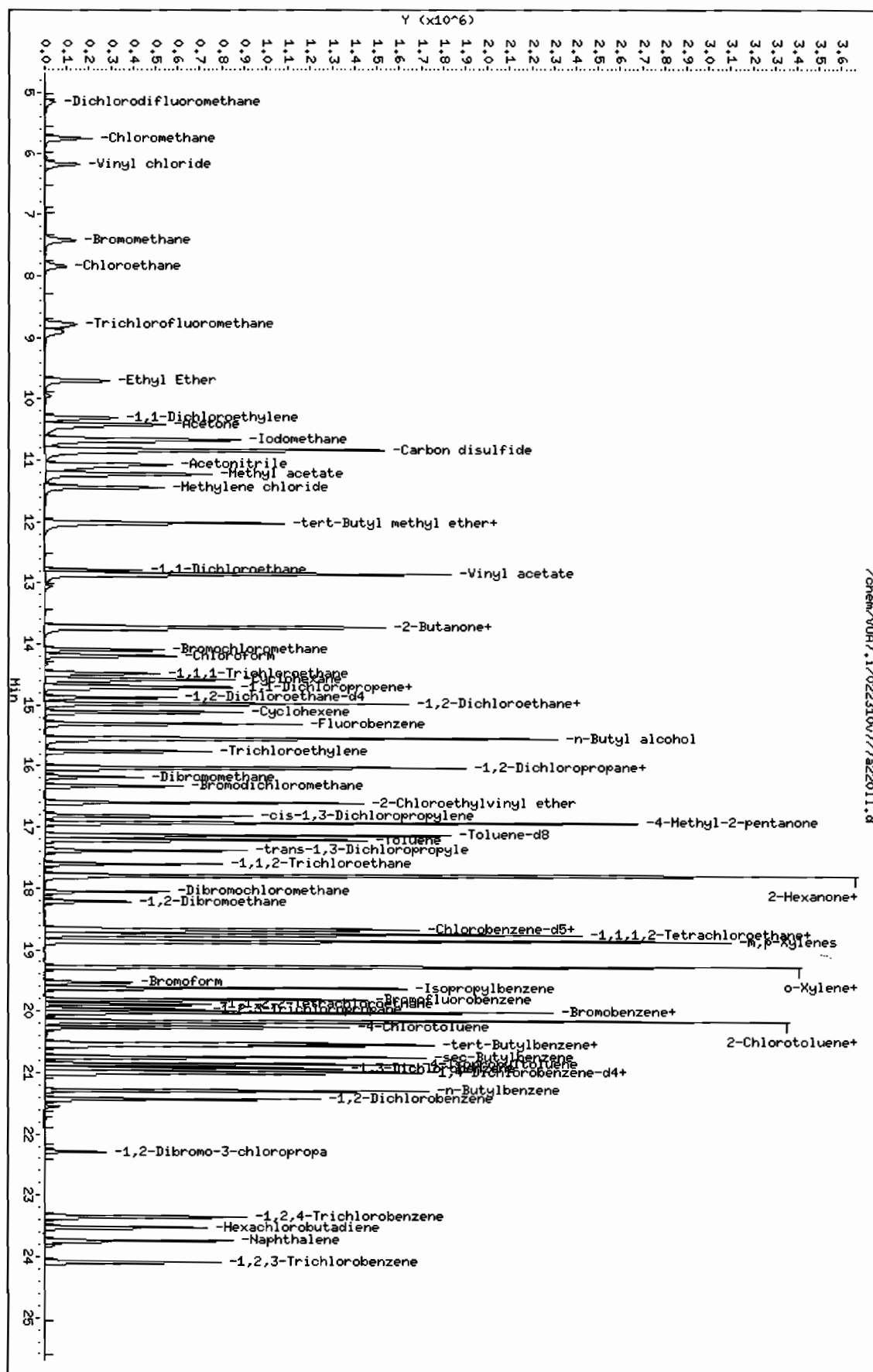
Page 1

Instrument: VOA7.i

Sample Info: 1202051373|956739|1|VDAF|1

Column phase: DB-624

Operator: AXD1  
Column diameter: 0.25



**Volatile  
Certificate of Analysis  
Sample Summary**

|   |                            |                             |
|---|----------------------------|-----------------------------|
| <b>SDG Number:</b> 10-1914                |                            | <b>Matrix:</b> SOIL         |
| <b>Lab Sample ID:</b> 1202065432          |                            |                             |
| <b>Client Sample:</b> QC for batch 956738 | <b>Client:</b> LANL010     | <b>Project:</b> QC          |
| <b>Client ID:</b> LCS for batch 956738    | <b>Method:</b> SW846 8260B | <b>SOP Ref:</b> GL-OA-E-038 |
| <b>Batch ID:</b> 956739                   | <b>Inst:</b> VOA7.I        | <b>Dilution:</b> 1          |
| <b>Run Date:</b> 02/24/2010 11:59         | <b>Analyst:</b> AXO1       | <b>Purge Vol:</b> 5 mL      |
| <b>Prep Date:</b> 02/24/2010 10:00        | <b>Aliquot:</b> 5 g        | <b>Final Volume:</b> 5 mL   |
| <b>Data File:</b> 7a304ll.d               | <b>Column:</b> DB-624      | <b>Level:</b> LOW           |

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     |           | 44.1   | ug/kg | 0.340   | 1.00    |
| 74-87-3    | Chloromethane               |           | 39.5   | ug/kg | 0.300   | 1.00    |
| 75-01-4    | Vinyl chloride              |           | 43.1   | ug/kg | 0.300   | 1.00    |
| 74-83-9    | Bromomethane                |           | 45.9   | ug/kg | 0.300   | 1.00    |
| 75-00-3    | Chloroethane                |           | 46.6   | ug/kg | 0.300   | 1.00    |
| 75-69-4    | Trichlorofluoromethane      |           | 48.5   | ug/kg | 0.300   | 1.00    |
| 67-64-1    | Acetone                     |           | 199    | ug/kg | 1.66    | 5.00    |
| 75-35-4    | 1,1-Dichloroethylene        |           | 45.4   | ug/kg | 0.300   | 1.00    |
| 74-88-4    | Iodomethane                 |           | 233    | ug/kg | 1.60    | 5.00    |
| 75-09-2    | Methylene chloride          |           | 45.2   | ug/kg | 2.00    | 5.00    |
| 75-15-0    | Carbon disulfide            |           | 225    | ug/kg | 1.25    | 5.00    |
| 156-60-5   | trans-1,2-Dichloroethylene  |           | 44.2   | ug/kg | 0.300   | 1.00    |
| 75-34-3    | 1,1-Dichloroethane          |           | 46.3   | ug/kg | 0.300   | 1.00    |
| 78-93-3    | 2-Butanone                  |           | 199    | ug/kg | 1.50    | 5.00    |
| 156-59-2   | cis-1,2-Dichloroethylene    |           | 44.4   | ug/kg | 0.300   | 1.00    |
| 594-20-7   | 2,2-Dichloropropane         |           | 49.5   | ug/kg | 0.300   | 1.00    |
| 67-66-3    | Chloroform                  |           | 45.5   | ug/kg | 0.300   | 1.00    |
| 74-97-5    | Bromochloromethane          |           | 46.6   | ug/kg | 0.330   | 1.00    |
| 71-55-6    | 1,1,1-Trichloroethane       |           | 49.5   | ug/kg | 0.300   | 1.00    |
| 563-58-6   | 1,1-Dichloropropene         |           | 47.0   | ug/kg | 0.300   | 1.00    |
| 56-23-5    | Carbon tetrachloride        |           | 49.0   | ug/kg | 0.300   | 1.00    |
| 107-06-2   | 1,2-Dichloroethane          |           | 45.4   | ug/kg | 0.300   | 1.00    |
| 71-43-2    | Benzene                     |           | 44.6   | ug/kg | 0.300   | 1.00    |
| 79-01-6    | Trichloroethylene           |           | 47.0   | ug/kg | 0.330   | 1.00    |
| 78-87-5    | 1,2-Dichloropropane         |           | 44.9   | ug/kg | 0.300   | 1.00    |
| 75-27-4    | Bromodichloromethane        |           | 47.9   | ug/kg | 0.300   | 1.00    |
| 74-95-3    | Dibromomethane              |           | 48.9   | ug/kg | 0.300   | 1.00    |
| 108-10-1   | 4-Methyl-2-pentanone        |           | 226    | ug/kg | 1.25    | 5.00    |
| 10061-01-5 | cis-1,3-Dichloropropylene   |           | 49.1   | ug/kg | 0.300   | 1.00    |
| 108-88-3   | Toluene                     |           | 43.4   | ug/kg | 0.300   | 1.00    |
| 10061-02-6 | trans-1,3-Dichloropropylene |           | 47.4   | ug/kg | 0.300   | 1.00    |
| 79-00-5    | 1,1,2-Trichloroethane       |           | 44.5   | ug/kg | 0.300   | 1.00    |
| 591-78-6   | 2-Hexanone                  | E         | 180    | ug/kg | 1.50    | 5.00    |
| 142-28-9   | 1,3-Dichloropropane         |           | 45.2   | ug/kg | 0.300   | 1.00    |
| 127-18-4   | Tetrachloroethylene         |           | 42.8   | ug/kg | 0.300   | 1.00    |
| 124-48-1   | Dibromochloromethane        |           | 48.2   | ug/kg | 0.300   | 1.00    |
| 106-93-4   | 1,2-Dibromoethane           |           | 47.2   | ug/kg | 0.300   | 1.00    |
| 108-90-7   | Chlorobenzene               |           | 44.0   | ug/kg | 0.300   | 1.00    |

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 1202065432  
 Client Sample: QC for batch 956738  
 Client ID: LCS for batch 956738  
 Batch ID: 956739  
 Run Date: 02/24/2010 11:59  
 Prep Date: 02/24/2010 10:00  
 Data File: 7a30411.d

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          |           | 40.9   | ug/kg | 0.300   | 1.00    |
| 179601-23-1 | m,p-Xylenes                           |           | 88.5   | ug/kg | 0.300   | 2.00    |
| 95-47-6     | o-Xylene                              |           | 45.2   | ug/kg | 0.300   | 1.00    |
| 100-42-5    | Styrene                               |           | 45.7   | ug/kg | 0.300   | 1.00    |
| 75-25-2     | Bromoform                             |           | 49.8   | ug/kg | 0.300   | 1.00    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             |           | 44.2   | ug/kg | 0.300   | 1.00    |
| 96-18-4     | 1,2,3-Trichloropropane                |           | 45.6   | ug/kg | 0.300   | 1.00    |
| 108-86-1    | Bromobenzene                          |           | 45.2   | ug/kg | 0.300   | 1.00    |
| 103-65-1    | n-Propylbenzene                       |           | 40.5   | ug/kg | 0.300   | 1.00    |
| 95-49-8     | 2-Chlorotoluene                       |           | 42.0   | ug/kg | 0.300   | 1.00    |
| 98-82-8     | Isopropylbenzene                      |           | 41.3   | ug/kg | 0.300   | 1.00    |
| 108-67-8    | 1,3,5-Trimethylbenzene                |           | 43.6   | ug/kg | 0.300   | 1.00    |
| 106-43-4    | 4-Chlorotoluene                       |           | 42.5   | ug/kg | 0.300   | 1.00    |
| 98-06-6     | tert-Butylbenzene                     |           | 44.0   | ug/kg | 0.300   | 1.00    |
| 95-63-6     | 1,2,4-Trimethylbenzene                |           | 43.2   | ug/kg | 0.300   | 1.00    |
| 135-98-8    | sec-Butylbenzene                      |           | 42.9   | ug/kg | 0.300   | 1.00    |
| 99-87-6     | 4-Isopropyltoluene                    |           | 44.5   | ug/kg | 0.300   | 1.00    |
| 541-73-1    | 1,3-Dichlorobenzene                   |           | 42.9   | ug/kg | 0.300   | 1.00    |
| 106-46-7    | 1,4-Dichlorobenzene                   |           | 43.5   | ug/kg | 0.300   | 1.00    |
| 104-51-8    | n-Butylbenzene                        |           | 43.5   | ug/kg | 0.300   | 1.00    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           |           | 48.9   | ug/kg | 0.300   | 1.00    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane | U         | 5.00   | ug/kg | 1.60    | 5.00    |
|             | Trichlorotrifluoroethane              |           |        |       |         |         |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             |           | 46.8   | ug/kg | 0.300   | 1.00    |
| 95-50-1     | 1,2-Dichlorobenzene                   |           | 44.7   | ug/kg | 0.300   | 1.00    |



GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022410v7/7a30411.d

Lab Smp Id: 1202065432

Client Smp ID: LCS

Inj Date : 24-FEB-2010 11:59

Operator : AX01

Inst ID: VOA7.i

Smp Info : |1202065432|956739|1|VOAF|1|

Misc Info : GEL 5g N/A UVM100220-01A/IVM100218-01

Comment :

Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m

Meth Date : 08-Mar-2010 14:52 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d

Als bottle: 4

QC Sample: LCS

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: all.sub

Target Version: 3.50

Processing Host: prdsrv07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 0.00000   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

|           |                                |           |        |        |         | CONCENTRATIONS |                      |
|-----------|--------------------------------|-----------|--------|--------|---------|----------------|----------------------|
| Compounds |                                | QUANT SIG | RT     | EXP RT | REL RT  | RESPONSE       | ON-COLUMN<br>( ug/l) |
|           |                                | MASS      |        |        |         |                | FINAL<br>(ug/Kg)     |
| M         | 1 1,3-Dichloropropylene        | 75        |        |        |         | 938735         | 100.917              |
| M         | 2 Xylenes (total)              | 106       |        |        |         | 1367525        | 133.665              |
| M         | 3 1,2-Dichloroethylene (total) | 96        |        |        |         | 901915         | 88.5341              |
|           | 4 Dichlorodifluoromethane      | 85        | 5.147  | 5.148  | (0.336) | 141250         | 44.1001              |
|           | 5 Chloromethane                | 50        | 5.757  | 5.757  | (0.376) | 380431         | 39.5374              |
|           | 6 Vinyl chloride               | 62        | 6.187  | 6.188  | (0.404) | 368063         | 43.0660              |
|           | 7 Bromomethane                 | 94        | 7.418  | 7.418  | (0.484) | 223630         | 45.8944              |
|           | 8 Chloroethane                 | 64        | 7.845  | 7.845  | (0.512) | 203860         | 46.6403              |
|           | 9 Trichlorofluoromethane       | 101       | 8.789  | 8.789  | (0.574) | 317290         | 48.5015              |
|           | 10 Ethyl Ether                 | 59        | 9.703  | 9.703  | (0.633) | 291271         | 47.8603              |
|           | 13 Acetone                     | 43        | 10.423 | 10.413 | (0.681) | 1369283        | 198.732              |
|           | 14 1,1-Dichloroethylene        | 96        | 10.312 | 10.312 | (0.673) | 202891         | 45.3555              |

| Compounds                      | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS       |                  |
|--------------------------------|-------------------|--------|--------|---------|----------|----------------------|------------------|
|                                |                   |        |        |         |          | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| 16 Iodomethane                 | 142               | 10.667 | 10.667 | (0.696) | 1817027  | 233.095              | 233              |
| 17 Acetonitrile                | 41                | 11.073 | 11.073 | (0.723) | 1429480  | 1170.72              | 1170             |
| 18 Methyl acetate              | 43                | 11.225 | 11.225 | (0.733) | 1533090  | 240.616              | 241              |
| 19 Carbon disulfide            | 76                | 10.840 | 10.840 | (0.708) | 3535887  | 224.687              | 225              |
| 22 Methylene chloride          | 86                | 11.449 | 11.449 | (0.747) | 190141   | 45.2437              | 45.2             |
| 24 tert-Butyl methyl ether     | 73                | 12.017 | 12.017 | (0.785) | 791408   | 49.7402              | 49.7             |
| 25 trans-1,2-Dichloroethylene  | 61                | 12.027 | 12.027 | (0.785) | 417807   | 44.1786              | 44.2             |
| 26 Vinyl acetate               | 43                | 12.860 | 12.860 | (0.840) | 3785350  | 242.194              | 242              |
| 28 1,1-Dichloroethane          | 63                | 12.799 | 12.799 | (0.836) | 569340   | 46.2636              | 46.3             |
| 31 2-Butanone                  | 43                | 13.723 | 13.723 | (0.896) | 1530493  | 199.164              | 199              |
| 33 cis-1,2-Dichloroethylene    | 61                | 13.733 | 13.733 | (0.897) | 484108   | 44.3555              | 44.4             |
| 34 2,2-Dichloropropane         | 77                | 13.743 | 13.743 | (0.897) | 253292   | 49.5489              | 49.5             |
| 37 Bromochloromethane          | 49                | 14.088 | 14.088 | (0.920) | 376263   | 46.6329              | 46.6             |
| 38 Chloroform                  | 83                | 14.190 | 14.190 | (0.926) | 465651   | 45.4526              | 45.4             |
| 41 1,1,1-Trichloroethane       | 97                | 14.484 | 14.484 | (0.946) | 347659   | 49.4511              | 49.4             |
| 43 Cyclohexane                 | 56                | 14.586 | 14.586 | (0.952) | 517834   | 45.3129              | 45.3             |
| 44 1,1-Dichloropropene         | 75                | 14.697 | 14.697 | (0.960) | 345612   | 46.9527              | 47.0             |
| 45 Carbon tetrachloride        | 117               | 14.728 | 14.718 | (0.962) | 273897   | 48.9624              | 49.0             |
| \$ 46 1,2-Dichloroethane-d4    | 65                | 14.880 | 14.880 | (0.971) | 454638   | 51.1564              | 51.2             |
| 47 1,2-Dichloroethane          | 62                | 14.982 | 14.982 | (0.978) | 458825   | 45.3924              | 45.4             |
| 48 Benzene                     | 78                | 14.982 | 14.982 | (0.978) | 1003300  | 44.6070              | 44.6             |
| 50 Cyclohexene                 | 67                | 15.124 | 15.114 | (0.987) | 493661   | 46.5865              | 46.6             |
| * 51 Fluorobenzene             | 96                | 15.317 | 15.317 | (1.000) | 1028640  | 50.0000              |                  |
| 52 n-Butyl alcohol             | 56                | 15.560 | 15.560 | (1.016) | 1569286  | 5866.56              | 5870             |
| 53 Trichloroethylene           | 95                | 15.763 | 15.763 | (1.029) | 256321   | 47.0346              | 47.0             |
| 55 Methylcyclohexane           | 83                | 16.027 | 16.027 | (1.046) | 441629   | 48.7267              | 48.7             |
| 56 1,2-Dichloropropane         | 63                | 16.037 | 16.037 | (1.047) | 336489   | 44.9268              | 44.9             |
| 58 Dibromomethane              | 93                | 16.179 | 16.180 | (1.056) | 197695   | 48.9344              | 48.9             |
| 59 Bromodichloromethane        | 83                | 16.332 | 16.332 | (1.066) | 385057   | 47.9371              | 47.9             |
| 61 2-Chloroethylvinyl ether    | 63                | 16.606 | 16.606 | (1.084) | 586276   | 201.033              | 201              |
| 62 cis-1,3-Dichloropropylene   | 75                | 16.819 | 16.819 | (1.098) | 480364   | 49.1046              | 49.1             |
| 63 4-Methyl-2-pentanone        | 58                | 16.941 | 16.941 | (0.908) | 882626   | 226.375              | 226              |
| \$ 64 Toluene-d8               | 98                | 17.134 | 17.134 | (0.918) | 1190590  | 46.1728              | 46.2             |
| 65 Toluene                     | 92                | 17.215 | 17.215 | (0.922) | 619527   | 43.4329              | 43.4             |
| 67 trans-1,3-Dichloropropylene | 75                | 17.388 | 17.388 | (0.931) | 458371   | 47.4203              | 47.4             |
| 68 1,1,2-Trichloroethane       | 83                | 17.601 | 17.601 | (0.943) | 239084   | 44.4871              | 44.5             |
| 69 2-Hexanone                  | 43                | 17.794 | 17.794 | (0.953) | 1945186  | 180.289              | 180 (A)          |
| 70 1,3-Dichloropropane         | 76                | 17.794 | 17.794 | (0.953) | 498450   | 45.2279              | 45.2             |
| 71 Tetrachloroethylene         | 164               | 17.814 | 17.814 | (0.954) | 168773   | 42.8149              | 42.8             |
| 72 Dibromochloromethane        | 129               | 18.058 | 18.058 | (0.967) | 279609   | 48.2367              | 48.2             |
| 73 1,2-Dibromoethane           | 107               | 18.220 | 18.220 | (0.976) | 275030   | 47.1859              | 47.2             |
| * 75 Chlorobenzene-d5          | 117               | 18.667 | 18.667 | (1.000) | 792257   | 50.0000              |                  |
| 76 Chlorobenzene               | 112               | 18.697 | 18.697 | (1.002) | 646403   | 44.0249              | 44.0             |
| 77 1,1,1,2-Tetrachloroethane   | 131               | 18.758 | 18.758 | (1.005) | 236556   | 46.7536              | 46.8             |
| 78 Ethylbenzene                | 91                | 18.758 | 18.758 | (1.005) | 1090473  | 40.9161              | 40.9             |
| 79 m,p-Xylenes                 | 106               | 18.870 | 18.870 | (1.011) | 887436   | 88.4804              | 88.5             |
| 80 o-Xylene                    | 106               | 19.286 | 19.286 | (1.033) | 480089   | 45.1844              | 45.2             |

| Compounds                       | QUANT SIG |        |        |         |          | CONCENTRATIONS       |                  |
|---------------------------------|-----------|--------|--------|---------|----------|----------------------|------------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| =====                           | =====     | ==     | =====  | =====   | =====    | =====                | =====            |
| 81 Styrene                      | 104       | 19.286 | 19.286 | (1.033) | 777259   | 45.6814              | 45.7             |
| 82 Bromoform                    | 173       | 19.540 | 19.540 | (0.931) | 189348   | 49.7954              | 49.8             |
| 83 Isopropylbenzene             | 105       | 19.631 | 19.631 | (0.935) | 1060497  | 41.3050              | 41.3             |
| \$ 86 Bromofluorobenzene        | 95        | 19.814 | 19.814 | (0.944) | 509487   | 48.8034              | 48.8             |
| 87 1,1,2,2-Tetrachloroethane    | 83        | 19.885 | 19.885 | (0.947) | 397249   | 44.2308              | 44.2             |
| 89 1,2,3-Trichloropropane       | 110       | 19.966 | 19.966 | (0.951) | 89018    | 45.5523              | 45.6             |
| 90 Bromobenzene                 | 156       | 20.017 | 20.017 | (0.954) | 271611   | 45.1813              | 45.2             |
| 91 n-Propylbenzene              | 91        | 20.027 | 20.027 | (0.954) | 1323463  | 40.5454              | 40.5             |
| 92 1,3,5-Trimethylbenzene       | 105       | 20.169 | 20.169 | (0.961) | 925230   | 43.6109              | 43.6             |
| 93 2-Chlorotoluene              | 91        | 20.169 | 20.169 | (0.961) | 938172   | 41.9804              | 42.0             |
| 94 4-Chlorotoluene              | 91        | 20.261 | 20.261 | (0.965) | 852394   | 42.4913              | 42.5             |
| 95 tert-Butylbenzene            | 119       | 20.524 | 20.525 | (0.978) | 845095   | 43.9720              | 44.0             |
| 96 1,2,4-Trimethylbenzene       | 105       | 20.565 | 20.565 | (0.980) | 927435   | 43.1942              | 43.2             |
| 98 sec-Butylbenzene             | 105       | 20.748 | 20.748 | (0.988) | 1213437  | 42.8746              | 42.9             |
| 99 4-Isopropyltoluene           | 119       | 20.859 | 20.860 | (0.994) | 909732   | 44.4713              | 44.5             |
| 100 1,3-Dichlorobenzene         | 146       | 20.931 | 20.931 | (0.997) | 503636   | 42.8842              | 42.9             |
| * 101 1,4-Dichlorobenzene-d4    | 152       | 20.991 | 20.992 | (1.000) | 396872   | 50.0000              |                  |
| 102 1,4-Dichlorobenzene         | 146       | 21.012 | 21.012 | (1.001) | 498701   | 43.4885              | 43.5             |
| 104 n-Butylbenzene              | 91        | 21.296 | 21.296 | (1.014) | 1030893  | 43.5006              | 43.5             |
| 105 1,2-Dichlorobenzene         | 146       | 21.438 | 21.438 | (1.021) | 526978   | 44.6719              | 44.7             |
| 107 1,2-Dibromo-3-chloropropane | 157       | 22.291 | 22.291 | (1.062) | 72566    | 48.8937              | 48.9             |
| 108 1,2,4-Trichlorobenzene      | 180       | 23.357 | 23.357 | (1.113) | 334398   | 45.2471              | 45.2             |
| 109 Hexachlorobutadiene         | 225       | 23.529 | 23.529 | (1.121) | 166715   | 42.0147              | 42.0             |
| 110 Naphthalene                 | 128       | 23.743 | 23.743 | (1.131) | 847848   | 45.6887              | 45.7             |
| 111 1,2,3-Trichlorobenzene      | 180       | 24.088 | 24.088 | (1.147) | 317048   | 46.4049              | 46.4             |

#### QC Flag Legend

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

Data File: /chem/V067.i/022410v7/7a30411.d

Date: 24-FEB-2010 11:59

Client ID: LCS

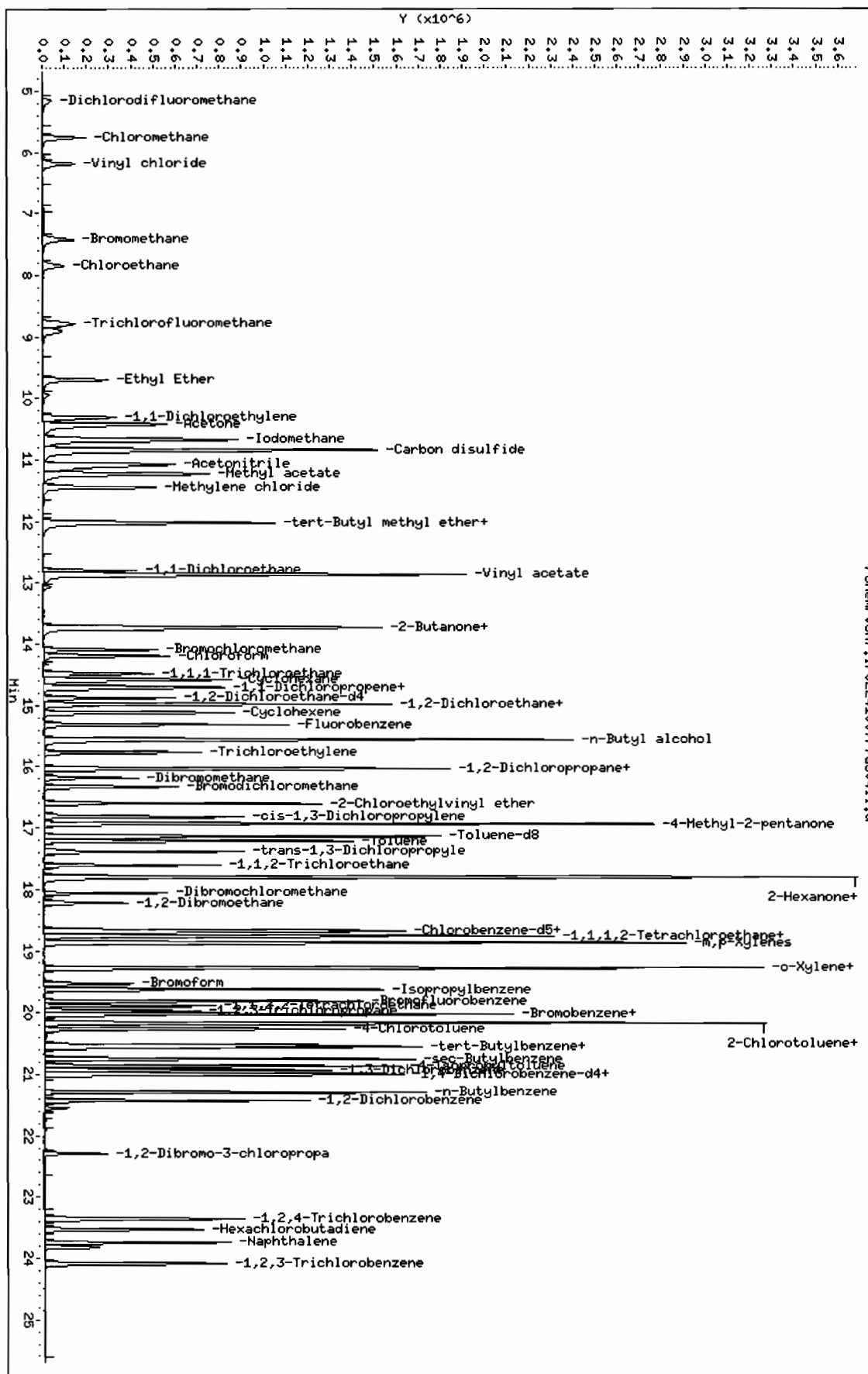
Sample Info: 11202065432195673911V06F111

Column phase: DB-624

Instrument: V067.i

Operator: AX01

Column diameter: 0.25



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914

Matrix: SOIL

Lab Sample ID: 1202051374

Client Sample: QC for batch 956738

Client: LANL010

Project: QC

Client ID: LCS for batch 956738

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 956739

Inst: VOA7.I

Dilution: 1

Run Date: 02/23/2010 21:37

Analyst: AXO1

Purge Vol: 5 mL

Prep Date: 02/23/2010 15:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 7a222ll.d

Column: DB-624

Level: LOW

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.00   | ug/kg | 0.340   | 1.00    |
| 74-87-3    | Chloromethane               | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-01-4    | Vinyl chloride              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-83-9    | Bromomethane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-00-3    | Chloroethane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 67-64-1    | Acetone                     | U         | 5.00   | ug/kg | 1.66    | 5.00    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-88-4    | Iodomethane                 | U         | 5.00   | ug/kg | 1.60    | 5.00    |
| 75-09-2    | Methylene chloride          | U         | 5.00   | ug/kg | 2.00    | 5.00    |
| 75-15-0    | Carbon disulfide            | U         | 5.00   | ug/kg | 1.25    | 5.00    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 78-93-3    | 2-Butanone                  | U         | 5.00   | ug/kg | 1.50    | 5.00    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 67-66-3    | Chloroform                  | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-97-5    | Bromochloromethane          | U         | 1.00   | ug/kg | 0.330   | 1.00    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 71-43-2    | Benzene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-01-6    | Trichloroethylene           | U         | 1.00   | ug/kg | 0.330   | 1.00    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-27-4    | Bromodichloromethane        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-95-3    | Dibromomethane              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.00   | ug/kg | 1.25    | 5.00    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-88-3   | Toluene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 591-78-6   | 2-Hexanone                  | U         | 5.00   | ug/kg | 1.50    | 5.00    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 124-48-1   | Dibromochloromethane        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-90-7   | Chlorobenzene               | U         | 1.00   | ug/kg | 0.300   | 1.00    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914

Matrix: SOIL

Lab Sample ID: 1202051374

Client Sample: QC for batch 956738

Client: LANL010

Project: QC

Client ID: LCS for batch 956738

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 956739

Inst: VOA7.I

Dilution: 1

Run Date: 02/23/2010 21:37

Analyst: AXO1

Purge Vol: 5 mL

Prep Date: 02/23/2010 15:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 7a222ll.d

Column: DB-624

Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.00   | ug/kg | 0.300   | 2.00    |
| 95-47-6     | o-Xylene                              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 100-42-5    | Styrene                               | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-25-2     | Bromoform                             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-86-1    | Bromobenzene                          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane |           | 235    | ug/kg | 1.60    | 5.00    |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022310v7/7a22211.d

Lab Smp Id: 1202051374

Client Smp ID: SLCS

Inj Date : 23-FEB-2010 21:37

Operator : AX01

Inst ID: VOA7.i

Smp Info : |1202051374|956739|1|VOAF|1|

Misc Info : GEL 5g N/A UVM091216-08B/UVM100125-08D

Comment :

Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 22

QC Sample: LCS

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: all.sub

Target Version: 3.50

Processing Host: prdsrv07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 0.00000   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

| Compounds                          | QUANT SIG |        |        |         | RESPONSE | CONCENTRATIONS |         |
|------------------------------------|-----------|--------|--------|---------|----------|----------------|---------|
|                                    | MASS      | RT     | EXP RT | REL RT  |          | ON-COLUMN      | FINAL   |
|                                    |           |        |        |         |          | ( ug/l)        | (ug/Kg) |
| 147 Chlorotrifluoroethylene        | 116       | 5.029  | 5.029  | (0.328) | 307716   | 127.980        | 128     |
| 148 2-Chloro-1,1,1-trifluoroethane | 118       | 6.604  | 6.603  | (0.431) | 695596   | 145.686        | 146     |
| 11 Acrolein                        | 56        | 10.017 | 10.017 | (0.654) | 339067   | 311.712        | 312     |
| 12 Trichlorotrifluoroethane        | 85        | 10.373 | 10.373 | (0.677) | 464750   | 235.126        | 235     |
| 15 Isopropyl Alcohol               | 45        | 10.779 | 10.779 | (0.704) | 1882927  | 2559.18        | 2560    |
| 20 Allyl chloride                  | 41        | 11.185 | 11.185 | (0.730) | 2222012  | 207.028        | 207     |
| 21 tert-Butyl Alcohol              | 59        | 11.662 | 11.662 | (0.761) | 2721113  | 2558.94        | 2560    |
| 23 Acrylonitrile                   | 53        | 11.926 | 11.926 | (0.779) | 712032   | 233.786        | 234     |
| 27 Isopropyl ether                 | 45        | 12.901 | 12.900 | (0.842) | 1356078  | 46.9674        | 47.0    |
| 29 2-Chloro-1,3-butadiene          | 53        | 12.961 | 12.961 | (0.846) | 406606   | 44.0454        | 44.0    |
| 30 Ethyl tert-butyl ether          | 59        | 13.489 | 13.489 | (0.881) | 1022153  | 51.8280        | 51.8    |
| 32 Ethyl acetate                   | 43        | 13.804 | 13.804 | (0.901) | 1800079  | 196.594        | 196     |

|                                 |       |        |        |         |          | CONCENTRATIONS |          |
|---------------------------------|-------|--------|--------|---------|----------|----------------|----------|
| QUANT SIG                       |       |        |        |         |          | ON-COLUMN      | FINAL    |
| Compounds                       | MASS  | RT     | EXP RT | REL RT  | RESPONSE | ( ug/l)        | (ug/Kg)  |
| =====                           | ===== | ==     | =====  | =====   | =====    | =====          | =====    |
| 35 Propionitrile                | 54    | 13.804 | 13.804 | (0.901) | 282825   | 211.639        | 212      |
| 36 Methacrylonitrile            | 41    | 14.038 | 14.037 | (0.916) | 1141911  | 205.762        | 206      |
| 39 Tetrahydrofuran              | 42    | 14.159 | 14.159 | (0.675) | 645666   | 194.314        | 194      |
| 42 Isobutyl alcohol             | 41    | 14.748 | 14.748 | (0.963) | 889282   | 2194.08        | 2190     |
| \$ 46 1,2-Dichloroethane-d4     | 65    | 14.880 | 14.880 | (0.972) | 483916   | 49.5129        | 49.5     |
| 49 Methyl tert-amyl ether       | 73    | 15.073 | 15.073 | (0.984) | 810647   | 53.4956        | 53.5     |
| * 51 Fluorobenzene              | 96    | 15.317 | 15.317 | (1.000) | 1131225  | 50.0000        |          |
| 54 Methyl methacrylate          | 69    | 16.078 | 16.078 | (1.050) | 1106710  | 225.592        | 226      |
| 57 1,4-Dioxane                  | 88    | 16.159 | 16.159 | (1.055) | 171308   | 2323.32        | 2320     |
| 60 2-Nitropropane               | 43    | 16.555 | 16.555 | (1.081) | 751077   | 236.536        | 236      |
| \$ 64 Toluene-d8                | 98    | 17.134 | 17.134 | (0.918) | 1278316  | 49.5506        | 49.6     |
| 66 Ethyl methacrylate           | 69    | 17.408 | 17.408 | (0.933) | 1983756  | 218.624        | 219      |
| 74 1-Chlorohexane               | 55    | 18.575 | 18.575 | (1.213) | 363136   | 50.2592        | 50.2     |
| * 75 Chlorobenzene-d5           | 117   | 18.667 | 18.667 | (1.000) | 792646   | 50.0000        |          |
| 84 cis-1,4-Dichloro-2-butene    | 53    | 19.662 | 19.661 | (0.937) | 736785   | 238.930        | 239      |
| 85 Cyclohexanone                | 55    | 19.773 | 19.773 | (1.059) | 614241   | 1370.97        | 1370 (A) |
| \$ 86 Bromofluorobenzene        | 95    | 19.814 | 19.814 | (0.944) | 502593   | 48.2052        | 48.2     |
| 88 trans-1,4-Dichloro-2-butene  | 53    | 19.926 | 19.925 | (0.949) | 670091   | 240.783        | 241      |
| 97 Pentachloroethane            | 167   | 20.596 | 20.595 | (0.981) | 463673   | 207.596        | 208      |
| * 101 1,4-Dichlorobenzene-d4    | 152   | 20.992 | 20.992 | (1.000) | 396360   | 50.0000        |          |
| 103 Benzyl chloride             | 91    | 21.124 | 21.123 | (1.006) | 2497418  | 254.264        | 254      |
| 106 bis(2-Chloroisopropyl)ether | 45    | 21.509 | 21.509 | (1.025) | 1160983  | 209.370        | 209      |

#### QC Flag Legend

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

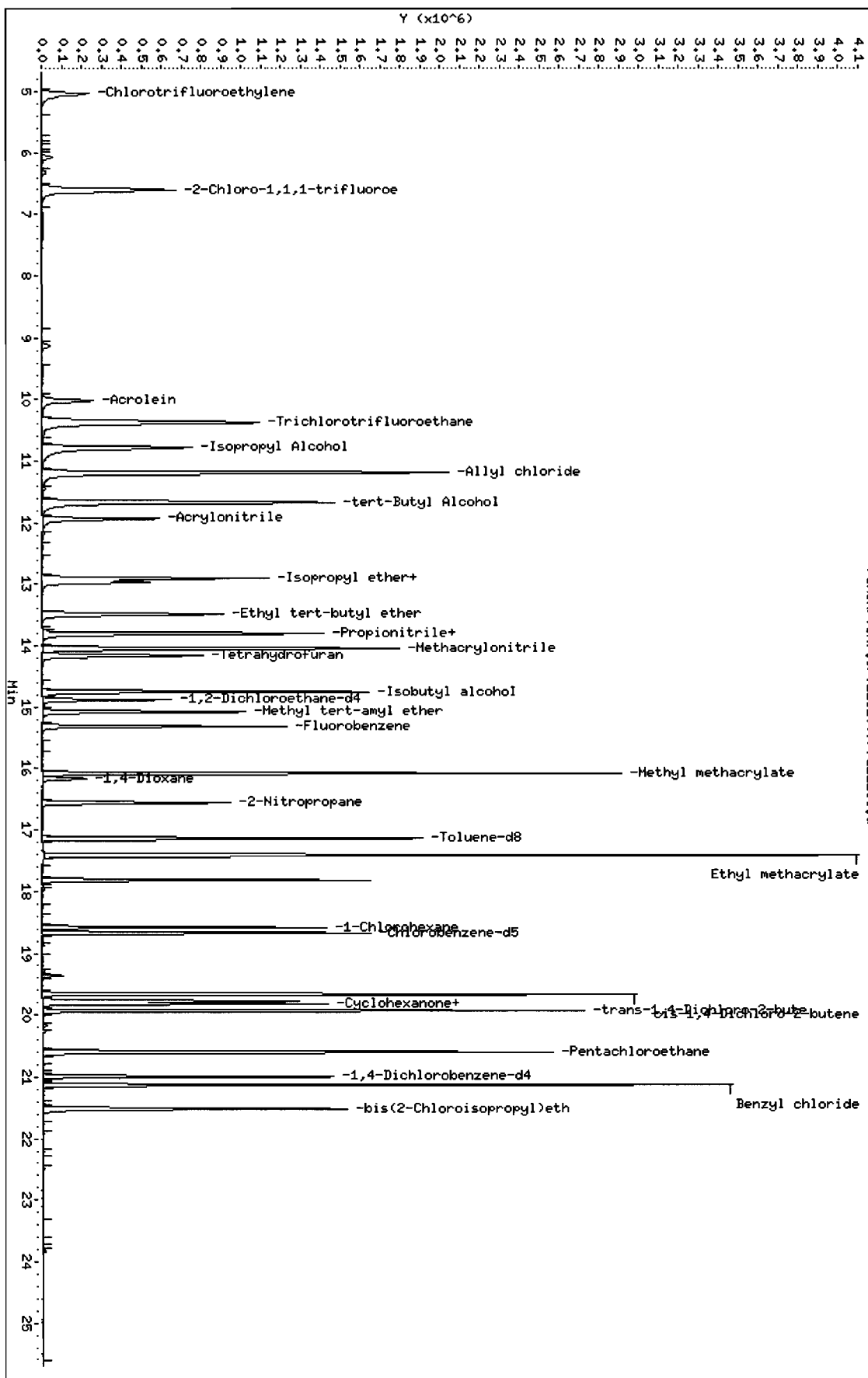


Data File: /chem/V007.i/022310v7/7a22211.d  
 Date : 23-FEB-2010 21:37  
 Client ID: SLCS  
 Sample Info: 11202051374196673911.V007.11

Column phase: DB-624

/chem/V007.i/022310v7/7a22211.d

Instrument: V007.i  
 Operator: AX01  
 Column diameter: 0.25



**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914

Lab Sample ID: 1202065433

Client Sample: QC for batch 956738

Client ID: LCS for batch 956738

Batch ID: 956739

Run Date: 02/24/2010 13:07

Prep Date: 02/24/2010 10:00

Data File: 7a30611.d

Client: LANL010

Method: SW846 8260B

Inst: VOA7.I

Analyst: AXO1

Aliquot: 5 g

Column: DB-624

Matrix: SOIL

Project: QC

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

Level: LOW

| CAS No.    | Parmname                    | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-----------------------------|-----------|--------|-------|---------|---------|
| 75-71-8    | Dichlorodifluoromethane     | U         | 1.00   | ug/kg | 0.340   | 1.00    |
| 74-87-3    | Chloromethane               | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-01-4    | Vinyl chloride              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-83-9    | Bromomethane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-00-3    | Chloroethane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-69-4    | Trichlorofluoromethane      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 67-64-1    | Acetone                     | U         | 5.00   | ug/kg | 1.66    | 5.00    |
| 75-35-4    | 1,1-Dichloroethylene        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-88-4    | Iodomethane                 | U         | 5.00   | ug/kg | 1.60    | 5.00    |
| 75-09-2    | Methylene chloride          | U         | 5.00   | ug/kg | 2.00    | 5.00    |
| 75-15-0    | Carbon disulfide            | U         | 5.00   | ug/kg | 1.25    | 5.00    |
| 156-60-5   | trans-1,2-Dichloroethylene  | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-34-3    | 1,1-Dichloroethane          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 78-93-3    | 2-Butanone                  | U         | 5.00   | ug/kg | 1.50    | 5.00    |
| 156-59-2   | cis-1,2-Dichloroethylene    | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 594-20-7   | 2,2-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 67-66-3    | Chloroform                  | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-97-5    | Bromochloromethane          | U         | 1.00   | ug/kg | 0.330   | 1.00    |
| 71-55-6    | 1,1,1-Trichloroethane       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 563-58-6   | 1,1-Dichloropropene         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 56-23-5    | Carbon tetrachloride        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 107-06-2   | 1,2-Dichloroethane          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 71-43-2    | Benzene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-01-6    | Trichloroethylene           | U         | 1.00   | ug/kg | 0.330   | 1.00    |
| 78-87-5    | 1,2-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-27-4    | Bromodichloromethane        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 74-95-3    | Dibromomethane              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-10-1   | 4-Methyl-2-pentanone        | U         | 5.00   | ug/kg | 1.25    | 5.00    |
| 10061-01-5 | cis-1,3-Dichloropropylene   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-88-3   | Toluene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 10061-02-6 | trans-1,3-Dichloropropylene | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-00-5    | 1,1,2-Trichloroethane       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 591-78-6   | 2-Hexanone                  | U         | 5.00   | ug/kg | 1.50    | 5.00    |
| 142-28-9   | 1,3-Dichloropropane         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 127-18-4   | Tetrachloroethylene         | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 124-48-1   | Dibromochloromethane        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-93-4   | 1,2-Dibromoethane           | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-90-7   | Chlorobenzene               | U         | 1.00   | ug/kg | 0.300   | 1.00    |

**Volatile**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-1914  
 Lab Sample ID: 1202065433  
 Client Sample: QC for batch 956738  
 Client ID: LCS for batch 956738  
 Batch ID: 956739  
 Run Date: 02/24/2010 13:07  
 Prep Date: 02/24/2010 10:00  
 Data File: 7a306ll.d

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA7.I  
 Analyst: AXO1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL  
 Level: LOW

| CAS No.     | Parmname                              | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-------------|---------------------------------------|-----------|--------|-------|---------|---------|
| 100-41-4    | Ethylbenzene                          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 179601-23-1 | m,p-Xylenes                           | U         | 2.00   | ug/kg | 0.300   | 2.00    |
| 95-47-6     | o-Xylene                              | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 100-42-5    | Styrene                               | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 75-25-2     | Bromoform                             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 79-34-5     | 1,1,2,2-Tetrachloroethane             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 96-18-4     | 1,2,3-Trichloropropane                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-86-1    | Bromobenzene                          | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 103-65-1    | n-Propylbenzene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-49-8     | 2-Chlorotoluene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 98-82-8     | Isopropylbenzene                      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 108-67-8    | 1,3,5-Trimethylbenzene                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-43-4    | 4-Chlorotoluene                       | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 98-06-6     | tert-Butylbenzene                     | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-63-6     | 1,2,4-Trimethylbenzene                | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 135-98-8    | sec-Butylbenzene                      | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 99-87-6     | 4-Isopropyltoluene                    | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 541-73-1    | 1,3-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 106-46-7    | 1,4-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 104-51-8    | n-Butylbenzene                        | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 96-12-8     | 1,2-Dibromo-3-chloropropane           | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 76-13-1     | 1,1,2-Trichloro-1,2,2-Trifluoroethane |           | 258    | ug/kg | 1.60    | 5.00    |
|             | Trichlorotrifluoroethane              |           |        |       |         |         |
| 630-20-6    | 1,1,1,2-Tetrachloroethane             | U         | 1.00   | ug/kg | 0.300   | 1.00    |
| 95-50-1     | 1,2-Dichlorobenzene                   | U         | 1.00   | ug/kg | 0.300   | 1.00    |

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
Data file : /chem/VOA7.i/022410v7/7a30611.d  
Lab Smp Id: 1202065433 Client Smp ID: SLCS  
Inj Date : 24-FEB-2010 13:07  
Operator : AX01 Inst ID: VOA7.i  
Smp Info : |1202065433|956739|1|VOAF|1|  
Misc Info : GEL 5g N/A UVM091216-08B/UVM100125-08D  
Comment :  
Method : /chem/VOA7.i/022410v7/VOA7-8260B-021710.m  
Meth Date : 08-Mar-2010 14:52 ale01592 Quant Type: ISTD  
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
Als bottle: 6 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: all.sub  
Target Version: 3.50  
Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M)) \* (Vt/Ws) \* (Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 0.00000   | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable Local Compound Variable

| Compounds                          | QUANT SIG |        |        |         |          | CONCENTRATIONS       |                  |
|------------------------------------|-----------|--------|--------|---------|----------|----------------------|------------------|
|                                    | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| 147 Chlorotrifluoroethylene        | 116       | 5.029  | 5.029  | (0.328) | 302310   | 128.526              | 128              |
| 148 2-Chloro-1,1,1-trifluoroethane | 118       | 6.603  | 6.604  | (0.431) | 686713   | 147.022              | 147              |
| 11 Acrolein                        | 56        | 10.017 | 10.017 | (0.654) | 361442   | 339.667              | 340              |
| 12 Trichlorotrifluoroethane        | 85        | 10.373 | 10.373 | (0.677) | 499080   | 258.106              | 258              |
| 15 Isopropyl Alcohol               | 45        | 10.779 | 10.779 | (0.704) | 1812092  | 2517.64              | 2520             |
| 20 Allyl chloride                  | 41        | 11.185 | 11.185 | (0.730) | 2418092  | 230.304              | 230              |
| 21 tert-Butyl Alcohol              | 59        | 11.662 | 11.662 | (0.761) | 2599426  | 2498.83              | 2500             |
| 23 Acrylonitrile                   | 53        | 11.926 | 11.926 | (0.779) | 790690   | 265.382              | 265              |
| 27 Isopropyl ether                 | 45        | 12.900 | 12.901 | (0.842) | 1353639  | 47.9249              | 47.9             |
| 29 2-Chloro-1,3-butadiene          | 53        | 12.961 | 12.961 | (0.846) | 498483   | 55.1979              | 55.2             |
| 30 Ethyl tert-butyl ether          | 59        | 13.489 | 13.489 | (0.881) | 1035865  | 53.6905              | 53.7             |
| 32 Ethyl acetate                   | 43        | 13.804 | 13.794 | (0.901) | 1938704  | 216.440              | 216              |

| Compounds                        | QUANT SIG |        |        |         |          | CONCENTRATIONS       |                  |
|----------------------------------|-----------|--------|--------|---------|----------|----------------------|------------------|
|                                  | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| =====                            | =====     | ==     | =====  | =====   | =====    | =====                | =====            |
| 35 Propionitrile                 | 54        | 13.804 | 13.804 | (0.901) | 320304   | 245.011              | 245              |
| 36 Methacrylonitrile             | 41        | 14.037 | 14.038 | (0.916) | 1260115  | 232.107              | 232              |
| 39 Tetrahydrofuran               | 42        | 14.159 | 14.159 | (0.675) | 718404   | 215.020              | 215              |
| 42 Isobutyl alcohol              | 41        | 14.748 | 14.748 | (0.963) | 923246   | 2328.50              | 2330             |
| \$ 46 1,2-Dichloroethane-d4      | 65        | 14.880 | 14.880 | (0.972) | 486229   | 50.8552              | 50.8             |
| 49 Methyl tert-amyl ether        | 73        | 15.073 | 15.073 | (0.984) | 827541   | 55.8241              | 55.8             |
| * 51 Fluorobenzene               | 96        | 15.316 | 15.317 | (1.000) | 1106631  | 50.0000              |                  |
| 54 Methyl methacrylate           | 69        | 16.078 | 16.078 | (1.050) | 1244260  | 259.267              | 259              |
| 57 1,4-Dioxane                   | 88        | 16.159 | 16.159 | (1.055) | 190527   | 2641.40              | 2640             |
| 60 2-Nitropropane                | 43        | 16.555 | 16.555 | (1.081) | 842606   | 271.258              | 271              |
| \$ 64 Toluene-d8                 | 98        | 17.134 | 17.134 | (0.918) | 1271411  | 49.4816              | 49.5             |
| 66 Ethyl methacrylate            | 69        | 17.408 | 17.408 | (0.933) | 2216002  | 245.203              | 245              |
| 74 1-Chlorohexane                | 55        | 18.575 | 18.575 | (1.213) | 367100   | 51.9370              | 51.9             |
| * 75 Chlorobenzene-d5            | 117       | 18.667 | 18.667 | (1.000) | 789464   | 50.0000              |                  |
| 84 cis-1,4-Dichloro-2-butene     | 53        | 19.662 | 19.662 | (0.937) | 835623   | 269.499              | 269              |
| 85 Cyclohexanone                 | 55        | 19.773 | 19.773 | (1.059) | 1144949  | 2565.81              | 2560 (AR)        |
| \$ 86 Bromofluorobenzene         | 95        | 19.814 | 19.814 | (0.944) | 506774   | 48.3401              | 48.3             |
| 88 trans-1,4-Dichloro-2-butene   | 53        | 19.925 | 19.926 | (0.949) | 748465   | 267.472              | 267              |
| 97 Pentachloroethane             | 167       | 20.595 | 20.596 | (0.981) | 789380   | 351.487              | 351 (A)          |
| * 101 1,4-Dichlorobenzene-d4     | 152       | 20.991 | 20.992 | (1.000) | 398542   | 50.0000              |                  |
| 103 Benzyl chloride              | 91        | 21.123 | 21.124 | (1.006) | 3029401  | 306.737              | 307              |
| 106 bis(2-Chloroisopropyl) ether | 45        | 21.509 | 21.509 | (1.025) | 1273522  | 228.407              | 228              |

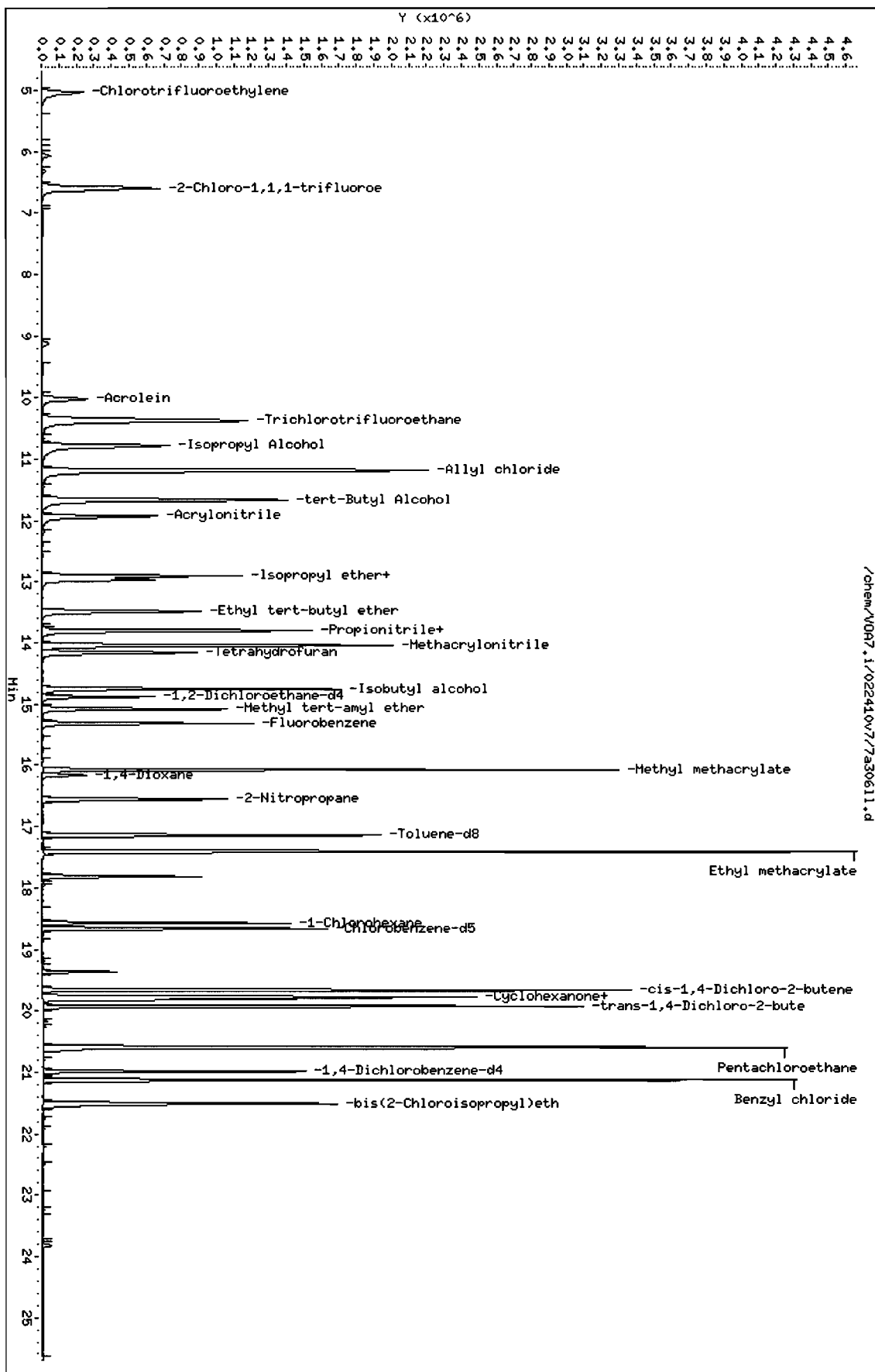
#### QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- R - Spike/Surrogate failed recovery limits.

Data File: /chem/V067.i/022410v7/7330611.d  
 Date : 24-FEB-2010 13:07  
 Client ID: SLCS  
 Sample Info: 11202065433195673911.V06711

Column phase: DB-624

Instrument: V067.i  
 Operator: AX01  
 Column diameter: 0.25



# Miscellaneous Data

# Prep Logbook

## Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

|                    |                         |              |  |      |           |             |               |              |             |
|--------------------|-------------------------|--------------|--|------|-----------|-------------|---------------|--------------|-------------|
| <b>Batch ID:</b>   | <b>956738</b>           | Verified by: |  | Type | Sample Id | Description | Serial Number | Spike Amount | Spike Units |
| <b>Analyst:</b>    | Alex Olson              |              |  |      |           |             |               |              |             |
| <b>Method:</b>     | SW846 5030              |              |  |      |           |             |               |              |             |
| <b>Lab SOP:</b>    | GL-OA-E-038 REV# 14     |              |  |      |           |             |               |              |             |
| <b>Instrument:</b> | Sartorius Balance B-001 |              |  |      |           |             |               |              |             |

| Sample ID                  | Run Date             | Matrix     | Initial Weight (g) | Final Volume (mL) | Prep Factor (mL/g) | pH Check 1 |
|----------------------------|----------------------|------------|--------------------|-------------------|--------------------|------------|
| 1202051370 MB              | 23-FEB-2010 15:00:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 1202051373 LCS             | 23-FEB-2010 15:00:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 1202051374 LCS             | 23-FEB-2010 15:00:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247332001                  | 23-FEB-2010 15:36:00 | Misc Solid | 5                  | 5                 | 1                  | N/A        |
| 247332002                  | 23-FEB-2010 15:38:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 1202051371 PS (247332002)  | 23-FEB-2010 15:40:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 1202051372 PSD (247332002) | 23-FEB-2010 15:42:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247332004                  | 23-FEB-2010 15:46:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247332006                  | 23-FEB-2010 15:50:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247332007                  | 23-FEB-2010 15:52:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247332008                  | 23-FEB-2010 15:54:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247358001                  | 23-FEB-2010 15:56:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247358002                  | 23-FEB-2010 15:58:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247358003                  | 23-FEB-2010 16:00:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 1202065431 MB              | 24-FEB-2010 10:00:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 1202065432 LCS             | 24-FEB-2010 10:00:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 1202065433 LCS             | 24-FEB-2010 10:00:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247332003                  | 24-FEB-2010 13:37:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247332005                  | 24-FEB-2010 13:39:00 | Soil       | 5                  | 5                 | 1                  | N/A        |
| 247358004                  | 24-FEB-2010 13:45:00 | Soil       | 5                  | 5                 | 1                  | N/A        |

| Reagent/Solvent Lot ID | Description | Amount | Comments: |
|------------------------|-------------|--------|-----------|
|------------------------|-------------|--------|-----------|

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC



Date: 2/17/2010 Method 8260B/624 Operator: AXO1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: Multiplier Voltage: 1941

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/17/2010  
(See pg. 43 for ICAL Std. Sci. Ids)  
NaHSO4 lot # N/A  
Cl test lot # N/A  
Sequence Number: 021710V7

Daily Standard Solution ID# Volume Added for Purge (ul) MS/ Bk/ Smp/ CCV LCS BFB  
LONG ICV W7VM100217-22 1 1 1 5+5  
IS UVM100203-01 1 1 1  
SS UVM100203-02 1 1 1  
SHORT ICV W7VM100217-23 5+5  
BFB UVM100203-02 1

Purge Amount  
5 Water Purge Vol:  
N/A Soil Purge Wt.  
N/A Mid level ext. MeOH Vol:  
N/A ul  
N/A Methanol Lot #  
x Heated Purge

| Analysis  |       |         | Data File     |     | Lab Sample ID | Client | Batch # | Wt.(g) or Vol(ml/ul) |    | Dil.   | AS |        | Matrix | Analyst | Ci test | Acceptable | Comments                    |
|-----------|-------|---------|---------------|-----|---------------|--------|---------|----------------------|----|--------|----|--------|--------|---------|---------|------------|-----------------------------|
| Date      | Time  |         |               |     |               |        |         |                      |    | Factor | pH | Slot # | w or s |         | (Y/N)   | (O/X)      |                             |
| 2/17/2010 | 8:37  | 72301.D | 120200-----   | GEL | RINSE         | 5mL    | 1       | N/A                  | 1  | N/A    | 1  | w      | AXO1   | N/A     | O       |            | UVM100106-07C/UVM100202-07C |
| 2/17/2010 | 9:12  | 72302.D | W7VM100217-01 | GEL | CCV           | 5mL    | 1       | N/A                  | 2  | N/A    | 2  | w      | AXO1   | N/A     | X       |            | UVM100126-01D/IVM100214-01  |
| 2/17/2010 | 9:47  | 72303.D | W7VM100217-02 | GEL | LCS           | 5mL    | 1       | N/A                  | 3  | N/A    | 3  | w      | AXO1   | N/A     | X       |            | UVM100126-01D/IVM100214-01  |
| 2/17/2010 | 10:22 | 72304.D | W7VM100217-03 | GEL | LCS           | 5g     | 1       | N/A                  | 4  | N/A    | 4  | s      | AXO1   | N/A     | X       |            | UVM100126-01D/IVM100214-01  |
| 2/17/2010 | 11:21 | 72305.D | W7VM100217-04 | GEL | LCS           | 5mL    | 1       | N/A                  | 5  | N/A    | 5  | w      | AXO1   | N/A     | X       |            | UVM100126-02C/IVM100214-01  |
| 2/17/2010 | 12:21 | 72306.D | 120200-----   | GEL | RINSE         | 5mL    | 1       | N/A                  | 1  | N/A    | 1  | w      | AXO1   | N/A     | X       |            |                             |
| 2/17/2010 | 12:54 | 72307.D | W7VM100217-05 | GEL | LCS           | 5mL    | 1       | N/A                  | 2  | N/A    | 2  | w      | AXO1   | N/A     | X       |            | UVM100126-01D/IVM100214-01  |
| 2/17/2010 | 14:55 | 72308.D | 120200-----   | GEL | RINSE         | 5mL    | 1       | N/A                  | 1  | N/A    | 1  | w      | AXO1   | N/A     | X       |            |                             |
| 2/17/2010 | 15:29 | 72309.D | UVM100203-02  | GEL | BFB01         | 5mL    | 1       | N/A                  | 2  | N/A    | 2  | w      | AXO1   | N/A     | O       |            |                             |
| 2/17/2010 | 16:02 | 72310.D | W7VM100217-06 | GEL | VSTD001       | 5mL    | 1       | N/A                  | 3  | N/A    | 3  | w      | AXO1   | N/A     | O       |            | UVM100106-02C/UVM100202-02C |
| 2/17/2010 | 16:35 | 72311.D | W7VM100217-07 | GEL | VSTD002       | 5mL    | 1       | N/A                  | 4  | N/A    | 4  | w      | AXO1   | N/A     | O       |            | UVM100106-03C/UVM100202-03C |
| 2/17/2010 | 17:09 | 72312.D | W7VM100217-08 | GEL | VSTD005       | 5mL    | 1       | N/A                  | 5  | N/A    | 5  | w      | AXO1   | N/A     | O       |            | UVM100106-04C/UVM100202-04C |
| 2/17/2010 | 17:44 | 72313.D | W7VM100217-09 | GEL | VSTD010       | 5mL    | 1       | N/A                  | 6  | N/A    | 6  | w      | AXO1   | N/A     | O       |            | UVM100106-05C/UVM100202-05C |
| 2/17/2010 | 18:20 | 72314.D | W7VM100217-10 | GEL | VSTD020       | 5mL    | 1       | N/A                  | 7  | N/A    | 7  | w      | AXO1   | N/A     | O       |            | UVM100106-06C/UVM100202-06C |
| 2/17/2010 | 18:55 | 72315.D | W7VM100217-11 | GEL | VSTD050       | 5mL    | 1       | N/A                  | 8  | N/A    | 8  | w      | AXO1   | N/A     | O       |            | UVM100106-07C/UVM100202-07C |
| 2/17/2010 | 19:30 | 72316.D | W7VM100217-12 | GEL | VSTD100       | 5mL    | 1       | N/A                  | 9  | N/A    | 9  | w      | AXO1   | N/A     | O       |            | UVM100106-08C/UVM100202-08C |
| 2/17/2010 | 20:05 | 72317.D | 120200-----   | GEL | RINSE         | 5mL    | 1       | N/A                  | 10 | N/A    | 10 | w      | AXO1   | N/A     | X       |            |                             |
| 2/17/2010 | 20:39 | 72318.D | W7VM100217-13 | GEL | VSTD0005      | 5mL    | 1       | N/A                  | 11 | N/A    | 11 | w      | AXO1   | N/A     | O       |            | UVM100106-01C/UVM100202-01C |
| 2/17/2010 | 21:14 | 72319.D | W7VM100217-14 | GEL | VSTD005S      | 5mL    | 1       | N/A                  | 12 | N/A    | 12 | w      | AXO1   | N/A     | O       |            | UVM100215-01/UVM100125-01D  |
| 2/17/2010 | 21:49 | 72320.D | W7VM100217-15 | GEL | VSTD010S      | 5mL    | 1       | N/A                  | 13 | N/A    | 13 | w      | AXO1   | N/A     | O       |            | UVM100215-02/UVM100125-02D  |
| 2/17/2010 | 22:24 | 72321.D | W7VM100217-16 | GEL | VSTD020S      | 5mL    | 1       | N/A                  | 14 | N/A    | 14 | w      | AXO1   | N/A     | O       |            | UVM100215-03/UVM100125-03D  |
| 2/17/2010 | 22:59 | 72322.D | W7VM100217-17 | GEL | VSTD050S      | 5mL    | 1       | N/A                  | 15 | N/A    | 15 | w      | AXO1   | N/A     | O       |            | UVM100215-04/UVM100125-04D  |
| 2/17/2010 | 23:33 | 72323.D | W7VM100217-18 | GEL | VSTD100S      | 5mL    | 1       | N/A                  | 16 | N/A    | 16 | w      | AXO1   | N/A     | O       |            | UVM100215-05/UVM100125-05D  |
| 2/18/2010 | 0:08  | 72324.D | W7VM100217-19 | GEL | VSTD250S      | 5mL    | 1       | N/A                  | 17 | N/A    | 17 | w      | AXO1   | N/A     | O       |            | UVM100215-06/UVM100125-06D  |
| 2/18/2010 | 0:42  | 72325.D | W7VM100217-20 | GEL | VSTD500S      | 5mL    | 1       | N/A                  | 18 | N/A    | 18 | w      | AXO1   | N/A     | O       |            | UVM100215-07/UVM100125-07D  |
| 2/18/2010 | 1:17  | 72326.D | 120200-----   | GEL | RINSE         | 5mL    | 1       | N/A                  | 19 | N/A    | 19 | w      | AXO1   | N/A     | X       |            |                             |
| 2/18/2010 | 1:52  | 72327.D | W7VM100217-21 | GEL | ICV           | 5mL    | 1       | N/A                  | 20 | N/A    | 20 | w      | AXO1   | N/A     | X       |            | UVM100126-02C/IVM100214-01  |
| 2/18/2010 | 2:27  | 72328.D | W7VM100217-22 | GEL | ICV           | 5mL    | 1       | N/A                  | 21 | N/A    | 21 | w      | AXO1   | N/A     | O       |            | UVM100126-01E/IVM100214-01  |
| 2/18/2010 | 3:03  | 72329.D | W7VM100217-23 | GEL | SICV          | 5mL    | 1       | N/A                  | 22 | N/A    | 22 | w      | AXO1   | N/A     | O       |            | UVM091216-08B/UVM100125-08C |
| 2/18/2010 | 3:38  | 72330.D | 120200-----   | GEL | RINSE         | 5mL    | 1       | N/A                  | 23 | N/A    | 23 | w      | AXO1   | N/A     | X       |            |                             |



Date: 2/24/2010 Method 8260B/624 Operator: AXO1  
 REVIEWED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 Multiplier Voltage: 1941

Daily Instrument Readings:

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/17/2010

(See pg. 43 for ICAI Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # 81710

Sequence Number: 022410V7

Daily Standard Volume Added for Purge (ul) MS/ Bk/ LCS

| Solution ID# | CCV              | W7VM100224-01 | 1 | 1 | 1   |
|--------------|------------------|---------------|---|---|-----|
| IS           | UVM100203-01     | 1             | 1 | 1 | 1   |
| SS           | UVM100203-02     | 1             | 1 | 1 | 1   |
| LCS/MS       | W7VM100224-02/03 |               |   |   | 5+5 |
| BFB          | UVM100203-02     |               |   |   | 1   |
| SHORT        | W7VM100224-04/05 |               |   |   | 5+5 |
| DEEC         | n/a              |               |   |   |     |

Purge Amount

| Purge | Amount                   |
|-------|--------------------------|
| 5     | Water Purge Vol:         |
| 5g    | Soil Purge Wt.           |
| Y     | Mid level ext. MeOH Vol: |
| 100   | ul                       |
| DA057 | Methanol Lot #           |
| x     | Heated Purge             |

| Analysis Date | Time  | Data File | Lab Sample ID | Client | Batch #    | Wt.(g) or Vol(ml/ul) | Dil. Factor | AS Slot # | Matrix w or s | Analyst | CI test (Y/N) | Acceptable (O/X) | Comments                    |
|---------------|-------|-----------|---------------|--------|------------|----------------------|-------------|-----------|---------------|---------|---------------|------------------|-----------------------------|
| 2/24/2010     | 10:18 | 7A301.D   | 120200-....   | GEL    | RINSE      | 5mL                  | 1           | N/A       | 1             | AXO1    | N/A           | X                |                             |
| 2/24/2010     | 10:51 | 7A302.D   | W7VM100224-01 | GEL    | BFB/CCV    | 5mL                  | 1           | N/A       | 2             | AXO1    | N/A           | O                | UVM100106-07C/UVM100202-07D |
| 2/24/2010     | 11:25 | 7A303.D   | W7VM100224-02 | GEL    | LCS        | 5mL                  | 1           | N/A       | 3             | AXO1    | N/A           | O                | UVM100220-01A/UVM100218-01  |
| 2/24/2010     | 11:59 | 7A304.D   | W7VM100224-03 | GEL    | LCS        | 5g                   | 1           | N/A       | 4             | AXO1    | N/A           | O                | UVM100220-01A/UVM100218-01  |
| 2/24/2010     | 12:33 | 7A305.D   | W7VM100224-04 | GEL    | SHORT/SLCS | 5mL                  | 1           | N/A       | 5             | AXO1    | N/A           | O                | UVM091216-08B/UVM100125-08D |
| 2/24/2010     | 13:07 | 7A306.D   | W7VM100224-05 | GEL    | SLCS       | 5g                   | 1           | N/A       | 6             | AXO1    | N/A           | O                | UVM091216-08B/UVM100125-08D |
| 2/24/2010     | 13:41 | 7A307.D   | 120200-....   | GEL    | BLANK      | 5mL                  | 1           | N/A       | 7             | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 14:15 | 7A308.D   | 120200-....   | GEL    | BLANK      | 5g                   | 1           | N/A       | 8             | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 14:49 | 7A309.D   | 246979001     | LBNL   | 956212     | 10uL                 | 500000      | pH5       | 9             | AXO1    | N             | X                | FROM 1000X                  |
| 2/24/2010     | 15:24 | 7A310.D   | 247332003     | LANL   | 956739     | 5g                   | 1           | N/A       | 10            | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 15:59 | 7A311.D   | 247332005     | LANL   | 956739     | 5g                   | 1           | N/A       | 11            | AXO1    | N/A           | O                | IS Failure confirms         |
| 2/24/2010     | 16:32 | 7A312.D   | 247358001     | LANL   | 956739     | 5g                   | 1           | N/A       | 12            | AXO1    | N/A           | X                | IS Failure confirms         |
| 2/24/2010     | 17:07 | 7A313.D   | 247358002     | LANL   | 956739     | 5g                   | 1           | N/A       | 13            | AXO1    | N/A           | X                | IS Failure confirms         |
| 2/24/2010     | 17:43 | 7A314.D   | 247358004     | LANL   | 956739     | 5g                   | 1           | N/A       | 14            | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 18:18 | 7A315.D   | 247311001     | BY12   | 957216     | 5mL                  | 1           | pH2       | 15            | AXO1    | N             | O                |                             |
| 2/24/2010     | 18:52 | 7A316.D   | 246939004     | BY12   | 957213     | 0.5mL                | 10          | N/A       | 16            | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 19:26 | 7A317.D   | 246939010     | BY12   | 957213     | 0.5mL                | 10          | N/A       | 17            | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 20:00 | 7A318.D   | 246939017     | BY12   | 957213     | 0.5mL                | 10          | N/A       | 18            | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 20:34 | 7A319.D   | 246939018     | BY12   | 957213     | 0.5mL                | 10          | N/A       | 19            | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 21:08 | 7A320.D   | 246939022     | BY12   | 957213     | 0.5mL                | 10          | N/A       | 20            | AXO1    | N/A           | O                |                             |
| 2/24/2010     | 21:44 | 7A321.D   | 1202052437    | BY12   | 957213     | 0.5mL                | 10          | N/A       | 21            | AXO1    | N/A           | O                | MS 246939004                |
| 2/24/2010     | 22:19 | 7A322.D   | 1202052438    | BY12   | 957213     | 0.5mL                | 10          | N/A       | 22            | AXO1    | N/A           | O                | MSD 246939004               |

### DATA EXCEPTION REPORT

|  |                                      |  |                             |
|--|--------------------------------------|--|-----------------------------|
| <b>Mo. Day Yr.</b><br>15-MAR-10  | <b>Division:</b><br>Industrial       | <b>Quality Criteria:</b><br>Specifications   | <b>Type:</b><br>Process     |
| <b>Instrument Type:</b><br>VOA GC/MS   | <b>Test / Method:</b><br>SW846 8260B | <b>Matrix Type:</b><br>Solid   | <b>Client Code:</b><br>LANL |
| <b>Batch ID:</b><br>956739   | <b>Sample Numbers:</b><br>See Below  |  |                             |
| <p><b>Potentially affected work order(s)(SDG): 247332(10-1905),247358(10-1914)</b></p> <p><b>Application Issues:</b></p> <p>Failed Recovery for MS/PS</p> <p>Failed RPD for MS/MSD, or PS/PSD</p> <p>Other</p> <p>Failed Yield for Surrogates</p> <p>Failed Recovery for MSD/PSD</p>   |                                      |  |                             |
| <b>Specification and Requirements</b>  |                                      | <b>DER Disposition:</b>  |                             |
| <p><b>Exception Description:</b></p> <p>1. The MS 1202051371 did not meet acceptance criteria for the following target analytes:</p> <p>1,1,2,2-Tetrachloroethane recovered at 1.52%. The limits are 52%-129%.</p> <p>Trichloroethylene recovered at 140.9%. The limits are 54%-130%.</p> <p>2. The MS/MSD did not meet acceptance criteria for RPD recoveries.</p> <p>3. Sample 247358001 did not meet recovery acceptance criteria for surrogate recoveries:</p> <p>Toluene-d8 recovered at 132.2%. The limits are 71%-128%.</p> <p>4. The MSD 1202051372 did not meet recovery acceptance criteria for the following target analytes:</p> <p>1,1,2,2-Tetrachloroethane recovered at 1.57%. The limits are 52%-129%.</p> <p>1,1-Dichloropropene recovered at 57.2%. The limits are 59%-126%.</p> <p>Carbon disulfide recovered at 42.7%. The limits are 53%-133%.</p> <p>5. Samples 247358001, 002, and 247332005 did not meet acceptance criteria for Internal standard recovery.</p> |                                      | <p>1.,2.,4., The Matrix Spike and Matrix Spike duplicate did not meet all acceptance criteria for recovery and Relative Percent Difference (RPD). The failures are attributed to inconsistent matrix effect and data narrated and reported.</p> <p>3., Sample 247358001 did not meet acceptance criteria for Toluene-d8 recovery (Surrogate). Sample re-analysis confirms the matrix effect. Data narrated and reported</p> <p>5., Samples 247358001,002 and 247332005 did not meet the acceptance criteria for internal standard recovery. Sample re-analysis confirms the matrix effect. Data narrated and reported.</p> |                             |

**Originator's Name:**

Alex Olson

15-MAR-10

**Data Validator/Group Leader:**

Kelle Bellamy

16-MAR-10

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
 Data file : /chem/VOA7.i/022310v7/7a226.d  
 Lab Smp Id: 247332002 Client Smp ID: RE15-10-8346  
 Inj Date : 23-FEB-2010 23:53  
 Operator : AX01 Inst ID: VOA7.i  
 Smp Info : |247332002|956739|1|VOAF|1|  
 Misc Info : LANL 5g N/A  
 Comment :  
 Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
 Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
 Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
 Als bottle: 26  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1905.sub  
 Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M)) \* (Vt/Ws) \* (Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 10.53080  | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable Local Compound Variable

| Compounds                    | QUANT SIG |        |        |         |          |  | CONCENTRATIONS |         |
|------------------------------|-----------|--------|--------|---------|----------|--|----------------|---------|
|                              | MASS      | RT     | EXP RT | REL RT  | RESPONSE |  | ON-COLUMN      | FINAL   |
|                              | =====     | ==     | =====  | =====   | =====    |  | ( ug/l)        | (ug/Kg) |
| * 51 Fluorobenzene           | 96        | 15.316 | 15.317 | (1.000) | 905561   |  | 50.0000        |         |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 | (1.000) | 659705   |  | 50.0000        |         |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.991 | 20.992 | (1.000) | 321035   |  | 50.0000        |         |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 | (0.971) | 415827   |  | 53.1487        | 59.4    |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 | (0.918) | 1055874  |  | 49.1759        | 55.0    |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 | (0.944) | 394902   |  | 46.7632        | 52.3    |
| 13 Acetone                   | 43        | 10.464 | 10.413 | (0.683) | 52262    |  | 8.61603        | 9.6     |

## ION RATIO REPORT

## VOA REPORT

Data file: 7a226.d

Report Date: 02/24/2010 09:26

Lab. ID: 247332002

SampleType: SAMPLE

Injection Date: 23-FEB-2010 23:53

Operator: AX01

Instrument: VOA7.i

Sample Info: |247332002|956739|1|VOAF|1|

Miscellaneous Info: LANL 5g N/A

Comment:

Method used: /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1905

Sample Matrix: SOIL

| MASS                      | RESPONSE | RT             | EXPECT RT | TARGET RANGE | RATIO | QUAL |
|---------------------------|----------|----------------|-----------|--------------|-------|------|
| =====                     |          |                |           |              |       |      |
| 13 Acetone                |          | CAS#: 67-64-1  |           |              |       |      |
| 43                        | 52262    | 10.46          | 10.41     | 80-120       | 100   | ( )  |
| 58                        | 13048    | 10.44          | 10.41     | 0- 59        | 25    | ( )  |
| -----                     |          |                |           |              |       |      |
| 63 4-Methyl-2-pentanone   |          | CAS#: 108-10-1 |           |              |       |      |
| 58                        | 13094    | 17.13          | 16.93     | 80-120       | 100   | (T)  |
| 43                        | 8175     | 17.13          | 16.93     | 221-281      | 62    | (QT) |
| 100                       | 729632   | 17.13          | 16.94     | 0- 57        | 5572  | (QT) |
| -----                     |          |                |           |              |       |      |
| 82 Bromoform              |          | CAS#: 75-25-2  |           |              |       |      |
| 173                       | 1191     | 19.81          | 19.54     | 80-120       | 100   | (T)  |
| 175                       | 19431    | 19.81          | 19.54     | 19- 79       | 1630  | (QT) |
| -----                     |          |                |           |              |       |      |
| 89 1,2,3-Trichloropropane |          | CAS#: 96-18-4  |           |              |       |      |
| 110                       | 519      | 19.69          | 19.97     | 80-120       | 100   | (T)  |
| 75                        | 3055     | 19.69          | 19.97     | 315-375      | 588   | (QT) |
| 77                        | 156      | 19.70          | 19.97     | 94-154       | 30    | (QT) |

-----  
Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026  
 Data file : /chem/VOA7.i/022310v7/7a226.d  
 Lab Smp Id: 247332002 Client Smp ID: RE15-10-8346  
 Inj Date : 23-FEB-2010 23:53  
 Operator : AX01 Inst ID: VOA7.i  
 Smp Info : |247332002|956739|1|VOAF|1|  
 Misc Info : LANL 5g N/A  
 Comment :  
 Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m  
 Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD  
 Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d  
 Als bottle: 26  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1905.sub  
 Target Version: 3.50

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 10.53080  | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable Local Compound Variable

| ISTD                  | RT     | AREA    | AMOUNT |
|-----------------------|--------|---------|--------|
| * 75 Chlorobenzene-d5 | 18.667 | 2490853 | 50.000 |

| CONCENTRATIONS |      |                |               | QUANT |         |           |        |
|----------------|------|----------------|---------------|-------|---------|-----------|--------|
| RT             | AREA | ON-COL ( ug/l) | FINAL (ug/Kg) | QUAL  | LIBRARY | LIB ENTRY | CPND # |

|                     |        |            |      |        |  |   |    |
|---------------------|--------|------------|------|--------|--|---|----|
| Unknown Hydrocarbon |        |            |      | CAS #: |  |   |    |
| 19.651              | 461655 | 9.26699624 | 10.4 | 0      |  | 0 | 75 |

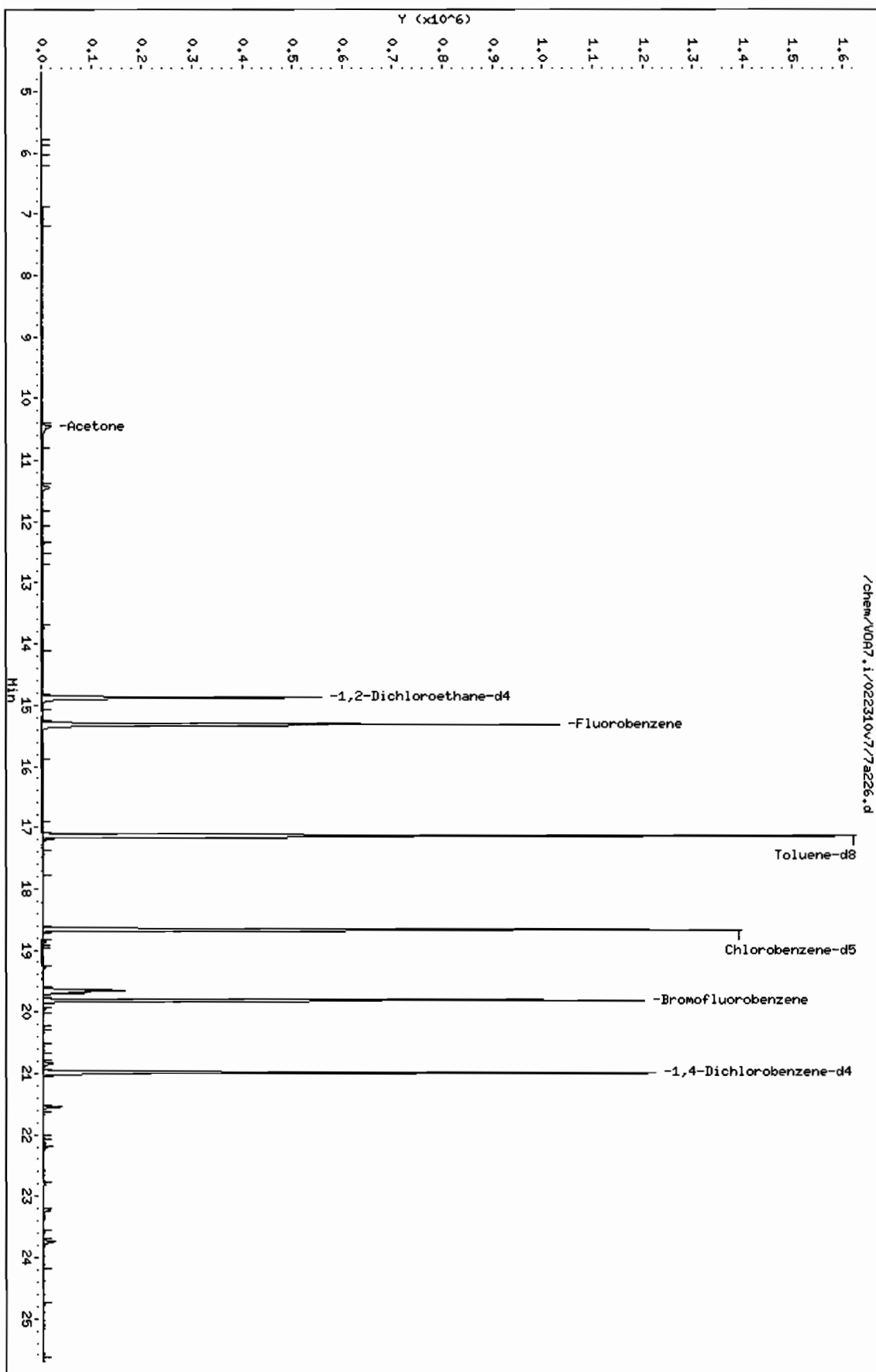
Data File: /chem/V007.1/022310v7/7a226.d  
Date : 23-FEB-2010 23:53  
Client ID: RE15-10-8346  
Sample Info: 1247332002195673911V00F1.1

Column phase: DB-624

Instrument: V007.1

Operator: AX01

Column diameter: 0.25





Date : 23-FEB-2010 23:53

Client ID: RE15-10-8346

Instrument: V0A7.i

Sample Info: I247332002I9567391IIV0AF11I

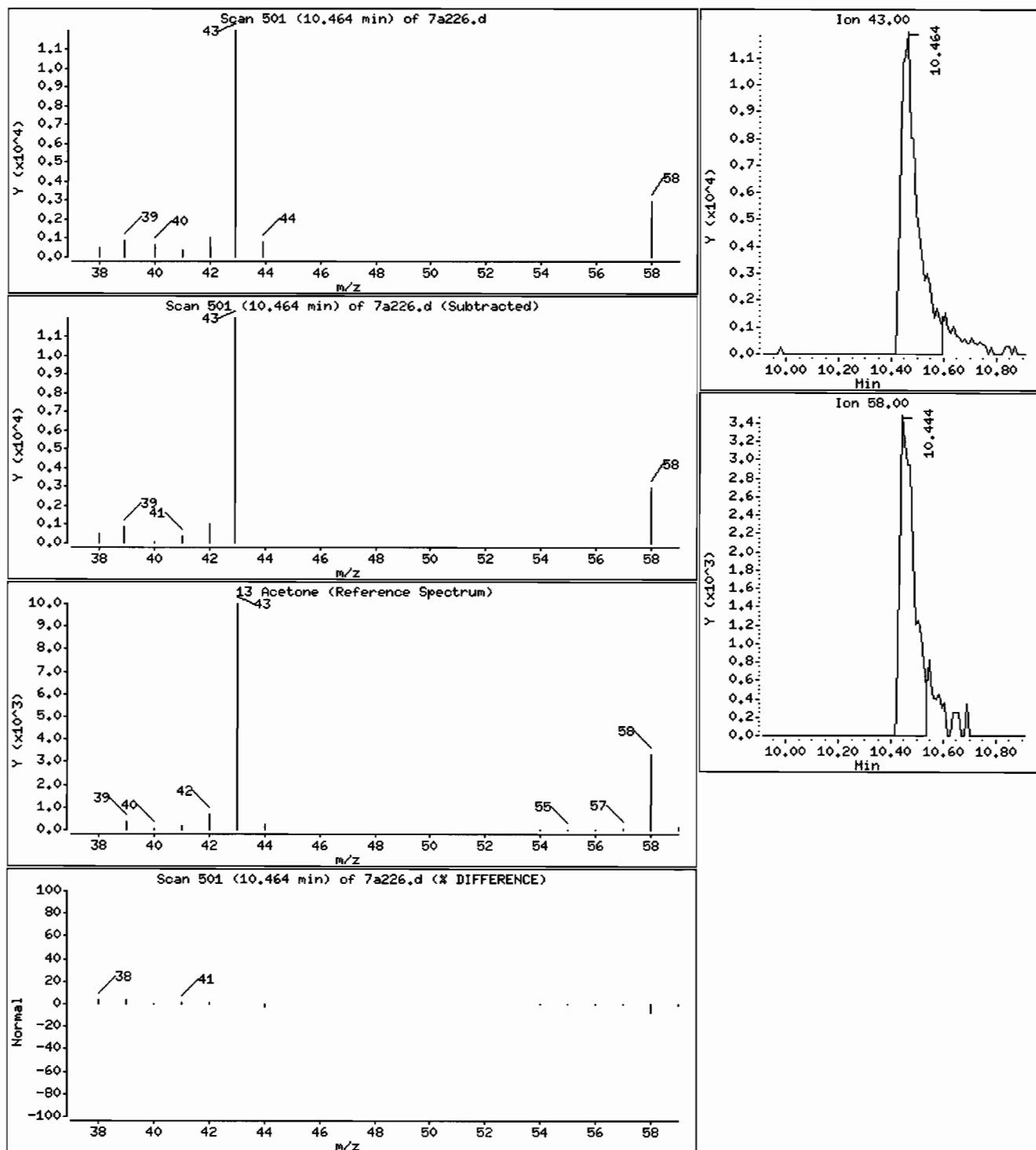
Operator: AX01

Column phase: DB-624

Column diameter: 0.25

13 Acetone

Concentration: 9.6 ug/Kg



Date : 23-FEB-2010 23:53

Client ID: RE15-10-8346

Instrument: V0A7.i

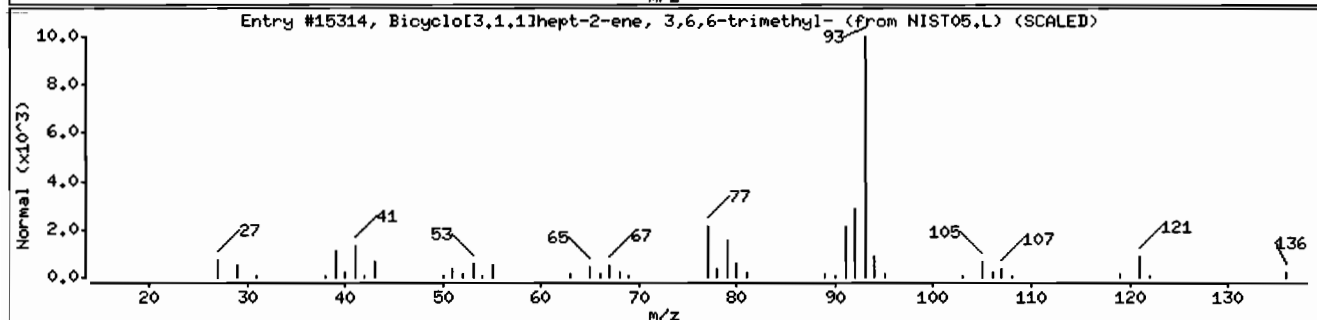
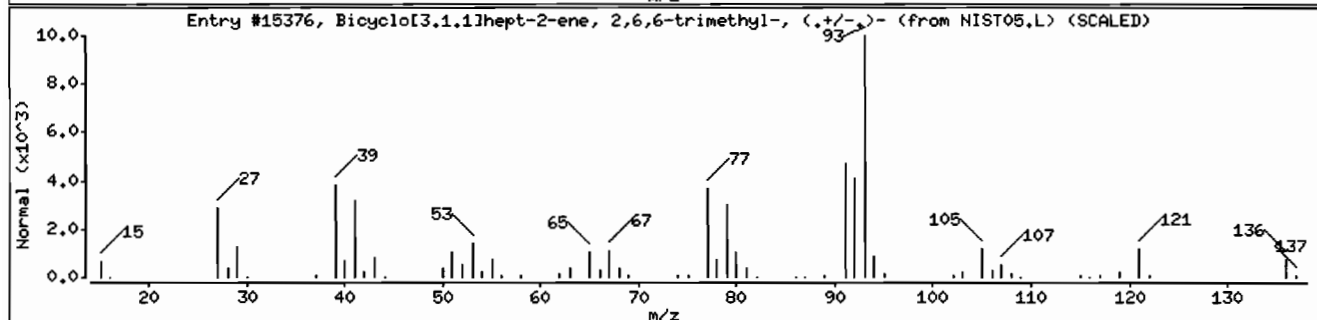
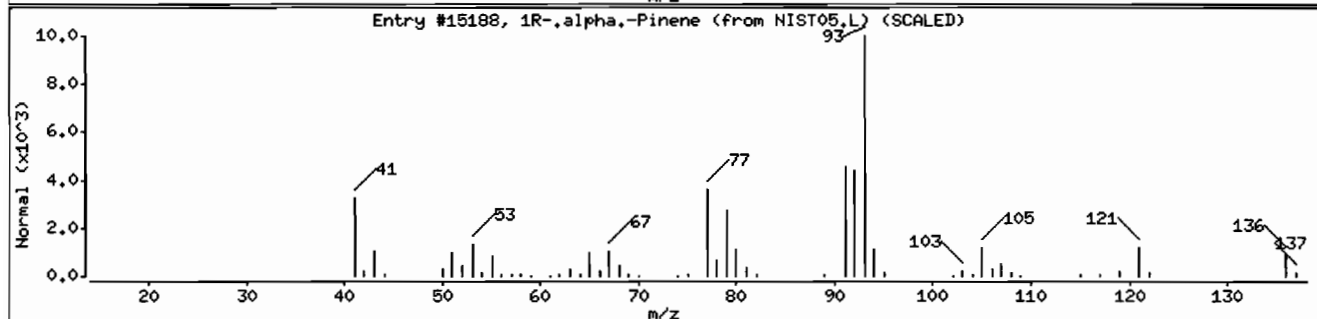
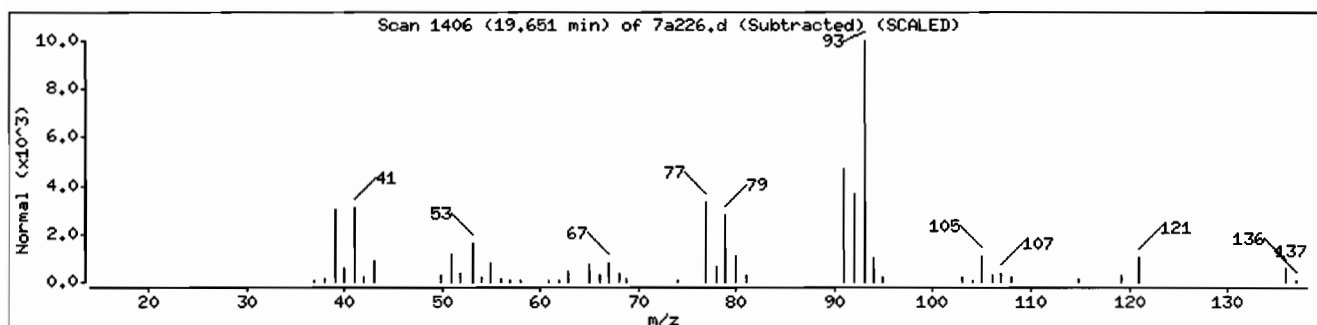
Sample Info: I247332002195673911V0AF11

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Unknown Hydrocarbon                      |            |          |       |         |         |        |
| 1R-,alpha,-Pinene                        | 7785-70-8  | NIST05.L | 15188 | 97      | C10H16  | 136    |
| Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy | 2437-95-8  | NIST05.L | 15376 | 96      | C10H16  | 136    |
| Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethy | 4889-83-2  | NIST05.L | 15314 | 91      | C10H16  | 136    |



GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022310v7/7a237.d

Lab Smp Id: 1202051371

Client Smp ID: RE15-10-8346MS

Inj Date : 24-FEB-2010 06:17

Operator : AX01

Inst ID: VOA7.i

Smp Info : |1202051371|956739|1|VOAF|1|

Misc Info : LANL 5g N/A MS 247332002

Comment :

Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 37

QC Sample: MS

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-1905.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 10.53080  | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

| Compounds                    | QUANT SIG |        |                | RESPONSE | CONCENTRATIONS       |                  |
|------------------------------|-----------|--------|----------------|----------|----------------------|------------------|
|                              | MASS      | RT     | EXP RT REL RT  |          | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| * 51 Fluorobenzene           | 96        | 15.317 | 15.317 (1.000) | 819911   | 50.0000              |                  |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 (1.000) | 618022   | 50.0000              |                  |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.992 | 20.992 (1.000) | 310119   | 50.0000              |                  |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 (0.971) | 339742   | 47.9601              | 53.6             |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 (0.918) | 957753   | 47.6145              | 53.2             |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 (0.944) | 379547   | 46.5269              | 52.0             |
| 4 Dichlorodifluoromethane    | 85        | 5.148  | 5.148 (0.336)  | 100426   | 39.3364              | 44.0             |
| 5 Chloromethane              | 50        | 5.757  | 5.757 (0.376)  | 309941   | 40.4118              | 45.2             |
| 6 Vinyl chloride             | 62        | 6.188  | 6.188 (0.404)  | 303333   | 44.5275              | 49.8             |
| 7 Bromomethane               | 94        | 7.429  | 7.419 (0.485)  | 159232   | 40.9974              | 45.8             |
| 8 Chloroethane               | 64        | 7.845  | 7.845 (0.512)  | 144169   | 41.3807              | 46.2             |
| 9 Trichlorofluoromethane     | 101       | 8.789  | 8.799 (0.574)  | 205138   | 39.3406              | 44.0             |

| Compounds                      | QUANT SIG | CONCENTRATIONS |        |         |         |          |           |         |
|--------------------------------|-----------|----------------|--------|---------|---------|----------|-----------|---------|
|                                |           | MASS           | RT     | EXP RT  | REL RT  | RESPONSE | ON-COLUMN | FINAL   |
|                                |           |                |        |         |         |          | ( ug/l)   | (ug/Kg) |
| =====                          | =====     | =====          | =====  | =====   | =====   | =====    | =====     |         |
| 13 Acetone                     | 43        | 10.424         | 10.413 | (0.681) | 1042482 | 189.819  | 212       |         |
| 14 1,1-Dichloroethylene        | 96        | 10.312         | 10.312 | (0.673) | 144199  | 40.4414  | 45.2      |         |
| 102 1,4-Dichlorobenzene        | 146       | 21.012         | 21.012 | (1.001) | 273987  | 30.5764  | 34.2      |         |
| 16 Iodomethane                 | 142       | 10.667         | 10.667 | (0.696) | 1230106 | 197.975  | 221       |         |
| 22 Methylene chloride          | 86        | 11.449         | 11.439 | (0.747) | 144382  | 43.1015  | 48.2      |         |
| 19 Carbon disulfide            | 76        | 10.840         | 10.840 | (0.708) | 2186350 | 174.300  | 195       |         |
| 25 trans-1,2-Dichloroethylene  | 61        | 12.027         | 12.017 | (0.785) | 297701  | 39.4924  | 44.1      |         |
| 28 1,1-Dichloroethane          | 63        | 12.799         | 12.799 | (0.836) | 411936  | 41.9947  | 46.9      |         |
| 31 2-Butanone                  | 43        | 13.723         | 13.723 | (0.896) | 1109620 | 181.155  | 202       |         |
| 33 cis-1,2-Dichloroethylene    | 61        | 13.733         | 13.733 | (0.897) | 356060  | 40.9284  | 45.7      |         |
| 100 1,3-Dichlorobenzene        | 146       | 20.931         | 20.931 | (0.997) | 277665  | 30.2569  | 33.8      |         |
| 34 2,2-Dichloropropane         | 77        | 13.743         | 13.743 | (0.897) | 151666  | 37.2218  | 41.6      |         |
| 38 Chloroform                  | 83        | 14.190         | 14.190 | (0.926) | 335269  | 41.0571  | 45.9      |         |
| 105 1,2-Dichlorobenzene        | 146       | 21.438         | 21.438 | (1.021) | 280543  | 30.4343  | 34.0      |         |
| 37 Bromochloromethane          | 49        | 14.088         | 14.088 | (0.920) | 281014  | 43.6943  | 48.8      |         |
| 41 1,1,1-Trichloroethane       | 97        | 14.484         | 14.484 | (0.946) | 223253  | 39.8397  | 44.5      |         |
| 44 1,1-Dichloropropene         | 75        | 14.697         | 14.697 | (0.960) | 227932  | 38.8485  | 43.4      |         |
| 45 Carbon tetrachloride        | 117       | 14.728         | 14.728 | (0.962) | 173096  | 38.8204  | 43.4      |         |
| 47 1,2-Dichloroethane          | 62        | 14.982         | 14.982 | (0.978) | 342257  | 42.4801  | 47.5      |         |
| 48 Benzene                     | 78        | 14.982         | 14.982 | (0.978) | 738989  | 41.2199  | 46.1      |         |
| 53 Trichloroethylene           | 95        | 15.763         | 15.763 | (1.029) | 306101  | 70.4684  | 78.8 (R)  |         |
| 56 1,2-Dichloropropane         | 63        | 16.037         | 16.037 | (1.047) | 257828  | 43.1878  | 48.3      |         |
| 59 Bromodichloromethane        | 83        | 16.332         | 16.332 | (1.066) | 269006  | 42.0151  | 47.0      |         |
| 58 Dibromomethane              | 93        | 16.180         | 16.180 | (1.056) | 136447  | 42.3720  | 47.4      |         |
| 63 4-Methyl-2-pentanone        | 58        | 16.941         | 16.931 | (0.908) | 622244  | 204.585  | 229       |         |
| 62 cis-1,3-Dichloropropylene   | 75        | 16.819         | 16.819 | (1.098) | 311924  | 40.0034  | 44.7      |         |
| 65 Toluene                     | 92        | 17.215         | 17.215 | (0.922) | 425419  | 38.2329  | 42.7      |         |
| 67 trans-1,3-Dichloropropylene | 75        | 17.388         | 17.388 | (0.931) | 281007  | 37.2672  | 41.6      |         |
| 68 1,1,2-Trichloroethane       | 83        | 17.611         | 17.611 | (0.943) | 166425  | 39.6976  | 44.4      |         |
| 69 2-Hexanone                  | 43        | 17.794         | 17.794 | (0.953) | 1443794 | 171.544  | 192 (A)   |         |
| 70 1,3-Dichloropropane         | 76        | 17.794         | 17.794 | (0.953) | 367466  | 42.7430  | 47.8      |         |
| 71 Tetrachloroethylene         | 164       | 17.814         | 17.814 | (0.954) | 112135  | 36.4666  | 40.8      |         |
| 72 Dibromochloromethane        | 129       | 18.058         | 18.058 | (0.967) | 182024  | 40.2548  | 45.0      |         |
| 73 1,2-Dibromoethane           | 107       | 18.220         | 18.220 | (0.976) | 186287  | 40.9711  | 45.8      |         |
| 76 Chlorobenzene               | 112       | 18.697         | 18.697 | (1.002) | 427208  | 37.2990  | 41.7      |         |
| 77 1,1,1,2-Tetrachloroethane   | 131       | 18.758         | 18.758 | (1.005) | 161812  | 40.9971  | 45.8      |         |
| 78 Ethylbenzene                | 91        | 18.758         | 18.758 | (1.005) | 740800  | 35.6322  | 39.8      |         |
| 79 m,p-Xylenes                 | 106       | 18.870         | 18.870 | (1.011) | 585625  | 74.8500  | 83.7      |         |
| 80 o-Xylene                    | 106       | 19.286         | 19.286 | (1.033) | 318666  | 38.4472  | 43.0      |         |
| 81 Styrene                     | 104       | 19.286         | 19.286 | (1.033) | 495579  | 37.3378  | 41.7      |         |
| 82 Bromoform                   | 173       | 19.540         | 19.540 | (0.931) | 120612  | 40.5920  | 45.4      |         |
| 87 1,1,2,2-Tetrachloroethane   | 83        | 19.966         | 19.885 | (0.951) | 5327    | 0.75904  | 0.85 (aR) |         |
| 89 1,2,3-Trichloropropane      | 110       | 19.966         | 19.966 | (0.951) | 58393   | 38.2398  | 42.7      |         |
| 90 Bromobenzene                | 156       | 20.017         | 20.017 | (0.954) | 164608  | 35.0416  | 39.2      |         |
| 91 n-Propylbenzene             | 91        | 20.027         | 20.027 | (0.954) | 816646  | 32.0174  | 35.8      |         |
| 93 2-Chlorotoluene             | 91        | 20.169         | 20.169 | (0.961) | 581203  | 33.2824  | 37.2      |         |
| 83 Isopropylbenzene            | 105       | 19.631         | 19.631 | (0.935) | 684437  | 34.1153  | 38.1      |         |

| Compounds                       | QUANT SIG | MASS  | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |         |
|---------------------------------|-----------|-------|--------|--------|---------|----------|----------------|---------|
|                                 |           |       |        |        |         |          | ON-COLUMN      | FINAL   |
|                                 |           |       |        |        |         |          | ( ug/l)        | (ug/Kg) |
| =====                           | =====     | ===== | =====  | =====  | =====   | =====    | =====          | =====   |
| 92 1,3,5-Trimethylbenzene       |           | 105   | 20.169 | 20.169 | (0.961) | 553993   | 33.4173        | 37.4    |
| 94 4-Chlorotoluene              |           | 91    | 20.271 | 20.261 | (0.966) | 490766   | 31.3081        | 35.0    |
| 95 tert-Butylbenzene            |           | 119   | 20.525 | 20.525 | (0.978) | 499258   | 33.2444        | 37.2    |
| 96 1,2,4-Trimethylbenzene       |           | 105   | 20.565 | 20.565 | (0.980) | 550370   | 32.8034        | 36.7    |
| 98 sec-Butylbenzene             |           | 105   | 20.748 | 20.748 | (0.988) | 684388   | 30.9462        | 34.6    |
| 99 4-Isopropyltoluene           |           | 119   | 20.860 | 20.860 | (0.994) | 500479   | 31.3094        | 35.0    |
| 104 n-Butylbenzene              |           | 91    | 21.296 | 21.296 | (1.014) | 510126   | 27.5475        | 30.8    |
| 107 1,2-Dibromo-3-chloropropane |           | 157   | 22.291 | 22.301 | (1.062) | 43413    | 37.6799        | 42.1    |

#### QC Flag Legend

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

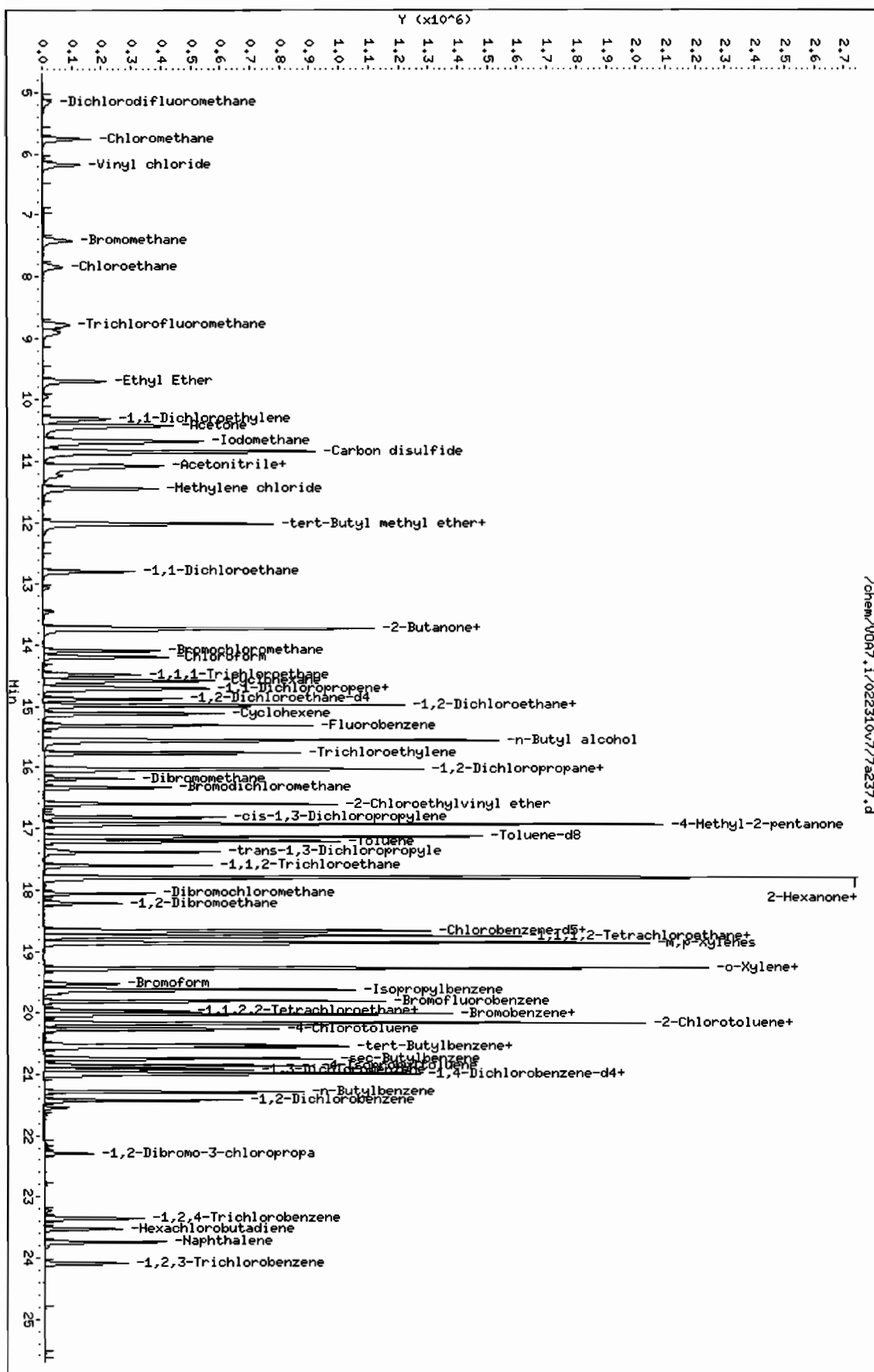
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 Date: 24-FEB-2010 06:17  
 Client ID: RE15-10-8346MS  
 Sample Info: 1202051371195673911V0A7.1.1

Column phase: DB-624

Instrument: V0A7.1

Operator: AX01

Column diameter: 0.25



GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/022310v7/7a238.d

Lab Smp Id: 1202051372

Client Smp ID: RE15-10-8346MSD

Inj Date : 24-FEB-2010 06:51

Operator : AX01

Inst ID: VOA7.i

Smp Info : |1202051372|956739|1|VOAF|1|

Misc Info : LANL 5g N/A MSD 247332002

Comment :

Method : /chem/VOA7.i/022310v7/VOA7-8260B-021710PM.m

Meth Date : 08-Mar-2010 13:19 ale01592 Quant Type: ISTD

Cal Date : 18-FEB-2010 00:08

Cal File: 7z324.d

Als bottle: 38

QC Sample: MSD

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-1905.sub

Target Version: 3.50

Processing Host: prdsvr07

Concentration Formula: Amt \* DF \* (100/(100-M))\*(Vt/Ws)\*(Uf) \* CpndVariable

| Name | Value     | Description              |
|------|-----------|--------------------------|
| DF   | 1.00000   | Dilution Factor          |
| M    | 10.53080  | % moisture               |
| Vt   | 5.00000   | Purge Volume (ml)        |
| Ws   | 5.00000   | weight of sample (g)     |
| Uf   | 1.00000   | Unit correction factor   |
| Va   | 100.00000 | Soil Aliquot Volume (uL) |

Cpnd Variable

Local Compound Variable

| Compounds                    | QUANT SIG |        |        |         | RESPONSE | CONCENTRATIONS       |                  |
|------------------------------|-----------|--------|--------|---------|----------|----------------------|------------------|
|                              | MASS      | RT     | EXP RT | REL RT  |          | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| * 51 Fluorobenzene           | 96        | 15.317 | 15.317 | (1.000) | 559543   | 50.0000              |                  |
| * 75 Chlorobenzene-d5        | 117       | 18.667 | 18.667 | (1.000) | 423884   | 50.0000              |                  |
| * 101 1,4-Dichlorobenzene-d4 | 152       | 20.992 | 20.992 | (1.000) | 207503   | 50.0000              |                  |
| \$ 46 1,2-Dichloroethane-d4  | 65        | 14.880 | 14.880 | (0.972) | 238697   | 49.3755              | 55.2             |
| \$ 64 Toluene-d8             | 98        | 17.134 | 17.134 | (0.918) | 648260   | 46.9886              | 52.5             |
| \$ 86 Bromofluorobenzene     | 95        | 19.814 | 19.814 | (0.944) | 257907   | 47.2504              | 52.8             |
| 4 Dichlorodifluoromethane    | 85        | 5.148  | 5.148  | (0.336) | 50562    | 29.0205              | 32.4             |
| 5 Chloromethane              | 50        | 5.757  | 5.757  | (0.376) | 139204   | 26.5958              | 29.7             |
| 6 Vinyl chloride             | 62        | 6.173  | 6.188  | (0.403) | 132960   | 28.5998              | 32.0             |
| 7 Bromomethane               | 94        | 7.418  | 7.419  | (0.484) | 73241    | 27.6321              | 30.9             |
| 8 Chloroethane               | 64        | 7.845  | 7.845  | (0.512) | 69203    | 29.1061              | 32.5             |
| 9 Trichlorofluoromethane     | 101       | 8.789  | 8.799  | (0.574) | 101184   | 28.4342              | 31.8             |

| Compounds                      | QUANT SIG |        |        |         |          | CONCENTRATIONS       |                  |
|--------------------------------|-----------|--------|--------|---------|----------|----------------------|------------------|
|                                | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| =====                          | =====     | ==     | =====  | =====   | =====    | =====                | =====            |
| 13 Acetone                     | 43        | 10.423 | 10.413 | (0.681) | 779665   | 208.024              | 232              |
| 14 1,1-Dichloroethylene        | 96        | 10.302 | 10.312 | (0.673) | 70551    | 28.9935              | 32.4             |
| 102 1,4-Dichlorobenzene        | 146       | 21.012 | 21.012 | (1.001) | 161144   | 26.8766              | 30.0             |
| 16 Iodomethane                 | 142       | 10.667 | 10.667 | (0.696) | 592328   | 139.690              | 156              |
| 22 Methylene chloride          | 86        | 11.439 | 11.439 | (0.747) | 74780    | 32.7113              | 36.6             |
| 19 Carbon disulfide            | 76        | 10.840 | 10.840 | (0.708) | 914071   | 106.780              | 119 (R)          |
| 25 trans-1,2-Dichloroethylene  | 61        | 12.027 | 12.017 | (0.785) | 149742   | 29.1079              | 32.5             |
| 28 1,1-Dichloroethane          | 63        | 12.799 | 12.799 | (0.836) | 215539   | 32.1976              | 36.0             |
| 31 2-Butanone                  | 43        | 13.723 | 13.723 | (0.896) | 811787   | 194.201              | 217              |
| 33 cis-1,2-Dichloroethylene    | 61        | 13.733 | 13.733 | (0.897) | 190656   | 32.1133              | 35.9             |
| 100 1,3-Dichlorobenzene        | 146       | 20.931 | 20.931 | (0.997) | 164199   | 26.7410              | 29.9             |
| 34 2,2-Dichloropropane         | 77        | 13.743 | 13.743 | (0.897) | 80433    | 28.9252              | 32.3             |
| 38 Chloroform                  | 83        | 14.190 | 14.190 | (0.926) | 176386   | 31.6514              | 35.4             |
| 105 1,2-Dichlorobenzene        | 146       | 21.438 | 21.438 | (1.021) | 174667   | 28.3190              | 31.6             |
| 37 Bromochloromethane          | 49        | 14.088 | 14.088 | (0.920) | 160565   | 36.5832              | 40.9             |
| 41 1,1,1-Trichloroethane       | 97        | 14.484 | 14.484 | (0.946) | 119683   | 31.2957              | 35.0             |
| 44 1,1-Dichloropropene         | 75        | 14.697 | 14.697 | (0.960) | 114418   | 28.5757              | 31.9 (R)         |
| 45 Carbon tetrachloride        | 117       | 14.728 | 14.728 | (0.962) | 86120    | 28.3015              | 31.6             |
| 47 1,2-Dichloroethane          | 62        | 14.982 | 14.982 | (0.978) | 206360   | 37.5311              | 41.9             |
| 48 Benzene                     | 78        | 14.982 | 14.982 | (0.978) | 387444   | 31.6673              | 35.4             |
| 53 Trichloroethylene           | 95        | 15.763 | 15.763 | (1.029) | 165707   | 55.8990              | 62.5             |
| 56 1,2-Dichloropropane         | 63        | 16.037 | 16.037 | (1.047) | 146593   | 35.9814              | 40.2             |
| 59 Bromodichloromethane        | 83        | 16.332 | 16.332 | (1.066) | 151353   | 34.6392              | 38.7             |
| 58 Dibromomethane              | 93        | 16.180 | 16.180 | (1.056) | 83812    | 38.1377              | 42.6             |
| 63 4-Methyl-2-pentanone        | 58        | 16.941 | 16.931 | (0.908) | 449699   | 215.572              | 241              |
| 62 cis-1,3-Dichloropropylene   | 75        | 16.819 | 16.819 | (1.098) | 177394   | 33.3365              | 37.3             |
| 65 Toluene                     | 92        | 17.215 | 17.215 | (0.922) | 226488   | 29.6772              | 33.2             |
| 67 trans-1,3-Dichloropropylene | 75        | 17.388 | 17.388 | (0.931) | 164609   | 31.8288              | 35.6             |
| 68 1,1,2-Trichloroethane       | 83        | 17.611 | 17.611 | (0.943) | 95470    | 33.2024              | 37.1             |
| 69 2-Hexanone                  | 43        | 17.804 | 17.794 | (0.954) | 1045305  | 181.080              | 202 (A)          |
| 70 1,3-Dichloropropane         | 76        | 17.794 | 17.794 | (0.953) | 223329   | 37.8747              | 42.3             |
| 71 Tetrachloroethylene         | 164       | 17.814 | 17.814 | (0.954) | 58352    | 27.6673              | 30.9             |
| 72 Dibromochloromethane        | 129       | 18.058 | 18.058 | (0.967) | 109761   | 35.3911              | 39.6             |
| 73 1,2-Dibromoethane           | 107       | 18.220 | 18.220 | (0.976) | 121436   | 38.9403              | 43.5             |
| 76 Chlorobenzene               | 112       | 18.697 | 18.697 | (1.002) | 242887   | 30.9185              | 34.6             |
| 77 1,1,1,2-Tetrachloroethane   | 131       | 18.758 | 18.758 | (1.005) | 91463    | 33.7867              | 37.8             |
| 78 Ethylbenzene                | 91        | 18.768 | 18.758 | (1.005) | 418338   | 29.3377              | 32.8             |
| 79 m,p-Xylenes                 | 106       | 18.870 | 18.870 | (1.011) | 323050   | 60.2003              | 67.3             |
| 80 o-Xylene                    | 106       | 19.286 | 19.286 | (1.033) | 180483   | 31.7485              | 35.5             |
| 81 Styrene                     | 104       | 19.286 | 19.286 | (1.033) | 279683   | 30.7226              | 34.3             |
| 82 Bromoform                   | 173       | 19.540 | 19.540 | (0.931) | 79018    | 39.7448              | 44.4             |
| 87 1,1,2,2-Tetrachloroethane   | 83        | 19.976 | 19.885 | (0.952) | 3679     | 0.78346              | 0.88 (aR)        |
| 89 1,2,3-Trichloropropane      | 110       | 19.966 | 19.966 | (0.951) | 40099    | 39.2457              | 43.9             |
| 90 Bromobenzene                | 156       | 20.017 | 20.017 | (0.954) | 101342   | 32.2424              | 36.0             |
| 91 n-Propylbenzene             | 91        | 20.027 | 20.027 | (0.954) | 465628   | 27.2832              | 30.5             |
| 93 2-Chlorotoluene             | 91        | 20.169 | 20.169 | (0.961) | 330888   | 28.3186              | 31.6             |
| 83 Isopropylbenzene            | 105       | 19.631 | 19.631 | (0.935) | 386243   | 28.7727              | 32.2             |



| Compounds                       | QUANT SIG |        |        |         |          | CONCENTRATIONS       |                  |
|---------------------------------|-----------|--------|--------|---------|----------|----------------------|------------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>( ug/l) | FINAL<br>(ug/Kg) |
| =====                           | =====     | ==     | =====  | =====   | =====    | =====                | =====            |
| 92 1,3,5-Trimethylbenzene       | 105       | 20.169 | 20.169 | (0.961) | 309672   | 27.9173              | 31.2             |
| 94 4-Chlorotoluene              | 91        | 20.271 | 20.261 | (0.966) | 286992   | 27.3625              | 30.6             |
| 95 tert-Butylbenzene            | 119       | 20.535 | 20.525 | (0.978) | 290148   | 28.8746              | 32.3             |
| 96 1,2,4-Trimethylbenzene       | 105       | 20.565 | 20.565 | (0.980) | 318723   | 28.3911              | 31.7             |
| 98 sec-Butylbenzene             | 105       | 20.748 | 20.748 | (0.988) | 376475   | 25.4416              | 28.4             |
| 99 4-Isopropyltoluene           | 119       | 20.860 | 20.860 | (0.994) | 285677   | 26.7096              | 29.8             |
| 104 n-Butylbenzene              | 91        | 21.296 | 21.296 | (1.014) | 297108   | 23.9785              | 26.8             |
| 107 1,2-Dibromo-3-chloropropane | 157       | 22.301 | 22.301 | (1.062) | 27467    | 35.6863              | 39.9             |

#### QC Flag Legend

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

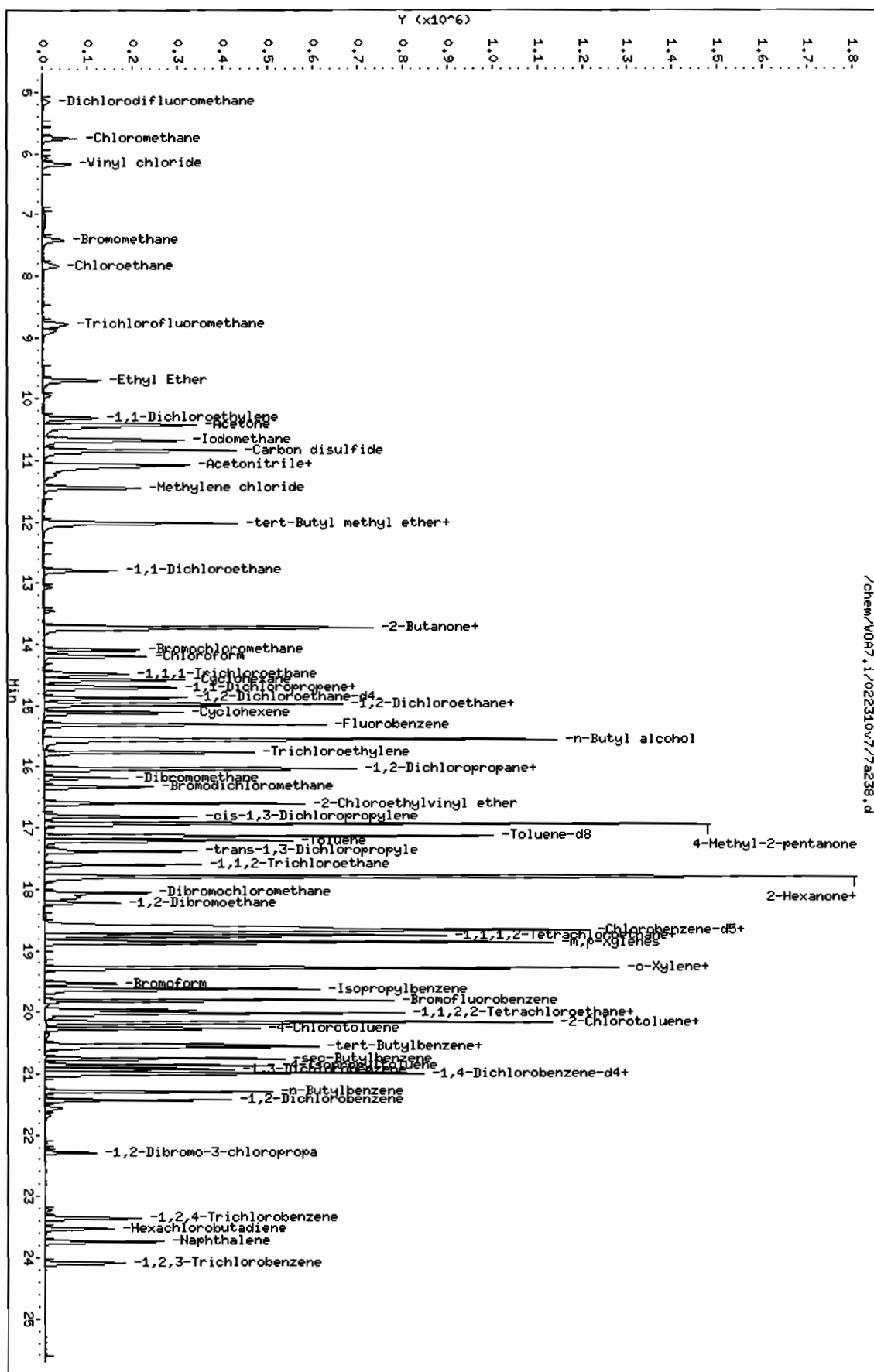
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 Date: 24-FEB-2010 06:51  
 Client ID: RELS-10-8346MSD  
 Sample Info: 1202051372195673911.V0A7.1

Column phase: DB-624

Instrument: V0A7.i

Operator: AX01

Column diameter: 0.25



# **GC/MS Semivolatile Analysis**

**Semi-Volatile Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1914**

**Method/Analysis Information**

|                          |   |
|--------------------------|---|
| <b>Procedure:</b>        | <b>Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry</b> |
| Analytical Method:       | SW846 8270C   |
| Prep Method:             | SW846 3550B   |
| Analytical Batch Number: | 956285  |
| Prep Batch Number:       | 956255  |

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

| <b>Sample ID</b> | <b>Client ID</b>                                     |
|------------------|--|
| 247358001        | RE36-10-7427   |
| 247358002        | RE36-10-7423   |
| 247358003        | RE36-10-7428   |
| 247358004        | RE36-10-7424   |
| 1202050556       | Method Blank (MB)                                    |
| 1202050557       | Laboratory Control Sample (LCS)                      |
| 1202050558       | 247556001(RE16-10-1514) Matrix Spike (MS)            |
| 1202050559       | 247556001(RE16-10-1514) Matrix Spike Duplicate (MSD) |

The samples in this SDG were analyzed on a "dry weight" basis.

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

**Calibration Information**

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms. 2,4-Toluene diisocyanate rapidly hydrolyzes in water (half-life less than 30 minutes). Therefore, recoveries of this compound from aqueous matrices should not be expected. In addition, in solid matrices, 2,4-Toluene diisocyanate often reacts with alcohols and amines to produce urethane and ureas and consequently cannot usually coexist in a solution containing these materials. 2,4-Toluene diisocyanate is reported as an estimated value.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inverted in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

#### **Initial Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

#### **CCV Requirements**

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

##### **Surrogate Recoveries**

The surrogate recoveries associated with this SDG were acceptable.

##### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

##### **QC Sample Designation**

The non-SDG sample 247556001 (RE16-10-1514) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

##### **Matrix Spike (MS) Recovery Statement**

The MS(1202050558) and MSD(1202050559) recovered spike analytes outside of the established acceptance limits. Please see the QC summary report for specific failures. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

##### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MS(1202050558) and MSD(1202050559) recovered spike analytes outside of the established

acceptance limits. Please see the QC summary report for specific failures. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The relative percent differences (RPD) were not within the acceptance limits. Please see the QC summary report for specific failures. The failures were attributed to sample matrix interference and the data have been reported.

#### **Internal Standard (ISTD) Acceptance**

The internal standard responses were outside of the acceptance criteria for the following sample: 247358001 (RE36-10-7427). The sample was re-analyzed and the failures were confirmed. The first analysis data were reported. The re-analysis raw data have been placed in the Miscellaneous Section.

#### **Technical Information**

##### **Holding Time Specifications**

All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

##### **Sample Dilutions**

The samples in this SDG did not require dilutions.

##### **Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

#### **Miscellaneous Information**

##### **Data Exception (DER) Documentation**

A DER was not required for the samples reported in this SDG.

##### **Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

##### **Additional Comments**

Additional comments were not required for this SDG.

##### **Electronic Package Comment**

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

**System Configuration**

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

| <b>Instrument ID</b> | <b>Instrument</b>    | <b>System Configuration</b> | <b>Column ID</b> | <b>Column Description</b>                         |
|----------------------|----------------------|-----------------------------|------------------|---|
| MSD4.I               | HP Mass Spectrometer | HP6890/HP5973               | DB-5MS           | 25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane) |

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: John Lachey Date: 3-17-10



# Sample Data Summary

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-1914  
**Lab Sample ID:** 247358002

**Client ID:** RE36-10-7423  
**Batch ID:** 956285  
**Run Date:** 03/04/2010 23:45  
**Prep Date:** 02/23/2010 10:34  
**Data File:** s4c0431.d

**Date Collected:** 02/12/2010 12:00  
**Date Received:** 02/18/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8270C  
**Inst:** MSD4.I  
**Analyst:** JMB3  
**Aliquot:** 30.03 g  
**Column:** J&W DB-5MS

**Matrix:** R  
**% Moisture:** 51.1  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-009  
**Dilution:** 1  
**Inj. Vol:** .5 uL  
**Final Volume:** 1 mL  
**Level:** LOW

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 681    | ug/kg | 136     | 681     |
| 108-95-2   | Phenol                        | U         | 681    | ug/kg | 136     | 681     |
| 95-57-8    | 2-Chlorophenol                | U         | 681    | ug/kg | 136     | 681     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 681    | ug/kg | 136     | 681     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 681    | ug/kg | 136     | 681     |
| 83-32-9    | Acenaphthene                  | U         | 68.1   | ug/kg | 22.5    | 68.1    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 681    | ug/kg | 68.1    | 681     |
| 100-02-7   | 4-Nitrophenol                 | U         | 681    | ug/kg | 225     | 681     |
| 87-86-5    | Pentachlorophenol             | U         | 681    | ug/kg | 170     | 681     |
| 129-00-0   | Pyrene                        | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 110-86-1   | Pyridine                      | U         | 681    | ug/kg | 136     | 681     |
| 62-53-3    | Aniline                       | U         | 681    | ug/kg | 204     | 681     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 681    | ug/kg | 136     | 681     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681     |
| 100-51-6   | Benzyl alcohol                | U         | 681    | ug/kg | 204     | 681     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 681    | ug/kg | 136     | 681     |
| 95-48-7    | o-Cresol                      | U         | 681    | ug/kg | 136     | 681     |
| 65794-96-9 | m,p-Cresols                   | U         | 681    | ug/kg | 204     | 681     |
| 67-72-1    | Hexachloroethane              | U         | 681    | ug/kg | 136     | 681     |
| 98-95-3    | Nitrobenzene                  | U         | 681    | ug/kg | 136     | 681     |
| 78-59-1    | Isophorone                    | U         | 681    | ug/kg | 136     | 681     |
| 88-75-5    | 2-Nitrophenol                 | U         | 681    | ug/kg | 136     | 681     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 681    | ug/kg | 238     | 681     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 681    | ug/kg | 136     | 681     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 681    | ug/kg | 136     | 681     |
| 65-85-0    | Benzoic acid                  | U         | 1360   | ug/kg | 340     | 1360    |
| 91-20-3    | Naphthalene                   | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 106-47-8   | 4-Chloroaniline               | U         | 681    | ug/kg | 136     | 681     |
| 87-68-3    | Hexachlorobutadiene           | U         | 681    | ug/kg | 136     | 681     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 68.1   | ug/kg | 13.6    | 68.1    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 681    | ug/kg | 136     | 681     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 681    | ug/kg | 136     | 681     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 681    | ug/kg | 136     | 681     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 68.1   | ug/kg | 22.5    | 68.1    |
| 88-74-4    | 2-Nitroaniline                | U         | 681    | ug/kg | 136     | 681     |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                | U         | 681    | ug/kg | 136     | 681     |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

|                             |                                  |                      |
|-----------------------------|----------------------------------|----------------------|
| SDG Number: 10-1914         | Date Collected: 02/12/2010 12:00 | Matrix: R            |
| Lab Sample ID: 247358002    | Date Received: 02/18/2010 08:45  | %Moisture: 51.1      |
| Client ID: RE36-10-7423     | Client: LANL010                  | Project: LANL01004   |
| Batch ID: 956285            | Method: SW846 8270C              | SOP Ref: GL-OA-E-009 |
| Run Date: 03/04/2010 23:45  | Inst: MSD4.I                     | Dilution: 1          |
| Prep Date: 02/23/2010 10:34 | Analyst: JMB3                    | Inj. Vol: .5 uL      |
| Data File: s4c0431.d        | Aliquot: 30.03 g                 | Final Volume: 1 mL   |
|                             | Column: J&W DB-5MS               | Level: LOW           |

| CAS No.   | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-----------|-------------------------------|-----------|--------|-------|---------|---------|
|           | <i>m</i> -Nitroaniline        |           |        |       |         |         |
| 131-11-3  | Dimethylphthalate             | U         | 681    | ug/kg | 136     | 681     |
| 606-20-2  | 2,6-Dinitrotoluene            | U         | 681    | ug/kg | 68.1    | 681     |
| 208-96-8  | Acenaphthylene                | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 51-28-5   | 2,4-Dinitrophenol             | U         | 1360   | ug/kg | 259     | 1360    |
| 132-64-9  | Dibenzofuran                  | U         | 681    | ug/kg | 136     | 681     |
| 84-66-2   | Diethylphthalate              | U         | 681    | ug/kg | 136     | 681     |
| 86-73-7   | Fluorene                      | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 7005-72-3 | 4-Chlorophenylphenylether     | U         | 681    | ug/kg | 136     | 681     |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol    | U         | 681    | ug/kg | 136     | 681     |
| 100-01-6  | 4-Nitroaniline                | U         | 681    | ug/kg | 204     | 681     |
|           | <i>p</i> -Nitroaniline        |           |        |       |         |         |
| 122-39-4  | Diphenylamine                 | U         | 681    | ug/kg | 136     | 681     |
| 122-66-7  | Azobenzene                    | U         | 681    | ug/kg | 136     | 681     |
|           | <i>1,2</i> -Diphenylhydrazine |           |        |       |         |         |
| 101-55-3  | 4-Bromophenylphenylether      | U         | 681    | ug/kg | 136     | 681     |
| 118-74-1  | Hexachlorobenzene             | U         | 681    | ug/kg | 136     | 681     |
| 85-01-8   | Phenanthrene                  | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 120-12-7  | Anthracene                    | U         | 68.1   | ug/kg | 13.6    | 68.1    |
| 84-74-2   | Di-n-butylphthalate           | U         | 681    | ug/kg | 136     | 681     |
| 206-44-0  | Fluoranthene                  | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 85-68-7   | Butylbenzylphthalate          | U         | 681    | ug/kg | 136     | 681     |
| 56-55-3   | Benzo(a)anthracene            | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 91-94-1   | 3,3'-Dichlorobenzidine        | U         | 681    | ug/kg | 204     | 681     |
| 218-01-9  | Chrysene                      | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate    | U         | 681    | ug/kg | 136     | 681     |
| 117-84-0  | Di-n-octylphthalate           | U         | 681    | ug/kg | 136     | 681     |
| 205-99-2  | Benzo(b)fluoranthene          | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 207-08-9  | Benzo(k)fluoranthene          | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 50-32-8   | Benzo(a)pyrene                | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene        | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 53-70-3   | Dibenzo(a,h)anthracene        | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 191-24-2  | Benzo(ghi)perylene            | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 120-82-1  | 1,2,4-Trichlorobenzene        | U         | 681    | ug/kg | 136     | 681     |

**Tentatively Identified Compound Summary**

| CAS No.   | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|-----------|---------------------------------------|------|-----------|-------|-----|------|
|           | Unknown Aldol Condensate              | 2.87 | 1080      | ug/kg |     | J    |
| 7785-70-8 | 1R-.alpha.-Pinene                     | 3.4  | 4080      | ug/kg | 96  | NJ   |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7423  
Batch ID: 956285  
Run Date: 03/04/2010 23:45  
Prep Date: 02/23/2010 10:34  
Data File: s4c0431.d

| CAS No.  | Parmname                                 | Qualifier | Result    | Units | MDL/LOD | PQL/LOQ |
|--|--|-----------|-----------|-------|---------|---------|
| <b>Tentatively Identified Compound Summary</b> |  |           |           |       |         |         |
| CAS No.  | Tentatively Identified Compound (TIC)    | RT        | Estimated | Units | Fit     | Qual    |
| 79-92-5  | Camphene                                 | 3.51      | 3830      | ug/kg | 96      | NJ      |
| 18172-67-3                                     | Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me | 3.65      | 997       | ug/kg | 97      | NJ      |
| 498-15-7                                       | Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy | 3.78      | 1250      | ug/kg | 97      | NJ      |
| 5989-27-5                                      | D-Limonene                               | 3.88      | 1220      | ug/kg | 96      | NJ      |
| 5655-61-8                                      | Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth | 5.06      | 1940      | ug/kg | 99      | NJ      |
| 475-20-7                                       | 1,4-Methanoazulene, decahydro-4,8,8-trim | 5.67      | 1840      | ug/kg | 99      | NJ      |
| 23986-74-5                                     | 1,6-Cyclodecadiene, 1-methyl-5-methylene | 5.9       | 867       | ug/kg | 97      | NJ      |
| 483-76-1                                       | Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- | 5.99      | 499       | ug/kg | 97      | NJ      |
|  | Unknown                                  | 7.45      | 610       | ug/kg |         | J       |
| 1000197-14-1                                   | 4b,8-Dimethyl-2-isopropylphenanthrene, 4 | 7.48      | 517       | ug/kg | 92      | NJ      |
|  | Unknown                                  | 7.55      | 1140      | ug/kg |         | J       |
| 56554-35-9                                     | 9,17-Octadecadienal, (Z)-                | 7.62      | 679       | ug/kg | 86      | NJ      |
|  | Unknown                                  | 7.81      | 1010      | ug/kg |         | J       |
|  | Unknown                                  | 8.09      | 1040      | ug/kg |         | J       |
|  | Unknown                                  | 8.11      | 1440      | ug/kg |         | J       |
|  | Unknown                                  | 8.18      | 1440      | ug/kg |         | J       |
|  | Unknown                                  | 8.23      | 919       | ug/kg |         | J       |
|  | Unknown                                  | 8.28      | 3290      | ug/kg |         | J       |
| 5155-70-4                                      | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.43      | 1720      | ug/kg | 99      | NJ      |
|  | Unknown                                  | 8.56      | 769       | ug/kg |         | J       |
|  | Unknown                                  | 8.64      | 733       | ug/kg |         | J       |
|  | Unknown                                  | 8.79      | 862       | ug/kg |         | J       |
|  | Unknown                                  | 9.03      | 1620      | ug/kg |         | J       |
|  | Unknown                                  | 9.19      | 814       | ug/kg |         | J       |
|  | Unknown                                  | 10.5      | 11000     | ug/kg |         | J       |
|  | Unknown                                  | 11.15     | 1440      | ug/kg |         | J       |
| 1000214-20-7                                   | Stigmasterol, 22,23-dihydro-             | 12.38     | 1530      | ug/kg | 96      | NJ      |
| 1058-61-3                                      | Stigmast-4-en-3-one                      | 13.46     | 2530      | ug/kg | 94      | NJ      |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-1914  
**Lab Sample ID:** 247358004

**Date Collected:** 02/12/2010 12:00  
**Date Received:** 02/18/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8270C  
**Inst:** MSD4.I  
**Analyst:** JMB3  
**Aliquot:** 30.02 g  
**Column:** J&W DB-5MS

**Matrix:** R  
**% Moisture:** 8.6  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-009  
**Dilution:** 1  
**Inj. Vol:** .5 uL  
**Final Volume:** 1 mL  
**Level:** LOW

**Client ID:** RE36-10-7424  
**Batch ID:** 956285  
**Run Date:** 03/05/2010 00:29  
**Prep Date:** 02/23/2010 10:34  
**Data File:** s4c0433.d

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 364    | ug/kg | 72.9    | 364     |
| 108-95-2   | Phenol                        | U         | 364    | ug/kg | 72.9    | 364     |
| 95-57-8    | 2-Chlorophenol                | U         | 364    | ug/kg | 72.9    | 364     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 364    | ug/kg | 72.9    | 364     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 364    | ug/kg | 72.9    | 364     |
| 83-32-9    | Acenaphthene                  | U         | 36.4   | ug/kg | 12.0    | 36.4    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364     |
| 100-02-7   | 4-Nitrophenol                 | U         | 364    | ug/kg | 120     | 364     |
| 87-86-5    | Pentachlorophenol             | U         | 364    | ug/kg | 91.1    | 364     |
| 129-00-0   | Pyrene                        | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 110-86-1   | Pyridine                      | U         | 364    | ug/kg | 72.9    | 364     |
| 62-53-3    | Aniline                       | U         | 364    | ug/kg | 109     | 364     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 364    | ug/kg | 72.9    | 364     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 100-51-6   | Benzyl alcohol                | U         | 364    | ug/kg | 109     | 364     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 364    | ug/kg | 72.9    | 364     |
| 95-48-7    | o-Cresol                      | U         | 364    | ug/kg | 72.9    | 364     |
| 65794-96-9 | m,p-Cresols                   | U         | 364    | ug/kg | 109     | 364     |
| 67-72-1    | Hexachloroethane              | U         | 364    | ug/kg | 72.9    | 364     |
| 98-95-3    | Nitrobenzene                  | U         | 364    | ug/kg | 72.9    | 364     |
| 78-59-1    | Isophorone                    | U         | 364    | ug/kg | 72.9    | 364     |
| 88-75-5    | 2-Nitrophenol                 | U         | 364    | ug/kg | 72.9    | 364     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 364    | ug/kg | 128     | 364     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 364    | ug/kg | 72.9    | 364     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 364    | ug/kg | 72.9    | 364     |
| 65-85-0    | Benzoic acid                  | U         | 729    | ug/kg | 182     | 729     |
| 91-20-3    | Naphthalene                   | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 106-47-8   | 4-Chloroaniline               | U         | 364    | ug/kg | 72.9    | 364     |
| 87-68-3    | Hexachlorobutadiene           | U         | 364    | ug/kg | 72.9    | 364     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 36.4   | ug/kg | 7.29    | 36.4    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 364    | ug/kg | 72.9    | 364     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 36.4   | ug/kg | 12.0    | 36.4    |
| 88-74-4    | 2-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364     |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364     |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358004

Client ID: RE36-10-7424  
Batch ID: 956285  
Run Date: 03/05/2010 00:29  
Prep Date: 02/23/2010 10:34  
Data File: s4c0433.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.   | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-----------|-------------------------------|-----------|--------|-------|---------|---------|
|           | <i>m</i> -Nitroaniline        |           |        |       |         |         |
| 131-11-3  | Dimethylphthalate             | U         | 364    | ug/kg | 72.9    | 364     |
| 606-20-2  | 2,6-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364     |
| 208-96-8  | Acenaphthylene                | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 51-28-5   | 2,4-Dinitrophenol             | U         | 729    | ug/kg | 138     | 729     |
| 132-64-9  | Dibenzofuran                  | U         | 364    | ug/kg | 72.9    | 364     |
| 84-66-2   | Diethylphthalate              | U         | 364    | ug/kg | 72.9    | 364     |
| 86-73-7   | Fluorene                      | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 7005-72-3 | 4-Chlorophenylphenylether     | U         | 364    | ug/kg | 72.9    | 364     |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol    | U         | 364    | ug/kg | 72.9    | 364     |
| 100-01-6  | 4-Nitroaniline                | U         | 364    | ug/kg | 109     | 364     |
|           | <i>p</i> -Nitroaniline        |           |        |       |         |         |
| 122-39-4  | Diphenylamine                 | U         | 364    | ug/kg | 72.9    | 364     |
| 122-66-7  | Azobenzene                    | U         | 364    | ug/kg | 72.9    | 364     |
|           | <i>1,2</i> -Diphenylhydrazine |           |        |       |         |         |
| 101-55-3  | 4-Bromophenylphenylether      | U         | 364    | ug/kg | 72.9    | 364     |
| 118-74-1  | Hexachlorobenzene             | U         | 364    | ug/kg | 72.9    | 364     |
| 85-01-8   | Phenanthrene                  | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 120-12-7  | Anthracene                    | U         | 36.4   | ug/kg | 7.29    | 36.4    |
| 84-74-2   | Di-n-butylphthalate           | U         | 364    | ug/kg | 72.9    | 364     |
| 206-44-0  | Fluoranthene                  | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 85-68-7   | Butylbenzylphthalate          | U         | 364    | ug/kg | 72.9    | 364     |
| 56-55-3   | Benzo(a)anthracene            | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 91-94-1   | 3,3'-Dichlorobenzidine        | U         | 364    | ug/kg | 109     | 364     |
| 218-01-9  | Chrysene                      | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate    | U         | 364    | ug/kg | 72.9    | 364     |
| 117-84-0  | Di-n-octylphthalate           | U         | 364    | ug/kg | 72.9    | 364     |
| 205-99-2  | Benzo(b)fluoranthene          | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 207-08-9  | Benzo(k)fluoranthene          | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 50-32-8   | Benzo(a)pyrene                | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene        | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 53-70-3   | Dibenzo(a,h)anthracene        | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 191-24-2  | Benzo(ghi)perylene            | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 120-82-1  | 1,2,4-Trichlorobenzene        | U         | 364    | ug/kg | 72.9    | 364     |

**Tentatively Identified Compound Summary**

| CAS No.  | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|----------|---------------------------------------|------|-----------|-------|-----|------|
|          | Unknown Aldol Condensate              | 2.87 | 716       | ug/kg |     | J    |
| 112-84-5 | 13-Docosenamide, (Z)-                 | 9.18 | 216       | ug/kg | 86  | NJ   |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-SMS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.  | Parmname                              | Qualifier | Result | Units     | MDL/LOD | PQL/LOQ  |
|--|---------------------------------------|-----------|--------|-----------|---------|----------|
| <b>Tentatively Identified Compound Summary</b> |                                       |           |        |           |         |          |
| CAS No.  | Tentatively Identified Compound (TIC) |           | RT     | Estimated | Units   | Fit Qual |
|  | Unknown                               |           | 9.62   | 151       | ug/kg   | J        |
|  | Unknown                               |           | 12.48  | 187       | ug/kg   | J        |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956285  
Run Date: 03/04/2010 23:23  
Prep Date: 02/23/2010 10:34  
Data File: s4c0430.d

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 525    | ug/kg | 105     | 525     |
| 108-95-2   | Phenol                        | U         | 525    | ug/kg | 105     | 525     |
| 95-57-8    | 2-Chlorophenol                | U         | 525    | ug/kg | 105     | 525     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 525    | ug/kg | 105     | 525     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 525    | ug/kg | 105     | 525     |
| 83-32-9    | Acenaphthene                  | U         | 52.5   | ug/kg | 17.3    | 52.5    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 525    | ug/kg | 52.5    | 525     |
| 100-02-7   | 4-Nitrophenol                 | U         | 525    | ug/kg | 173     | 525     |
| 87-86-5    | Pentachlorophenol             | U         | 525    | ug/kg | 131     | 525     |
| 129-00-0   | Pyrene                        | J         | 31.5   | ug/kg | 15.7    | 52.5    |
| 110-86-1   | Pyridine                      | U         | 525    | ug/kg | 105     | 525     |
| 62-53-3    | Aniline                       | U         | 525    | ug/kg | 157     | 525     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 525    | ug/kg | 105     | 525     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525     |
| 100-51-6   | Benzyl alcohol                | U         | 525    | ug/kg | 157     | 525     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 525    | ug/kg | 105     | 525     |
| 95-48-7    | o-Cresol                      | U         | 525    | ug/kg | 105     | 525     |
| 65794-96-9 | m,p-Cresols                   | U         | 525    | ug/kg | 157     | 525     |
| 67-72-1    | Hexachloroethane              | U         | 525    | ug/kg | 105     | 525     |
| 98-95-3    | Nitrobenzene                  | U         | 525    | ug/kg | 105     | 525     |
| 78-59-1    | Isophorone                    | U         | 525    | ug/kg | 105     | 525     |
| 88-75-5    | 2-Nitrophenol                 | U         | 525    | ug/kg | 105     | 525     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 525    | ug/kg | 184     | 525     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 525    | ug/kg | 105     | 525     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 525    | ug/kg | 105     | 525     |
| 65-85-0    | Benzoic acid                  | U         | 1050   | ug/kg | 262     | 1050    |
| 91-20-3    | Naphthalene                   | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 106-47-8   | 4-Chloroaniline               | U         | 525    | ug/kg | 105     | 525     |
| 87-68-3    | Hexachlorobutadiene           | U         | 525    | ug/kg | 105     | 525     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 52.5   | ug/kg | 10.5    | 52.5    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 525    | ug/kg | 105     | 525     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 525    | ug/kg | 105     | 525     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 525    | ug/kg | 105     | 525     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 52.5   | ug/kg | 17.3    | 52.5    |
| 88-74-4    | 2-Nitroaniline                | U         | 525    | ug/kg | 105     | 525     |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                | U         | 525    | ug/kg | 105     | 525     |



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956285  
Run Date: 03/04/2010 23:23  
Prep Date: 02/23/2010 10:34  
Data File: s4c0430.d

| CAS No.                      | Parmname                   | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------------------------|----------------------------|-----------|--------|-------|---------|---------|
| <i>m-Nitroaniline</i>        |                            |           |        |       |         |         |
| 131-11-3                     | Dimethylphthalate          | U         | 525    | ug/kg | 105     | 525     |
| 606-20-2                     | 2,6-Dinitrotoluene         | U         | 525    | ug/kg | 52.5    | 525     |
| 208-96-8                     | Acenaphthylene             | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 51-28-5                      | 2,4-Dinitrophenol          | U         | 1050   | ug/kg | 199     | 1050    |
| 132-64-9                     | Dibenzofuran               | U         | 525    | ug/kg | 105     | 525     |
| 84-66-2                      | Diethylphthalate           | U         | 525    | ug/kg | 105     | 525     |
| 86-73-7                      | Fluorene                   | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 7005-72-3                    | 4-Chlorophenylphenylether  | U         | 525    | ug/kg | 105     | 525     |
| 534-52-1                     | 2-Methyl-4,6-dinitrophenol | U         | 525    | ug/kg | 105     | 525     |
| 100-01-6                     | 4-Nitroaniline             | U         | 525    | ug/kg | 157     | 525     |
| <i>p-Nitroaniline</i>        |                            |           |        |       |         |         |
| 122-39-4                     | Diphenylamine              | U         | 525    | ug/kg | 105     | 525     |
| 122-66-7                     | Azobenzene                 | U         | 525    | ug/kg | 105     | 525     |
| <i>1,2-Diphenylhydrazine</i> |                            |           |        |       |         |         |
| 101-55-3                     | 4-Bromophenylphenylether   | U         | 525    | ug/kg | 105     | 525     |
| 118-74-1                     | Hexachlorobenzene          | U         | 525    | ug/kg | 105     | 525     |
| 85-01-8                      | Phenanthrene               | J         | 17.9   | ug/kg | 15.7    | 52.5    |
| 120-12-7                     | Anthracene                 | U         | 52.5   | ug/kg | 10.5    | 52.5    |
| 84-74-2                      | Di-n-butylphthalate        | U         | 525    | ug/kg | 105     | 525     |
| 206-44-0                     | Fluoranthene               | J         | 28.1   | ug/kg | 15.7    | 52.5    |
| 85-68-7                      | Butylbenzylphthalate       | U         | 525    | ug/kg | 105     | 525     |
| 56-55-3                      | Benzo(a)anthracene         | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 91-94-1                      | 3,3'-Dichlorobenzidine     | U         | 525    | ug/kg | 157     | 525     |
| 218-01-9                     | Chrysene                   | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 117-81-7                     | bis(2-Ethylhexyl)phthalate | U         | 525    | ug/kg | 105     | 525     |
| 117-84-0                     | Di-n-octylphthalate        | U         | 525    | ug/kg | 105     | 525     |
| 205-99-2                     | Benzo(b)fluoranthene       | J         | 23.6   | ug/kg | 15.7    | 52.5    |
| 207-08-9                     | Benzo(k)fluoranthene       | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 50-32-8                      | Benzo(a)pyrene             | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 193-39-5                     | Indeno(1,2,3-cd)pyrene     | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 53-70-3                      | Dibenzo(a,h)anthracene     | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 191-24-2                     | Benzo(ghi)perylene         | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 120-82-1                     | 1,2,4-Trichlorobenzene     | U         | 525    | ug/kg | 105     | 525     |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|------|-----------|-------|-----|------|
|         | Unknown Aldol Condensate              | 2.87 | 836       | ug/kg |     | J    |
|         | Unknown                               | 3.51 | 1210      | ug/kg |     | J    |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7427  
Batch ID: 956285  
Run Date: 03/04/2010 23:23  
Prep Date: 02/23/2010 10:34  
Data File: s4c0430.d

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|---------|----------|-----------|--------|-------|---------|---------|
|---------|----------|-----------|--------|-------|---------|---------|

| Tentatively Identified Compound Summary |  |       | Estimated |       |     |      |
|---|--|-------|-----------|-------|-----|------|
| CAS No.                                 | Tentatively Identified Compound (TIC)    | RT    |           | Units | Fit | Qual |
| 121-33-5                                | Vanillin                                 | 5.53  | 299       | ug/kg | 98  | NJ   |
| 544-63-8                                | Tetradecanoic acid                       | 6.67  | 592       | ug/kg | 99  | NJ   |
| 57-10-3                                 | n-Hexadecanoic acid                      | 7.2   | 838       | ug/kg | 99  | NJ   |
|   | Unknown                                  | 7.38  | 367       | ug/kg |     | J    |
|   | Unknown                                  | 7.45  | 467       | ug/kg |     | J    |
| 1000197-14-1                            | 4b,8-Dimethyl-2-isopropylphenanthrene, 4 | 7.48  | 593       | ug/kg | 89  | NJ   |
|   | Unknown                                  | 7.55  | 445       | ug/kg |     | J    |
| 112-79-8                                | 9-Octadecenoic acid, (E)-                | 7.62  | 1090      | ug/kg | 91  | NJ   |
|   | Unknown                                  | 7.74  | 1130      | ug/kg |     | J    |
|   | Unknown                                  | 8.01  | 401       | ug/kg |     | J    |
|   | Unknown                                  | 8.04  | 529       | ug/kg |     | J    |
|   | Unknown                                  | 8.1   | 1180      | ug/kg |     | J    |
| 1235-74-1                               | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.16  | 361       | ug/kg | 95  | NJ   |
| 1000156-12-8                            | Alloaromadendrene oxide-(1)              | 8.24  | 768       | ug/kg | 91  | NJ   |
|   | Unknown                                  | 8.37  | 3230      | ug/kg |     | J    |
| 1740-19-8                               | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.44  | 2850      | ug/kg | 93  | NJ   |
|   | Unknown                                  | 8.54  | 2720      | ug/kg |     | J    |
|   | Unknown                                  | 8.72  | 291       | ug/kg |     | J    |
| 1000189-14-9                            | 1-Hydroxy-6-(3-isopropenyl-cycloprop-1-e | 8.82  | 495       | ug/kg | 86  | NJ   |
| 56221-91-1                              | 13-Tetradecen-1-ol acetate               | 8.97  | 501       | ug/kg | 96  | NJ   |
| 112-95-8                                | Eicosane                                 | 9.51  | 1590      | ug/kg | 96  | NJ   |
| 504-57-4                                | 10-Nonadecanone                          | 10.36 | 2830      | ug/kg | 96  | NJ   |
|   | Unknown                                  | 10.54 | 7300      | ug/kg |     | J    |
|   | Unknown                                  | 10.66 | 2330      | ug/kg |     | J    |
|   | Unknown                                  | 11.49 | 1620      | ug/kg |     | J    |
|   | Unknown                                  | 11.62 | 875       | ug/kg |     | J    |
| 1000214-20-7                            | Stigmasterol, 22,23-dihydro-             | 12.43 | 3840      | ug/kg | 97  | NJ   |
| 1058-61-3                               | Stigmast-4-en-3-one                      | 13.47 | 3400      | ug/kg | 96  | NJ   |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

|                                    |   |                             |
|------------------------------------|---|-----------------------------|
| <b>SDG Number:</b> 10-1914         | <b>Date Collected:</b> 02/12/2010 12:00 | <b>Matrix:</b> R            |
| <b>Lab Sample ID:</b> 247358003    | <b>Date Received:</b> 02/18/2010 08:45  | <b>% Moisture:</b> 8.6      |
| <b>Client ID:</b> RE36-10-7428     | <b>Client:</b> LANL010                  | <b>Project:</b> LANL01004   |
| <b>Batch ID:</b> 956285            | <b>Method:</b> SW846 8270C              | <b>SOP Ref:</b> GL-OA-E-009 |
| <b>Run Date:</b> 03/05/2010 00:07  | <b>Inst:</b> MSD4.I                     | <b>Dilution:</b> 1          |
| <b>Prep Date:</b> 02/23/2010 10:34 | <b>Analyst:</b> JMB3                    | <b>Inj. Vol:</b> .5 uL      |
| <b>Data File:</b> s4c0432.d        | <b>Aliquot:</b> 30.03 g                 | <b>Final Volume:</b> 1 mL   |
|                                    | <b>Column:</b> J&W DB-5MS               | <b>Level:</b> LOW           |

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 364    | ug/kg | 72.9    | 364     |
| 108-95-2   | Phenol                        | U         | 364    | ug/kg | 72.9    | 364     |
| 95-57-8    | 2-Chlorophenol                | U         | 364    | ug/kg | 72.9    | 364     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 364    | ug/kg | 72.9    | 364     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 364    | ug/kg | 72.9    | 364     |
| 83-32-9    | Acenaphthene                  | U         | 36.4   | ug/kg | 12.0    | 36.4    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364     |
| 100-02-7   | 4-Nitrophenol                 | U         | 364    | ug/kg | 120     | 364     |
| 87-86-5    | Pentachlorophenol             | U         | 364    | ug/kg | 91.1    | 364     |
| 129-00-0   | Pyrene                        | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 110-86-1   | Pyridine                      | U         | 364    | ug/kg | 72.9    | 364     |
| 62-53-3    | Aniline                       | U         | 364    | ug/kg | 109     | 364     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 364    | ug/kg | 72.9    | 364     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 100-51-6   | Benzyl alcohol                | U         | 364    | ug/kg | 109     | 364     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 364    | ug/kg | 72.9    | 364     |
| 95-48-7    | o-Cresol                      | U         | 364    | ug/kg | 72.9    | 364     |
| 65794-96-9 | m,p-Cresols                   | U         | 364    | ug/kg | 109     | 364     |
| 67-72-1    | Hexachloroethane              | U         | 364    | ug/kg | 72.9    | 364     |
| 98-95-3    | Nitrobenzene                  | U         | 364    | ug/kg | 72.9    | 364     |
| 78-59-1    | Isophorone                    | U         | 364    | ug/kg | 72.9    | 364     |
| 88-75-5    | 2-Nitrophenol                 | U         | 364    | ug/kg | 72.9    | 364     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 364    | ug/kg | 128     | 364     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 364    | ug/kg | 72.9    | 364     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 364    | ug/kg | 72.9    | 364     |
| 65-85-0    | Benzoic acid                  | U         | 729    | ug/kg | 182     | 729     |
| 91-20-3    | Naphthalene                   | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 106-47-8   | 4-Chloroaniline               | U         | 364    | ug/kg | 72.9    | 364     |
| 87-68-3    | Hexachlorobutadiene           | U         | 364    | ug/kg | 72.9    | 364     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 36.4   | ug/kg | 7.29    | 36.4    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 364    | ug/kg | 72.9    | 364     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 36.4   | ug/kg | 12.0    | 36.4    |
| 88-74-4    | 2-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364     |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364     |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358003

Client ID: RE36-10-7428  
Batch ID: 956285  
Run Date: 03/05/2010 00:07  
Prep Date: 02/23/2010 10:34  
Data File: s4c0432.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.   | Parmname                   | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-----------|----------------------------|-----------|--------|-------|---------|---------|
| 131-11-3  | <i>m</i> -Nitroaniline     |           |        |       |         |         |
|           | Dimethylphthalate          | U         | 364    | ug/kg | 72.9    | 364     |
| 606-20-2  | 2,6-Dinitrotoluene         | U         | 364    | ug/kg | 36.4    | 364     |
| 208-96-8  | Acenaphthylene             | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 51-28-5   | 2,4-Dinitrophenol          | U         | 729    | ug/kg | 138     | 729     |
| 132-64-9  | Dibenzofuran               | U         | 364    | ug/kg | 72.9    | 364     |
| 84-66-2   | Diethylphthalate           | U         | 364    | ug/kg | 72.9    | 364     |
| 86-73-7   | Fluorene                   | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 7005-72-3 | 4-Chlorophenylphenylether  | U         | 364    | ug/kg | 72.9    | 364     |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol | U         | 364    | ug/kg | 72.9    | 364     |
| 100-01-6  | 4-Nitroaniline             | U         | 364    | ug/kg | 109     | 364     |
|           | <i>p</i> -Nitroaniline     |           |        |       |         |         |
| 122-39-4  | Diphenylamine              | U         | 364    | ug/kg | 72.9    | 364     |
| 122-66-7  | Azobenzene                 | U         | 364    | ug/kg | 72.9    | 364     |
|           | 1,2-Diphenylhydrazine      |           |        |       |         |         |
| 101-55-3  | 4-Bromophenylphenylether   | U         | 364    | ug/kg | 72.9    | 364     |
| 118-74-1  | Hexachlorobenzene          | U         | 364    | ug/kg | 72.9    | 364     |
| 85-01-8   | Phenanthrene               | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 120-12-7  | Anthracene                 | U         | 36.4   | ug/kg | 7.29    | 36.4    |
| 84-74-2   | Di-n-butylphthalate        | U         | 364    | ug/kg | 72.9    | 364     |
| 206-44-0  | Fluoranthene               | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 85-68-7   | Butylbenzylphthalate       | U         | 364    | ug/kg | 72.9    | 364     |
| 56-55-3   | Benzo(a)anthracene         | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | U         | 364    | ug/kg | 109     | 364     |
| 218-01-9  | Chrysene                   | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate | U         | 364    | ug/kg | 72.9    | 364     |
| 117-84-0  | Di-n-octylphthalate        | U         | 364    | ug/kg | 72.9    | 364     |
| 205-99-2  | Benzo(b)fluoranthene       | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 207-08-9  | Benzo(k)fluoranthene       | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 50-32-8   | Benzo(a)pyrene             | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene     | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 53-70-3   | Dibenzo(a,h)anthracene     | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 191-24-2  | Benzo(ghi)perylene         | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 120-82-1  | 1,2,4-Trichlorobenzene     | U         | 364    | ug/kg | 72.9    | 364     |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|------|-----------|-------|-----|------|
|         | Unknown                               | 2.02 | 229       | ug/kg |     | J    |
|         | Unknown Aldol Condensate              | 2.88 | 665       | ug/kg |     | J    |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358003  
  
Client ID: RE36-10-7428  
Batch ID: 956285  
Run Date: 03/05/2010 00:07  
Prep Date: 02/23/2010 10:34  
Data File: s4c0432.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.  | Parmname                                 | Qualifier | Result    | Units | MDL/LOD | PQL/LOQ |
|--|--|-----------|-----------|-------|---------|---------|
| <b>Tentatively Identified Compound Summary</b> |  |           |           |       |         |         |
| CAS No.  | Tentatively Identified Compound (TIC)    | RT        | Estimated | Units | Fit     | Qual    |
| 475-20-7                                       | 1,4-Methanoazulene, decahydro-4,8,8-trim | 5.67      | 412       | ug/kg | 99      | NJ      |
| 72120-50-4                                     | 1-Hydroxy-1,7-dimethyl-4-isopropyl-2,7-c | 6.24      | 148       | ug/kg | 90      | NJ      |
|  | Unknown                                  | 7.82      | 8390      | ug/kg |         | J       |
|  | Unknown                                  | 8.08      | 1010      | ug/kg |         | J       |
| 511-15-9                                       | 2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa | 8.12      | 535       | ug/kg | 96      | NJ      |
|  | Unknown                                  | 8.39      | 800       | ug/kg |         | J       |
| 295-48-7                                       | Cyclopentadecane                         | 8.41      | 251       | ug/kg | 97      | NJ      |
|  | Unknown                                  | 8.81      | 728       | ug/kg |         | J       |
| 74339-54-1                                     | Trichloroacetic acid, hexadecyl ester    | 8.95      | 265       | ug/kg | 93      | NJ      |
|  | Unknown                                  | 9.05      | 657       | ug/kg |         | J       |
| 301-02-0                                       | 9-Octadecenamide, (Z)-                   | 9.18      | 147       | ug/kg | 97      | NJ      |
|  | Unknown                                  | 9.35      | 191       | ug/kg |         | J       |
| 112-95-8                                       | Eicosane                                 | 9.5       | 155       | ug/kg | 95      | NJ      |
| 580-72-3                                       | 2(3H)-Furanone, dihydro-3,4-bis(4-hydro  | 10.8      | 417       | ug/kg | 92      | NJ      |
| 34444-37-6                                     | (-)-Nortrachelogenin                     | 11.14     | 688       | ug/kg | 90      | NJ      |
|  | Unknown                                  | 11.47     | 746       | ug/kg |         | J       |
|  | Unknown                                  | 11.75     | 163       | ug/kg |         | J       |
| 83-46-5  | .beta.-Sitosterol                        | 12.39     | 1060      | ug/kg | 97      | NJ      |

# QC Summary

Semi-Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-1914

Matrix Type: SOLID

CAP Column (1) : J&amp;W DB-5MS

| Sample ID  | Client ID            | 2FP<br>%REC | PHL<br>%REC | NBZ<br>%REC | FBP<br>%REC | TBP<br>%REC | TPH<br>%REC |
|------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1202050556 | MB for batch 956255  | 76          | 72          | 59          | 64          | 84          | 83          |
| 1202050557 | LCS for batch 956255 | 69          | 67          | 61          | 62          | 72          | 76          |
| 247358001  | RE36-10-7427         | 62          | 59          | 57          | 56          | 72          | 77          |
| 247358002  | RE36-10-7423         | 58          | 56          | 52          | 40          | 59          | 52          |
| 247358003  | RE36-10-7428         | 77          | 78          | 70          | 71          | 100         | 105         |
| 247358004  | RE36-10-7424         | 74          | 74          | 61          | 62          | 93          | 103         |

## Surrogate

## Acceptance Limits

|     |                        |            |
|-----|------------------------|------------|
| 2FP | = 2-Fluorophenol       | (29%-99%)  |
| PHL | = Phenol-d5            | (33%-98%)  |
| NBZ | = Nitrobenzene-d5      | (31%-105%) |
| FBP | = 2-Fluorobiphenyl     | (25%-109%) |
| TBP | = 2,4,6-Tribromophenol | (37%-106%) |
| TPH | = p-Terphenyl-d14      | (13%-150%) |

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 4

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956255

Matrix: SOIL

Lab Sample ID: J202050557

Instrument: MSD4.I

Analysis Date: 03/04/2010 17:06

Dilution: 1

Analyst: JMB3

Pre Batch II 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No     | Parmname                        | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|------------|---------------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 62-75-9    | LCS N-Methyl-N-nitrosomethylam  | 1670                     | 0.0                      | 826                     | 50            | 22-114               |
| 108-95-2   | LCS Phenol                      | 1670                     | 0.0                      | 1170                    | 70            | 39-104               |
| 95-57-8    | LCS 2-Chlorophenol              | 1670                     | 0.0                      | 1020                    | 61            | 40-107               |
| 106-46-7   | LCS 1,4-Dichlorobenzene         | 1670                     | 0.0                      | 995                     | 60            | 33-108               |
| 621-64-7   | LCS N-Nitrosodipropylamine      | 1670                     | 0.0                      | 1260                    | 75            | 34-113               |
| 59-50-7    | LCS 4-Chloro-3-methylphenol     | 1670                     | 0.0                      | 940                     | 56            | 42-114               |
| 83-32-9    | LCS Acenaphthene                | 1670                     | 0.0                      | 1110                    | 66            | 40-105               |
| 121-14-2   | LCS 2,4-Dinitrotoluene          | 1670                     | 0.0                      | 982                     | 59            | 49-112               |
| 100-02-7   | LCS 4-Nitrophenol               | 1670                     | 0.0                      | 706                     | 42            | 24-113               |
| 87-86-5    | LCS Pentachlorophenol           | 1670                     | 0.0                      | 925                     | 56            | 27-116               |
| 129-00-0   | LCS Pyrene                      | 1670                     | 0.0                      | 1110                    | 67            | 42-113               |
| 110-86-1   | LCS Pyridine                    | 1670                     | 0.0                      | 774                     | 46            | 8-125                |
| 62-53-3    | LCS Aniline                     | 1670                     | 0.0                      | 1030                    | 62            | 18-126               |
| 111-44-4   | LCS bis(2-Chloroethyl) ether    | 1670                     | 0.0                      | 1060                    | 63            | 32-103               |
| 541-73-1   | LCS 1,3-Dichlorobenzene         | 1670                     | 0.0                      | 926                     | 56            | 32-108               |
| 100-51-6   | LCS Benzyl alcohol              | 1670                     | 0.0                      | 533                     | 32            | 27-108               |
| 95-50-1    | LCS 1,2-Dichlorobenzene         | 1670                     | 0.0                      | 1010                    | 61            | 35-111               |
| 108-60-1   | LCS bis(2-Chloroisopropyl)ether | 1670                     | 0.0                      | 1060                    | 64            | 28-117               |
| 95-48-7    | LCS o-Cresol                    | 1670                     | 0.0                      | 1170                    | 70            | 39-111               |
| 65794-96-9 | LCS m,p-Cresols                 | 1670                     | 0.0                      | 1290                    | 78            | 45-121               |
| 67-72-1    | LCS Hexachloroethane            | 1670                     | 0.0                      | 925                     | 55            | 30-109               |
| 98-95-3    | LCS Nitrobenzene                | 1670                     | 0.0                      | 1060                    | 64            | 33-116               |



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956255

Matrix: SOIL

Lab Sample ID: 1202050557

Instrument: MSD4.I

Analysis Date: 03/04/2010 17:06

Dilution: 1

Analyst: JMB3

Prep Batch II 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No   | Parmname                                     | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery % | Acceptance Limits |
|----------|--|-----------------------|-----------------------|----------------------|------------|-------------------|
| 78-59-1  | LCS Isophorone                               | 1670                  | 0.0                   | 1050                 | 63         | 35-113            |
| 88-75-5  | LCS 2-Nitrophenol                            | 1670                  | 0.0                   | 1030                 | 62         | 31-117            |
| 105-67-9 | LCS 2,4-Dimethylphenol                       | 1670                  | 0.0                   | 1140                 | 69         | 32-112            |
| 111-91-1 | LCS bis(2-Chloroethoxy)methane               | 1670                  | 0.0                   | 1050                 | 63         | 34-110            |
| 120-83-2 | LCS 2,4-Dichlorophenol                       | 1670                  | 0.0                   | 966                  | 58         | 34-116            |
| 65-85-0  | LCS Benzoic acid                             | 3330                  | 0.0                   | 1880                 | 56         | 22-138            |
| 91-20-3  | LCS Naphthalene                              | 1670                  | 0.0                   | 1130                 | 68         | 35-103            |
| 106-47-8 | LCS 4-Chloroaniline                          | 1670                  | 0.0                   | 1080                 | 65         | 20-118            |
| 87-68-3  | LCS Hexachlorobutadiene                      | 1670                  | 0.0                   | 999                  | 60         | 31-117            |
| 91-57-6  | LCS 2-Methylnaphthalene                      | 1670                  | 0.0                   | 1110                 | 67         | 38-115            |
| 77-47-4  | LCS Hexachlorocyclopentadiene                | 1670                  | 0.0                   | 675                  | 40         | 22-140            |
| 88-06-2  | LCS 2,4,6-Trichlorophenol                    | 1670                  | 0.0                   | 1160                 | 69         | 40-110            |
| 95-95-4  | LCS 2,4,5-Trichlorophenol                    | 1670                  | 0.0                   | 923                  | 55         | 43-113            |
| 91-58-7  | LCS 2-Chloronaphthalene                      | 1670                  | 0.0                   | 1060                 | 63         | 37-111            |
| 88-74-4  | LCS 2-Nitroaniline<br><i>o</i> -Nitroaniline | 1670                  | 0.0                   | 983                  | 59         | 41-113            |
| 99-09-2  | LCS 3-Nitroaniline<br><i>m</i> -Nitroaniline | 1670                  | 0.0                   | 967                  | 58         | 34-125            |
| 131-11-3 | LCS Dimethylphthalate                        | 1670                  | 0.0                   | 1100                 | 66         | 48-122            |
| 606-20-2 | LCS 2,6-Dinitrotoluene                       | 1670                  | 0.0                   | 930                  | 56         | 47-107            |
| 208-96-8 | LCS Acenaphthylene                           | 1670                  | 0.0                   | 1140                 | 69         | 44-110            |
| 51-28-5  | LCS 2,4-Dinitrophenol                        | 1670                  | 0.0                   | 961                  | 58         | 18-127            |
| 132-64-9 | LCS Dibenzofuran                             | 1670                  | 0.0                   | 1100                 | 66         | 49-115            |
| 84-66-2  | LCS Diethylphthalate                         | 1670                  | 0.0                   | 1170                 | 70         | 51-126            |

## Semi-Volatile

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956255

Matrix: SOIL

Lab Sample ID: 1202050557

Instrument: MSD4.I

Analysis Date: 03/04/2010 17:06

Dilution: 1

Analyst: JMB3

Prep Batch II 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No    | Parmname                                       | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|-----------|--|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 86-73-7   | LCS Fluorene                                   | 1670                     | 0.0                      | 1210                    | 72            | 43-109               |
| 7005-72-3 | LCS 4-Chlorophenylphenylether                  | 1670                     | 0.0                      | 1120                    | 67            | 45-115               |
| 534-52-1  | LCS 2-Methyl-4,6-dinitrophenol                 | 1670                     | 0.0                      | 917                     | 55            | 32-117               |
| 100-01-6  | LCS 4-Nitroaniline<br><i>p</i> -Nitroaniline   | 1670                     | 0.0                      | 1370                    | 82            | 33-148               |
| 122-39-4  | LCS Diphenylamine                              | 1670                     | 0.0                      | 1140                    | 69            | 46-114               |
| 122-66-7  | LCS Azobenzene<br><i>1,2-Diphenylhydrazine</i> | 1670                     | 0.0                      | 1150                    | 69            | 38-123               |
| 101-55-3  | LCS 4-Bromophenylphenylether                   | 1670                     | 0.0                      | 1030                    | 62            | 40-119               |
| 118-74-1  | LCS Hexachlorobenzene                          | 1670                     | 0.0                      | 1050                    | 63            | 43-111               |
| 85-01-8   | LCS Phenanthrene                               | 1670                     | 0.0                      | 1140                    | 69            | 46-107               |
| 120-12-7  | LCS Anthracene                                 | 1670                     | 0.0                      | 1060                    | 64            | 46-110               |
| 84-74-2   | LCS Di-n-butylphthalate                        | 1670                     | 0.0                      | 1280                    | 77            | 52-132               |
| 206-44-0  | LCS Fluoranthene                               | 1670                     | 0.0                      | 1080                    | 65            | 51-115               |
| 85-68-7   | LCS Butylbenzylphthalate                       | 1670                     | 0.0                      | 1210                    | 73            | 47-137               |
| 56-55-3   | LCS Benzo(a)anthracene                         | 1670                     | 0.0                      | 1020                    | 61            | 50-108               |
| 91-94-1   | LCS 3,3'-Dichlorobenzidine                     | 1670                     | 0.0                      | 888                     | 53            | 36-103               |
| 218-01-9  | LCS Chrysene                                   | 1670                     | 0.0                      | 1100                    | 66            | 48-111               |
| 117-81-7  | LCS bis(2-Ethylhexyl)phthalate                 | 1670                     | 0.0                      | 1140                    | 69            | 48-139               |
| 117-84-0  | LCS Di-n-octylphthalate                        | 1670                     | 0.0                      | 930                     | 56            | 42-141               |
| 205-99-2  | LCS Benzo(b)fluoranthene                       | 1670                     | 0.0                      | 1040                    | 63            | 49-114               |
| 207-08-9  | LCS Benzo(k)fluoranthene                       | 1670                     | 0.0                      | 987                     | 59            | 50-116               |
| 50-32-8   | LCS Benzo(a)pyrene                             | 1670                     | 0.0                      | 1050                    | 63            | 54-114               |
| 193-39-5  | LCS Indeno(1,2,3-cd)pyrene                     | 1670                     | 0.0                      | 1190                    | 71            | 53-120               |

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 956255

Matrix: SOIL

Lab Sample ID:1202050557

Instrument: MSD4.I

Analysis Date: 03/04/2010 17:06

Dilution: 1

Analyst: JMB3

Prep Batch ID: 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No   | Parmname                   | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|----------|----------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 53-70-3  | LCS Dibenzo(a,h)anthracene | 1670                     | 0.0                      | 1190                    | 72            | 53-121               |
| 191-24-2 | LCS Benzo(ghi)perylene     | 1670                     | 0.0                      | 1110                    | 67            | 50-121               |
| 120-82-1 | LCS 1,2,4-Trichlorobenzene | 1670                     | 0.0                      | 1000                    | 60            | 32-114               |

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Matrix Spike

Client ID: RE16-10-1514MS

Matrix: S

Lab Sample ID: 1202050558

%Moisture: 11.3

Instrument: MSD4.I

Analysis Date: 03/05/2010 01:17

Dilution: 1

Analyst: JMB3

Prep Batch ID: 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No     | Parmname                       | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery % | Acceptance Limits |
|------------|--------------------------------|-----------------------|-----------------------|----------------------|------------|-------------------|
| 62-75-9    | MS N-Methyl-N-nitrosomethylam  | 1880                  | 0.00                  | U 763                | 41         | 27-98             |
| 108-95-2   | MS Phenol                      | 1880                  | 0.00                  | U 958                | 51         | 33-94             |
| 95-57-8    | MS 2-Chlorophenol              | 1880                  | 0.00                  | U 816                | 43         | 29-96             |
| 106-46-7   | MS 1,4-Dichlorobenzene         | 1880                  | 0.00                  | U 563                | 30         | 27-96             |
| 621-64-7   | MS N-Nitrosodipropylamine      | 1880                  | 0.00                  | U 821                | 44         | 29-102            |
| 59-50-7    | MS 4-Chloro-3-methylphenol     | 1880                  | 0.00                  | U 886                | 47         | 29-110            |
| 83-32-9    | MS Acenaphthene                | 1880                  | 0.00                  | U 1010               | 54         | 17-109            |
| 121-14-2   | MS 2,4-Dinitrotoluene          | 1880                  | 0.00                  | U 962                | 51         | 33-107            |
| 100-02-7   | MS 4-Nitrophenol               | 1880                  | 0.00                  | U 1020               | 54         | 15-110            |
| 87-86-5    | MS Pentachlorophenol           | 1880                  | 0.00                  | U 1050               | 56         | 23-110            |
| 129-00-0   | MS Pyrene                      | 1880                  | 0.00                  | U 1080               | 58         | 24-118            |
| 110-86-1   | MS Pyridine                    | 1880                  | 0.00                  | U 688                | 37         | 25-102            |
| 62-53-3    | MS Aniline                     | 1880                  | 0.00                  | U 777                | 41         | 18-109            |
| 111-44-4   | MS bis(2-Chloroethyl) ether    | 1880                  | 0.00                  | U 824                | 44         | 29-96             |
| 541-73-1   | MS 1,3-Dichlorobenzene         | 1880                  | 0.00                  | U 720                | 38         | 26-97             |
| 100-51-6   | MS Benzyl alcohol              | 1880                  | 0.00                  | U 1010               | 54         | 19-112            |
| 95-50-1    | MS 1,2-Dichlorobenzene         | 1880                  | 0.00                  | U 681                | 36         | 30-97             |
| 108-60-1   | MS bis(2-Chloroisopropyl)ether | 1880                  | 0.00                  | U 905                | 48         | 28-103            |
| 95-48-7    | MS o-Cresol                    | 1880                  | 0.00                  | U 654                | 35         | 32-107            |
| 65794-96-9 | MS m,p-Cresols                 | 1880                  | 0.00                  | U 1010               | 54         | 33-115            |
| 67-72-1    | MS Hexachloroethane            | 1880                  | 0.00                  | U 516                | 27         | 25-100            |
| 98-95-3    | MS Nitrobenzene                | 1880                  | 0.00                  | U 783                | 42         | 27-106            |

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Matrix Spike

Client ID: RE16-10-1514MS

Matrix: S

Lab Sample ID: 1202050558

% Moisture: 11.3

Instrument: MSD4.I

Analysis Date: 03/05/2010 01:17

Dilution: 1

Analyst: JMB3

Prep Batch ID: 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No   | Parmname                                    | Amount Added<br>ug/kg | Sample Conc.<br>ug/kg | Spike Conc.<br>ug/kg | Recovery % | Acceptance Limits |
|----------|---|-----------------------|-----------------------|----------------------|------------|-------------------|
| 78-59-1  | MS Isophorone                               | 1880                  | 0.00 U                | 774                  | 41         | 29-104            |
| 88-75-5  | MS 2-Nitrophenol                            | 1880                  | 0.00 U                | 854                  | 45         | 26-102            |
| 105-67-9 | MS 2,4-Dimethylphenol                       | 1880                  | 0.00 U                | 975                  | 52         | 22-104            |
| 111-91-1 | MS bis(2-Chloroethoxy)methane               | 1880                  | 0.00 U                | 756                  | 40         | 27-101            |
| 120-83-2 | MS 2,4-Dichlorophenol                       | 1880                  | 0.00 U                | 819                  | 44         | 26-103            |
| 65-85-0  | MS Benzoic acid                             | 3760                  | 0.00 U                | 1880                 | 50         | 13-131            |
| 91-20-3  | MS Naphthalene                              | 1880                  | 0.00 U                | 897                  | 48         | 23-103            |
| 106-47-8 | MS 4-Chloroaniline                          | 1880                  | 0.00 U                | 841                  | 45         | 26-103            |
| 87-68-3  | MS Hexachlorobutadiene                      | 1880                  | 0.00 U                | 671                  | 36         | 28-101            |
| 91-57-6  | MS 2-Methylnaphthalene                      | 1880                  | 0.00 U                | 975                  | 52         | 27-106            |
| 77-47-4  | MS Hexachlorocyclopentadiene                | 1880                  | 0.00 U                | 412                  | 22 *       | 24-117            |
| 88-06-2  | MS 2,4,6-Trichlorophenol                    | 1880                  | 0.00 U                | 1060                 | 56         | 26-105            |
| 95-95-4  | MS 2,4,5-Trichlorophenol                    | 1880                  | 0.00 U                | 996                  | 53         | 30-110            |
| 91-58-7  | MS 2-Chloronaphthalene                      | 1880                  | 0.00 U                | 849                  | 45         | 28-102            |
| 88-74-4  | MS 2-Nitroaniline<br><i>o</i> -Nitroaniline | 1880                  | 0.00 U                | 908                  | 48         | 33-106            |
| 99-09-2  | MS 3-Nitroaniline<br><i>m</i> -Nitroaniline | 1880                  | 0.00 U                | 1070                 | 57         | 33-116            |
| 131-11-3 | MS Dimethylphthalate                        | 1880                  | 0.00 U                | 960                  | 51         | 38-113            |
| 606-20-2 | MS 2,6-Dinitrotoluene                       | 1880                  | 0.00 U                | 873                  | 46         | 29-107            |
| 208-96-8 | MS Acenaphthylene                           | 1880                  | 0.00 U                | 1050                 | 56         | 25-108            |
| 51-28-5  | MS 2,4-Dinitrophenol                        | 1880                  | 0.00 U                | 1060                 | 57         | 14-102            |
| 132-64-9 | MS Dibenzofuran                             | 1880                  | 0.00 U                | 997                  | 53         | 35-112            |
| 84-66-2  | MS Diethylphthalate                         | 1880                  | 0.00 U                | 1070                 | 57         | 36-122            |

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Matrix Spike

Client ID: RE16-10-1514MS

Matrix: S

Lab Sample ID: 1202050558

% Moisture: 11.3

Instrument: MSD4.I

Analysis Date: 03/05/2010 01:17

Dilution: 1

Analyst: JMB3

Prep Batch II 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No    | Parmname                                      | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|-----------|---|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 86-73-7   | MS Fluorene                                   | 1880                     | 0.00 U                   | 1110                    | 59            | 33-105               |
| 7005-72-3 | MS 4-Chlorophenylphenylether                  | 1880                     | 0.00 U                   | 1020                    | 54            | 30-110               |
| 534-52-1  | MS 2-Methyl-4,6-dinitrophenol                 | 1880                     | 0.00 U                   | 888                     | 47            | 26-97                |
| 100-01-6  | MS 4-Nitroaniline<br><i>p</i> -Nitroaniline   | 1880                     | 0.00 U                   | 1270                    | 67            | 28-135               |
| 122-39-4  | MS Diphenylamine                              | 1880                     | 0.00 U                   | 992                     | 53            | 33-109               |
| 122-66-7  | MS Azobenzene<br><i>1,2-Diphenylhydrazine</i> | 1880                     | 0.00 U                   | 962                     | 51            | 31-113               |
| 101-55-3  | MS 4-Bromophenylphenylether                   | 1880                     | 0.00 U                   | 908                     | 48            | 31-109               |
| 118-74-1  | MS Hexachlorobenzene                          | 1880                     | 0.00 U                   | 866                     | 46            | 37-99                |
| 85-01-8   | MS Phenanthrene                               | 1880                     | 0.00 U                   | 1020                    | 55            | 29-109               |
| 120-12-7  | MS Anthracene                                 | 1880                     | 0.00 U                   | 990                     | 53            | 19-118               |
| 84-74-2   | MS Di-n-butylphthalate                        | 1880                     | 0.00 U                   | 1150                    | 61            | 39-123               |
| 206-44-0  | MS Fluoranthene                               | 1880                     | 0.00 U                   | 1010                    | 54            | 33-114               |
| 85-68-7   | MS Butylbenzylphthalate                       | 1880                     | 0.00 U                   | 1230                    | 66            | 35-131               |
| 56-55-3   | MS Benzo(a)anthracene                         | 1880                     | 0.00 U                   | 958                     | 51            | 30-111               |
| 91-94-1   | MS 3,3'-Dichlorobenzidine                     | 1880                     | 0.00 U                   | 846                     | 45            | 30-124               |
| 218-01-9  | MS Chrysene                                   | 1880                     | 0.00 U                   | 865                     | 46            | 32-108               |
| 117-81-7  | MS bis(2-Ethylhexyl)phthalate                 | 1880                     | 0.00 U                   | 1170                    | 62            | 37-129               |
| 117-84-0  | MS Di-n-octylphthalate                        | 1880                     | 0.00 U                   | 1410                    | 75            | 31-143               |
| 205-99-2  | MS Benzo(b)fluoranthene                       | 1880                     | 0.00 U                   | 990                     | 53            | 29-118               |
| 207-08-9  | MS Benzo(k)fluoranthene                       | 1880                     | 0.00 U                   | 986                     | 53            | 32-118               |
| 50-32-8   | MS Benzo(a)pyrene                             | 1880                     | 0.00 U                   | 925                     | 49            | 33-115               |
| 193-39-5  | MS Indeno(1,2,3-cd)pyrene                     | 1880                     | 0.00 U                   | 757                     | 40            | 29-114               |

## Semi-Volatile

Page 4 of 8

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Matrix Spike

Client ID: RE16-10-1514MS

Matrix: S

Lab Sample ID: 1202050558

%Moisture: 11.3

Instrument: MSD4.I

Analysis Date: 03/05/2010 01:17

Dilution: 1

Analyst: JMB3

Prep Batch ID: 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No   | Parmname                  | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits |
|----------|---------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|
| 53-70-3  | MS Dibenzo(a,h)anthracene | 1880                     | 0.00 U                   | 798                     | 43            | 27-119               |
| 191-24-2 | MS Benzo(ghi)perylene     | 1880                     | 0.00 U                   | 665                     | 35            | 28-112               |
| 120-82-1 | MS 1,2,4-Trichlorobenzene | 1880                     | 0.00 U                   | 771                     | 41            | 28-99                |

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Matrix Spike Duplicate

Client ID: RE16-10-1514MSD

Matrix: S

Lab Sample ID: 1202050559

%Moisture: 11.3

Instrument: MSD4.I

Analysis Date: 03/05/2010 01:39

Dilution: 1

Analyst: JMB3

Prep Batch II 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No     | Parmname                        | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits | RPD<br>% | Acceptance<br>Limits |
|------------|---------------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|----------|----------------------|
| 62-75-9    | MSD N-Methyl-N-nitrosomethylam  | 1880                     | 0.00 U                   | 565                     | 30            | 27-98                | 30       | 0-30                 |
| 108-95-2   | MSD Phenol                      | 1880                     | 0.00 U                   | 852                     | 45            | 33-94                | 12       | 0-30                 |
| 95-57-8    | MSD 2-Chlorophenol              | 1880                     | 0.00 U                   | 739                     | 39            | 29-96                | 10       | 0-30                 |
| 106-46-7   | MSD 1,4-Dichlorobenzene         | 1880                     | 0.00 U                   | 459                     | 24 *          | 27-96                | 20       | 0-30                 |
| 621-64-7   | MSD N-Nitrosodipropylamine      | 1880                     | 0.00 U                   | 858                     | 46            | 29-102               | 4        | 0-30                 |
| 59-50-7    | MSD 4-Chloro-3-methylphenol     | 1880                     | 0.00 U                   | 928                     | 49            | 29-110               | 5        | 0-30                 |
| 83-32-9    | MSD Acenaphthene                | 1880                     | 0.00 U                   | 873                     | 47            | 17-109               | 15       | 0-30                 |
| 121-14-2   | MSD 2,4-Dinitrotoluene          | 1880                     | 0.00 U                   | 927                     | 49            | 33-107               | 4        | 0-30                 |
| 100-02-7   | MSD 4-Nitrophenol               | 1880                     | 0.00 U                   | 845                     | 45            | 15-110               | 19       | 0-30                 |
| 87-86-5    | MSD Pentachlorophenol           | 1880                     | 0.00 U                   | 990                     | 53            | 23-110               | 6        | 0-30                 |
| 129-00-0   | MSD Pyrene                      | 1880                     | 0.00 U                   | 1140                    | 61            | 24-118               | 6        | 0-30                 |
| 110-86-1   | MSD Pyridine                    | 1880                     | 0.00 U                   | 473                     | 25            | 25-102               | 37 *     | 0-30                 |
| 62-53-3    | MSD Aniline                     | 1880                     | 0.00 U                   | 602                     | 32            | 18-109               | 25       | 0-30                 |
| 111-44-4   | MSD bis(2-Chloroethyl) ether    | 1880                     | 0.00 U                   | 674                     | 36            | 29-96                | 20       | 0-30                 |
| 541-73-1   | MSD 1,3-Dichlorobenzene         | 1880                     | 0.00 U                   | 416                     | 22 *          | 26-97                | 54 *     | 0-30                 |
| 100-51-6   | MSD Benzyl alcohol              | 1880                     | 0.00 U                   | 0.00                    | 0 *           | 19-112               | 200 *    | 0-30                 |
| 95-50-1    | MSD 1,2-Dichlorobenzene         | 1880                     | 0.00 U                   | 511                     | 27 *          | 30-97                | 28       | 0-30                 |
| 108-60-1   | MSD bis(2-Chloroisopropyl)ether | 1880                     | 0.00 U                   | 697                     | 37            | 28-103               | 26       | 0-30                 |
| 95-48-7    | MSD o-Cresol                    | 1880                     | 0.00 U                   | 1110                    | 59            | 32-107               | 52 *     | 0-30                 |
| 65794-96-9 | MSD m,p-Cresols                 | 1880                     | 0.00 U                   | 1050                    | 56            | 33-115               | 5        | 0-30                 |
| 67-72-1    | MSD Hexachloroethane            | 1880                     | 0.00 U                   | 370                     | 20 *          | 25-100               | 33 *     | 0-30                 |
| 98-95-3    | MSD Nitrobenzene                | 1880                     | 0.00 U                   | 713                     | 38            | 27-106               | 9        | 0-30                 |



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Client ID: RE16-10-1514MSD

Lab Sample ID: 1202050559

Instrument: MSD4.I

Analyst: JMB3

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 11.3

Analysis Date: 03/05/2010 01:39

Dilution: 1

Pre Batch ID: 956255

Batch ID: 956285

| CAS No   | Parmname                                     | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg |   | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits | RPD<br>% | Acceptance<br>Limits |
|----------|--|--------------------------|--------------------------|---|-------------------------|---------------|----------------------|----------|----------------------|
| 78-59-1  | MSD Isophorone                               | 1880                     | 0.00                     | U | 810                     | 43            | 29-104               | 5        | 0-30                 |
| 88-75-5  | MSD 2-Nitrophenol                            | 1880                     | 0.00                     | U | 827                     | 44            | 26-102               | 3        | 0-30                 |
| 105-67-9 | MSD 2,4-Dimethylphenol                       | 1880                     | 0.00                     | U | 942                     | 50            | 22-104               | 3        | 0-30                 |
| 111-91-1 | MSD bis(2-Chloroethoxy)methane               | 1880                     | 0.00                     | U | 810                     | 43            | 27-101               | 7        | 0-30                 |
| 120-83-2 | MSD 2,4-Dichlorophenol                       | 1880                     | 0.00                     | U | 874                     | 47            | 26-103               | 7        | 0-30                 |
| 65-85-0  | MSD Benzoic acid                             | 3750                     | 0.00                     | U | 1860                    | 49            | 13-131               | 1        | 0-30                 |
| 91-20-3  | MSD Naphthalene                              | 1880                     | 0.00                     | U | 744                     | 40            | 23-103               | 19       | 0-30                 |
| 106-47-8 | MSD 4-Chloroaniline                          | 1880                     | 0.00                     | U | 770                     | 41            | 26-103               | 9        | 0-30                 |
| 87-68-3  | MSD Hexachlorobutadiene                      | 1880                     | 0.00                     | U | 553                     | 29            | 28-101               | 19       | 0-30                 |
| 91-57-6  | MSD 2-Methylnaphthalene                      | 1880                     | 0.00                     | U | 851                     | 45            | 27-106               | 14       | 0-30                 |
| 77-47-4  | MSD Hexachlorocyclopentadiene                | 1880                     | 0.00                     | U | 372                     | 20 *          | 24-117               | 10       | 0-30                 |
| 88-06-2  | MSD 2,4,6-Trichlorophenol                    | 1880                     | 0.00                     | U | 949                     | 51            | 26-105               | 11       | 0-30                 |
| 95-95-4  | MSD 2,4,5-Trichlorophenol                    | 1880                     | 0.00                     | U | 949                     | 51            | 30-110               | 5        | 0-30                 |
| 91-58-7  | MSD 2-Chloronaphthalene                      | 1880                     | 0.00                     | U | 821                     | 44            | 28-102               | 3        | 0-30                 |
| 88-74-4  | MSD 2-Nitroaniline<br><i>o</i> -Nitroaniline | 1880                     | 0.00                     | U | 884                     | 47            | 33-106               | 3        | 0-30                 |
| 99-09-2  | MSD 3-Nitroaniline<br><i>m</i> -Nitroaniline | 1880                     | 0.00                     | U | 932                     | 50            | 33-116               | 14       | 0-30                 |
| 131-11-3 | MSD Dimethylphthalate                        | 1880                     | 0.00                     | U | 935                     | 50            | 38-113               | 3        | 0-30                 |
| 606-20-2 | MSD 2,6-Dinitrotoluene                       | 1880                     | 0.00                     | U | 855                     | 46            | 29-107               | 2        | 0-30                 |
| 208-96-8 | MSD Acenaphthylene                           | 1880                     | 0.00                     | U | 928                     | 49            | 25-108               | 13       | 0-30                 |
| 51-28-5  | MSD 2,4-Dinitrophenol                        | 1880                     | 0.00                     | U | 886                     | 47            | 14-102               | 18       | 0-30                 |
| 132-64-9 | MSD Dibenzofuran                             | 1880                     | 0.00                     | U | 943                     | 50            | 35-112               | 6        | 0-30                 |
| 84-66-2  | MSD Diethylphthalate                         | 1880                     | 0.00                     | U | 1050                    | 56            | 36-122               | 2        | 0-30                 |

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 7 of 8

SDG Number: 10-1914

Client ID: RE16-10-1514MSD

Lab Sample ID: 1202050559

Instrument: MSD4.I

Analyst: JMB3

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 11.3

Analysis Date: 03/05/2010 01:39

Dilution: 1

Prep Batch II 956255

Batch ID: 956285

| CAS No    | Parmname                                       | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg |   | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits | RPD<br>% | Acceptance<br>Limits |
|-----------|--|--------------------------|--------------------------|---|-------------------------|---------------|----------------------|----------|----------------------|
| 86-73-7   | MSD Fluorene                                   | 1880                     | 0.00                     | U | 1020                    | 54            | 33-105               | 9        | 0-30                 |
| 7005-72-3 | MSD 4-Chlorophenylphenylether                  | 1880                     | 0.00                     | U | 964                     | 51            | 30-110               | 6        | 0-30                 |
| 534-52-1  | MSD 2-Methyl-4,6-dinitrophenol                 | 1880                     | 0.00                     | U | 815                     | 43            | 26-97                | 9        | 0-30                 |
| 100-01-6  | MSD 4-Nitroaniline<br><i>p-Nitroaniline</i>    | 1880                     | 0.00                     | U | 1240                    | 66            | 28-135               | 2        | 0-30                 |
| 122-39-4  | MSD Diphenylamine                              | 1880                     | 0.00                     | U | 1040                    | 55            | 33-109               | 5        | 0-30                 |
| 122-66-7  | MSD Azobenzene<br><i>1,2-Diphenylhydrazine</i> | 1880                     | 0.00                     | U | 1000                    | 53            | 31-113               | 4        | 0-30                 |
| 101-55-3  | MSD 4-Bromophenylphenylether                   | 1880                     | 0.00                     | U | 934                     | 50            | 31-109               | 3        | 0-30                 |
| 118-74-1  | MSD Hexachlorobenzene                          | 1880                     | 0.00                     | U | 901                     | 48            | 37-99                | 4        | 0-30                 |
| 85-01-8   | MSD Phenanthrene                               | 1880                     | 0.00                     | U | 981                     | 52            | 29-109               | 4        | 0-30                 |
| 120-12-7  | MSD Anthracene                                 | 1880                     | 0.00                     | U | 986                     | 53            | 19-118               | 0        | 0-30                 |
| 84-74-2   | MSD Di-n-butylphthalate                        | 1880                     | 0.00                     | U | 1170                    | 62            | 39-123               | 2        | 0-30                 |
| 206-44-0  | MSD Fluoranthene                               | 1880                     | 0.00                     | U | 988                     | 53            | 33-114               | 2        | 0-30                 |
| 85-68-7   | MSD Butylbenzylphthalate                       | 1880                     | 0.00                     | U | 1310                    | 70            | 35-131               | 6        | 0-30                 |
| 56-55-3   | MSD Benzo(a)anthracene                         | 1880                     | 0.00                     | U | 949                     | 51            | 30-111               | 1        | 0-30                 |
| 91-94-1   | MSD 3,3'-Dichlorobenzidine                     | 1880                     | 0.00                     | U | 942                     | 50            | 30-124               | 11       | 0-30                 |
| 218-01-9  | MSD Chrysene                                   | 1880                     | 0.00                     | U | 973                     | 52            | 32-108               | 12       | 0-30                 |
| 117-81-7  | MSD bis(2-Ethylhexyl)phthalate                 | 1880                     | 0.00                     | U | 1220                    | 65            | 37-129               | 5        | 0-30                 |
| 117-84-0  | MSD Di-n-octylphthalate                        | 1880                     | 0.00                     | U | 1370                    | 73            | 31-143               | 3        | 0-30                 |
| 205-99-2  | MSD Benzo(b)fluoranthene                       | 1880                     | 0.00                     | U | 1010                    | 54            | 29-118               | 2        | 0-30                 |
| 207-08-9  | MSD Benzo(k)fluoranthene                       | 1880                     | 0.00                     | U | 1100                    | 58            | 32-118               | 11       | 0-30                 |
| 50-32-8   | MSD Benzo(a)pyrene                             | 1880                     | 0.00                     | U | 1010                    | 54            | 33-115               | 9        | 0-30                 |
| 193-39-5  | MSD Indeno(1,2,3-cd)pyrene                     | 1880                     | 0.00                     | U | 944                     | 50            | 29-114               | 22       | 0-30                 |

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-1914

Sample Type: Matrix Spike Duplicate

Client ID: RE16-10-1514MSD

Matrix: S

Lab Sample ID: 1202050559

%Moisture: 11.3

Instrument: MSD4.I

Analysis Date: 03/05/2010 01:39

Dilution: 1

Analyst: JMB3

Prep Batch ID: 956255

Inj. Vol: .5 uL

Batch ID: 956285

| CAS No   | Parmname                   | Amount<br>Added<br>ug/kg | Sample<br>Conc.<br>ug/kg | Spike<br>Conc.<br>ug/kg | Recovery<br>% | Acceptance<br>Limits | RPD<br>% | Acceptance<br>Limits |
|----------|----------------------------|--------------------------|--------------------------|-------------------------|---------------|----------------------|----------|----------------------|
| 53-70-3  | MSD Dibenzo(a,h)anthracene | 1880                     | 0.00 U                   | 971                     | 52            | 27-119               | 20       | 0-30                 |
| 191-24-2 | MSD Benzo(ghi)perylene     | 1880                     | 0.00 U                   | 831                     | 44            | 28-112               | 22       | 0-30                 |
| 120-82-1 | MSD 1,2,4-Trichlorobenzene | 1880                     | 0.00 U                   | 646                     | 34            | 28-99                | 18       | 0-30                 |

## Method Blank Summary

Page 1 of 1

|                |                     |                |                  |            |                |
|----------------|---------------------|----------------|------------------|------------|----------------|
| SDG Number:    | 10-1914             | Client:        | LANL010          | Matrix:    | SOIL           |
| Client ID:     | MB for batch 956255 | Instrument ID: | MSD4.I           | Data File: | s4c0412-1.d    |
| Lab Sample ID: | 1202050556          | Prep Date:     | 02/23/2010 10:34 | Analyzed:  | 03/04/10 16:43 |
| Column:        | J&W DB-5MS          | Level:         | LOW              |            |                |

This method blank applies to the following samples and quality control samples:

| Client Sample ID        | Lab Sample ID | File ID     | Date Analyzed | Time Analyzed |
|-------------------------|---------------|-------------|---------------|---------------|
| 01 LCS for batch 956255 | 1202050557    | s4c0413-1.d | 03/04/10      | 1706          |
| 02 RE36-10-7427         | 247358001     | s4c0430.d   | 03/04/10      | 2323          |
| 03 RE36-10-7423         | 247358002     | s4c0431.d   | 03/04/10      | 2345          |
| 04 RE36-10-7428         | 247358003     | s4c0432.d   | 03/05/10      | 0007          |
| 05 RE36-10-7424         | 247358004     | s4c0433.d   | 03/05/10      | 0029          |

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1914

Instrument ID: MSD4.I

Injection Date/Time: 04-MAR-10 15:36

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD4.i/s030410a.b/s4c0409.d

| m/e | Ion Abundance Criteria             | % Relative Abundance |
|-----|------------------------------------|----------------------|
| 198 | Base Peak, 100% Relative Abundance | 100                  |
| 51  | 30 - 60% of mass 198               | 41.7                 |
| 68  | Less than 2% of mass 69            | 1.3                  |
| 69  | Mass 69 Relative Abundance         | 45.9                 |
| 70  | Less than 2% of mass 69            | 0.6                  |
| 127 | 40 - 60% of mass 198               | 58.5                 |
| 197 | 0 - 1% of mass 198                 | 0.3                  |
| 199 | 5 - 9% of mass 198                 | 6.9                  |
| 275 | 10 - 30% of mass 198               | 23.5                 |
| 365 | Greater than 1% of mass 198        | 3.7                  |
| 441 | Present, but less than mass 443    | 79.4                 |
| 442 | Greater than 40% of mass 198       | 49.6                 |
| 443 | 17 - 23% of mass 442               | 19.6                 |

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

| Client Sample ID | Lab Sample ID  | Lab File ID | Time Analyzed   |
|------------------|----------------|-------------|-----------------|
| MEGACVS          | WBN100225-05.4 | s4c0410.d   | 04-MAR-10 15:49 |
| APCVS            | WBN100218-03.5 | s4c0411.d   | 04-MAR-10 16:21 |
| SBLK01           | 1202050556     | s4c0412-1.d | 04-MAR-10 16:43 |
| SBLK01LCS        | 1202050557     | s4c0413-1.d | 04-MAR-10 17:06 |
| RE36-10-7427     | 247358001      | s4c0430.d   | 04-MAR-10 23:23 |
| RE36-10-7423     | 247358002      | s4c0431.d   | 04-MAR-10 23:45 |
| RE36-10-7428     | 247358003      | s4c0432.d   | 05-MAR-10 00:07 |
| RE36-10-7424     | 247358004      | s4c0433.d   | 05-MAR-10 00:29 |

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1914

Instrument ID: MSD4.I

Injection Date/Time: 25-FEB-10 09:00

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD4.i/s022410a.b/s4b2446.d

| m/e | Ion Abundance Criteria             | % Relative Abundance |
|-----|------------------------------------|----------------------|
| 198 | Base Peak, 100% Relative Abundance | 100                  |
| 51  | 30 - 60% of mass 198               | 37.3                 |
| 68  | Less than 2% of mass 69            | 1.3                  |
| 69  | Mass 69 Relative Abundance         | 41.7                 |
| 70  | Less than 2% of mass 69            | 0.5                  |
| 127 | 40 - 60% of mass 198               | 55                   |
| 197 | 0 - 1% of mass 198                 | 0.4                  |
| 199 | 5 - 9% of mass 198                 | 6.9                  |
| 275 | 10 - 30% of mass 198               | 23                   |
| 365 | Greater than 1% of mass 198        | 3.4                  |
| 441 | Present, but less than mass 443    | 48                   |
| 442 | Greater than 40% of mass 198       | 56.6                 |
| 443 | 17 - 23% of mass 442               | 19.8                 |

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

| Client Sample ID | Lab Sample ID  | Lab File ID | Time Analyzed   |
|------------------|----------------|-------------|-----------------|
| MEGA001          | WBN100215-08   | s4b2448.d   | 25-FEB-10 09:39 |
| MEGA010          | WBN100215-07   | s4b2449.d   | 25-FEB-10 10:06 |
| MEGA020          | WBN100215-06   | s4b2450.d   | 25-FEB-10 10:32 |
| MEGA040          | WBN100215-05.1 | s4b2451.d   | 25-FEB-10 10:59 |
| MEGA050          | WBN100215-04   | s4b2452.d   | 25-FEB-10 11:26 |
| MEGA080          | WBN100215-03   | s4b2453.d   | 25-FEB-10 11:52 |
| MEGA100          | WBN100215-02   | s4b2454.d   | 25-FEB-10 12:19 |
| MEGA120          | WBN100215-01   | s4b2455.d   | 25-FEB-10 12:46 |
| AP010            | WBN100218-01   | s4b2456.d   | 25-FEB-10 13:38 |
| AP020            | WBN100218-02   | s4b2457.d   | 25-FEB-10 14:00 |
| AP040            | WBN100218-03.1 | s4b2458.d   | 25-FEB-10 14:21 |
| AP050            | WBN100218-04   | s4b2459.d   | 25-FEB-10 14:43 |
| AP080            | WBN100218-05   | s4b2460.d   | 25-FEB-10 15:05 |
| AP0100           | WBN100218-06   | s4b2461.d   | 25-FEB-10 15:27 |
| AP120            | WBN100218-07   | s4b2462.d   | 25-FEB-10 15:48 |
| MEGAICV          | WBN100215-09.1 | s4b2463.d   | 25-FEB-10 16:10 |

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-1914

Instrument ID: MSD4.I

Injection Date/Time: 25-FEB-10 09:00

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD4.i/s022410a.b/s4b2446.d

| m/e | Ion Abundance Criteria             | % Relative Abundance |
|-----|------------------------------------|----------------------|
| 198 | Base Peak, 100% Relative Abundance | 100                  |
| 51  | 30 - 60% of mass 198               | 37.3                 |
| 68  | Less than 2% of mass 69            | 1.3                  |
| 69  | Mass 69 Relative Abundance         | 41.7                 |
| 70  | Less than 2% of mass 69            | 0.5                  |
| 127 | 40 - 60% of mass 198               | 55                   |
| 197 | 0 - 1% of mass 198                 | 0.4                  |
| 199 | 5 - 9% of mass 198                 | 6.9                  |
| 275 | 10 - 30% of mass 198               | 23                   |
| 365 | Greater than 1% of mass 198        | 3.4                  |
| 441 | Present, but less than mass 443    | 48                   |
| 442 | Greater than 40% of mass 198       | 56.6                 |
| 443 | 17 - 23% of mass 442               | 19.8                 |

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

| Client<br>Sample ID | Lab<br>Sample ID | Lab<br>File ID | Time<br>Analyzed |
|---------------------|------------------|----------------|------------------|
| APICV               | WBN100218-08.1   | s4b2465.d      | 25-FEB-10 17:05  |

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1914

Instrument: MSD4.1

STD Analysis Time: 04-MAR-10 15:49

GC Column: J&amp;W DB-5MS

Data File: s4c0410.d

|              | 1,4-Dichlorobenzene-d4 |   |      | Naphthalene-d8 |   |      | Acenaphthene-d10 |   |      | Phenanthrene-d10 |   |      | Chrysene-d12 |   |      | Perylene-d12 |   |      |
|--------------|------------------------|---|------|----------------|---|------|------------------|---|------|------------------|---|------|--------------|---|------|--------------|---|------|
|              | Area                   | # | RT # | Area           | # | RT # | Area             | # | RT # | Area             | # | RT # | Area         | # | RT # | Area         | # | RT # |
| 12 Hour STD  | 148556                 |   | 3.83 | 619539         |   | 4.69 | 296815           |   | 5.94 | 516247           |   | 6.94 | 441582       |   | 8.61 | 314762       |   | 10.1 |
| Upper Limit  | 297112                 |   | 4.33 | 1239078        |   | 5.19 | 593630           |   | 6.44 | 1032494          |   | 7.44 | 883164       |   | 9.11 | 629524       |   | 10.6 |
| Lower Limit  | 74278                  |   | 3.33 | 309770         |   | 4.19 | 148408           |   | 5.44 | 258124           |   | 6.44 | 220791       |   | 8.11 | 157381       |   | 9.57 |
| Sample ID    |                        |   |      |                |   |      |                  |   |      |                  |   |      |              |   |      |              |   |      |
| BLK01        | 135876                 |   | 3.82 | 503308         |   | 4.68 | 294729           |   | 5.94 | 519093           |   | 6.94 | 468013       |   | 8.6  | 368391       |   | 10.1 |
| BLK01LCS     | 145560                 |   | 3.82 | 587408         |   | 4.69 | 292795           |   | 5.94 | 490864           |   | 6.94 | 358428       |   | 8.6  | 281106       |   | 10.1 |
| RE36-10-7427 | 148613                 |   | 3.82 | 558736         |   | 4.69 | 331019           |   | 5.94 | 539273           |   | 6.94 | 367337       |   | 8.61 | 140007       | * | 10.1 |
| RE36-10-7423 | 165926                 |   | 3.83 | 626867         |   | 4.69 | 363459           |   | 5.94 | 607779           |   | 6.94 | 412808       |   | 8.61 | 178693       |   | 10.1 |
| RE36-10-7428 | 183870                 |   | 3.82 | 675882         |   | 4.69 | 396616           |   | 5.94 | 689222           |   | 6.94 | 485971       |   | 8.6  | 249047       |   | 10.1 |
| RE36-10-7424 | 169453                 |   | 3.82 | 634079         |   | 4.69 | 371689           |   | 5.94 | 638427           |   | 6.94 | 465687       |   | 8.6  | 255099       |   | 10.1 |

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 values outside QC limits with an asterisk

\* Value outside of QC Limits



# Sample Data

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7423  
Batch ID: 956285  
Run Date: 03/04/2010 23:45  
Prep Date: 02/23/2010 10:34  
Data File: s4c0431.d

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 681    | ug/kg | 136     | 681     |
| 108-95-2   | Phenol                        | U         | 681    | ug/kg | 136     | 681     |
| 95-57-8    | 2-Chlorophenol                | U         | 681    | ug/kg | 136     | 681     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 681    | ug/kg | 136     | 681     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 681    | ug/kg | 136     | 681     |
| 83-32-9    | Acenaphthene                  | U         | 68.1   | ug/kg | 22.5    | 68.1    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 681    | ug/kg | 68.1    | 681     |
| 100-02-7   | 4-Nitrophenol                 | U         | 681    | ug/kg | 225     | 681     |
| 87-86-5    | Pentachlorophenol             | U         | 681    | ug/kg | 170     | 681     |
| 129-00-0   | Pyrene                        | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 110-86-1   | Pyridine                      | U         | 681    | ug/kg | 136     | 681     |
| 62-53-3    | Aniline                       | U         | 681    | ug/kg | 204     | 681     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 681    | ug/kg | 136     | 681     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681     |
| 100-51-6   | Benzyl alcohol                | U         | 681    | ug/kg | 204     | 681     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 681    | ug/kg | 136     | 681     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 681    | ug/kg | 136     | 681     |
| 95-48-7    | o-Cresol                      | U         | 681    | ug/kg | 136     | 681     |
| 65794-96-9 | m,p-Cresols                   | U         | 681    | ug/kg | 204     | 681     |
| 67-72-1    | Hexachloroethane              | U         | 681    | ug/kg | 136     | 681     |
| 98-95-3    | Nitrobenzene                  | U         | 681    | ug/kg | 136     | 681     |
| 78-59-1    | Isophorone                    | U         | 681    | ug/kg | 136     | 681     |
| 88-75-5    | 2-Nitrophenol                 | U         | 681    | ug/kg | 136     | 681     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 681    | ug/kg | 238     | 681     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 681    | ug/kg | 136     | 681     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 681    | ug/kg | 136     | 681     |
| 65-85-0    | Benzoic acid                  | U         | 1360   | ug/kg | 340     | 1360    |
| 91-20-3    | Naphthalene                   | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 106-47-8   | 4-Chloroaniline               | U         | 681    | ug/kg | 136     | 681     |
| 87-68-3    | Hexachlorobutadiene           | U         | 681    | ug/kg | 136     | 681     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 68.1   | ug/kg | 13.6    | 68.1    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 681    | ug/kg | 136     | 681     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 681    | ug/kg | 136     | 681     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 681    | ug/kg | 136     | 681     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 68.1   | ug/kg | 22.5    | 68.1    |
| 88-74-4    | 2-Nitroaniline                | U         | 681    | ug/kg | 136     | 681     |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                | U         | 681    | ug/kg | 136     | 681     |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

|                                    |   |                             |
|------------------------------------|---|-----------------------------|
| <b>SDG Number:</b> 10-1914         | <b>Date Collected:</b> 02/12/2010 12:00 | <b>Matrix:</b> R            |
| <b>Lab Sample ID:</b> 247358002    | <b>Date Received:</b> 02/18/2010 08:45  | <b>%Moisture:</b> 51.1      |
| <b>Client ID:</b> RE36-10-7423     | <b>Client:</b> LANL010                  | <b>Project:</b> LANL01004   |
| <b>Batch ID:</b> 956285            | <b>Method:</b> SW846 8270C              | <b>SOP Ref:</b> GL-OA-E-009 |
| <b>Run Date:</b> 03/04/2010 23:45  | <b>Inst:</b> MSD4.I                     | <b>Dilution:</b> 1          |
| <b>Prep Date:</b> 02/23/2010 10:34 | <b>Analyst:</b> JMB3                    | <b>Inj. Vol:</b> .5 uL      |
| <b>Data File:</b> s4c0431.d        | <b>Aliquot:</b> 30.03 g                 | <b>Final Volume:</b> 1 mL   |
|                                    | <b>Column:</b> J&W DB-5MS               | <b>Level:</b> LOW           |

| CAS No.                      | Parmname                   | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------------------------|----------------------------|-----------|--------|-------|---------|---------|
| <i>m-Nitroaniline</i>        |                            |           |        |       |         |         |
| 131-11-3                     | Dimethylphthalate          | U         | 681    | ug/kg | 136     | 681     |
| 606-20-2                     | 2,6-Dinitrotoluene         | U         | 681    | ug/kg | 68.1    | 681     |
| 208-96-8                     | Acenaphthylene             | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 51-28-5                      | 2,4-Dinitrophenol          | U         | 1360   | ug/kg | 259     | 1360    |
| 132-64-9                     | Dibenzofuran               | U         | 681    | ug/kg | 136     | 681     |
| 84-66-2                      | Diethylphthalate           | U         | 681    | ug/kg | 136     | 681     |
| 86-73-7                      | Fluorene                   | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 7005-72-3                    | 4-Chlorophenylphenylether  | U         | 681    | ug/kg | 136     | 681     |
| 534-52-1                     | 2-Methyl-4,6-dinitrophenol | U         | 681    | ug/kg | 136     | 681     |
| 100-01-6                     | 4-Nitroaniline             | U         | 681    | ug/kg | 204     | 681     |
| <i>p-Nitroaniline</i>        |                            |           |        |       |         |         |
| 122-39-4                     | Diphenylamine              | U         | 681    | ug/kg | 136     | 681     |
| 122-66-7                     | Azobenzene                 | U         | 681    | ug/kg | 136     | 681     |
| <i>1,2-Diphenylhydrazine</i> |                            |           |        |       |         |         |
| 101-55-3                     | 4-Bromophenylphenylether   | U         | 681    | ug/kg | 136     | 681     |
| 118-74-1                     | Hexachlorobenzene          | U         | 681    | ug/kg | 136     | 681     |
| 85-01-8                      | Phenanthrene               | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 120-12-7                     | Anthracene                 | U         | 68.1   | ug/kg | 13.6    | 68.1    |
| 84-74-2                      | Di-n-butylphthalate        | U         | 681    | ug/kg | 136     | 681     |
| 206-44-0                     | Fluoranthene               | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 85-68-7                      | Butylbenzylphthalate       | U         | 681    | ug/kg | 136     | 681     |
| 56-55-3                      | Benzo(a)anthracene         | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 91-94-1                      | 3,3'-Dichlorobenzidine     | U         | 681    | ug/kg | 204     | 681     |
| 218-01-9                     | Chrysene                   | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 117-81-7                     | bis(2-Ethylhexyl)phthalate | U         | 681    | ug/kg | 136     | 681     |
| 117-84-0                     | Di-n-octylphthalate        | U         | 681    | ug/kg | 136     | 681     |
| 205-99-2                     | Benzo(b)fluoranthene       | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 207-08-9                     | Benzo(k)fluoranthene       | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 50-32-8                      | Benzo(a)pyrene             | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 193-39-5                     | Indeno(1,2,3-cd)pyrene     | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 53-70-3                      | Dibenzo(a,h)anthracene     | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 191-24-2                     | Benzo(ghi)perylene         | U         | 68.1   | ug/kg | 20.4    | 68.1    |
| 120-82-1                     | 1,2,4-Trichlorobenzene     | U         | 681    | ug/kg | 136     | 681     |

**Tentatively Identified Compound Summary**

| CAS No.   | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|-----------|---------------------------------------|------|-----------|-------|-----|------|
|           | Unknown Aldol Condensate              | 2.87 | 1080      | ug/kg |     | J    |
| 7785-70-8 | 1R-.alpha.-Pinene                     | 3.4  | 4080      | ug/kg | 96  | NJ   |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358002  
  
Client ID: RE36-10-7423  
Batch ID: 956285  
Run Date: 03/04/2010 23:45  
Prep Date: 02/23/2010 10:34  
Data File: s4c0431.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 51.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.  | Parmname                                 | Qualifier | Result    | Units | MDL/LOD | PQL/LOQ |
|--|--|-----------|-----------|-------|---------|---------|
| <b>Tentatively Identified Compound Summary</b> |  |           |           |       |         |         |
| CAS No.  | Tentatively Identified Compound (TIC)    | RT        | Estimated | Units | Fit     | Qual    |
| 79-92-5  | Camphene                                 | 3.51      | 3830      | ug/kg | 96      | NJ      |
| 18172-67-3                                     | Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me | 3.65      | 997       | ug/kg | 97      | NJ      |
| 498-15-7                                       | Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy | 3.78      | 1250      | ug/kg | 97      | NJ      |
| 5989-27-5                                      | D-Limonene                               | 3.88      | 1220      | ug/kg | 96      | NJ      |
| 5655-61-8                                      | Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth | 5.06      | 1940      | ug/kg | 99      | NJ      |
| 475-20-7                                       | 1,4-Methanoazulene, decahydro-4,8,8-trim | 5.67      | 1840      | ug/kg | 99      | NJ      |
| 23986-74-5                                     | 1,6-Cyclodecadiene, 1-methyl-5-methylene | 5.9       | 867       | ug/kg | 97      | NJ      |
| 483-76-1                                       | Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- | 5.99      | 499       | ug/kg | 97      | NJ      |
|  | Unknown                                  | 7.45      | 610       | ug/kg |         | J       |
| 1000197-14-1                                   | 4b,8-Dimethyl-2-isopropylphenanthrene, 4 | 7.48      | 517       | ug/kg | 92      | NJ      |
|  | Unknown                                  | 7.55      | 1140      | ug/kg |         | J       |
| 56554-35-9                                     | 9,17-Octadecadienal, (Z)-                | 7.62      | 679       | ug/kg | 86      | NJ      |
|  | Unknown                                  | 7.81      | 1010      | ug/kg |         | J       |
|  | Unknown                                  | 8.09      | 1040      | ug/kg |         | J       |
|  | Unknown                                  | 8.11      | 1440      | ug/kg |         | J       |
|  | Unknown                                  | 8.18      | 1440      | ug/kg |         | J       |
|  | Unknown                                  | 8.23      | 919       | ug/kg |         | J       |
|  | Unknown                                  | 8.28      | 3290      | ug/kg |         | J       |
| 5155-70-4                                      | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.43      | 1720      | ug/kg | 99      | NJ      |
|  | Unknown                                  | 8.56      | 769       | ug/kg |         | J       |
|  | Unknown                                  | 8.64      | 733       | ug/kg |         | J       |
|  | Unknown                                  | 8.79      | 862       | ug/kg |         | J       |
|  | Unknown                                  | 9.03      | 1620      | ug/kg |         | J       |
|  | Unknown                                  | 9.19      | 814       | ug/kg |         | J       |
|  | Unknown                                  | 10.5      | 11000     | ug/kg |         | J       |
|  | Unknown                                  | 11.15     | 1440      | ug/kg |         | J       |
| 1000214-20-7                                   | Stigmasterol, 22,23-dihydro-             | 12.38     | 1530      | ug/kg | 96      | NJ      |
| 1058-61-3                                      | Stigmast-4-en-3-one                      | 13.46     | 2530      | ug/kg | 94      | NJ      |

Data File: /chem/MSD4.i/s030410a.b/s4c0431.d  
Report Date: 05-Mar-2010 08:33

Page 1

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD4.i/s030410a.b/s4c0431.d  
Lab Smp Id: 247358002 Client Smp ID: RE36-10-7423  
Inj Date : 04-MAR-2010 23:45  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |247358002|956285|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 23  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.03000  | weight of sample          |
| M    | 51.07200  | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT SIG |        |                | RESPONSE | CONCENTRATIONS       |                  |
|-----------------------------|-----------|--------|----------------|----------|----------------------|------------------|
|                             | MASS      | RT     | EXP RT REL RT  |          | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 | 152       | 3.828  | 3.829 (1.000)  | 165926   | 40.0000              |                  |
| * 29 Naphthalene-d8         | 136       | 4.689  | 4.690 (1.000)  | 626867   | 40.0000              |                  |
| * 46 Acenaphthene-d10       | 164       | 5.941  | 5.941 (1.000)  | 363459   | 40.0000              |                  |
| * 67 Phenanthrene-d10       | 188       | 6.936  | 6.936 (1.000)  | 607779   | 40.0000              |                  |
| * 91 Chrysene-d12           | 240       | 8.610  | 8.610 (1.000)  | 412808   | 40.0000              |                  |
| * 98 Perylene-d12           | 264       | 10.065 | 10.070 (1.000) | 178693   | 40.0000              |                  |
| \$ 3 2-Fluorophenol         | 112       | 3.031  | 3.021 (0.792)  | 224866   | 58.2603              | 3960             |
| \$ 5 Phenol-d5              | 99        | 3.550  | 3.545 (0.927)  | 271999   | 56.4730              | 3840             |
| \$ 20 Nitrobenzene-d5       | 82        | 4.187  | 4.192 (0.893)  | 116012   | 25.9591              | 1770             |
| \$ 39 2-Fluorobiphenyl      | 172       | 5.433  | 5.433 (0.914)  | 195739   | 20.0541              | 1360             |
| \$ 60 2,4,6-Tribromophenol  | 329       | 6.481  | 6.481 (1.091)  | 63532    | 59.4685              | 4050             |
| \$ 81 p-Terphenyl-d14       | 244       | 7.861  | 7.861 (0.913)  | 171465   | 26.0378              | 1770             |

## ION RATIO REPORT

## SV REPORT

Data file: s4c0431.d

Report Date: 03/05/2010 08:00

Lab. ID: 247358002

SampleType: SAMPLE

Injection Date: 04-MAR-2010 23:45

Operator: JMB3

Instrument: MSD4.i

Sample Info: |247358002|956285|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS  | RESPONSE                      | RT   | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|-------|-------------------------------|------|-----------|----------------|-------|------|
| ===== |                               |      |           |                |       |      |
| 1     | N-Methyl-N-nitrosomethylamine |      |           | CAS#: 62-75-9  |       |      |
| 74    | 5482                          | 2.11 | 2.35      | 80-120         | 100   | (T)  |
| 42    | 967                           | 2.11 | 2.35      | 54-114         | 18    | (QT) |
| 43    | 11268                         | 2.13 | 2.35      | 6- 66          | 206   | (QT) |
| ----- |                               |      |           |                |       |      |
| 4     | Aniline                       |      |           | CAS#: 62-53-3  |       |      |
| 66    | 14516                         | 3.55 | 3.61      | 80-120         | 100   | (T)  |
| 93    | 16618                         | 3.59 | 3.61      | 453-513        | 114   | (Q)  |
| ----- |                               |      |           |                |       |      |
| 6     | Phenol                        |      |           | CAS#: 108-95-2 |       |      |
| 94    | 34272                         | 3.51 | 3.56      | 80-120         | 100   | ( )  |
| 66    | 15395                         | 3.51 | 3.56      | 13- 73         | 45    | ( )  |
| 65    | 26025                         | 3.51 | 3.56      | 1- 61          | 76    | (Q)  |
| ----- |                               |      |           |                |       |      |
| 7     | bis(2-Chloroethyl) ether      |      |           | CAS#: 111-44-4 |       |      |
| 63    | 8001                          | 3.51 | 3.63      | 80-120         | 100   | (T)  |
| 93    | 202949                        | 3.51 | 3.63      | 227-287        | 2536  | (QT) |
| 95    | 33246                         | 3.51 | 3.63      | 11- 71         | 416   | (QT) |
| ----- |                               |      |           |                |       |      |
| 15    | o-Cresol                      |      |           | CAS#: 95-48-7  |       |      |
| 107   | 10645                         | 3.88 | 3.95      | 80-120         | 100   | (T)  |
| 108   | 3116                          | 3.88 | 3.95      | 84-144         | 29    | (QT) |
| 77    | 12793                         | 3.88 | 3.95      | 24- 84         | 120   | (QT) |
| ----- |                               |      |           |                |       |      |
| 17    | N-Nitrosodipropylamine        |      |           | CAS#: 621-64-7 |       |      |
| 70    | 16466                         | 4.19 | 4.07      | 80-120         | 100   | (T)  |
| 42    | 8287                          | 4.19 | 4.07      | 27- 87         | 50    | (T)  |
| ----- |                               |      |           |                |       |      |

| MASS  | RESPONSE                   | RT   | EXPECT RT      | TARGET RANGE | RATIO | QUAL |
|-------|----------------------------|------|----------------|--------------|-------|------|
| ===== |                            |      |                |              |       |      |
| 22    | Isophorone                 |      | CAS#: 78-59-1  |              |       |      |
| 82    | 116012                     | 4.19 | 4.36           | 80-120       | 100   | (T)  |
| 138   | 373                        | 4.19 | 4.36           | 0- 49        | 0     | (T)  |
| ----- |                            |      |                |              |       |      |
| 25    | bis(2-Chloroethoxy)methane |      | CAS#: 111-91-1 |              |       |      |
| 93    | 9645                       | 4.68 | 4.48           | 80-120       | 100   | (T)  |
| 123   | 1030                       | 4.67 | 4.48           | 0- 47        | 11    | (T)  |
| 95    | 30392                      | 4.67 | 4.48           | 2- 62        | 315   | (QT) |
| ----- |                            |      |                |              |       |      |
| 27    | Benzoic acid               |      | CAS#: 65-85-0  |              |       |      |
| 105   | 4735                       | 4.48 | 4.48           | 80-120       | 100   | ( )  |
| 122   | 7185                       | 4.45 | 4.48           | 56-116       | 152   | (Q)  |
| 77    | 12393                      | 4.48 | 4.48           | 49-109       | 262   | (Q)  |
| ----- |                            |      |                |              |       |      |
| 40    | 2-Chloronaphthalene        |      | CAS#: 91-58-7  |              |       |      |
| 162   | 11929                      | 5.67 | 5.54           | 80-120       | 100   | (T)  |
| 164   | 805                        | 5.67 | 5.54           | 3- 63        | 7     | (T)  |
| 127   | 962                        | 5.67 | 5.54           | 8- 68        | 8     | (T)  |
| ----- |                            |      |                |              |       |      |
| 42    | o-Nitroaniline             |      | CAS#: 88-74-4  |              |       |      |
| 65    | 17133                      | 5.67 | 5.60           | 80-120       | 100   | (T)  |
| 92    | 21414                      | 5.67 | 5.60           | 35- 95       | 125   | (QT) |
| 138   | 1177                       | 5.67 | 5.60           | 79-139       | 7     | (QT) |
| ----- |                            |      |                |              |       |      |
| 43    | Dimethylphthalate          |      | CAS#: 131-11-3 |              |       |      |
| 163   | 64743                      | 5.94 | 5.71           | 80-120       | 100   | (T)  |
| 164   | 363459                     | 5.94 | 5.71           | 0- 40        | 561   | (QT) |
| ----- |                            |      |                |              |       |      |
| 44    | 2,6-Dinitrotoluene         |      | CAS#: 606-20-2 |              |       |      |
| 165   | 47826                      | 5.94 | 5.77           | 80-120       | 100   | (T)  |
| 63    | 1674                       | 5.94 | 5.77           | 53-113       | 4     | (QT) |
| ----- |                            |      |                |              |       |      |
| 48    | 2,4-Dinitrophenol          |      | CAS#: 51-28-5  |              |       |      |
| 184   | 964                        | 6.21 | 5.97           | 80-120       | 100   | (T)  |
| 154   | 343                        | 6.18 | 5.97           | 1232-1292    | 36    | (QT) |
| ----- |                            |      |                |              |       |      |
| 50    | 2,4-Dinitrotoluene         |      | CAS#: 121-14-2 |              |       |      |
| 165   | 47826                      | 5.94 | 6.05           | 80-120       | 100   | (T)  |
| 89    | 1062                       | 5.94 | 6.05           | 53-113       | 2     | (QT) |
| 63    | 1676                       | 5.94 | 6.05           | 24- 84       | 4     | (QT) |
| ----- |                            |      |                |              |       |      |
| 52    | 4-Nitrophenol              |      | CAS#: 100-02-7 |              |       |      |
| 139   | 178                        | 5.99 | 5.99           | 80-120       | 100   | ( )  |
| 109   | 1461                       | 6.03 | 5.99           | 37- 97       | 820   | (Q)  |
| 65    | 3787                       | 5.99 | 5.99           | 67-127       | 2127  | (Q)  |
| ----- |                            |      |                |              |       |      |

| MASS                          | RESPONSE | RT             | EXPECT RT | TARGET RANGE | RATIO | QUAL |
|-------------------------------|----------|----------------|-----------|--------------|-------|------|
| =====                         |          |                |           |              |       |      |
| 53 Fluorene                   |          | CAS#: 86-73-7  |           |              |       |      |
| 166                           | 3505     | 6.48           | 6.32      | 80-120       | 100   | (T)  |
| 165                           | 3641     | 6.48           | 6.32      | 62-122       | 104   | (T)  |
| 167                           | 1196     | 6.48           | 6.32      | 0- 44        | 34    | (T)  |
| -----                         |          |                |           |              |       |      |
| 55 2-Methyl-4,6-dinitrophenol |          | CAS#: 534-52-1 |           |              |       |      |
| 198                           | 259      | 6.48           | 6.34      | 80-120       | 100   | (T)  |
| 105                           | 2933     | 6.48           | 6.34      | 16- 76       | 1132  | (QT) |
| 51                            | 690      | 6.48           | 6.34      | 35- 95       | 267   | (QT) |
| -----                         |          |                |           |              |       |      |
| 79 Pyrene                     |          | CAS#: 129-00-0 |           |              |       |      |
| 202                           | 3466     | 7.81           | 7.81      | 80-120       | 100   | ( )  |
| 200                           | 2263     | 7.81           | 7.81      | 0- 51        | 65    | (Q)  |
| 101                           | 950      | 7.81           | 7.81      | 0- 44        | 27    | ( )  |
| -----                         |          |                |           |              |       |      |
| 89 Benzo(a)anthracene         |          | CAS#: 56-55-3  |           |              |       |      |
| 228                           | 3630     | 8.60           | 8.60      | 80-120       | 100   | ( )  |
| 226                           | 2450     | 8.63           | 8.60      | 0- 56        | 67    | (Q)  |
| 229                           | 1436     | 8.61           | 8.60      | 0- 50        | 40    | ( )  |
| -----                         |          |                |           |              |       |      |
| 92 Chrysene                   |          | CAS#: 218-01-9 |           |              |       |      |
| 228                           | 3590     | 8.60           | 8.63      | 80-120       | 100   | ( )  |
| 229                           | 1303     | 8.61           | 8.63      | 0- 50        | 36    | ( )  |
| 226                           | 2447     | 8.63           | 8.63      | 0- 59        | 68    | (Q)  |
| -----                         |          |                |           |              |       |      |
| 93 bis(2-Ethylhexyl)phthalate |          | CAS#: 117-81-7 |           |              |       |      |
| 149                           | 15986    | 8.41           | 8.49      | 80-120       | 100   | (T)  |
| 167                           | 9957     | 8.43           | 8.49      | 0- 60        | 62    | (QT) |
| -----                         |          |                |           |              |       |      |
| 94 Di-n-octylphthalate        |          | CAS#: 117-84-0 |           |              |       |      |
| 149                           | 4976     | 9.02           | 9.02      | 80-120       | 100   | ( )  |
| 43                            | 35053    | 9.04           | 9.02      | 0- 40        | 704   | (Q)  |
| -----                         |          |                |           |              |       |      |
| 97 Benzo(a)pyrene             |          | CAS#: 50-32-8  |           |              |       |      |
| 252                           | 1092     | 10.06          | 10.00     | 80-120       | 100   | ( )  |
| 253                           | 593      | 10.05          | 10.00     | 0- 52        | 54    | (Q)  |
| 125                           | 2352     | 10.04          | 10.00     | 0- 43        | 215   | (Q)  |

-----  
Q qualifier indicates ion failed ratio requirement



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Data file : /chem/MSD4.i/s030410a.b/s4c0431.d  
Lab Smp Id: 247358002 Client Smp ID: RE36-10-7423  
Inj Date : 04-MAR-2010 23:45  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |247358002|956285|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 23  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.03000  | weight of sample          |
| M    | 51.07200  | % moisture                |

Cpnd Variable Local Compound Variable

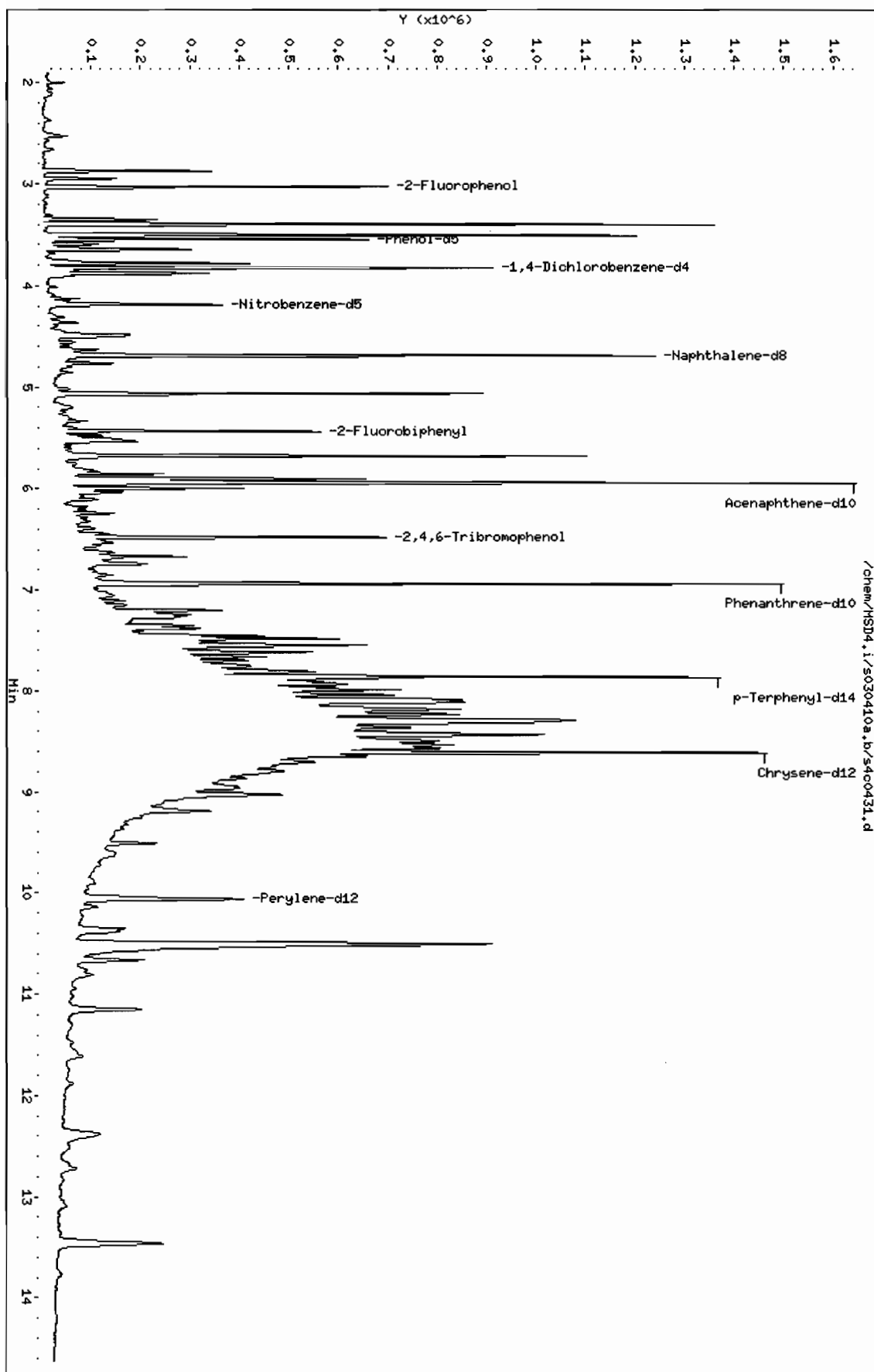
| ISTD                        | RT     | AREA    | AMOUNT |
|-----------------------------|--------|---------|--------|
| =====                       | ====   | =====   | =====  |
| * 10 1,4-Dichlorobenzene-d4 | 3.828  | 992943  | 40.000 |
| * 29 Naphthalene-d8         | 4.689  | 1404688 | 40.000 |
| * 46 Acenaphthene-d10       | 5.941  | 2084537 | 40.000 |
| * 67 Phenanthrene-d10       | 6.936  | 1610360 | 40.000 |
| * 91 Chrysene-d12           | 8.610  | 1104761 | 40.000 |
| * 98 Perylene-d12           | 10.065 | 682957  | 40.000 |

| RT                                       | CONCENTRATIONS |                |               | QUAL  | QUANT               |           | CPND # |
|--|----------------|----------------|---------------|-------|---------------------|-----------|--------|
|  | AREA           | ON-COL (ng/ul) | FINAL (ug/Kg) |       | LIBRARY             | LIB ENTRY |        |
| ====                                     | =====          | =====          | =====         | ===== | =====               | =====     | =====  |
| Unknown Aldol Condensate                 |                |                |               |       | CAS #:              |           |        |
| 2.871                                    | 392690         | 15.8192401     | 1080          | 0     |                     | 0         | 10     |
| 1R-.alpha.-Pinene                        |                |                |               |       | CAS #: 7785-70-8    |           |        |
| 3.400                                    | 1489233        | 59.9926489     | 4080          | 96    | NIST05.L            | 15188     | 10     |
| Camphene                                 |                |                |               |       | CAS #: 79-92-5      |           |        |
| 3.507                                    | 1395636        | 56.2221566     | 3830          | 96    | NIST05.L            | 15152     | 10     |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me |                |                |               |       | CAS #: 18172-67-3   |           |        |
| 3.647                                    | 363694         | 14.6511449     | 997           | 97    | NIST05.L            | 15390     | 10     |
| Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy |                |                |               |       | CAS #: 498-15-7     |           |        |
| 3.780                                    | 455136         | 18.3348243     | 1250          | 97    | NIST05.L            | 15369     | 10     |
| D-Limonene                               |                |                |               |       | CAS #: 5989-27-5    |           |        |
| 3.877                                    | 444866         | 17.9211100     | 1220          | 96    | NIST05.L            | 15164     | 10     |
| Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth |                |                |               |       | CAS #: 5655-61-8    |           |        |
| 5.064                                    | 1001108        | 28.5076076     | 1940          | 99    | NIST05.L            | 54340     | 29     |
| 1,4-Methanoazulene, decahydro-4,8,8-trim |                |                |               |       | CAS #: 475-20-7     |           |        |
| 5.674                                    | 1407957        | 27.0171562     | 1840          | 99    | NIST05.L            | 60023     | 46     |
| 1,6-Cyclodecadiene, 1-methyl-5-methylene |                |                |               |       | CAS #: 23986-74-5   |           |        |
| 5.904                                    | 663771         | 12.7370364     | 867           | 97    | NIST05.L            | 59960     | 46     |
| Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- |                |                |               |       | CAS #: 483-76-1     |           |        |
| 5.995                                    | 382333         | 7.33655476     | 499           | 97    | NIST05.L            | 59978     | 46     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 7.455                                    | 361023         | 8.96751139     | 610           | 0     |                     | 0         | 67     |
| 4b,8-Dimethyl-2-isopropylphenanthrene, 4 |                |                |               |       | CAS #: 1000197-14-1 |           |        |
| 7.481                                    | 305527         | 7.58902242     | 516           | 92    | NIST05.L            | 96373     | 67     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 7.546                                    | 673907         | 16.7392848     | 1140          | 0     |                     | 0         | 67     |
| 9,17-Octadecadienal, (Z)-                |                |                |               |       | CAS #: 56554-35-9   |           |        |
| 7.615                                    | 401453         | 9.97176394     | 679           | 86    | NIST05.L            | 101505    | 67     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 7.813                                    | 409433         | 14.8243220     | 1010          | 0     |                     | 0         | 91     |

| RT                                       | CONCENTRATIONS |                |               | QUAL | QUANT               |           | CPND # |
|--|----------------|----------------|---------------|------|---------------------|-----------|--------|
|  | AREA           | ON-COL (ng/ul) | FINAL (ug/Kg) |      | LIBRARY             | LIB ENTRY |        |
| ====                                     | ====           | =====          | =====         | ---- | =====               | =====     | =====  |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 8.086                                    | 420568         | 15.2274539     | 1040          | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 8.107                                    | 585656         | 21.2048131     | 1440          | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 8.177                                    | 582990         | 21.1082503     | 1440          | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 8.230                                    | 372882         | 13.5009132     | 919           | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 8.284                                    | 1333505        | 48.2820865     | 3290          | 0    |                     | 0         | 91     |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 |                |                |               |      | CAS #: 5155-70-4    |           |        |
| 8.428                                    | 696064         | 25.2023176     | 1720          | 99   | NIST05.L            | 125035    | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 8.562                                    | 312055         | 11.2985488     | 769           | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 8.642                                    | 297261         | 10.7629104     | 732           | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 8.792                                    | 349943         | 12.6703492     | 862           | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 9.027                                    | 656212         | 23.7594087     | 1620          | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 9.193                                    | 330204         | 11.9556680     | 814           | 0    |                     | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 10.503                                   | 2754376        | 161.320483     | 11000         | 0    |                     | 0         | 98     |
| Unknown                                  |                |                |               |      | CAS #:              |           |        |
| 11.145                                   | 361628         | 21.1801296     | 1440          | 0    |                     | 0         | 98     |
| Stigmasterol, 22,23-dihydro-             |                |                |               |      | CAS #: 1000214-20-7 |           |        |
| 12.381                                   | 383446         | 22.4579828     | 1530          | 96   | NIST05.L            | 174408    | 98     |
| Stigmast-4-en-3-one                      |                |                |               |      | CAS #: 1058-61-3    |           |        |
| 13.461                                   | 633781         | 37.1197605     | 2530          | 94   | NIST05.L            | 173936    | 98     |

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Client ID: RE36-10-7423  
Sample Info: 1247368002195628511SVH11LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SHS

Instrument: MSD4.i  
Operator: JHB3  
Column diameter: 0.20



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: I247358002I956285I1ISVHI1ILANL

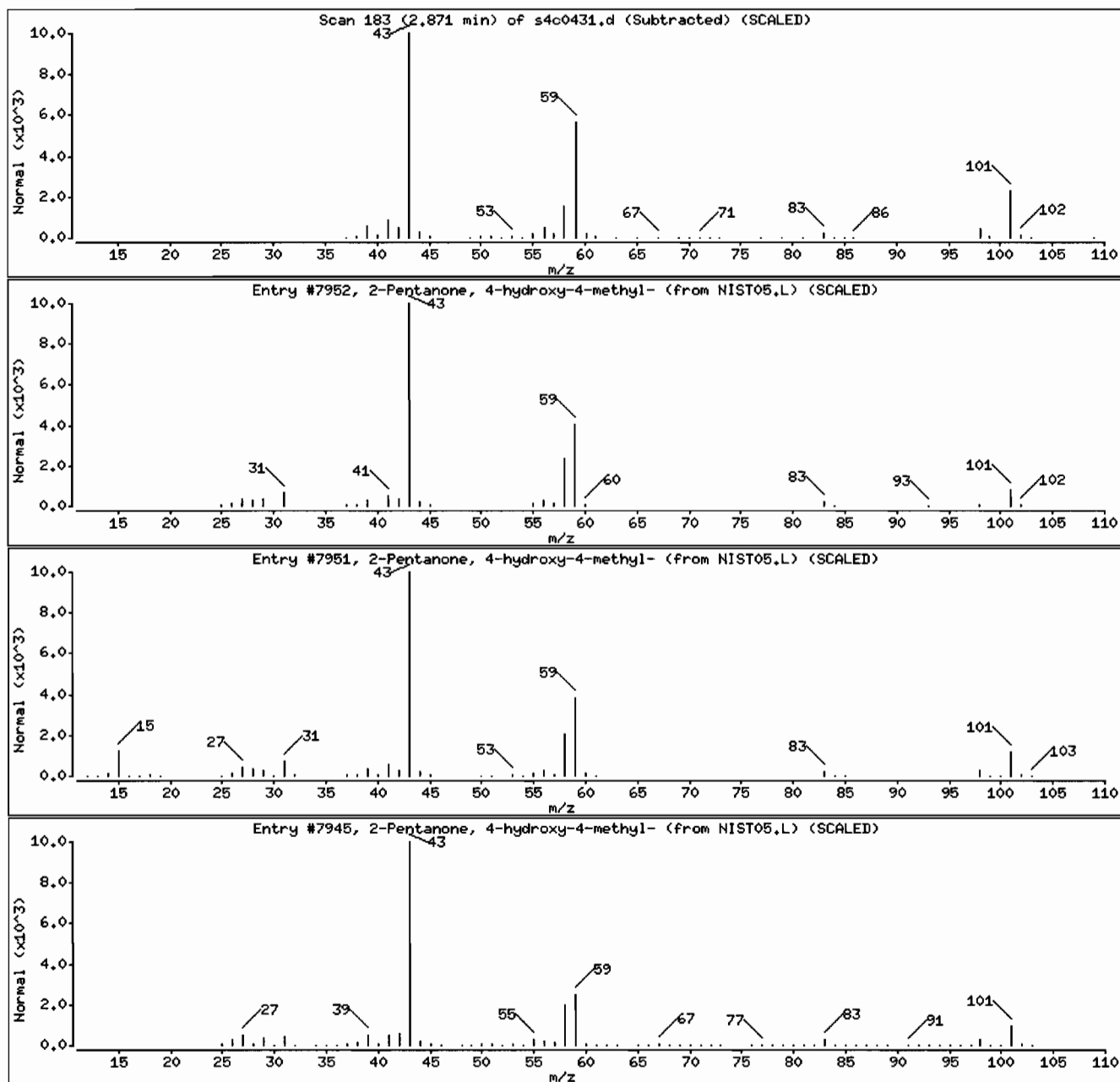
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match    | CAS Number | Library  | Entry | Quality | Formula | Weight |
|----------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown Aldol Condensate         |            |          |       |         |         |        |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7952  | 56      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7951  | 45      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7945  | 40      | C6H12O2 | 116    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVH11LANL

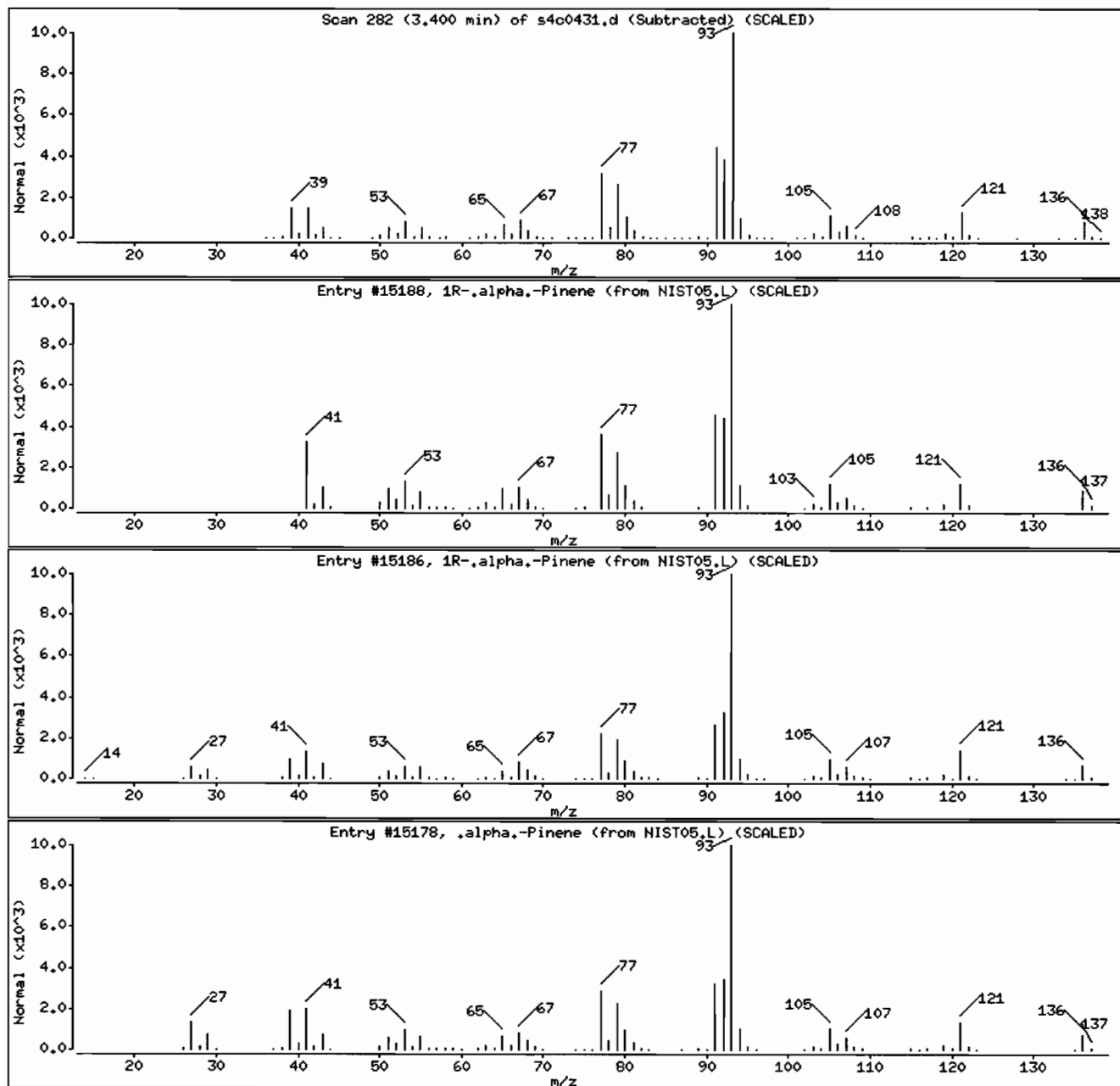
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula | Weight |
|-------------------------------|------------|----------|-------|---------|---------|--------|
| 1R-.alpha.-Pinene             | 7785-70-8  | NIST05.L | 15188 | 96      | C10H16  | 136    |
| 1R-.alpha.-Pinene             | 7785-70-8  | NIST05.L | 15186 | 96      | C10H16  | 136    |
| .alpha.-Pinene                | 80-56-8    | NIST05.L | 15178 | 96      | C10H16  | 136    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVH111LANL

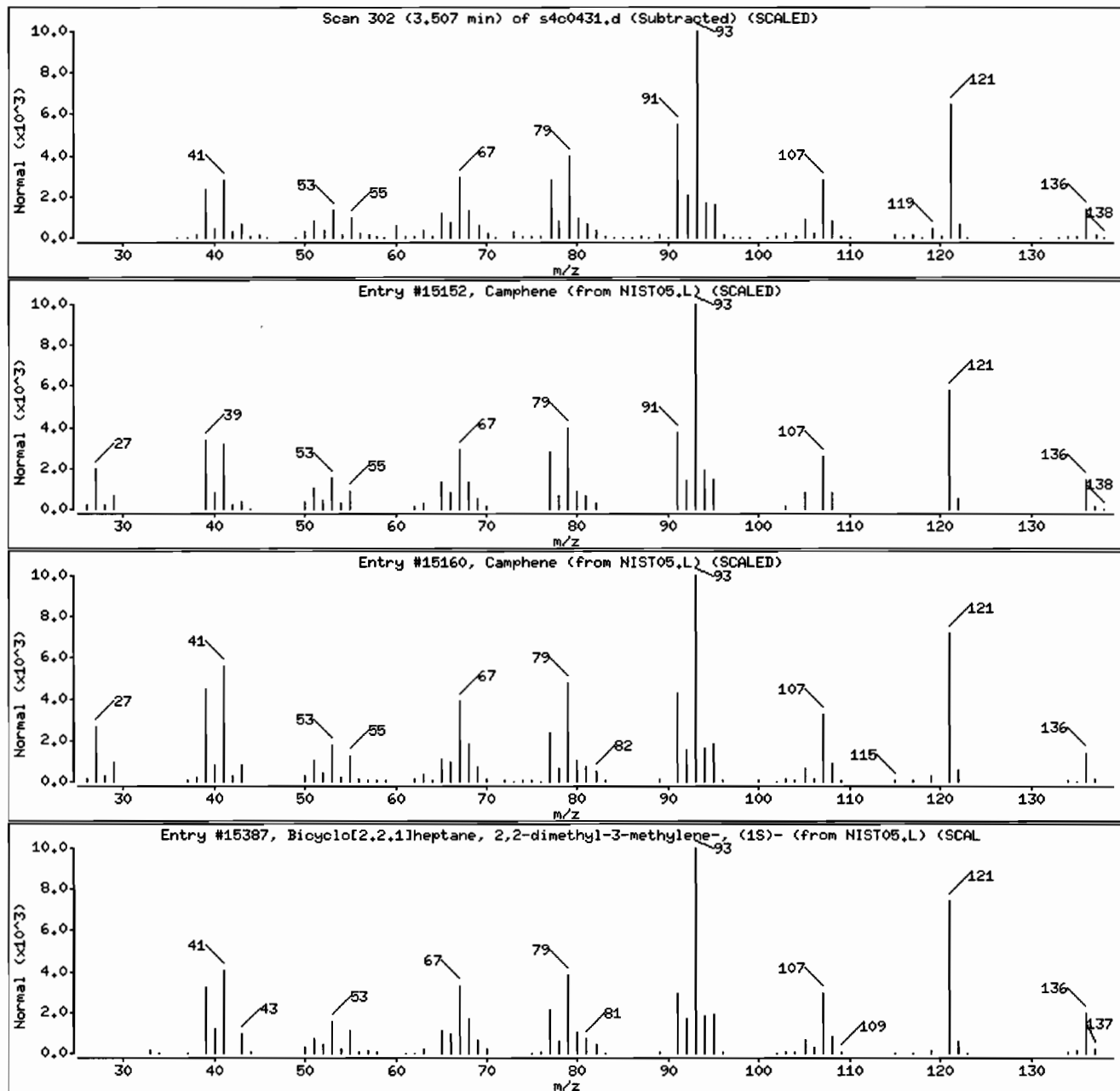
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Camphene                                 | 79-92-5    | NIST05.L | 15152 | 96      | C10H16  | 136    |
| Camphene                                 | 79-92-5    | NIST05.L | 15160 | 96      | C10H16  | 136    |
| Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-me | 5794-04-7  | NIST05.L | 15387 | 96      | C10H16  | 136    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: HSD4.i

Sample Info: 1247358002195628511ISVH11ILANL

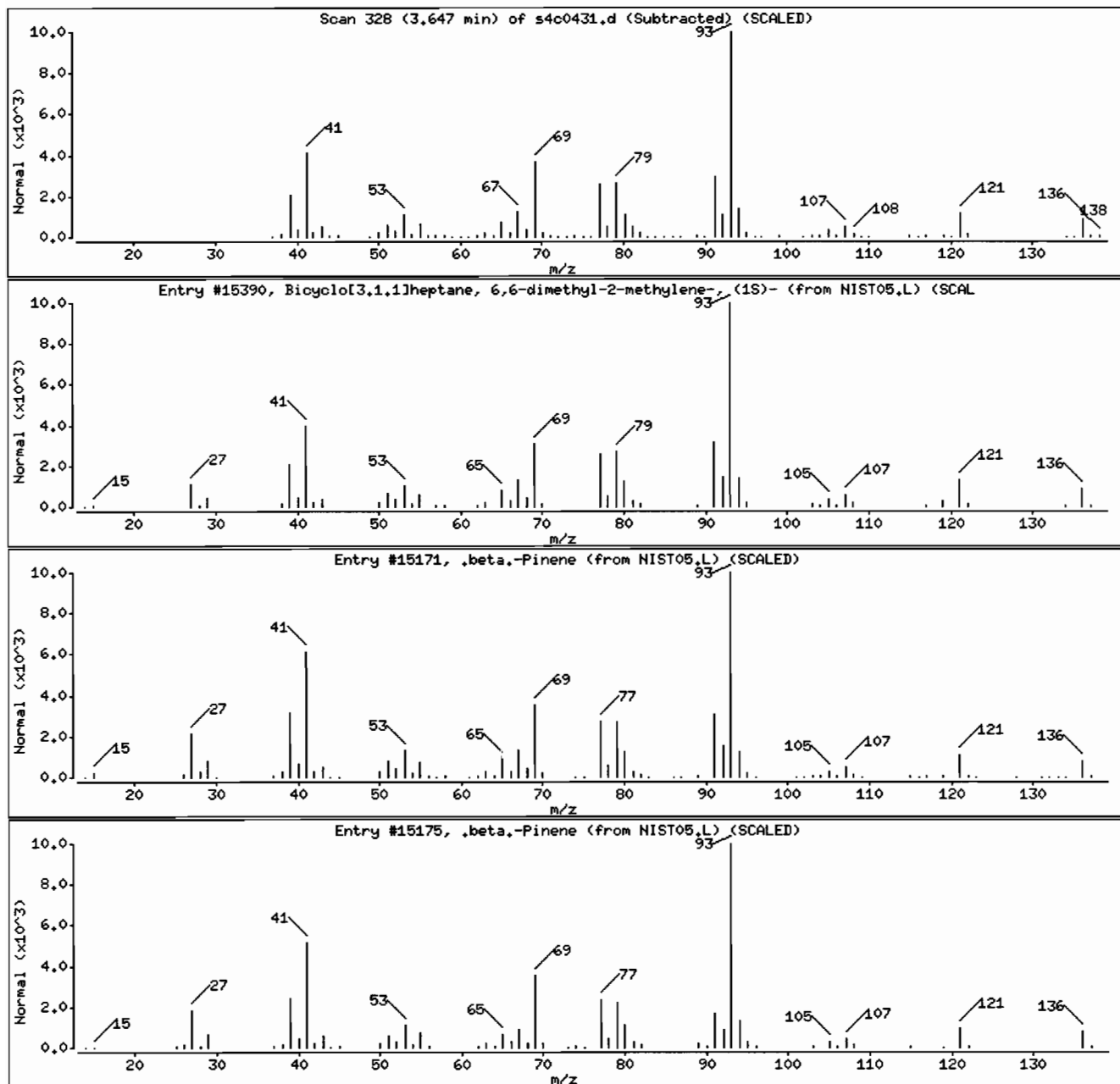
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me | 18172-67-3 | NIST05.L | 15390 | 97      | C10H16  | 136    |
| .beta.-Pinene                            | 127-91-3   | NIST05.L | 15171 | 96      | C10H16  | 136    |
| .beta.-Pinene                            | 127-91-3   | NIST05.L | 15175 | 93      | C10H16  | 136    |





Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511ISVM11ILANL

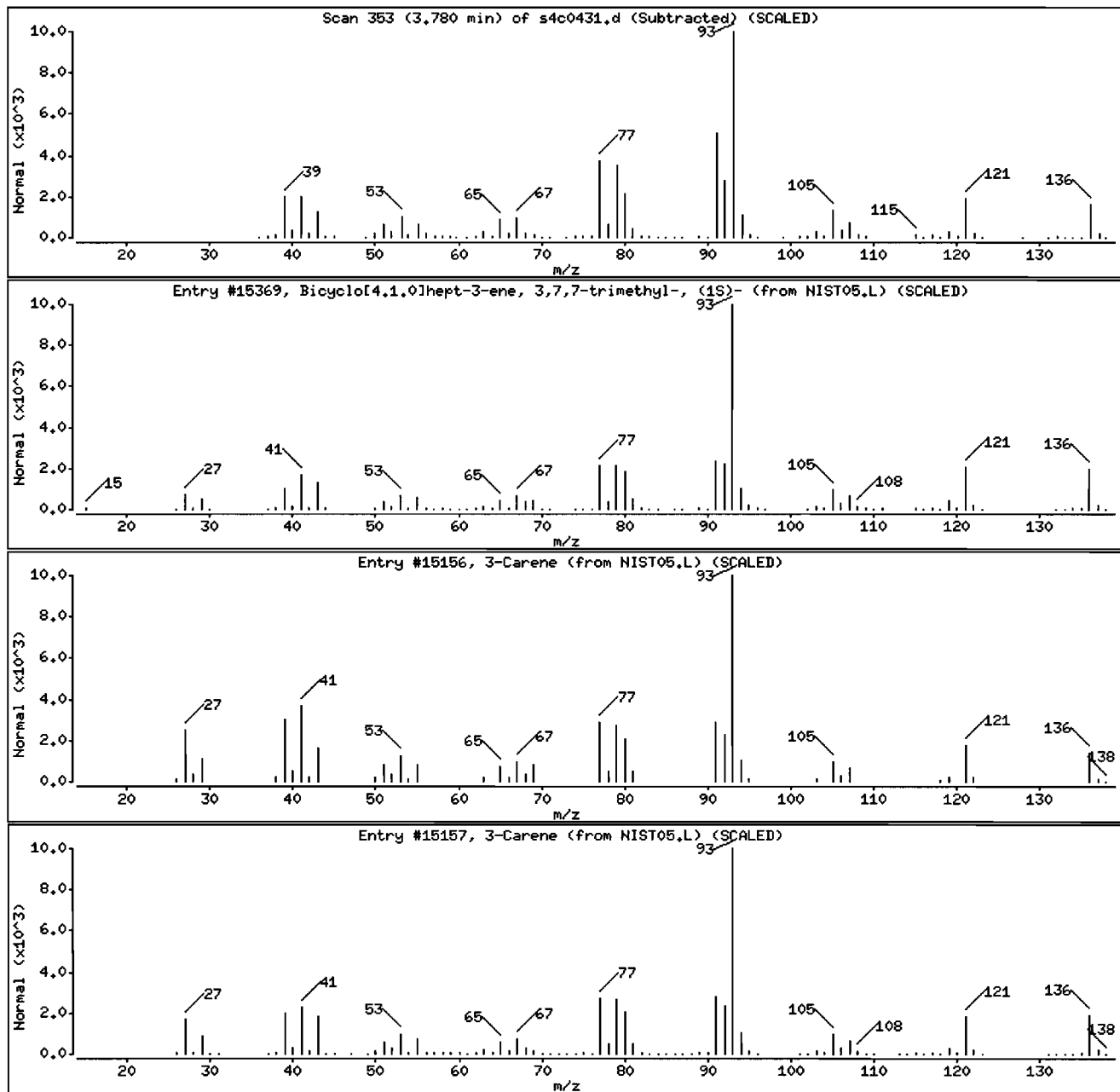
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethy | 498-15-7   | NIST05.L | 15369 | 97      | C10H16  | 136    |
| 3-Carene                                 | 13466-78-9 | NIST05.L | 15156 | 95      | C10H16  | 136    |
| 3-Carene                                 | 13466-78-9 | NIST05.L | 15157 | 95      | C10H16  | 136    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVH11ILANL

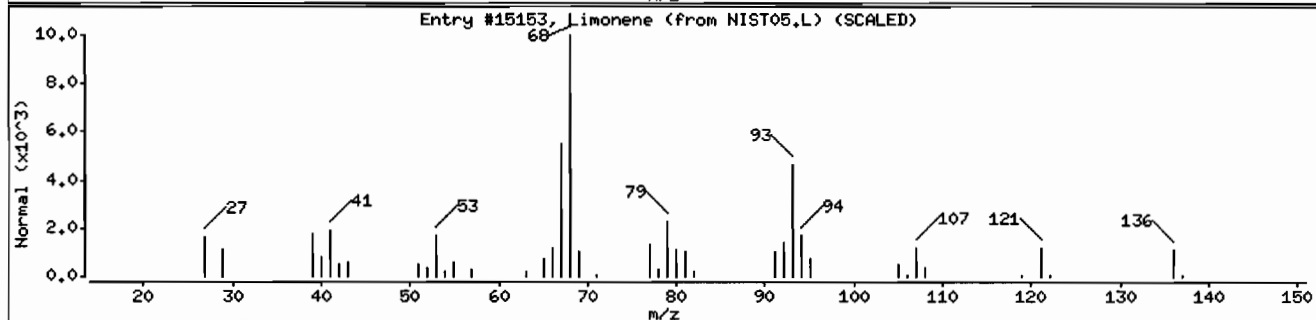
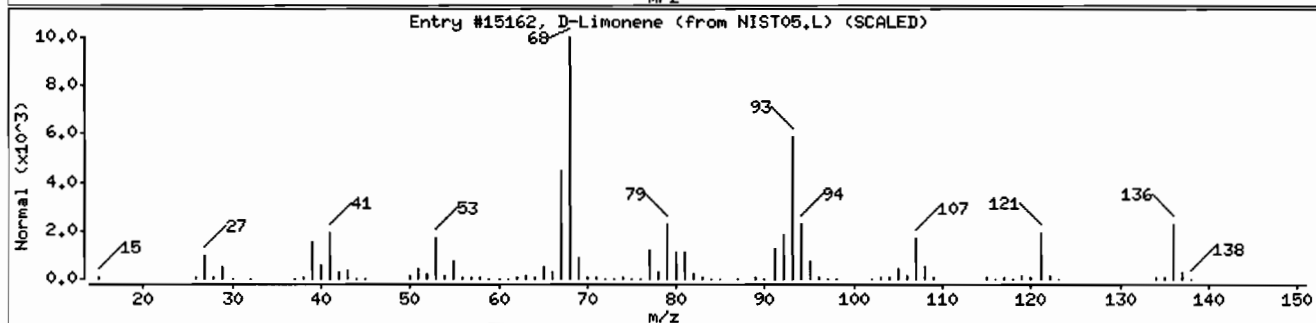
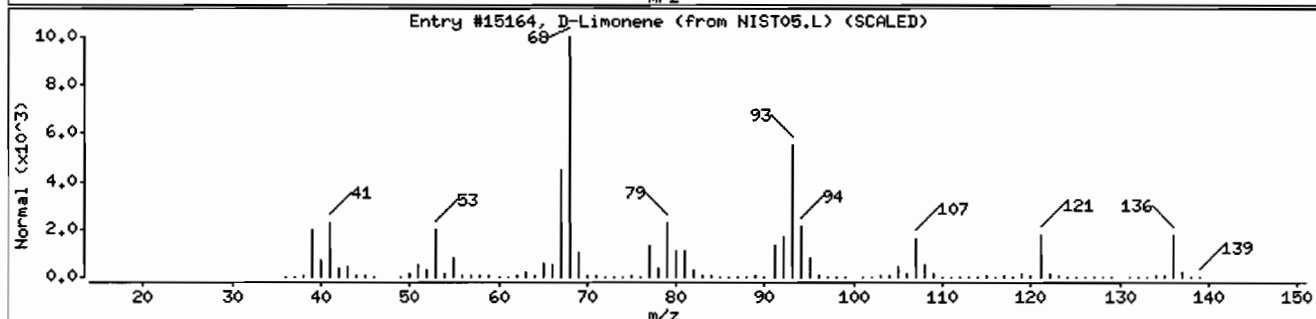
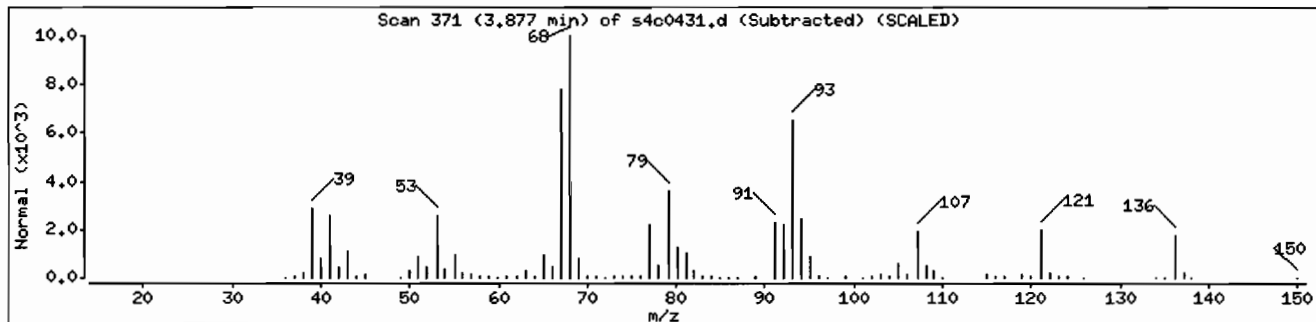
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula | Weight |
|-------------------------------|------------|----------|-------|---------|---------|--------|
| D-Limonene                    | 5989-27-5  | NIST05.L | 15164 | 96      | C10H16  | 136    |
| D-Limonene                    | 5989-27-5  | NIST05.L | 15162 | 94      | C10H16  | 136    |
| Limonene                      | 138-86-3   | NIST05.L | 15153 | 89      | C10H16  | 136    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVMI11LANL

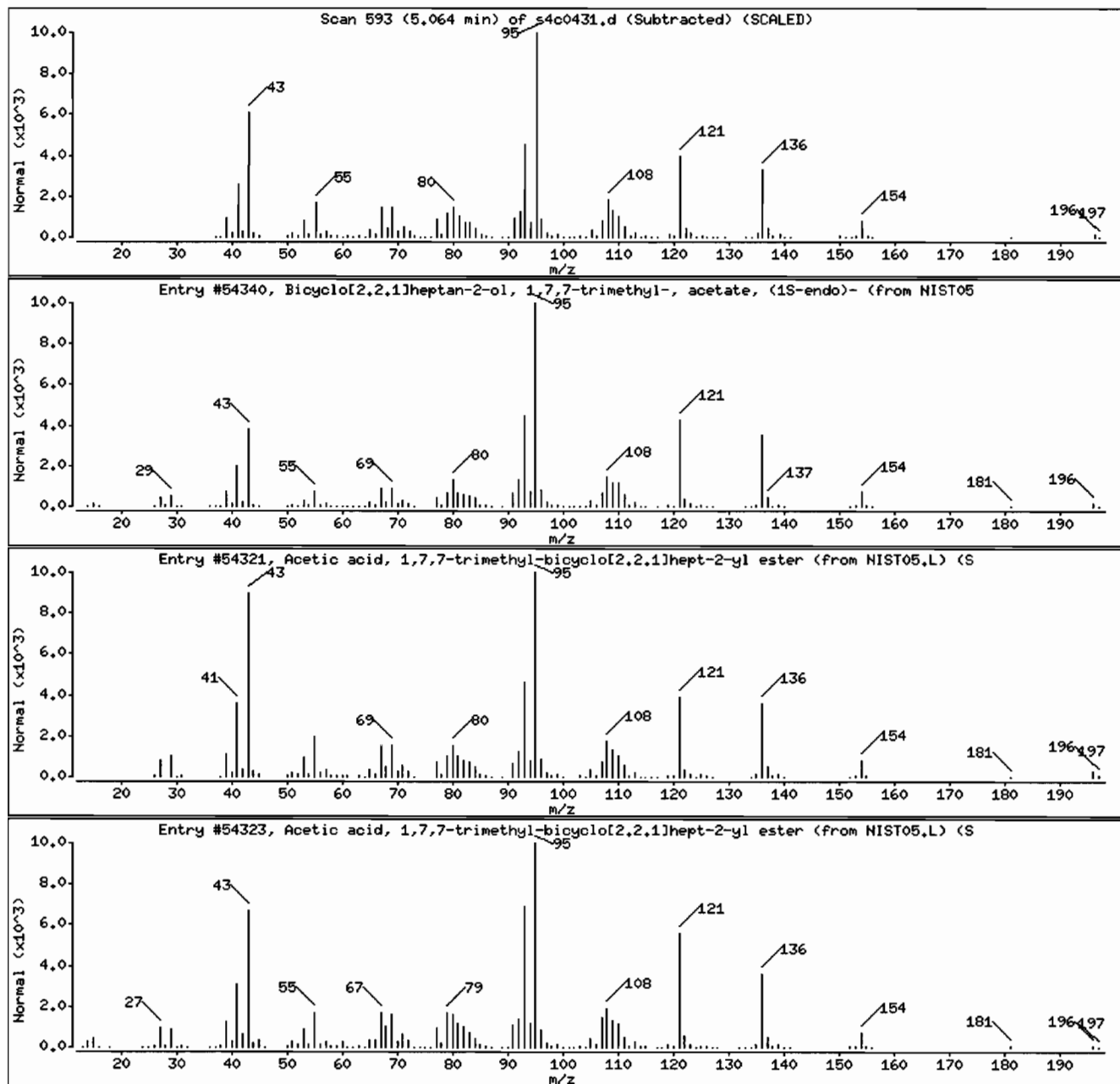
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula  | Weight |
|--|------------|----------|-------|---------|----------|--------|
| Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimeth | 5655-61-8  | NIST05.L | 54340 | 99      | C12H20O2 | 196    |
| Acetic acid, 1,7,7-trimethyl-bicyclo[2.2 | 92618-89-8 | NIST05.L | 54321 | 98      | C12H20O2 | 196    |
| Acetic acid, 1,7,7-trimethyl-bicyclo[2.2 | 92618-89-8 | NIST05.L | 54323 | 96      | C12H20O2 | 196    |



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Instrument: MSD4.i

Sample Info: 1247358002195628511SVMI11LANL

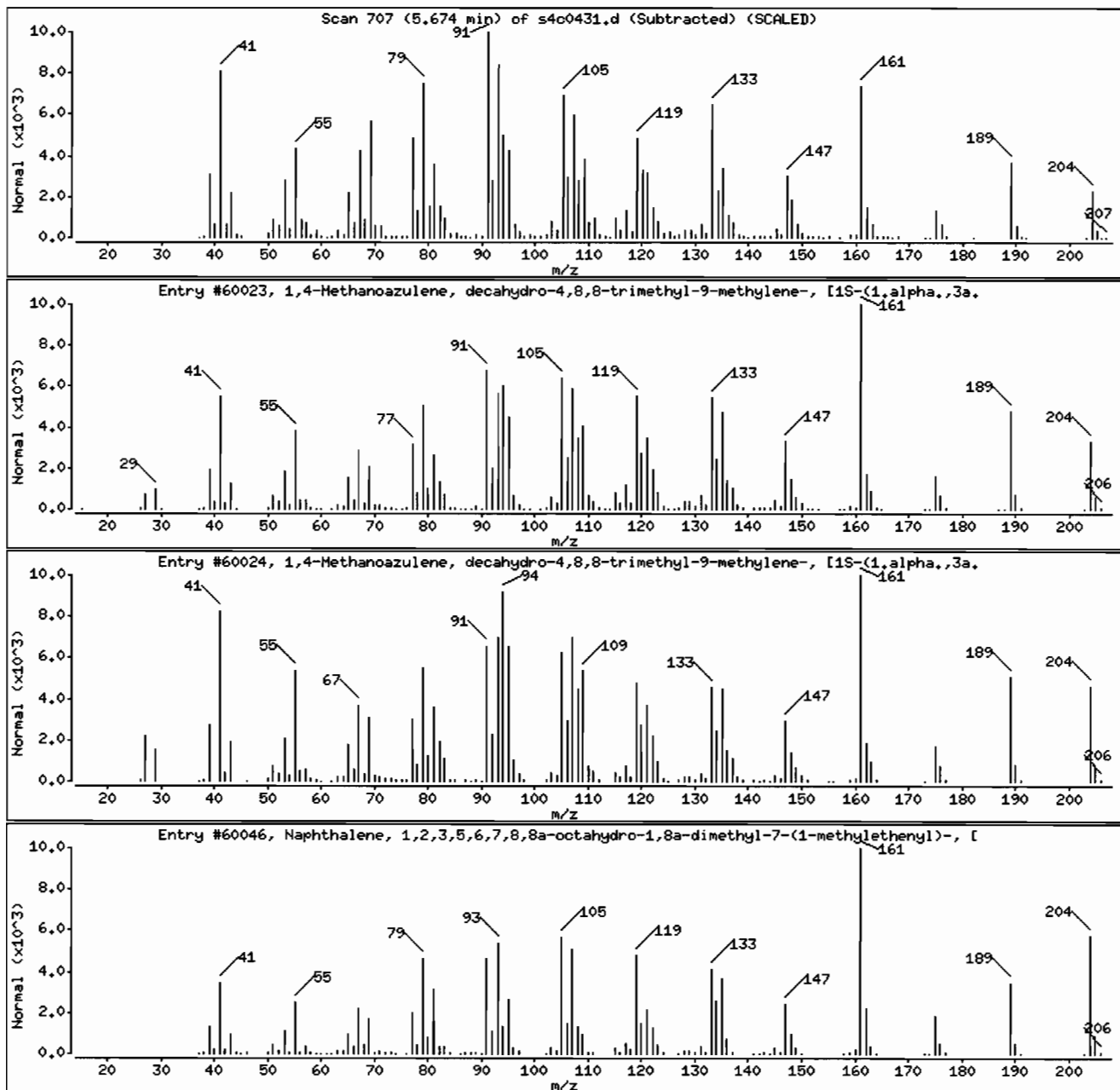
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| 1,4-Methanoazulene, decahydro-4,8,8-trim | 475-20-7   | NIST05.L | 60023 | 99      | C15H24  | 204    |
| 1,4-Methanoazulene, decahydro-4,8,8-trim | 475-20-7   | NIST05.L | 60024 | 98      | C15H24  | 204    |
| Naphthalene, 1,2,3,5,6,7,8,8a-octahydro- | 4630-07-3  | NIST05.L | 60046 | 96      | C15H24  | 204    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 12473580021956285111SVH111LANL

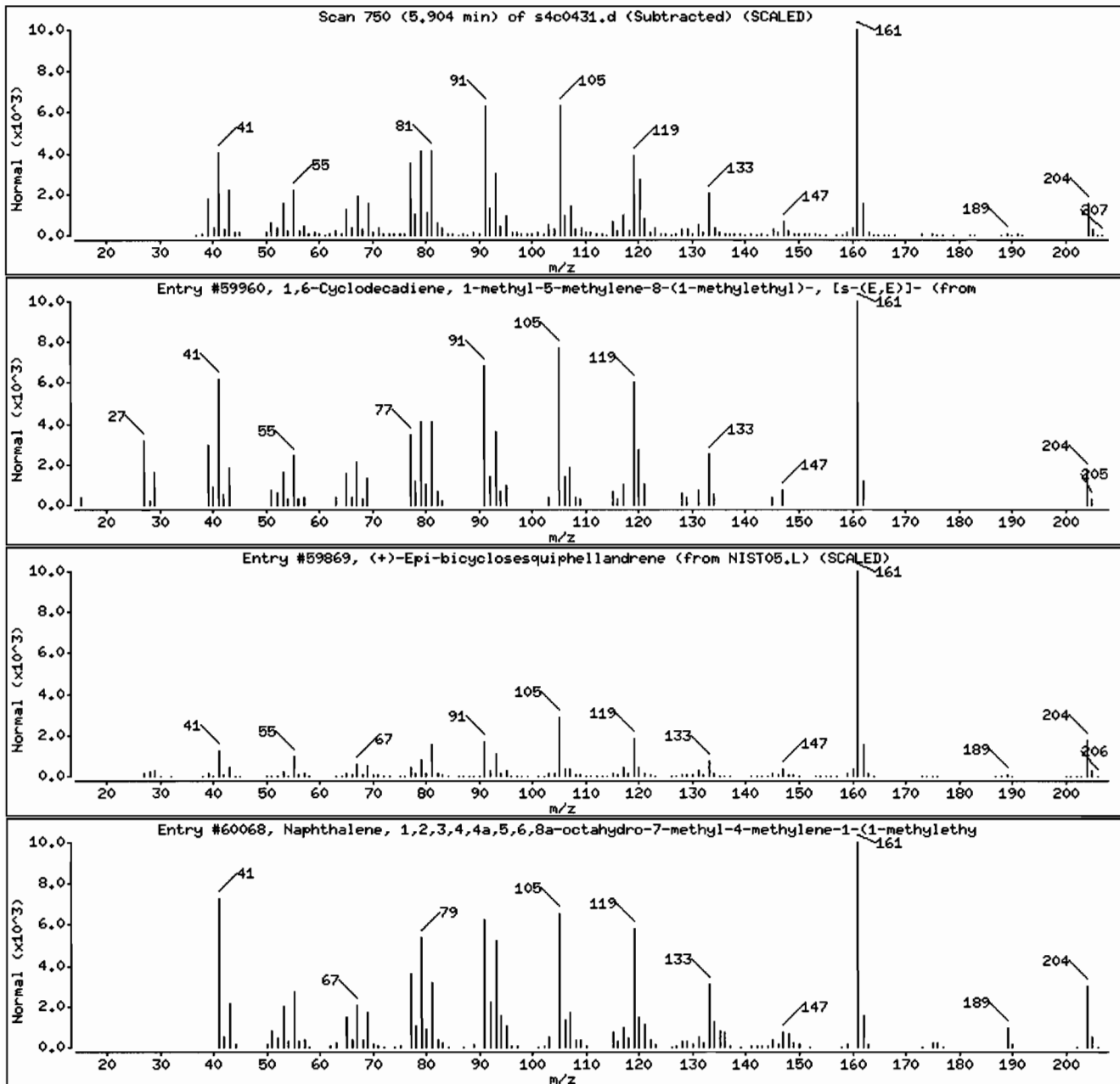
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| 1,6-Cyclodecadiene, 1-methyl-5-methylene | 23986-74-5 | NIST05.L | 59960 | 97      | C15H24  | 204    |
| (+)-Epi-bicyclosquisphellandrene         | 54324-03-7 | NIST05.L | 59869 | 93      | C15H24  | 204    |
| Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro | 30021-74-0 | NIST05.L | 60068 | 93      | C15H24  | 204    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVMI11LANL

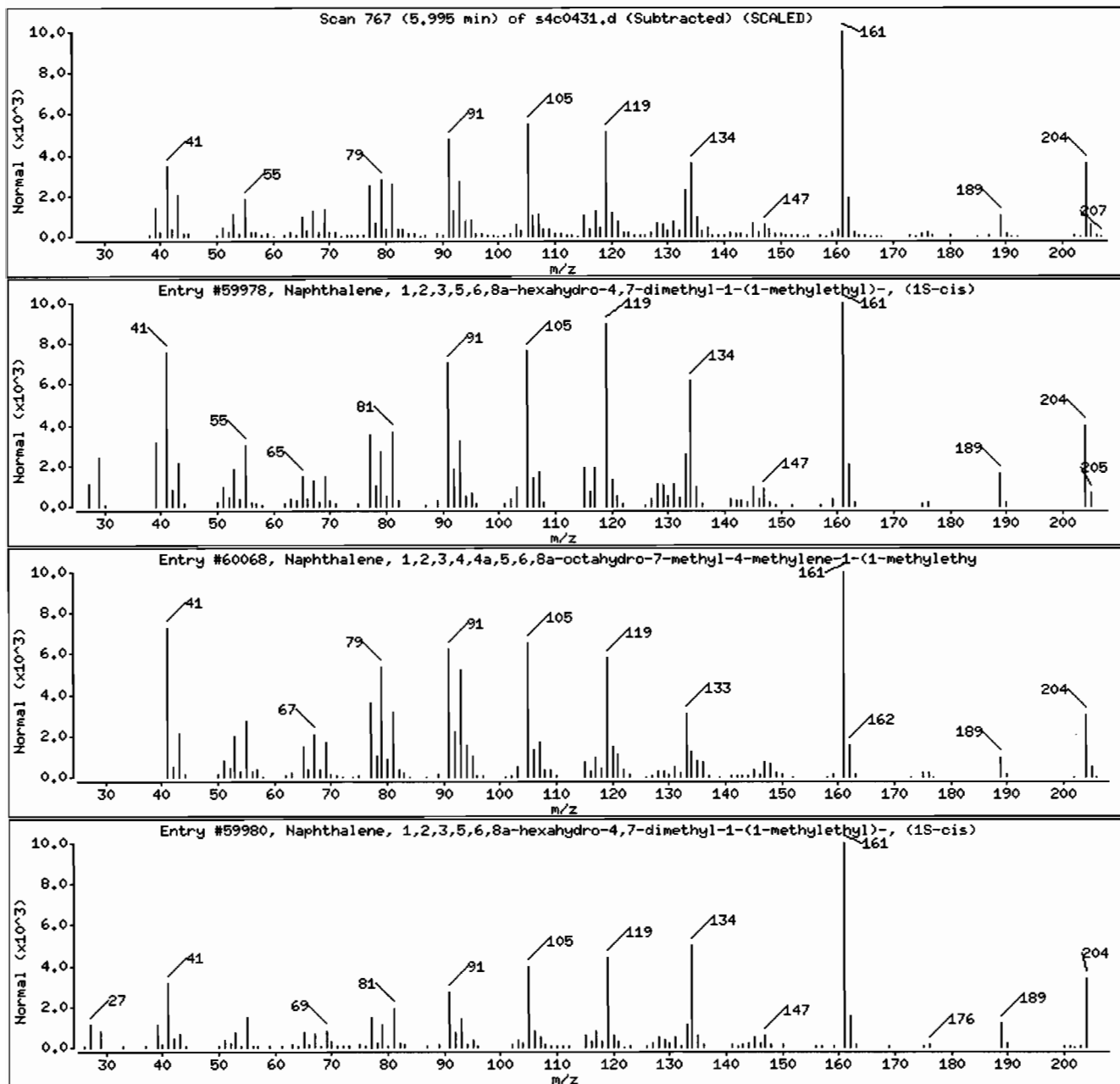
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- | 483-76-1   | NIST05.L | 59978 | 97      | C15H24  | 204    |
| Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro | 30021-74-0 | NIST05.L | 60068 | 96      | C15H24  | 204    |
| Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7- | 483-76-1   | NIST05.L | 59980 | 91      | C15H24  | 204    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVH111LAML

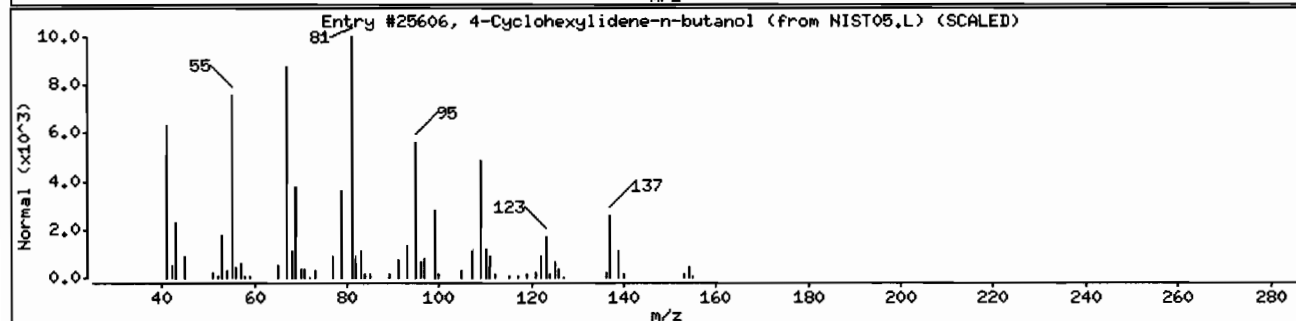
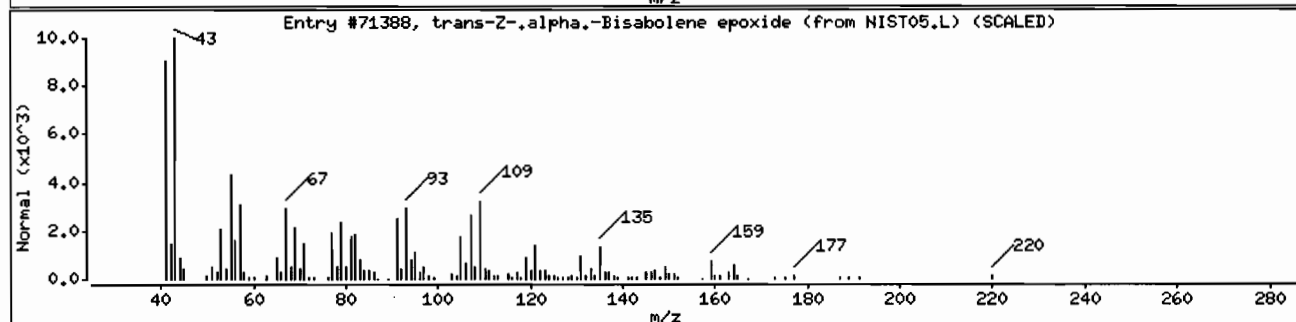
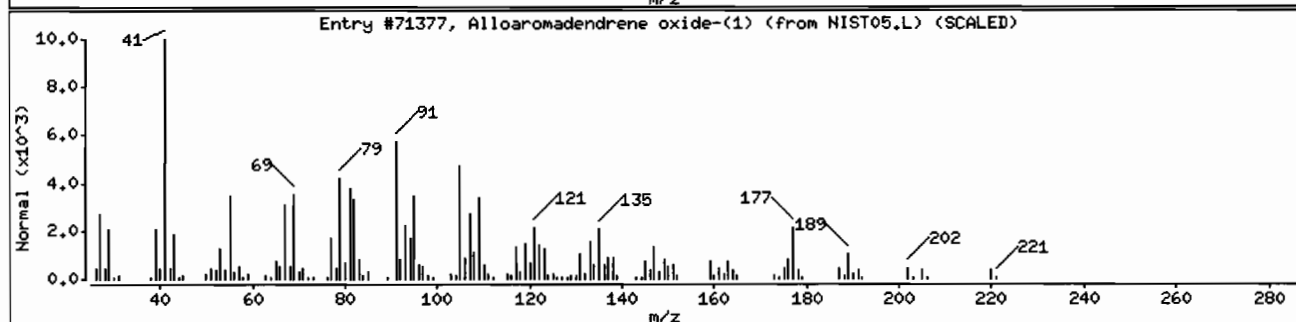
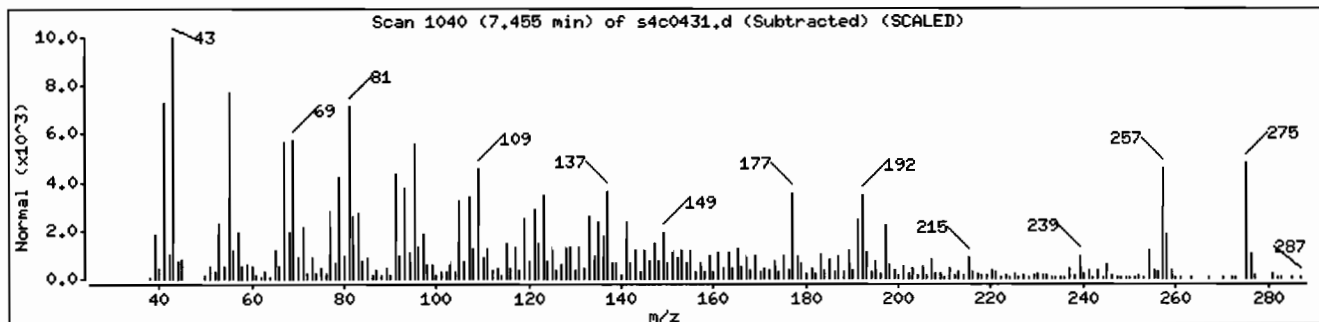
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match      | CAS Number   | Library  | Entry | Quality | Formula | Weight |
|------------------------------------|--------------|----------|-------|---------|---------|--------|
| Unknown                            |              |          |       |         |         |        |
| Alloaromadendrene oxide-(1)        | 1000156-12-8 | NIST05.L | 71377 | 46      | C15H24O | 220    |
| trans-Z-.alpha.-Bisabolene epoxide | 1000131-71-1 | NIST05.L | 71388 | 25      | C15H24O | 220    |
| 4-Cyclohexylidene-n-butanol        | 4441-58-1    | NIST05.L | 25606 | 25      | C10H18O | 154    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511ISVH11ILANL

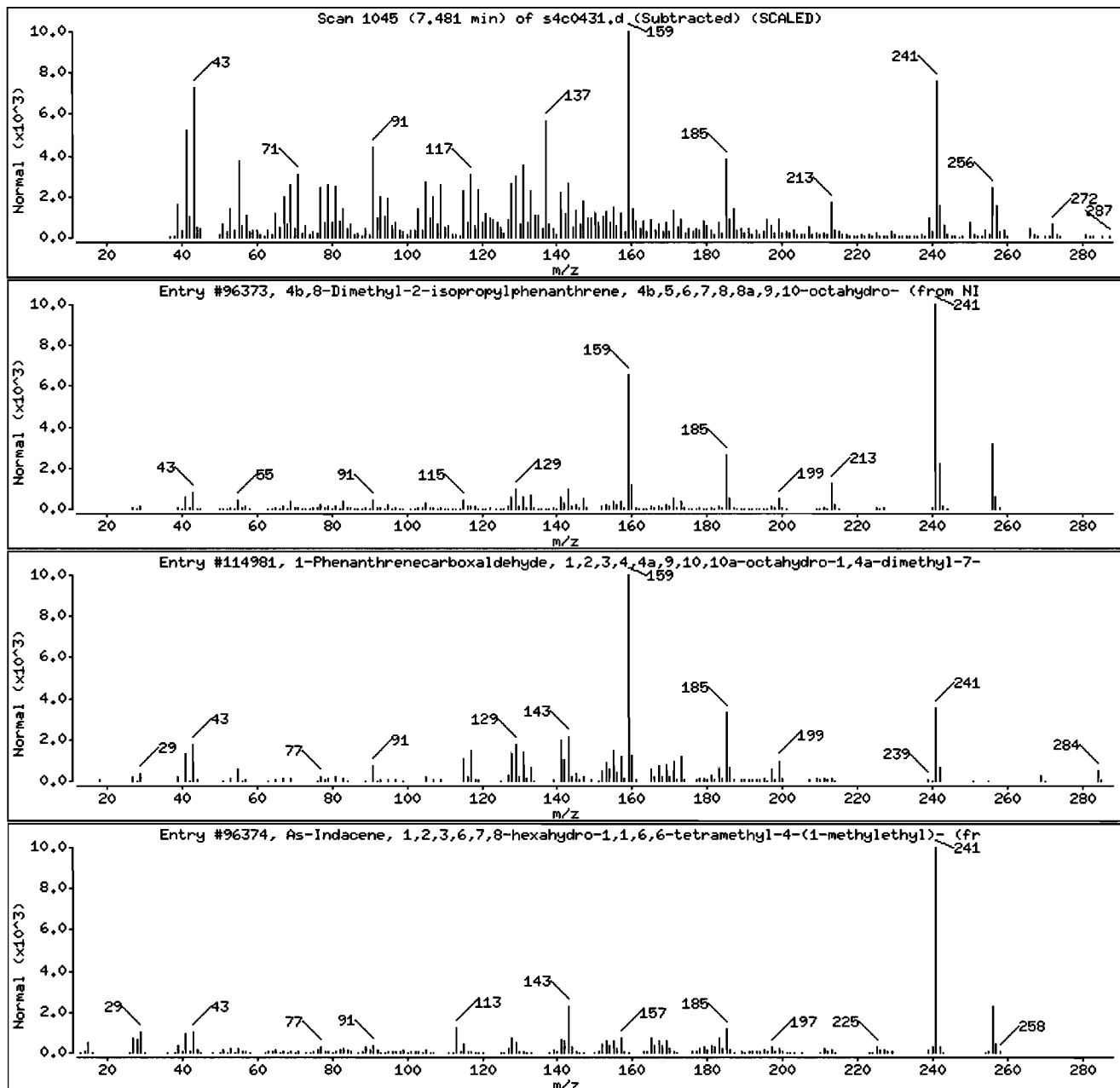
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula | Weight |
|--|--------------|----------|--------|---------|---------|--------|
| 4b,8-Dimethyl-2-isopropylphenanthrene, 4 | 1000197-14-1 | NIST05.L | 96373  | 92      | C19H28  | 256    |
| 1-Phenanthrenecarboxaldehyde, 1,2,3,4,4a | 24035-50-5   | NIST05.L | 114981 | 76      | C20H28O | 284    |
| As-Indacene, 1,2,3,6,7,8-hexahydro-1,1,6 | 17465-47-3   | NIST05.L | 96374  | 47      | C19H28  | 256    |





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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 12473580021956285111SVH111LANL

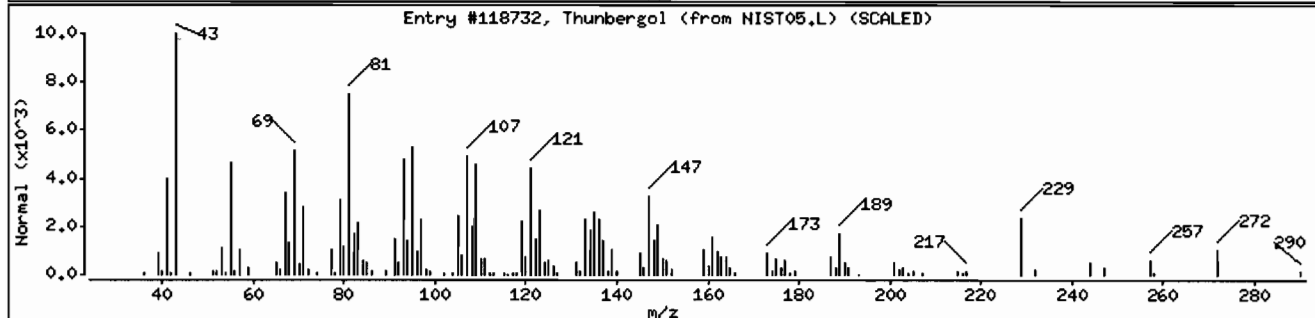
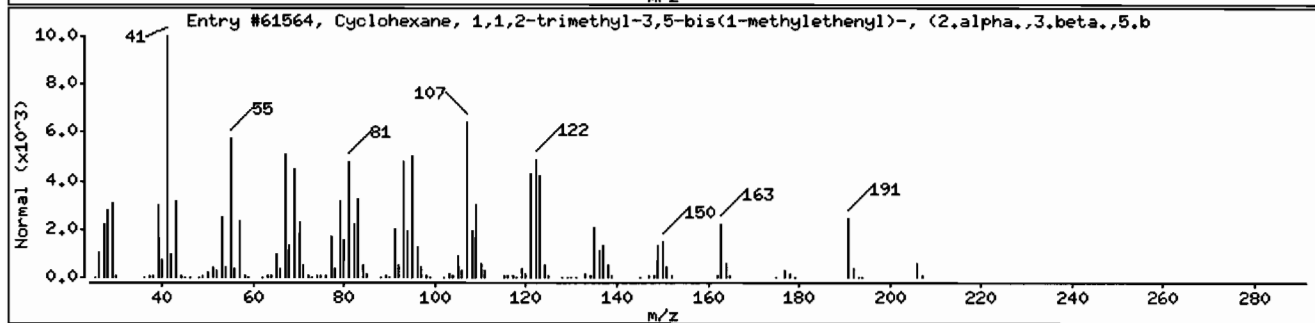
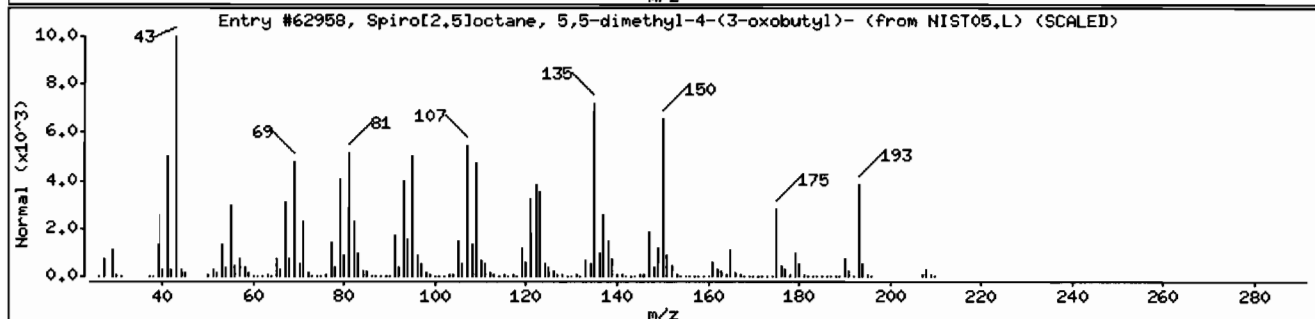
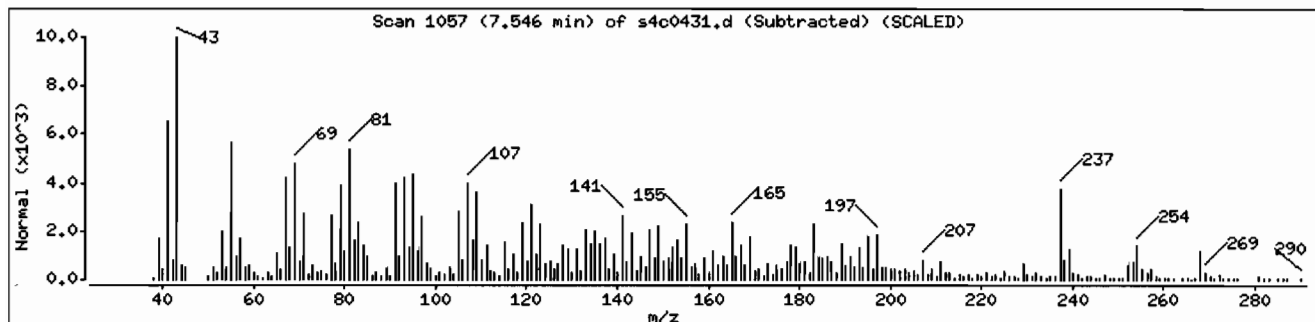
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula | Weight |
|--|------------|----------|--------|---------|---------|--------|
| Unknown                                  |            |          |        |         |         |        |
| Spiro[2.5]octane, 5,5-dimethyl-4-(3-oxob | 77143-32-9 | NIST05.L | 62958  | 55      | C14H24O | 208    |
| Cyclohexane, 1,1,2-trimethyl-3,5-bis(1-m | 62337-97-7 | NIST05.L | 61564  | 42      | C15H26  | 206    |
| Thunbergol                               | 25269-17-4 | NIST05.L | 118732 | 42      | C20H34O | 290    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: I247358002195628511ISVM11ILANL

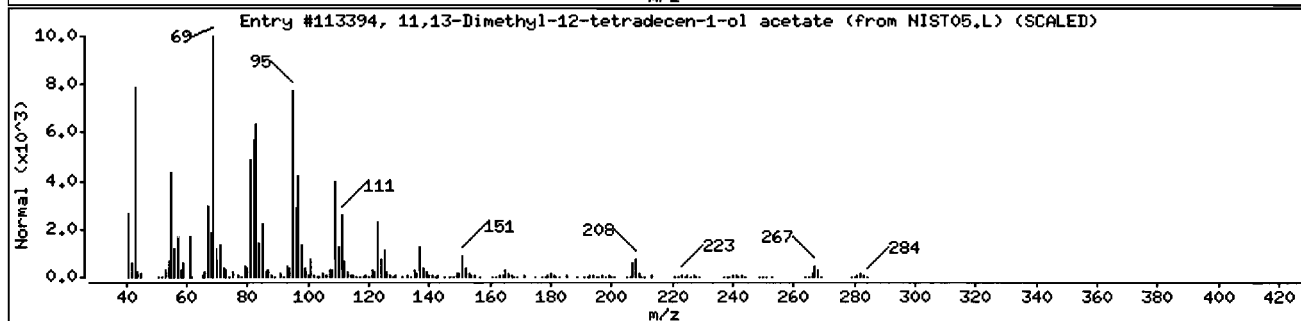
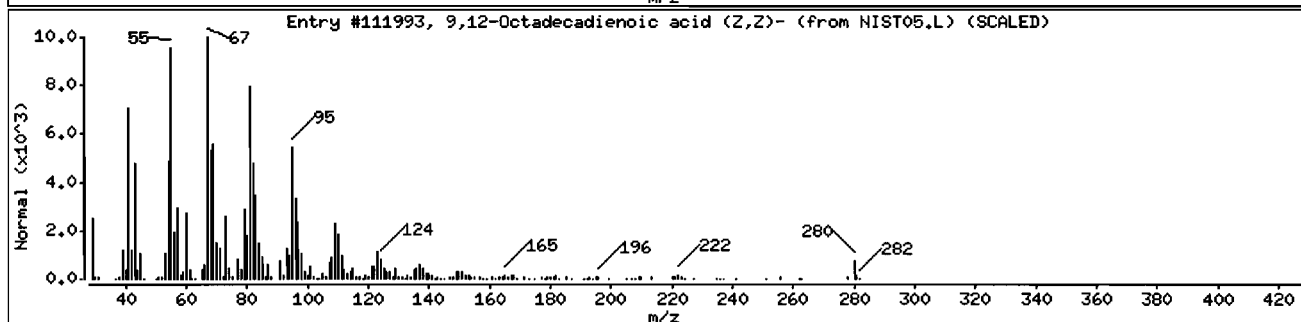
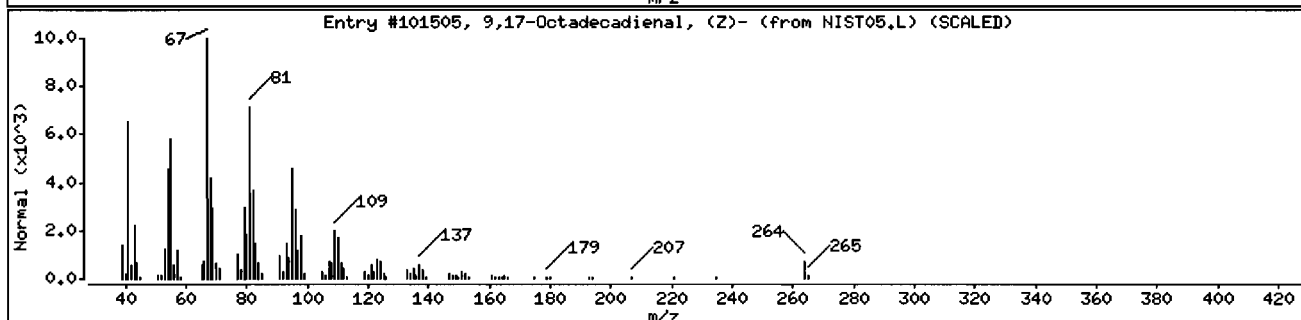
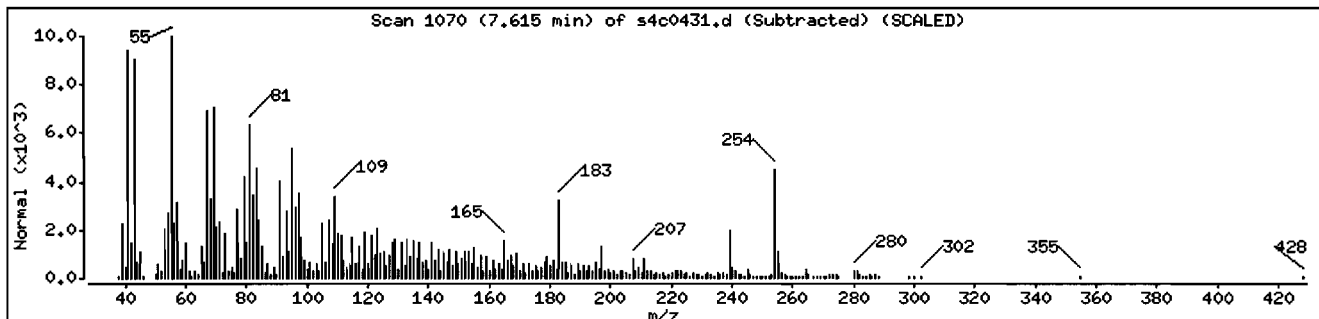
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| 9,17-Octadecadienal, (Z)-                | 56554-35-9   | NIST05.L | 101505 | 86      | C18H32O  | 264    |
| 9,12-Octadecadienoic acid (Z,Z)-         | 60-33-3      | NIST05.L | 111993 | 86      | C18H32O2 | 280    |
| 11,13-Dimethyl-12-tetradecen-1-ol acetat | 1000130-81-0 | NIST05.L | 113394 | 86      | C18H34O2 | 282    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: I247358002195628511SVH11ILANL

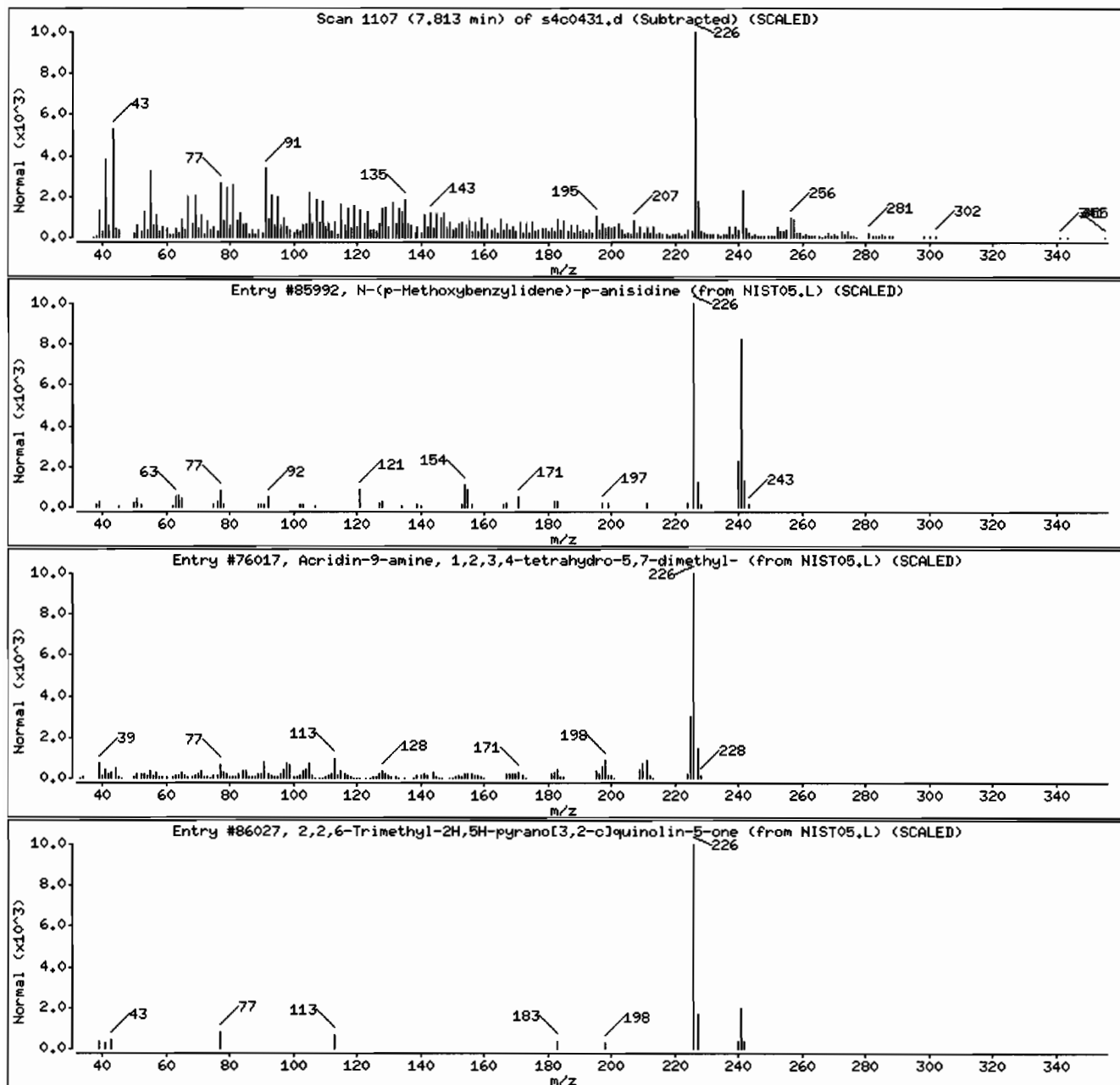
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number   | Library  | Entry | Quality | Formula   | Weight |
|---|--------------|----------|-------|---------|-----------|--------|
| Unknown                                   |              |          |       |         |           |        |
| N-(p-Methoxybenzylidene)-p-anisidine      | 1749-08-2    | NIST05.L | 85992 | 58      | C15H15NO2 | 241    |
| Acridin-9-amine, 1,2,3,4-tetrahydro-5,7-  | 1000300-57-6 | NIST05.L | 76017 | 55      | C15H18N2  | 226    |
| 2,2,6-Trimethyl-2H,5H-pyranol[3,2-c]quino | 50333-13-6   | NIST05.L | 86027 | 52      | C15H15NO2 | 241    |



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Client ID: RE36-10-7423

Instrument: HSD4.i

Sample Info: I247358002195628511SVH11ILANL

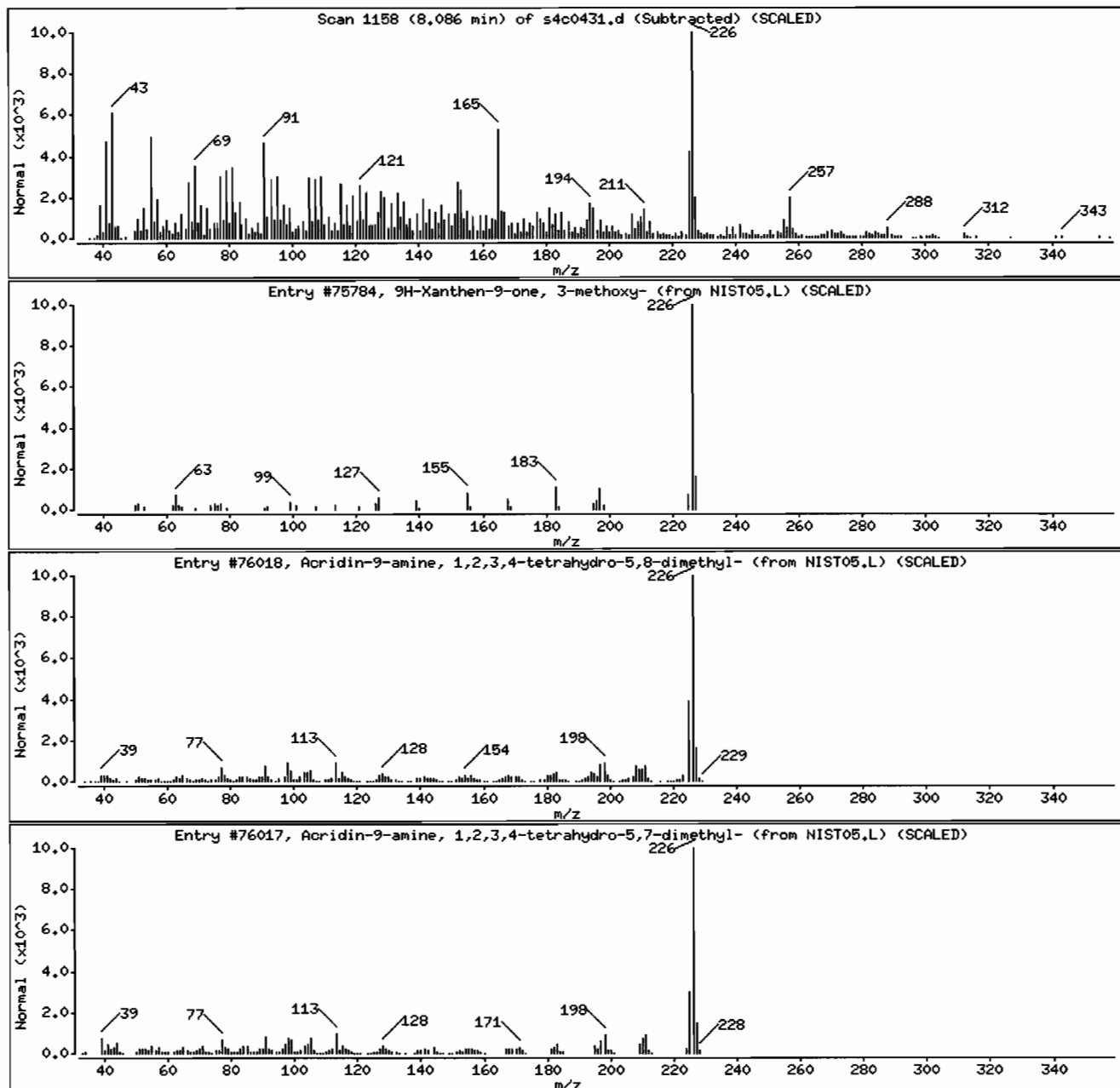
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula  | Weight |
|--|--------------|----------|-------|---------|----------|--------|
| Unknown                                  |              |          |       |         |          |        |
| 9H-Xanthen-9-one, 3-methoxy-             | 3722-52-9    | NIST05.L | 75784 | 72      | C14H10O3 | 226    |
| Acridin-9-amine, 1,2,3,4-tetrahydro-5,8- | 297758-19-1  | NIST05.L | 76018 | 70      | C15H18N2 | 226    |
| Acridin-9-amine, 1,2,3,4-tetrahydro-5,7- | 1000300-57-6 | NIST05.L | 76017 | 64      | C15H18N2 | 226    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVH11LANL

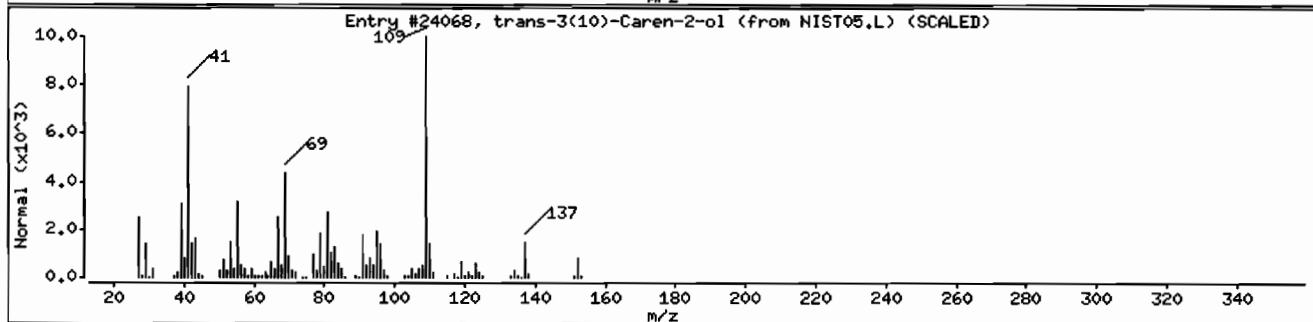
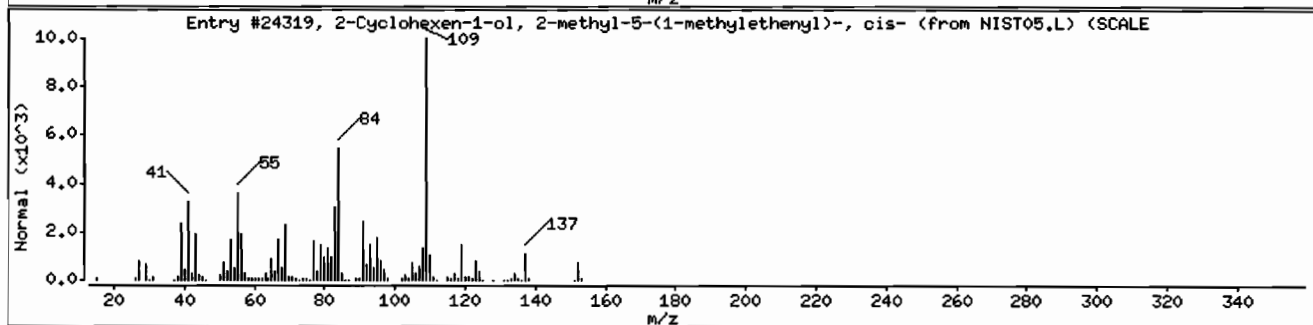
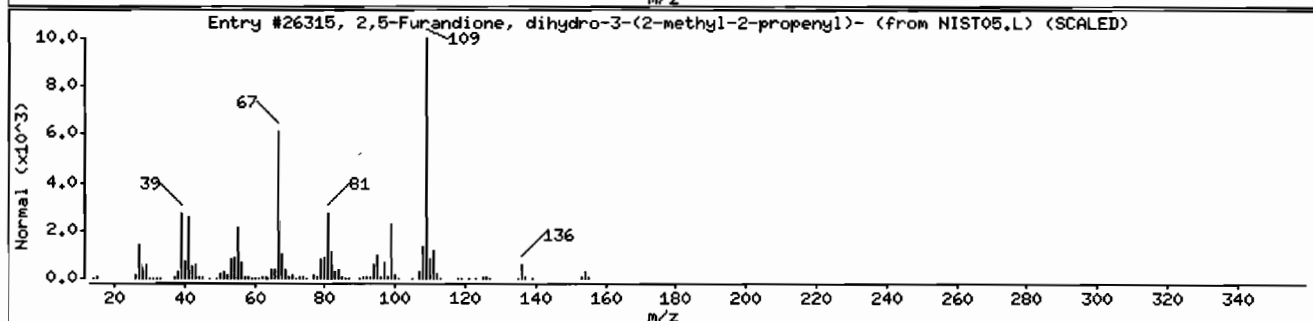
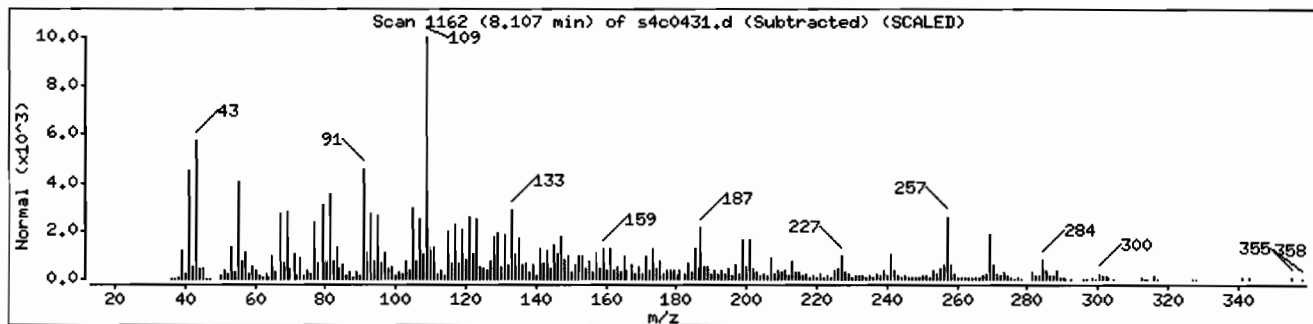
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula | Weight |
|--|--------------|----------|-------|---------|---------|--------|
| Unknown                                  |              |          |       |         |         |        |
| 2,5-Furandione, dihydro-3-(2-methyl-2-pr | 18908-20-8   | NIST05.L | 26315 | 38      | C8H10O3 | 154    |
| 2-Cyclohexen-1-ol, 2-methyl-5-(1-methyle | 1197-06-4    | NIST05.L | 24319 | 38      | C10H16O | 152    |
| trans-3(10)-Caren-2-ol                   | 1000151-66-5 | NIST05.L | 24068 | 35      | C10H16O | 152    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511ISVM11ILANL

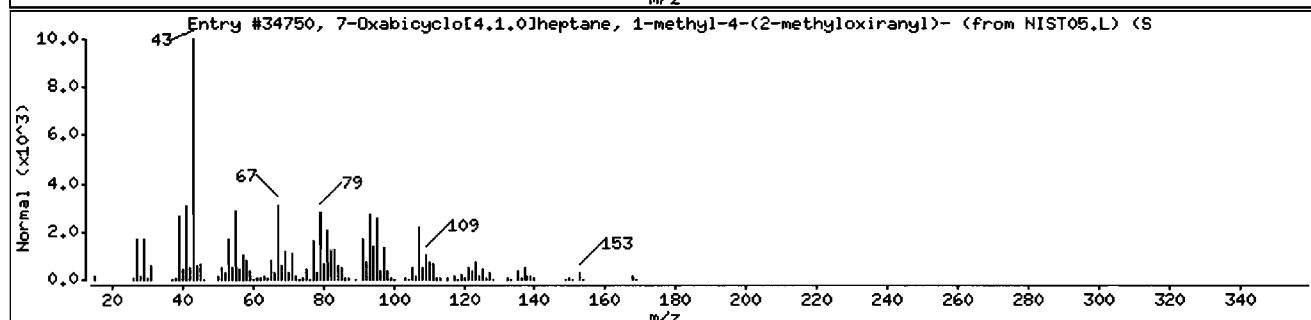
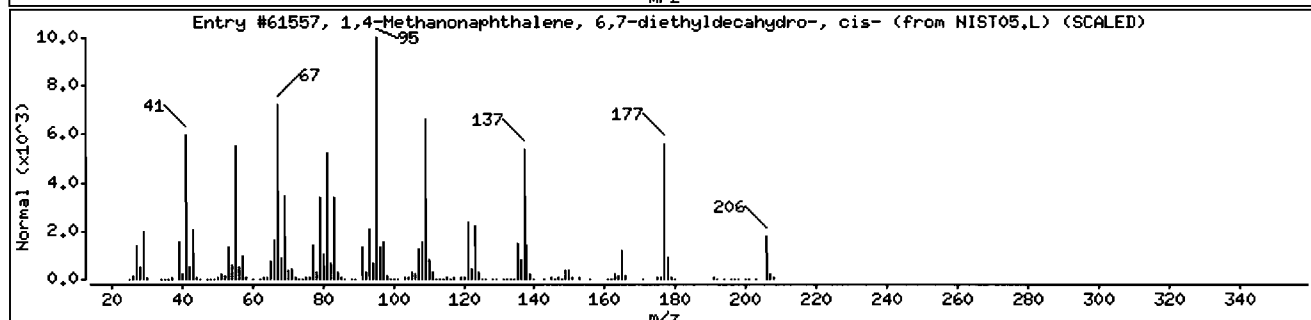
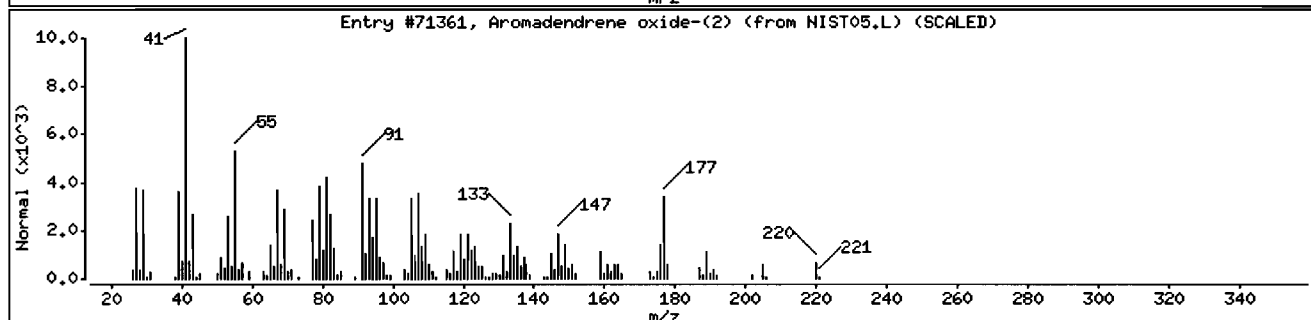
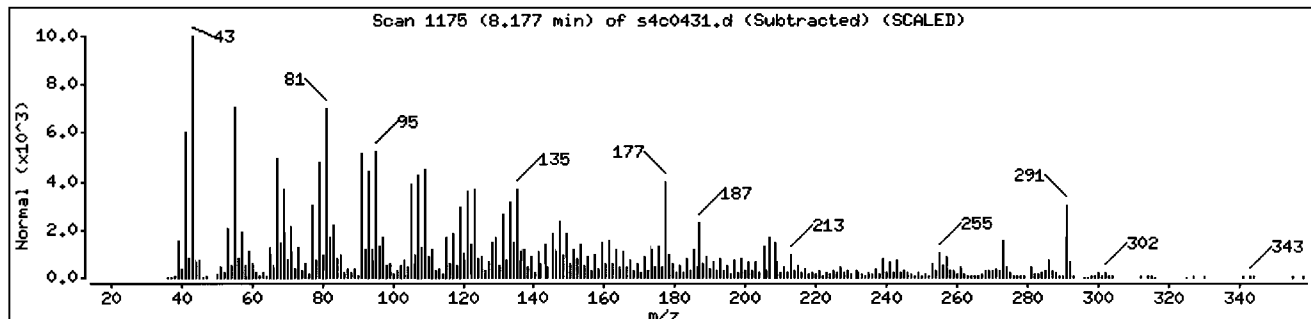
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula  | Weight |
|--|--------------|----------|-------|---------|----------|--------|
| Unknown                                  |              |          |       |         |          |        |
| Aromadendrene oxide-(2)                  | 1000151-98-6 | NIST05.L | 71361 | 49      | C15H24O  | 220    |
| 1,4-Methanonaphthalene, 6,7-diethyldecah | 16539-02-9   | NIST05.L | 61557 | 43      | C15H26   | 206    |
| 7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-( | 96-08-2      | NIST05.L | 34750 | 38      | C10H16O2 | 168    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: I247358002195628511ISVMI1ILANL

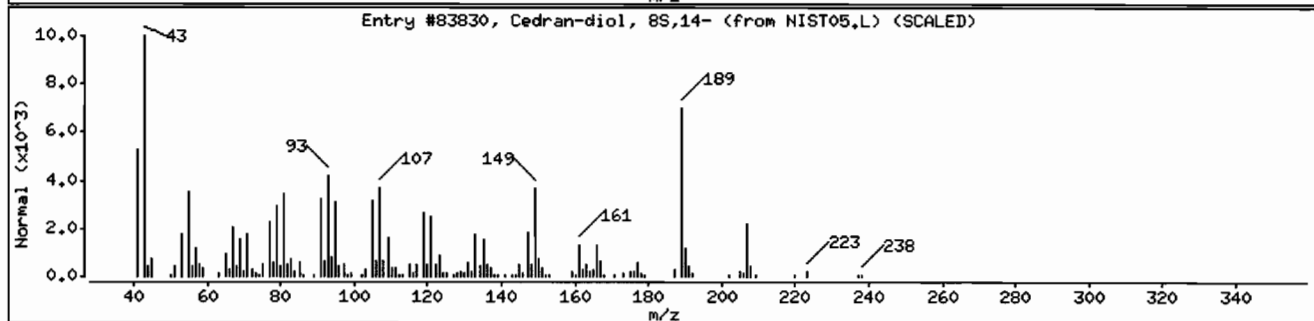
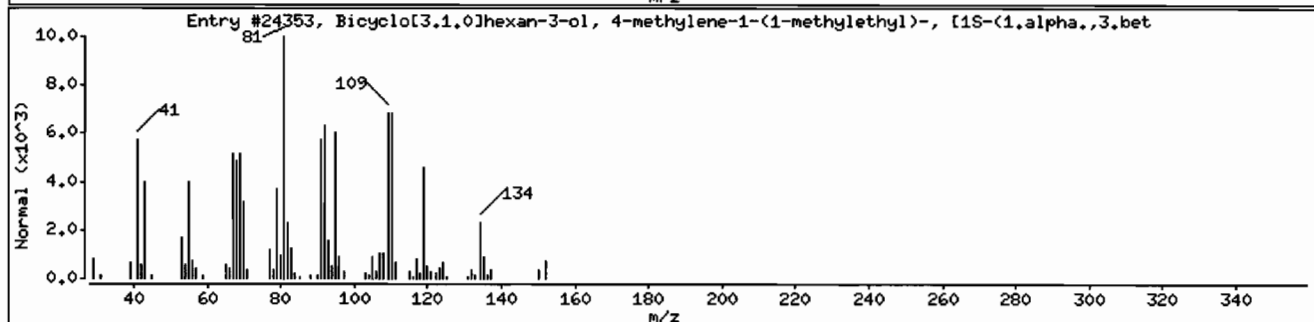
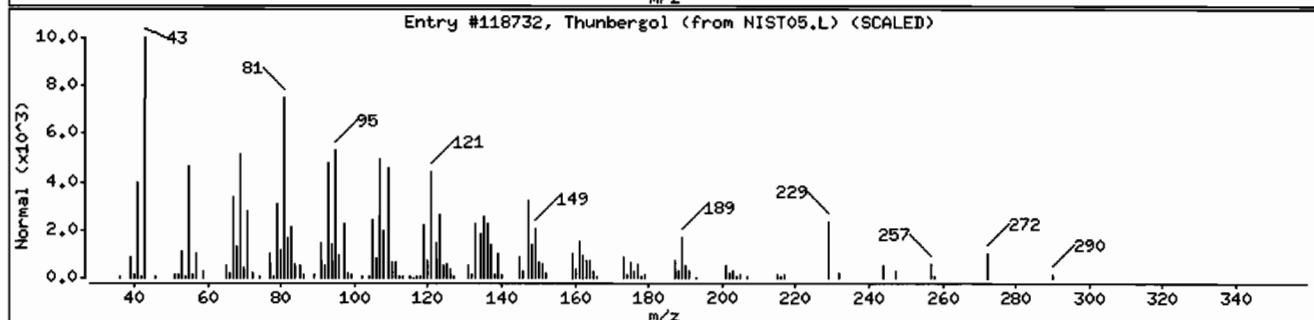
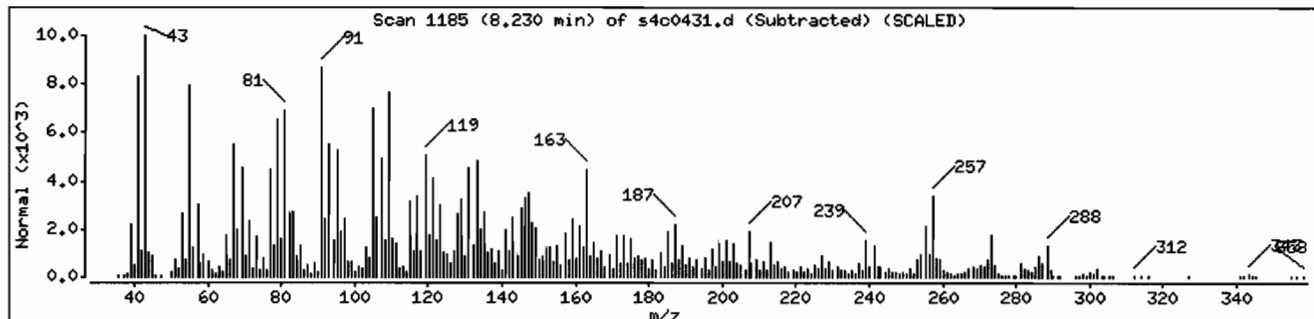
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--|------------|----------|--------|---------|----------|--------|
| Unknown                                  |            |          |        |         |          |        |
| Thunbergol                               | 25269-17-4 | NIST05.L | 118732 | 46      | C20H34O  | 290    |
| Bicyclo[3.1.0]hexan-3-ol, 4-methylene-1- | 471-16-9   | NIST05.L | 24353  | 46      | C10H16O  | 152    |
| Cedran-diol, 8S,14-                      | 62600-05-9 | NIST05.L | 83830  | 46      | C15H26O2 | 238    |



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Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVH111LANL

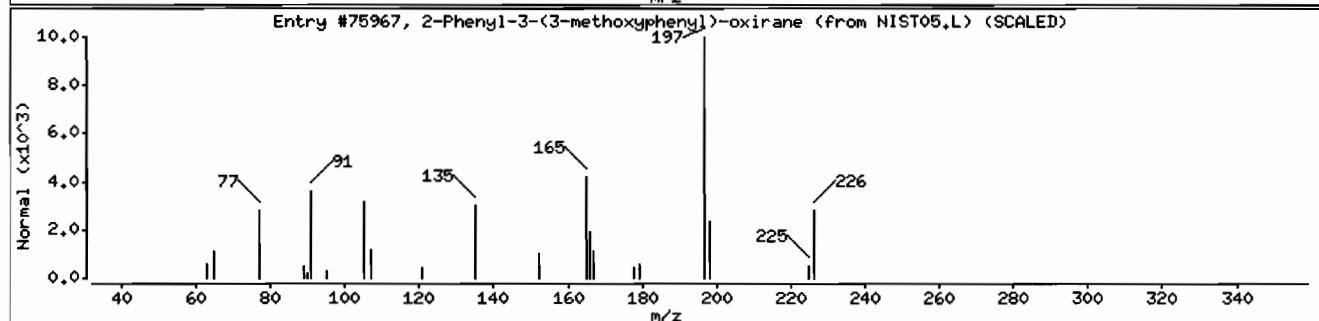
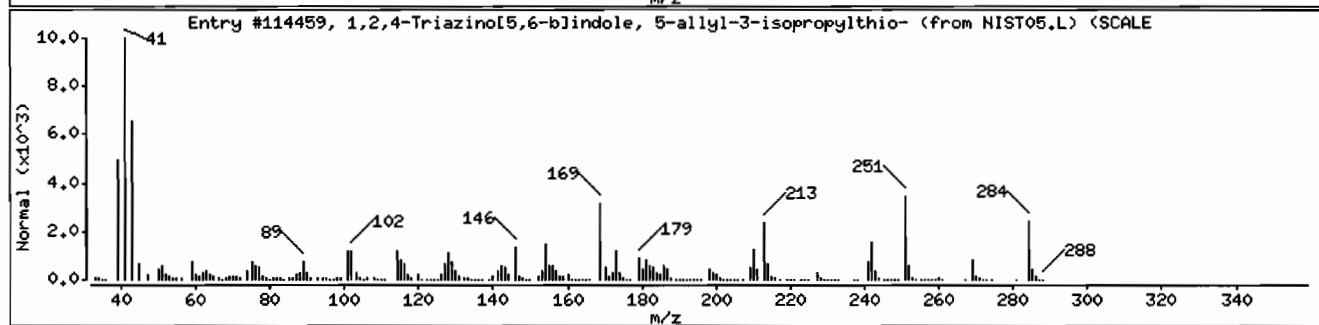
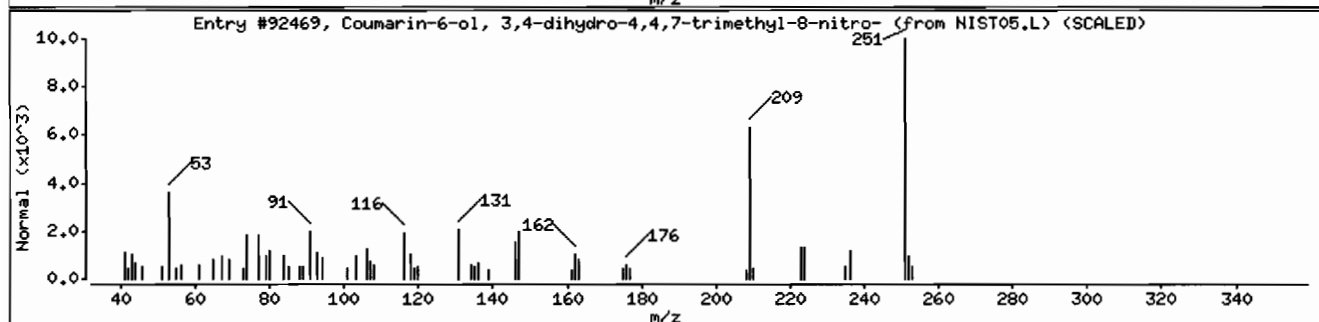
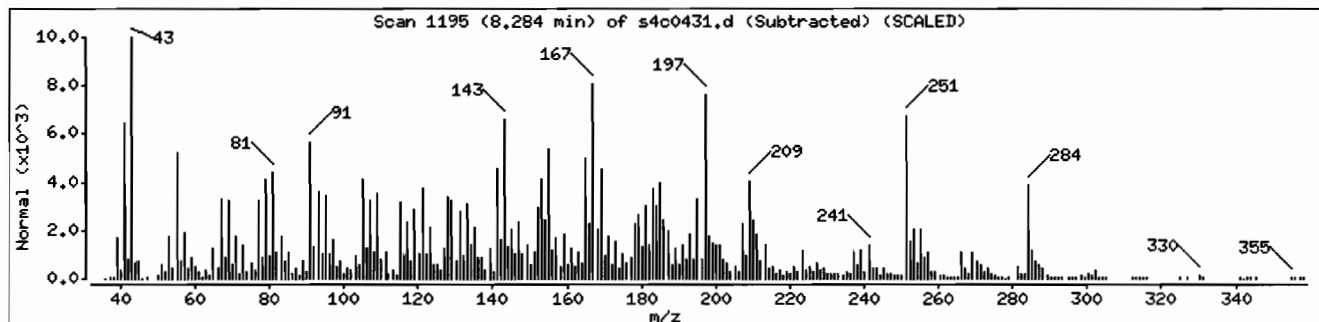
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|--|--------------|----------|--------|---------|-----------|--------|
| Unknown                                  |              |          |        |         |           |        |
| Coumarin-6-ol, 3,4-dihydro-4,4,7-trimeth | 1000126-44-4 | NIST05.L | 92469  | 42      | C12H13NO5 | 251    |
| 1,2,4-Triazino[5,6-b]indole, 5-allyl-3-i | 340006-83-9  | NIST05.L | 114459 | 30      | C15H16N4S | 284    |
| 2-Phenyl-3-(3-methoxyphenyl)-oxirane     | 52881-62-6   | NIST05.L | 75967  | 25      | C15H14O2  | 226    |





Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 12473580021956285111SVMI11LANL

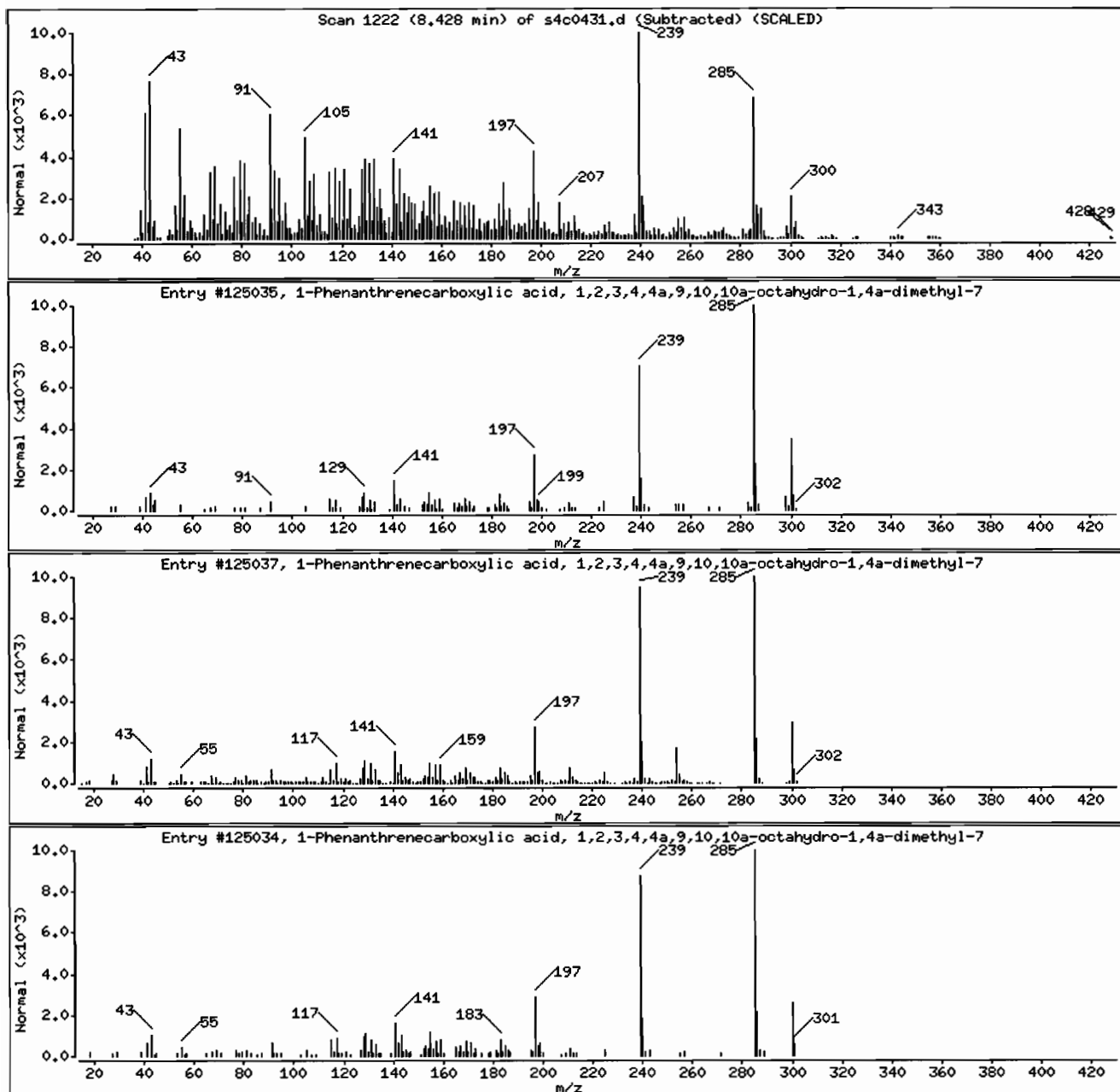
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--|------------|----------|--------|---------|----------|--------|
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 5155-70-4  | NIST05.L | 125035 | 99      | C20H28O2 | 300    |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1740-19-8  | NIST05.L | 125037 | 95      | C20H28O2 | 300    |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1740-19-8  | NIST05.L | 125034 | 81      | C20H28O2 | 300    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: HSD4.i

Sample Info: 1247358002195628511SVH111LANL

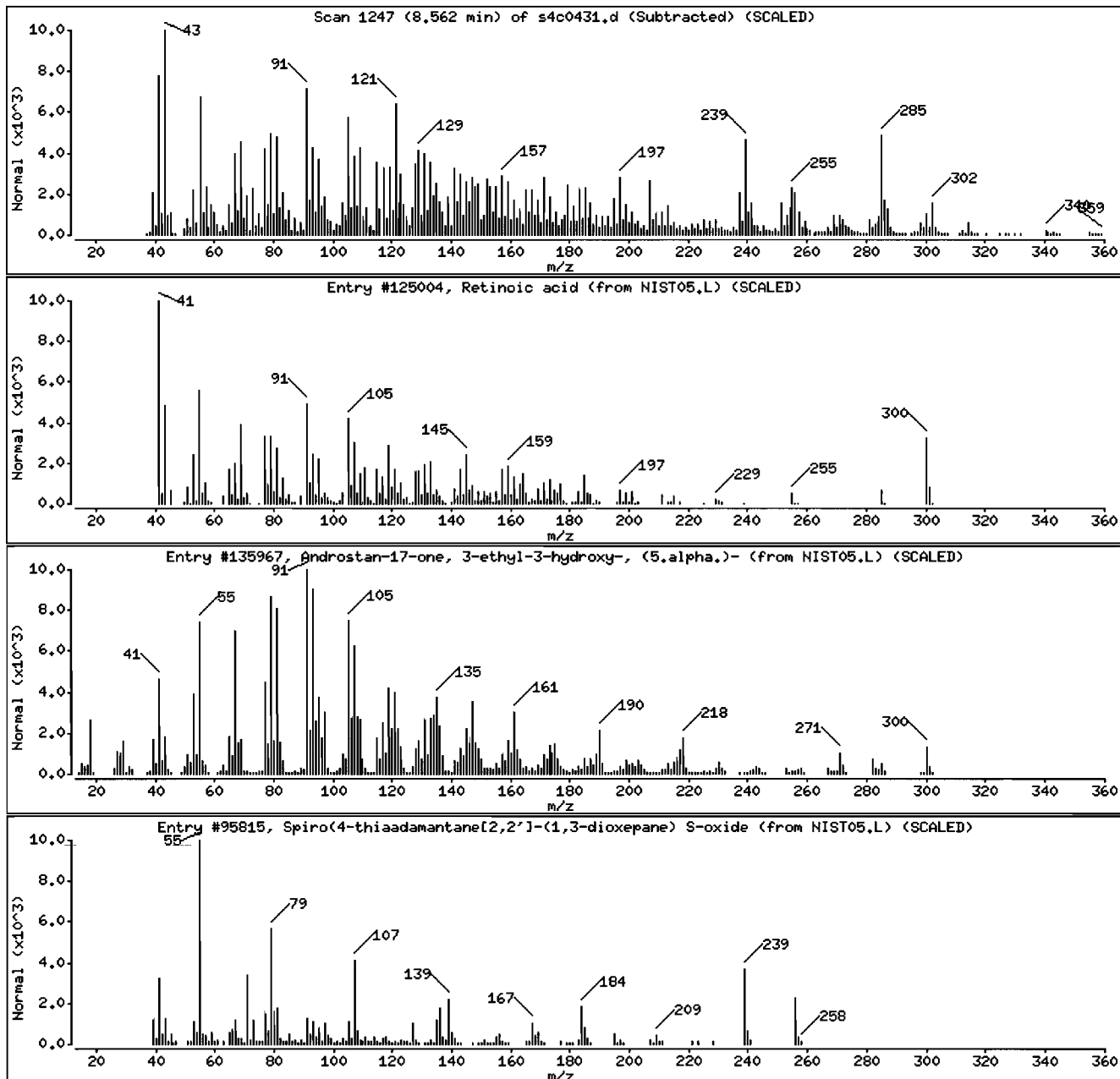
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|--|--------------|----------|--------|---------|-----------|--------|
| Unknown                                  |              |          |        |         |           |        |
| Retinoic acid                            | 302-79-4     | NIST05.L | 125004 | 15      | C20H28O2  | 300    |
| Androstan-17-one, 3-ethyl-3-hydroxy-, (5 | 57344-99-7   | NIST05.L | 135967 | 15      | C21H34O2  | 318    |
| Spiro(4-thiaadamantane[2,2']-(1,3-dioxep | 1000210-39-7 | NIST05.L | 95815  | 15      | C13H20O3S | 256    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511ISVMI1ILANL

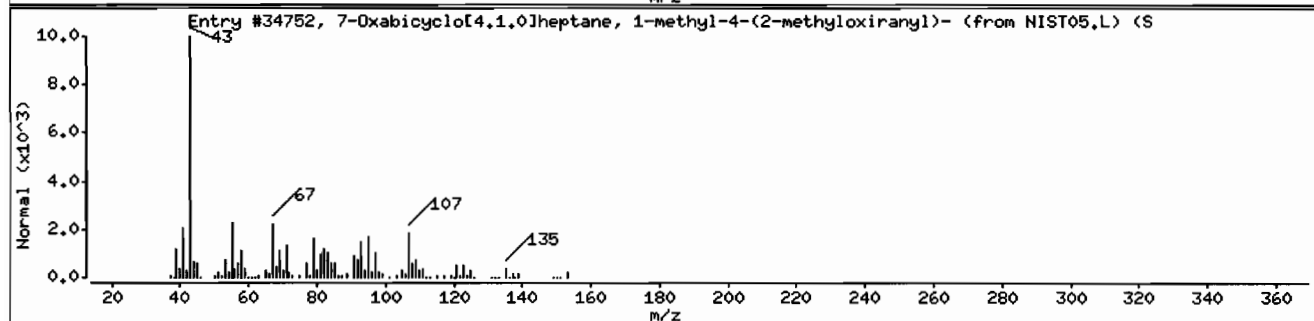
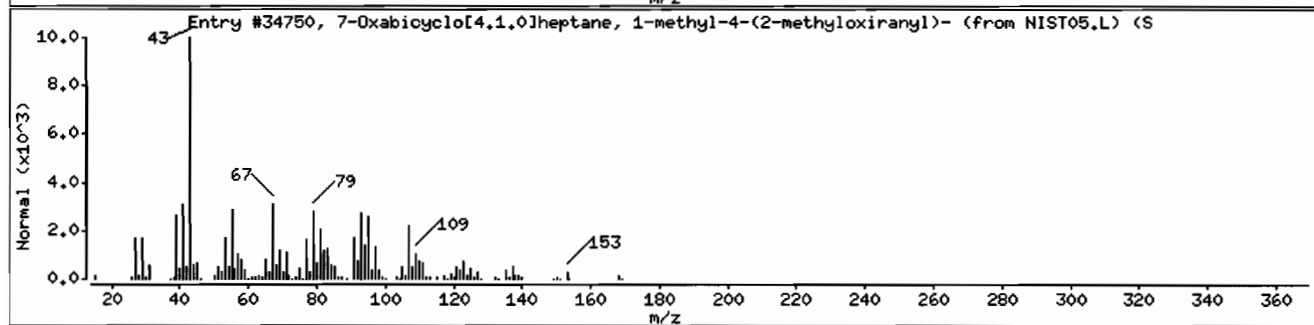
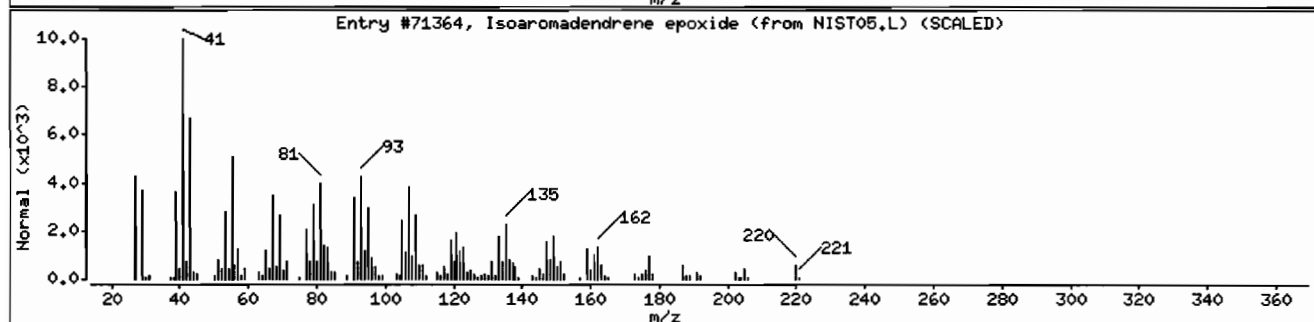
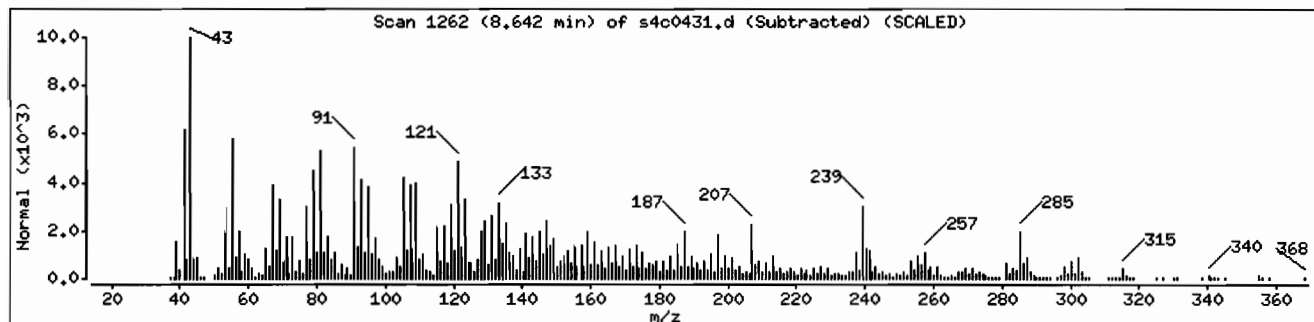
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula  | Weight |
|--|--------------|----------|-------|---------|----------|--------|
| Unknown                                  |              |          |       |         |          |        |
| Isoaromadendrene epoxide                 | 1000159-36-6 | NIST05.L | 71364 | 42      | C15H24O  | 220    |
| 7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-( | 96-08-2      | NIST05.L | 34750 | 30      | C10H16O2 | 168    |
| 7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-( | 96-08-2      | NIST05.L | 34752 | 27      | C10H16O2 | 168    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: I247358002195628511ISVMI1ILANL

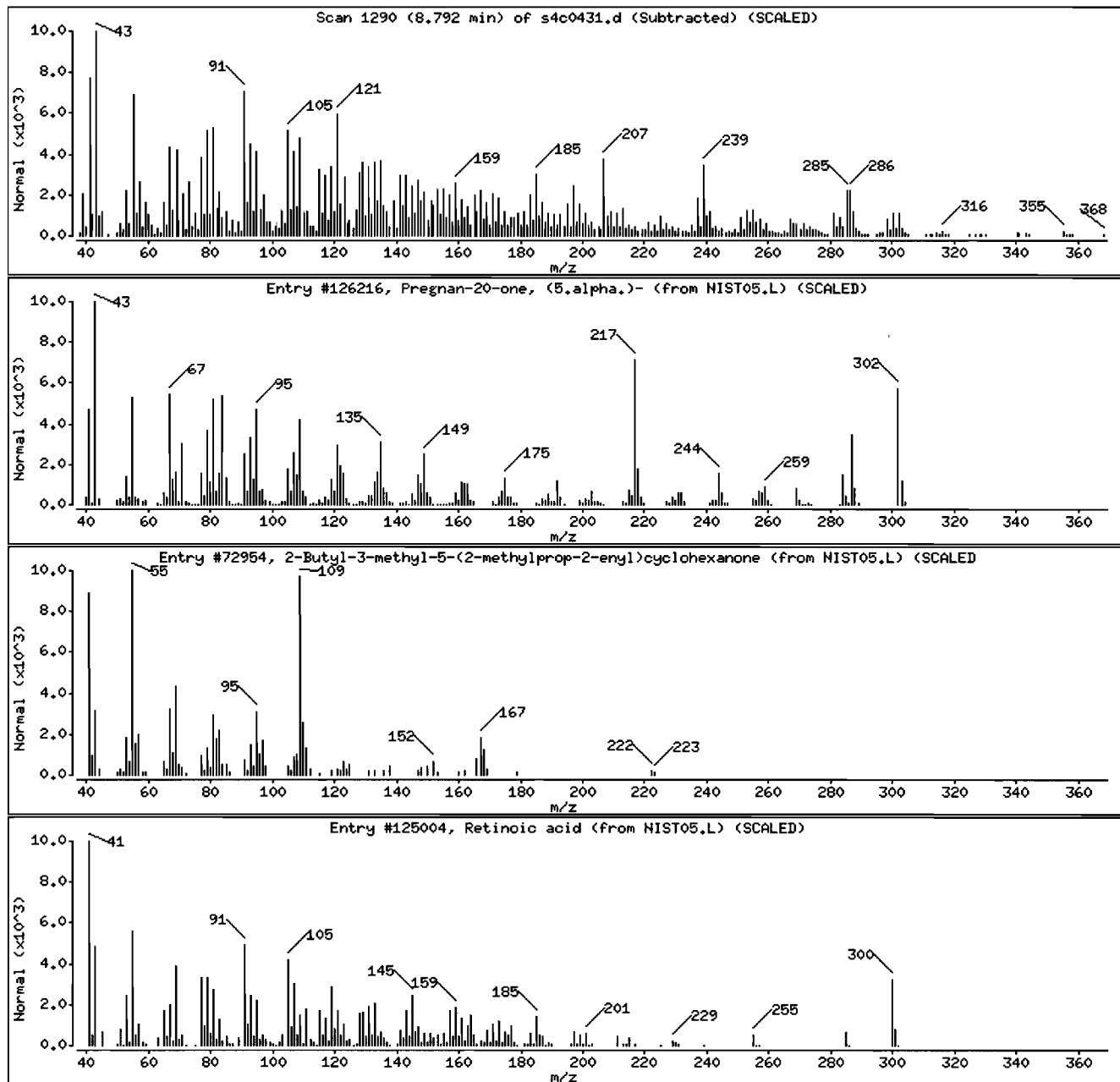
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| Unknown                                  |              |          |        |         |          |        |
| Pregnan-20-one, (5.alpha.)-              | 848-62-4     | NIST05.L | 126216 | 55      | C21H34O  | 302    |
| 2-Butyl-3-methyl-5-(2-methylprop-2-enyl) | 1000281-10-7 | NIST05.L | 72954  | 53      | C15H26O  | 222    |
| Retinoic acid                            | 302-79-4     | NIST05.L | 125004 | 49      | C20H28O2 | 300    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: HSD4.i

Sample Info: 1247358002195628511SVMI11LANL

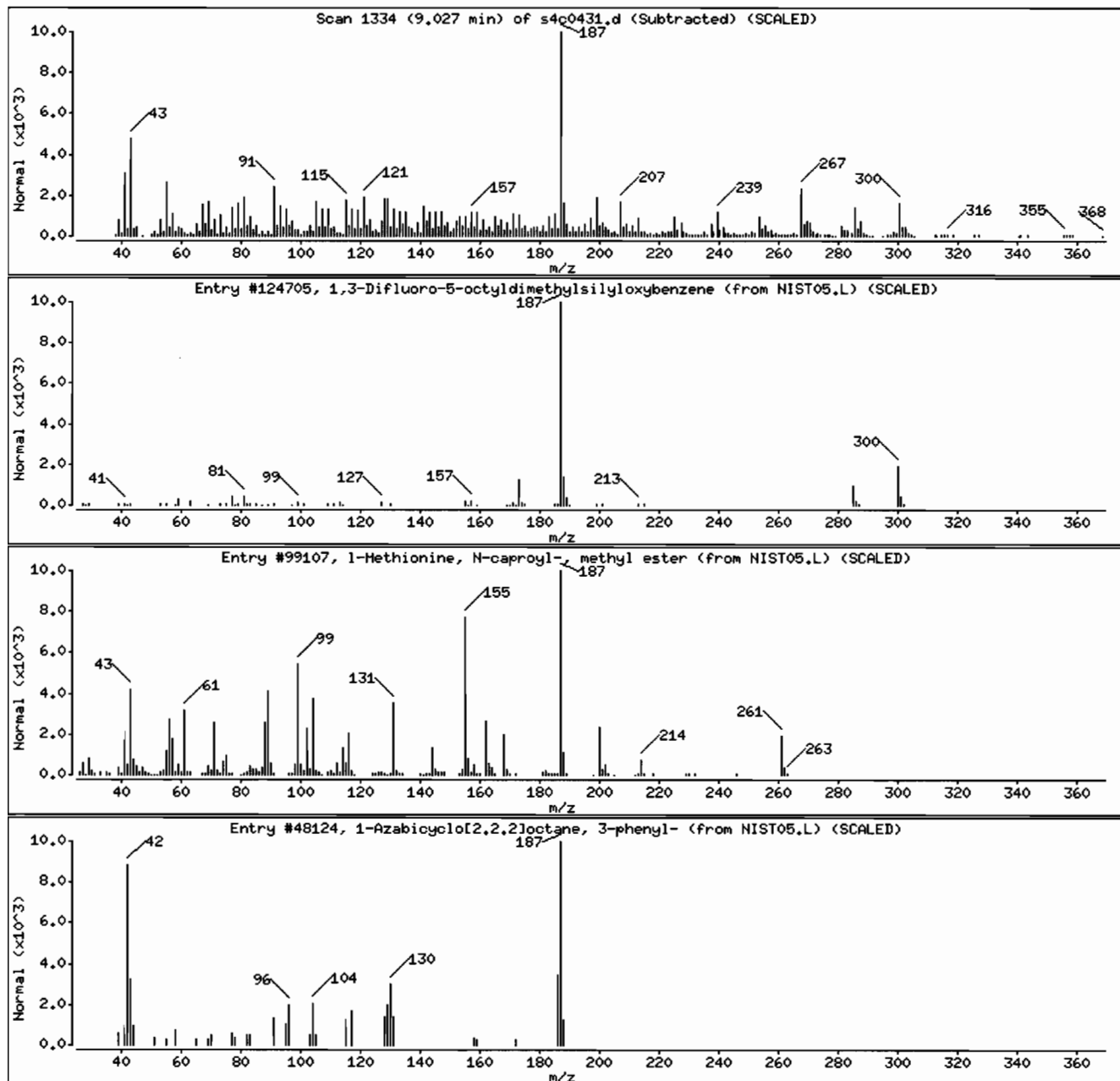
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|--|--------|
| Unknown                                  |              |          |        |         |  |        |
| 1,3-Difluoro-5-octyldimethylsilyloxybenz | 1000299-06-6 | NIST05.L | 124705 | 70      | C <sub>16</sub> H <sub>26</sub> F <sub>2</sub> O <sub>2</sub> Si | 300    |
| 1-Methionine, N-caproyl-, methyl ester   | 1000299-73-6 | NIST05.L | 99107  | 50      | C <sub>12</sub> H <sub>23</sub> N <sub>1</sub> O <sub>3</sub> S  | 261    |
| 1-Azabicyclo[2.2.2]octane, 3-phenyl-     | 58822-88-1   | NIST05.L | 48124  | 45      | C <sub>13</sub> H <sub>17</sub> N                                | 187    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: HSD4.i

Sample Info: 1247358002195628511SVH111LANL

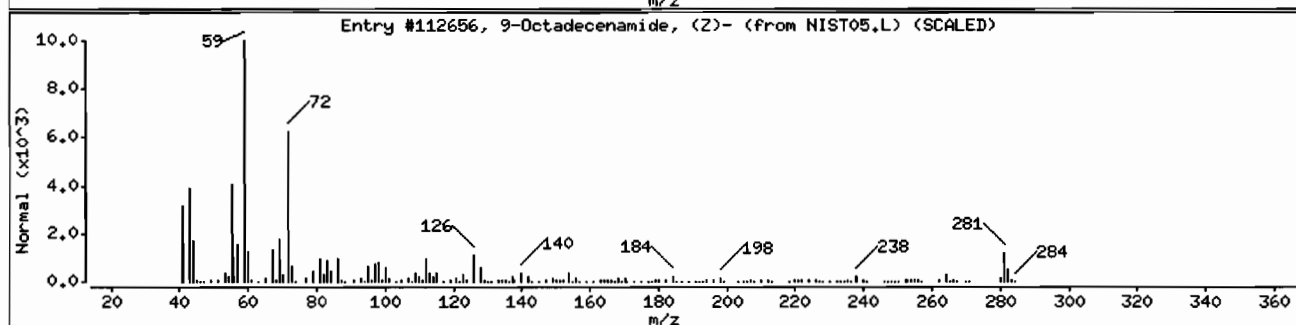
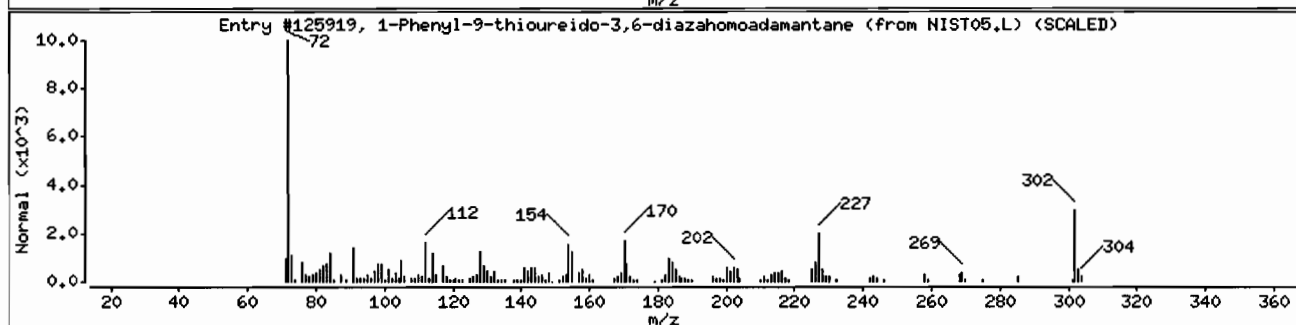
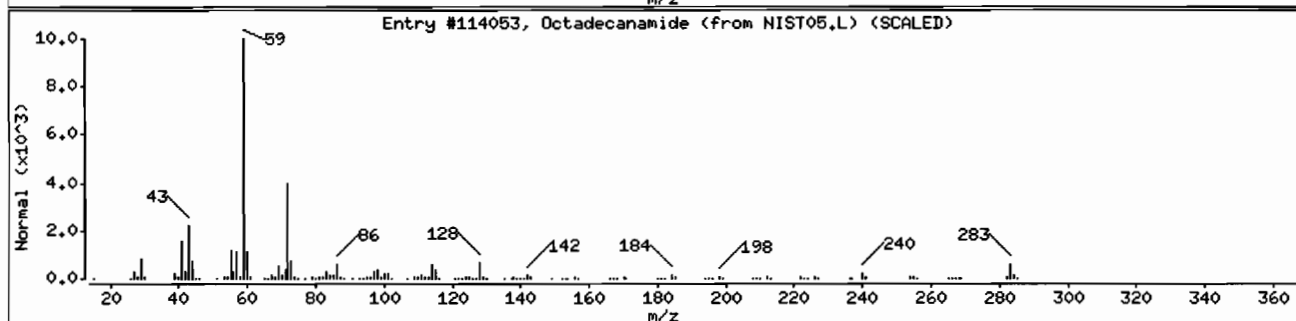
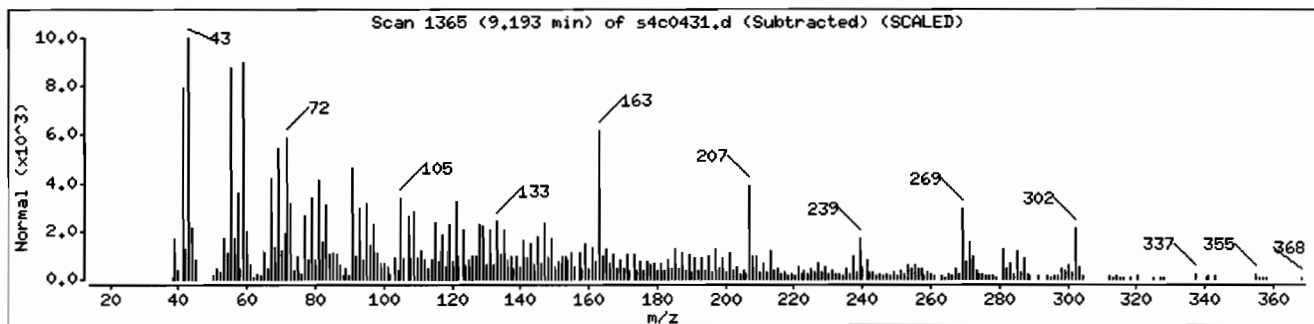
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number  | Library  | Entry  | Quality | Formula   | Weight |
|--|-------------|----------|--------|---------|-----------|--------|
| Unknown                                  |             |          |        |         |           |        |
| Octadecanamide                           | 124-26-5    | NIST05.L | 114053 | 49      | C18H37NO  | 283    |
| 1-Phenyl-9-thioureido-3,6-diazahomoadama | 153464-71-2 | NIST05.L | 125919 | 47      | C16H22N4S | 302    |
| 9-Octadecenamide, (Z)-                   | 301-02-0    | NIST05.L | 112656 | 46      | C18H35NO  | 281    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: I247358002I956285I1ISVH11ILANL

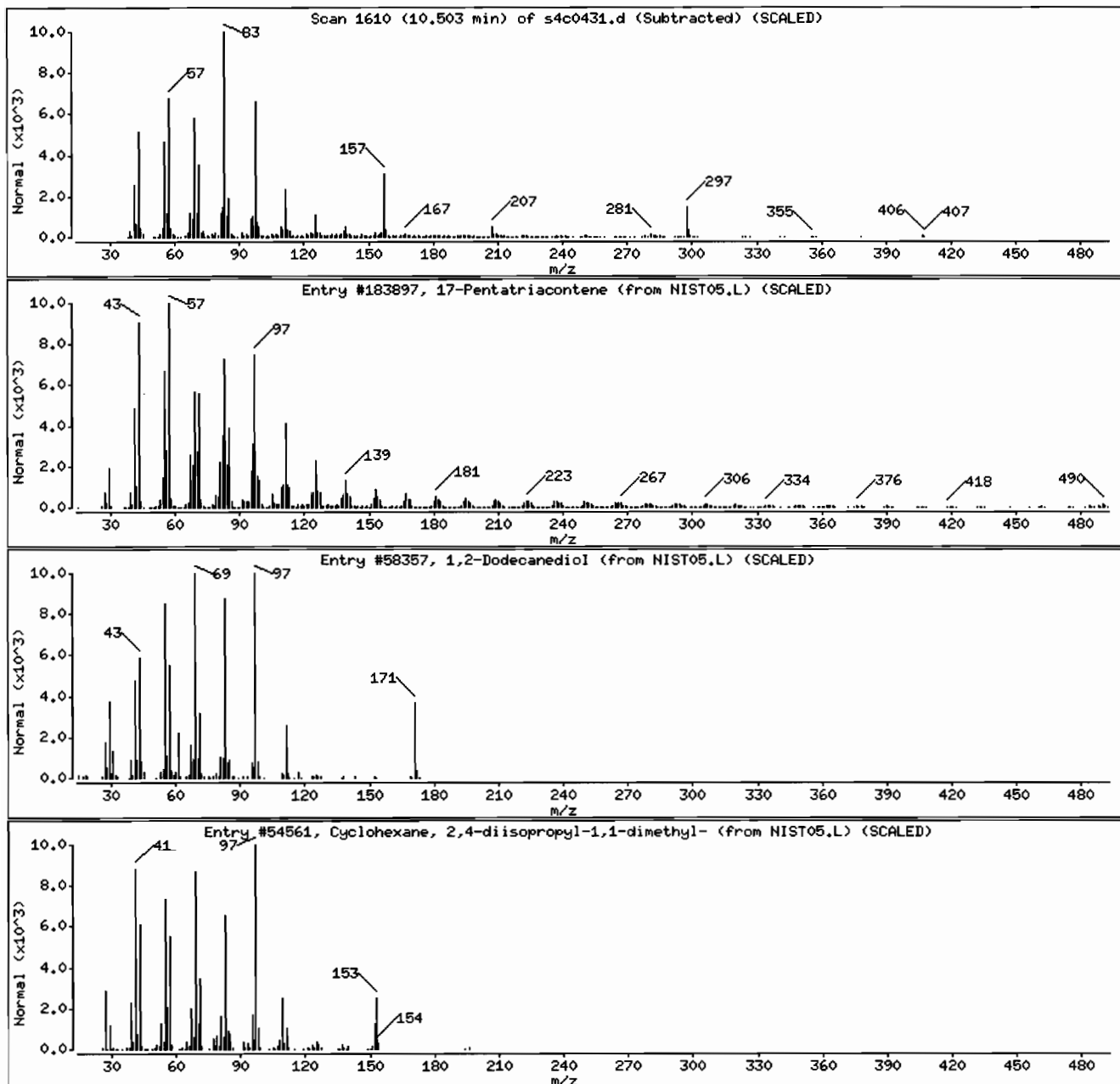
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|---|--------------|----------|--------|---------|----------|--------|
| Unknown                                   |              |          |        |         |          |        |
| 17-Pentatriacontene                       | 6971-40-0    | NIST05.L | 183897 | 38      | C35H70   | 491    |
| 1,2-Dodecanediol                          | 1119-87-5    | NIST05.L | 58357  | 38      | C12H26O2 | 202    |
| Cyclohexane, 2,4-diisopropyl-1,1-dimethyl | 1000149-60-5 | NIST05.L | 54561  | 38      | C14H28   | 196    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: I247358002195628511SVMI11LANL

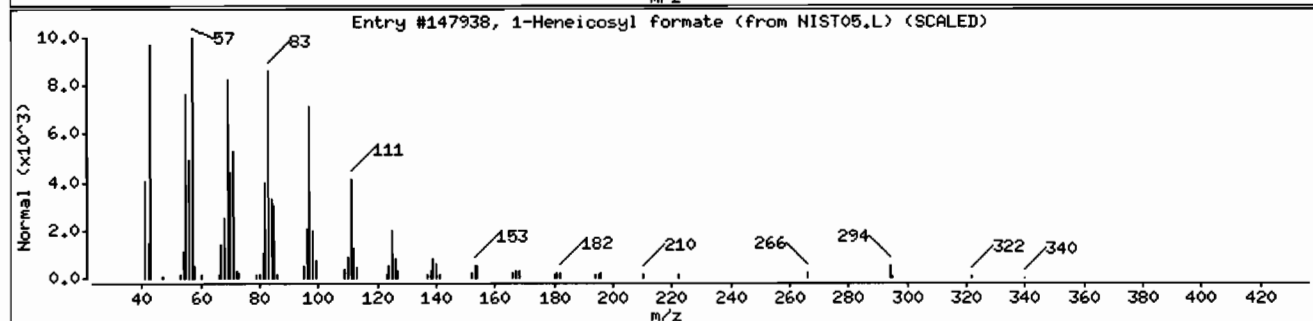
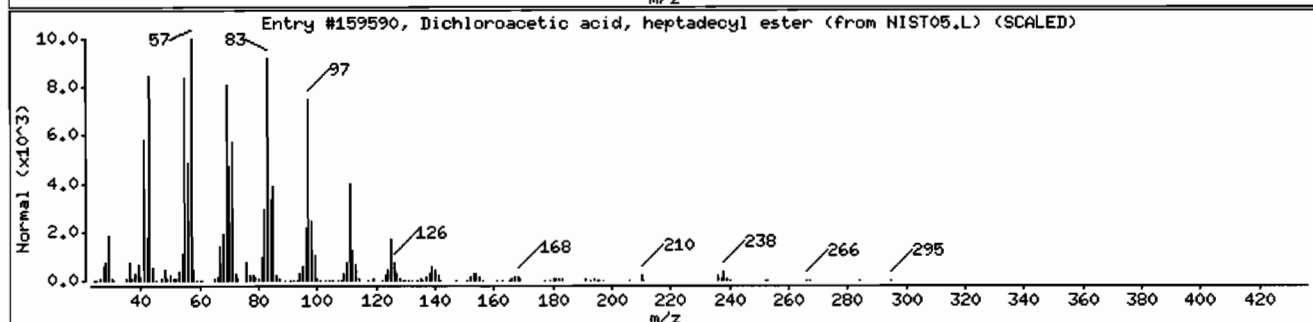
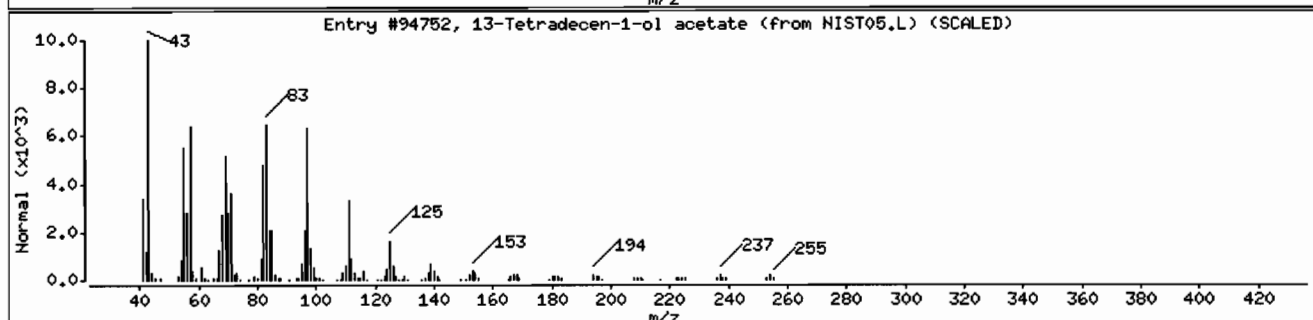
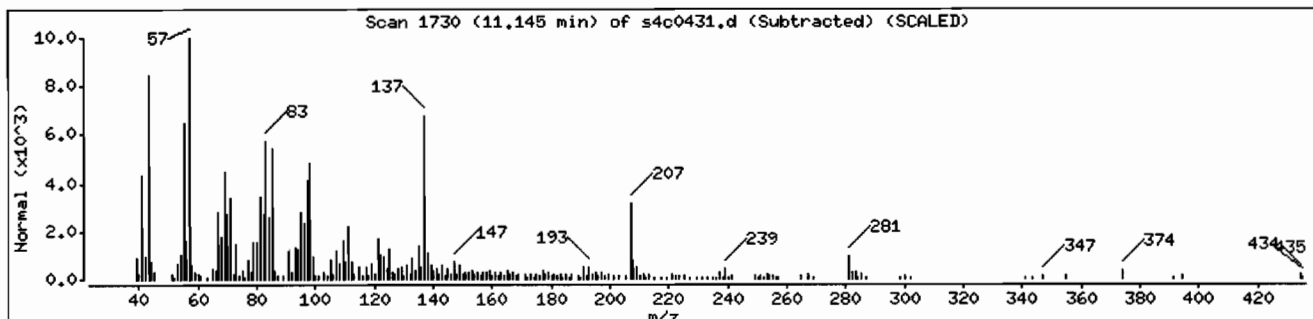
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match         | CAS Number   | Library  | Entry  | Quality | Formula     | Weight |
|---------------------------------------|--------------|----------|--------|---------|-------------|--------|
| Unknown                               |              |          |        |         |             |        |
| 13-Tetradecen-1-ol acetate            | 56221-91-1   | NIST05.L | 94752  | 70      | C16H30O2    | 254    |
| Dichloroacetic acid, heptadecyl ester | 1000282-98-2 | NIST05.L | 159590 | 46      | C19H36Cl2O2 | 366    |
| 1-Heneicosyl formate                  | 77899-03-7   | NIST05.L | 147938 | 42      | C22H44O2    | 340    |





Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVMI1ILANL

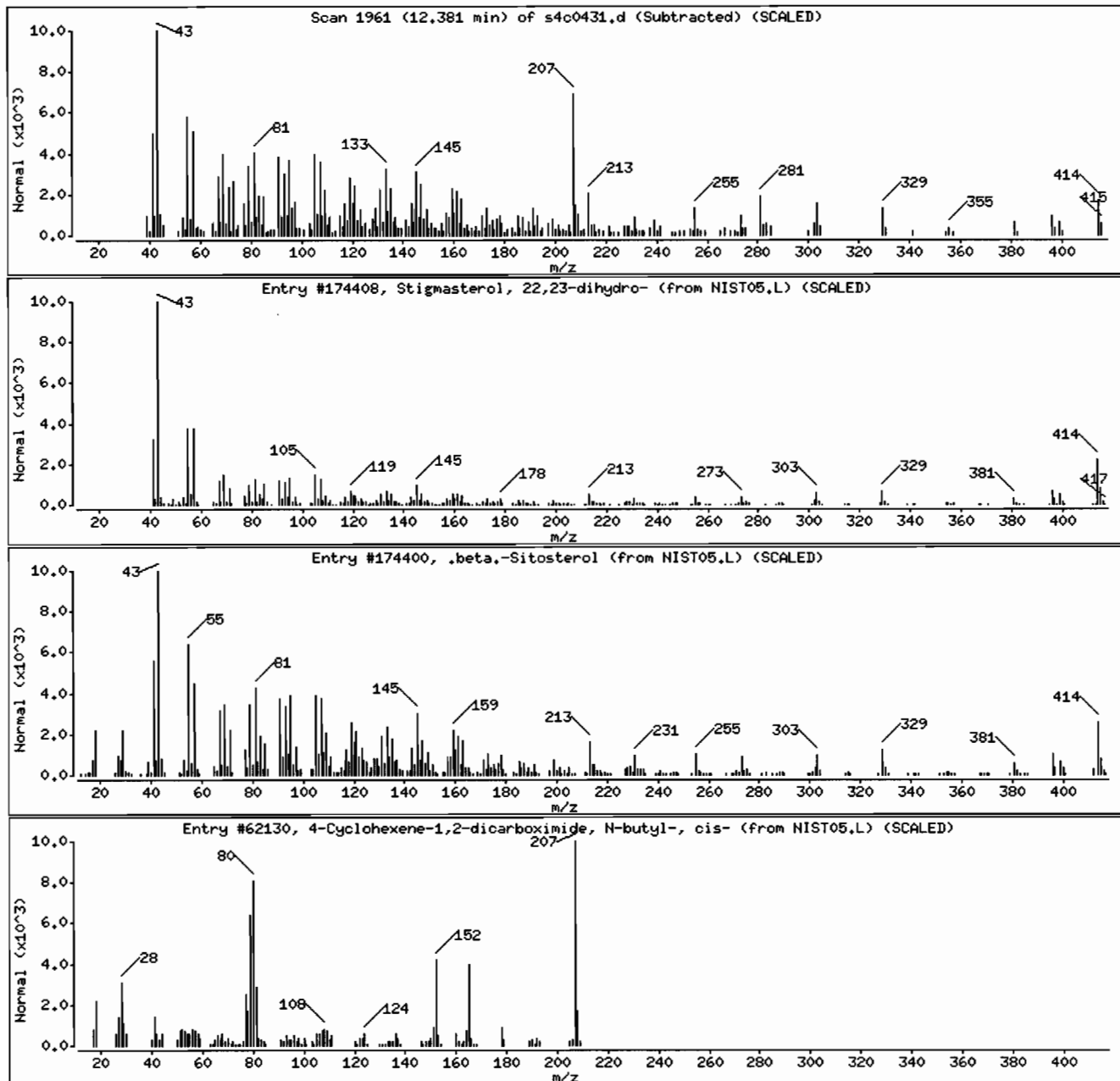
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|--|--------------|----------|--------|---------|-----------|--------|
| Stigmasterol, 22,23-dihydro-             | 1000214-20-7 | NIST05.L | 174408 | 96      | C29H50O   | 414    |
| .beta.-Sitosterol                        | 83-46-5      | NIST05.L | 174400 | 92      | C29H50O   | 414    |
| 4-Cyclohexene-1,2-dicarboximide, N-butyl | 28916-00-9   | NIST05.L | 62130  | 55      | C12H17NO2 | 207    |



Date : 04-MAR-2010 23:45

Client ID: RE36-10-7423

Instrument: MSD4.i

Sample Info: 1247358002195628511SVMI1ILANL

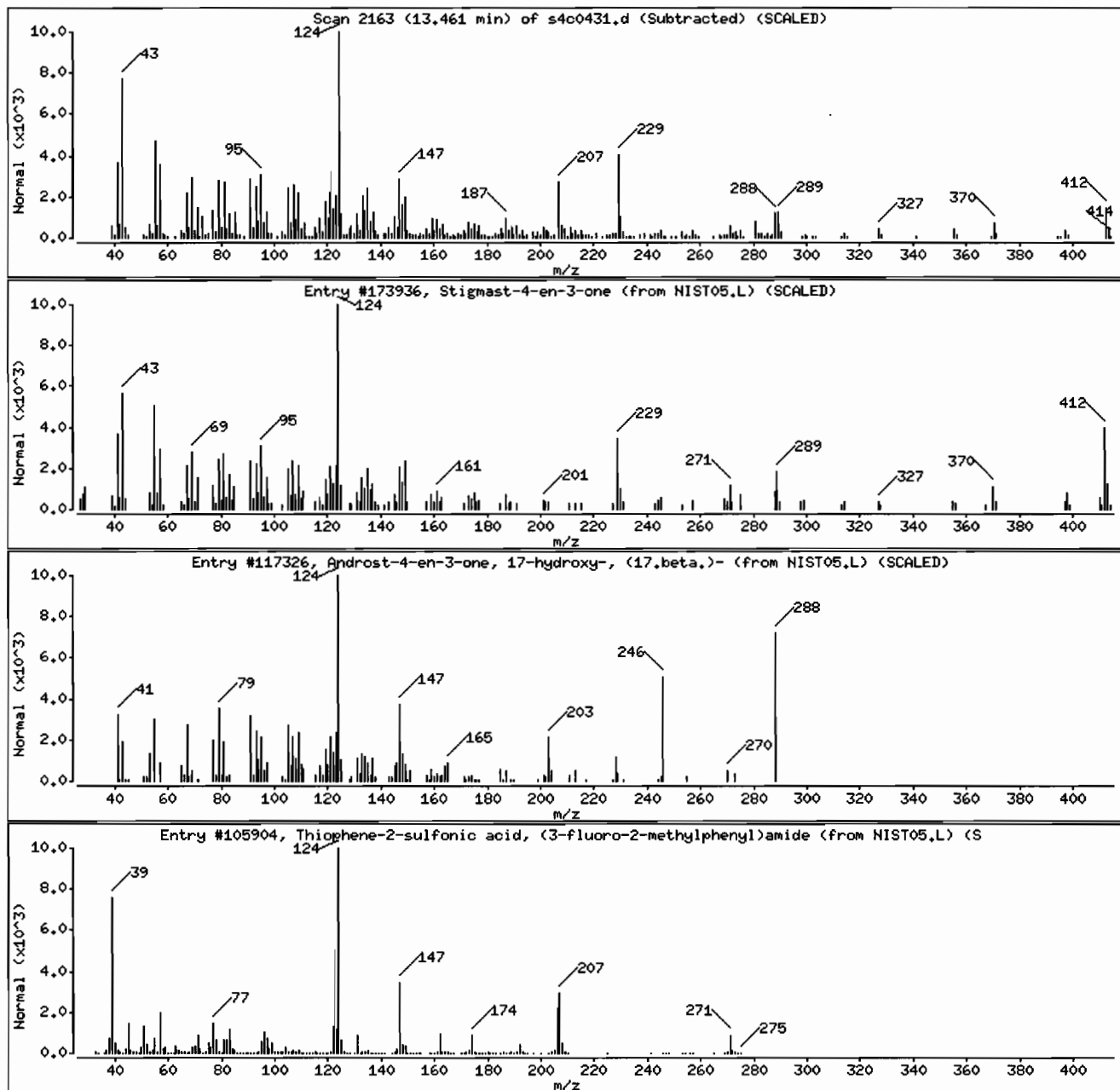
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match                   | CAS Number   | Library  | Entry  | Quality | Formula      | Weight |
|---|--------------|----------|--------|---------|--------------|--------|
| Stigmast-4-en-3-one                             | 1058-61-3    | NIST05.L | 173936 | 94      | C29H48O      | 412    |
| Androst-4-en-3-one, 17-hydroxy-, (17 $\beta$ ), | 58-22-0      | NIST05.L | 117326 | 60      | C19H28O2     | 288    |
| Thiophene-2-sulfonic acid, (3-fluoro-2-m        | 1000311-21-1 | NIST05.L | 105904 | 46      | C11H10FN02S2 | 271    |



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7424  
Batch ID: 956285  
Run Date: 03/05/2010 00:29  
Prep Date: 02/23/2010 10:34  
Data File: s4c0433.d

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 364    | ug/kg | 72.9    | 364     |
| 108-95-2   | Phenol                        | U         | 364    | ug/kg | 72.9    | 364     |
| 95-57-8    | 2-Chlorophenol                | U         | 364    | ug/kg | 72.9    | 364     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 364    | ug/kg | 72.9    | 364     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 364    | ug/kg | 72.9    | 364     |
| 83-32-9    | Acenaphthene                  | U         | 36.4   | ug/kg | 12.0    | 36.4    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364     |
| 100-02-7   | 4-Nitrophenol                 | U         | 364    | ug/kg | 120     | 364     |
| 87-86-5    | Pentachlorophenol             | U         | 364    | ug/kg | 91.1    | 364     |
| 129-00-0   | Pyrene                        | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 110-86-1   | Pyridine                      | U         | 364    | ug/kg | 72.9    | 364     |
| 62-53-3    | Aniline                       | U         | 364    | ug/kg | 109     | 364     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 364    | ug/kg | 72.9    | 364     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 100-51-6   | Benzyl alcohol                | U         | 364    | ug/kg | 109     | 364     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 364    | ug/kg | 72.9    | 364     |
| 95-48-7    | o-Cresol                      | U         | 364    | ug/kg | 72.9    | 364     |
| 65794-96-9 | m,p-Cresols                   | U         | 364    | ug/kg | 109     | 364     |
| 67-72-1    | Hexachloroethane              | U         | 364    | ug/kg | 72.9    | 364     |
| 98-95-3    | Nitrobenzene                  | U         | 364    | ug/kg | 72.9    | 364     |
| 78-59-1    | Isophorone                    | U         | 364    | ug/kg | 72.9    | 364     |
| 88-75-5    | 2-Nitrophenol                 | U         | 364    | ug/kg | 72.9    | 364     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 364    | ug/kg | 128     | 364     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 364    | ug/kg | 72.9    | 364     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 364    | ug/kg | 72.9    | 364     |
| 65-85-0    | Benzoic acid                  | U         | 729    | ug/kg | 182     | 729     |
| 91-20-3    | Naphthalene                   | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 106-47-8   | 4-Chloroaniline               | U         | 364    | ug/kg | 72.9    | 364     |
| 87-68-3    | Hexachlorobutadiene           | U         | 364    | ug/kg | 72.9    | 364     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 36.4   | ug/kg | 7.29    | 36.4    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 364    | ug/kg | 72.9    | 364     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 36.4   | ug/kg | 12.0    | 36.4    |
| 88-74-4    | 2-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364     |
| 99-09-2    | <i>o</i> -Nitroaniline        | U         | 364    | ug/kg | 72.9    | 364     |
|            | 3-Nitroaniline                |           |        |       |         |         |

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-1914  
Lab Sample ID: 247358004

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7424  
Batch ID: 956285  
Run Date: 03/05/2010 00:29  
Prep Date: 02/23/2010 10:34  
Data File: s4c0433.d

| CAS No.   | Parmname                   | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-----------|----------------------------|-----------|--------|-------|---------|---------|
|           | <i>m</i> -Nitroaniline     |           |        |       |         |         |
| 131-11-3  | Dimethylphthalate          | U         | 364    | ug/kg | 72.9    | 364     |
| 606-20-2  | 2,6-Dinitrotoluene         | U         | 364    | ug/kg | 36.4    | 364     |
| 208-96-8  | Acenaphthylene             | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 51-28-5   | 2,4-Dinitrophenol          | U         | 729    | ug/kg | 138     | 729     |
| 132-64-9  | Dibenzofuran               | U         | 364    | ug/kg | 72.9    | 364     |
| 84-66-2   | Diethylphthalate           | U         | 364    | ug/kg | 72.9    | 364     |
| 86-73-7   | Fluorene                   | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 7005-72-3 | 4-Chlorophenylphenylether  | U         | 364    | ug/kg | 72.9    | 364     |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol | U         | 364    | ug/kg | 72.9    | 364     |
| 100-01-6  | 4-Nitroaniline             | U         | 364    | ug/kg | 109     | 364     |
|           | <i>p</i> -Nitroaniline     |           |        |       |         |         |
| 122-39-4  | Diphenylamine              | U         | 364    | ug/kg | 72.9    | 364     |
| 122-66-7  | Azobenzene                 | U         | 364    | ug/kg | 72.9    | 364     |
|           | 1,2-Diphenylhydrazine      |           |        |       |         |         |
| 101-55-3  | 4-Bromophenylphenylether   | U         | 364    | ug/kg | 72.9    | 364     |
| 118-74-1  | Hexachlorobenzene          | U         | 364    | ug/kg | 72.9    | 364     |
| 85-01-8   | Phenanthrene               | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 120-12-7  | Anthracene                 | U         | 36.4   | ug/kg | 7.29    | 36.4    |
| 84-74-2   | Di-n-butylphthalate        | U         | 364    | ug/kg | 72.9    | 364     |
| 206-44-0  | Fluoranthene               | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 85-68-7   | Butylbenzylphthalate       | U         | 364    | ug/kg | 72.9    | 364     |
| 56-55-3   | Benzo(a)anthracene         | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | U         | 364    | ug/kg | 109     | 364     |
| 218-01-9  | Chrysene                   | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate | U         | 364    | ug/kg | 72.9    | 364     |
| 117-84-0  | Di-n-octylphthalate        | U         | 364    | ug/kg | 72.9    | 364     |
| 205-99-2  | Benzo(b)fluoranthene       | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 207-08-9  | Benzo(k)fluoranthene       | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 50-32-8   | Benzo(a)pyrene             | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene     | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 53-70-3   | Dibenzo(a,h)anthracene     | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 191-24-2  | Benzo(ghi)perylene         | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 120-82-1  | 1,2,4-Trichlorobenzene     | U         | 364    | ug/kg | 72.9    | 364     |

## Tentatively Identified Compound Summary

| CAS No.  | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|----------|---------------------------------------|------|-----------|-------|-----|------|
|          | Unknown Aldol Condensate              | 2.87 | 716       | ug/kg |     | J    |
| 112-84-5 | 13-Docosenamide, (Z)-                 | 9.18 | 216       | ug/kg | 86  | NJ   |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358004  
  
Client ID: RE36-10-7424  
Batch ID: 956285  
Run Date: 03/05/2010 00:29  
Prep Date: 02/23/2010 10:34  
Data File: s4c0433.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.  | Parname                               | Qualifier | Result | Units     | MDL/LOD | PQL/LOQ  |
|--|---------------------------------------|-----------|--------|-----------|---------|----------|
| <b>Tentatively Identified Compound Summary</b> |                                       |           |        |           |         |          |
| CAS No.  | Tentatively Identified Compound (TIC) |           | RT     | Estimated | Units   | Fit Qual |
|  | Unknown                               |           | 9.62   | 151       | ug/kg   | J        |
|  | Unknown                               |           | 12.48  | 187       | ug/kg   | J        |

Data File: /chem/MSD4.i/s030410a.b/s4c0433.d  
Report Date: 05-Mar-2010 08:36

Page 1

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Data file : /chem/MSD4.i/s030410a.b/s4c0433.d  
Lab Smp Id: 247358004 Client Smp ID: RE36-10-7424  
Inj Date : 05-MAR-2010 00:29  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |247358004|956285|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 25  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.02000  | weight of sample          |
| M    | 8.59380   | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT SIG |        |        |         | CONCENTRATIONS |                 |
|-----------------------------|-----------|--------|--------|---------|----------------|-----------------|
|                             | MASS      | RT     | EXP RT | REL RT  | RESPONSE       | ON-COLUMN FINAL |
|                             |           |        |        |         |                | (ng/ul) (ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 | 152       | 3.823  | 3.829  | (1.000) | 169453         | 40.0000         |
| * 29 Naphthalene-d8         | 136       | 4.690  | 4.690  | (1.000) | 634079         | 40.0000         |
| * 46 Acenaphthene-d10       | 164       | 5.941  | 5.941  | (1.000) | 371689         | 40.0000         |
| * 67 Phenanthrene-d10       | 188       | 6.936  | 6.936  | (1.000) | 638427         | 40.0000         |
| * 91 Chrysene-d12           | 240       | 8.599  | 8.610  | (1.000) | 465687         | 40.0000         |
| * 98 Perylene-d12           | 264       | 10.054 | 10.070 | (1.000) | 255099         | 40.0000         |
| \$ 3 2-Fluorophenol         | 112       | 3.031  | 3.021  | (0.793) | 292227         | 74.1369 2700    |
| \$ 5 Phenol-d5              | 99        | 3.545  | 3.545  | (0.927) | 364610         | 74.1254 2700    |
| \$ 20 Nitrobenzene-d5       | 82        | 4.187  | 4.192  | (0.893) | 138762         | 30.6966 1120    |
| \$ 39 2-Fluorobiphenyl      | 172       | 5.433  | 5.433  | (0.914) | 309427         | 30.9998 1130    |
| \$ 60 2,4,6-Tribromophenol  | 329       | 6.481  | 6.481  | (1.091) | 101209         | 92.6381 3380    |
| \$ 81 p-Terphenyl-d14       | 244       | 7.861  | 7.861  | (0.914) | 380874         | 51.2701 1870    |

## ION RATIO REPORT

## SV REPORT

Data file: s4c0433.d

Report Date: 03/05/2010 08:00

Lab. ID: 247358004

SampleType: SAMPLE

Injection Date: 05-MAR-2010 00:29

Operator: JMB3

Instrument: MSD4.i

Sample Info: |247358004|956285|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS  | RESPONSE               | RT   | EXPECT RT      | TARGET RANGE | RATIO | QUAL |
|-------|------------------------|------|----------------|--------------|-------|------|
| ===== |                        |      |                |              |       |      |
| 4     | Aniline                |      | CAS#: 62-53-3  |              |       |      |
| 66    | 18701                  | 3.54 | 3.61           | 80-120       | 100   | (T)  |
| 93    | 911                    | 3.59 | 3.61           | 453-513      | 5     | (Q)  |
| ----- |                        |      |                |              |       |      |
| 17    | N-Nitrosodipropylamine |      | CAS#: 621-64-7 |              |       |      |
| 70    | 18834                  | 4.19 | 4.07           | 80-120       | 100   | (T)  |
| 42    | 9302                   | 4.19 | 4.07           | 27- 87       | 49    | (T)  |
| ----- |                        |      |                |              |       |      |
| 27    | Benzoic acid           |      | CAS#: 65-85-0  |              |       |      |
| 105   | 701                    | 4.69 | 4.48           | 80-120       | 100   | (T)  |
| 122   | 128                    | 4.69 | 4.48           | 56-116       | 18    | (QT) |
| 77    | 2369                   | 4.69 | 4.48           | 49-109       | 338   | (QT) |
| ----- |                        |      |                |              |       |      |
| 43    | Dimethylphthalate      |      | CAS#: 131-11-3 |              |       |      |
| 163   | 64452                  | 5.94 | 5.71           | 80-120       | 100   | (T)  |
| 164   | 371689                 | 5.94 | 5.71           | 0- 40        | 577   | (QT) |
| ----- |                        |      |                |              |       |      |
| 44    | 2,6-Dinitrotoluene     |      | CAS#: 606-20-2 |              |       |      |
| 165   | 49430                  | 5.94 | 5.77           | 80-120       | 100   | (T)  |
| 63    | 374                    | 5.94 | 5.77           | 53-113       | 1     | (QT) |
| ----- |                        |      |                |              |       |      |
| 50    | 2,4-Dinitrotoluene     |      | CAS#: 121-14-2 |              |       |      |
| 165   | 49430                  | 5.94 | 6.05           | 80-120       | 100   | (T)  |
| 89    | 584                    | 5.94 | 6.05           | 53-113       | 1     | (QT) |
| 63    | 374                    | 5.94 | 6.05           | 24- 84       | 1     | (QT) |
| ----- |                        |      |                |              |       |      |

| MASS                          | RESPONSE | RT             | EXPECT RT | TARGET RANGE | RATIO | QUAL |
|-------------------------------|----------|----------------|-----------|--------------|-------|------|
| =====                         |          |                |           |              |       |      |
| 53 Fluorene                   |          | CAS#: 86-73-7  |           |              |       |      |
| 166                           | 5088     | 6.48           | 6.32      | 80-120       | 100   | (T)  |
| 165                           | 5168     | 6.48           | 6.32      | 62-122       | 102   | (T)  |
| 167                           | 1698     | 6.48           | 6.32      | 0- 44        | 33    | (T)  |
| -----                         |          |                |           |              |       |      |
| 55 2-Methyl-4,6-dinitrophenol |          | CAS#: 534-52-1 |           |              |       |      |
| 198                           | 308      | 6.48           | 6.34      | 80-120       | 100   | (T)  |
| 105                           | 988      | 6.48           | 6.34      | 16- 76       | 320   | (QT) |
| 51                            | 497      | 6.48           | 6.34      | 35- 95       | 161   | (QT) |
| -----                         |          |                |           |              |       |      |
| 61 4-Bromophenylphenylether   |          | CAS#: 101-55-3 |           |              |       |      |
| 248                           | 6037     | 6.48           | 6.63      | 80-120       | 100   | (T)  |
| 141                           | 46696    | 6.48           | 6.63      | 50-110       | 773   | (QT) |
| 250                           | 12073    | 6.48           | 6.63      | 69-129       | 200   | (QT) |
| -----                         |          |                |           |              |       |      |
| 94 Di-n-octylphthalate        |          | CAS#: 117-84-0 |           |              |       |      |
| 149                           | 305      | 9.04           | 9.02      | 80-120       | 100   | ( )  |
| 43                            | 755      | 9.04           | 9.02      | 0- 40        | 247   | (Q)  |
| -----                         |          |                |           |              |       |      |

Q qualifier indicates ion failed ratio requirement



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Data file : /chem/MSD4.i/s030410a.b/s4c0433.d  
Lab Smp Id: 247358004 Client Smp ID: RE36-10-7424  
Inj Date : 05-MAR-2010 00:29  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |247358004|956285|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 25  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.02000  | weight of sample          |
| M    | 8.59380   | % moisture                |

Cpnd Variable

Local Compound Variable

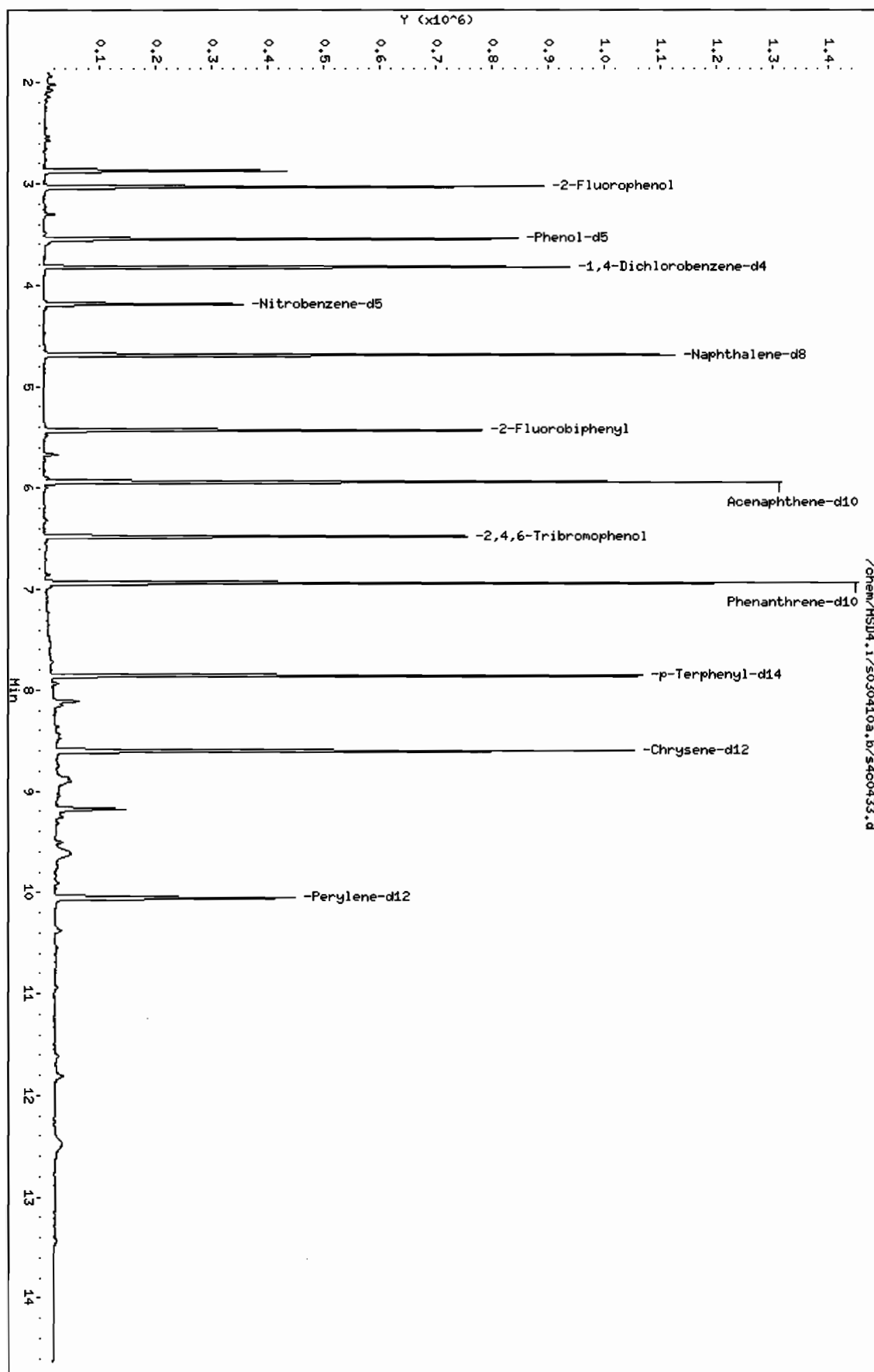
| ISTD                        | RT     | AREA    | AMOUNT |
|-----------------------------|--------|---------|--------|
| =====                       | =====  | =====   | =====  |
| * 10 1,4-Dichlorobenzene-d4 | 3.823  | 998239  | 40.000 |
| * 91 Chrysene-d12           | 8.599  | 1260659 | 40.000 |
| * 98 Perylene-d12           | 10.054 | 681275  | 40.000 |

| CONCENTRATIONS |       |                |               | QUANT |         |           |        |
|----------------|-------|----------------|---------------|-------|---------|-----------|--------|
| RT             | AREA  | ON-COL (ng/ul) | FINAL (ug/Kg) | QUAL  | LIBRARY | LIB ENTRY | CPND # |
| =====          | ===== | =====          | =====         | ===== | =====   | =====     | =====  |

| RT                       | CONCENTRATIONS |                |               |       | QUANT           |           |        |
|--------------------------|----------------|----------------|---------------|-------|-----------------|-----------|--------|
|                          | AREA           | ON-COL (ng/ul) | FINAL (ug/Kg) | QUAL  | LIBRARY         | LIB ENTRY | CPND # |
| ====                     | ====           | =====          | =====         | ===== | =====           | =====     | =====  |
| Unknown Aldol Condensate |                |                |               |       | CAS #:          |           |        |
| 2.871                    | 490305         | 19.6468056     | 716           | 0     |                 | 0         | 10     |
| 13-Docosenamide, (Z)-    |                |                |               |       | CAS #: 112-84-5 |           |        |
| 9.177                    | 187203         | 5.93986080     | 216           | 86    | NIST05.L        | 146307    | 91     |
| Unknown                  |                |                |               |       | CAS #:          |           |        |
| 9.621                    | 70694          | 4.15068726     | 151           | 0     |                 | 0         | 98     |
| Unknown                  |                |                |               |       | CAS #:          |           |        |
| 12.477                   | 87414          | 5.13237438     | 187           | 0     |                 | 0         | 98     |

Data File: /chem/HSD4.1/s030410a.b/s400433.d  
Date : 05-MAR-2010 00:29  
Client ID: RE36-10-7424  
Sample Info: 12473580041956285115VM11L1ANL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: HSD4.1  
Operator: JHB3  
Column diameter: 0.20



Date : 05-MAR-2010 00:29

Client ID: RE36-10-7424

Instrument: HSD4.i

Sample Info: 1247358004195628511SVH111LANL

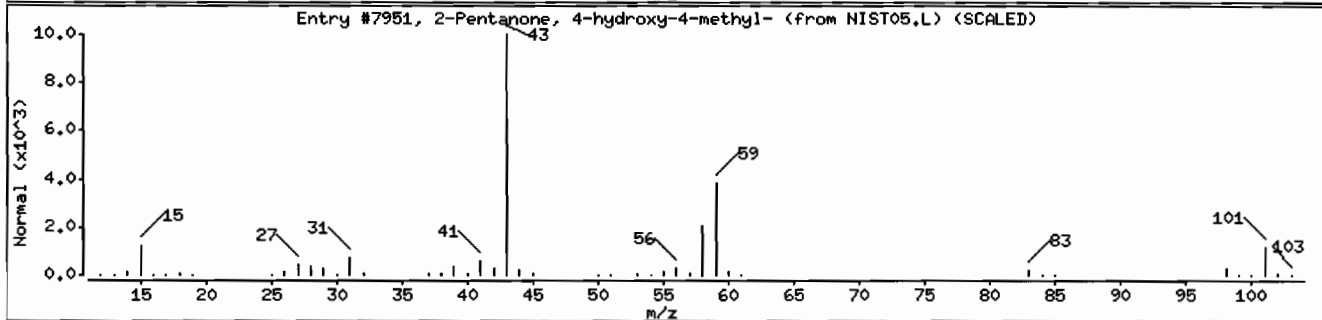
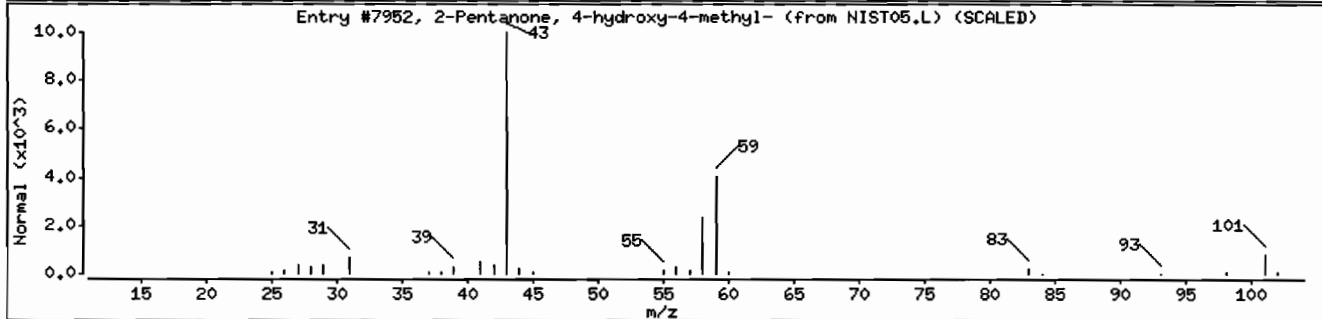
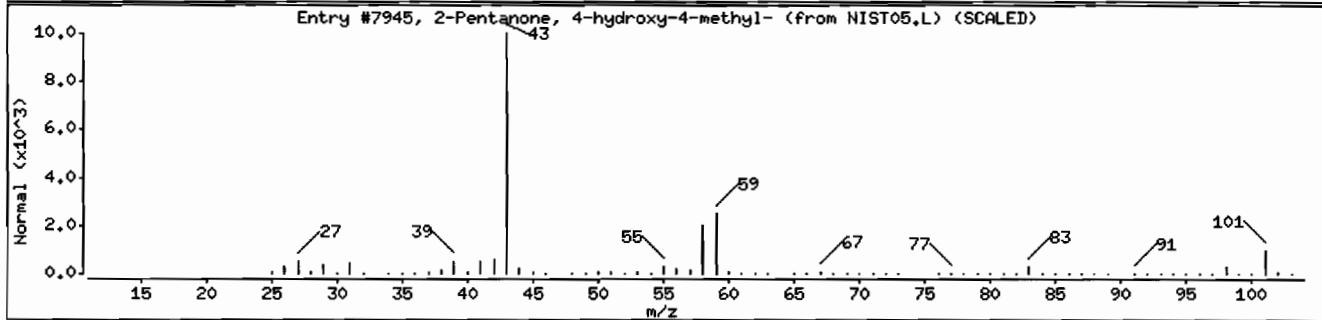
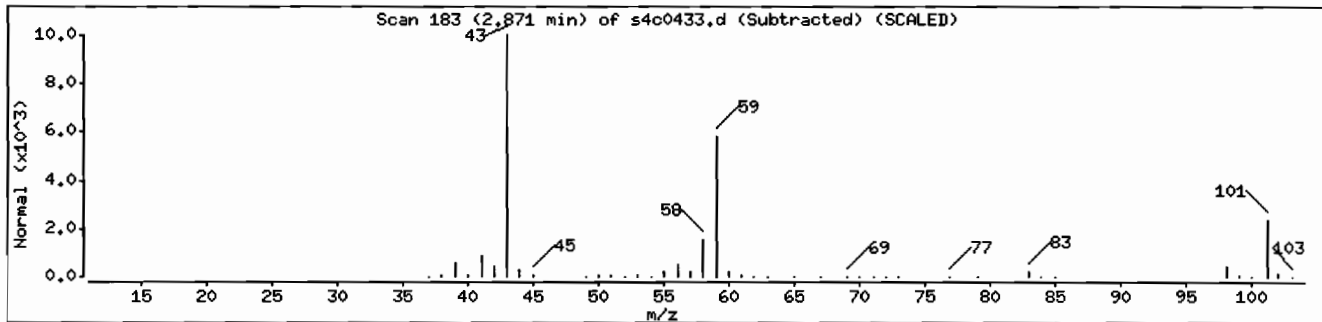
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match    | CAS Number | Library  | Entry | Quality | Formula | Weight |
|----------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown Aldol Condensate         |            |          |       |         |         |        |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7945  | 59      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7952  | 56      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7951  | 50      | C6H12O2 | 116    |



Date : 05-MAR-2010 00:29

Client ID: RE36-10-7424

Instrument: MSD4.i

Sample Info: 1247358004195628511SVH111LANL

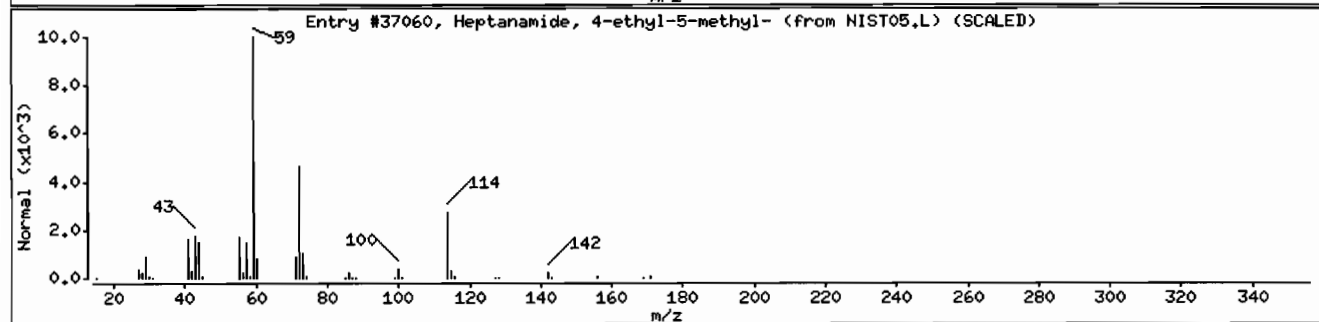
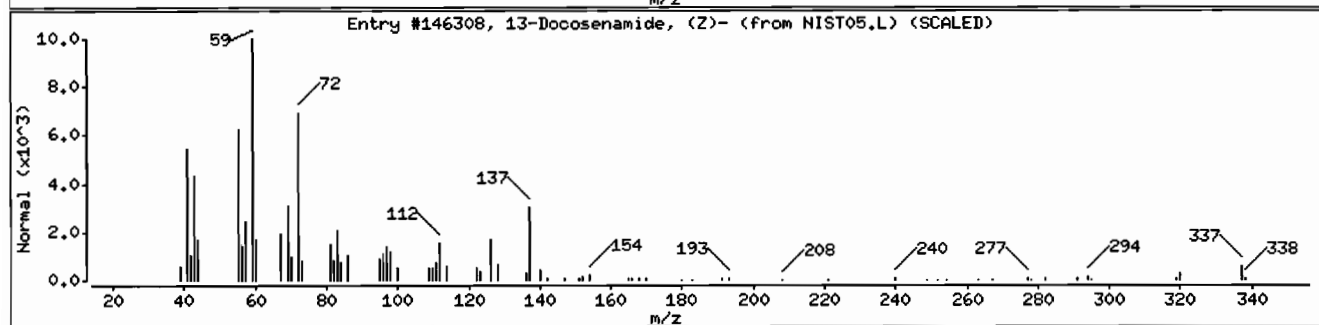
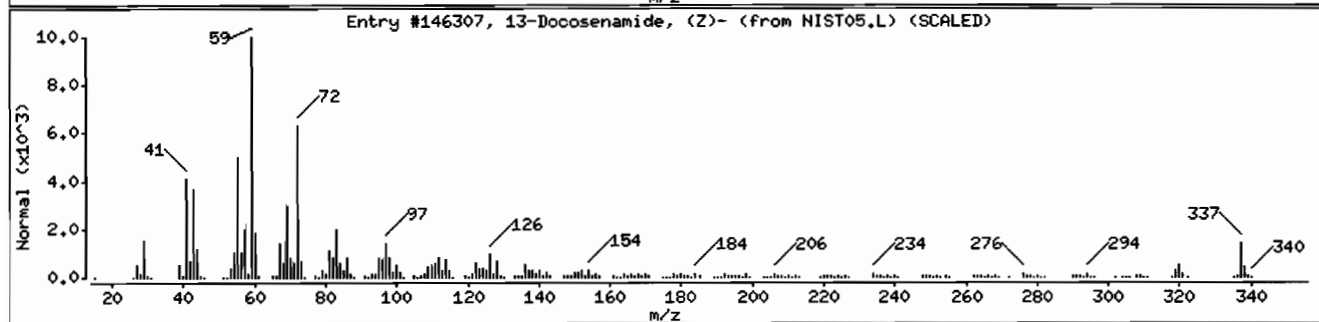
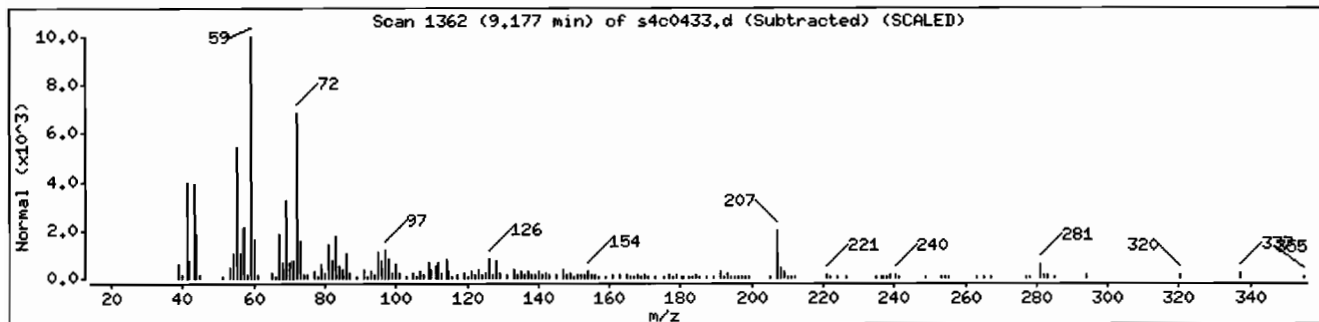
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match  | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--------------------------------|------------|----------|--------|---------|----------|--------|
| 13-Docosenamide, (Z)-          | 112-84-5   | NIST05.L | 146307 | 86      | C22H43NO | 337    |
| 13-Docosenamide, (Z)-          | 112-84-5   | NIST05.L | 146308 | 70      | C22H43NO | 337    |
| Heptanamide, 4-ethyl-5-methyl- | 54789-40-1 | NIST05.L | 37060  | 58      | C10H21NO | 171    |



Date : 05-MAR-2010 00:29

Client ID: RE36-10-7424

Instrument: HSD4.i

Sample Info: 1247358004195628511SVH11ILANL

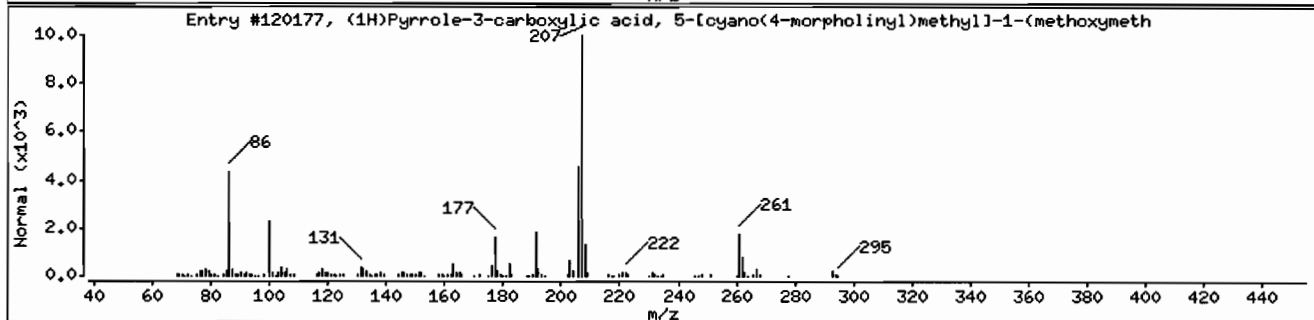
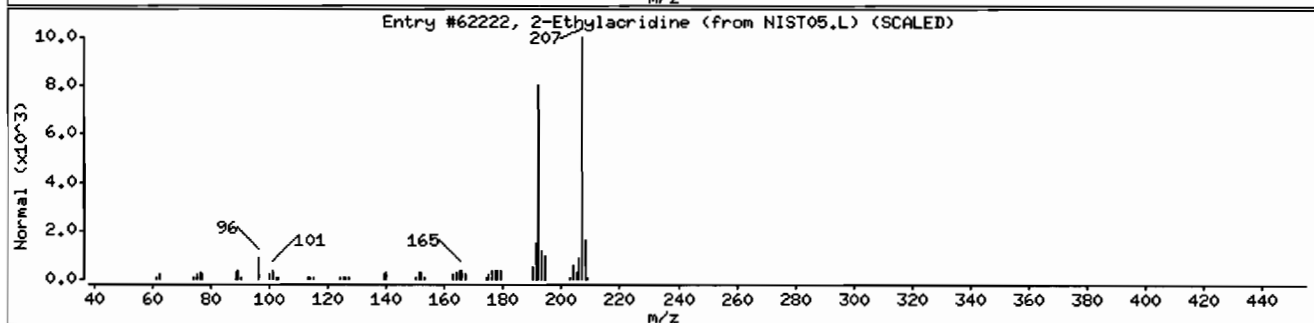
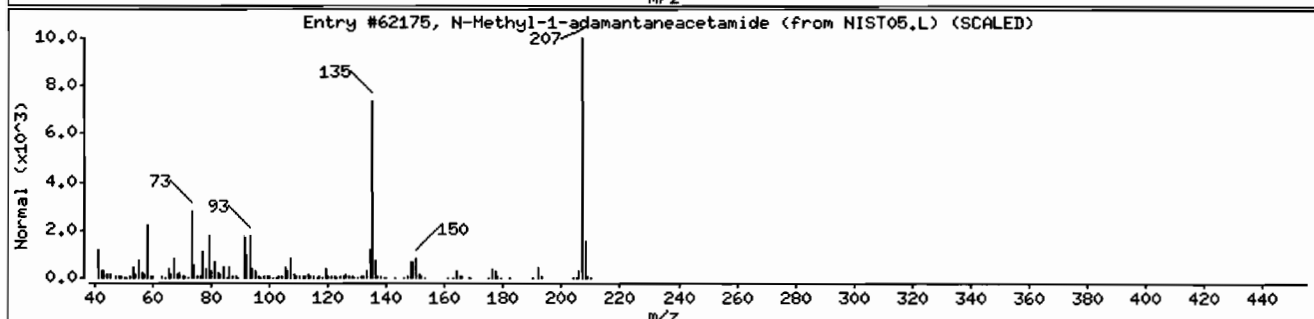
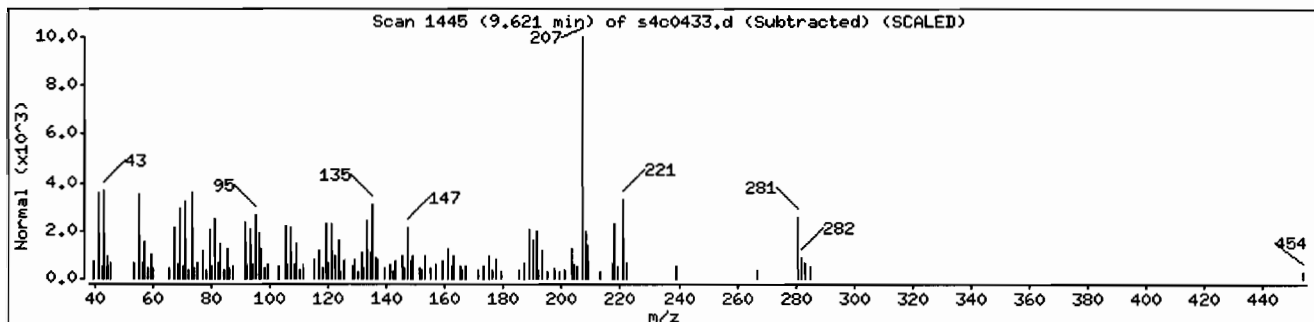
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|--|--------------|----------|--------|---------|---|--------|
| Unknown                                  |              |          |        |         |   |        |
| N-Methyl-1-adamantaneacetamide           | 31897-93-5   | NIST05.L | 62175  | 42      | C <sub>13</sub> H <sub>21</sub> NO                            | 207    |
| 2-Ethylacridine                          | 55751-83-2   | NIST05.L | 62222  | 38      | C <sub>15</sub> H <sub>13</sub> N                             | 207    |
| (1H)Pyrrole-3-carboxylic acid, 5-[cyano( | 1000115-26-4 | NIST05.L | 120177 | 35      | C <sub>14</sub> H <sub>19</sub> N <sub>3</sub> O <sub>4</sub> | 293    |



Date : 05-MAR-2010 00:29

Client ID: RE36-10-7424

Instrument: MSD4.i

Sample Info: I247358004I956285I1ISVM1I1LANL

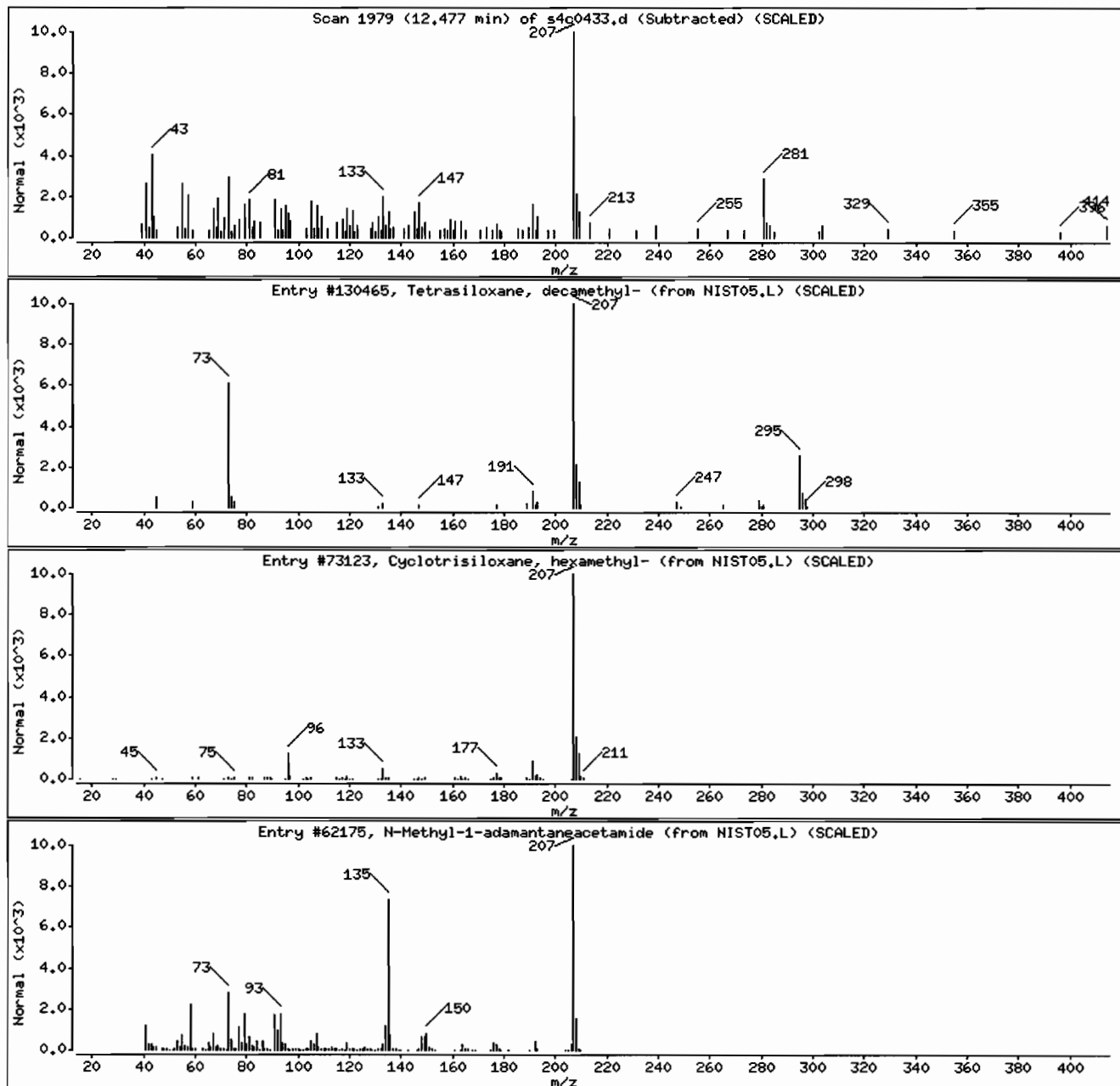
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match  | CAS Number | Library  | Entry  | Quality | Formula     | Weight |
|--------------------------------|------------|----------|--------|---------|-------------|--------|
| Unknown                        |            |          |        |         |             |        |
| Tetrasiloxane, decamethyl-     | 141-62-8   | NIST05.L | 130465 | 50      | C10H30O3Si4 | 310    |
| Cyclotrisiloxane, hexamethyl-  | 541-05-9   | NIST05.L | 73123  | 47      | C6H18O3Si3  | 222    |
| N-Methyl-1-adamantaneacetamide | 31897-93-5 | NIST05.L | 62175  | 47      | C13H21NO    | 207    |



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358001

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 525    | ug/kg | 105     | 525     |
| 108-95-2   | Phenol                        | U         | 525    | ug/kg | 105     | 525     |
| 95-57-8    | 2-Chlorophenol                | U         | 525    | ug/kg | 105     | 525     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 525    | ug/kg | 105     | 525     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 525    | ug/kg | 105     | 525     |
| 83-32-9    | Acenaphthene                  | U         | 52.5   | ug/kg | 17.3    | 52.5    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 525    | ug/kg | 52.5    | 525     |
| 100-02-7   | 4-Nitrophenol                 | U         | 525    | ug/kg | 173     | 525     |
| 87-86-5    | Pentachlorophenol             | U         | 525    | ug/kg | 131     | 525     |
| 129-00-0   | Pyrene                        | J         | 31.5   | ug/kg | 15.7    | 52.5    |
| 110-86-1   | Pyridine                      | U         | 525    | ug/kg | 105     | 525     |
| 62-53-3    | Aniline                       | U         | 525    | ug/kg | 157     | 525     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 525    | ug/kg | 105     | 525     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525     |
| 100-51-6   | Benzyl alcohol                | U         | 525    | ug/kg | 157     | 525     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 525    | ug/kg | 105     | 525     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 525    | ug/kg | 105     | 525     |
| 95-48-7    | o-Cresol                      | U         | 525    | ug/kg | 105     | 525     |
| 65794-96-9 | m,p-Cresols                   | U         | 525    | ug/kg | 157     | 525     |
| 67-72-1    | Hexachloroethane              | U         | 525    | ug/kg | 105     | 525     |
| 98-95-3    | Nitrobenzene                  | U         | 525    | ug/kg | 105     | 525     |
| 78-59-1    | Isophorone                    | U         | 525    | ug/kg | 105     | 525     |
| 88-75-5    | 2-Nitrophenol                 | U         | 525    | ug/kg | 105     | 525     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 525    | ug/kg | 184     | 525     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 525    | ug/kg | 105     | 525     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 525    | ug/kg | 105     | 525     |
| 65-85-0    | Benzoic acid                  | U         | 1050   | ug/kg | 262     | 1050    |
| 91-20-3    | Naphthalene                   | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 106-47-8   | 4-Chloroaniline               | U         | 525    | ug/kg | 105     | 525     |
| 87-68-3    | Hexachlorobutadiene           | U         | 525    | ug/kg | 105     | 525     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 52.5   | ug/kg | 10.5    | 52.5    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 525    | ug/kg | 105     | 525     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 525    | ug/kg | 105     | 525     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 525    | ug/kg | 105     | 525     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 52.5   | ug/kg | 17.3    | 52.5    |
| 88-74-4    | 2-Nitroaniline                | U         | 525    | ug/kg | 105     | 525     |
|            | o-Nitroaniline                |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                | U         | 525    | ug/kg | 105     | 525     |



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

|                             |                                  |                      |
|-----------------------------|----------------------------------|----------------------|
| SDG Number: 10-1914         | Date Collected: 02/12/2010 12:00 | Matrix: R            |
| Lab Sample ID: 247358001    | Date Received: 02/18/2010 08:45  | %Moisture: 36.4      |
| Client ID: RE36-10-7427     | Client: LANL010                  | Project: LANL01004   |
| Batch ID: 956285            | Method: SW846 8270C              | SOP Ref: GL-OA-E-009 |
| Run Date: 03/04/2010 23:23  | Inst: MSD4.I                     | Dilution: 1          |
| Prep Date: 02/23/2010 10:34 | Analyst: JMB3                    | Inj. Vol: .5 uL      |
| Data File: s4c0430.d        | Aliquot: 30 g                    | Final Volume: 1 mL   |
|                             | Column: J&W DB-5MS               | Level: LOW           |

| CAS No.   | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-----------|-------------------------------|-----------|--------|-------|---------|---------|
|           | <i>m</i> -Nitroaniline        |           |        |       |         |         |
| 131-11-3  | Dimethylphthalate             | U         | 525    | ug/kg | 105     | 525     |
| 606-20-2  | 2,6-Dinitrotoluene            | U         | 525    | ug/kg | 52.5    | 525     |
| 208-96-8  | Acenaphthylene                | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 51-28-5   | 2,4-Dinitrophenol             | U         | 1050   | ug/kg | 199     | 1050    |
| 132-64-9  | Dibenzofuran                  | U         | 525    | ug/kg | 105     | 525     |
| 84-66-2   | Diethylphthalate              | U         | 525    | ug/kg | 105     | 525     |
| 86-73-7   | Fluorene                      | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 7005-72-3 | 4-Chlorophenylphenylether     | U         | 525    | ug/kg | 105     | 525     |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol    | U         | 525    | ug/kg | 105     | 525     |
| 100-01-6  | 4-Nitroaniline                | U         | 525    | ug/kg | 157     | 525     |
|           | <i>p</i> -Nitroaniline        |           |        |       |         |         |
| 122-39-4  | Diphenylamine                 | U         | 525    | ug/kg | 105     | 525     |
| 122-66-7  | Azobenzene                    | U         | 525    | ug/kg | 105     | 525     |
|           | <i>1,2</i> -Diphenylhydrazine |           |        |       |         |         |
| 101-55-3  | 4-Bromophenylphenylether      | U         | 525    | ug/kg | 105     | 525     |
| 118-74-1  | Hexachlorobenzene             | U         | 525    | ug/kg | 105     | 525     |
| 85-01-8   | Phenanthrene                  | J         | 17.9   | ug/kg | 15.7    | 52.5    |
| 120-12-7  | Anthracene                    | U         | 52.5   | ug/kg | 10.5    | 52.5    |
| 84-74-2   | Di-n-butylphthalate           | U         | 525    | ug/kg | 105     | 525     |
| 206-44-0  | Fluoranthene                  | J         | 28.1   | ug/kg | 15.7    | 52.5    |
| 85-68-7   | Butylbenzylphthalate          | U         | 525    | ug/kg | 105     | 525     |
| 56-55-3   | Benzo(a)anthracene            | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 91-94-1   | 3,3'-Dichlorobenzidine        | U         | 525    | ug/kg | 157     | 525     |
| 218-01-9  | Chrysene                      | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate    | U         | 525    | ug/kg | 105     | 525     |
| 117-84-0  | Di-n-octylphthalate           | U         | 525    | ug/kg | 105     | 525     |
| 205-99-2  | Benzo(b)fluoranthene          | J         | 23.6   | ug/kg | 15.7    | 52.5    |
| 207-08-9  | Benzo(k)fluoranthene          | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 50-32-8   | Benzo(a)pyrene                | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene        | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 53-70-3   | Dibenzo(a,h)anthracene        | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 191-24-2  | Benzo(ghi)perylene            | U         | 52.5   | ug/kg | 15.7    | 52.5    |
| 120-82-1  | 1,2,4-Trichlorobenzene        | U         | 525    | ug/kg | 105     | 525     |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|------|-----------|-------|-----|------|
|         | Unknown Aldol Condensate              | 2.87 | 836       | ug/kg |     | J    |
|         | Unknown                               | 3.51 | 1210      | ug/kg |     | J    |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358001  
  
Client ID: RE36-10-7427  
Batch ID: 956285  
Run Date: 03/04/2010 23:23  
Prep Date: 02/23/2010 10:34  
Data File: s4c0430.d

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 36.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.  | Parmname                                 | Qualifier | Result    | Units | MDL/LOD | PQL/LOQ |
|--|--|-----------|-----------|-------|---------|---------|
| <b>Tentatively Identified Compound Summary</b> |  |           |           |       |         |         |
| CAS No.  | Tentatively Identified Compound (TIC)    | RT        | Estimated | Units | Fit     | Qual    |
| 121-33-5                                       | Vanillin                                 | 5.53      | 299       | ug/kg | 98      | NJ      |
| 544-63-8                                       | Tetradecanoic acid                       | 6.67      | 592       | ug/kg | 99      | NJ      |
| 57-10-3  | n-Hexadecanoic acid                      | 7.2       | 838       | ug/kg | 99      | NJ      |
|  | Unknown                                  | 7.38      | 367       | ug/kg |         | J       |
|  | Unknown                                  | 7.45      | 467       | ug/kg |         | J       |
| 1000197-14-1                                   | 4b,8-Dimethyl-2-isopropylphenanthrene, 4 | 7.48      | 593       | ug/kg | 89      | NJ      |
|  | Unknown                                  | 7.55      | 445       | ug/kg |         | J       |
| 112-79-8                                       | 9-Octadecenoic acid, (E)-                | 7.62      | 1090      | ug/kg | 91      | NJ      |
|  | Unknown                                  | 7.74      | 1130      | ug/kg |         | J       |
|  | Unknown                                  | 8.01      | 401       | ug/kg |         | J       |
|  | Unknown                                  | 8.04      | 529       | ug/kg |         | J       |
|  | Unknown                                  | 8.1       | 1180      | ug/kg |         | J       |
| 1235-74-1                                      | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.16      | 361       | ug/kg | 95      | NJ      |
| 1000156-12-8                                   | Alloaromadendrene oxide-(1)              | 8.24      | 768       | ug/kg | 91      | NJ      |
|  | Unknown                                  | 8.37      | 3230      | ug/kg |         | J       |
| 1740-19-8                                      | 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 8.44      | 2850      | ug/kg | 93      | NJ      |
|  | Unknown                                  | 8.54      | 2720      | ug/kg |         | J       |
|  | Unknown                                  | 8.72      | 291       | ug/kg |         | J       |
| 1000189-14-9                                   | 1-Hydroxy-6-(3-isopropenyl-cycloprop-1-e | 8.82      | 495       | ug/kg | 86      | NJ      |
| 56221-91-1                                     | 13-Tetradecen-1-ol acetate               | 8.97      | 501       | ug/kg | 96      | NJ      |
| 112-95-8                                       | Eicosane                                 | 9.51      | 1590      | ug/kg | 96      | NJ      |
| 504-57-4                                       | 10-Nonadecanone                          | 10.36     | 2830      | ug/kg | 96      | NJ      |
|  | Unknown                                  | 10.54     | 7300      | ug/kg |         | J       |
|  | Unknown                                  | 10.66     | 2330      | ug/kg |         | J       |
|  | Unknown                                  | 11.49     | 1620      | ug/kg |         | J       |
|  | Unknown                                  | 11.62     | 875       | ug/kg |         | J       |
| 1000214-20-7                                   | Stigmasterol, 22,23-dihydro-             | 12.43     | 3840      | ug/kg | 97      | NJ      |
| 1058-61-3                                      | Stigmast-4-en-3-one                      | 13.47     | 3400      | ug/kg | 96      | NJ      |

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Data file : /chem/MSD4.i/s030410a.b/s4c0430.d  
 Lab Smp Id: 247358001 Client Smp ID: RE36-10-7427  
 Inj Date : 04-MAR-2010 23:23  
 Operator : JMB3 Inst ID: MSD4.i  
 Smp Info : |247358001|956285|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
 Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
 Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
 Als bottle: 22  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1914.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.00000  | weight of sample          |
| M    | 36.44900  | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT SIG | MASS | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |         |
|-----------------------------|-----------|------|--------|--------|---------|----------|----------------|---------|
|                             |           |      |        |        |         |          | ON-COLUMN      | FINAL   |
|                             |           |      |        |        |         |          | (ng/ul)        | (ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 |           | 152  | 3.823  | 3.829  | (1.000) | 148613   | 40.0000        |         |
| * 29 Naphthalene-d8         |           | 136  | 4.690  | 4.690  | (1.000) | 558736   | 40.0000        |         |
| * 46 Acenaphthene-d10       |           | 164  | 5.936  | 5.941  | (1.000) | 331019   | 40.0000        |         |
| * 67 Phenanthrene-d10       |           | 188  | 6.936  | 6.936  | (1.000) | 539273   | 40.0000        |         |
| * 91 Chrysene-d12           |           | 240  | 8.610  | 8.610  | (1.000) | 367337   | 40.0000        |         |
| * 98 Perylene-d12           |           | 264  | 10.065 | 10.070 | (1.000) | 140007   | 40.0000        |         |
| \$ 3 2-Fluorophenol         |           | 112  | 3.026  | 3.021  | (0.792) | 214540   | 62.0604        | 3260    |
| \$ 5 Phenol-d5              |           | 99   | 3.545  | 3.545  | (0.927) | 252940   | 58.6339        | 3080    |
| \$ 20 Nitrobenzene-d5       |           | 82   | 4.187  | 4.192  | (0.893) | 114187   | 28.6664        | 1500    |
| \$ 39 2-Fluorobiphenyl      |           | 172  | 5.428  | 5.433  | (0.914) | 249408   | 28.0568        | 1470    |
| \$ 60 2,4,6-Tribromophenol  |           | 329  | 6.481  | 6.481  | (1.092) | 70186    | 72.1353        | 3780    |
| \$ 81 p-Terphenyl-d14       |           | 244  | 7.861  | 7.861  | (0.913) | 226810   | 38.7056        | 2030    |

| Compounds                 | QUANT SIG<br>MASS | RT    | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS       |                  |
|---------------------------|-------------------|-------|--------|---------|----------|----------------------|------------------|
|                           |                   |       |        |         |          | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| =====                     | =====             | ==    | =====  | =====   | =====    | =====                | =====            |
| 79 Pyrene                 | 202               | 7.808 | 7.813  | (0.907) | 5914     | 0.60082              | 31.5 (a)         |
| 68 Phenanthrene           | 178               | 6.947 | 6.952  | (1.002) | 4075     | 0.34035              | 17.8 (a)         |
| 76 Fluoranthene           | 202               | 7.664 | 7.669  | (1.105) | 5727     | 0.53504              | 28.1 (a)         |
| 95 Benzo (b) fluoranthene | 252               | 9.600 | 9.600  | (0.954) | 1604     | 0.45047              | 23.6 (a)         |

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s4c0430.d

Report Date: 03/05/2010 07:59

Lab. ID: 247358001

SampleType: SAMPLE

Injection Date: 04-MAR-2010 23:23

Operator: JMB3

Instrument: MSD4.i

Sample Info: |247358001|956285|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS  | RESPONSE               | RT   | EXPECT RT      | TARGET RANGE | RATIO | QUAL |
|-------|------------------------|------|----------------|--------------|-------|------|
| ===== |                        |      |                |              |       |      |
| 4     | Aniline                |      | CAS#: 62-53-3  |              |       |      |
| 66    | 12814                  | 3.55 | 3.61           | 80-120       | 100   | (T)  |
| 93    | 9369                   | 3.51 | 3.61           | 453-513      | 73    | (QT) |
| ----- |                        |      |                |              |       |      |
| 17    | N-Nitrosodipropylamine |      | CAS#: 621-64-7 |              |       |      |
| 70    | 16411                  | 4.19 | 4.07           | 80-120       | 100   | (T)  |
| 42    | 8698                   | 4.19 | 4.07           | 27- 87       | 53    | (T)  |
| ----- |                        |      |                |              |       |      |
| 22    | Isophorone             |      | CAS#: 78-59-1  |              |       |      |
| 82    | 114146                 | 4.19 | 4.36           | 80-120       | 100   | (T)  |
| 138   | 68                     | 4.25 | 4.36           | 0- 49        | 0     | (T)  |
| ----- |                        |      |                |              |       |      |
| 27    | Benzoic acid           |      | CAS#: 65-85-0  |              |       |      |
| 105   | 4136                   | 4.45 | 4.48           | 80-120       | 100   | ( )  |
| 122   | 5319                   | 4.45 | 4.48           | 56-116       | 129   | (Q)  |
| 77    | 3063                   | 4.45 | 4.48           | 49-109       | 74    | ( )  |
| ----- |                        |      |                |              |       |      |
| 42    | o-Nitroaniline         |      | CAS#: 88-74-4  |              |       |      |
| 65    | 4648                   | 5.53 | 5.60           | 80-120       | 100   | (T)  |
| 92    | 1804                   | 5.53 | 5.60           | 35- 95       | 39    | (T)  |
| 138   | 514                    | 5.53 | 5.60           | 79-139       | 11    | (QT) |
| ----- |                        |      |                |              |       |      |
| 43    | Dimethylphthalate      |      | CAS#: 131-11-3 |              |       |      |
| 163   | 58558                  | 5.94 | 5.71           | 80-120       | 100   | (T)  |
| 164   | 331019                 | 5.94 | 5.71           | 0- 40        | 565   | (QT) |
| ----- |                        |      |                |              |       |      |

| MASS                          | RESPONSE | RT   | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|-------------------------------|----------|------|-----------|----------------|-------|------|
| =====                         |          |      |           |                |       |      |
| 44 2,6-Dinitrotoluene         |          |      |           | CAS#: 606-20-2 |       |      |
| 165                           | 44427    | 5.94 | 5.77      | 80-120         | 100   | (T)  |
| 63                            | 1288     | 5.94 | 5.77      | 53-113         | 3     | (QT) |
| -----                         |          |      |           |                |       |      |
| 50 2,4-Dinitrotoluene         |          |      |           | CAS#: 121-14-2 |       |      |
| 165                           | 44427    | 5.94 | 6.05      | 80-120         | 100   | (T)  |
| 89                            | 1367     | 5.94 | 6.05      | 53-113         | 3     | (QT) |
| 63                            | 1288     | 5.94 | 6.05      | 24- 84         | 3     | (QT) |
| -----                         |          |      |           |                |       |      |
| 52 4-Nitrophenol              |          |      |           | CAS#: 100-02-7 |       |      |
| 139                           | 400      | 5.93 | 5.99      | 80-120         | 100   | ( )  |
| 109                           | 7407     | 5.93 | 5.99      | 37- 97         | 1850  | (QT) |
| 65                            | 4859     | 5.93 | 5.99      | 67-127         | 1213  | (QT) |
| -----                         |          |      |           |                |       |      |
| 53 Fluorene                   |          |      |           | CAS#: 86-73-7  |       |      |
| 166                           | 3540     | 6.48 | 6.32      | 80-120         | 100   | (T)  |
| 165                           | 3693     | 6.48 | 6.32      | 62-122         | 104   | (T)  |
| 167                           | 1560     | 6.48 | 6.32      | 0- 44          | 44    | (QT) |
| -----                         |          |      |           |                |       |      |
| 55 2-Methyl-4,6-dinitrophenol |          |      |           | CAS#: 534-52-1 |       |      |
| 198                           | 234      | 6.48 | 6.34      | 80-120         | 100   | (T)  |
| 105                           | 1066     | 6.48 | 6.34      | 16- 76         | 454   | (QT) |
| 51                            | 582      | 6.48 | 6.34      | 35- 95         | 248   | (QT) |
| -----                         |          |      |           |                |       |      |
| 68 Phenanthrene               |          |      |           | CAS#: 85-01-8  |       |      |
| 178                           | 4075     | 6.95 | 6.95      | 80-120         | 100   | ( )  |
| 179                           | 872      | 6.95 | 6.95      | 0- 46          | 21    | ( )  |
| 176                           | 770      | 6.95 | 6.95      | 0- 49          | 19    | ( )  |
| -----                         |          |      |           |                |       |      |
| 69 Anthracene                 |          |      |           | CAS#: 120-12-7 |       |      |
| 178                           | 4075     | 6.95 | 6.98      | 80-120         | 100   | ( )  |
| 179                           | 872      | 6.95 | 6.98      | 0- 46          | 21    | ( )  |
| 176                           | 770      | 6.95 | 6.98      | 0- 49          | 19    | ( )  |
| -----                         |          |      |           |                |       |      |
| 76 Fluoranthene               |          |      |           | CAS#: 206-44-0 |       |      |
| 202                           | 5727     | 7.66 | 7.67      | 80-120         | 100   | ( )  |
| 203                           | 983      | 7.66 | 7.67      | 0- 48          | 17    | ( )  |
| 101                           | 1875     | 7.66 | 7.67      | 0- 42          | 33    | ( )  |
| -----                         |          |      |           |                |       |      |
| 79 Pyrene                     |          |      |           | CAS#: 129-00-0 |       |      |
| 202                           | 5914     | 7.81 | 7.81      | 80-120         | 100   | ( )  |
| 200                           | 2937     | 7.81 | 7.81      | 0- 51          | 50    | ( )  |
| 101                           | 1631     | 7.81 | 7.81      | 0- 44          | 28    | ( )  |
| -----                         |          |      |           |                |       |      |
| 85 Butylbenzylphthalate       |          |      |           | CAS#: 85-68-7  |       |      |
| 149                           | 28879    | 8.35 | 8.13      | 80-120         | 100   | (T)  |
| 91                            | 71566    | 8.37 | 8.13      | 40-100         | 248   | (QT) |
| 206                           | 2044     | 8.36 | 8.13      | 0- 51          | 7     | (T)  |
| -----                         |          |      |           |                |       |      |

| MASS                          | RESPONSE | RT    | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|-------------------------------|----------|-------|-----------|----------------|-------|------|
| =====                         |          |       |           |                |       |      |
| 89 Benzo(a)anthracene         |          |       |           | CAS#: 56-55-3  |       |      |
| 228                           | 3089     | 8.60  | 8.60      | 80-120         | 100   | ( )  |
| 226                           | 1311     | 8.60  | 8.60      | 0- 56          | 42    | ( )  |
| 229                           | 1913     | 8.60  | 8.60      | 0- 50          | 62    | (Q)  |
| -----                         |          |       |           |                |       |      |
| 92 Chrysene                   |          |       |           | CAS#: 218-01-9 |       |      |
| 228                           | 3083     | 8.60  | 8.63      | 80-120         | 100   | ( )  |
| 229                           | 1919     | 8.60  | 8.63      | 0- 50          | 62    | (Q)  |
| 226                           | 1308     | 8.60  | 8.63      | 0- 59          | 42    | ( )  |
| -----                         |          |       |           |                |       |      |
| 93 bis(2-Ethylhexyl)phthalate |          |       |           | CAS#: 117-81-7 |       |      |
| 149                           | 26446    | 8.54  | 8.49      | 80-120         | 100   | ( )  |
| 167                           | 32638    | 8.54  | 8.49      | 0- 60          | 123   | (Q)  |
| -----                         |          |       |           |                |       |      |
| 94 Di-n-octylphthalate        |          |       |           | CAS#: 117-84-0 |       |      |
| 149                           | 4098     | 9.04  | 9.02      | 80-120         | 100   | ( )  |
| 43                            | 39605    | 9.04  | 9.02      | 0- 40          | 966   | (Q)  |
| -----                         |          |       |           |                |       |      |
| 95 Benzo(b)fluoranthene       |          |       |           | CAS#: 205-99-2 |       |      |
| 252                           | 1604     | 9.60  | 9.60      | 80-120         | 100   | ( )  |
| 253                           | 428      | 9.61  | 9.60      | 0- 52          | 27    | ( )  |
| 125                           | 205      | 9.62  | 9.60      | 0- 42          | 13    | ( )  |
| -----                         |          |       |           |                |       |      |
| 96 Benzo(k)fluoranthene       |          |       |           | CAS#: 207-08-9 |       |      |
| 252                           | 1604     | 9.60  | 9.63      | 80-120         | 100   | ( )  |
| 253                           | 428      | 9.61  | 9.63      | 0- 52          | 27    | ( )  |
| 125                           | 205      | 9.62  | 9.63      | 0- 41          | 13    | ( )  |
| -----                         |          |       |           |                |       |      |
| 97 Benzo(a)pyrene             |          |       |           | CAS#: 50-32-8  |       |      |
| 252                           | 1218     | 10.14 | 10.00     | 80-120         | 100   | (T)  |
| 253                           | 370      | 10.14 | 10.00     | 0- 52          | 30    | (T)  |
| 125                           | 322      | 10.15 | 10.00     | 0- 43          | 26    | (T)  |

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD4.i/s030410a.b/s4c0430.d  
 Lab Smp Id: 247358001 Client Smp ID: RE36-10-7427  
 Inj Date : 04-MAR-2010 23:23  
 Operator : JMB3 Inst ID: MSD4.i  
 Smp Info : |247358001|956285|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
 Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
 Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
 Als bottle: 22  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1914.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.00000  | weight of sample          |
| M    | 36.44900  | % moisture                |

Cpnd Variable Local Compound Variable

| ISTD                        | RT     | AREA    | AMOUNT |
|-----------------------------|--------|---------|--------|
| =====                       | =====  | =====   | =====  |
| * 10 1,4-Dichlorobenzene-d4 | 3.823  | 945059  | 40.000 |
| * 46 Acenaphthene-d10       | 5.936  | 1702667 | 40.000 |
| * 67 Phenanthrene-d10       | 6.936  | 1446780 | 40.000 |
| * 91 Chrysene-d12           | 8.610  | 1585837 | 40.000 |
| * 98 Perylene-d12           | 10.065 | 503195  | 40.000 |

| CONCENTRATIONS |       |                |               | QUANT |         |           |        |
|----------------|-------|----------------|---------------|-------|---------|-----------|--------|
| RT             | AREA  | ON-COL (ng/ul) | FINAL (ug/Kg) | QUAL  | LIBRARY | LIB ENTRY | CPND # |
| =====          | ===== | =====          | =====         | ===== | =====   | =====     | =====  |
|                |       |                |               |       |         |           |        |

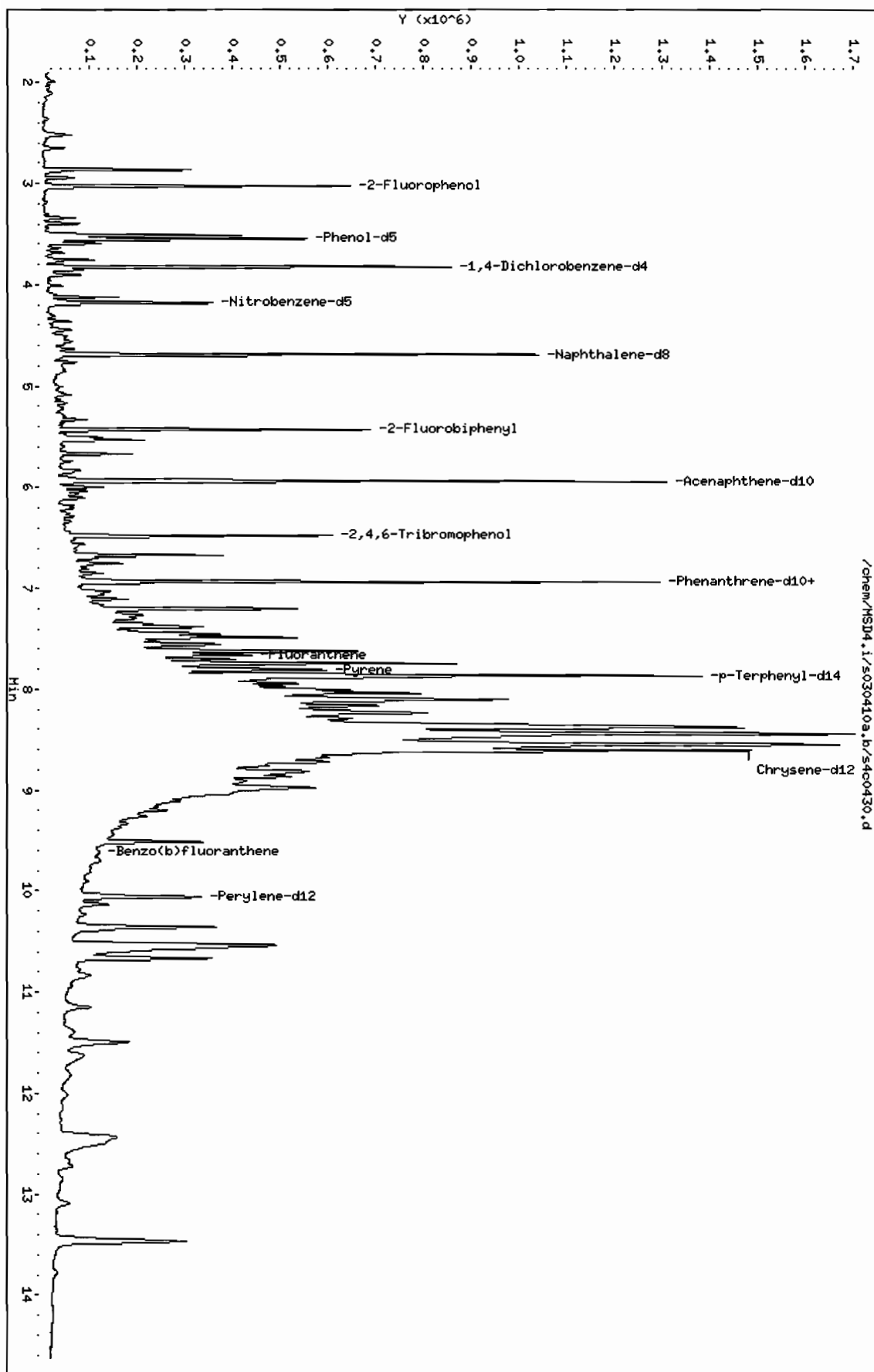


| CONCENTRATIONS                           |        |                |               | QUANT |                     |           |        |
|--|--------|----------------|---------------|-------|---------------------|-----------|--------|
| RT                                       | AREA   | ON-COL (ng/ul) | FINAL (ug/Kg) | QUAL  | LIBRARY             | LIB ENTRY | CPND # |
| Unknown Aldol Condensate                 |        |                |               |       | CAS #:              |           |        |
| 2.866                                    | 376788 | 15.9476923     | 836           | 0     |                     | 0         | 10     |
| Unknown                                  |        |                |               |       | CAS #:              |           |        |
| 3.513                                    | 547209 | 23.1608330     | 1210          | 0     |                     | 0         | 10     |
| Vanillin                                 |        |                |               |       | CAS #: 121-33-5     |           |        |
| 5.529                                    | 242478 | 5.69642223     | 299           | 98    | NIST05.L            | 24743     | 46     |
| Tetradecanoic acid                       |        |                |               |       | CAS #: 544-63-8     |           |        |
| 6.669                                    | 408130 | 11.2837984     | 592           | 99    | NIST05.L            | 77276     | 67     |
| n-Hexadecanoic acid                      |        |                |               |       | CAS #: 57-10-3      |           |        |
| 7.204                                    | 578117 | 15.9835374     | 838           | 99    | NIST05.L            | 96235     | 67     |
| Unknown                                  |        |                |               |       | CAS #:              |           |        |
| 7.380                                    | 252938 | 6.99312226     | 367           | 0     |                     | 0         | 67     |
| Unknown                                  |        |                |               |       | CAS #:              |           |        |
| 7.455                                    | 322047 | 8.90380857     | 467           | 0     |                     | 0         | 67     |
| 4b,8-Dimethyl-2-isopropylphenanthrene, 4 |        |                |               |       | CAS #: 1000197-14-1 |           |        |
| 7.482                                    | 409060 | 11.3095338     | 593           | 89    | NIST05.L            | 96373     | 67     |
| Unknown                                  |        |                |               |       | CAS #:              |           |        |
| 7.551                                    | 306805 | 8.48241239     | 445           | 0     |                     | 0         | 67     |
| 9-Octadecenoic acid, (E)-                |        |                |               |       | CAS #: 112-79-8     |           |        |
| 7.621                                    | 748255 | 20.6874459     | 1080          | 91    | NIST05.L            | 113363    | 67     |
| Unknown                                  |        |                |               |       | CAS #:              |           |        |
| 7.744                                    | 776483 | 21.4678717     | 1130          | 0     |                     | 0         | 67     |
| Unknown                                  |        |                |               |       | CAS #:              |           |        |
| 8.011                                    | 303012 | 7.64294972     | 401           | 0     |                     | 0         | 91     |
| Unknown                                  |        |                |               |       | CAS #:              |           |        |
| 8.038                                    | 399781 | 10.0837855     | 529           | 0     |                     | 0         | 91     |
| Unknown                                  |        |                |               |       | CAS #:              |           |        |
| 8.102                                    | 888195 | 22.4031808     | 1180          | 0     |                     | 0         | 91     |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 |        |                |               |       | CAS #: 1235-74-1    |           |        |
| 8.161                                    | 273202 | 6.89104050     | 361           | 95    | NIST05.L            | 133618    | 91     |

| RT                                       | CONCENTRATIONS |                |               | QUAL  | QUANT               |           | CPND # |
|--|----------------|----------------|---------------|-------|---------------------|-----------|--------|
|  | AREA           | ON-COL (ng/ul) | FINAL (ug/Kg) |       | LIBRARY             | LIB ENTRY |        |
| =====                                    | =====          | =====          | =====         | ===== | =====               | =====     | =====  |
| Alloaromadendrene oxide-(1)              |                |                |               |       | CAS #: 1000156-12-8 |           |        |
| 8.236                                    | 580245         | 14.6356652     | 768           | 91    | NIST05.L            | 71377     | 91     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 8.375                                    | 2440325        | 61.5529725     | 3230          | 0     |                     | 0         | 91     |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 |                |                |               |       | CAS #: 1740-19-8    |           |        |
| 8.439                                    | 2155519        | 54.3692293     | 2850          | 93    | NIST05.L            | 125034    | 91     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 8.541                                    | 2057573        | 51.8987127     | 2720          | 0     |                     | 0         | 91     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 8.717                                    | 220186         | 5.55381906     | 291           | 0     |                     | 0         | 91     |
| 1-Hydroxy-6-(3-isopropenyl-cycloprop-1-e |                |                |               |       | CAS #: 1000189-14-9 |           |        |
| 8.819                                    | 374480         | 9.44561714     | 495           | 86    | NIST05.L            | 72783     | 91     |
| 13-Tetradecen-1-ol acetate               |                |                |               |       | CAS #: 56221-91-1   |           |        |
| 8.974                                    | 378678         | 9.55150451     | 501           | 96    | NIST05.L            | 94752     | 91     |
| Eicosane                                 |                |                |               |       | CAS #: 112-95-8     |           |        |
| 9.514                                    | 381434         | 30.3209558     | 1590          | 96    | NIST05.L            | 113489    | 98     |
| 10-Nonadecanone                          |                |                |               |       | CAS #: 504-57-4     |           |        |
| 10.359                                   | 679574         | 54.0206878     | 2830          | 96    | NIST05.L            | 113462    | 98     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 10.536                                   | 1751826        | 139.256133     | 7300          | 0     |                     | 0         | 98     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 10.664                                   | 558332         | 44.3829113     | 2330          | 0     |                     | 0         | 98     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 11.493                                   | 389413         | 30.9552068     | 1620          | 0     |                     | 0         | 98     |
| Unknown                                  |                |                |               |       | CAS #:              |           |        |
| 11.621                                   | 209914         | 16.6865151     | 875           | 0     |                     | 0         | 98     |
| Stigmasterol, 22,23-dihydro-             |                |                |               |       | CAS #: 1000214-20-7 |           |        |
| 12.434                                   | 921150         | 73.2240325     | 3840          | 97    | NIST05.L            | 174408    | 98     |
| Stigmast-4-en-3-one                      |                |                |               |       | CAS #: 1058-61-3    |           |        |
| 13.467                                   | 814805         | 64.7705087     | 3400          | 96    | NIST05.L            | 173936    | 98     |

Data File: /chem/HSD4.i/s030410a.b/s4c0430.d  
 Date : 04-MAR-2010 23:23  
 Client ID: RE36-10-7427  
 Sample Info: 124735800196628511SVH11L6NL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: HSD4.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001|956285|11SVH11|LANL

Volume Injected (uL): 0.5

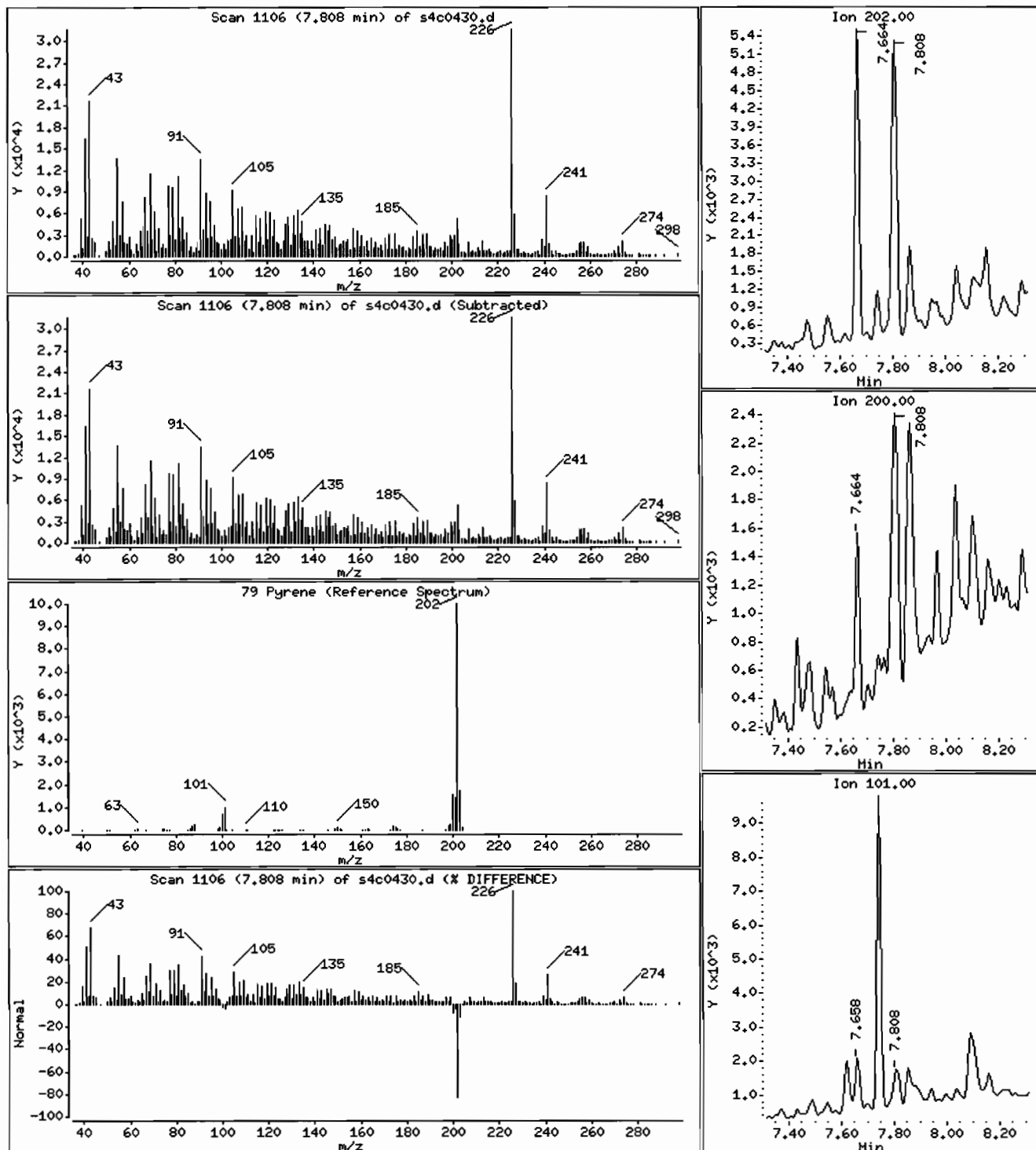
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 31.5 ug/Kg



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVMI11LANL

Volume Injected (uL): 0.5

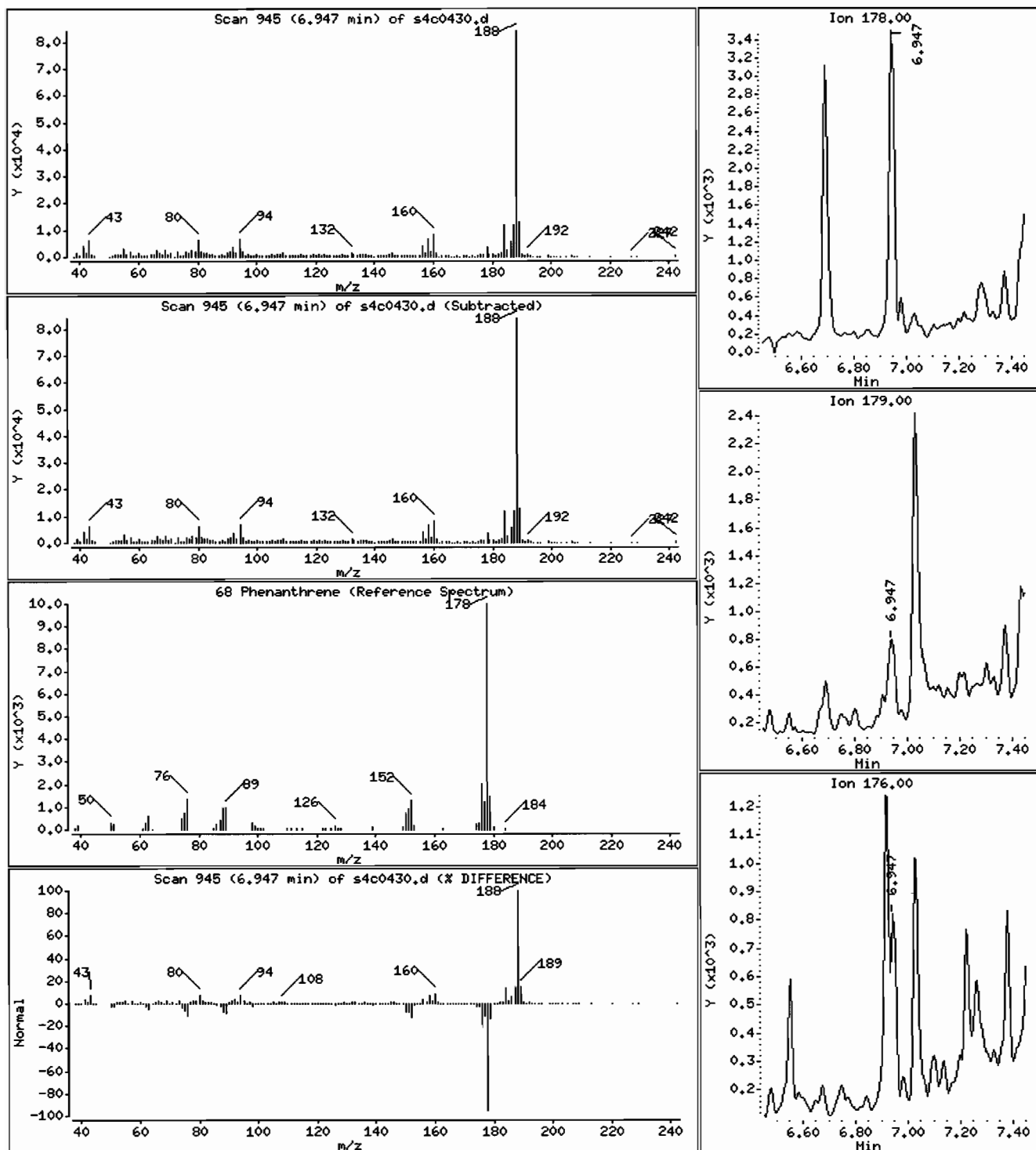
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 17.8 ug/Kg



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247359001/95628511ISVM11ILANL

Volume Injected (uL): 0.5

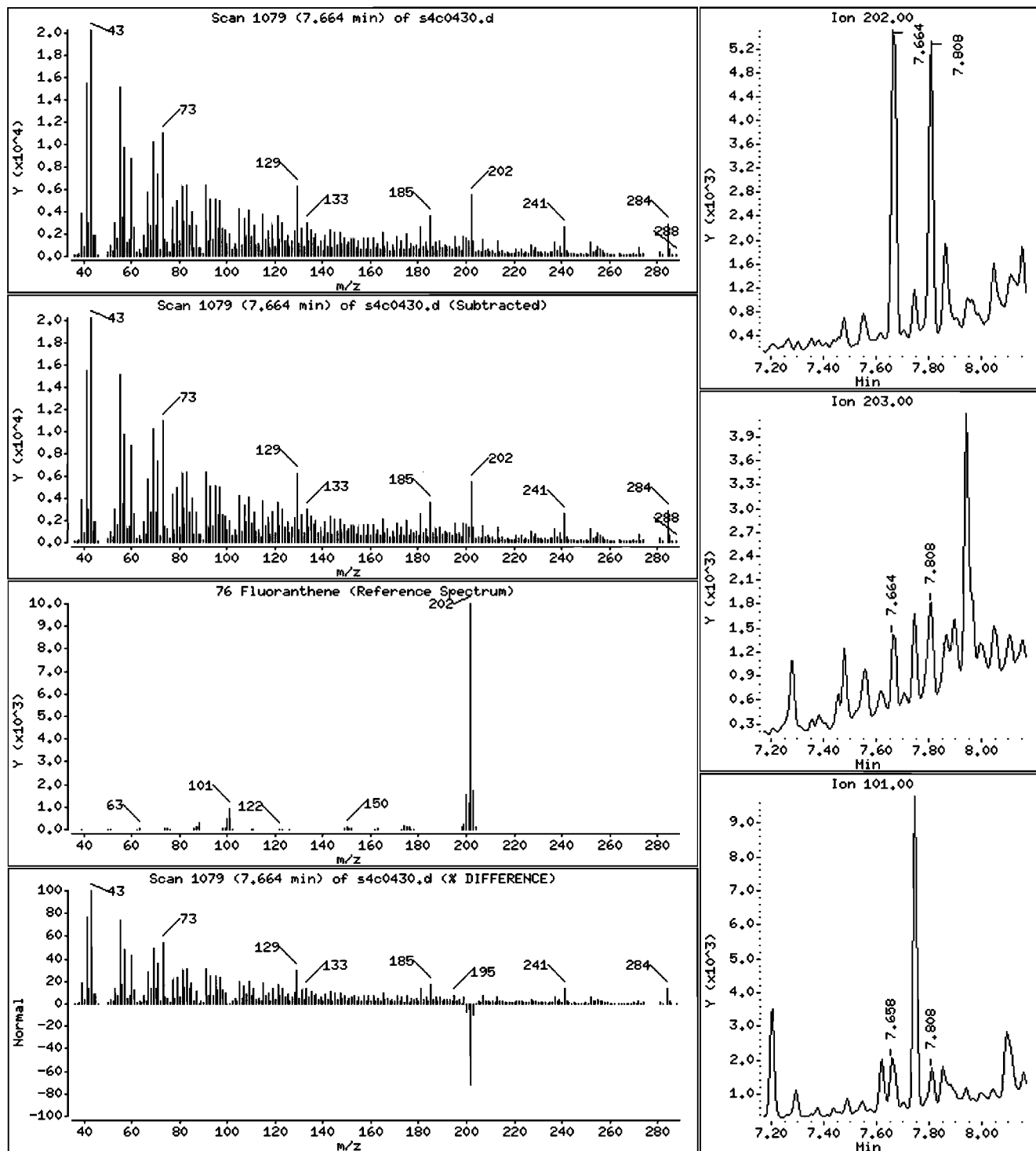
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 28.1 ug/Kg



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: HSD4.i

Sample Info: 1247358001195628511ISVH111LANL

Volume Injected (uL): 0.5

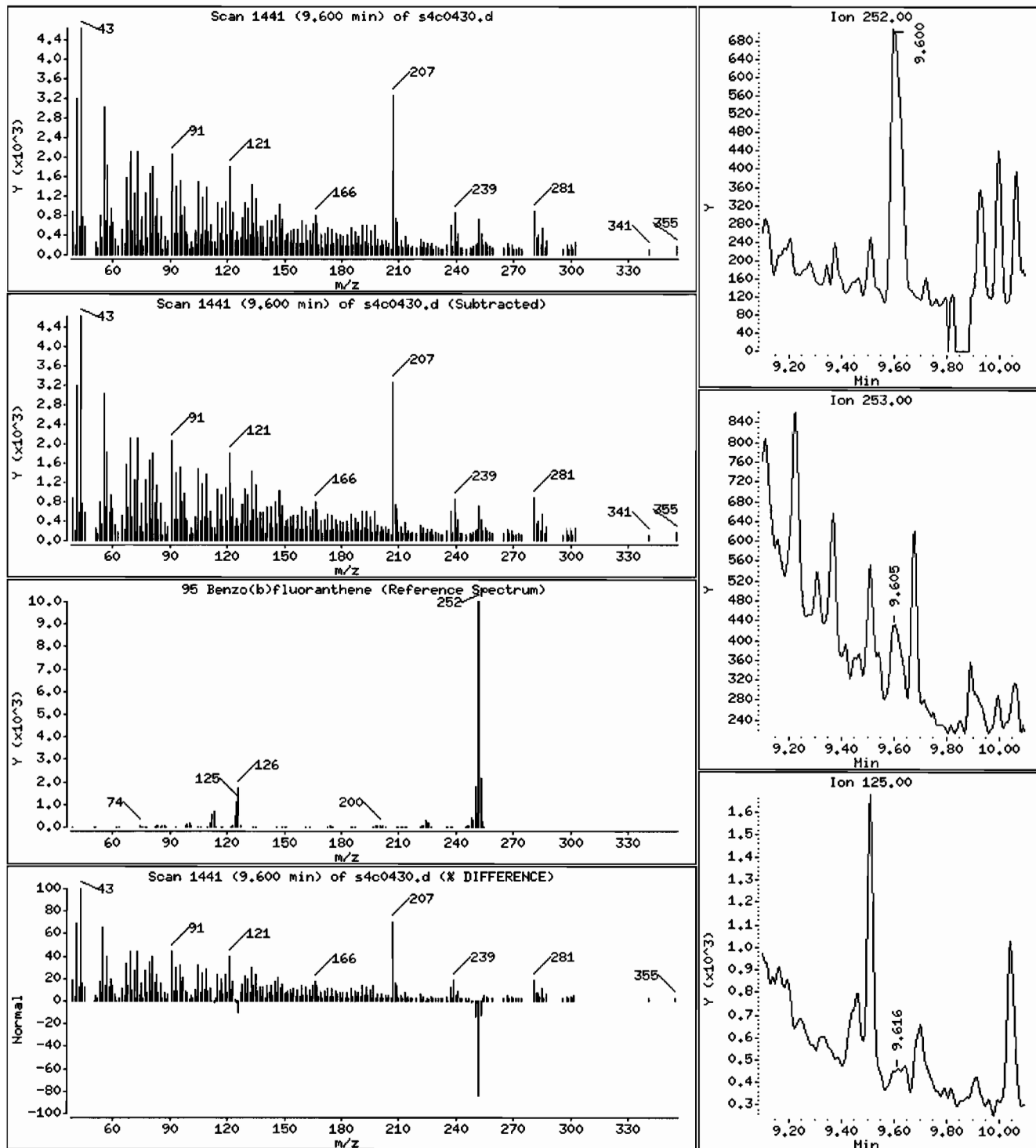
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 23.6 ug/Kg



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511ISVH11ILANL

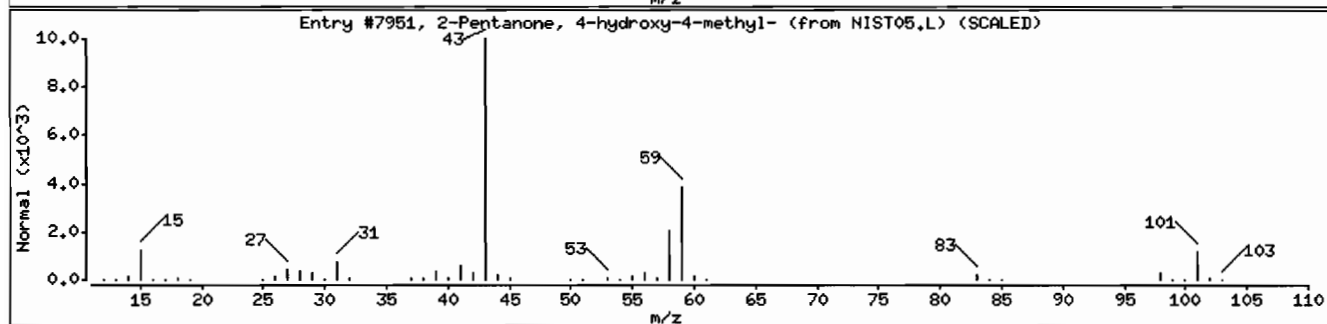
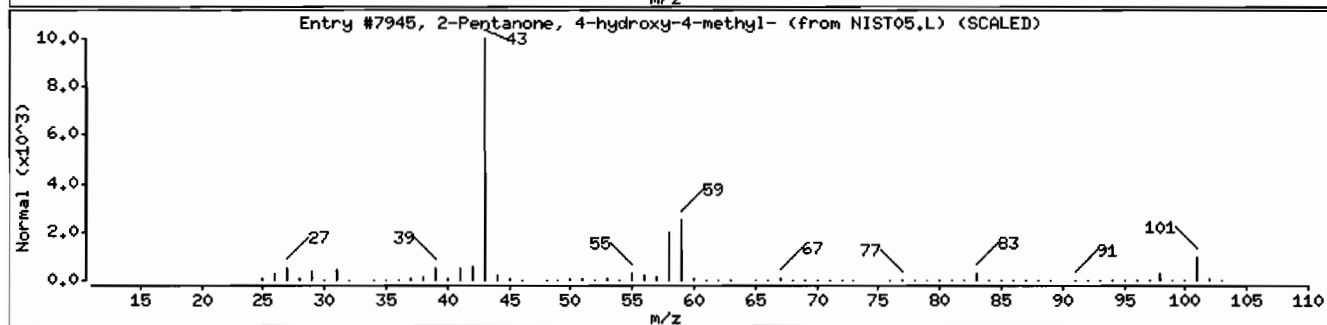
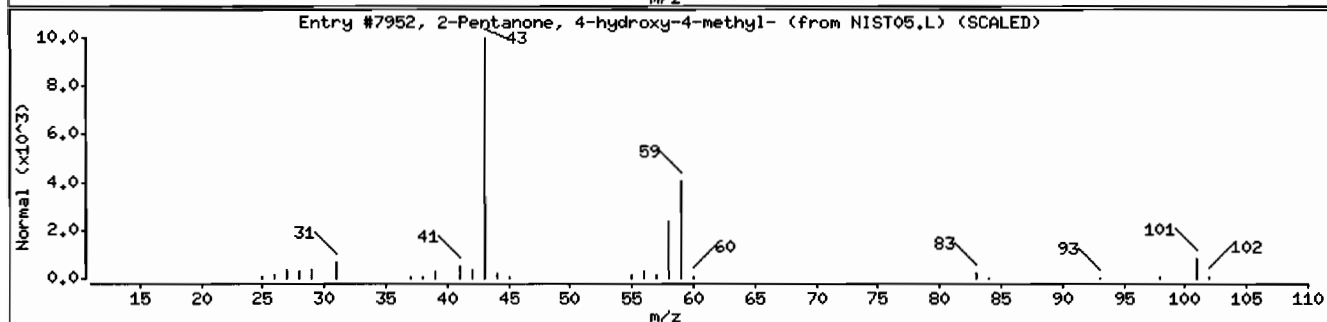
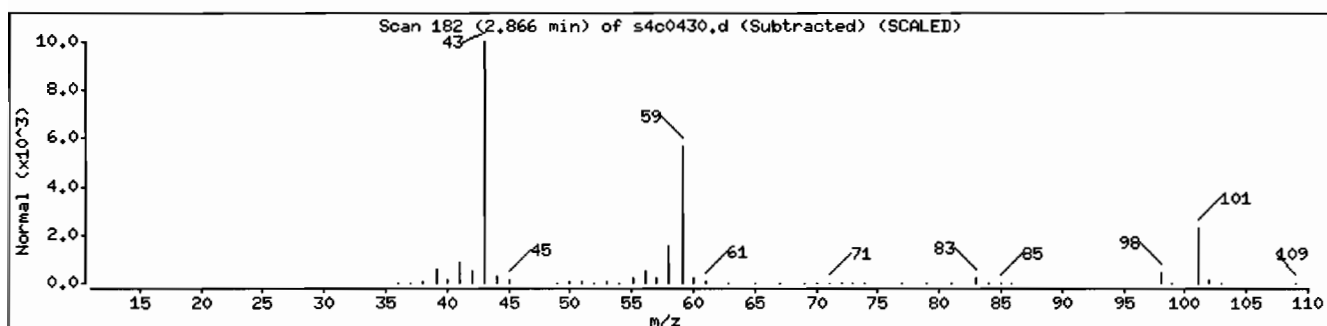
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match    | CAS Number | Library  | Entry | Quality | Formula | Weight |
|----------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown Aldol Condensate         |            |          |       |         |         |        |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7952  | 56      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7945  | 50      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7951  | 45      | C6H12O2 | 116    |





Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

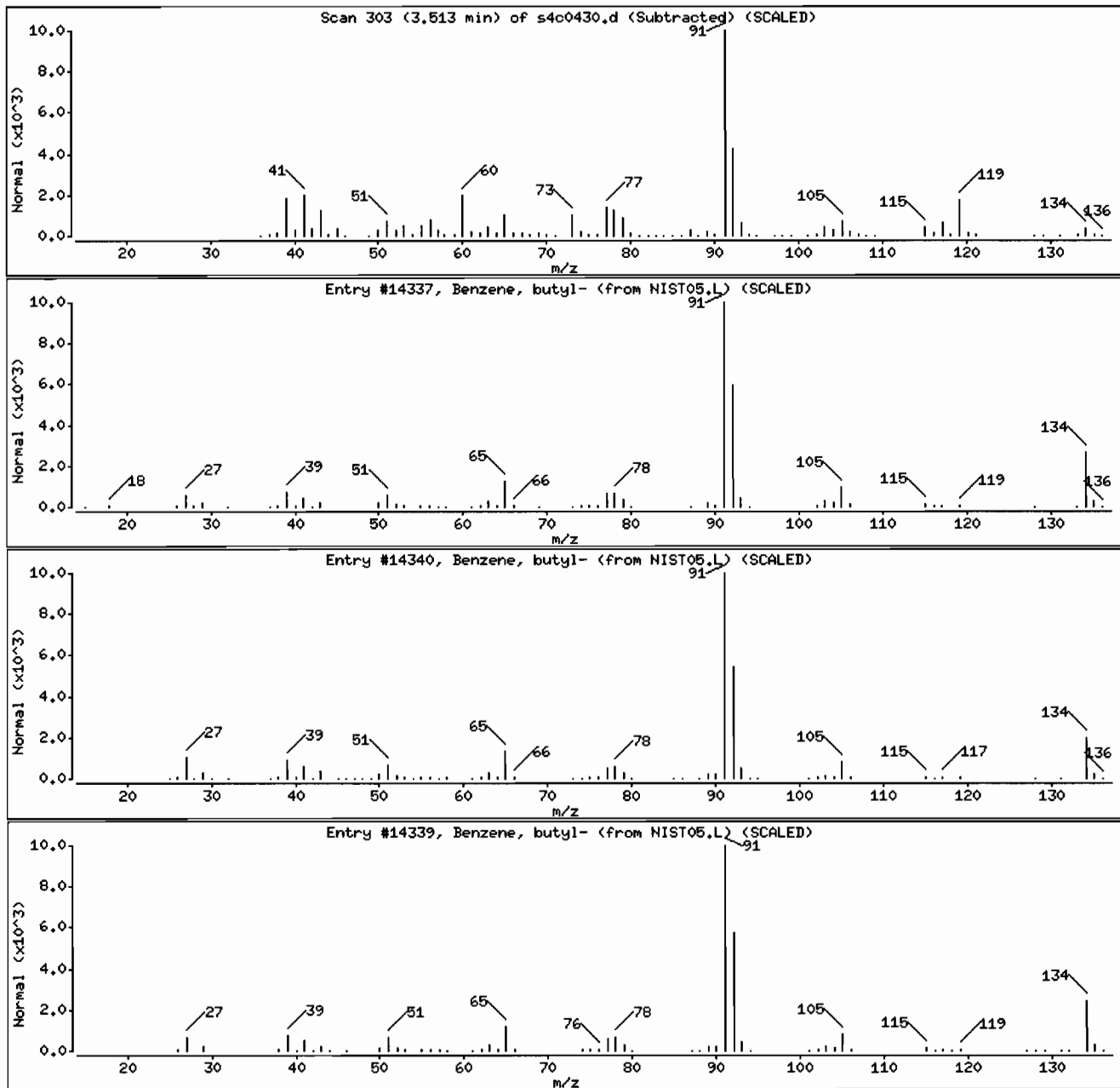
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula | Weight |
|-------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown                       |            |          |       |         |         |        |
| Benzene, butyl-               | 104-51-8   | NIST05.L | 14337 | 43      | C10H14  | 134    |
| Benzene, butyl-               | 104-51-8   | NIST05.L | 14340 | 43      | C10H14  | 134    |
| Benzene, butyl-               | 104-51-8   | NIST05.L | 14339 | 38      | C10H14  | 134    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: HSD4.i

Sample Info: 12473580011956285111SVH111LANL

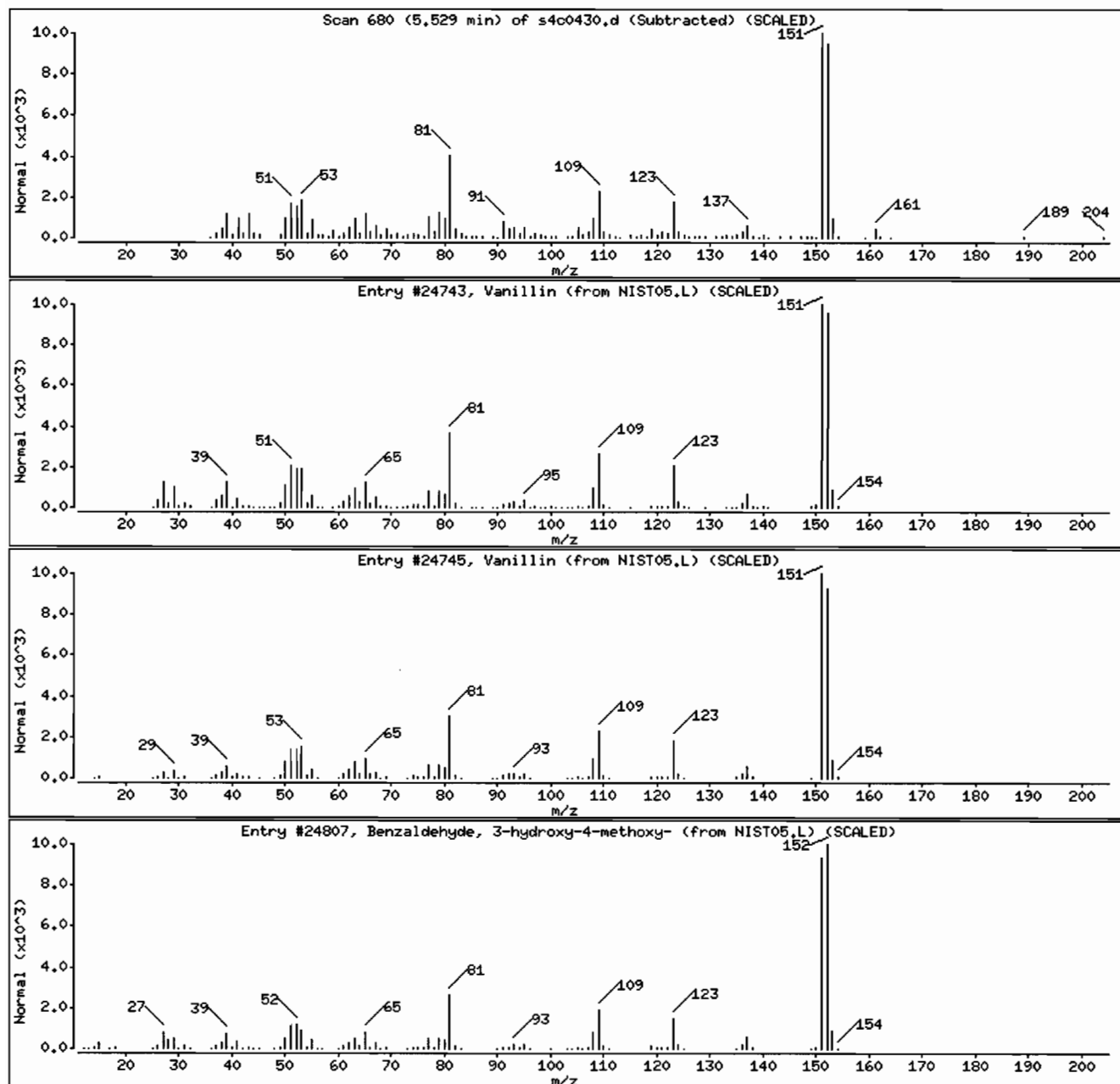
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match      | CAS Number | Library  | Entry | Quality | Formula | Weight |
|------------------------------------|------------|----------|-------|---------|---------|--------|
| Vanillin                           | 121-33-5   | NIST05.L | 24743 | 98      | C8H8O3  | 152    |
| Vanillin                           | 121-33-5   | NIST05.L | 24745 | 97      | C8H8O3  | 152    |
| Benzaldehyde, 3-hydroxy-4-methoxy- | 621-59-0   | NIST05.L | 24807 | 96      | C8H8O3  | 152    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: HSD4.i

Sample Info: I247358001195628511SVH11ILANL

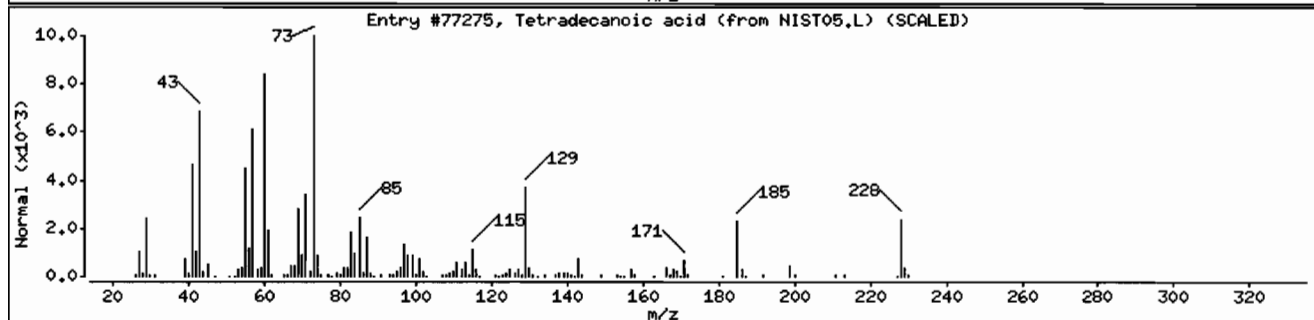
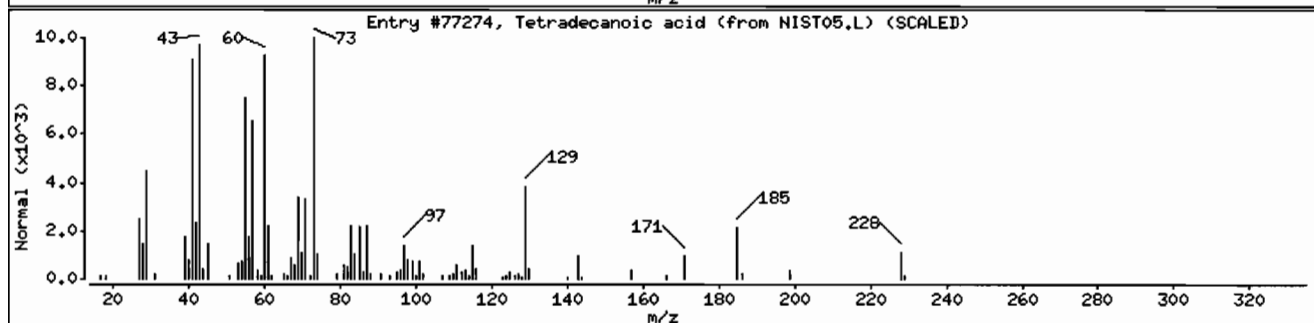
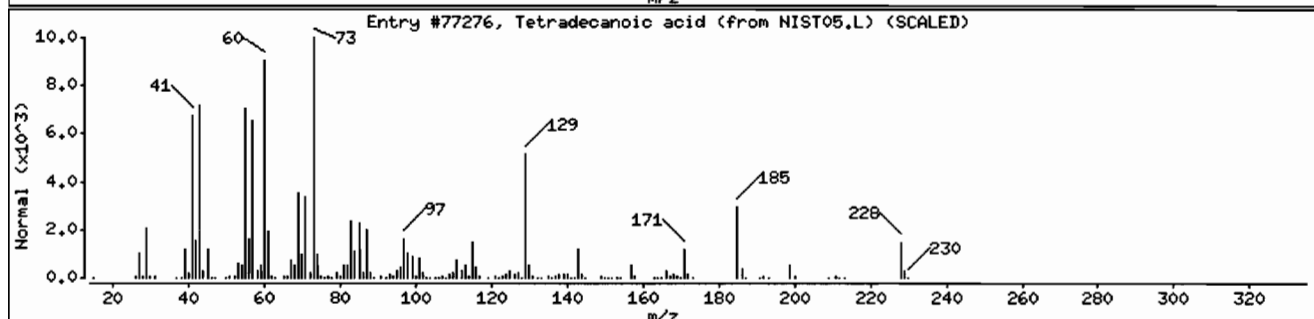
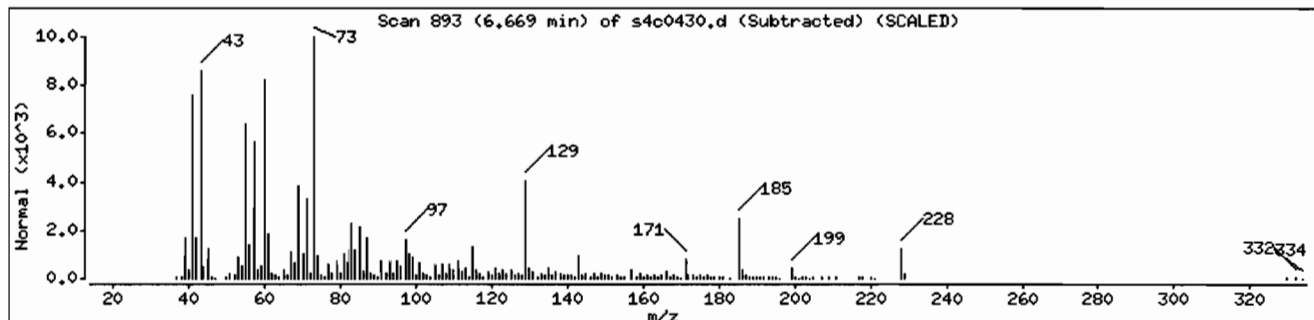
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula  | Weight |
|-------------------------------|------------|----------|-------|---------|----------|--------|
| Tetradecanoic acid            | 544-63-8   | NIST05.L | 77276 | 99      | C14H28O2 | 228    |
| Tetradecanoic acid            | 544-63-8   | NIST05.L | 77274 | 99      | C14H28O2 | 228    |
| Tetradecanoic acid            | 544-63-8   | NIST05.L | 77275 | 98      | C14H28O2 | 228    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I24735800195628511SVMI11LANL

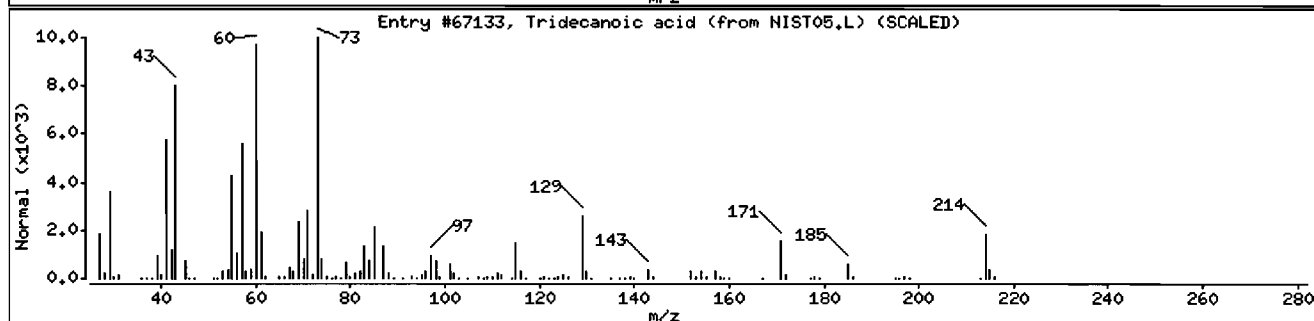
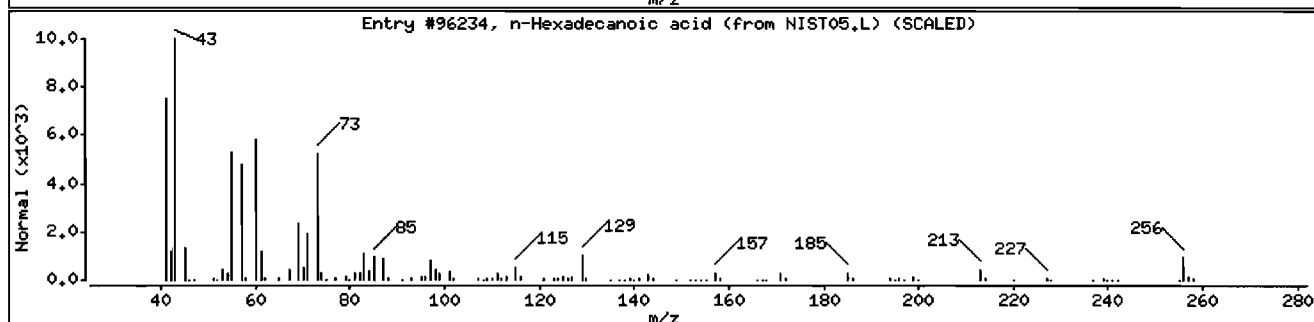
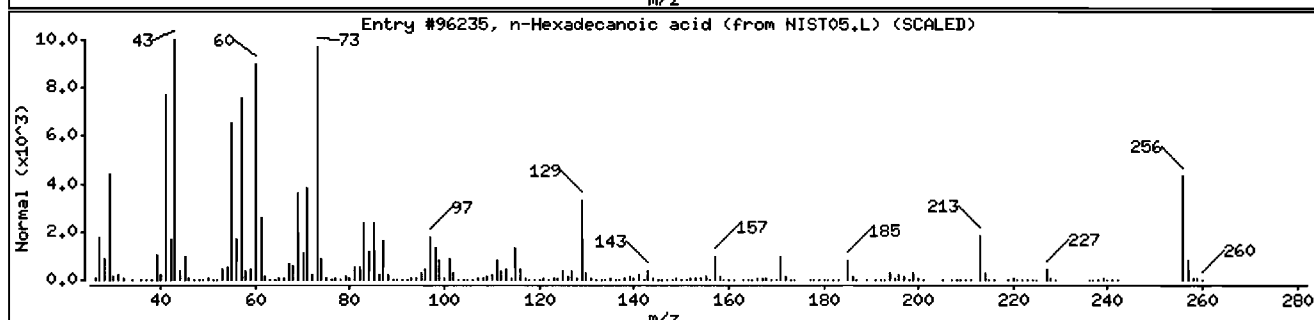
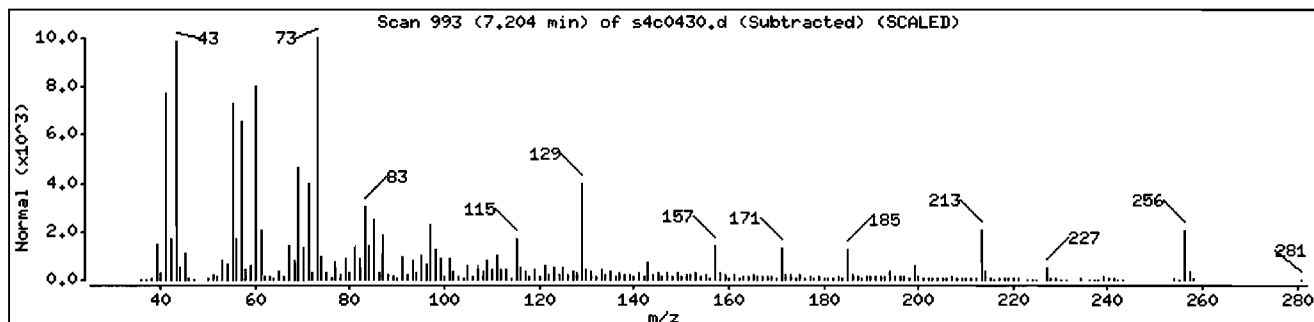
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula  | Weight |
|-------------------------------|------------|----------|-------|---------|----------|--------|
| n-Hexadecanoic acid           | 57-10-3    | NIST05.L | 96235 | 99      | C16H32O2 | 256    |
| n-Hexadecanoic acid           | 57-10-3    | NIST05.L | 96234 | 96      | C16H32O2 | 256    |
| Tridecanoic acid              | 638-53-9   | NIST05.L | 67133 | 93      | C13H26O2 | 214    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 124735800195628511SVH111LANL

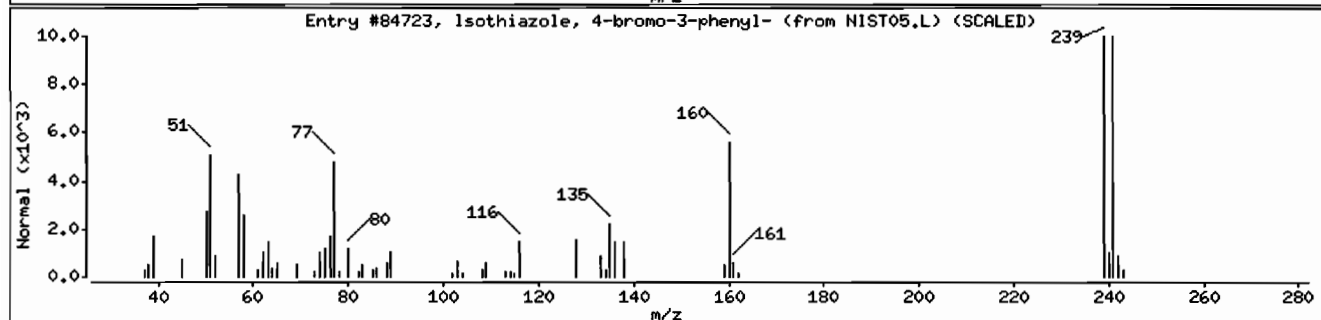
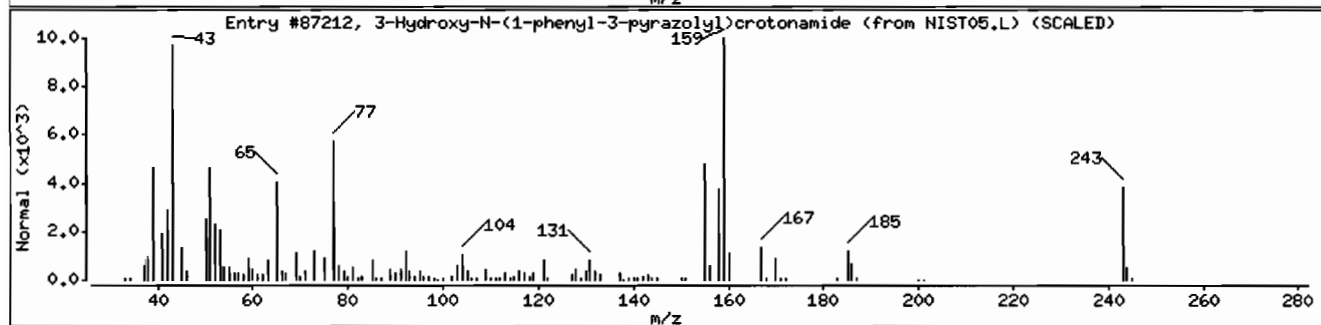
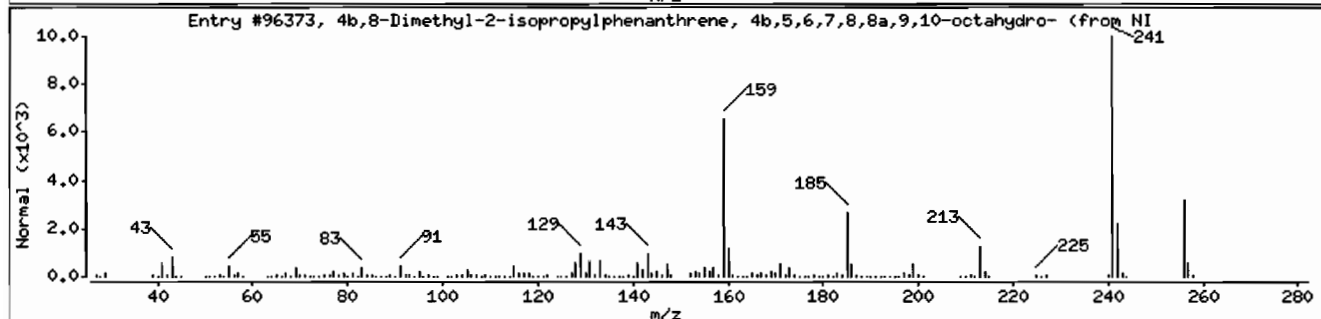
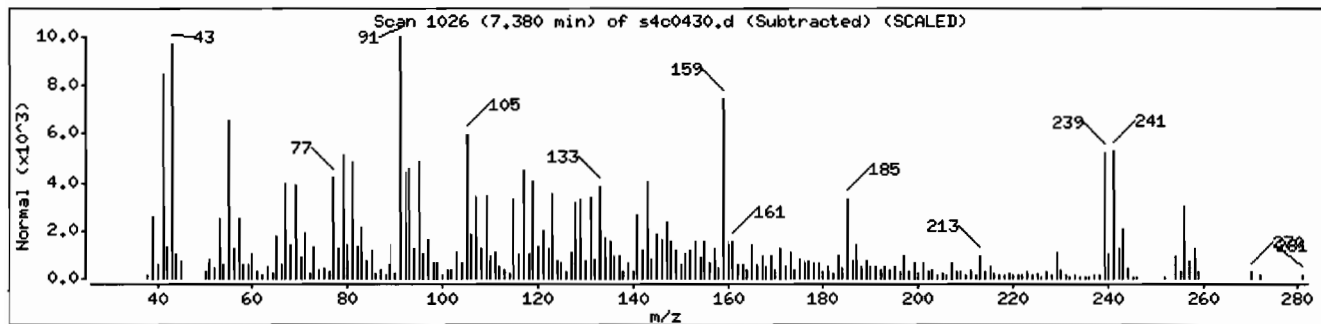
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula    | Weight |
|--|--------------|----------|-------|---------|------------|--------|
| Unknown                                  |              |          |       |         |            |        |
| 4b,8-Dimethyl-2-isopropylphenanthrene, 4 | 1000197-14-1 | NIST05.L | 96373 | 18      | C19H28     | 256    |
| 3-Hydroxy-N-(1-phenyl-3-pyrazolyl)croton | 1148-91-0    | NIST05.L | 87212 | 15      | C13H13N3O2 | 243    |
| Isothiazole, 4-bromo-3-phenyl-           | 16187-94-3   | NIST05.L | 84723 | 15      | C9H6BrNS   | 239    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001I956285I1ISVM11ILANL

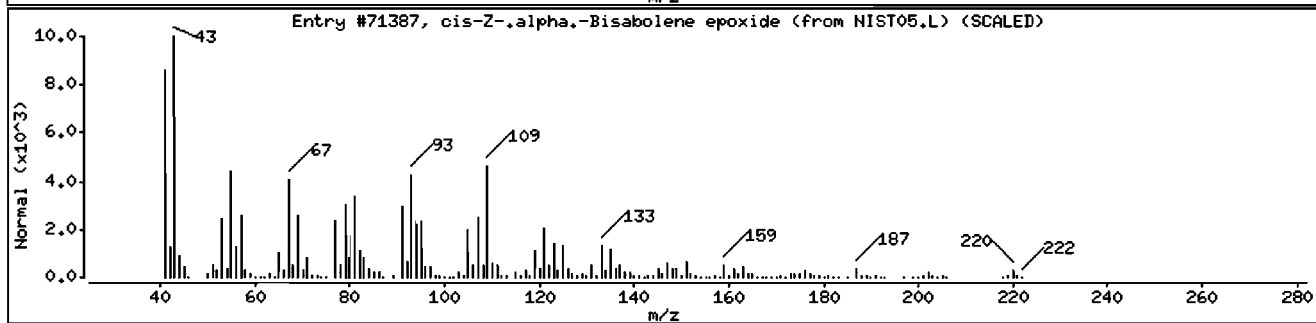
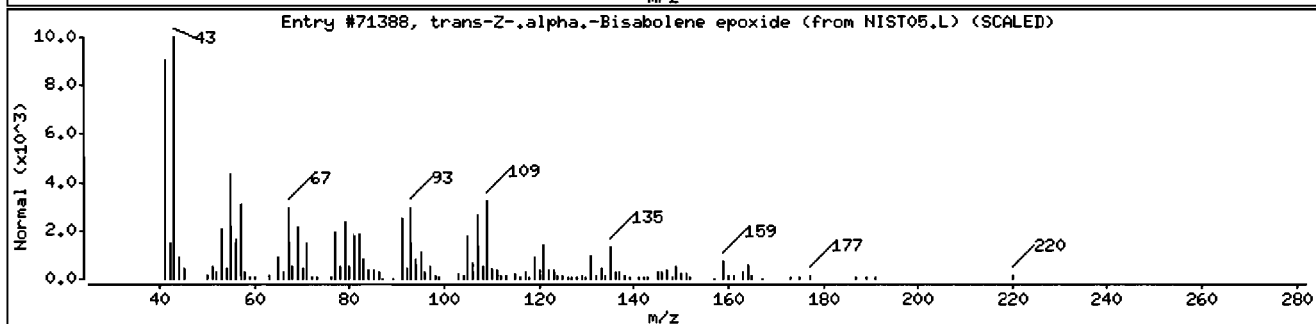
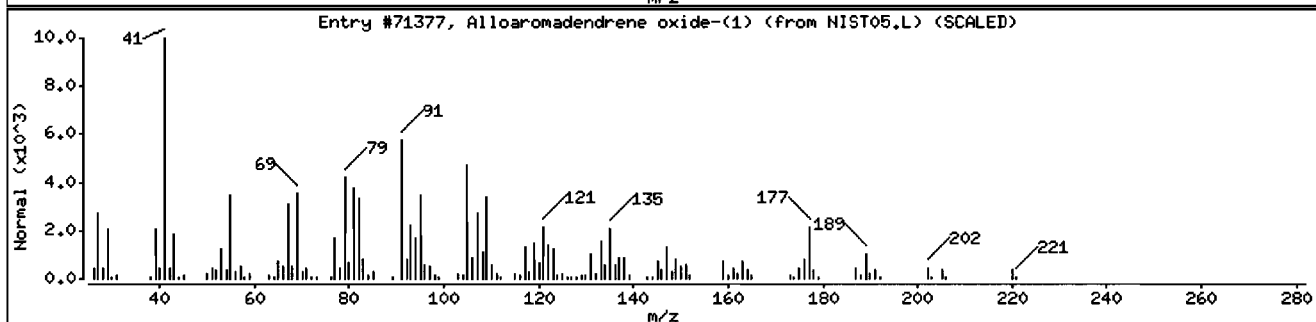
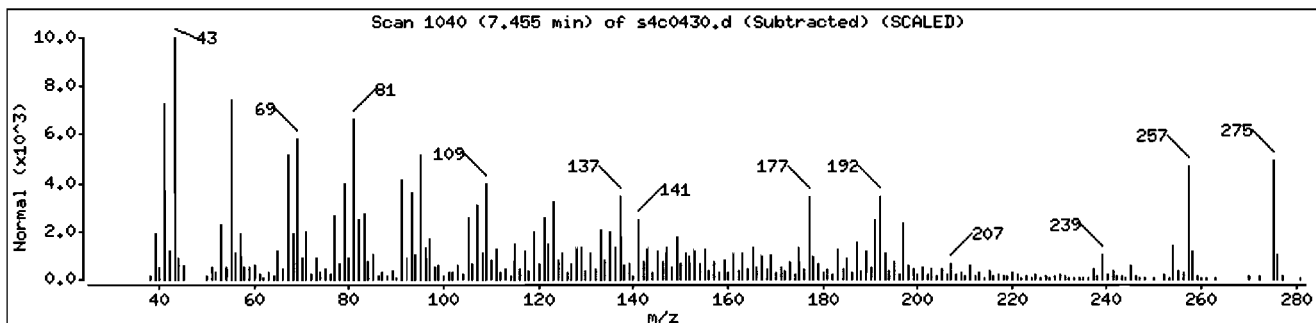
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match      | CAS Number   | Library  | Entry | Quality | Formula | Weight |
|------------------------------------|--------------|----------|-------|---------|---------|--------|
| Unknown                            |              |          |       |         |         |        |
| Alloaromadendrene oxide-(1)        | 1000156-12-8 | NIST05.L | 71377 | 45      | C15H24O | 220    |
| trans-Z-.alpha.-Bisabolene epoxide | 1000131-71-1 | NIST05.L | 71388 | 25      | C15H24O | 220    |
| cis-Z-.alpha.-Bisabolene epoxide   | 1000131-71-2 | NIST05.L | 71387 | 25      | C15H24O | 220    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: HSD4.i

Sample Info: 12473580011956285111SVMI11LANL

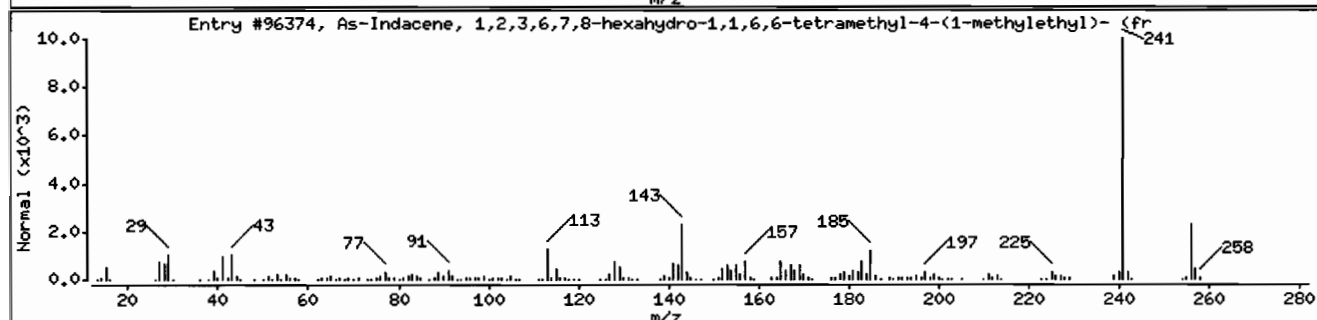
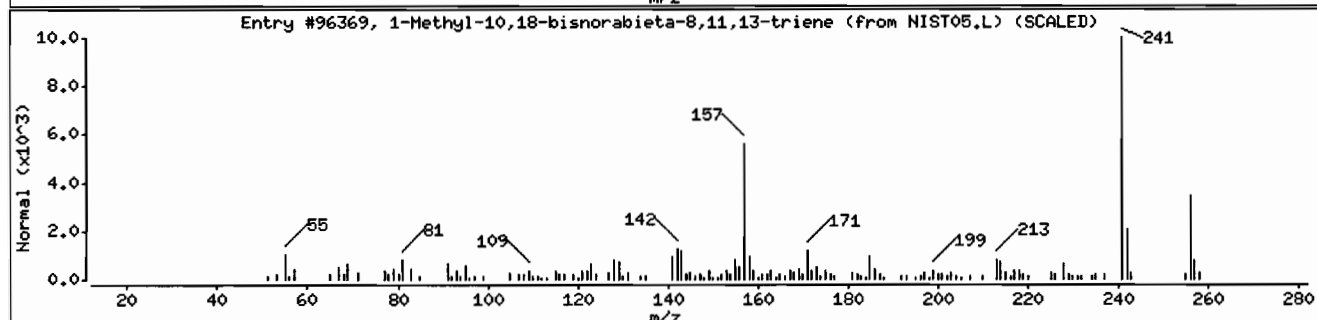
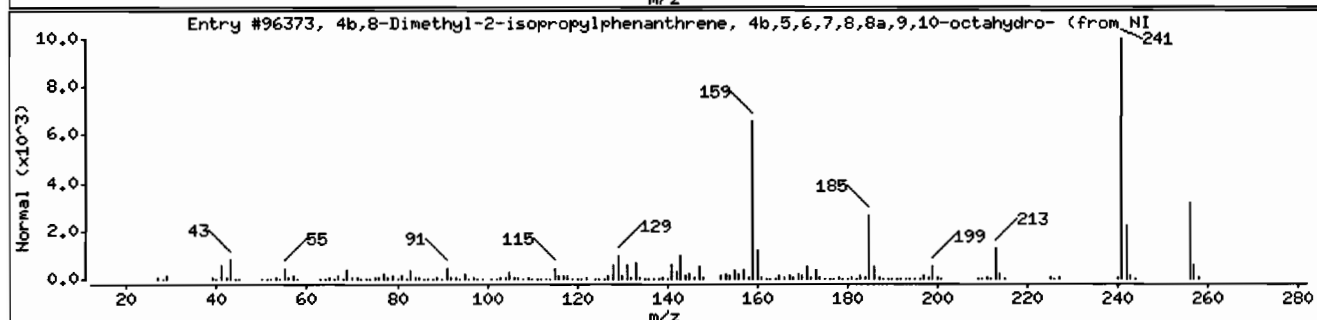
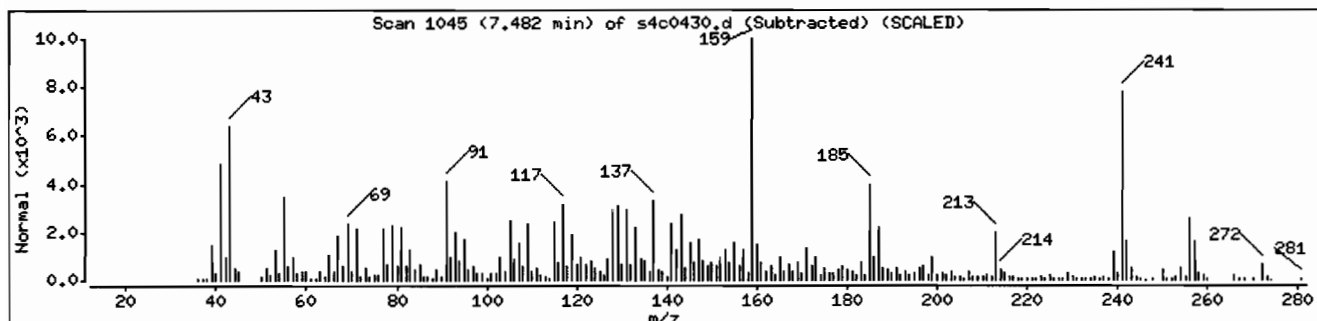
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match              | CAS Number   | Library  | Entry | Quality | Formula | Weight |
|--|--------------|----------|-------|---------|---------|--------|
| 4b,8-Dimethyl-2-isopropylphenanthrene, 4   | 1000197-14-1 | NIST05.L | 96373 | 89      | C19H28  | 256    |
| 1-Methyl-10,18-bisnorabieta-8,11,13-triene | 1000293-16-9 | NIST05.L | 96369 | 38      | C19H28  | 256    |
| As-Indacene, 1,2,3,6,7,8-hexahydro-1,1,6   | 17465-47-3   | NIST05.L | 96374 | 38      | C19H28  | 256    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001|95628511|SVH11|LANL

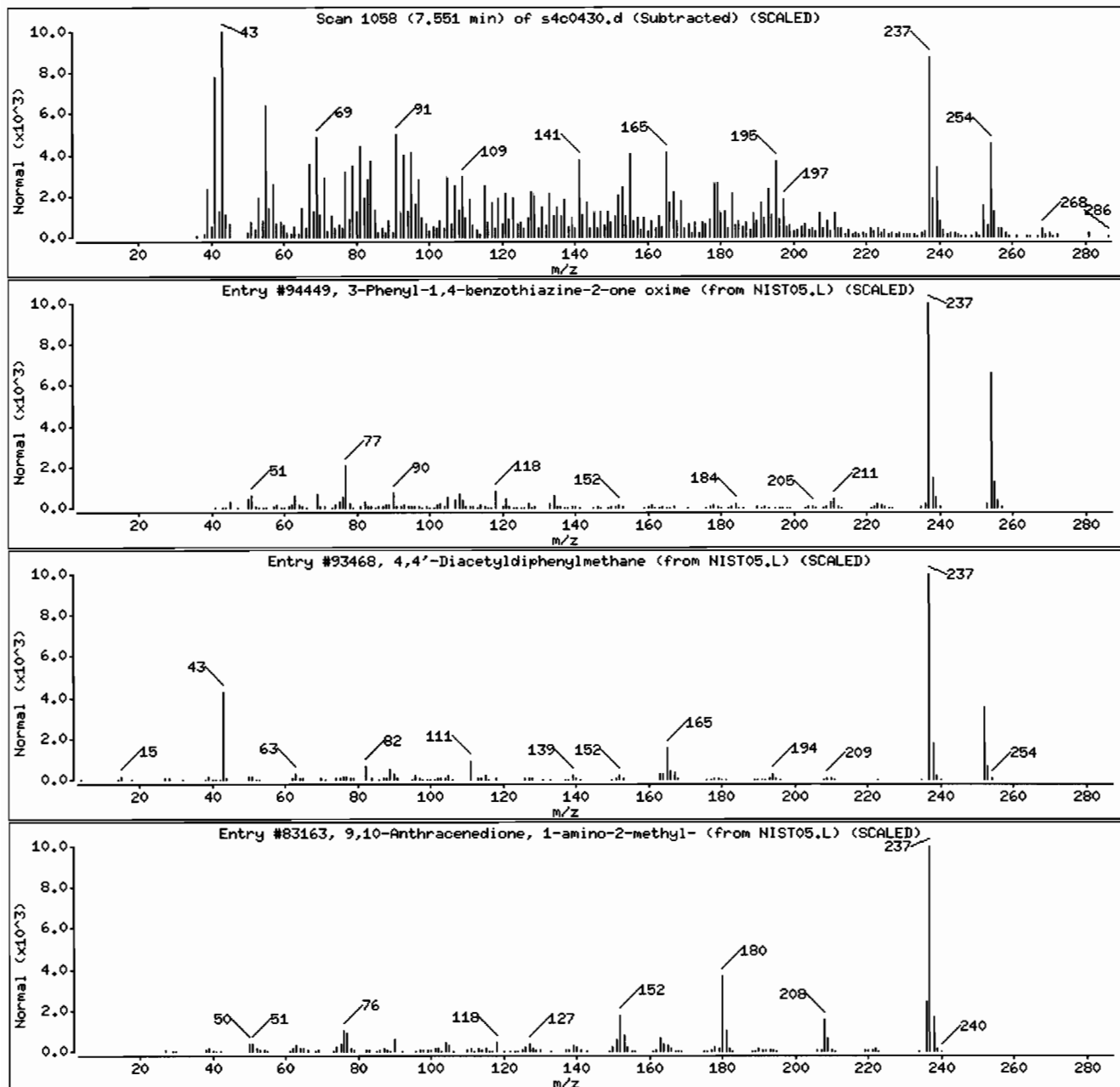
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match           | CAS Number | Library  | Entry | Quality | Formula    | Weight |
|---|------------|----------|-------|---------|------------|--------|
| Unknown                                 |            |          |       |         |            |        |
| 3-Phenyl-1,4-benzothiazine-2-one oxime  | 95981-03-6 | NIST05.L | 94449 | 38      | C14H10N2OS | 254    |
| 4,4'-Diacetyldiphenylmethane            | 790-82-9   | NIST05.L | 93468 | 35      | C17H16O2   | 252    |
| 9,10-Anthracenedione, 1-amino-2-methyl- | 82-28-0    | NIST05.L | 83163 | 35      | C15H11NO2  | 237    |





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Instrument: MSD4.i

Sample Info: I247358001195628511SVH111LANL

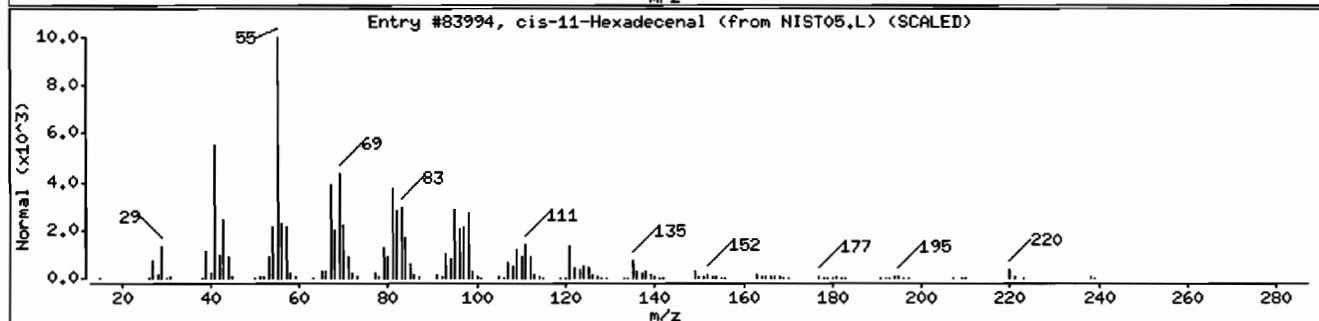
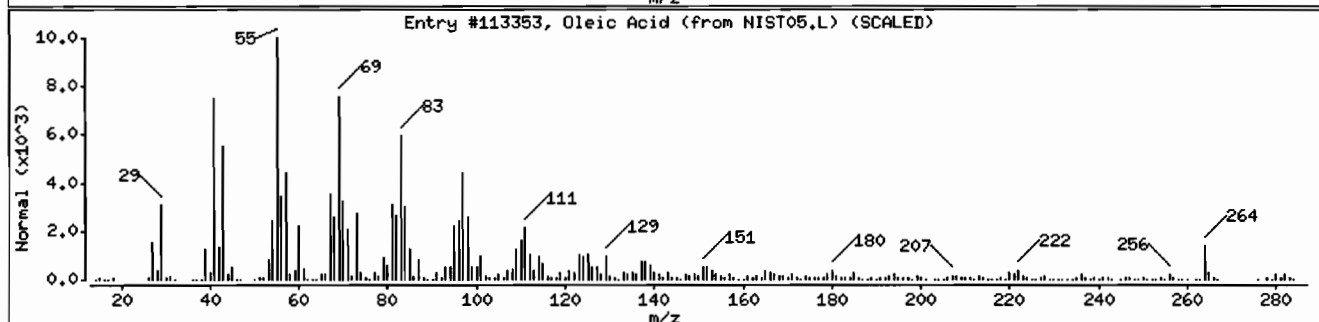
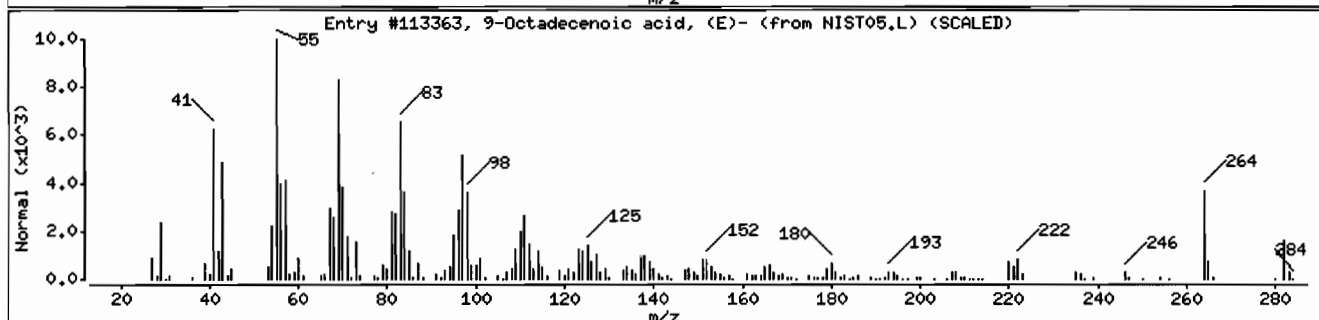
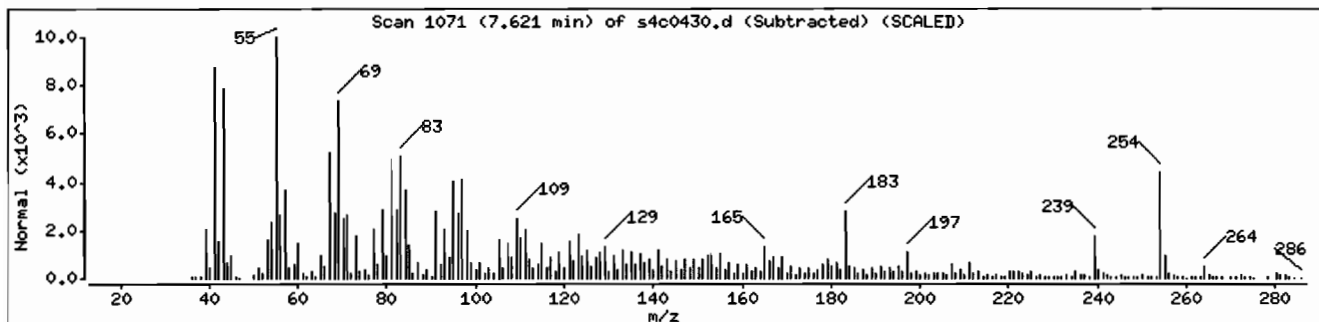
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|-------------------------------|------------|----------|--------|---------|----------|--------|
| 9-Octadecenoic acid, (E)-     | 112-79-8   | NIST05.L | 113363 | 91      | C18H34O2 | 282    |
| Oleic Acid                    | 112-80-1   | NIST05.L | 113353 | 74      | C18H34O2 | 282    |
| cis-11-Hexadecenal            | 53939-28-9 | NIST05.L | 83994  | 72      | C16H30O  | 238    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

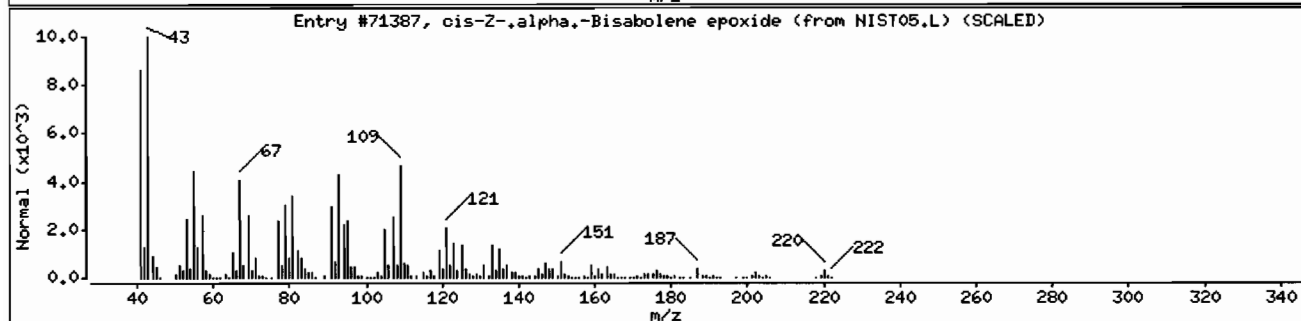
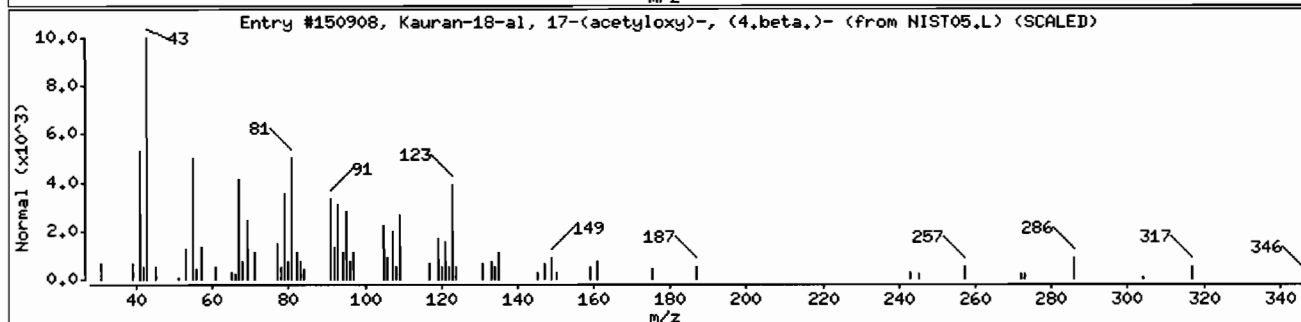
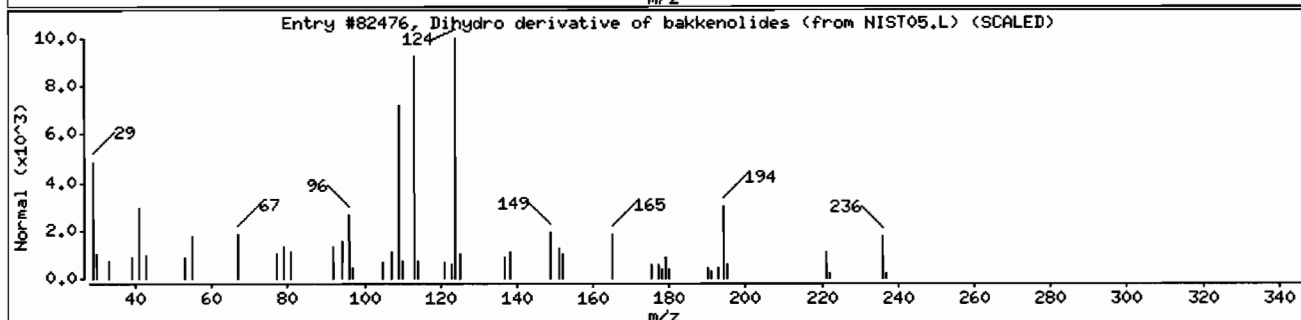
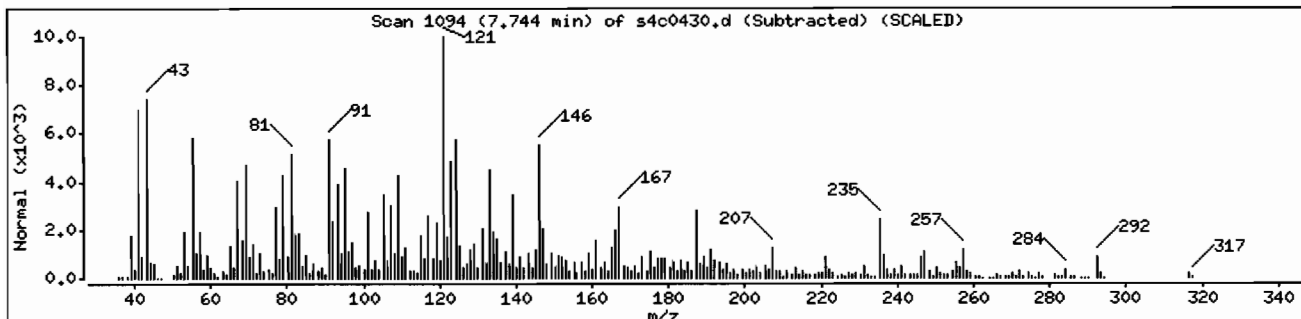
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|---|--------------|----------|--------|---------|----------|--------|
| Unknown                                   |              |          |        |         |          |        |
| Dihydro derivative of bakkenolides        | 1000033-12-0 | NIST05.L | 82476  | 41      | C15H24O2 | 236    |
| Kauran-18-al, 17-(acetyloxy)-, (4,beta,.) | 55902-84-6   | NIST05.L | 150908 | 25      | C22H34O3 | 346    |
| cis-Z-.alpha.-Bisabolene epoxide          | 1000131-71-2 | NIST05.L | 71387  | 25      | C15H24O  | 220    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

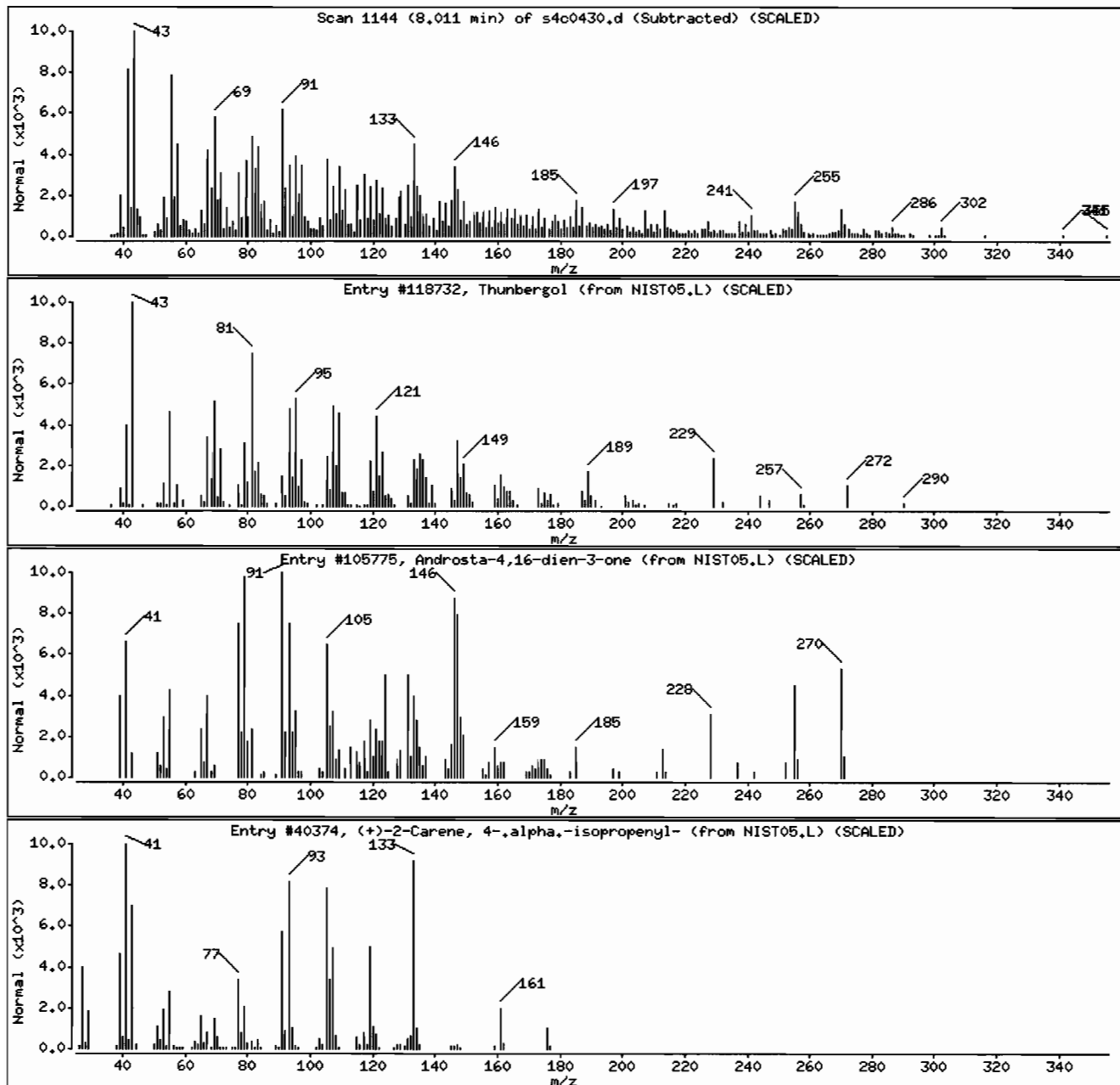
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match        | CAS Number   | Library  | Entry  | Quality | Formula | Weight |
|--------------------------------------|--------------|----------|--------|---------|---------|--------|
| Unknown                              |              |          |        |         |         |        |
| Thunbergol                           | 25269-17-4   | NIST05.L | 118732 | 47      | C20H34O | 290    |
| Androsta-4,16-dien-3-one             | 4075-07-4    | NIST05.L | 105775 | 35      | C19H26O | 270    |
| (+)-2-Carene, 4-.alpha.-isopropenyl- | 1000151-26-0 | NIST05.L | 40374  | 25      | C13H20  | 176    |



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Instrument: MSD4.i

Sample Info: 124735800195628511SVH111LANL

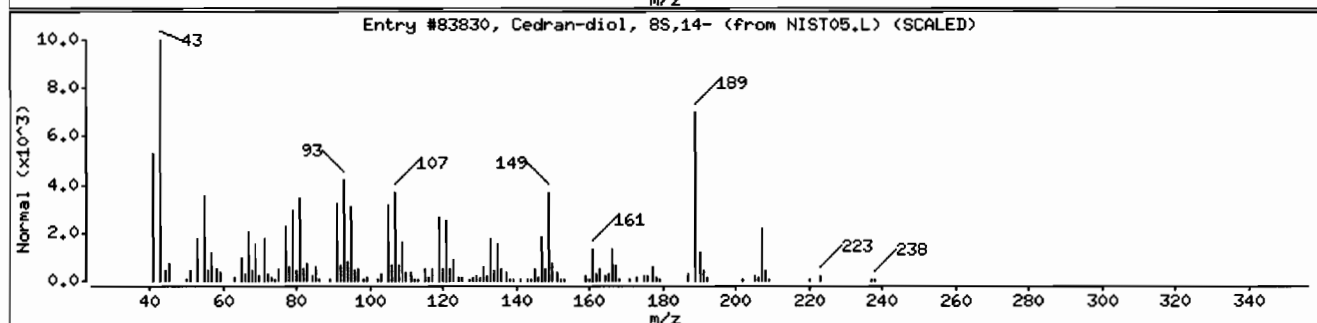
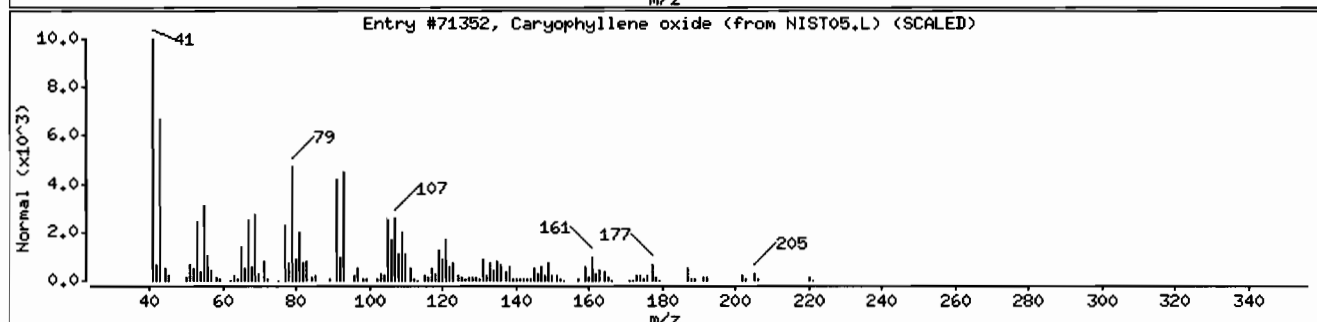
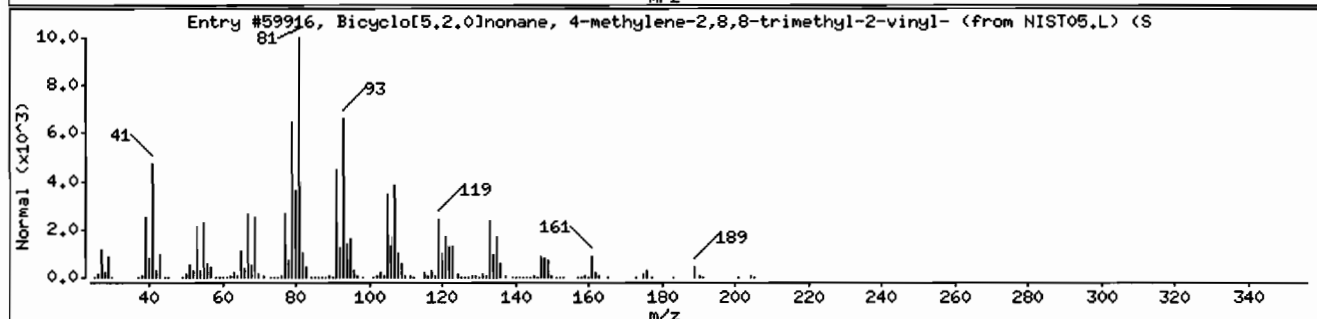
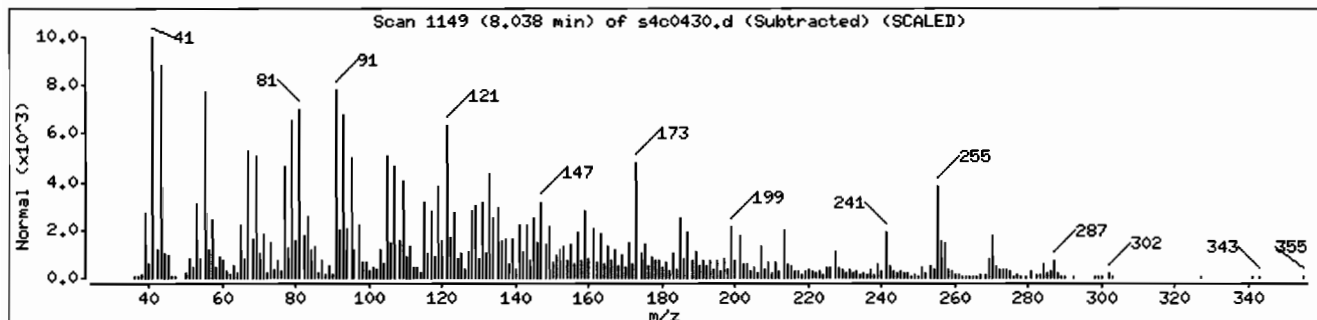
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula  | Weight |
|--|--------------|----------|-------|---------|----------|--------|
| Unknown                                  |              |          |       |         |          |        |
| Bicyclo[5.2.0]nonane, 4-methylene-2,8,8- | 1000159-38-2 | NIST05.L | 59916 | 70      | C15H24   | 204    |
| Caryophyllene oxide                      | 1139-30-6    | NIST05.L | 71352 | 43      | C15H24O  | 220    |
| Cedran-diol, 8S,14-                      | 62600-05-9   | NIST05.L | 83830 | 41      | C15H26O2 | 238    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 124735800195628511SVH111LANL

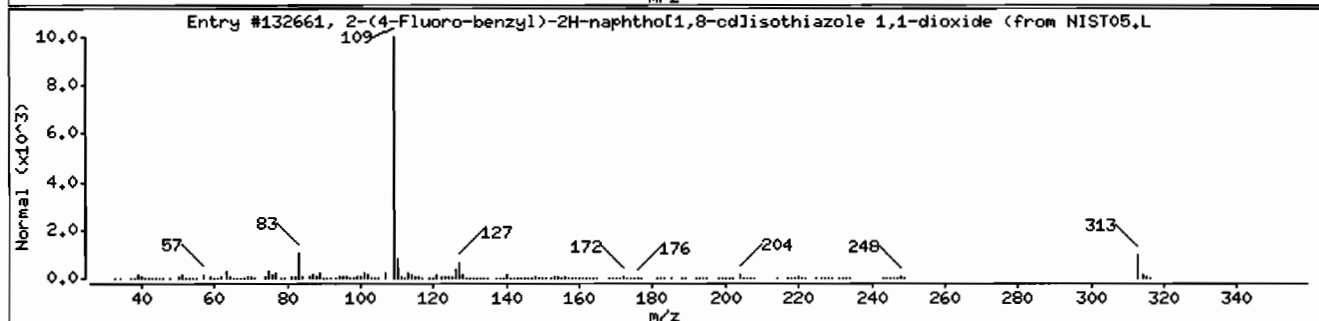
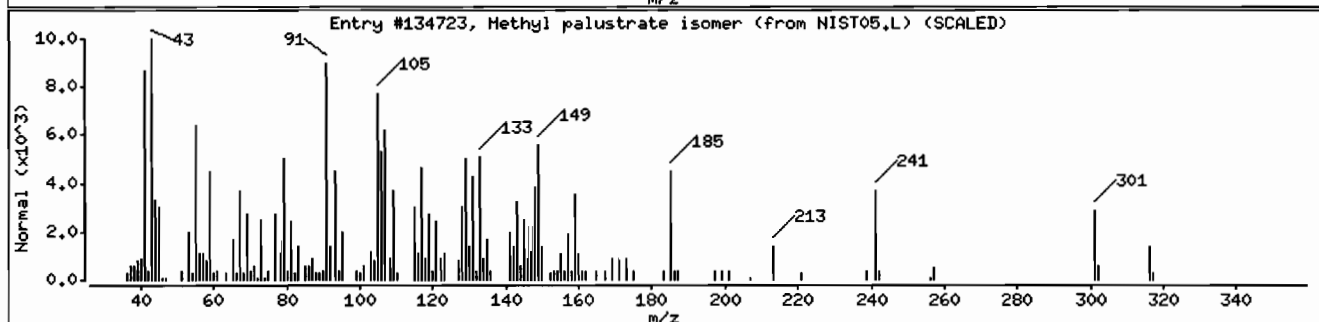
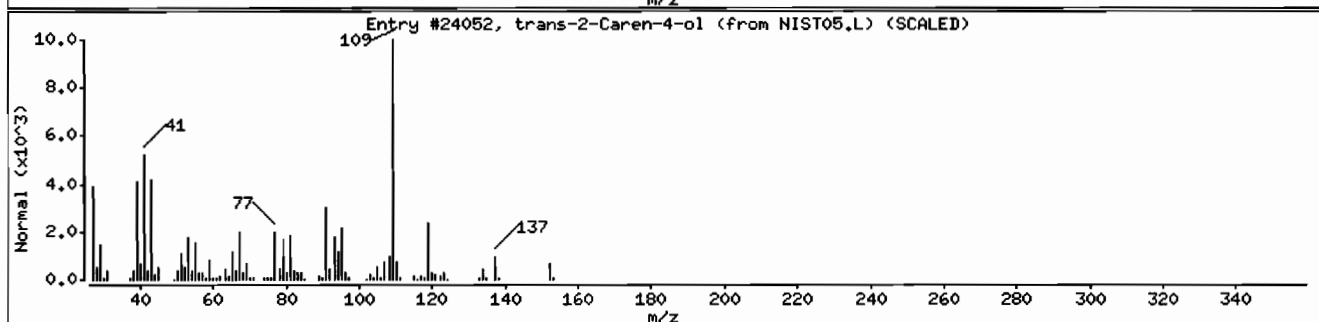
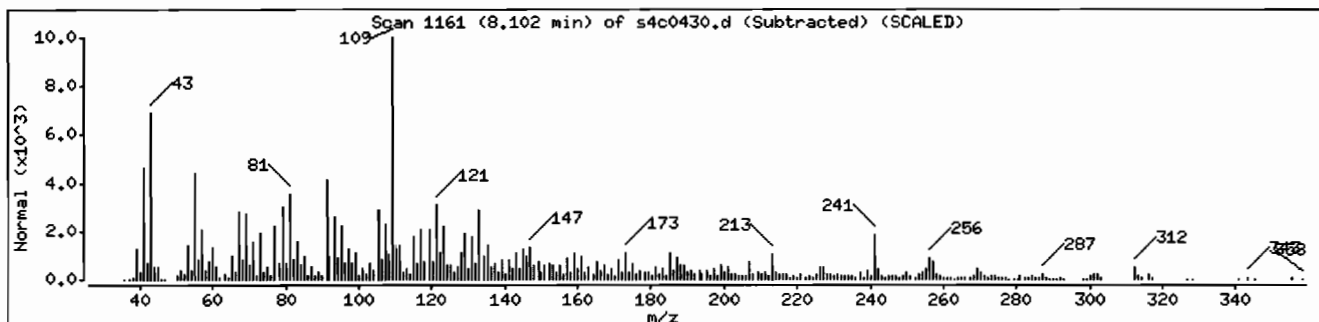
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula     | Weight |
|--|--------------|----------|--------|---------|-------------|--------|
| Unknown                                  |              |          |        |         |             |        |
| trans-2-Caren-4-ol                       | 4017-82-7    | NIST05.L | 24052  | 43      | C10H16O     | 152    |
| Methyl palustrate isomer                 | 3310-94-9    | NIST05.L | 134723 | 38      | C21H32O2    | 316    |
| 2-(4-Fluoro-benzyl)-2H-naphtho[1,8-cd]is | 1000274-76-9 | NIST05.L | 132661 | 30      | C17H12FN02S | 313    |



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Instrument: MSD4.i

Sample Info: I247358001I9562851IISVHI1ILANL

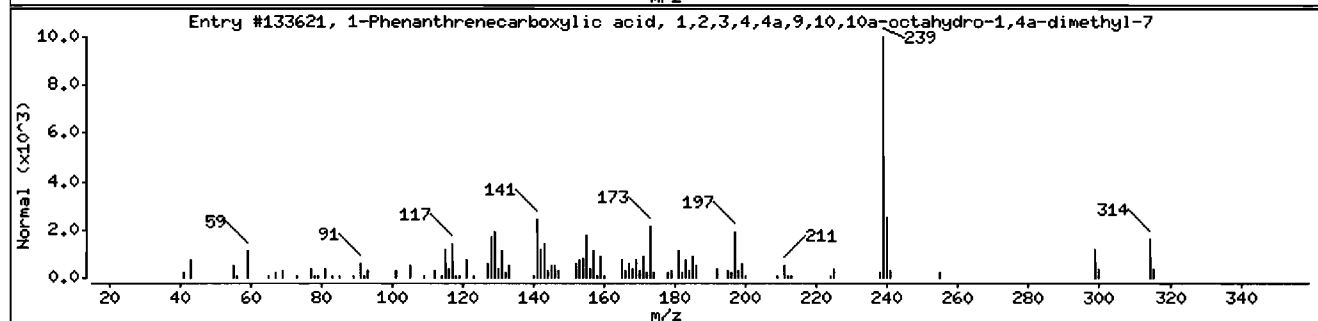
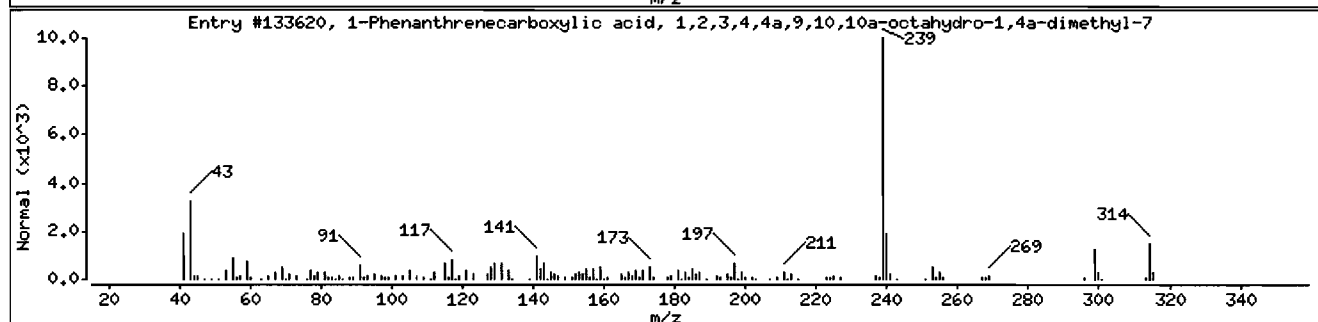
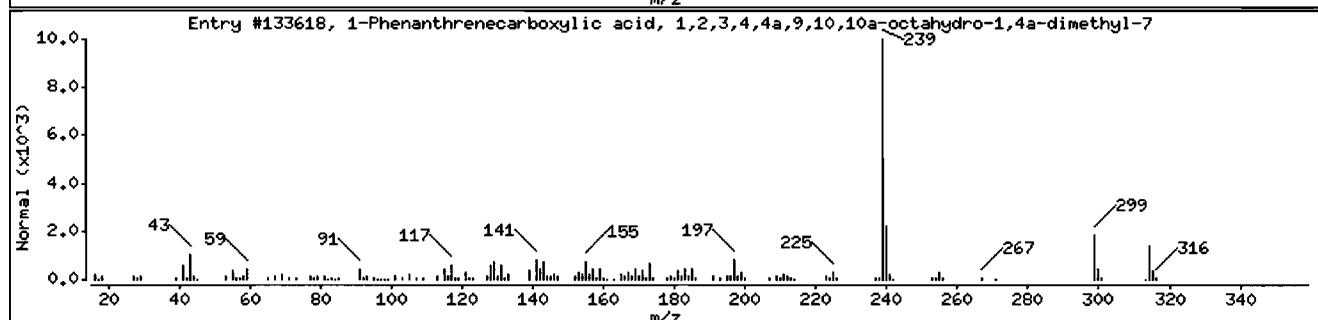
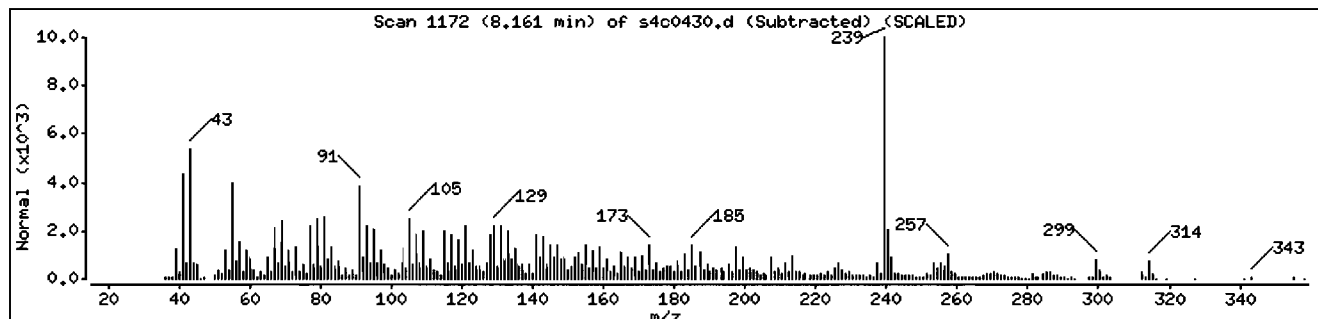
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--|------------|----------|--------|---------|----------|--------|
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1235-74-1  | NIST05.L | 133618 | 95      | C21H30O2 | 314    |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1235-74-1  | NIST05.L | 133620 | 95      | C21H30O2 | 314    |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1235-74-1  | NIST05.L | 133621 | 93      | C21H30O2 | 314    |



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Instrument: MSD4.i

Sample Info: I247358001I9562851IISVHI1ILANL

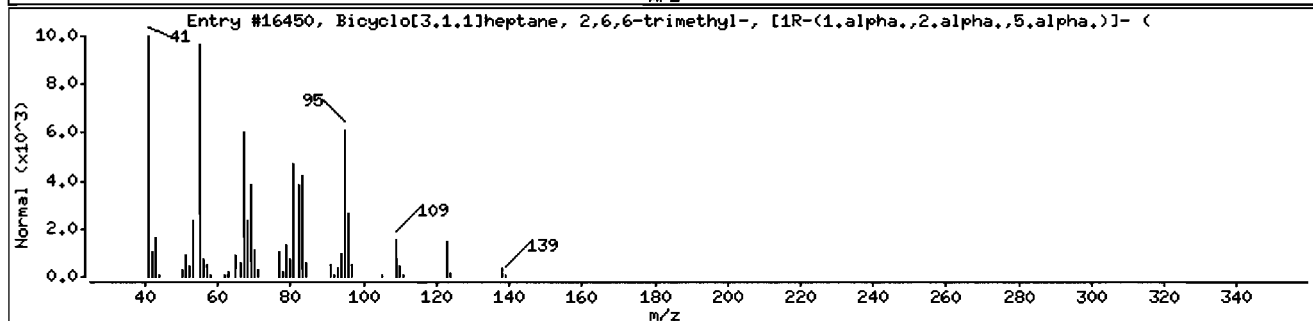
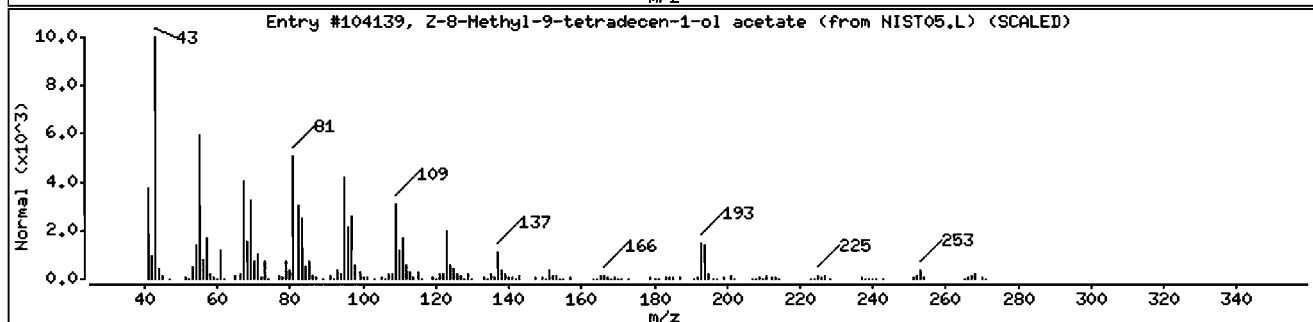
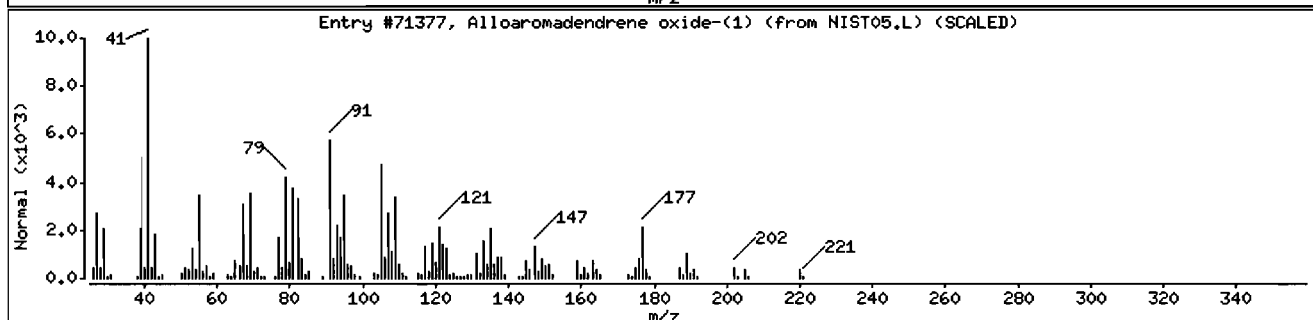
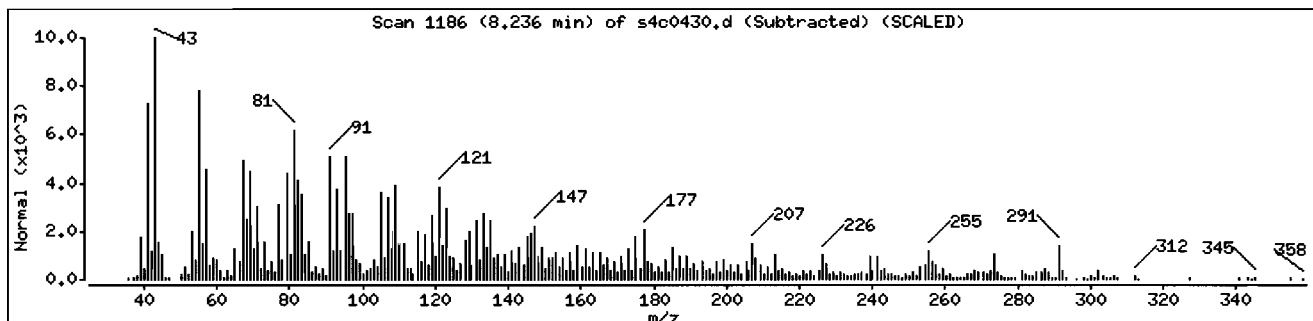
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| Alloaromadendrene oxide-(1)              | 1000156-12-8 | NIST05.L | 71377  | 91      | C15H24O  | 220    |
| Z-8-Methyl-9-tetradecen-1-ol acetate     | 1000130-82-4 | NIST05.L | 104139 | 70      | C17H32O2 | 268    |
| Bicyclo[3.1.1]heptane, 2,6,6-trimethyl-, | 4863-59-6    | NIST05.L | 16450  | 59      | C10H18   | 138    |



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Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

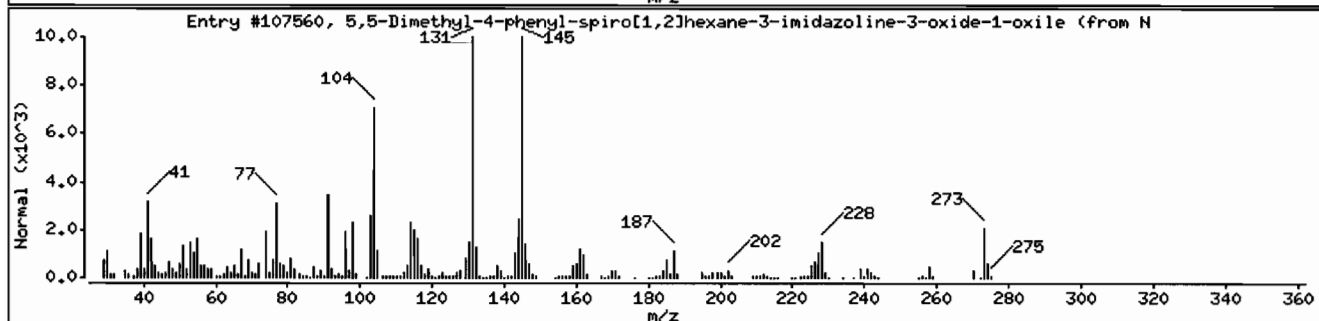
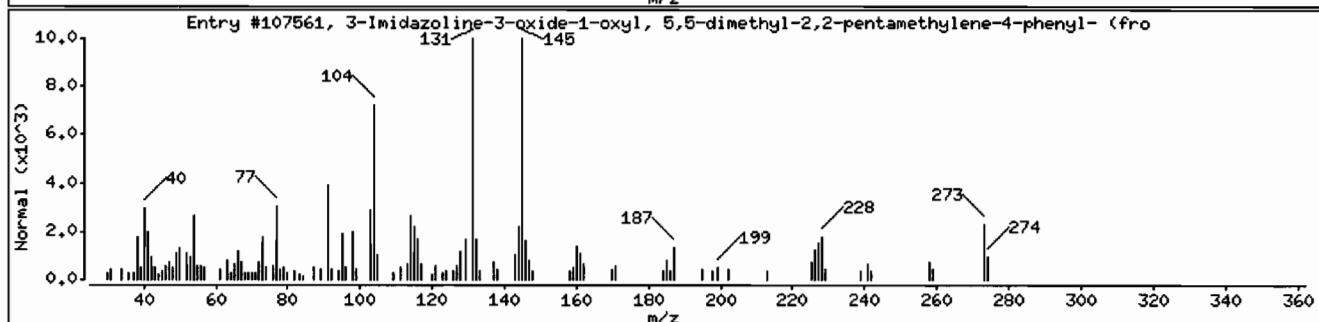
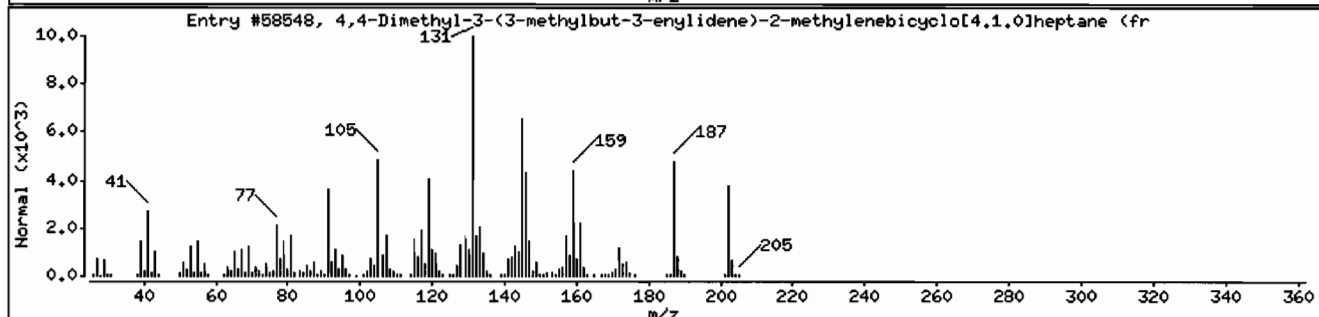
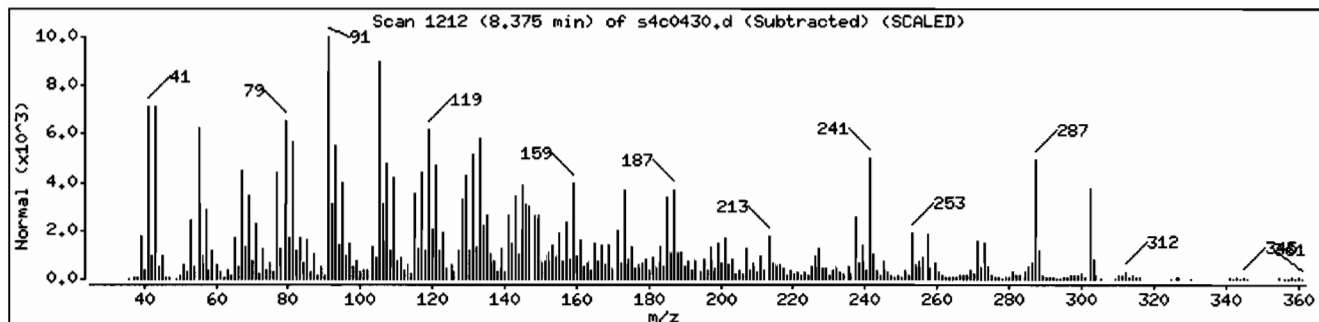
Volume Injected (uL): 0,5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula    | Weight |
|--|--------------|----------|--------|---------|------------|--------|
| Unknown                                  |              |          |        |         |            |        |
| 4,4-Dimethyl-3-(3-methylbut-3-enylidene) | 79718-83-5   | NIST05.L | 58548  | 22      | C15H22     | 202    |
| 3-Imidazoline-3-oxide-1-oxyl, 5,5-dimeth | 1000298-87-7 | NIST05.L | 107561 | 11      | C16H21N2O2 | 273    |
| 5,5-Dimethyl-4-phenyl-spiro[1,2]hexane-3 | 1000078-24-4 | NIST05.L | 107560 | 11      | C16H21N2O2 | 273    |





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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

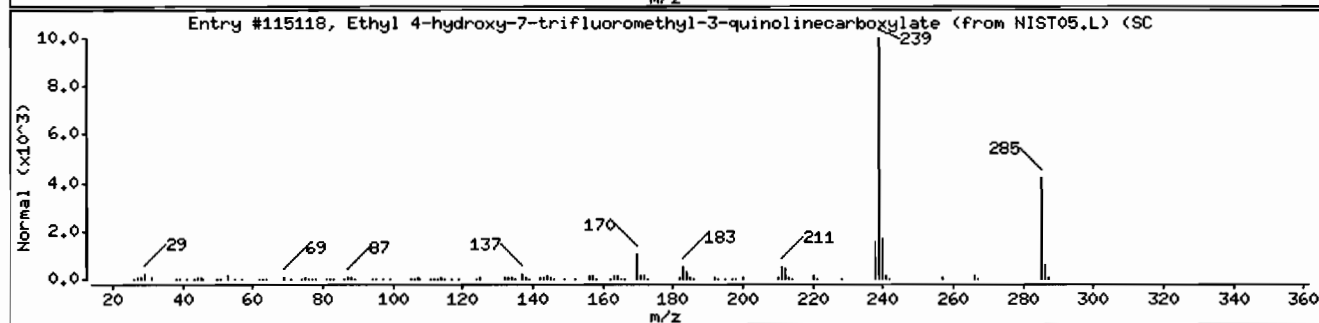
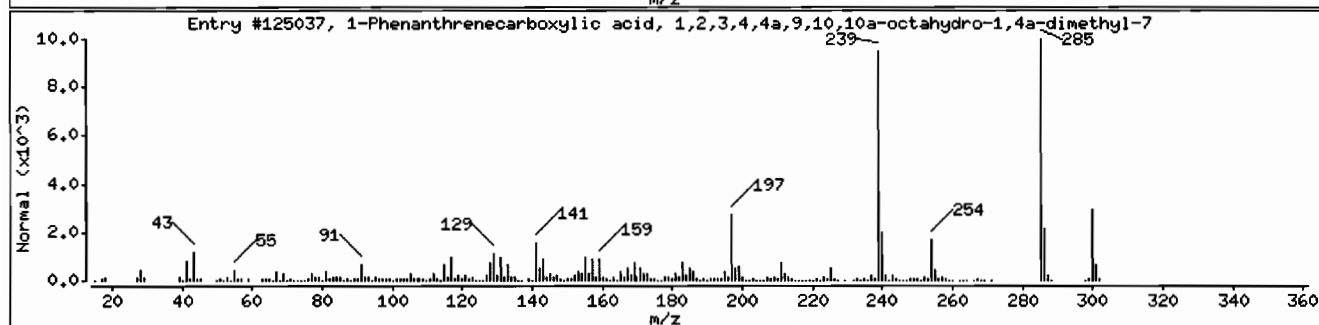
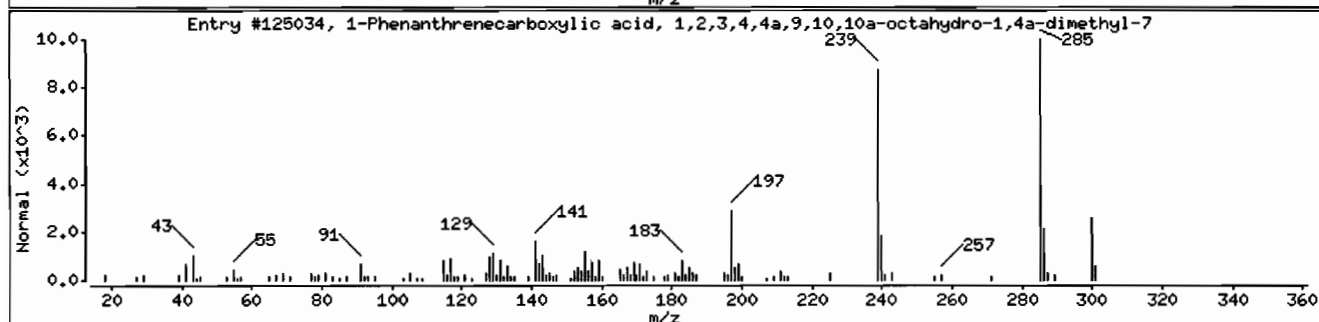
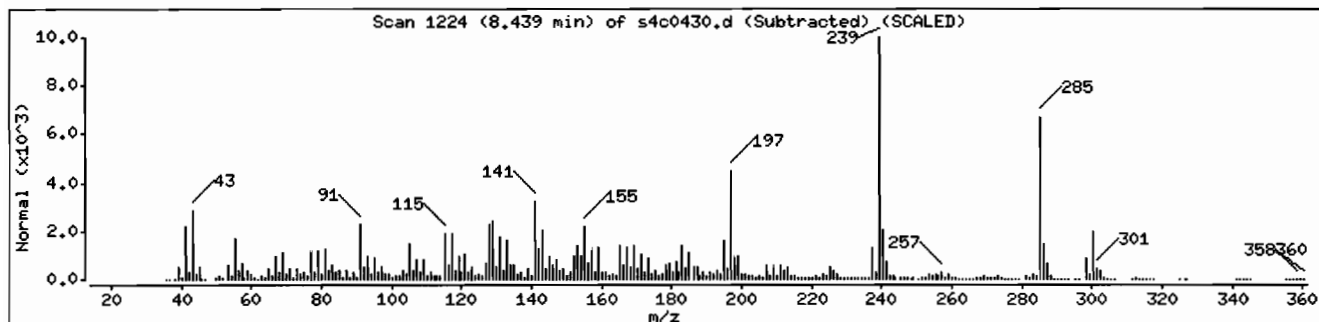
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula     | Weight |
|--|------------|----------|--------|---------|-------------|--------|
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1740-19-8  | NIST05.L | 125034 | 93      | C20H28O2    | 300    |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1740-19-8  | NIST05.L | 125037 | 91      | C20H28O2    | 300    |
| Ethyl 4-hydroxy-7-trifluoromethyl-3-quin | 391-02-6   | NIST05.L | 115118 | 50      | C13H10F3NO3 | 285    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511ISVH11ILANL

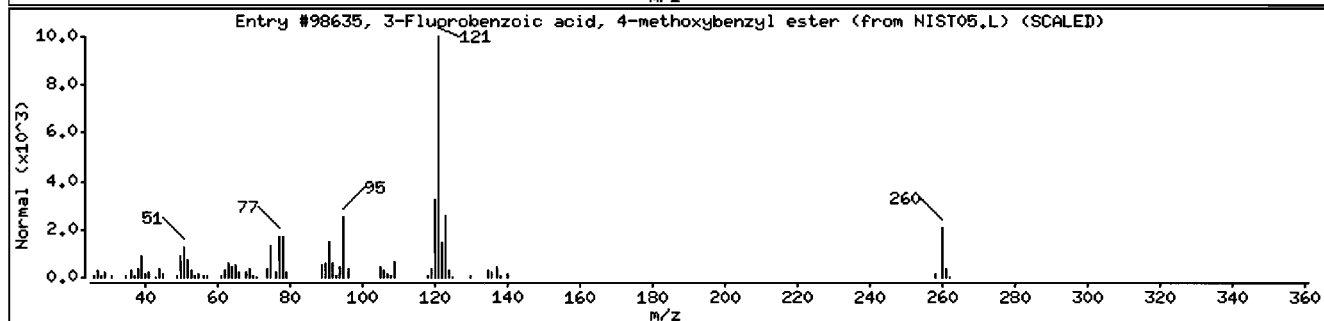
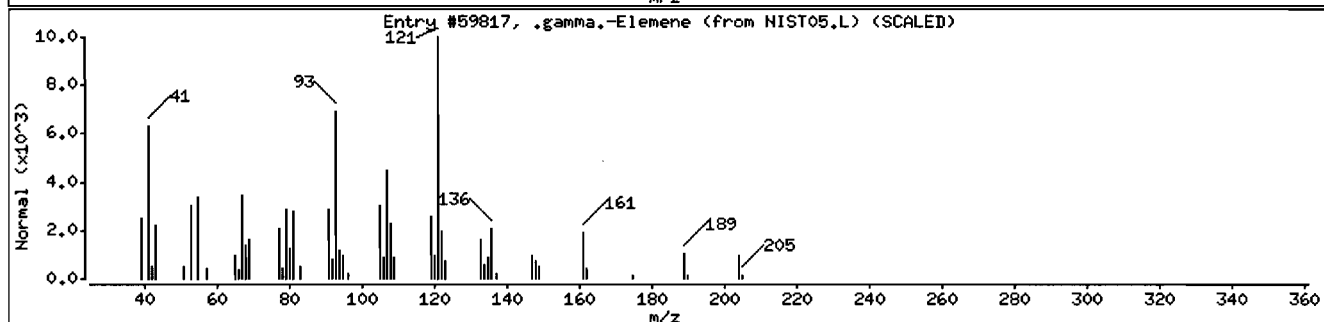
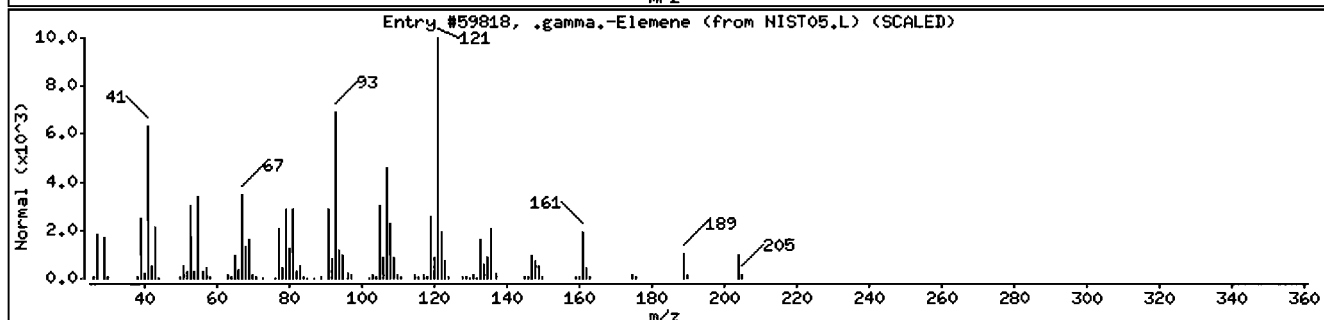
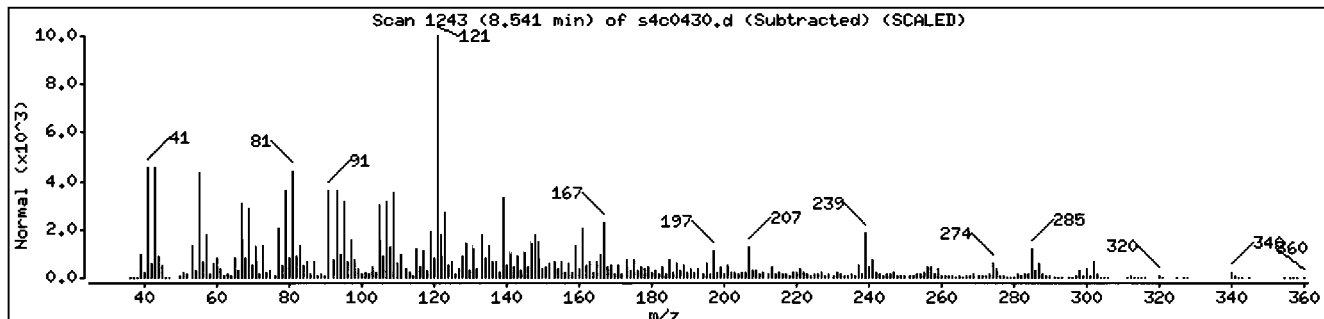
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula   | Weight |
|--|--------------|----------|-------|---------|-----------|--------|
| Unknown                                  |              |          |       |         |           |        |
| .gamma.-Elemene                          | 30824-67-0   | NIST05.L | 59818 | 64      | C15H24    | 204    |
| .gamma.-Elemene                          | 30824-67-0   | NIST05.L | 59817 | 64      | C15H24    | 204    |
| 3-Fluorobenzoic acid, 4-methoxybenzyl es | 1000279-93-0 | NIST05.L | 98635 | 43      | C15H13F03 | 260    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001195628511ISVM11ILANL

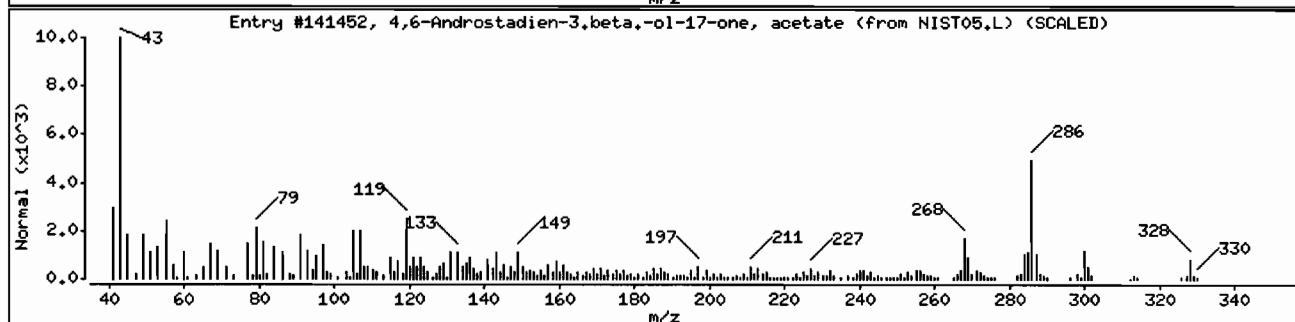
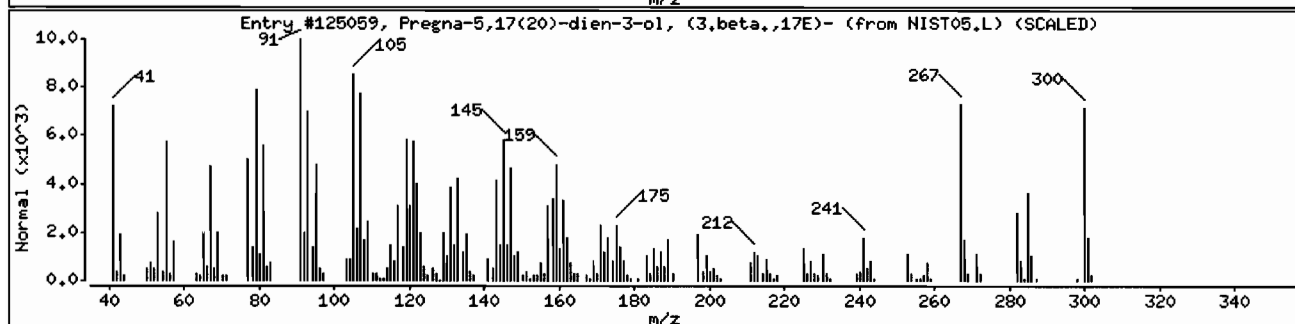
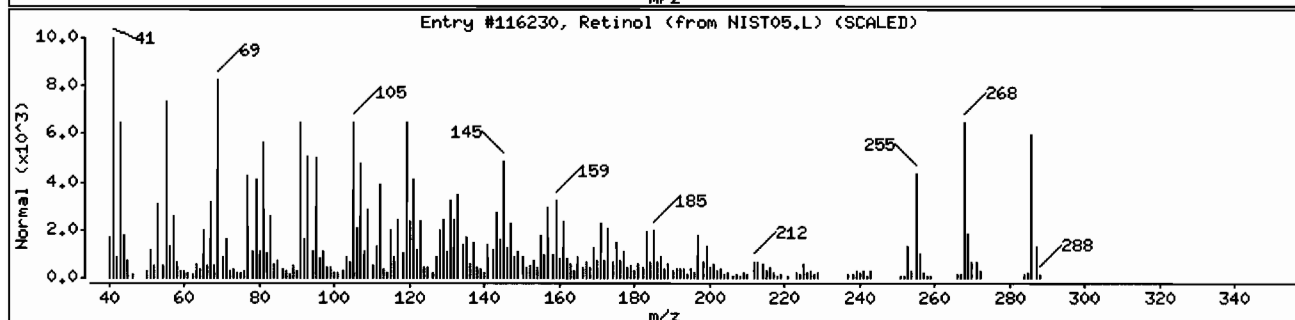
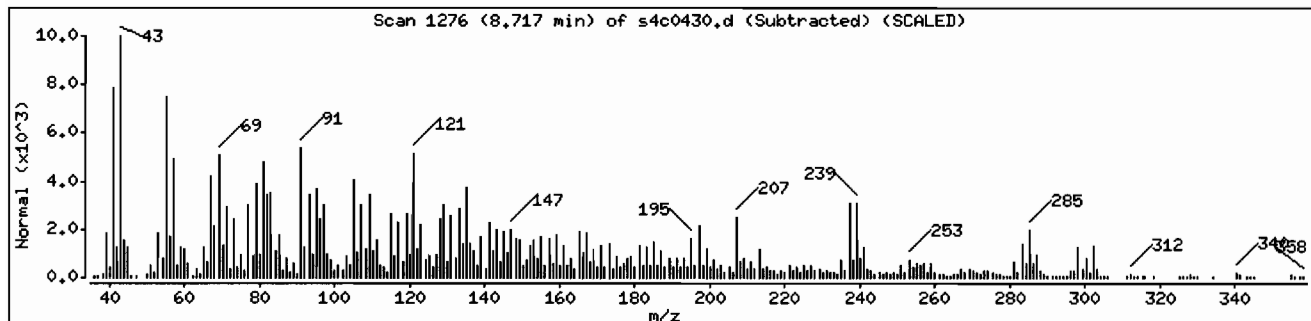
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--|------------|----------|--------|---------|----------|--------|
| Unknown                                  |            |          |        |         |          |        |
| Retinol                                  | 68-26-8    | NIST05.L | 116230 | 11      | C20H30O  | 286    |
| Pregna-5,17(20)-dien-3-ol, (3.beta.,17E) | 1159-25-7  | NIST05.L | 125059 | 9       | C21H32O  | 300    |
| 4,6-Androstadien-3.beta.-ol-17-one, acet | 25485-36-3 | NIST05.L | 141452 | 9       | C21H28O3 | 328    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511SVMI11LANL

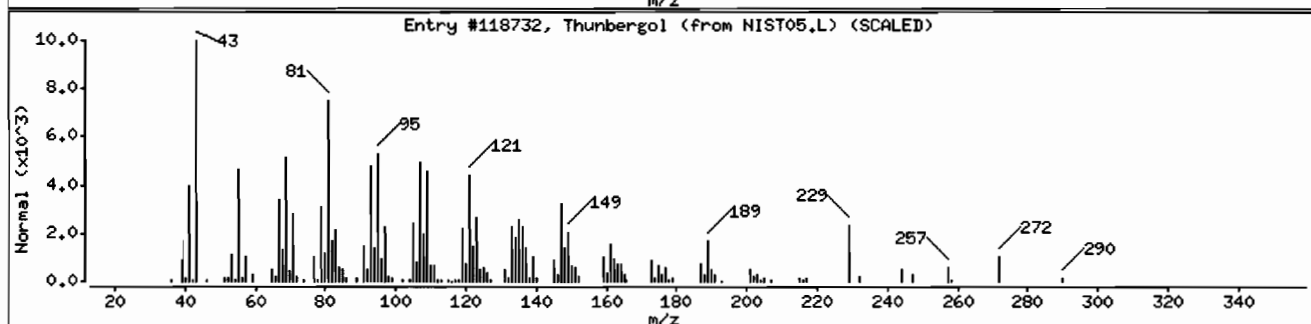
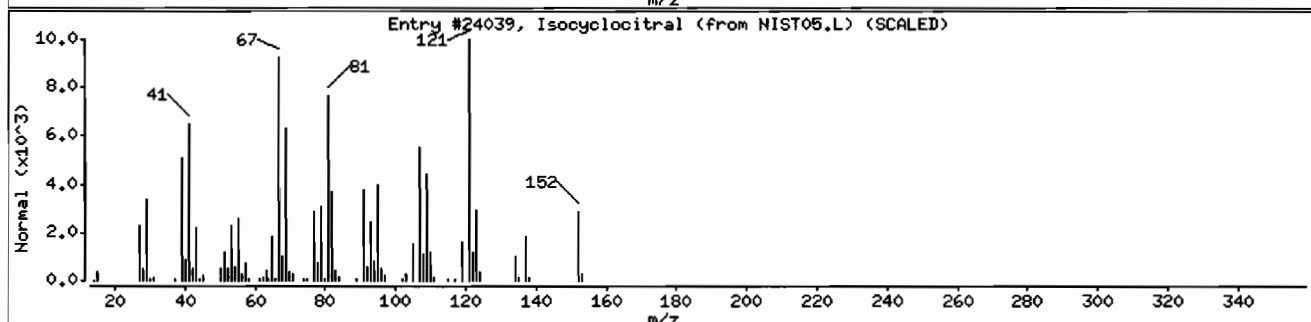
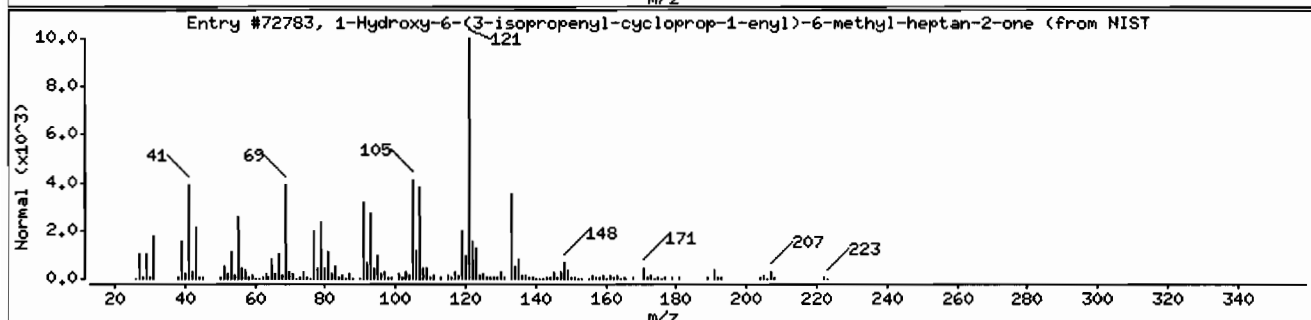
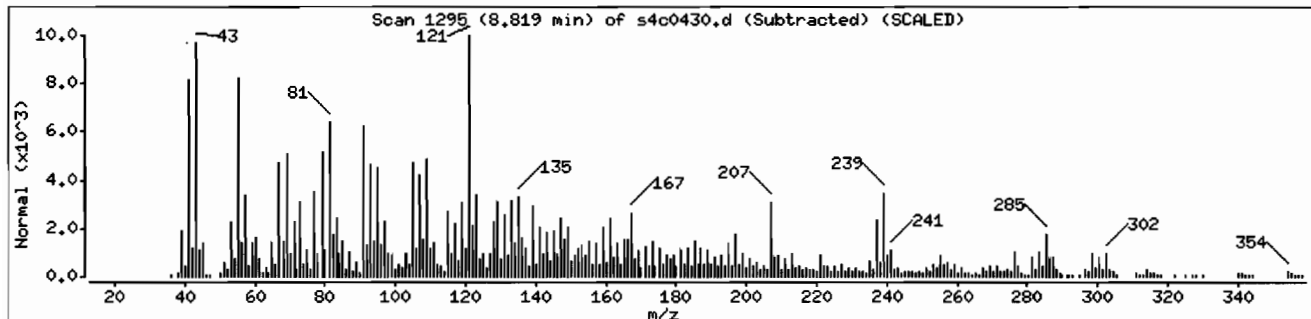
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| 1-Hydroxy-6-(3-isopropenyl-cycloprop-1-e | 1000189-14-9 | NIST05.L | 72783  | 86      | C14H22O2 | 222    |
| Isocyclocitral                           | 1335-66-6    | NIST05.L | 24039  | 60      | C10H16O  | 152    |
| Thunbergol                               | 25269-17-4   | NIST05.L | 118732 | 55      | C20H34O  | 290    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001|956285|1|SVH|1|LANL

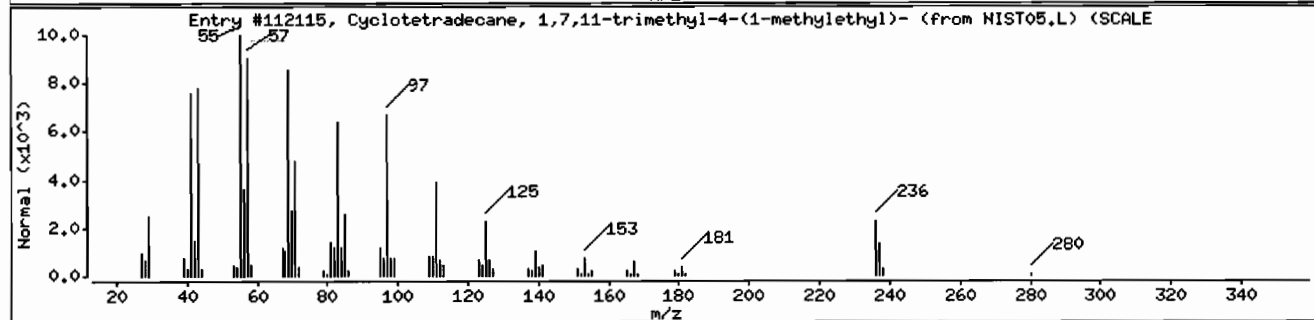
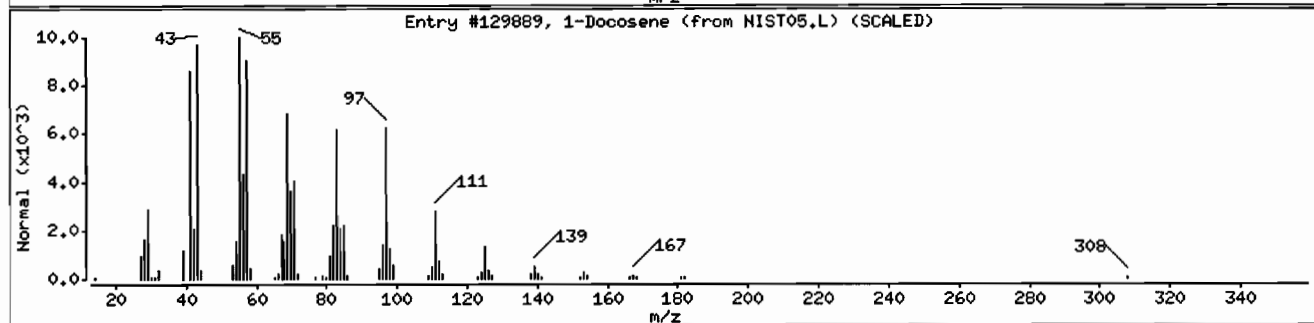
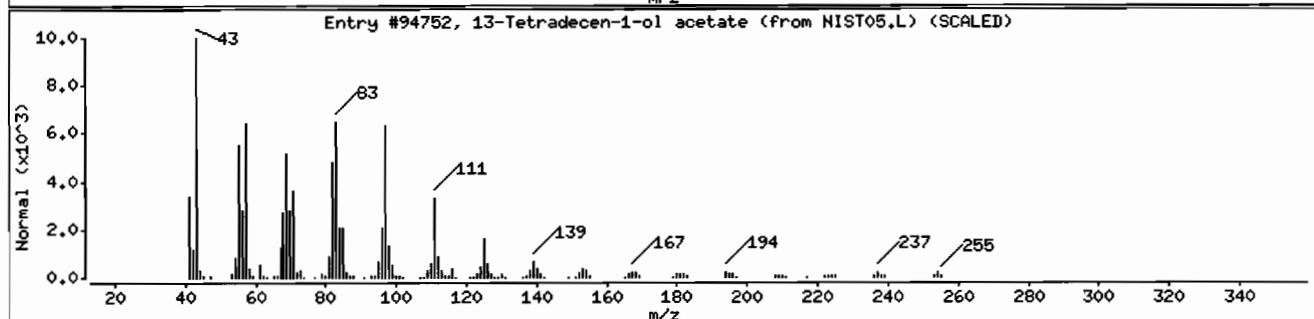
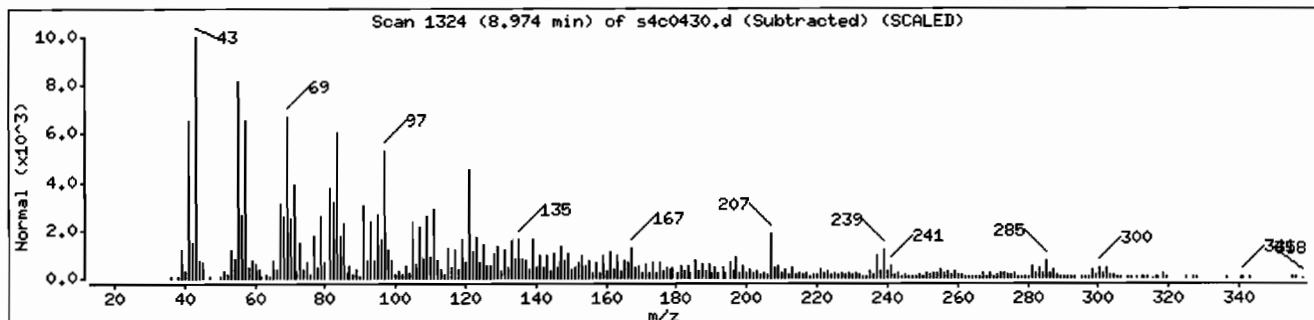
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--|------------|----------|--------|---------|----------|--------|
| 13-Tetradecen-1-ol acetate               | 56221-91-1 | NIST05.L | 94752  | 96      | C16H30O2 | 254    |
| 1-Docosene                               | 1599-67-3  | NIST05.L | 129889 | 93      | C22H44   | 308    |
| Cyclotetradecane, 1,7,11-trimethyl-4-(1- | 1786-12-5  | NIST05.L | 112115 | 92      | C20H40   | 280    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I2473580011956285111SVH111LANL

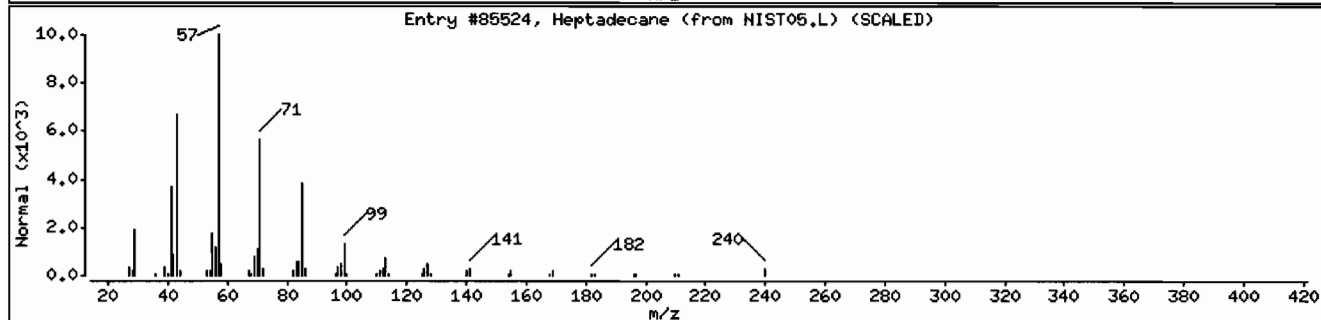
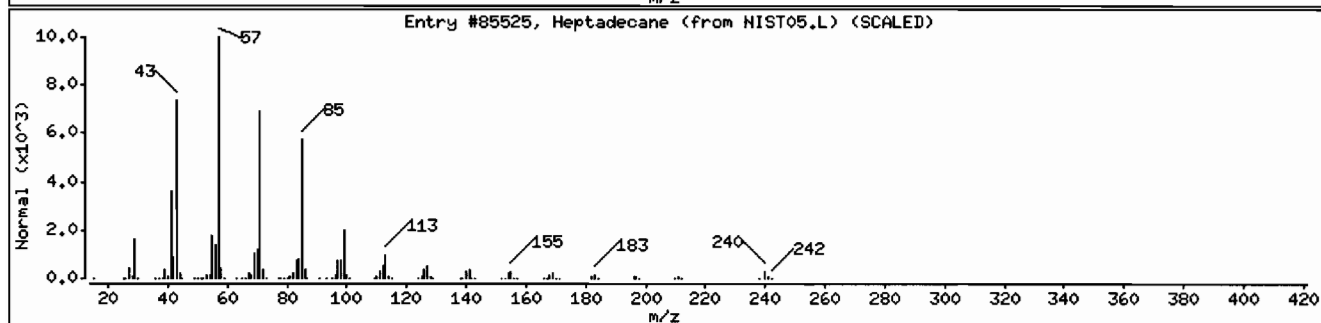
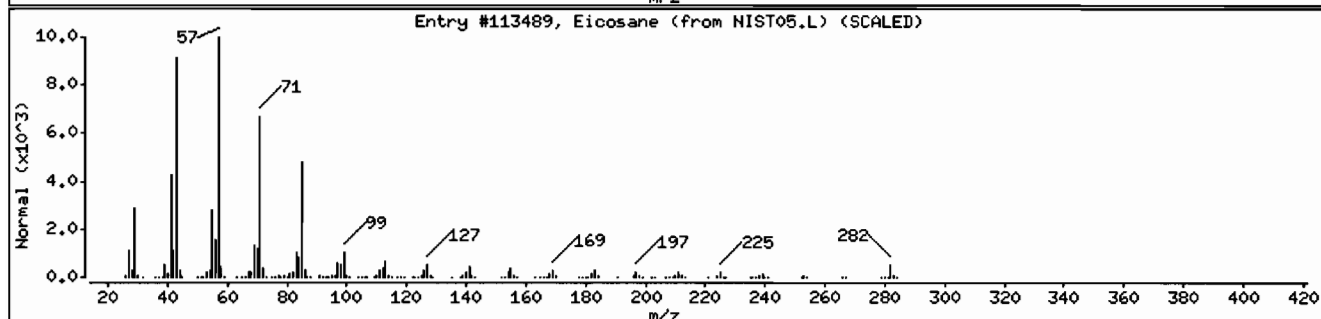
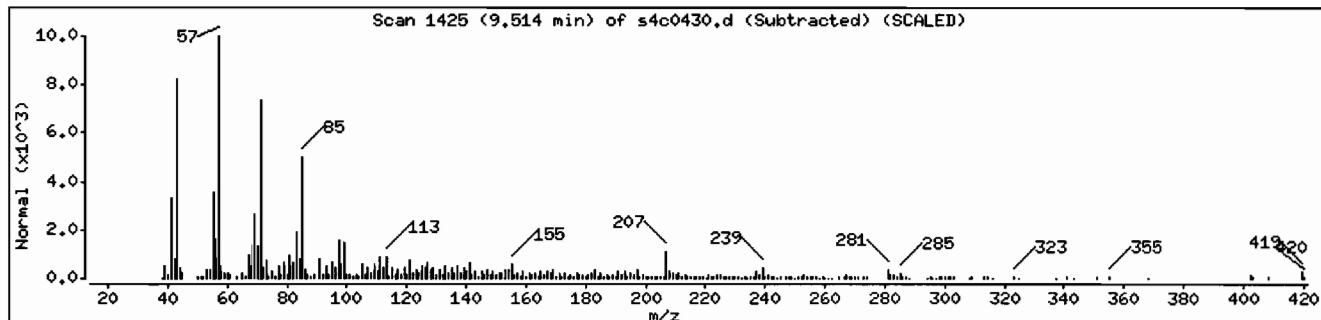
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula | Weight |
|-------------------------------|------------|----------|--------|---------|---------|--------|
| Eicosane                      | 112-95-8   | NIST05.L | 113489 | 96      | C20H42  | 282    |
| Heptadecane                   | 629-78-7   | NIST05.L | 85525  | 95      | C17H36  | 240    |
| Heptadecane                   | 629-78-7   | NIST05.L | 85524  | 95      | C17H36  | 240    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511ISVM11ILANL

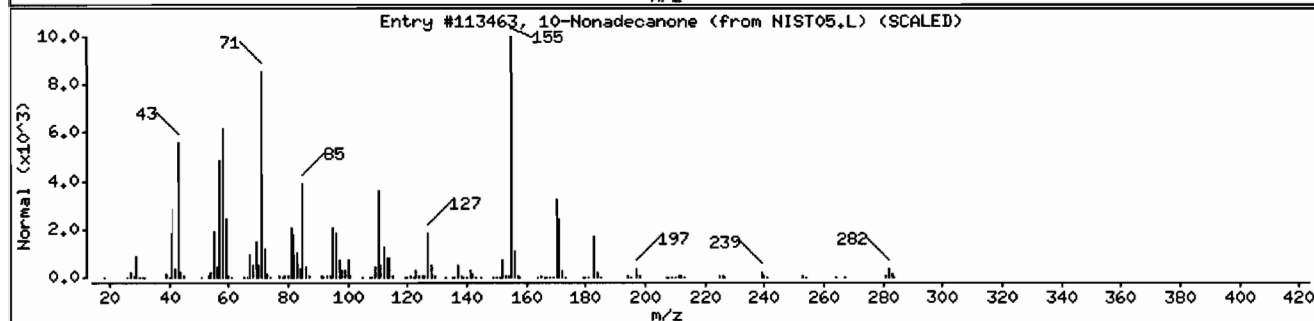
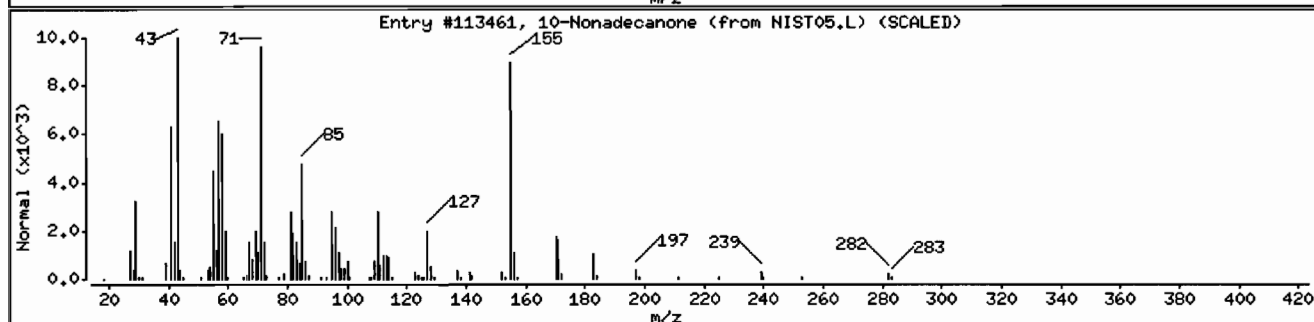
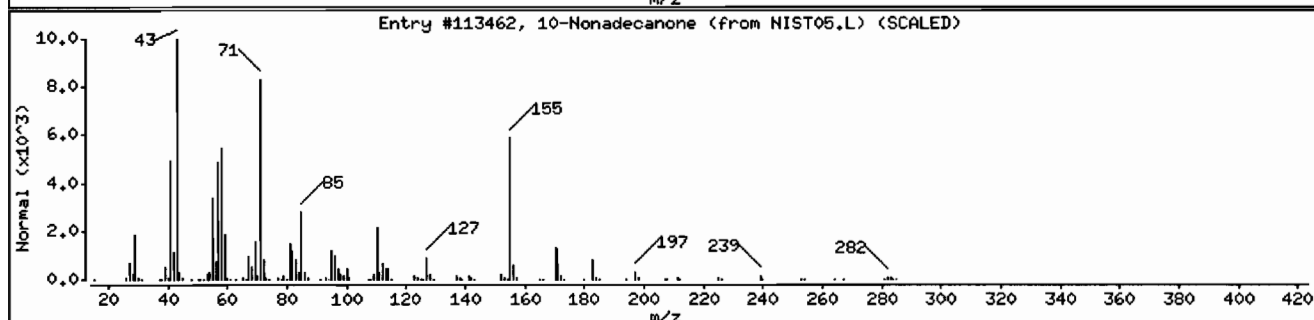
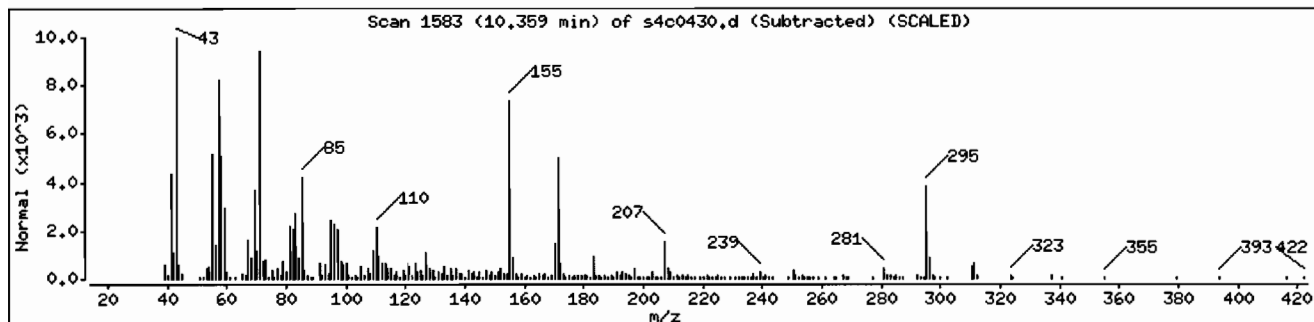
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula | Weight |
|-------------------------------|------------|----------|--------|---------|---------|--------|
| 10-Nonadecanone               | 504-57-4   | NIST05.L | 113462 | 96      | C19H38O | 282    |
| 10-Nonadecanone               | 504-57-4   | NIST05.L | 113461 | 46      | C19H38O | 282    |
| 10-Nonadecanone               | 504-57-4   | NIST05.L | 113463 | 41      | C19H38O | 282    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: HSD4.i

Sample Info: 1247358001/95628511SVH111LANL

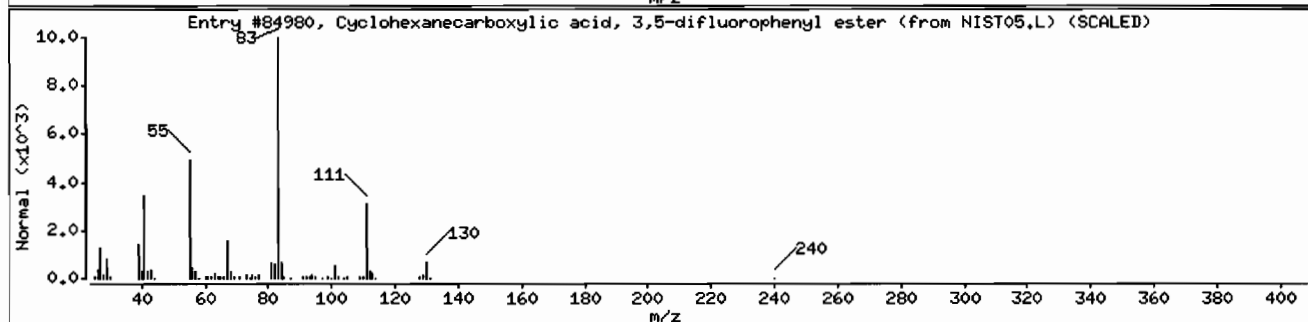
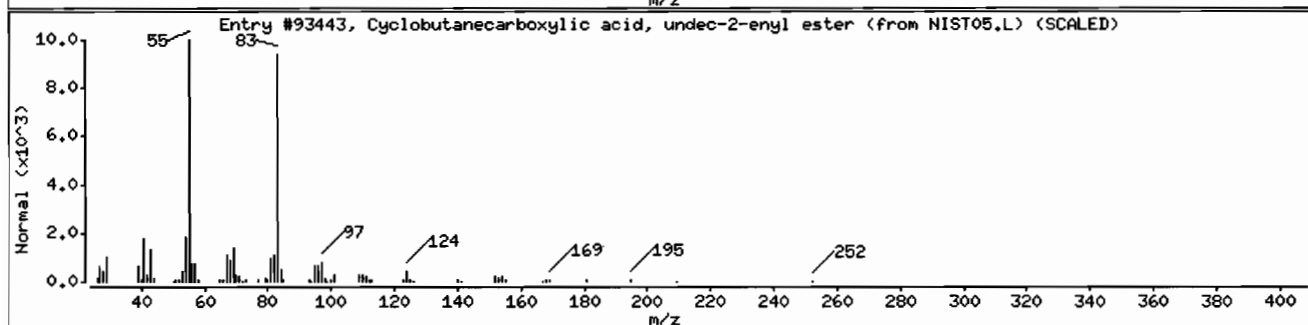
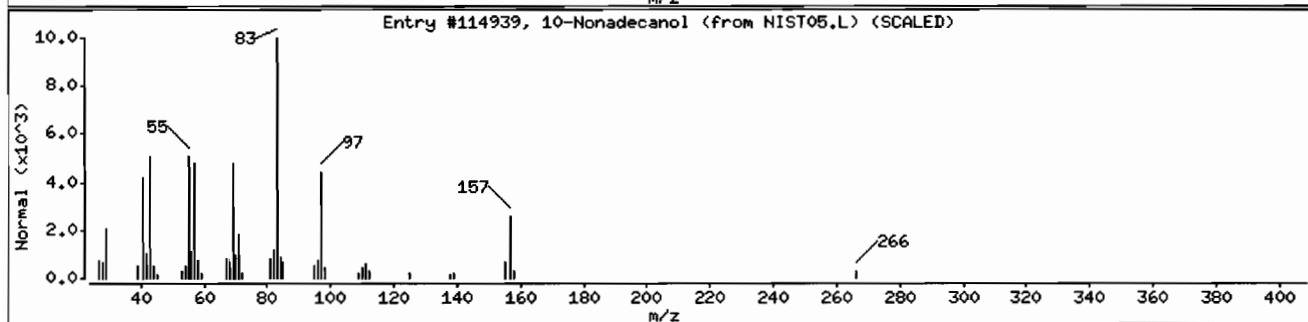
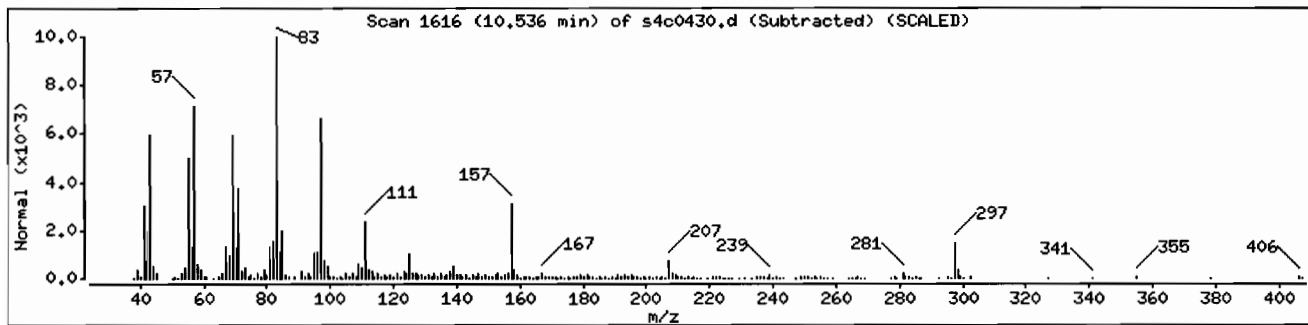
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula    | Weight |
|--|--------------|----------|--------|---------|------------|--------|
| Unknown                                  |              |          |        |         |            |        |
| 10-Nonadecanol                           | 16840-84-9   | NIST05.L | 114939 | 64      | C19H40O    | 284    |
| Cyclobutanecarboxylic acid, undec-2-enyl | 1000299-13-6 | NIST05.L | 93443  | 41      | C16H28O2   | 252    |
| Cyclohexanecarboxylic acid, 3,5-difluoro | 1000293-69-2 | NIST05.L | 84980  | 41      | C13H14F2O2 | 240    |





Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

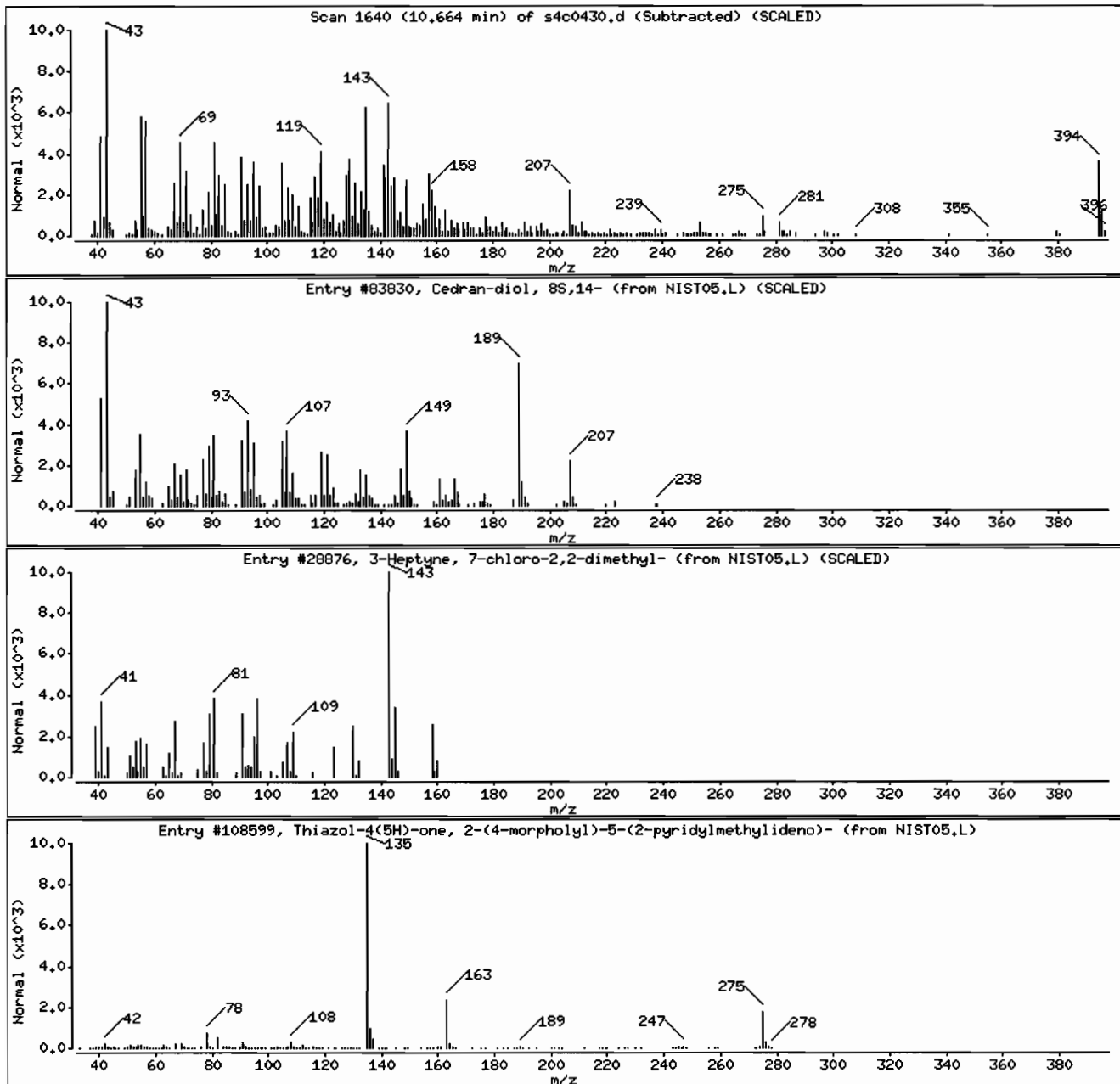
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number  | Library  | Entry  | Quality | Formula     | Weight |
|--|-------------|----------|--------|---------|-------------|--------|
| Unknown                                  |             |          |        |         |             |        |
| Cedran-diol, 8S,14-                      | 62600-05-9  | NIST05.L | 83830  | 15      | C15H26O2    | 238    |
| 3-Heptyne, 7-chloro-2,2-dimethyl-        | 55402-10-3  | NIST05.L | 28876  | 15      | C9H15Cl     | 158    |
| Thiazol-4(5H)-one, 2-(4-morpholyl)-5-(2- | 108539-93-1 | NIST05.L | 108599 | 11      | C13H13N3O2S | 275    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVMI11LANL

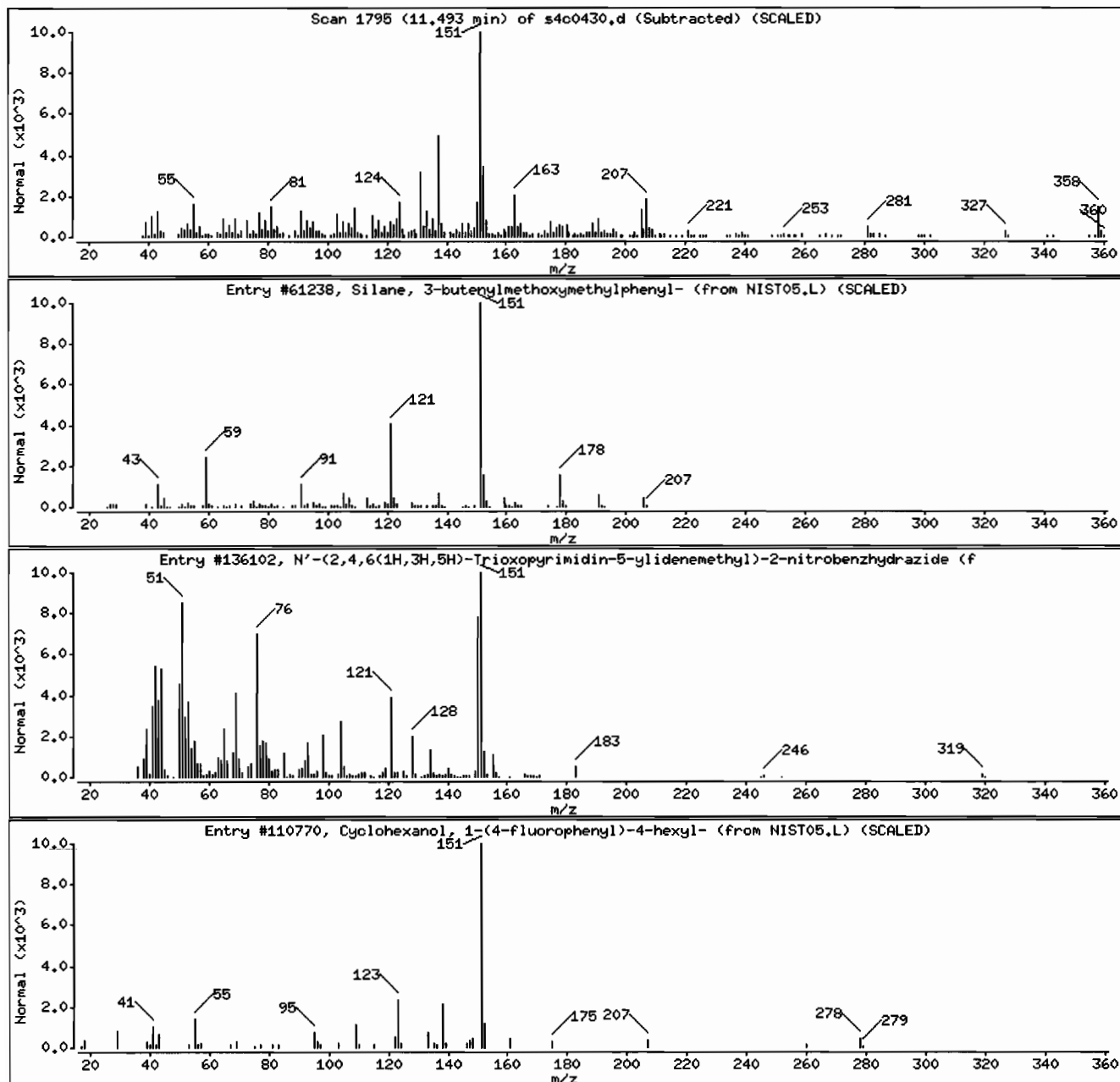
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|---|--------------|----------|--------|---------|--|--------|
| Unknown                                   |              |          |        |         |  |        |
| Silane, 3-butenylmethoxymethylphenyl-     | 76557-75-0   | NIST05.L | 61238  | 38      | C <sub>12</sub> H <sub>18</sub> O <sub>2</sub> Si            | 206    |
| N'-(2,4,6-(1H,3H,5H)-Trioxypyrimidin-5-yl | 1000225-72-5 | NIST05.L | 136102 | 38      | C <sub>12</sub> H <sub>9</sub> N <sub>5</sub> O <sub>6</sub> | 319    |
| Cyclohexanol, 1-(4-fluorophenyl)-4-hexyl  | 1000141-78-7 | NIST05.L | 110770 | 35      | C <sub>18</sub> H <sub>27</sub> FO                           | 278    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

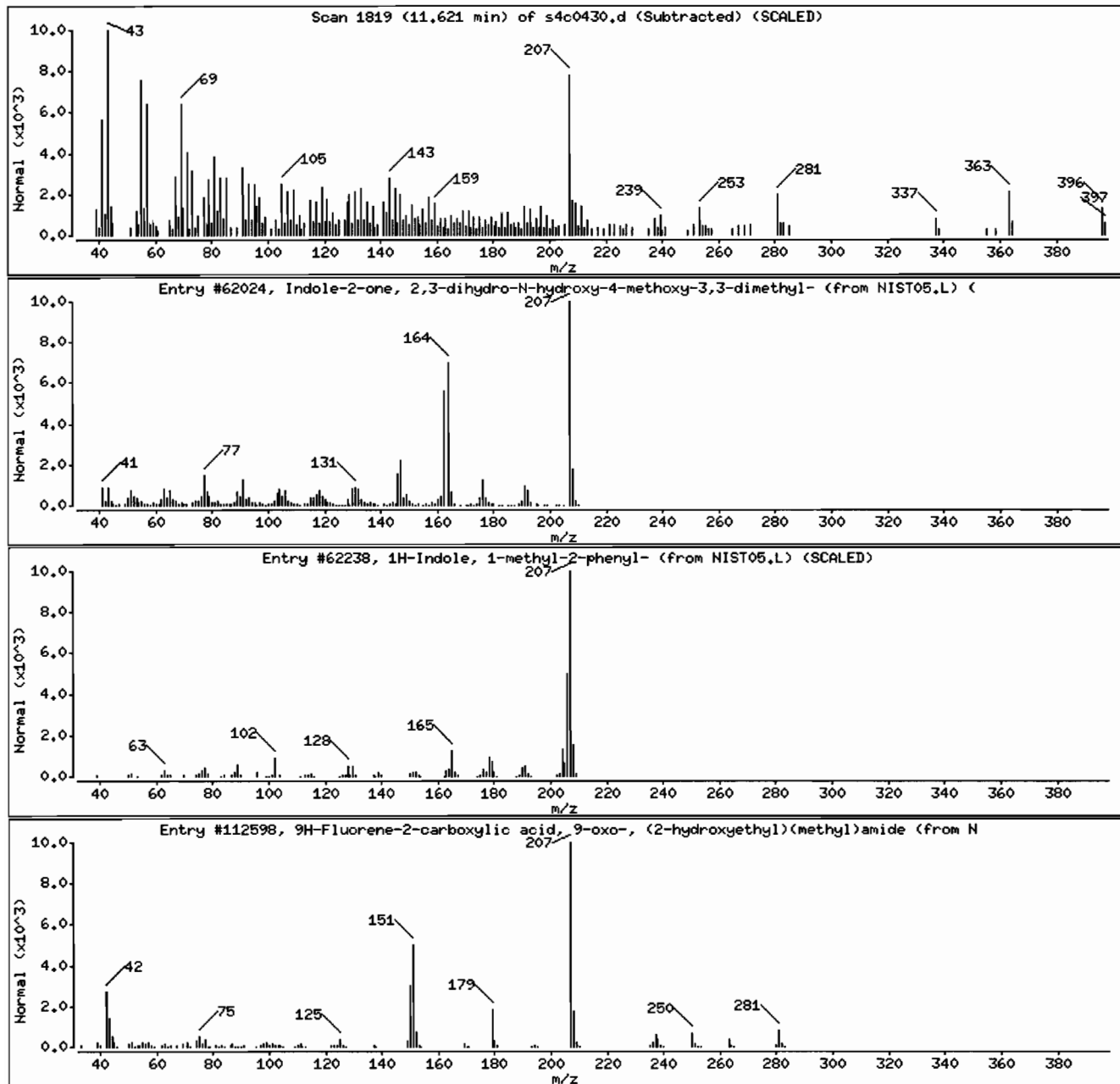
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|--|--------------|----------|--------|---------|-----------|--------|
| Unknown                                  |              |          |        |         |           |        |
| Indole-2-one, 2,3-dihydro-N-hydroxy-4-me | 1000129-52-1 | NIST05.L | 62024  | 41      | C11H13NO3 | 207    |
| 1H-Indole, 1-methyl-2-phenyl-            | 3558-24-5    | NIST05.L | 62238  | 38      | C15H13N   | 207    |
| 9H-Fluorene-2-carboxylic acid, 9-oxo-, ( | 1000316-02-1 | NIST05.L | 112598 | 38      | C17H15NO3 | 281    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511SVH111LANL

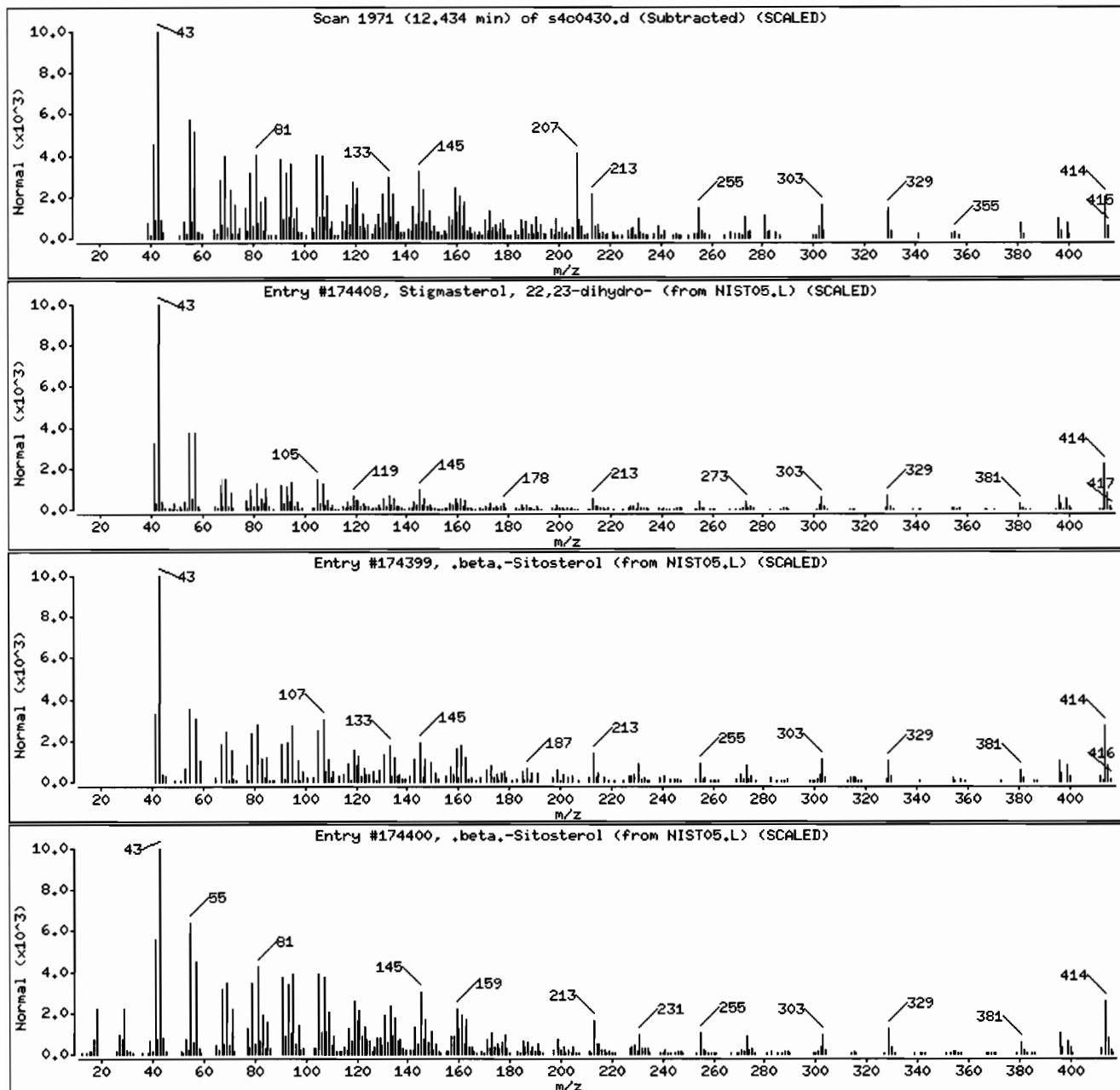
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number   | Library  | Entry  | Quality | Formula | Weight |
|-------------------------------|--------------|----------|--------|---------|---------|--------|
| Stigmasterol, 22,23-dihydro-  | 1000214-20-7 | NIST05.L | 174408 | 97      | C29H50O | 414    |
| .beta.-Sitosterol             | 83-46-5      | NIST05.L | 174399 | 95      | C29H50O | 414    |
| .beta.-Sitosterol             | 83-46-5      | NIST05.L | 174400 | 93      | C29H50O | 414    |



Date : 04-MAR-2010 23:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001195628511ISVM11ILANL

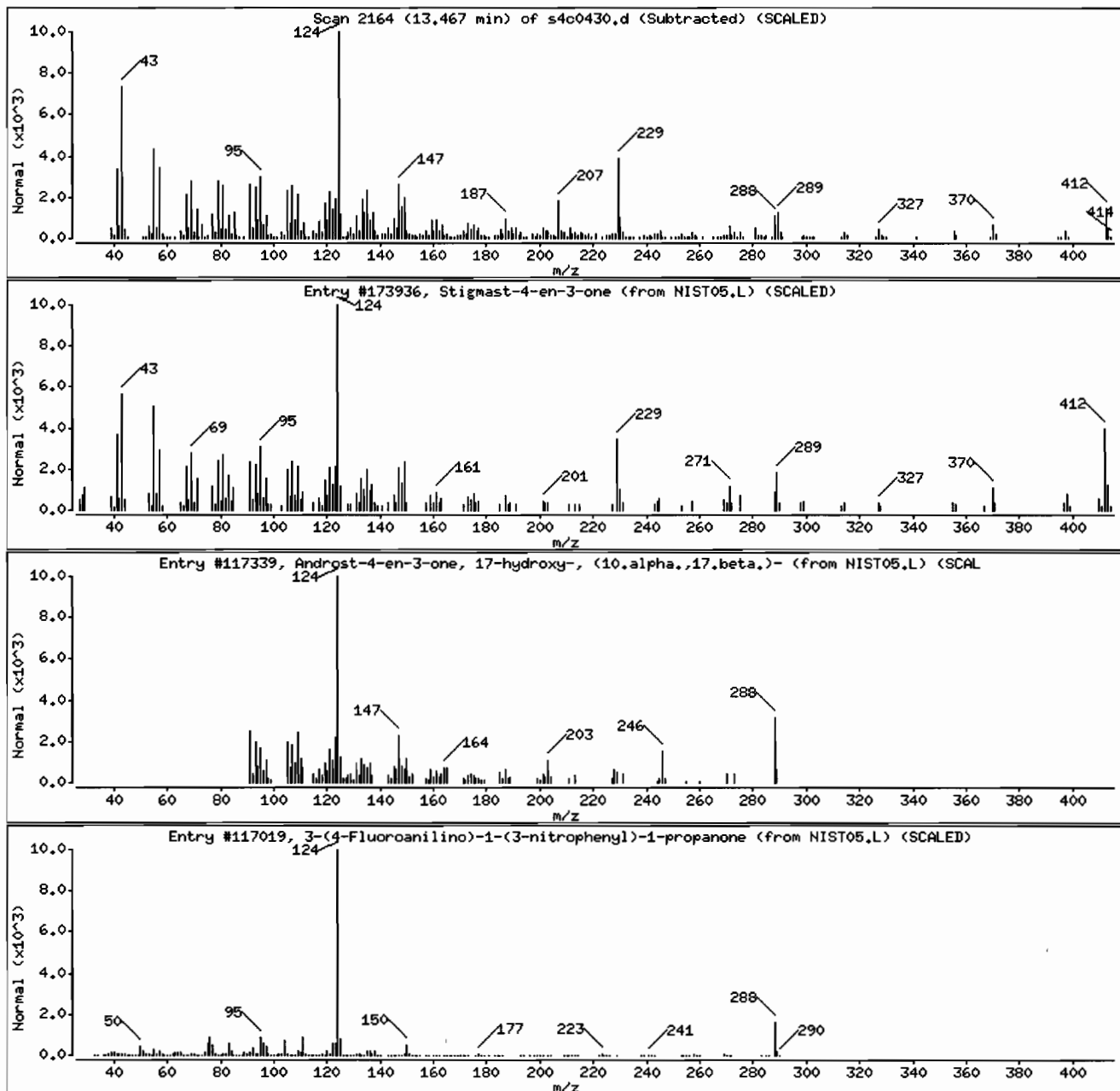
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match                | CAS Number  | Library  | Entry  | Quality | Formula     | Weight |
|--|-------------|----------|--------|---------|-------------|--------|
| Stigmast-4-en-3-one                          | 1058-61-3   | NIST05.L | 173936 | 96      | C29H48O     | 412    |
| Androst-4-en-3-one, 17-hydroxy-, (10.alpha.) | 604-39-7    | NIST05.L | 117339 | 64      | C19H28O2    | 288    |
| 3-(4-Fluoroanilino)-1-(3-nitrophenyl)-1-     | 350039-84-8 | NIST05.L | 117019 | 27      | C15H13FN2O3 | 288    |



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-1914  
**Lab Sample ID:** 247358003

**Client ID:** RE36-10-7428  
**Batch ID:** 956285  
**Run Date:** 03/05/2010 00:07  
**Prep Date:** 02/23/2010 10:34  
**Data File:** s4c0432.d

**Date Collected:** 02/12/2010 12:00  
**Date Received:** 02/18/2010 08:45  
**Client:** LANL010  
**Method:** SW846 8270C  
**Inst:** MSD4.I  
**Analyst:** JMB3  
**Aliquot:** 30.03 g  
**Column:** J&W DB-5MS

**Matrix:** R  
**% Moisture:** 8.6  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-009  
**Dilution:** 1  
**Inj. Vol:** .5 uL  
**Final Volume:** 1 mL  
**Level:** LOW

| CAS No.    | Parinname                     | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 364    | ug/kg | 72.9    | 364     |
| 108-95-2   | Phenol                        | U         | 364    | ug/kg | 72.9    | 364     |
| 95-57-8    | 2-Chlorophenol                | U         | 364    | ug/kg | 72.9    | 364     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 364    | ug/kg | 72.9    | 364     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 364    | ug/kg | 72.9    | 364     |
| 83-32-9    | Acenaphthene                  | U         | 36.4   | ug/kg | 12.0    | 36.4    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364     |
| 100-02-7   | 4-Nitrophenol                 | U         | 364    | ug/kg | 120     | 364     |
| 87-86-5    | Pentachlorophenol             | U         | 364    | ug/kg | 91.1    | 364     |
| 129-00-0   | Pyrene                        | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 110-86-1   | Pyridine                      | U         | 364    | ug/kg | 72.9    | 364     |
| 62-53-3    | Aniline                       | U         | 364    | ug/kg | 109     | 364     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 364    | ug/kg | 72.9    | 364     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 100-51-6   | Benzyl alcohol                | U         | 364    | ug/kg | 109     | 364     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 364    | ug/kg | 72.9    | 364     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 364    | ug/kg | 72.9    | 364     |
| 95-48-7    | o-Cresol                      | U         | 364    | ug/kg | 72.9    | 364     |
| 65794-96-9 | m,p-Cresols                   | U         | 364    | ug/kg | 109     | 364     |
| 67-72-1    | Hexachloroethane              | U         | 364    | ug/kg | 72.9    | 364     |
| 98-95-3    | Nitrobenzene                  | U         | 364    | ug/kg | 72.9    | 364     |
| 78-59-1    | Isophorone                    | U         | 364    | ug/kg | 72.9    | 364     |
| 88-75-5    | 2-Nitrophenol                 | U         | 364    | ug/kg | 72.9    | 364     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 364    | ug/kg | 128     | 364     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 364    | ug/kg | 72.9    | 364     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 364    | ug/kg | 72.9    | 364     |
| 65-85-0    | Benzoic acid                  | U         | 729    | ug/kg | 182     | 729     |
| 91-20-3    | Naphthalene                   | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 106-47-8   | 4-Chloroaniline               | U         | 364    | ug/kg | 72.9    | 364     |
| 87-68-3    | Hexachlorobutadiene           | U         | 364    | ug/kg | 72.9    | 364     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 36.4   | ug/kg | 7.29    | 36.4    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 364    | ug/kg | 72.9    | 364     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 364    | ug/kg | 72.9    | 364     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 36.4   | ug/kg | 12.0    | 36.4    |
| 88-74-4    | 2-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364     |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                | U         | 364    | ug/kg | 72.9    | 364     |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 247358003

Date Collected: 02/12/2010 12:00  
Date Received: 02/18/2010 08:45  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.6  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7428  
Batch ID: 956285  
Run Date: 03/05/2010 00:07  
Prep Date: 02/23/2010 10:34  
Data File: s4c0432.d

| CAS No.   | Parname                       | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-----------|-------------------------------|-----------|--------|-------|---------|---------|
|           | <i>m</i> -Nitroaniline        |           |        |       |         |         |
| 131-11-3  | Dimethylphthalate             | U         | 364    | ug/kg | 72.9    | 364     |
| 606-20-2  | 2,6-Dinitrotoluene            | U         | 364    | ug/kg | 36.4    | 364     |
| 208-96-8  | Acenaphthylene                | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 51-28-5   | 2,4-Dinitrophenol             | U         | 729    | ug/kg | 138     | 729     |
| 132-64-9  | Dibenzofuran                  | U         | 364    | ug/kg | 72.9    | 364     |
| 84-66-2   | Diethylphthalate              | U         | 364    | ug/kg | 72.9    | 364     |
| 86-73-7   | Fluorene                      | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 7005-72-3 | 4-Chlorophenylphenylether     | U         | 364    | ug/kg | 72.9    | 364     |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol    | U         | 364    | ug/kg | 72.9    | 364     |
| 100-01-6  | 4-Nitroaniline                | U         | 364    | ug/kg | 109     | 364     |
|           | <i>p</i> -Nitroaniline        |           |        |       |         |         |
| 122-39-4  | Diphenylamine                 | U         | 364    | ug/kg | 72.9    | 364     |
| 122-66-7  | Azobenzene                    | U         | 364    | ug/kg | 72.9    | 364     |
|           | <i>1,2</i> -Diphenylhydrazine |           |        |       |         |         |
| 101-55-3  | 4-Bromophenylphenylether      | U         | 364    | ug/kg | 72.9    | 364     |
| 118-74-1  | Hexachlorobenzene             | U         | 364    | ug/kg | 72.9    | 364     |
| 85-01-8   | Phenanthrene                  | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 120-12-7  | Anthracene                    | U         | 36.4   | ug/kg | 7.29    | 36.4    |
| 84-74-2   | Di-n-butylphthalate           | U         | 364    | ug/kg | 72.9    | 364     |
| 206-44-0  | Fluoranthene                  | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 85-68-7   | Butylbenzylphthalate          | U         | 364    | ug/kg | 72.9    | 364     |
| 56-55-3   | Benzo(a)anthracene            | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 91-94-1   | 3,3'-Dichlorobenzidine        | U         | 364    | ug/kg | 109     | 364     |
| 218-01-9  | Chrysene                      | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate    | U         | 364    | ug/kg | 72.9    | 364     |
| 117-84-0  | Di-n-octylphthalate           | U         | 364    | ug/kg | 72.9    | 364     |
| 205-99-2  | Benzo(b)fluoranthene          | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 207-08-9  | Benzo(k)fluoranthene          | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 50-32-8   | Benzo(a)pyrene                | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene        | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 53-70-3   | Dibenzo(a,h)anthracene        | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 191-24-2  | Benzo(ghi)perylene            | U         | 36.4   | ug/kg | 10.9    | 36.4    |
| 120-82-1  | 1,2,4-Trichlorobenzene        | U         | 364    | ug/kg | 72.9    | 364     |

## Tentatively Identified Compound Summary

| CAS No. | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|------|-----------|-------|-----|------|
|         | Unknown                               | 2.02 | 229       | ug/kg |     | J    |
|         | Unknown Aldol Condensate              | 2.88 | 665       | ug/kg |     | J    |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

|                                    |   |                             |
|------------------------------------|---|-----------------------------|
| <b>SDG Number:</b> 10-1914         | <b>Date Collected:</b> 02/12/2010 12:00 | <b>Matrix:</b> R            |
| <b>Lab Sample ID:</b> 247358003    | <b>Date Received:</b> 02/18/2010 08:45  | <b>%Moisture:</b> 8.6       |
|                                    | <b>Client:</b> LANL010                  | <b>Project:</b> LANL01004   |
| <b>Client ID:</b> RE36-10-7428     | <b>Method:</b> SW846 8270C              | <b>SOP Ref:</b> GL-OA-E-009 |
| <b>Batch ID:</b> 956285            | <b>Inst:</b> MSD4.I                     | <b>Dilution:</b> 1          |
| <b>Run Date:</b> 03/05/2010 00:07  | <b>Analyst:</b> JMB3                    | <b>Inj. Vol:</b> .5 uL      |
| <b>Prep Date:</b> 02/23/2010 10:34 | <b>Aliquot:</b> 30.03 g                 | <b>Final Volume:</b> 1 mL   |
| <b>Data File:</b> s4c0432.d        | <b>Column:</b> J&W DB-5MS               | <b>Level:</b> LOW           |

| CAS No.  | Parmname                                 | Qualifier | Result    | Units | MDL/LOD | PQL/LOQ |
|--|--|-----------|-----------|-------|---------|---------|
| <b>Tentatively Identified Compound Summary</b> |  |           |           |       |         |         |
| CAS No.  | Tentatively Identified Compound (TIC)    | RT        | Estimated | Units | Fit     | Qual    |
| 475-20-7                                       | 1,4-Methanoazulene, decahydro-4,8,8-trim | 5.67      | 412       | ug/kg | 99      | NJ      |
| 72120-50-4                                     | 1-Hydroxy-1,7-dimethyl-4-isopropyl-2,7-c | 6.24      | 148       | ug/kg | 90      | NJ      |
|  | Unknown                                  | 7.82      | 8390      | ug/kg |         | J       |
|  | Unknown                                  | 8.08      | 1010      | ug/kg |         | J       |
| 511-15-9                                       | 2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa | 8.12      | 535       | ug/kg | 96      | NJ      |
|  | Unknown                                  | 8.39      | 800       | ug/kg |         | J       |
| 295-48-7                                       | Cyclopentadecane                         | 8.41      | 251       | ug/kg | 97      | NJ      |
|  | Unknown                                  | 8.81      | 728       | ug/kg |         | J       |
| 74339-54-1                                     | Trichloroacetic acid, hexadecyl ester    | 8.95      | 265       | ug/kg | 93      | NJ      |
|  | Unknown                                  | 9.05      | 657       | ug/kg |         | J       |
| 301-02-0                                       | 9-Octadecenamide, (Z)-                   | 9.18      | 147       | ug/kg | 97      | NJ      |
|  | Unknown                                  | 9.35      | 191       | ug/kg |         | J       |
| 112-95-8                                       | Eicosane                                 | 9.5       | 155       | ug/kg | 95      | NJ      |
| 580-72-3                                       | 2(3H)-Furanone, dihydro-3,4-bis[(4-hydro | 10.8      | 417       | ug/kg | 92      | NJ      |
| 34444-37-6                                     | (-)-Nortrachelogenin                     | 11.14     | 688       | ug/kg | 90      | NJ      |
|  | Unknown                                  | 11.47     | 746       | ug/kg |         | J       |
|  | Unknown                                  | 11.75     | 163       | ug/kg |         | J       |
| 83-46-5  | .beta.-Sitosterol                        | 12.39     | 1060      | ug/kg | 97      | NJ      |



Data File: /chem/MSD4.i/s030410a.b/s4c0432.d  
Report Date: 05-Mar-2010 08:35

Page 1

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Data file : /chem/MSD4.i/s030410a.b/s4c0432.d  
Lab Smp Id: 247358003 Client Smp ID: RE36-10-7428  
Inj Date : 05-MAR-2010 00:07  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |247358003|956285|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 24  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.03000  | weight of sample          |
| M    | 8.63400   | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT SIG |        |        |         | CONCENTRATIONS       |                  |
|-----------------------------|-----------|--------|--------|---------|----------------------|------------------|
|                             | MASS      | RT     | EXP RT | REL RT  | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 | 152       | 3.823  | 3.829  | (1.000) | 183870               | 40.0000          |
| * 29 Naphthalene-d8         | 136       | 4.689  | 4.690  | (1.000) | 675882               | 40.0000          |
| * 46 Acenaphthene-d10       | 164       | 5.941  | 5.941  | (1.000) | 396616               | 40.0000          |
| * 67 Phenanthrene-d10       | 188       | 6.936  | 6.936  | (1.000) | 689222               | 40.0000          |
| * 91 Chrysene-d12           | 240       | 8.605  | 8.610  | (1.000) | 485971               | 40.0000          |
| * 98 Perylene-d12           | 264       | 10.054 | 10.070 | (1.000) | 249047               | 40.0000          |
| \$ 3 2-Fluorophenol         | 112       | 3.031  | 3.021  | (0.793) | 329521               | 77.0434 2810     |
| \$ 5 Phenol-d5              | 99        | 3.545  | 3.545  | (0.927) | 417019               | 78.1327 2850     |
| \$ 20 Nitrobenzene-d5       | 82        | 4.187  | 4.192  | (0.893) | 167715               | 34.8068 1270     |
| \$ 39 2-Fluorobiphenyl      | 172       | 5.433  | 5.433  | (0.914) | 379471               | 35.6278 1300     |
| \$ 60 2,4,6-Tribromophenol  | 329       | 6.481  | 6.481  | (1.091) | 116485               | 99.9194 3640     |
| \$ 81 p-Terphenyl-d14       | 244       | 7.861  | 7.861  | (0.914) | 405366               | 52.2894 1900     |

## ION RATIO REPORT

## SV REPORT

Data file: s4c0432.d

Report Date: 03/05/2010 08:00

Lab. ID: 247358003

SampleType: SAMPLE

Injection Date: 05-MAR-2010 00:07

Operator: JMB3

Instrument: MSD4.i

Sample Info: |247358003|956285|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS  | RESPONSE               | RT   | EXPECT RT      | TARGET RANGE | RATIO | QUAL |
|-------|------------------------|------|----------------|--------------|-------|------|
| ===== |                        |      |                |              |       |      |
| 4     | Aniline                |      | CAS#: 62-53-3  |              |       |      |
| 66    | 21396                  | 3.54 | 3.61           | 80-120       | 100   | (T)  |
| 93    | 874                    | 3.50 | 3.61           | 453-513      | 4     | (QT) |
| ----- |                        |      |                |              |       |      |
| 17    | N-Nitrosodipropylamine |      | CAS#: 621-64-7 |              |       |      |
| 70    | 23408                  | 4.19 | 4.07           | 80-120       | 100   | (T)  |
| 42    | 11488                  | 4.19 | 4.07           | 27- 87       | 49    | (T)  |
| ----- |                        |      |                |              |       |      |
| 27    | Benzoic acid           |      | CAS#: 65-85-0  |              |       |      |
| 105   | 200                    | 4.49 | 4.48           | 80-120       | 100   | ( )  |
| 122   | 634                    | 4.44 | 4.48           | 56-116       | 317   | (Q)  |
| 77    | 501                    | 4.49 | 4.48           | 49-109       | 251   | (Q)  |
| ----- |                        |      |                |              |       |      |
| 40    | 2-Chloronaphthalene    |      | CAS#: 91-58-7  |              |       |      |
| 162   | 5092                   | 5.67 | 5.54           | 80-120       | 100   | (T)  |
| 164   | 308                    | 5.67 | 5.54           | 3- 63        | 6     | (T)  |
| 127   | 411                    | 5.67 | 5.54           | 8- 68        | 8     | (T)  |
| ----- |                        |      |                |              |       |      |
| 42    | o-Nitroaniline         |      | CAS#: 88-74-4  |              |       |      |
| 65    | 6407                   | 5.67 | 5.60           | 80-120       | 100   | (T)  |
| 92    | 7997                   | 5.67 | 5.60           | 35- 95       | 125   | (QT) |
| 138   | 525                    | 5.67 | 5.60           | 79-139       | 8     | (QT) |
| ----- |                        |      |                |              |       |      |
| 43    | Dimethylphthalate      |      | CAS#: 131-11-3 |              |       |      |
| 163   | 68628                  | 5.94 | 5.71           | 80-120       | 100   | (T)  |
| 164   | 396616                 | 5.94 | 5.71           | 0- 40        | 578   | (QT) |
| ----- |                        |      |                |              |       |      |

| MASS                          | RESPONSE | RT   | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|-------------------------------|----------|------|-----------|----------------|-------|------|
| =====                         |          |      |           |                |       |      |
| 44 2,6-Dinitrotoluene         |          |      |           | CAS#: 606-20-2 |       |      |
| 165                           | 52137    | 5.94 | 5.77      | 80-120         | 100   | (T)  |
| 63                            | 712      | 5.94 | 5.77      | 53-113         | 1     | (QT) |
| -----                         |          |      |           |                |       |      |
| 50 2,4-Dinitrotoluene         |          |      |           | CAS#: 121-14-2 |       |      |
| 165                           | 52137    | 5.94 | 6.05      | 80-120         | 100   | (T)  |
| 89                            | 825      | 5.94 | 6.05      | 53-113         | 2     | (QT) |
| 63                            | 712      | 5.94 | 6.05      | 24- 84         | 1     | (QT) |
| -----                         |          |      |           |                |       |      |
| 53 Fluorene                   |          |      |           | CAS#: 86-73-7  |       |      |
| 166                           | 5677     | 6.48 | 6.32      | 80-120         | 100   | (T)  |
| 165                           | 5808     | 6.48 | 6.32      | 62-122         | 102   | (T)  |
| 167                           | 1900     | 6.48 | 6.32      | 0- 44          | 33    | (T)  |
| -----                         |          |      |           |                |       |      |
| 55 2-Methyl-4,6-dinitrophenol |          |      |           | CAS#: 534-52-1 |       |      |
| 198                           | 362      | 6.48 | 6.34      | 80-120         | 100   | (T)  |
| 105                           | 2996     | 6.48 | 6.34      | 16- 76         | 827   | (QT) |
| 51                            | 947      | 6.48 | 6.34      | 35- 95         | 262   | (QT) |
| -----                         |          |      |           |                |       |      |
| 61 4-Bromophenylphenylether   |          |      |           | CAS#: 101-55-3 |       |      |
| 248                           | 6808     | 6.48 | 6.63      | 80-120         | 100   | (T)  |
| 141                           | 50314    | 6.48 | 6.63      | 50-110         | 739   | (QT) |
| 250                           | 13584    | 6.48 | 6.63      | 69-129         | 200   | (QT) |
| -----                         |          |      |           |                |       |      |
| 89 Benzo(a)anthracene         |          |      |           | CAS#: 56-55-3  |       |      |
| 228                           | 4840     | 8.39 | 8.60      | 80-120         | 100   | (T)  |
| 226                           | 2990     | 8.39 | 8.60      | 0- 56          | 62    | (QT) |
| 229                           | 10541    | 8.39 | 8.60      | 0- 50          | 218   | (QT) |
| -----                         |          |      |           |                |       |      |
| 92 Chrysene                   |          |      |           | CAS#: 218-01-9 |       |      |
| 228                           | 4840     | 8.39 | 8.63      | 80-120         | 100   | (T)  |
| 229                           | 10541    | 8.39 | 8.63      | 0- 50          | 218   | (QT) |
| 226                           | 2990     | 8.39 | 8.63      | 0- 59          | 62    | (QT) |
| -----                         |          |      |           |                |       |      |
| 94 Di-n-octylphthalate        |          |      |           | CAS#: 117-84-0 |       |      |
| 149                           | 3747     | 9.05 | 9.02      | 80-120         | 100   | ( )  |
| 43                            | 27430    | 9.05 | 9.02      | 0- 40          | 732   | (Q)  |

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD4.i/s030410a.b/s4c0432.d  
 Lab Smp Id: 247358003 Client Smp ID: RE36-10-7428  
 Inj Date : 05-MAR-2010 00:07  
 Operator : JMB3 Inst ID: MSD4.i  
 Smp Info : |247358003|956285|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100227-01|  
 Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
 Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
 Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
 Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
 Als bottle: 24  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-1914.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.03000  | weight of sample          |
| M    | 8.63400   | % moisture                |

Cpnd Variable Local Compound Variable

| ISTD                        | RT     | AREA    | AMOUNT |
|-----------------------------|--------|---------|--------|
| * 10 1,4-Dichlorobenzene-d4 | 3.823  | 1077174 | 40.000 |
| * 46 Acenaphthene-d10       | 5.941  | 1759713 | 40.000 |
| * 91 Chrysene-d12           | 8.605  | 1296887 | 40.000 |
| * 98 Perylene-d12           | 10.054 | 679570  | 40.000 |

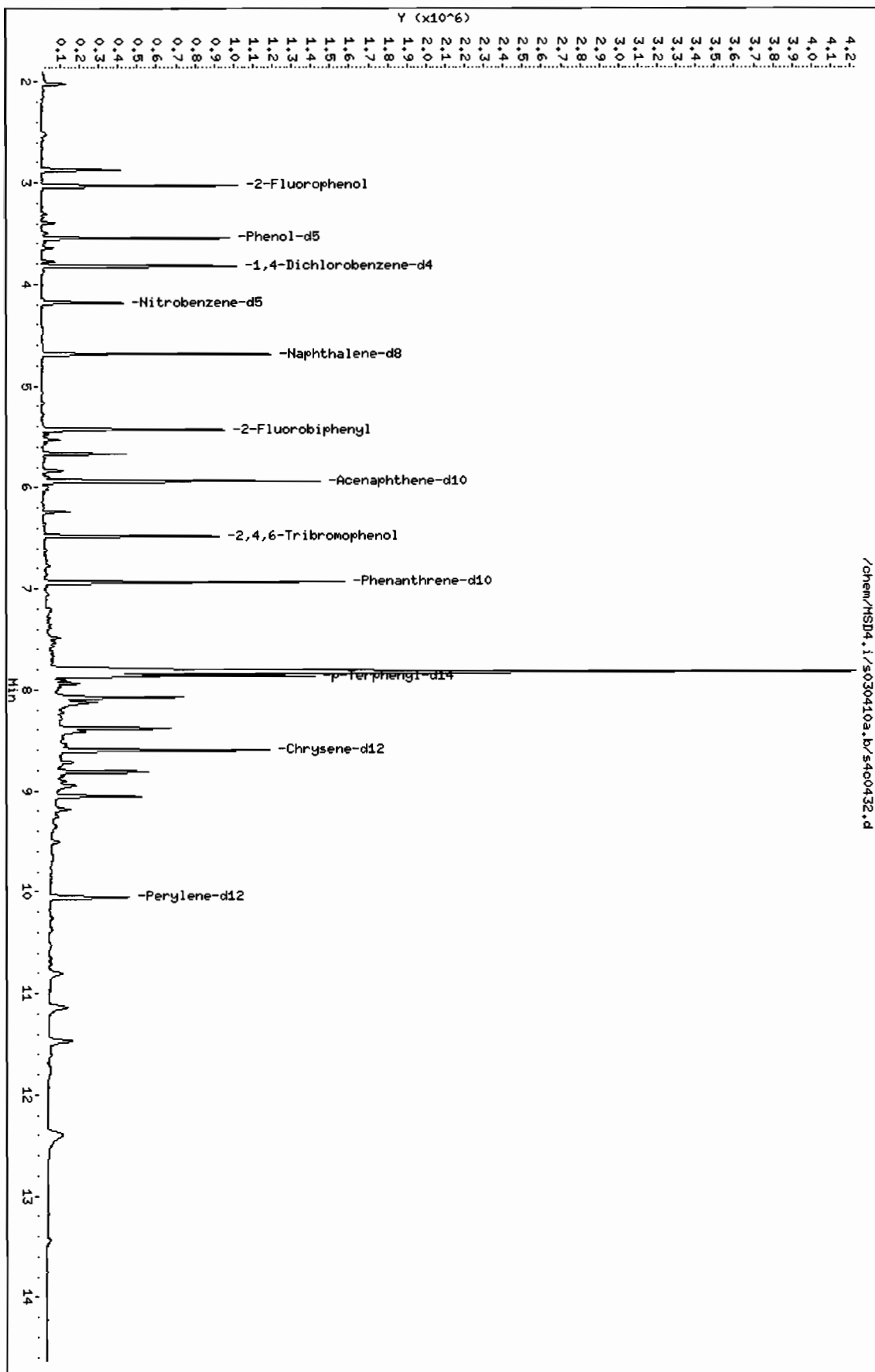
| CONCENTRATIONS |      |                |               |      | QUANT   |           |        |
|----------------|------|----------------|---------------|------|---------|-----------|--------|
| RT             | AREA | ON-COL (ng/ul) | FINAL (ug/Kg) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| ====           | ==== | =====          | =====         | ==== | =====   | =====     | =====  |

| RT                                       | CONCENTRATIONS |                |               | QUAL | QUANT             |           |        |
|--|----------------|----------------|---------------|------|-------------------|-----------|--------|
|  | AREA           | ON-COL (ng/ul) | FINAL (ug/Kg) |      | LIBRARY           | LIB ENTRY | CPND # |
| Unknown                                  |                |                |               |      | CAS #:            |           |        |
| 2.020                                    | 168927         | 6.27297624     | 229           | 0    |                   | 0         | 10     |
| Unknown Aldol Condensate                 |                |                |               |      | CAS #:            |           |        |
| 2.876                                    | 491043         | 18.2345007     | 664           | 0    |                   | 0         | 10     |
| 1,4-Methanoazulene, decahydro-4,8,8-trim |                |                |               |      | CAS #: 475-20-7   |           |        |
| 5.668                                    | 496879         | 11.2945513     | 412           | 99   | NIST05.L          | 60024     | 46     |
| 1-Hydroxy-1,7-dimethyl-4-isopropyl-2,7-c |                |                |               |      | CAS #: 72120-50-4 |           |        |
| 6.240                                    | 178939         | 4.06746428     | 148           | 90   | NIST05.L          | 72955     | 46     |
| Unknown                                  |                |                |               |      | CAS #:            |           |        |
| 7.818                                    | 7465588        | 230.261763     | 8390          | 0    |                   | 0         | 91     |
| Unknown                                  |                |                |               |      | CAS #:            |           |        |
| 8.075                                    | 898633         | 27.7166199     | 1010          | 0    |                   | 0         | 91     |
| 2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa |                |                |               |      | CAS #: 511-15-9   |           |        |
| 8.123                                    | 475639         | 14.6701586     | 535           | 96   | NIST05.L          | 116238    | 91     |
| Unknown                                  |                |                |               |      | CAS #:            |           |        |
| 8.385                                    | 711860         | 21.9559613     | 800           | 0    |                   | 0         | 91     |
| Cyclopentadecane                         |                |                |               |      | CAS #: 295-48-7   |           |        |
| 8.412                                    | 222927         | 6.87576497     | 251           | 97   | NIST05.L          | 64459     | 91     |
| Unknown                                  |                |                |               |      | CAS #:            |           |        |
| 8.813                                    | 647706         | 19.9772469     | 728           | 0    |                   | 0         | 91     |
| Trichloroacetic acid, hexadecyl ester    |                |                |               |      | CAS #: 74339-54-1 |           |        |
| 8.947                                    | 235487         | 7.26315169     | 265           | 93   | NIST05.L          | 166990    | 91     |
| Unknown                                  |                |                |               |      | CAS #:            |           |        |
| 9.054                                    | 584045         | 18.0137609     | 656           | 0    |                   | 0         | 91     |
| 9-Octadecenamide, (Z)-                   |                |                |               |      | CAS #: 301-02-0   |           |        |
| 9.182                                    | 130475         | 4.02423947     | 147           | 97   | NIST05.L          | 112655    | 91     |
| Unknown                                  |                |                |               |      | CAS #:            |           |        |
| 9.353                                    | 89087          | 5.24370543     | 191           | 0    |                   | 0         | 98     |
| Eicosane                                 |                |                |               |      | CAS #: 112-95-8   |           |        |
| 9.503                                    | 72369          | 4.25966570     | 155           | 95   | NIST05.L          | 113489    | 98     |

| CONCENTRATIONS                            |        |                |               | QUANT             |          |           |        |
|---|--------|----------------|---------------|-------------------|----------|-----------|--------|
| RT  | AREA   | ON-COL (ng/ul) | FINAL (ug/Kg) | QUAL              | LIBRARY  | LIB ENTRY | CPND # |
| =====                                     | =====  | =====          | =====         | =====             | =====    | =====     | =====  |
| 2 (3H)-Furanone, dihydro-3,4-bis[(4-hydro |        |                |               | CAS #: 580-72-3   |          |           |        |
| 10.803                                    | 194364 | 11.4403808     | 417           | 92                | NIST05.L | 156200    | 98     |
| (-)-Nortrachelogenin                      |        |                |               | CAS #: 34444-37-6 |          |           |        |
| 11.140                                    | 320807 | 18.8829126     | 688           | 90                | NIST05.L | 162946    | 98     |
| Unknown                                   |        |                |               | CAS #:            |          |           |        |
| 11.471                                    | 347658 | 20.4634306     | 746           | 0                 |          | 0         | 98     |
| Unknown                                   |        |                |               | CAS #:            |          |           |        |
| 11.750                                    | 75876  | 4.46609908     | 163           | 0                 |          | 0         | 98     |
| .beta.-Sitosterol                         |        |                |               | CAS #: 83-46-5    |          |           |        |
| 12.391                                    | 494209 | 29.0895139     | 1060          | 97                | NIST05.L | 174399    | 98     |

Data File: /chem/HSD4.i/s030410a.b/s40432.d  
 Date : 05-MAR-2010 00:07  
 Client ID: RE36-10-7428  
 Sample Info: 1247368003195628511SVH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: 3uM DB-SHS

Instrument: HSD4.i  
 Operator: JHB3  
 Column diameter: 0.20



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: 1247358003195628511SVH111LANL

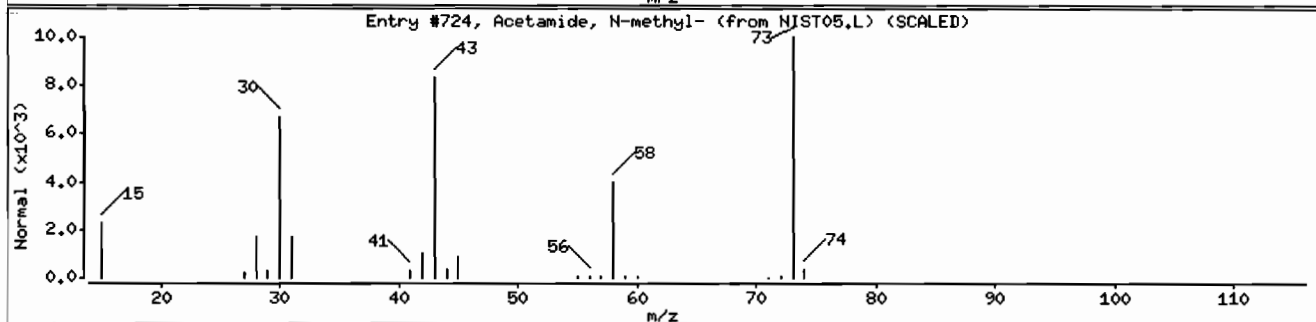
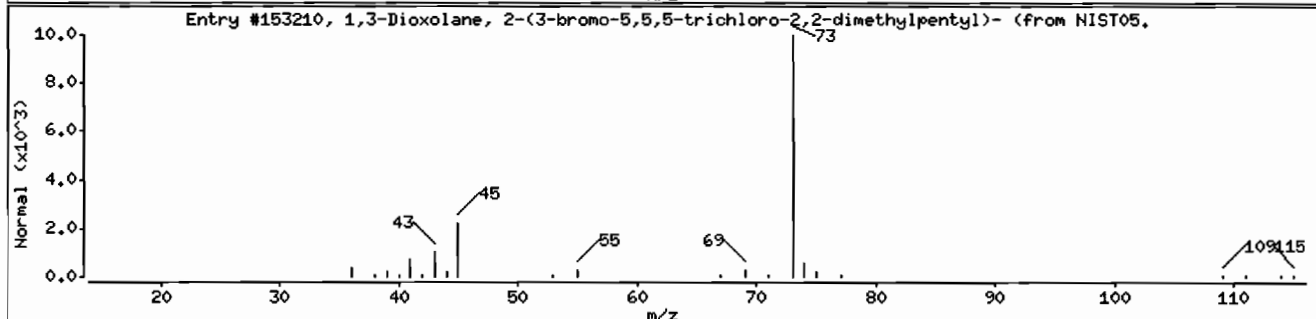
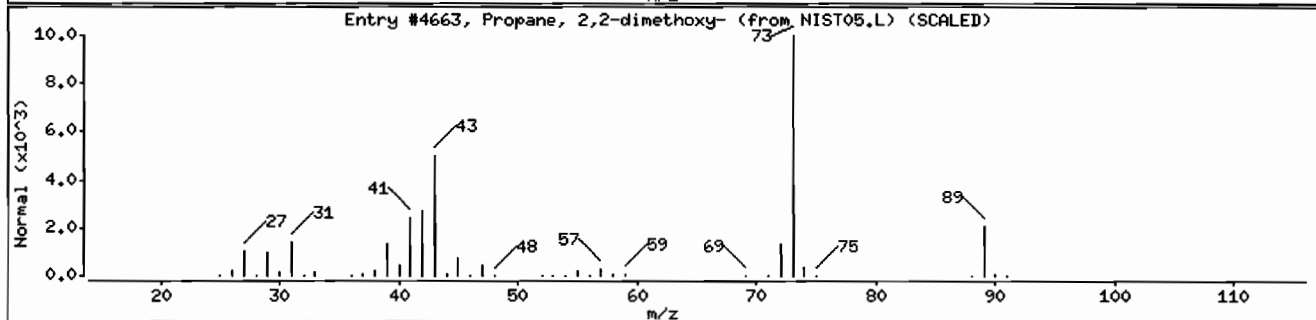
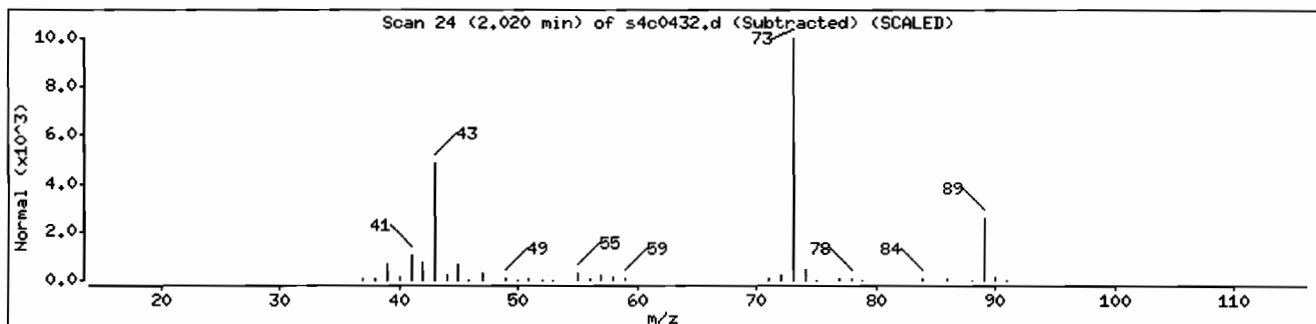
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match              | CAS Number   | Library  | Entry  | Quality | Formula       | Weight |
|--|--------------|----------|--------|---------|---------------|--------|
| Unknown                                    |              |          |        |         |               |        |
| Propane, 2,2-dimethoxy-                    | 77-76-9      | NIST05.L | 4663   | 50      | C5H12O2       | 104    |
| 1,3-Dioxolane, 2-(3-bromo-5,5,5-trichloro- | 1000115-31-4 | NIST05.L | 153210 | 9       | C10H16BrCl3O2 | 352    |
| Acetamide, N-methyl-                       | 79-16-3      | NIST05.L | 724    | 9       | C3H7NO        | 73     |





Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: 12473580031956285111SVH111LANL

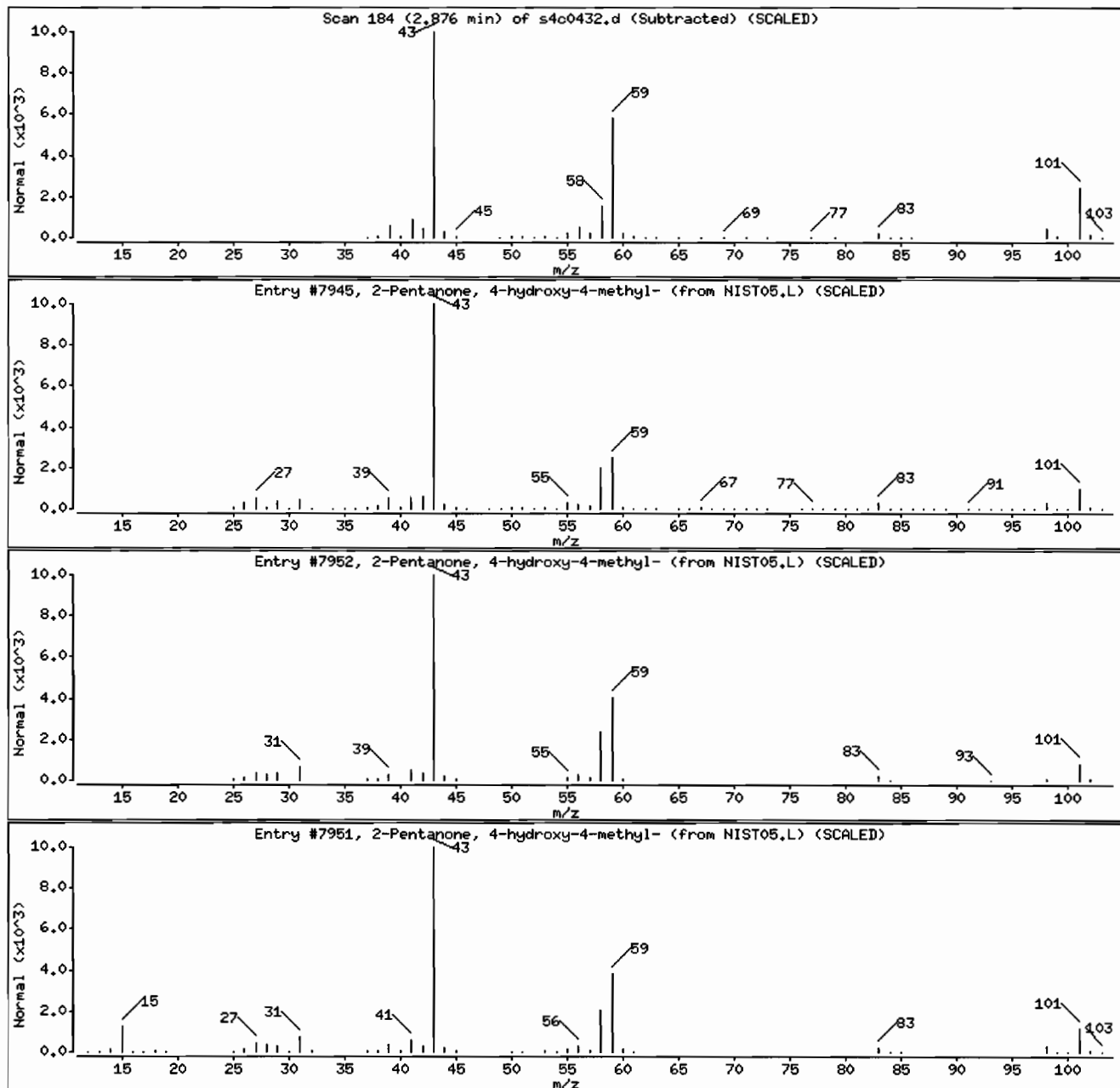
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match    | CAS Number | Library  | Entry | Quality | Formula | Weight |
|----------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown Aldol Condensate         |            |          |       |         |         |        |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7945  | 59      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7952  | 56      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7951  | 50      | C6H12O2 | 116    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: HSD4.i

Sample Info: I2473580031956285111SVH111LANL

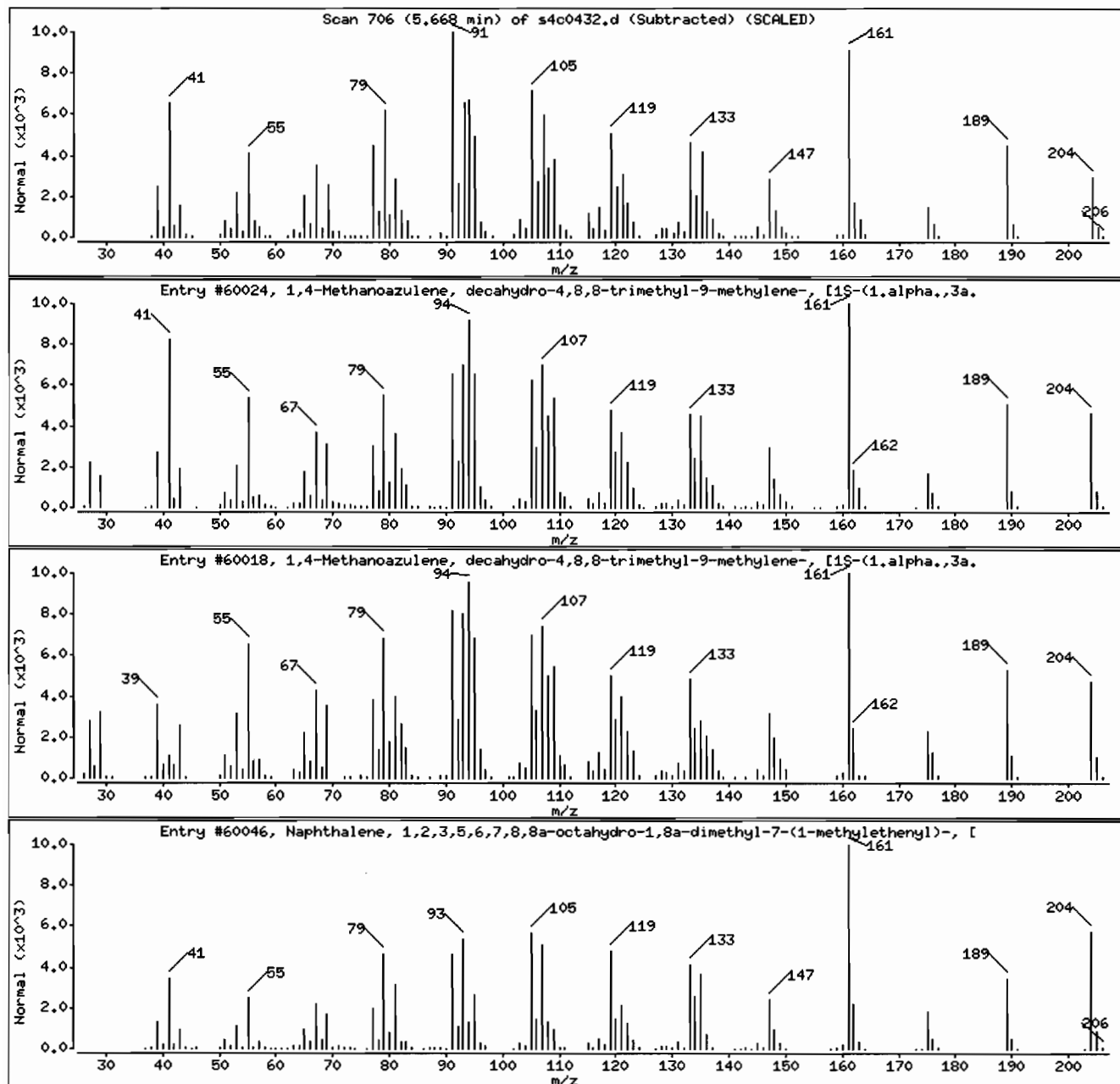
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula | Weight |
|--|------------|----------|-------|---------|---------|--------|
| 1,4-Methanoazulene, decahydro-4,8,8-trim | 475-20-7   | NIST05.L | 60024 | 99      | C15H24  | 204    |
| 1,4-Methanoazulene, decahydro-4,8,8-trim | 475-20-7   | NIST05.L | 60018 | 99      | C15H24  | 204    |
| Naphthalene, 1,2,3,5,6,7,8,8a-octahydro- | 4630-07-3  | NIST05.L | 60046 | 97      | C15H24  | 204    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: 1247358003195628511SVH111LANL

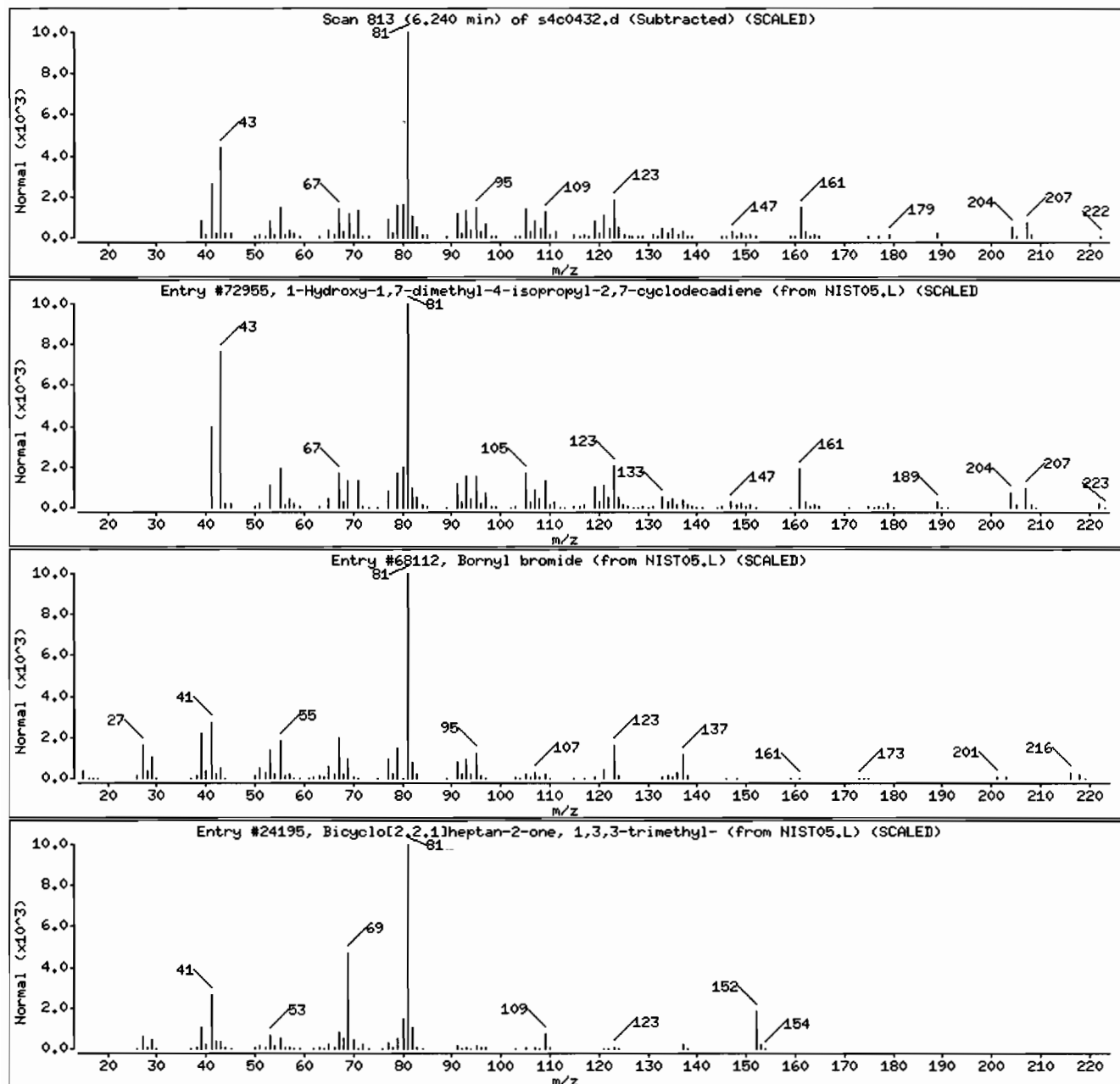
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry | Quality | Formula  | Weight |
|--|------------|----------|-------|---------|----------|--------|
| 1-Hydroxy-1,7-dimethyl-4-isopropyl-2,7-c | 72120-50-4 | NIST05.L | 72955 | 90      | C15H26O  | 222    |
| Bornyl bromide                           | 4443-48-5  | NIST05.L | 68112 | 53      | C10H17Br | 216    |
| Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimet | 1195-79-5  | NIST05.L | 24195 | 52      | C10H16O  | 152    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: 12473580031956285111SVMI11LANL

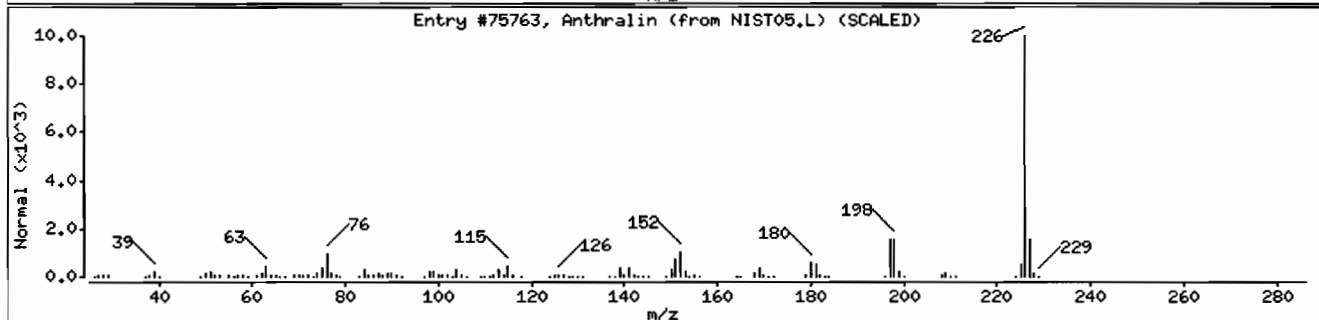
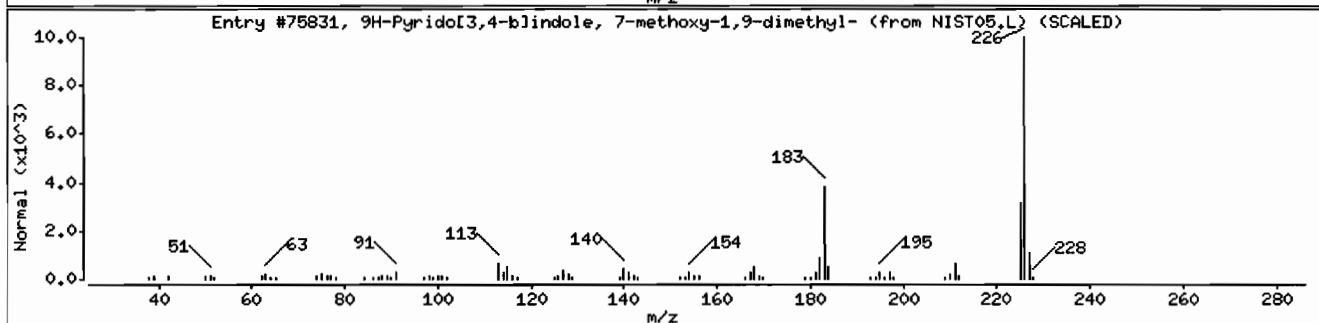
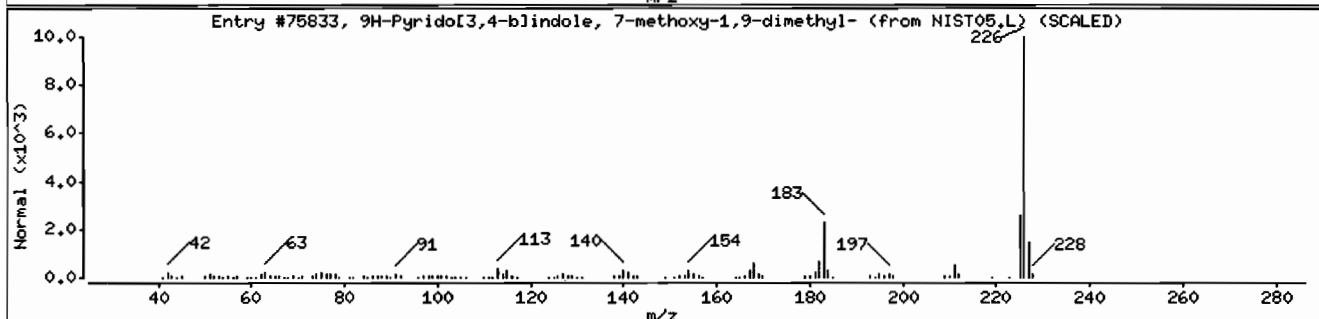
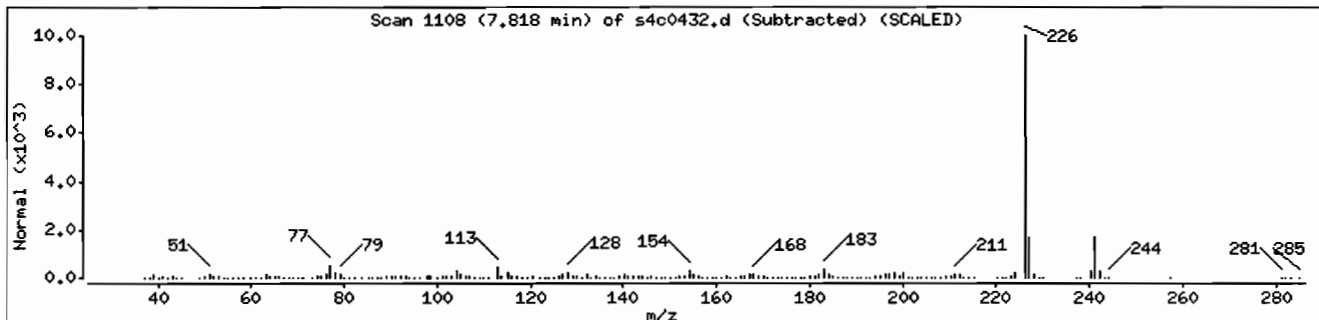
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number  | Library  | Entry | Quality | Formula   | Weight |
|--|-------------|----------|-------|---------|-----------|--------|
| Unknown                                  |             |          |       |         |           |        |
| 9H-Pyrido[3,4-b]indole, 7-methoxy-1,9-di | 143502-37-8 | NIST05.L | 75833 | 64      | C14H14N2O | 226    |
| 9H-Pyrido[3,4-b]indole, 7-methoxy-1,9-di | 143502-37-8 | NIST05.L | 75831 | 64      | C14H14N2O | 226    |
| Anthralin                                | 480-22-8    | NIST05.L | 75763 | 59      | C14H10O3  | 226    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: I247358003I9562851I1SVM1I1LANL

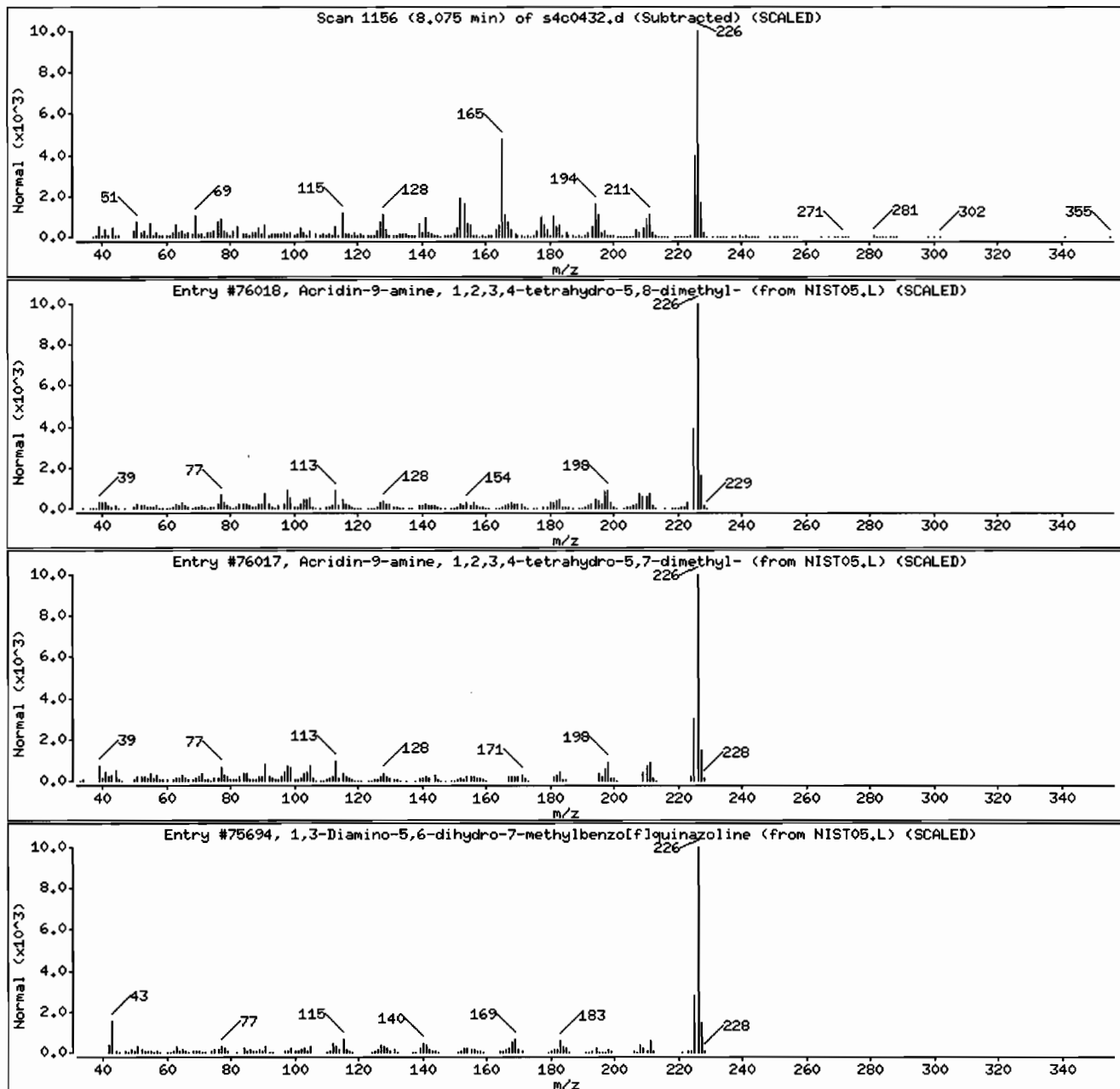
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula  | Weight |
|--|--------------|----------|-------|---------|----------|--------|
| Unknown                                  |              |          |       |         |          |        |
| Acridin-9-amine, 1,2,3,4-tetrahydro-5,8- | 297758-19-1  | NIST05.L | 76018 | 64      | C15H18N2 | 226    |
| Acridin-9-amine, 1,2,3,4-tetrahydro-5,7- | 1000300-57-6 | NIST05.L | 76017 | 60      | C15H18N2 | 226    |
| 1,3-Diamino-5,6-dihydro-7-methylbenzo[f] | 37436-37-6   | NIST05.L | 75694 | 47      | C13H14N4 | 226    |



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Client ID: RE36-10-7428

Instrument: HSD4.i

Sample Info: I247358003I956285I1ISVM11ILANL

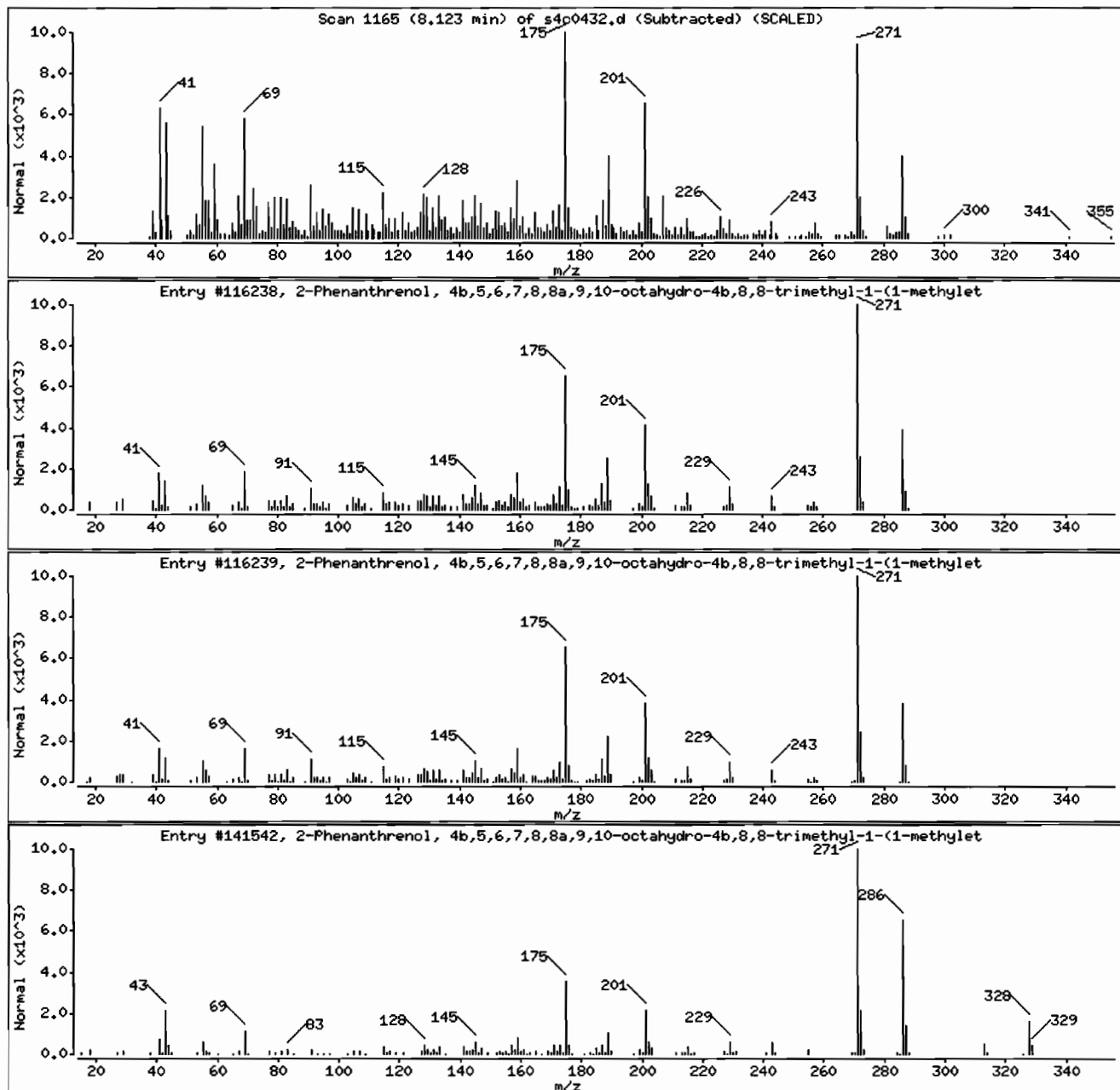
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--|------------|----------|--------|---------|----------|--------|
| 2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa | 511-15-9   | NIST05.L | 116238 | 96      | C20H30O  | 286    |
| 2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa | 511-15-9   | NIST05.L | 116239 | 91      | C20H30O  | 286    |
| 2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa | 15340-82-6 | NIST05.L | 141542 | 91      | C22H32O2 | 328    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: HSD4.i

Sample Info: I247358003I956285I1ISVHI1ILANL

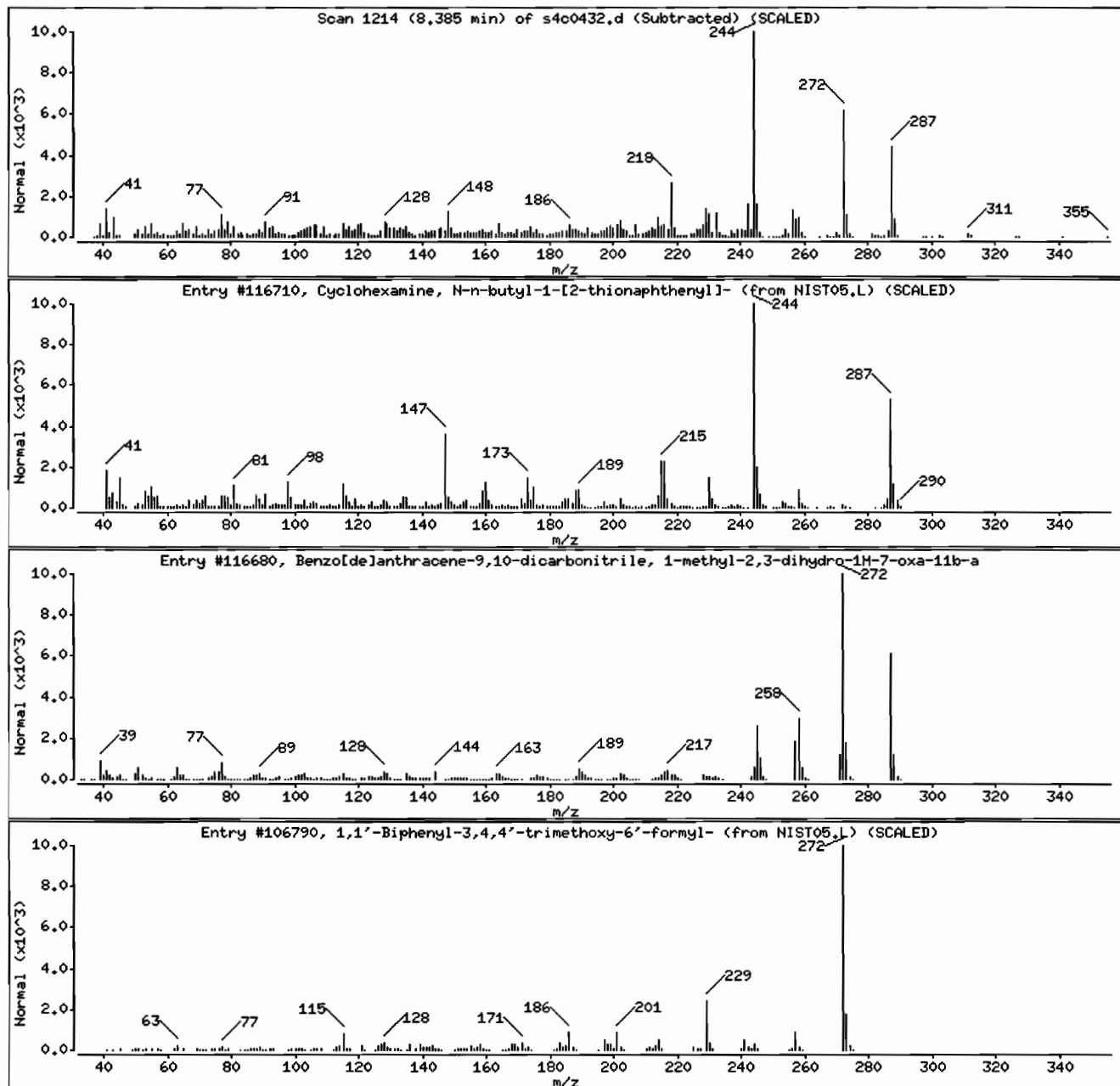
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|---|--------------|----------|--------|---------|-----------|--------|
| Unknown                                   |              |          |        |         |           |        |
| Cyclohexamine, N-n-butyl-1-[2-thionaphth  | 151076-85-6  | NIST05.L | 116710 | 64      | C18H25NS  | 287    |
| Benzo[de]lanthracene-9,10-dicarbonitrile, | 1000303-23-3 | NIST05.L | 116680 | 60      | C18H13N3O | 287    |
| 1,1'-Biphenyl-3,4,4'-trimethoxy-6'-formyl | 145068-57-1  | NIST05.L | 106790 | 53      | C16H16O4  | 272    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: I247358003I956285I1SVHI1ILANL

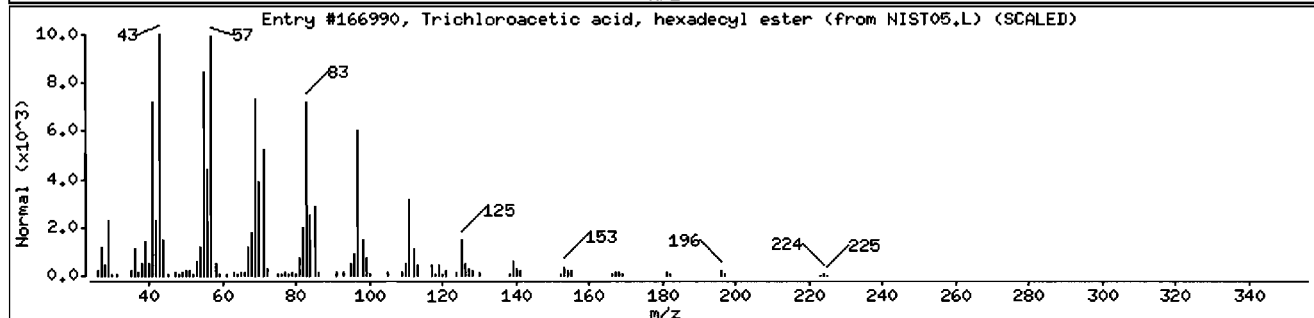
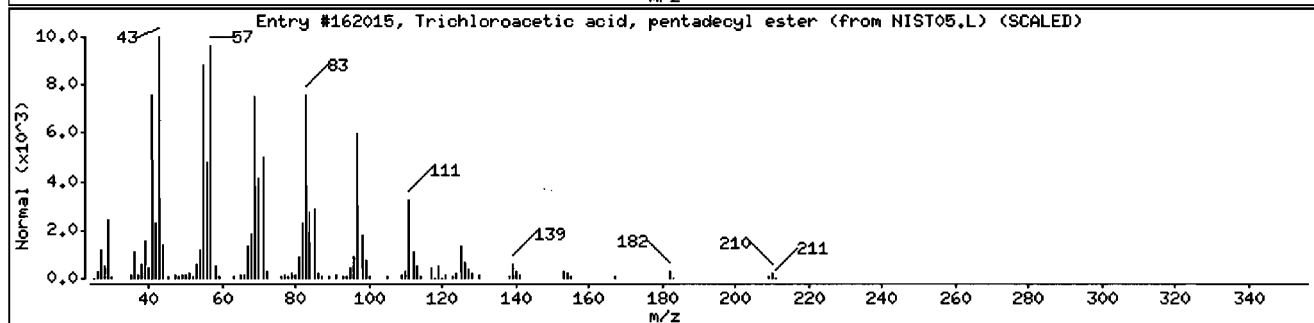
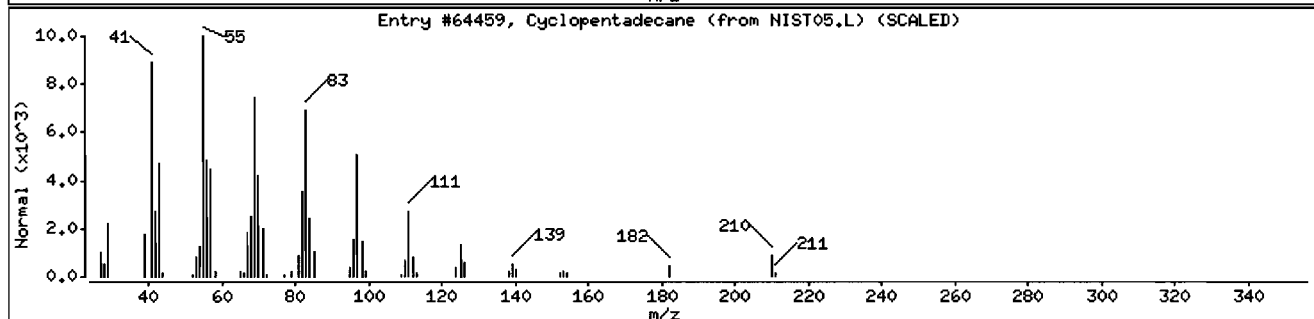
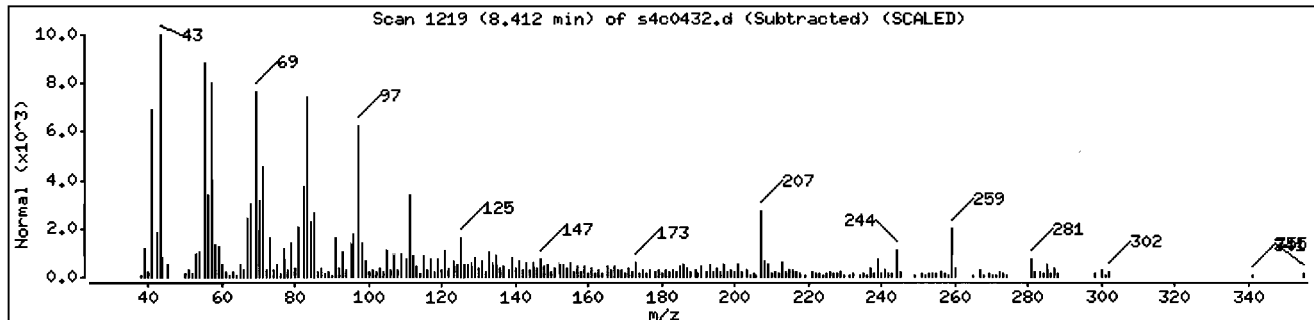
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match          | CAS Number | Library  | Entry  | Quality | Formula     | Weight |
|--|------------|----------|--------|---------|-------------|--------|
| Cyclopentadecane                       | 295-48-7   | NIST05.L | 64459  | 97      | C15H30      | 210    |
| Trichloroacetic acid, pentadecyl ester | 74339-53-0 | NIST05.L | 162015 | 93      | C17H31Cl3O2 | 372    |
| Trichloroacetic acid, hexadecyl ester  | 74339-54-1 | NIST05.L | 166990 | 93      | C18H33Cl3O2 | 386    |





Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: I247358003I956285I1ISVHI1ILANL

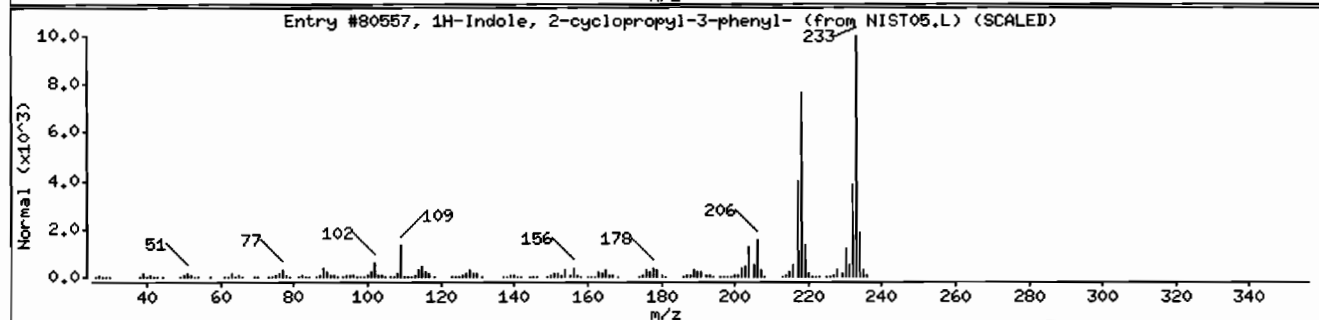
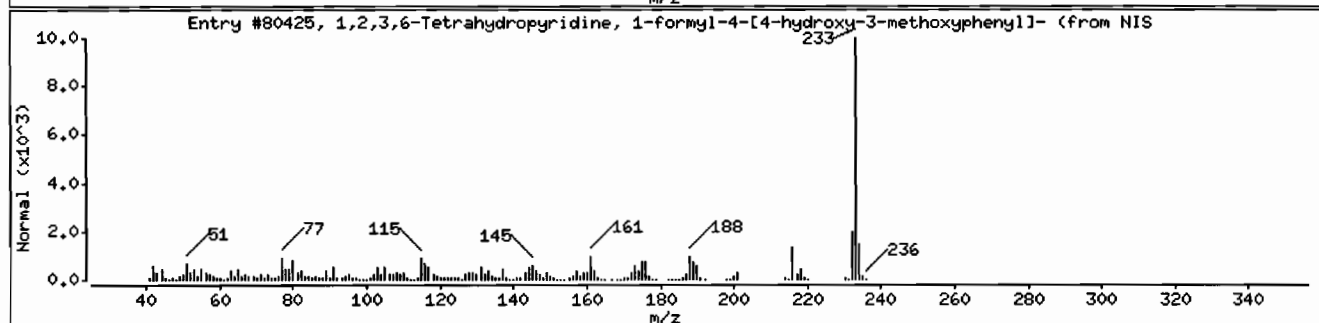
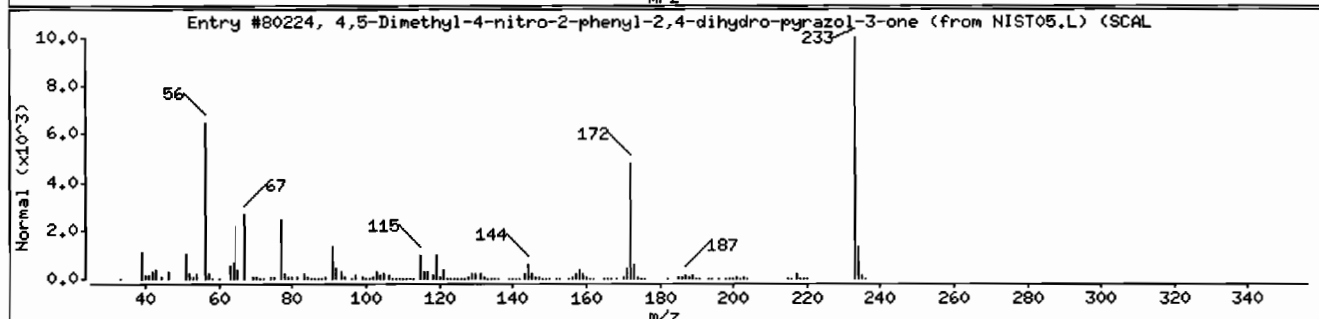
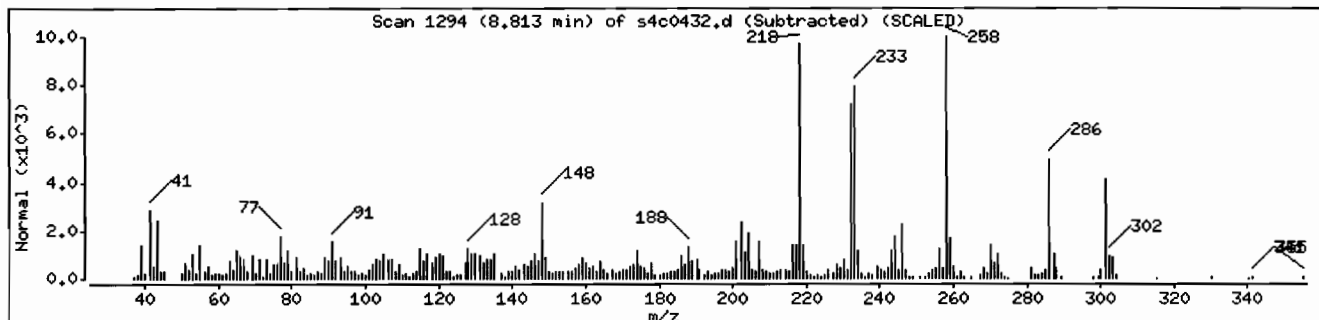
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula    | Weight |
|--|--------------|----------|-------|---------|------------|--------|
| Unknown                                  |              |          |       |         |            |        |
| 4,5-Dimethyl-4-nitro-2-phenyl-2,4-dihydr | 1000300-94-0 | NIST05.L | 80224 | 44      | C11H11N3O3 | 233    |
| 1,2,3,6-Tetrahydropyridine, 1-formyl-4-[ | 94427-35-7   | NIST05.L | 80425 | 44      | C13H15N3   | 233    |
| 1H-Indole, 2-cyclopropyl-3-phenyl-       | 163064-79-7  | NIST05.L | 80557 | 30      | C17H15N    | 233    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: HSD4.i

Sample Info: I247358003195628511ISVH11ILANL

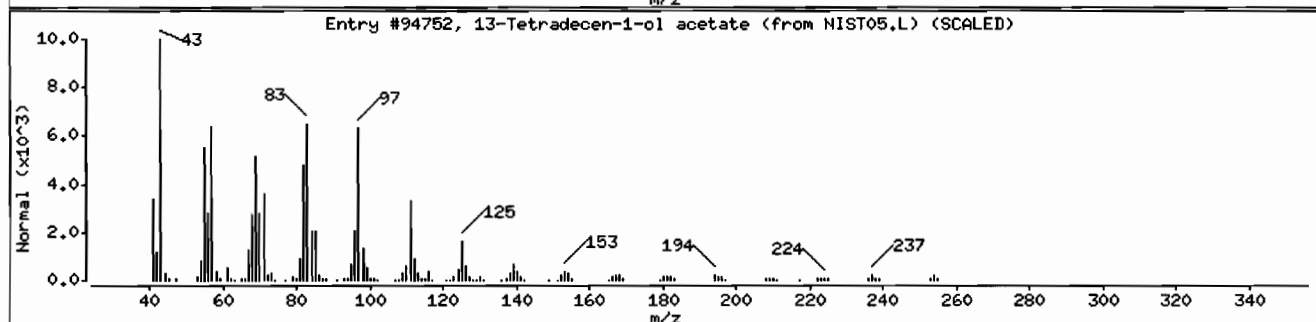
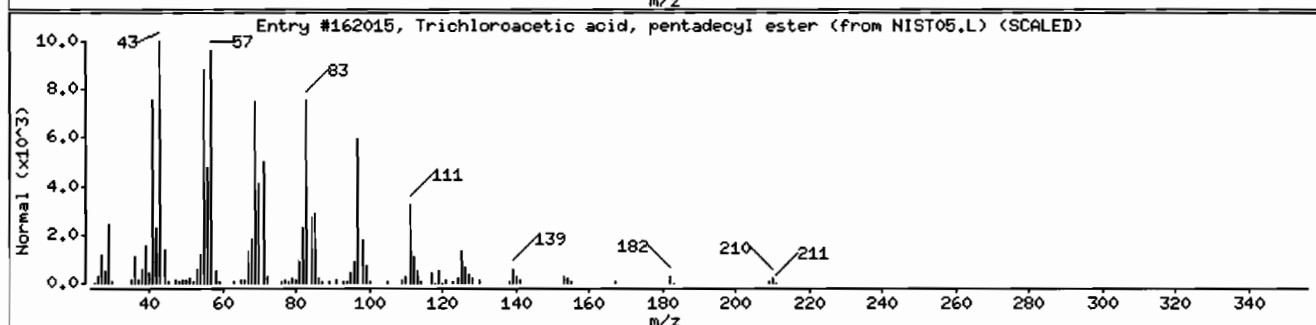
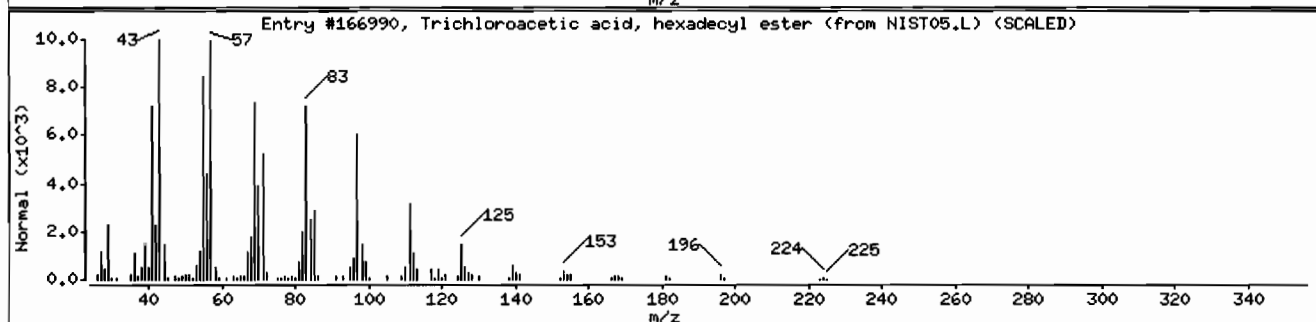
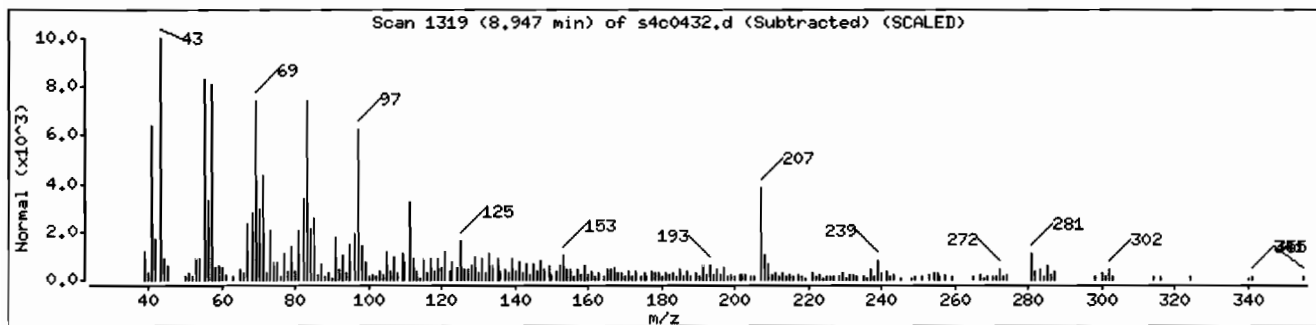
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match          | CAS Number | Library  | Entry  | Quality | Formula     | Weight |
|--|------------|----------|--------|---------|-------------|--------|
| Trichloroacetic acid, hexadecyl ester  | 74339-54-1 | NIST05.L | 166990 | 93      | C18H33Cl3O2 | 386    |
| Trichloroacetic acid, pentadecyl ester | 74339-53-0 | NIST05.L | 162015 | 93      | C17H31Cl3O2 | 372    |
| 13-Tetradecen-1-ol acetate             | 56221-91-1 | NIST05.L | 94752  | 90      | C16H30O2    | 254    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: I247358003I956285I1ISVM11ILANL

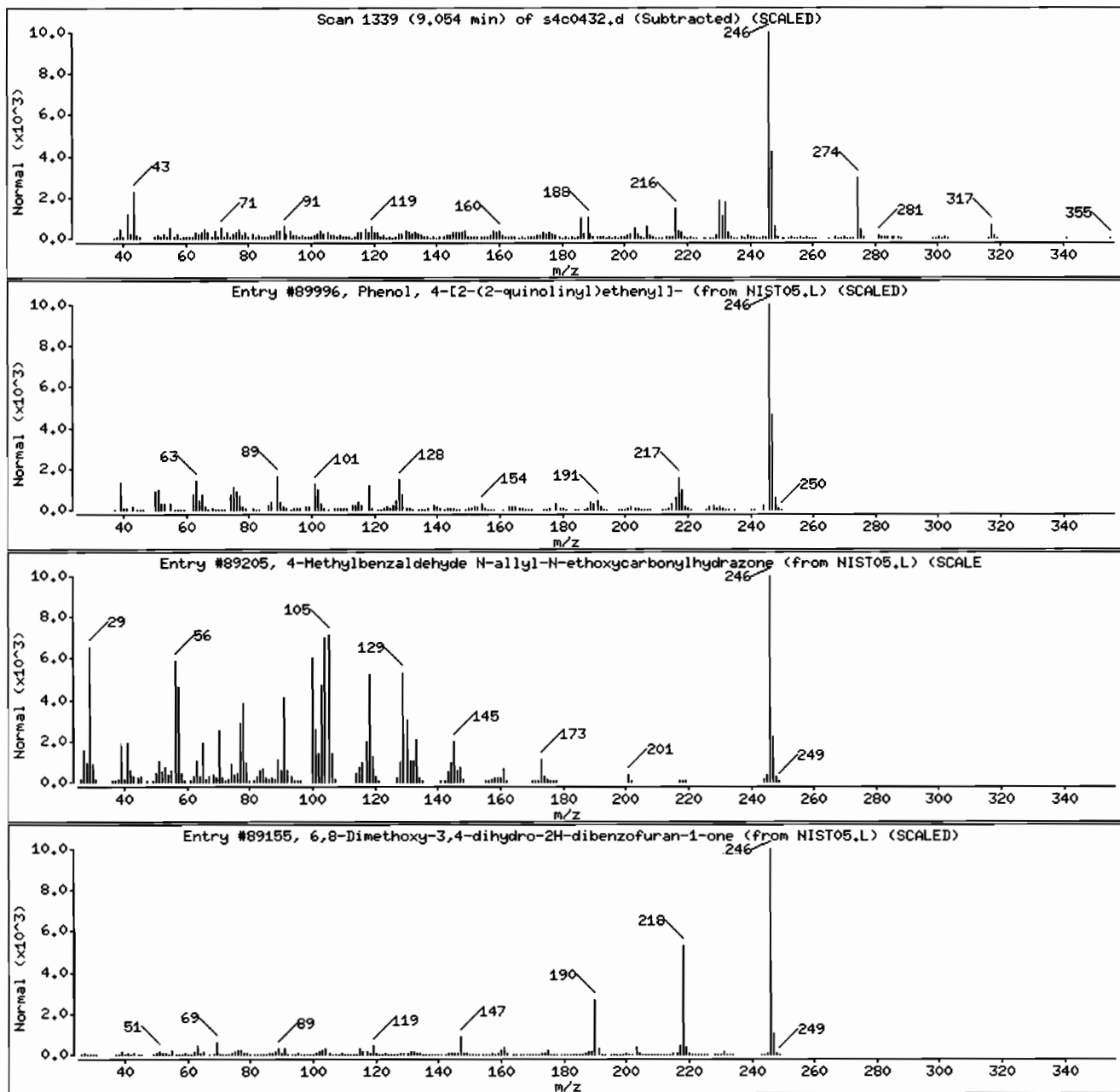
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula    | Weight |
|--|--------------|----------|-------|---------|------------|--------|
| Unknown                                  |              |          |       |         |            |        |
| Phenol, 4-[2-(2-quinolinyl)ethenyl]-     | 4752-58-3    | NIST05.L | 89996 | 38      | C17H13NO   | 247    |
| 4-Methylbenzaldehyde N-allyl-N-ethoxycar | 1000193-16-8 | NIST05.L | 89205 | 38      | C14H18N2O2 | 246    |
| 6,8-Dimethoxy-3,4-dihydro-2H-dibenzofura | 95361-60-7   | NIST05.L | 89155 | 38      | C14H14O4   | 246    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: 1247358003195628511SVH111LANL

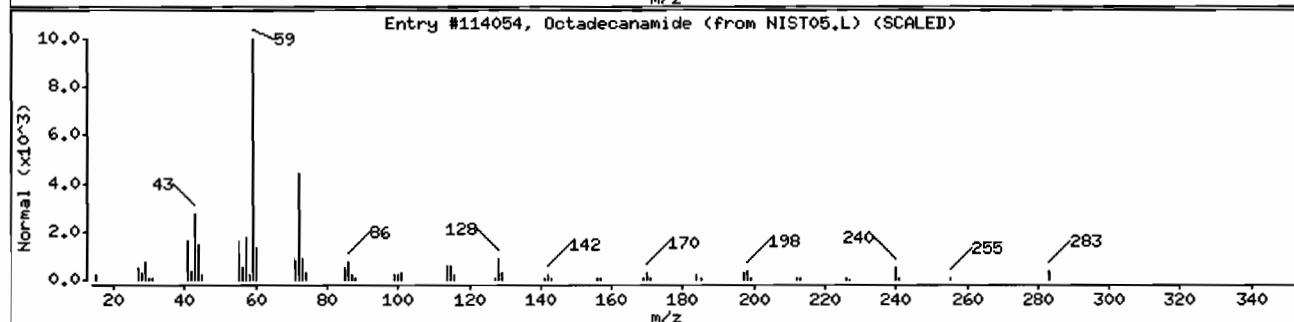
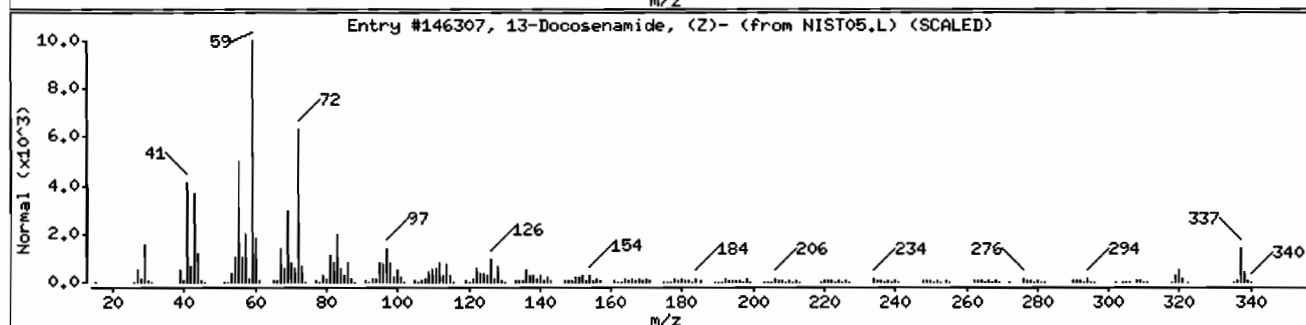
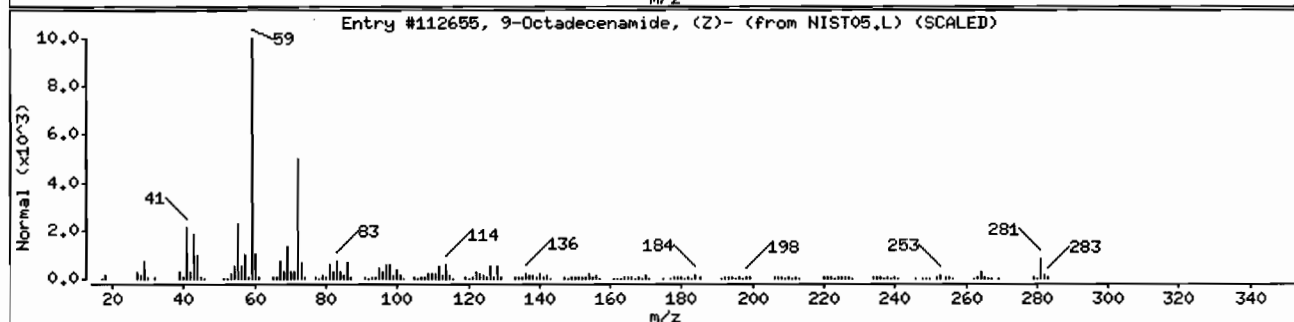
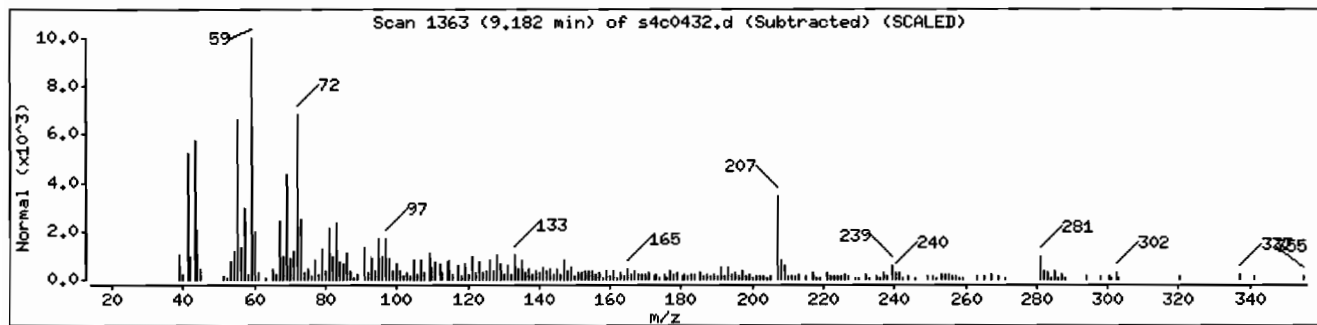
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|-------------------------------|------------|----------|--------|---------|----------|--------|
| 9-Octadecenamide, (Z)-        | 301-02-0   | NIST05.L | 112655 | 97      | C18H35NO | 281    |
| 13-Docosenamide, (Z)-         | 112-84-5   | NIST05.L | 146307 | 60      | C22H43NO | 337    |
| Octadecanamide                | 124-26-5   | NIST05.L | 114054 | 49      | C18H37NO | 283    |



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Client ID: RE36-10-7428

Instrument: HSD4.i

Sample Info: 1247358003195628511SVH111LANL

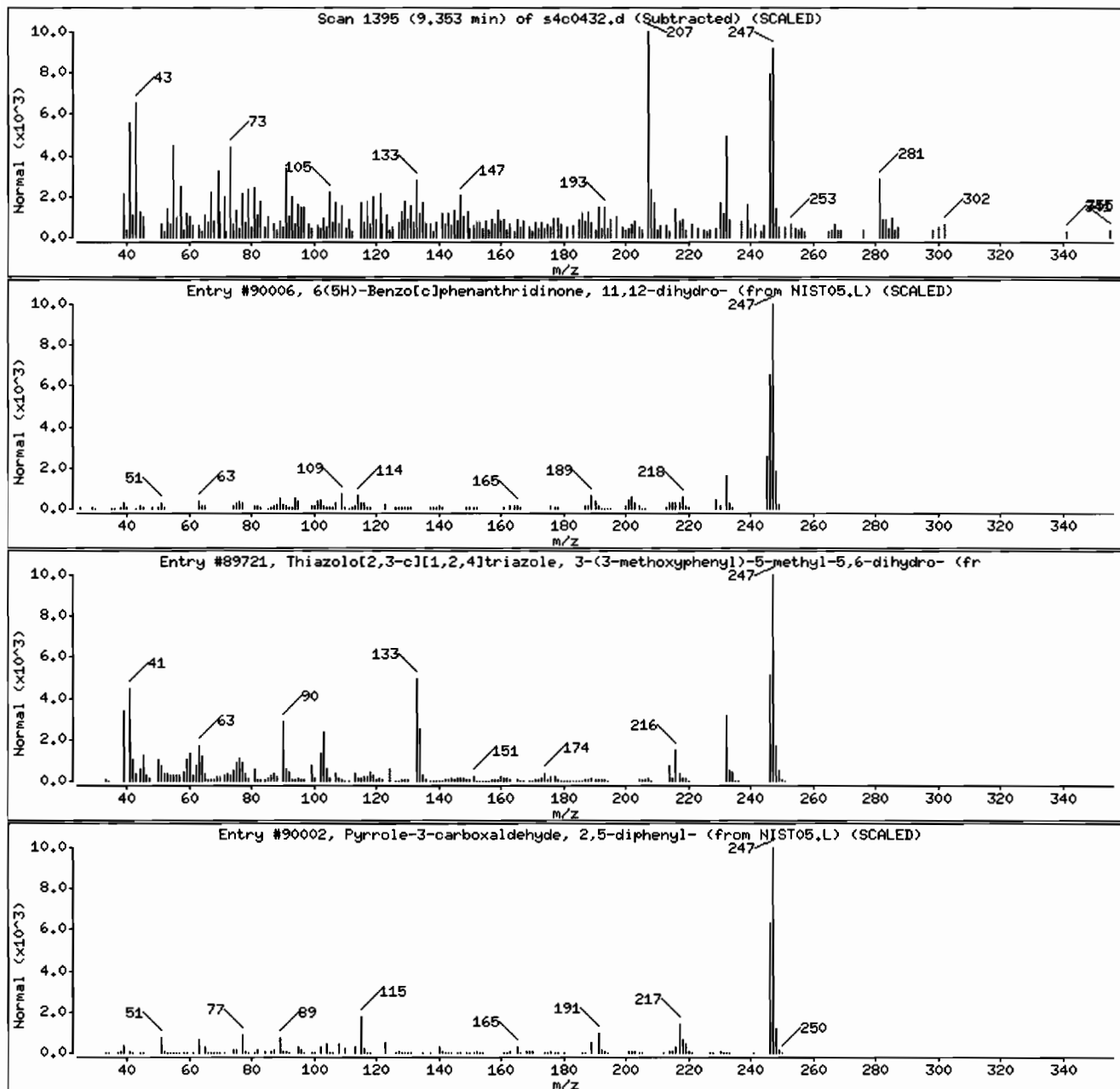
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula    | Weight |
|--|--------------|----------|-------|---------|------------|--------|
| Unknown                                  |              |          |       |         |            |        |
| 6(5H)-Benzo[c]phenanthridinone, 11,12-di | 55377-53-2   | NIST05.L | 90006 | 50      | C17H13NO   | 247    |
| Thiazolo[2,3-c][1,2,4]triazole, 3-(3-met | 1000303-64-4 | NIST05.L | 89721 | 46      | C12H13N3OS | 247    |
| Pyrrole-3-carboxaldehyde, 2,5-diphenyl-  | 110698-97-0  | NIST05.L | 90002 | 46      | C17H13NO   | 247    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: HSD4.i

Sample Info: 1247358003195628511SVH11ILANL

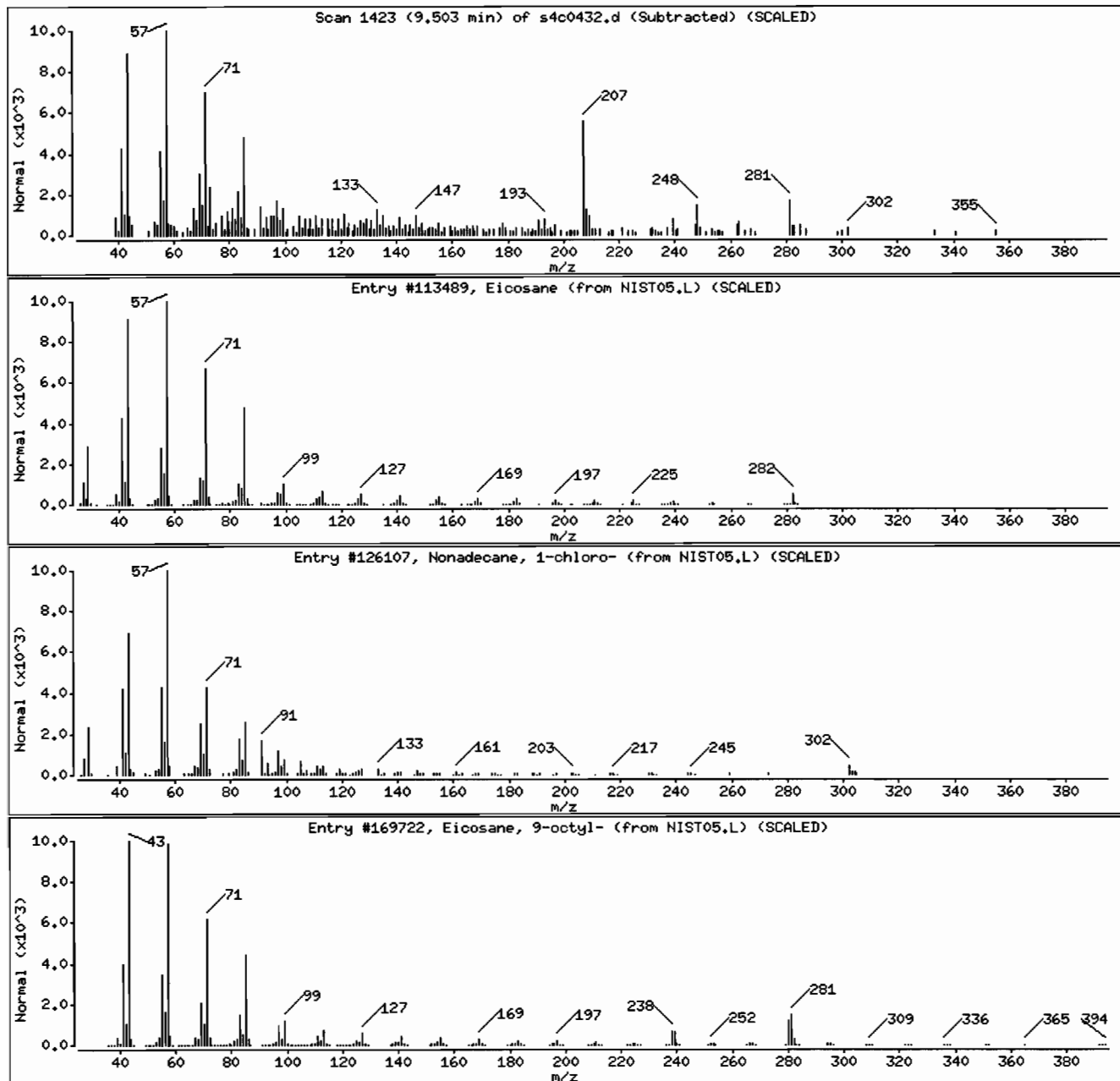
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|-------------------------------|------------|----------|--------|---------|----------|--------|
| Eicosane                      | 112-95-8   | NIST05.L | 113489 | 95      | C20H42   | 282    |
| Nonadecane, 1-chloro-         | 62016-76-6 | NIST05.L | 126107 | 89      | C19H39Cl | 302    |
| Eicosane, 9-octyl-            | 13475-77-9 | NIST05.L | 169722 | 50      | C28H58   | 394    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: I247358003I956285I1ISVMI1ILANL

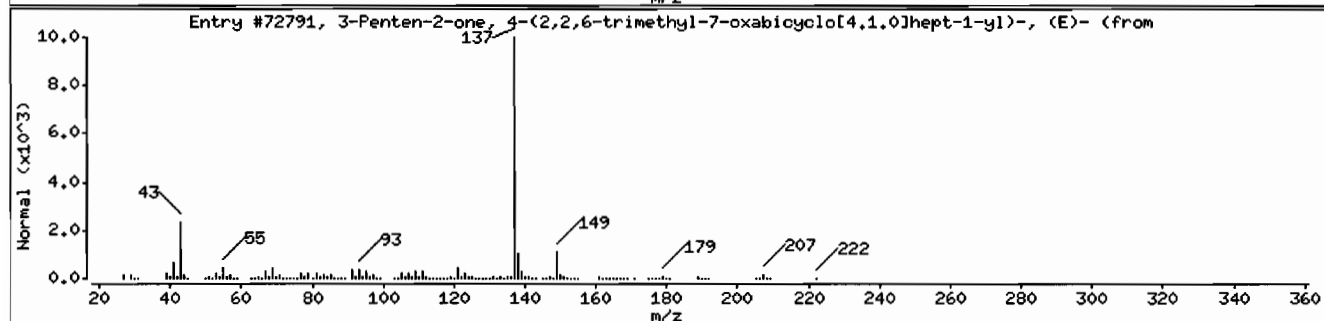
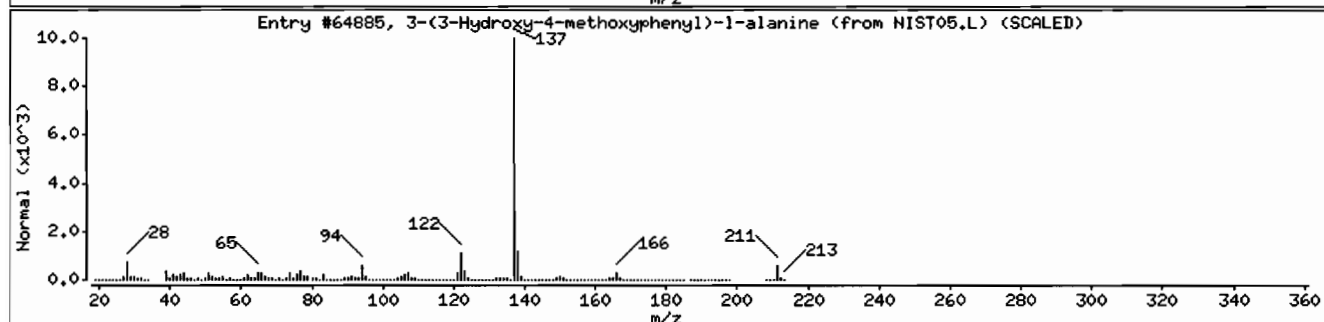
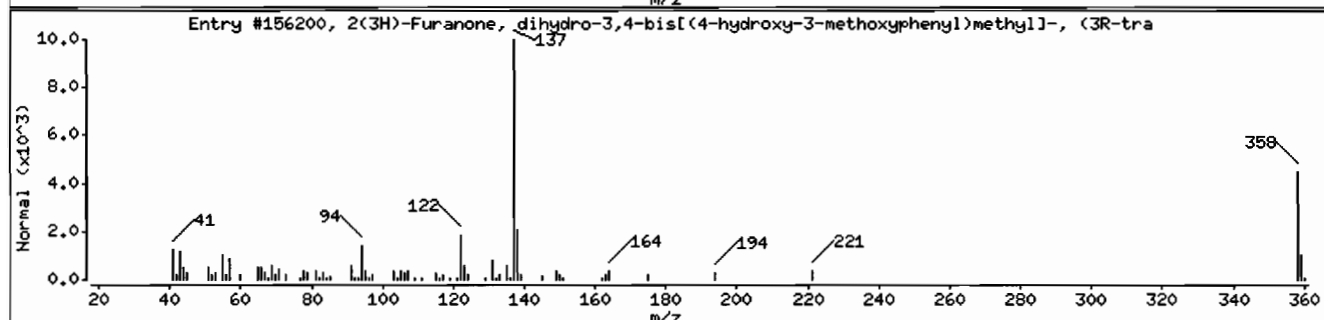
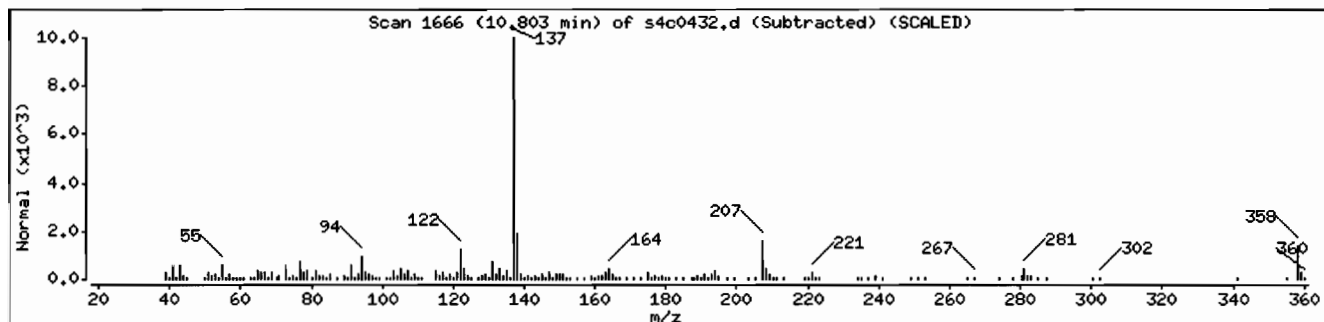
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match   | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|---|--------------|----------|--------|---------|-----------|--------|
| 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R-tran | 580-72-3     | NIST05.L | 156200 | 92      | C20H22O6  | 358    |
| 3-(3-Hydroxy-4-methoxyphenyl)-L-alanine                                       | 1000103-80-4 | NIST05.L | 64885  | 68      | C10H13NO4 | 211    |
| 3-Penten-2-one, 4-(2,2,6-trimethyl-7-oxa                                      | 89128-12-1   | NIST05.L | 72791  | 64      | C14H22O2  | 222    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: I247358003I956285I1ISVH1I1LANL

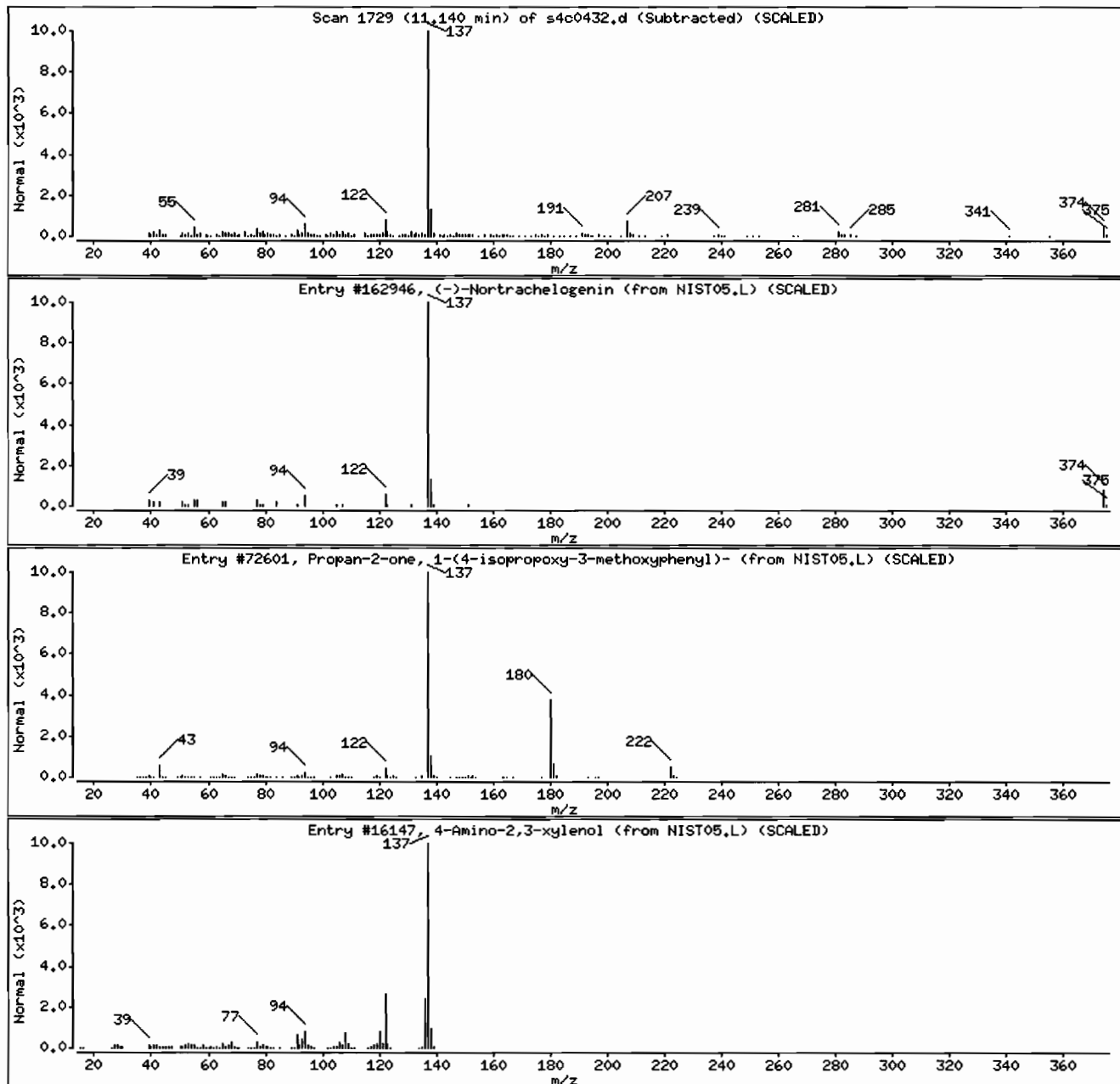
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| (-)-Nortrachelogenin                     | 34444-37-6   | NIST05.L | 162946 | 90      | C20H22O7 | 374    |
| Propan-2-one, 1-(4-isopropoxy-3-methoxy- | 1000267-40-3 | NIST05.L | 72601  | 64      | C13H18O3 | 222    |
| 4-Amino-2,3-xylene                       | 3096-69-3    | NIST05.L | 16147  | 64      | C8H11NO  | 137    |





Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: I247358003I956285I1ISVH11ILANL

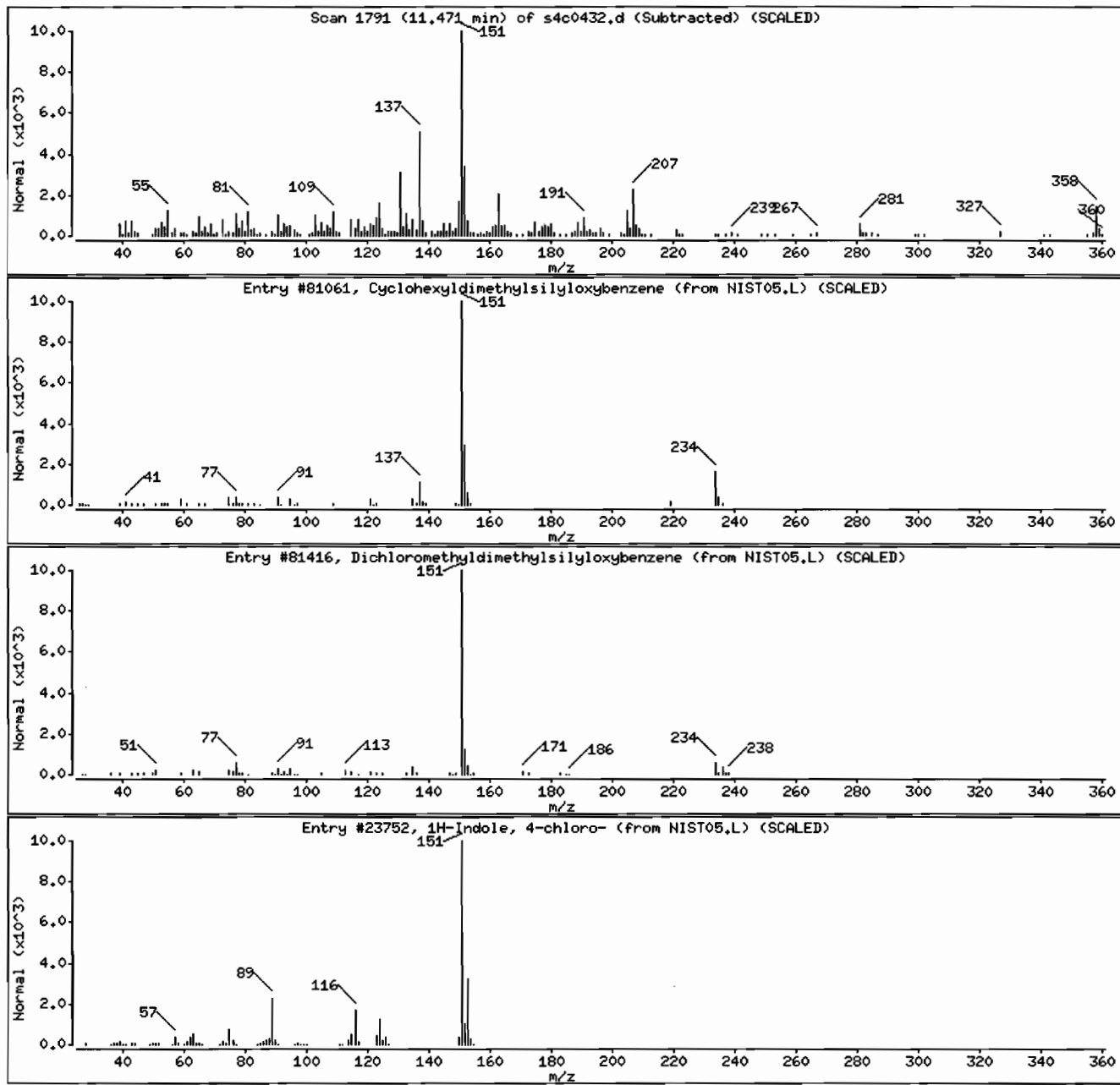
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match         | CAS Number   | Library  | Entry | Quality | Formula     | Weight |
|---------------------------------------|--------------|----------|-------|---------|-------------|--------|
| Unknown                               |              |          |       |         |             |        |
| Cyclohexyldimethylsilyloxybenzene     | 1000299-09-8 | NIST05.L | 81061 | 35      | C14H22OSi   | 234    |
| Dichloromethyldimethylsilyloxybenzene | 1000299-10-7 | NIST05.L | 81416 | 27      | C9H12Cl2OSi | 234    |
| 1H-Indole, 4-chloro-                  | 25235-85-2   | NIST05.L | 23752 | 27      | C8H6ClN     | 151    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: I247358003I956285I1ISVMH11LANL

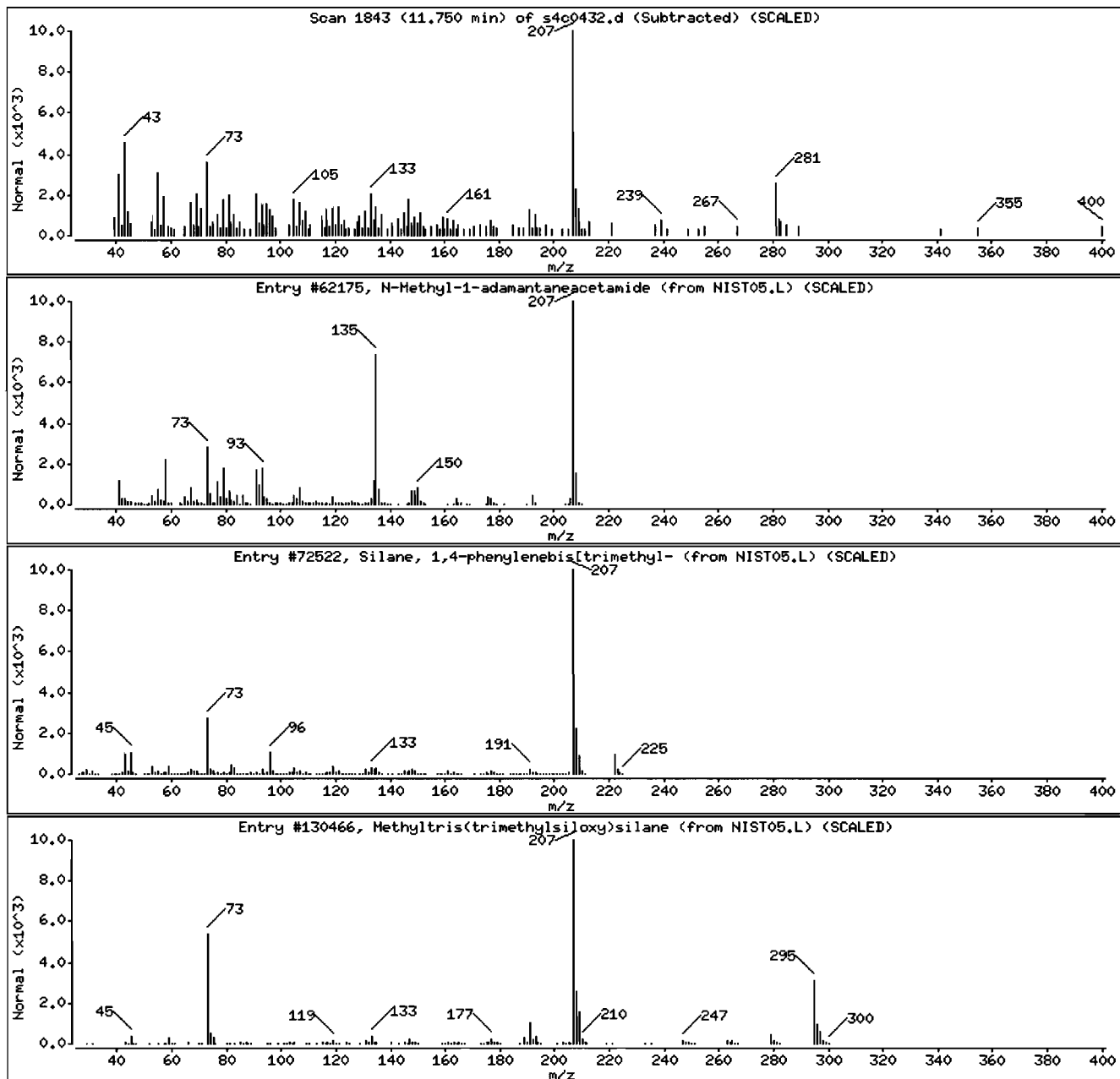
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match       | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|-------------------------------------|------------|----------|--------|---------|--|--------|
| Unknown                             |            |          |        |         |  |        |
| N-Methyl-1-adamantaneacetamide      | 31897-93-5 | NIST05.L | 62175  | 50      | C <sub>13</sub> H <sub>21</sub> N                              | 207    |
| Silane, 1,4-phenylenebis(trimethyl- | 13183-70-5 | NIST05.L | 72522  | 50      | C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>                | 222    |
| Methyltris(trimethylsiloxy)silane   | 17928-28-8 | NIST05.L | 130466 | 50      | C <sub>10</sub> H <sub>30</sub> O <sub>3</sub> Si <sub>4</sub> | 310    |



Date : 05-MAR-2010 00:07

Client ID: RE36-10-7428

Instrument: MSD4.i

Sample Info: 1247358003195628511SVMI11LANL

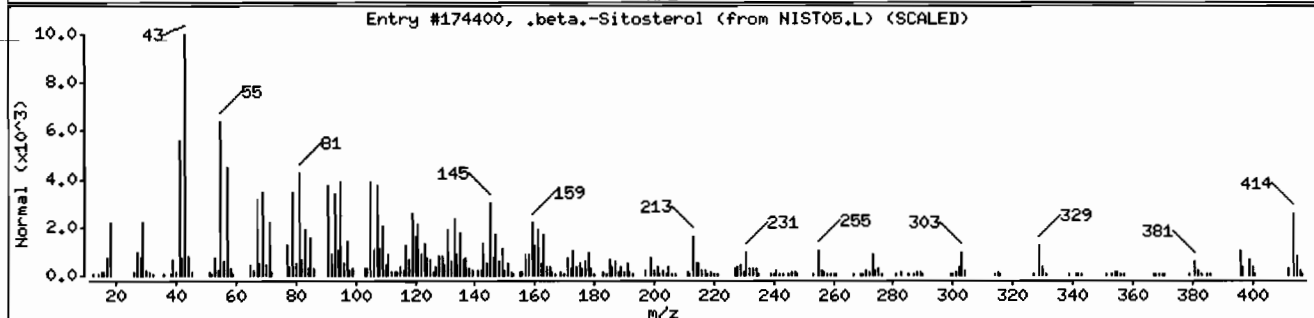
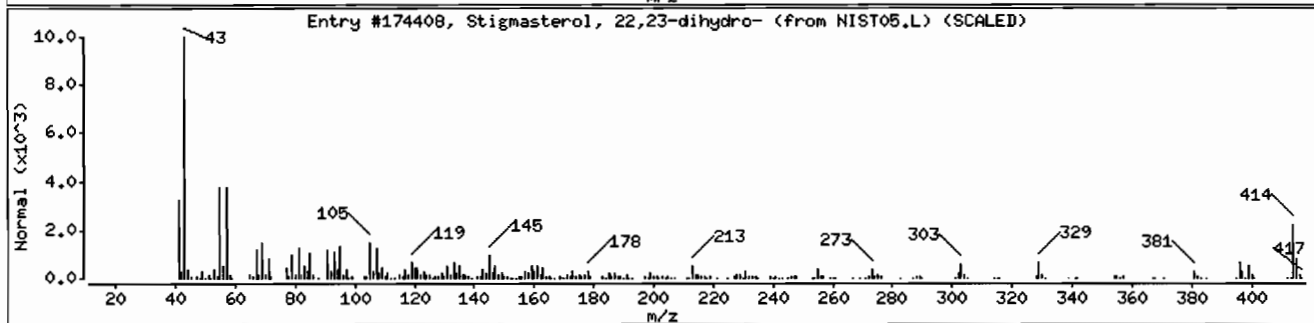
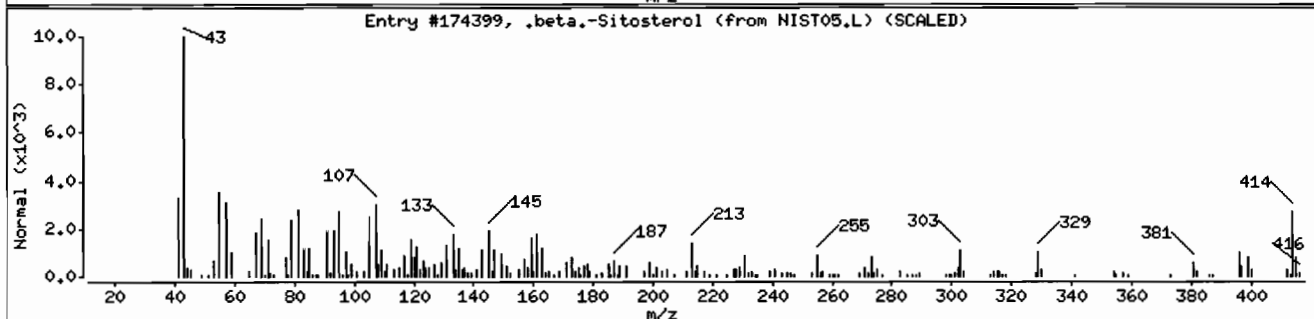
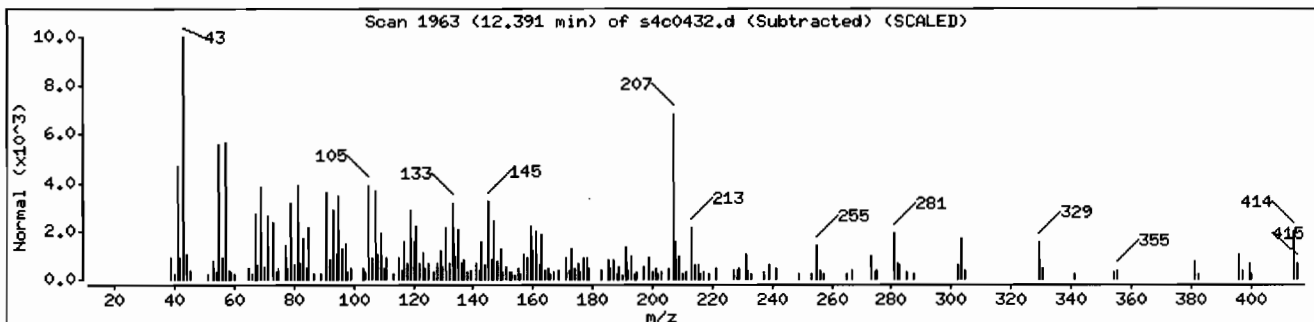
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number   | Library  | Entry  | Quality | Formula                           | Weight |
|-------------------------------|--------------|----------|--------|---------|-----------------------------------|--------|
| .beta.-Sitosterol             | 83-46-5      | NIST05.L | 174399 | 97      | C <sub>29</sub> H <sub>50</sub> O | 414    |
| Stigmasterol, 22,23-dihydro-  | 1000214-20-7 | NIST05.L | 174408 | 96      | C <sub>29</sub> H <sub>50</sub> O | 414    |
| .beta.-Sitosterol             | 83-46-5      | NIST05.L | 174400 | 95      | C <sub>29</sub> H <sub>50</sub> O | 414    |



# Standard Data

|   |         |         |         |          |         |         |         |         |
|---|---------|---------|---------|----------|---------|---------|---------|---------|
| SW846 8270/EPA 625                            |         |         |         |          |         |         |         |         |
| Calibration Standard Concentration Levels*    |         |         |         |          |         |         |         |         |
| MEGA MIX                                      | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| 1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)    |         |         |         |          |         |         |         |         |
| Naphthalene-d8 (INTERNAL STANDARD)            |         |         |         |          |         |         |         |         |
| Acenaphthene-d10 (INTERNAL STANDARD)          |         |         |         |          |         |         |         |         |
| Phenanthrene-d10 (INTERNAL STANDARD)          |         |         |         |          |         |         |         |         |
| Chrysene-d12 (INTERNAL STANDARD)              |         |         |         |          |         |         |         |         |
| Perylene-d12 (INTERNAL STANDARD)              |         |         |         |          |         |         |         |         |
| 2-Fluorophenol (SURROGATE)                    |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Phenol-d5 (SURROGATE)                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2-Chlorophenol-d4 (CLP SURROGATE)             |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,2-Dichlorobenzene-d4 (CLP SURROGATE)        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Nitrobenzene-d5 (SURROGATE)                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2-Fluorobiphenyl (SURROGATE)                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2,4,6-Tribromophenol (SURROGATE)              |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| p-Terphenyl-d14 (SURROGATE)                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| N-Nitrosodimethylamine                        | 1**     | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Pyridine                                      |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Aniline                                       |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Phenol  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| bis(2-Chloroethyl)ether                       |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2-Chlorophenol                                |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| n-Decane                                      |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,3-Dichlorobenzene                           |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,4-Dichlorobenzene                           |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Benzyl Alcohol                                |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,2-Dichlorobenzene                           |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| bis(2-Chloroisopropyl)ether                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| o-Cresol (2-Methylphenol)                     |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| N-Nitrosodipropylamine                        | 1**     | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| m,p-Cresols (3-Methylphenol & 4-Methylphenol) |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Hexachloroethane                              |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Nitrobenzene                                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Isophorone                                    |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2-Nitrophenol                                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2,4-Dimethylphenol                            |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| bis(2-Chloroethoxy)methane                    |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2,4-Dichlorophenol                            |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Benzoic Acid                                  |         |         | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,2,4-Trichlorobenzene                        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Naphthalene                                   | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| alpha-Terpineol                               |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 4-Chloroaniline                               |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |

|  |         |         |         |          |         |         |         |         |
|--|---------|---------|---------|----------|---------|---------|---------|---------|
| SW846 8270/EPA 625                         |         |         |         |          |         |         |         |         |
| Calibration Standard Concentration Levels* |         |         |         |          |         |         |         |         |
| MEGA MIX                                   | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| Hexachlorobutadiene                        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 4-Chloro-3-methylphenol                    |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2-Methylnaphthalene                        | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |

|                              |     |    |    |    |    |    |     |     |
|------------------------------|-----|----|----|----|----|----|-----|-----|
| 1-Methylnaphthalene          | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Hexachlorocyclopentadiene    |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2,3-Dichloroaniline          |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2,4,6-Trichlorophenol        |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2,4,5-Trichlorophenol        |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2-Chloronaphthalene          | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| o-Nitroaniline               |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| m-Nitroaniline               |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Dimethylphthalate            | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2,6-Dinitrotoluene           |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Acenaphthylene               | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Acenaphthene                 | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2,4-Dinitrophenol            |     |    | 20 | 40 | 50 | 80 | 100 | 120 |
| Dibenzofuran                 |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2,4-Dinitrotoluene           |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Diethylphthalate             | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 4-Nitrophenol                |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Fluorene                     | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 4-Chlorophenyl phenyl ether  |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2-Methyl-4,6-dinitrophenol   |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| p-Nitroaniline               |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Diphenylamine                |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 1,2-Diphenylhydrazine        |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 4-Bromophenyl phenylether    |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Hexachlorobenzene            |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Pentachlorophenol            |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| n-Octadecane                 |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Phenanthrene                 | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Anthracene                   | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Di-n-butylphthalate          | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Fluoranthene                 | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Pyrene                       | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Butylbenzylphthalate         | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Benzo(a)anthracene           | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Chrysene                     | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| bis (2-Ethylhexyl) phthalate | 1   | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Di-n-octylphthalate          | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |

| SW846 8270/EPA 625                         |         |         |         |          |         |         |         |         |
|--|---------|---------|---------|----------|---------|---------|---------|---------|
| Calibration Standard Concentration Levels* |         |         |         |          |         |         |         |         |
| MEGA MIX                                   | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| Benzo(b)fluoranthene                       | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Benzo(k)fluoranthene                       | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Benzo(a)pyrene                             | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Indeno-(1,2,3-cd)pyrene                    | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Dibenzo(a,h)anthracene                     | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Benzo(ghi)perylene                         | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| m-Dinitrobenzene                           |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2,3,4,6-Tetrachlorophenol                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Dinoseb                                    |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Carbazole                                  | 1       | 10      | 20      | 40       | 50      | 80      | 100     | 120     |

|                               |     |    |    |    |    |    |     |     |
|-------------------------------|-----|----|----|----|----|----|-----|-----|
| p-Benzoquinone                |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Methoxychlor                  | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| p-Toluidine                   |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| m-Toluidine                   |     | 10 | 20 | 40 | 50 | 80 | 10  | 120 |
| 1,4-Dinitrobenzene            |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2-Ethoxyethanol               |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Phthalic anhydride            |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Methylenebis(2-chloroaniline) |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Dibenzo(a,e)pyrene            |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |

|  |         |         |         |          |         |         |         |         |
|--|---------|---------|---------|----------|---------|---------|---------|---------|
| SW846 8270/EPA 625                         |         |         |         |          |         |         |         |         |
| Calibration Standard Concentration Levels* |         |         |         |          |         |         |         |         |
| AP MIX                                     | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| Benzaldehyde                               |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Acetophenone                               |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Caprolactam                                |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,1'-Biphenyl                              |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Atrazine                                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Benzidine                                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 3,3'-Dichlorobenzidine                     |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,4-Dioxane                                |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Methyl methacrylate                        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Ethyl methacrylate                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2-Picoline                                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| N-Nitrosomethylethylamine                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Methyl methanesulfonate                    |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| N-Nitrosodiethylamine                      |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Ethyl methanesulfonate                     |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Pentachloroethane                          |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| N-Nitrosopyrrolidine                       |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| N-Nitrosomorpholine                        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| o-Toluidine                                |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| N-Nitrosopiperidine                        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| a,a-Dimethylphenethylamine                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2,6-Dichlorophenol                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |

|  |         |         |         |          |         |         |         |         |
|--|---------|---------|---------|----------|---------|---------|---------|---------|
| SW846 8270/EPA 625                         |         |         |         |          |         |         |         |         |
| Calibration Standard Concentration Levels* |         |         |         |          |         |         |         |         |
| AP MIX                                     | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| Hexachloropropene                          |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| p-Phenylenediamine                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| N-Nitrosodi-n-butylamine                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Safrrole                                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,2,4,5-Tetrachlorobenzene                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Isosafrole                                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,4-Naphthoquinone                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Pentachlorobenzene                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1-Naphthylamine                            |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2-Naphthylamine                            |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 5-Nitro-o-toluidine                        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1,3,5-Trinitrobenzene                      |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Phenacetin                                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Diallate                                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| cis-Diallate                               |         | 1.5     | 3       | 6        | 7.5     | 12      | 15      | 18      |
| trans-Diallate                             |         | 8.5     | 17      | 34       | 42      | 68      | 85      | 102     |
| 4-Aminobiphenyl                            |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |

|                                |     |    |    |    |    |    |     |     |
|--------------------------------|-----|----|----|----|----|----|-----|-----|
| Pentachloronitrobenzene        |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Pronamide                      |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 4-Nitroquinoline oxide         |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Methapyrilene                  | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Isodrin                        | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Aramite                        |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Kepone                         | 1** | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| p-(Dimethylamino)azobenzene    |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| Chlorobenzilate                |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 3,3'-Dimethylbenzidine         |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 2-Acetylaminofluorene          |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 7,12-Dimethylbenz(a)anthracene |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
| 3-Methylcholanthrene           |     | 10 | 20 | 40 | 50 | 80 | 100 | 120 |

|  |         |         |         |          |         |         |         |         |
|--|---------|---------|---------|----------|---------|---------|---------|---------|
| SW846 8270/EPA 625                         |         |         |         |          |         |         |         |         |
| Calibration Standard Concentration Levels* |         |         |         |          |         |         |         |         |
|  | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| Hexachlorophene                            |         | 500     | 1000    | 1250     | 1500    | 1750    | 2000    |         |

|  |         |         |         |          |         |         |         |         |
|--|---------|---------|---------|----------|---------|---------|---------|---------|
| SW846 8270/EPA 625                         |         |         |         |          |         |         |         |         |
| Calibration Standard Concentration Levels* |         |         |         |          |         |         |         |         |
| PEST MIX                                   | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| Tributylphosphate                          |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Triethylphosphorothioate                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Thionazin                                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Sulfotepp                                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Phorate                                    |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Dimethoate                                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Disulfoton                                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Methyl parathion                           |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Famphur                                    |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Parathion                                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |

|  |         |         |         |          |         |         |         |         |
|--|---------|---------|---------|----------|---------|---------|---------|---------|
| SW846 8270/EPA 625                         |         |         |         |          |         |         |         |         |
| Calibration Standard Concentration Levels* |         |         |         |          |         |         |         |         |
| NEVADA MIX                                 | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| bis(Chloromethyl)ether                     |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 4-Chlorothiophenol                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 4-Chlorothioanisole                        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Phthalic acid                              |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Hydroxymethyl phthalimide                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Diphenyl sulfide                           |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Diphenyl disulfide                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Phenyl sulfone                             |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Octachlorostyrene                          |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Thiophenol                                 |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2,2'-Dichlorobenzil                        |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| bis(p-Chlorophenyl)disulfide               |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |



|                            |  |    |    |    |    |    |     |     |
|----------------------------|--|----|----|----|----|----|-----|-----|
| bis(p-Chlorophenyl)sulfone |  | 10 | 20 | 40 | 50 | 80 | 100 | 120 |
|----------------------------|--|----|----|----|----|----|-----|-----|

|  |         |         |         |          |         |         |         |         |
|--|---------|---------|---------|----------|---------|---------|---------|---------|
| SW846 8270C/8270D/EPA 625                  |         |         |         |          |         |         |         |         |
| Calibration Standard Concentration Levels* |         |         |         |          |         |         |         |         |
| BJCO MIX                                   | Level 1 | Level 2 | Level 3 | Level 4# | Level 5 | Level 6 | Level 7 | Level 8 |
| 1-Hexanol                                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Quinoline                                  |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 2,4-Toluene diisocyanate                   |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 1-Nitropyrene                              |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 5-Methylchrysene                           |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Benzo(i)fluoranthene                       |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Dibenzo(a,h)pyrene                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Dibenzo(a,h)acridine                       |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Dibenzo(a,i)acridine                       |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Dibenzo(a,i)pyrene                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| Dibenzo(a,l)pyrene                         |         | 10      | 20      | 40       | 50      | 80      | 100     | 120     |
| 7H-Dibenzo(c,g)carbazole                   |         | 10      | 20      | 40       | 50      | 80      | 10      | 120     |

All values are mg/L without the prep factor.

# Indicates the calibration verification concentration level used

\* Usual calibration levels using SCAN methodology

\*\* This analyte included in this level at special client request.

(0210/Full list)

Report Date: 05-Mar-2010 07:48

### Calibration History

Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

Start Cal Date: 25-FEB-2010 03:29

End Cal Date : 28-FEB-2010 15:40

#### Initial Calibration

| Injection Date                       | Sublist | Calibration File                  |
|--------------------------------------|---------|-----------------------------------|
| Cal Level: 1 , Cal Amount: 1.00000   |         |                                   |
| 25-FEB-2010 09:39                    | MEGA    | /chem/MSD4.i/s022410a.b/s4b2448.d |
| Cal Level: 2 , Cal Amount: 10.00000  |         |                                   |
| 28-FEB-2010 13:51                    | BJCO    | /chem/MSD4.i/s022810.b/s4b2808.d  |
| 25-FEB-2010 20:02                    | NEV     | /chem/MSD4.i/s022510.b/s4b2507.d  |
| 25-FEB-2010 13:38                    | AP12    | /chem/MSD4.i/s022410a.b/s4b2456.d |
| 25-FEB-2010 10:06                    | MEGA    | /chem/MSD4.i/s022410a.b/s4b2449.d |
| 25-FEB-2010 03:29                    | PEST    | /chem/MSD4.i/s022410a.b/s4b2436.d |
| Cal Level: 3 , Cal Amount: 20.00000  |         |                                   |
| 28-FEB-2010 12:56                    | BJCO    | /chem/MSD4.i/s022810.b/s4b2806.d  |
| 25-FEB-2010 20:23                    | NEV     | /chem/MSD4.i/s022510.b/s4b2508.d  |
| 25-FEB-2010 14:00                    | AP12    | /chem/MSD4.i/s022410a.b/s4b2457.d |
| 25-FEB-2010 10:32                    | MEGA    | /chem/MSD4.i/s022410a.b/s4b2450.d |
| 25-FEB-2010 03:51                    | PEST    | /chem/MSD4.i/s022410a.b/s4b2437.d |
| Cal Level: 4 , Cal Amount: 40.00000  |         |                                   |
| 28-FEB-2010 13:24                    | BJCO    | /chem/MSD4.i/s022810.b/s4b2807.d  |
| 25-FEB-2010 20:45                    | NEV     | /chem/MSD4.i/s022510.b/s4b2509.d  |
| 25-FEB-2010 14:21                    | AP12    | /chem/MSD4.i/s022410a.b/s4b2458.d |
| 25-FEB-2010 10:59                    | MEGA    | /chem/MSD4.i/s022410a.b/s4b2451.d |
| 25-FEB-2010 04:13                    | PEST    | /chem/MSD4.i/s022410a.b/s4b2438.d |
| Cal Level: 5 , Cal Amount: 50.00000  |         |                                   |
| 28-FEB-2010 14:18                    | BJCO    | /chem/MSD4.i/s022810.b/s4b2809.d  |
| 25-FEB-2010 21:07                    | NEV     | /chem/MSD4.i/s022510.b/s4b2510.d  |
| 25-FEB-2010 14:43                    | AP12    | /chem/MSD4.i/s022410a.b/s4b2459.d |
| 25-FEB-2010 11:26                    | MEGA    | /chem/MSD4.i/s022410a.b/s4b2452.d |
| 25-FEB-2010 04:34                    | PEST    | /chem/MSD4.i/s022410a.b/s4b2439.d |
| Cal Level: 6 , Cal Amount: 80.00000  |         |                                   |
| 28-FEB-2010 14:45                    | BJCO    | /chem/MSD4.i/s022810.b/s4b2810.d  |
| 25-FEB-2010 21:29                    | NEV     | /chem/MSD4.i/s022510.b/s4b2511.d  |
| 25-FEB-2010 15:05                    | AP12    | /chem/MSD4.i/s022410a.b/s4b2460.d |
| 25-FEB-2010 11:52                    | MEGA    | /chem/MSD4.i/s022410a.b/s4b2453.d |
| 25-FEB-2010 04:56                    | PEST    | /chem/MSD4.i/s022410a.b/s4b2440.d |
| Cal Level: 7 , Cal Amount: 100.00000 |         |                                   |

|             |       |      |                                   |
|-------------|-------|------|-----------------------------------|
| 28-FEB-2010 | 15:13 | BJCO | /chem/MSD4.i/s022810.b/s4b2811.d  |
| 25-FEB-2010 | 21:51 | NEV  | /chem/MSD4.i/s022510.b/s4b2512.d  |
| 25-FEB-2010 | 15:27 | AP12 | /chem/MSD4.i/s022410a.b/s4b2461.d |
| 25-FEB-2010 | 12:19 | MEGA | /chem/MSD4.i/s022410a.b/s4b2454.d |
| 25-FEB-2010 | 05:18 | PEST | /chem/MSD4.i/s022410a.b/s4b2441.d |

|                                      |  |  |  |
|--------------------------------------|--|--|--|
| Cal Level: 8 , Cal Amount: 120.00000 |  |  |  |
|--------------------------------------|--|--|--|

|             |       |      |                                   |
|-------------|-------|------|-----------------------------------|
| 28-FEB-2010 | 15:40 | BJCO | /chem/MSD4.i/s022810.b/s4b2812.d  |
| 25-FEB-2010 | 22:13 | NEV  | /chem/MSD4.i/s022510.b/s4b2513.d  |
| 25-FEB-2010 | 15:48 | AP12 | /chem/MSD4.i/s022410a.b/s4b2462.d |
| 25-FEB-2010 | 12:46 | MEGA | /chem/MSD4.i/s022410a.b/s4b2455.d |
| 25-FEB-2010 | 05:39 | PEST | /chem/MSD4.i/s022410a.b/s4b2442.d |

# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

|                                   |  |  |  |
|-----------------------------------|--|--|--|
| Ccal Level: 4 , Ccal Amount: 40.0 |  |  |  |
|-----------------------------------|--|--|--|

|             |       |      |                                   |
|-------------|-------|------|-----------------------------------|
| 04-MAR-2010 | 15:49 | MEGA | /chem/MSD4.i/s030410a.b/s4c0410.d |
|-------------|-------|------|-----------------------------------|

|                                   |  |  |  |
|-----------------------------------|--|--|--|
| Ccal Level: 4 , Ccal Amount: 40.0 |  |  |  |
|-----------------------------------|--|--|--|

|             |       |      |                                   |
|-------------|-------|------|-----------------------------------|
| 04-MAR-2010 | 16:21 | AP12 | /chem/MSD4.i/s030410a.b/s4c0411.d |
|-------------|-------|------|-----------------------------------|

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 03:29  
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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
 Cal Date : 05-Mar-2010 07:47 jos00786

## Calibration File Names:

Level 1: /chem/MSD4.i/s022410a.b/s4b2448.d  
 Level 2: /chem/MSD4.i/s022810.b/s4b2808.d  
 Level 3: /chem/MSD4.i/s022810.b/s4b2806.d  
 Level 4: /chem/MSD4.i/s022810.b/s4b2807.d  
 Level 5: /chem/MSD4.i/s022810.b/s4b2809.d  
 Level 6: /chem/MSD4.i/s022810.b/s4b2810.d  
 Level 7: /chem/MSD4.i/s022810.b/s4b2811.d  
 Level 8: /chem/MSD4.i/s022810.b/s4b2812.d

| Compound                        | 1<br>Level 1    | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|---------------------------------|-----------------|--------------------|---------------|---------------|---------------|---------------|-------|---|--------------------|----|----------------|
| 1 N-Methyl-N-nitrosomethylamine | ++++<br>0.65669 | 0.60030<br>0.67858 | 0.62889       | 0.66247       | 0.66810       | ++++          | AVRG  |   | 0.64917            |    | 4.49427        |
| 2 Pyridine                      | ++++<br>0.90498 | 0.82035<br>0.91785 | 0.87639       | 0.91474       | 0.92371       | ++++          | AVRG  |   | 0.89300            |    | 4.40311        |
| 4 Aniline                       | ++++<br>0.50778 | 0.47559<br>0.51198 | 0.49790       | 0.52520       | 0.51977       | ++++          | AVRG  |   | 0.50637            |    | 3.51808        |
| 209 Benzaldehyde                | ++++<br>0.74529 | 0.82331<br>0.67425 | 0.84339       | 0.85968       | 0.86470       | ++++          | AVRG  |   | 0.80177            |    | 9.49255        |
| 6 Phenol                        | ++++<br>1.22217 | 1.06660<br>1.23493 | 1.18140       | 1.26189       | 1.24329       | ++++          | AVRG  |   | 1.20170            |    | 5.94684        |

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| Compound                       | Level 1         | Level 2            | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|--------------------------------|-----------------|--------------------|---------|---------|---------|---------|-------|---|--------------------|----|----------------|
|                                | Level 7         | Level 8            |         |         |         |         |       |   |                    |    |                |
|                                | 100             | 120                |         |         |         |         |       |   |                    |    |                |
| 7 bis(2-Chloroethyl) ether     | ++++<br>0.76833 | 0.78205<br>0.76106 | 0.82616 | 0.84830 | 0.83396 | ++++    | AVRG  |   | 0.80331            |    | 4.63982        |
| 8 2-Chlorophenol               | ++++<br>1.05870 | 0.92498<br>1.07769 | 1.00045 | 1.05992 | 1.07116 | ++++    | AVRG  |   | 1.03215            |    | 5.74211        |
| 203 n-Decane                   | ++++<br>0.85134 | 1.03407<br>0.80506 | 1.14196 | 1.09793 | 1.05522 | ++++    | AVRG  |   | 1.00759            |    | 14.13307       |
| 9 1,3-Dichlorobenzene          | ++++<br>1.16565 | 1.07822<br>1.16665 | 1.15307 | 1.21523 | 1.20463 | ++++    | AVRG  |   | 1.16391            |    | 4.16718        |
| 11 1,4-Dichlorobenzene         | ++++<br>1.20093 | 1.19299<br>1.19389 | 1.25388 | 1.29735 | 1.28897 | ++++    | AVRG  |   | 1.23800            |    | 3.91052        |
| 12 Benzyl alcohol              | ++++<br>0.61187 | 0.43999<br>0.63216 | 0.52773 | 0.59378 | 0.59888 | ++++    | AVRG  |   | 0.56740            |    | 12.62665       |
| 13 1,2-Dichlorobenzene         | ++++<br>1.06242 | 1.05460<br>1.05216 | 1.15513 | 1.18532 | 1.16112 | ++++    | AVRG  |   | 1.11179            |    | 5.54210        |
| 14 bis(2-Chloroisopropyl)ether | ++++<br>1.28479 | 1.36152<br>1.23736 | 1.41955 | 1.45039 | 1.41490 | ++++    | AVRG  |   | 1.36142            |    | 6.18199        |
| 15 o-Cresol                    | ++++<br>0.80683 | 0.77913<br>0.79948 | 0.84535 | 0.88459 | 0.86701 | ++++    | AVRG  |   | 0.83040            |    | 5.00598        |

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 Method file : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
 Cal Date : 05-Mar-2010 07:47 jos00786

| Compound                      | 1       | 10      | 20      | 40      | 50      | 80      | Curve | b | Coefficients | m2 | %RSD<br>or R^2 |
|-------------------------------|---------|---------|---------|---------|---------|---------|-------|---|--------------|----|----------------|
|                               | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |       |   |              |    |                |
|                               | 100     | 120     |         |         |         |         |       |   |              |    |                |
|                               | Level 7 | Level 8 |         |         |         |         |       |   |              |    |                |
| 16 Acetophenone               | ++++    | 1.09749 | 1.14693 | 1.19939 | 1.21915 | ++++    | AVRG  |   |              |    |                |
|                               | 1.18423 | 1.16938 |         |         |         |         |       |   | 1.16943      |    | 3.68229        |
| 17 N-Nitrosodipropylamine     | ++++    | 0.71798 | 0.76074 | 0.80678 | 0.79200 | ++++    | AVRG  |   |              |    |                |
|                               | 0.78793 | 0.77529 |         |         |         |         |       |   | 0.77345      |    | 4.04995        |
| 18 m,p-Cresols                | ++++    | 0.87930 | 0.98055 | 1.02982 | 1.01207 | ++++    | AVRG  |   |              |    |                |
|                               | 1.02798 | 1.05306 |         |         |         |         |       |   | 0.99713      |    | 6.26784        |
| 19 Hexachloroethane           | ++++    | 0.42165 | 0.45159 | 0.47990 | 0.47967 | ++++    | AVRG  |   |              |    |                |
|                               | 0.46349 | 0.46024 |         |         |         |         |       |   | 0.45942      |    | 4.70269        |
| 21 Nitrobenzene               | ++++    | 0.27766 | 0.28792 | 0.28316 | 0.27915 | ++++    |       |   |              |    |                |
|                               | 0.25324 | 0.24831 |         |         |         |         | AVRG  |   | 0.27158      |    | 6.10249        |
| 22 Isophorone                 | ++++    | 0.51570 | 0.52540 | 0.52186 | 0.50799 | ++++    |       |   |              |    |                |
|                               | 0.47176 | 0.44737 |         |         |         |         | AVRG  |   | 0.49835      |    | 6.33579        |
| 23 2-Nitrophenol              | ++++    | 0.13087 | 0.13811 | 0.14485 | 0.14021 | ++++    | AVRG  |   |              |    |                |
|                               | 0.13184 | 0.12769 |         |         |         |         |       |   | 0.13559      |    | 4.80558        |
| 24 2,4-Dimethylphenol         | ++++    | 0.22287 | 0.23401 | 0.22130 | 0.21350 | ++++    | AVRG  |   |              |    |                |
|                               | 0.23259 | 0.23081 |         |         |         |         | AVRG  |   | 0.22585      |    | 3.53508        |
| 25 bis(2-Chloroethoxy)methane | ++++    | 0.31430 | 0.31445 | 0.31192 | 0.30355 | ++++    | AVRG  |   |              |    |                |
|                               | 0.27287 | 0.26221 |         |         |         |         |       |   | 0.29655      |    | 7.77826        |

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 Cal Date : 05-Mar-2010 07:47 jos00786

| Compound                   | 1       | 10      | 20      | 40      | 50      | 80      | Curve | b       | ml      | m2 | %RSD<br>or R^2 |
|----------------------------|---------|---------|---------|---------|---------|---------|-------|---------|---------|----|----------------|
|                            | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |       |         |         |    |                |
|                            | 100     | 120     |         |         |         |         |       |         |         |    |                |
|                            | Level 7 | Level 8 |         |         |         |         |       |         |         |    |                |
| 26 2,4-Dichlorophenol      | ++++    | 0.18465 | 0.19494 | 0.19888 | 0.19860 | ++++    | AVRG  |         | 0.19392 |    | 2.82491        |
|                            | 0.19600 | 0.19043 |         |         |         |         |       |         |         |    |                |
| 27 Benzoic acid            | ++++    | ++++    | 25440   | 84047   | 106069  | ++++    | LINR  | 0.25759 | 0.17307 |    | 0.99922        |
|                            | 270044  | 339473  |         |         |         |         |       |         |         |    |                |
| 28 1,2,4-Trichlorobenzene  | ++++    | 0.23635 | 0.24625 | 0.24146 | 0.23998 | ++++    | AVRG  |         | 0.23349 |    | 5.24347        |
|                            | 0.22160 | 0.21529 |         |         |         |         |       |         |         |    |                |
| 30 Naphthalene             | 0.86894 | 0.84979 | 0.86859 | 0.84394 | 0.81590 | ++++    | AVRG  |         | 0.79443 |    | 12.16921       |
|                            | 0.68187 | 0.63201 |         |         |         |         |       |         |         |    |                |
| 204 alpha-Terpineol        | ++++    | 0.20927 | 0.21028 | 0.19923 | 0.18935 | ++++    | AVRG  |         | 0.18531 |    | 14.69565       |
|                            | 0.15754 | 0.14621 |         |         |         |         |       |         |         |    |                |
| 31 4-Chloroaniline         | ++++    | 0.36608 | 0.38360 | 0.38794 | 0.37892 | ++++    | AVRG  |         | 0.36606 |    | 6.06615        |
|                            | 0.34846 | 0.33136 |         |         |         |         |       |         |         |    |                |
| 189 Caprolactam            | ++++    | 0.07399 | 0.08081 | 0.08899 | 0.09091 | ++++    | AVRG  |         | 0.08524 |    | 7.65048        |
|                            | 0.08893 | 0.08782 |         |         |         |         |       |         |         |    |                |
| 32 Hexachlorobutadiene     | ++++    | 0.13417 | 0.14172 | 0.14019 | 0.13894 | ++++    | AVRG  |         | 0.13374 |    | 6.17181        |
|                            | 0.12553 | 0.12187 |         |         |         |         |       |         |         |    |                |
| 33 4-Chloro-3-methylphenol | ++++    | 0.18234 | 0.18911 | 0.19315 | 0.18966 | ++++    | AVRG  |         | 0.18826 |    | 2.53443        |
|                            | 0.19274 | 0.18259 |         |         |         |         |       |         |         |    |                |

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 Cal Date : 05-Mar-2010 07:47 jos00786

| Compound                     | 1<br>Level 1 | 10<br>Level 2 | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b       | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|-------|---------|--------------------|----|----------------|
| 34 2-Methylnaphthalene       | 0.49949      | 0.51240       | 0.51947       | 0.52187       | 0.50325       | ++++          | AVRG  |         | 0.48750            |    | 8.74677        |
|                              | 0.44553      | 0.41048       |               |               |               |               |       |         |                    |    |                |
| 35 1-Methylnaphthalene       | 0.50344      | 0.49845       | 0.51165       | 0.51413       | 0.49554       | ++++          | AVRG  |         | 0.48024            |    | 9.04631        |
|                              | 0.43713      | 0.40133       |               |               |               |               |       |         |                    |    |                |
| 36 Hexachlorocyclopentadiene | ++++         | 7845          | 22615         | 57594         | 59945         | ++++          | LINR  | 0.17334 | 0.21237            |    | 0.99619        |
|                              | 162157       | 175952        |               |               |               |               |       |         |                    |    |                |
| 208 1,1'-Biphenyl            | ++++         | 1.13553       | 1.20721       | 1.22673       | 1.24378       | ++++          | AVRG  |         | 1.19408            |    | 3.47490        |
|                              | 1.19551      | 1.15573       |               |               |               |               |       |         |                    |    |                |
| 205 2,3-Dichloroaniline      | ++++         | 0.45933       | 0.51296       | 0.55139       | 0.55563       | ++++          | AVRG  |         | 0.52762            |    | 6.94917        |
|                              | 0.54106      | 0.54533       |               |               |               |               |       |         |                    |    |                |
| 37 2,4,6-Trichlorophenol     | ++++         | 0.24647       | 0.28330       | 0.29976       | 0.29475       | ++++          | AVRG  |         | 0.28364            |    | 6.72258        |
|                              | 0.28880      | 0.28873       |               |               |               |               |       |         |                    |    |                |
| 38 2,4,5-Trichlorophenol     | ++++         | 17388         | 40623         | 99995         | 120127        | ++++          | LINR  | 0.15580 | 0.38349            |    | 0.99825        |
|                              | 284849       | 325976        |               |               |               |               |       |         |                    |    |                |
| 40 2-Chloronaphthalene       | 0.82086      | 0.84293       | 0.91848       | 0.95110       | 0.95047       | ++++          | AVRG  |         | 0.90393            |    | 5.71289        |
|                              | 0.91353      | 0.93012       |               |               |               |               |       |         |                    |    |                |
| 42 o-Nitroaniline            | ++++         | 0.22394       | 0.24587       | 0.26532       | 0.26232       | ++++          | AVRG  |         | 0.25504            |    | 6.72122        |
|                              | 0.26723      | 0.26557       |               |               |               |               |       |         |                    |    |                |



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| Compound              | 1<br>Level 1       | 10<br>Level 2      | 20<br>Level 3      | 40<br>Level 4      | 50<br>Level 5      | 80<br>Level 6 | Curve | b       | Coefficients<br>m1 m2 | %RSD<br>or R^2 |
|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|-------|---------|-----------------------|----------------|
| 41 m-Nitroaniline     | ++++<br>0.21443    | 0.17156<br>0.22517 | 0.19002<br>0.21392 | 0.21392<br>0.20162 | ++++               | ++++          | AVRG  |         | 0.20279               | 9.61284        |
| 43 Dimethylphthalate  | ++++<br>1.06102    | 0.94519<br>1.05767 | 0.99322<br>1.06394 | 1.06394<br>1.04982 | ++++               | ++++          | AVRG  |         | 1.02848               | 4.72446        |
| 44 2,6-Dinitrotoluene | ++++<br>0.24595    | 0.20984<br>0.25157 | 0.22057<br>0.24484 | 0.24484<br>0.24245 | ++++               | ++++          | AVRG  |         | 0.23587               | 7.05224        |
| 45 Acenaphthylene     | 1.23117<br>1.40967 | 1.30716<br>1.40837 | 1.43875<br>1.50819 | 1.50819<br>1.48478 | ++++               | ++++          | AVRG  |         | 1.39830               | 7.01090        |
| 47 Acenaphthene       | 0.97433<br>0.89215 | 0.87758<br>0.88733 | 0.94874<br>0.88733 | 1.01146<br>0.97005 | ++++               | ++++          | AVRG  |         | 0.93738               | 5.53930        |
| 48 2,4-Dinitrophenol  | ++++<br>85005      | ++++<br>97065      | 8464<br>1.23195    | 28170<br>1.29225   | 31958<br>1.27594   | ++++          | ++++  | 0.30066 | 0.12119               | 0.99820        |
| 49 Dibenzofuran       | ++++<br>1.21834    | 1.15062<br>1.22072 | 1.23195<br>0.25912 | 1.29225<br>0.29333 | 1.27594<br>0.28393 | ++++          | ++++  | AVRG    | 1.23164               | 4.05909        |
| 50 2,4-Dinitrotoluene | ++++<br>0.29266    | 0.24876<br>0.31445 | 0.25912<br>0.99517 | 0.29333<br>1.04843 | 0.28393<br>1.01069 | ++++          | ++++  | AVRG    | 0.28204               | 8.57850        |
| 51 Diethylphthalate   | ++++<br>0.98509    | 0.95894<br>1.00542 | 0.99517<br>1.00542 | 1.04843<br>1.00062 | 1.01069<br>1.00062 | ++++          | ++++  | AVRG    | 1.00062               | 2.97070        |

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 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
 Cal Date : 05-Mar-2010 07:47 jos00786

| Compound                      | Level 1            | Level 2            | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b       | ml      | m2 | %RSD<br>or R <sup>2</sup> |
|-------------------------------|--------------------|--------------------|---------|---------|---------|---------|-------|---------|---------|----|---------------------------|
|                               | 100                | 120                |         |         |         |         |       |         |         |    |                           |
|                               | Level 7            | Level 8            |         |         |         |         |       |         |         |    |                           |
| 52 4-Nitrophenol              | ++++<br>122069     | 6709<br>145303     | 16038   | 45123   | 50119   | ++++    | LLNR  | 0.18779 | 0.17059 |    | 0.99551                   |
| 53 Fluorene                   | 0.93251<br>1.01316 | 0.99890<br>1.02165 | 1.07011 | 1.14253 | 1.09253 | ++++    | AVRG  |         | 1.03877 |    | 6.63104                   |
| 54 4-Chlorophenylphenylether  | ++++<br>0.50229    | 0.45939<br>0.49708 | 0.48890 | 0.52490 | 0.52056 | ++++    | AVRG  |         | 0.49885 |    | 4.76197                   |
| 55 2-Methyl-4,6-dinitrophenol | ++++<br>124274     | 6879<br>153259     | 15439   | 47112   | 50682   | ++++    | LLNR  | 0.17450 | 0.10882 |    | 0.99865                   |
| 56 p-Nitroaniline             | ++++<br>0.20639    | 0.16533<br>0.24165 | 0.16492 | 0.21186 | 0.20537 | ++++    | AVRG  |         | 0.19925 |    | 14.84521                  |
| 133 Diphenylamine             | ++++<br>0.54099    | 0.47122<br>0.48786 | 0.54102 | 0.52921 | 0.53929 | ++++    | AVRG  |         | 0.51827 |    | 5.93711                   |
| 58 1,2-Diphenylhydrazine      | ++++<br>0.66693    | 0.62453<br>0.58712 | 0.69918 | 0.67558 | 0.68197 | ++++    | AVRG  |         | 0.65589 |    | 6.38752                   |
| 59 Tributylphosphate          | ++++<br>0.97269    | 0.88341<br>0.90211 | 0.96168 | 1.07495 | 1.03356 | 1.02295 | AVRG  |         | 0.97876 |    | 7.16447                   |
| 61 4-Bromophenylphenylether   | ++++<br>0.18461    | 0.15855<br>0.16969 | 0.17869 | 0.18088 | 0.18285 | ++++    | AVRG  |         | 0.17588 |    | 5.66485                   |

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 Cal Date : 05-Mar-2010 07:47 jos00786

| Compound               | 1<br>Level 1       | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b       | Coefficients<br>m1 | m2 | SRSD<br>or R <sup>2</sup> |
|------------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|-------|---------|--------------------|----|---------------------------|
|                        | 100                | 120                |               |               |               |               |       |         |                    |    |                           |
|                        | Level 7            | Level 8            |               |               |               |               |       |         |                    |    |                           |
| 63 Hexachlorobenzene   | ++++<br>0.19127    | 0.17130<br>0.18021 | 0.18786       | 0.19285       | 0.19300       | ++++          | AVRG  |         | 0.18608            |    | 4.66460                   |
| 207 Atrazine           | ++++<br>0.03113    | 0.03901<br>++++    | 0.03971       | 0.03923       | 0.03926       | ++++          | AVRG  |         | 0.03767            |    | 9.72062                   |
| 65 Pentachlorophenol   | ++++<br>103689     | 5694<br>135661     | 12539         | 37276         | 43302         | ++++          | LINR  | 0.21136 | 0.09538            |    | 0.99689                   |
| 206 n-Octadecane       | ++++<br>0.30570    | 0.35556<br>0.26763 | 0.41146       | 0.37304       | 0.36965       | ++++          | AVRG  |         | 0.34717            |    | 14.92542                  |
| 68 Phenanthrene        | 0.90552<br>0.84298 | 0.87619<br>0.85637 | 0.89644       | 0.92585       | 0.91329       | ++++          | AVRG  |         | 0.88809            |    | 3.44541                   |
| 69 Anthracene          | 0.78826<br>0.85369 | 0.82522<br>0.81345 | 0.85649       | 0.93264       | 0.91383       | ++++          | AVRG  |         | 0.85480            |    | 6.14621                   |
| 72 Di-n-butylphthalate | ++++<br>0.90709    | 0.90347<br>0.91797 | 0.88496       | 1.00079       | 0.98751       | ++++          | AVRG  |         | 0.93363            |    | 5.16835                   |
| 76 Fluoranthene        | 0.69653<br>0.81145 | 0.74129<br>0.84548 | 0.72156       | 0.86208       | 0.87926       | ++++          | AVRG  |         | 0.79395            |    | 9.25372                   |
| 77 Benzidine           | ++++<br>0.30395    | 0.29458<br>0.27558 | 0.26241       | 0.26380       | 0.29522       | ++++          | AVRG  |         | 0.28259            |    | 6.26765                   |

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 Cal Date : 05-Mar-2010 07:47 jos00786

| Compound                      | 1<br>Level 1       | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b       | Coefficients<br>m1 | m2 | %RSD<br>or R <sup>2</sup> |
|-------------------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|-------|---------|--------------------|----|---------------------------|
| 79 Pyrene                     | 0.96222<br>0.99453 | 1.12513<br>1.18216 | 0.97345       | 1.10981       | 1.15564       | ++++          | AVRG  |         | 1.07185            |    | 8.61393                   |
| 85 Butylbenzylphthalate       | ++++<br>0.43061    | 0.47188<br>0.46185 | 0.46841       | 0.52029       | 0.54195       | ++++          | AVRG  |         | 0.48250            |    | 8.49108                   |
| 89 Benzo(a)anthracene         | 0.97007<br>0.88614 | 0.87283<br>0.94588 | 0.89941       | 0.94146       | 0.91393       | ++++          | AVRG  |         | 0.91853            |    | 3.83756                   |
| 90 3,3'-Dichlorobenzidine     | ++++<br>0.26999    | 0.21950<br>0.24716 | 0.22292       | 0.25635       | 0.27145       | ++++          | AVRG  |         | 0.24789            |    | 9.10104                   |
| 92 Chrysene                   | 0.84822<br>0.85209 | 0.85253<br>0.84906 | 0.88407       | 0.89808       | 0.91281       | ++++          | AVRG  |         | 0.87098            |    | 3.09164                   |
| 93 bis(2-Ethylhexyl)phthalate | ++++<br>0.68232    | 0.60081<br>0.75911 | 0.61583       | 0.72652       | 0.75048       | ++++          | AVRG  |         | 0.68918            |    | 9.90048                   |
| 94 Di-n-octylphthalate        | ++++<br>1177232    | 75357<br>++++      | 175971        | 479102        | 534803        | ++++          | 1LINR | 0.13526 | 1.87708            |    | 0.99060                   |
| 95 Benzo(b)fluoranthene       | 1.10581            | 1.15972            | 0.93381       | 1.08207       | 1.16153       | ++++          | AVRG  |         | 1.01729            |    | 13.93712                  |
| 96 Benzo(k)fluoranthene       | 0.83407<br>1.19309 | 0.90605<br>1.16300 | 1.05561       | 1.08699       | 1.16840       | ++++          | AVRG  |         | 1.05818            |    | 13.11411                  |

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 Cal Date : 05-Mar-2010 07:47 jos00786

| Compound                      | 1<br>Level 1       | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b | Coefficients<br>m1 | m2 | RSD<br>or R^2 |
|-------------------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|-------|---|--------------------|----|---------------|
| 97 Benzo(a)pyrene             | 0.60442<br>0.89764 | 0.70994<br>0.91350 | 0.79288       | 0.86302       | 0.87766       | ++++          | AVRG  |   | 0.80844            |    | 14.13335      |
| 99 Indeno(1,2,3-cd)pyrene     | 0.52156<br>0.67181 | 0.68696<br>0.78838 | 0.63882       | 0.70513       | 0.64341       | ++++          | AVRG  |   | 0.66515            |    | 12.13484      |
| 100 Dibenzo(a,h)anthracene    | 0.40987<br>0.57089 | 0.55572<br>0.67422 | 0.52810       | 0.59277       | 0.54058       | ++++          | AVRG  |   | 0.55316            |    | 14.36080      |
| 101 Benzo(ghi)perylene        | 0.47288<br>0.51919 | 0.58039<br>0.63238 | 0.49396       | 0.56281       | 0.49438       | ++++          | AVRG  |   | 0.53657            |    | 10.69084      |
| 102 1,4-Dioxane               | ++++<br>0.37700    | 0.33421<br>0.37190 | 0.35618       | 0.35650       | 0.37187       | ++++          | AVRG  |   | 0.36128            |    | 4.38323       |
| 103 Methyl methacrylate       | ++++<br>0.20815    | 0.18200<br>0.20407 | 0.19041       | 0.19329       | 0.20309       | ++++          | AVRG  |   | 0.19684            |    | 5.04748       |
| 104 Ethyl methacrylate        | ++++<br>0.83225    | 0.76652<br>0.80774 | 0.81518       | 0.81457       | 0.83918       | ++++          | AVRG  |   | 0.81257            |    | 3.13786       |
| 105 2-Picoline                | ++++<br>1.18760    | 1.10235<br>1.15834 | 1.18821       | 1.18804       | 1.21585       | ++++          | AVRG  |   | 1.17340            |    | 3.34687       |
| 106 N-Nitrosomethylethylamine | ++++<br>0.48311    | 0.43159<br>0.48831 | 0.44736       | 0.46572       | 0.47350       | ++++          | AVRG  |   | 0.46493            |    | 4.68384       |

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| Compound                       | Level 1         | Level 2            | Level 3 | Level 4 | Level 5 | Level 6 | Curve | b | ml      | m2 | %RSD<br>or R^2 |
|--------------------------------|-----------------|--------------------|---------|---------|---------|---------|-------|---|---------|----|----------------|
|                                | 100             | 120                |         |         |         |         |       |   |         |    |                |
|                                | Level 7         | Level 8            |         |         |         |         |       |   |         |    |                |
| 107 Methyl methanesulfonate    | ++++<br>0.41484 | 0.45696<br>0.38557 | 0.47072 | 0.46705 | 0.47577 | ++++    | AVRG  |   | 0.44515 |    | 8.21046        |
| 108 N-Nitrosodiethylamine      | ++++<br>0.51957 | 0.46601<br>0.52251 | 0.48757 | 0.50036 | 0.51572 | ++++    | AVRG  |   | 0.50195 |    | 4.38647        |
| 109 Ethyl Methanesulfonate     | ++++<br>0.59635 | 0.57720<br>0.57657 | 0.60156 | 0.61105 | 0.61675 | ++++    | AVRG  |   | 0.59658 |    | 2.82157        |
| 110 Pentachloroethane          | ++++<br>0.32705 | 0.28141<br>0.32526 | 0.30136 | 0.30688 | 0.32052 | ++++    | AVRG  |   | 0.31042 |    | 5.64478        |
| 111 N-Nitrosopyrrolidine       | ++++<br>0.53929 | 0.46517<br>0.54194 | 0.48971 | 0.52367 | 0.54122 | ++++    | AVRG  |   | 0.51683 |    | 6.22835        |
| 113 N-Nitrosomorpholine        | ++++<br>0.51014 | 0.53007<br>0.47754 | 0.54330 | 0.55822 | 0.56926 | ++++    | AVRG  |   | 0.53142 |    | 6.32476        |
| 114 o-Toluidine                | ++++<br>1.74538 | 1.65403<br>1.70287 | 1.71286 | 1.79939 | 1.83042 | ++++    | AVRG  |   | 1.74083 |    | 3.74350        |
| 115 N-Nitrosopiperidine        | ++++<br>0.14477 | 0.12852<br>0.14358 | 0.13505 | 0.14028 | 0.14290 | ++++    | AVRG  |   | 0.13918 |    | 4.50299        |
| 116 a,a-Dimethylphenethylamine | ++++<br>0.65185 | 0.54602<br>0.63182 | 0.61379 | 0.65683 | 0.67676 | ++++    | AVRG  |   | 0.62951 |    | 7.34911        |

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| Compound                       | 1               | 10                 | 20      | 40      | 50      | 80      | Curve | b | ml      | m2 | %RSD<br>or R^2 |
|--------------------------------|-----------------|--------------------|---------|---------|---------|---------|-------|---|---------|----|----------------|
|                                | Level 1         | Level 2            | Level 3 | Level 4 | Level 5 | Level 6 |       |   |         |    |                |
|                                | 100             | 120                |         |         |         |         |       |   |         |    |                |
|                                | Level 7         | Level 8            |         |         |         |         |       |   |         |    |                |
| 117 Triethylphosphorothioate   | ++++<br>0.13713 | 0.11480<br>0.13599 | 0.12137 | 0.12957 | 0.13486 | 0.13972 | AVRG  |   | 0.13049 |    | 7.05621        |
| 118 2,6-Dichlorophenol         | ++++<br>0.22637 | 0.17447<br>0.22487 | 0.19470 | 0.21020 | 0.21756 | ++++    | AVRG  |   | 0.20803 |    | 9.66090        |
| 119 Hexachloropropene          | ++++<br>0.11979 | 0.08610<br>0.11310 | 0.09205 | 0.10303 | 0.10949 | ++++    | AVRG  |   | 0.10393 |    | 12.36829       |
| 120 p-Phenylenediamine         | ++++<br>0.17410 | 0.19157<br>++++    | 0.21378 | 0.23163 | 0.22722 | ++++    | AVRG  |   | 0.20766 |    | 11.74655       |
| 121 N-Nitrosodi-n-butylamine   | ++++<br>0.19474 | 0.18937<br>0.19105 | 0.19494 | 0.20217 | 0.20076 | ++++    | AVRG  |   | 0.19550 |    | 2.61108        |
| 122 Safrole                    | ++++<br>0.20333 | 0.17951<br>0.19751 | 0.18980 | 0.19844 | 0.20248 | ++++    | AVRG  |   | 0.19518 |    | 4.64024        |
| 123 1,2,4,5-Tetrachlorobenzene | ++++<br>0.44313 | 0.39868<br>0.43204 | 0.42872 | 0.43199 | 0.43721 | ++++    | AVRG  |   | 0.42863 |    | 3.62029        |
| 124 Isosafrole                 | ++++<br>0.35903 | 0.29313<br>0.35957 | 0.31894 | 0.33063 | 0.34165 | ++++    | AVRG  |   | 0.33382 |    | 7.63399        |
| 125 1,4-Naphthoquinone         | ++++<br>0.24596 | 0.29048<br>0.23500 | 0.31347 | 0.30645 | 0.28914 | ++++    | AVRG  |   | 0.28008 |    | 11.50991       |

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| Compound                      | 1<br>Level 1    | 10<br>Level 2      | 20<br>Level 3      | 40<br>Level 4      | 50<br>Level 5      | 80<br>Level 6      | Curve | b       | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|-------------------------------|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------|---------|--------------------|----|----------------|
| 126 m-Dinitrobenzene          | ++++<br>0.17863 | 0.14360<br>0.18612 | 0.15290<br>0.17199 | 0.16709<br>0.16709 | ++++               | AVRG               |       |         | 0.16672            |    | 9.56559        |
| 127 Pentachlorobenzene        | ++++<br>0.37364 | 0.35285<br>0.36383 | 0.37516<br>0.38297 | 0.39103<br>0.39103 | ++++               | AVRG               |       |         | 0.37325            |    | 3.63340        |
| 128 1-Naphthylamine           | ++++<br>0.82668 | 0.74167<br>0.78631 | 0.82089<br>0.87845 | 0.90422<br>0.90422 | ++++               | AVRG               |       |         | 0.82637            |    | 7.17603        |
| 129 2-Naphthylamine           | ++++<br>0.86081 | 0.84132<br>0.82526 | 0.90112<br>0.94477 | 0.97798<br>0.97798 | ++++               | AVRG               |       |         | 0.89188            |    | 6.77482        |
| 130 2,3,4,6-Tetrachlorophenol | ++++<br>222771  | 14203<br>248937    | 29470<br>0.22166   | 84648<br>0.25326   | 97311<br>0.26288   | ++++               | LINR  | 0.12479 | 0.29336            |    | 0.99942        |
| 131 5-Nitro-o-toluidine       | ++++<br>0.26266 | 0.20490<br>0.26413 | 0.22166<br>0.13325 | 0.25326<br>0.14814 | 0.26288<br>0.15308 | ++++               | AVRG  |         | 0.24491            |    | 10.35873       |
| 132 Thionazin                 | ++++<br>0.15839 | 0.11815<br>0.15165 | 0.13325<br>0.10129 | 0.14814<br>0.10715 | 0.15308<br>0.10391 | 0.15937<br>0.10325 | AVRG  |         | 0.14600            |    | 10.29909       |
| 134 Sulfotepp                 | ++++<br>0.10342 | 0.09143<br>0.10526 | 0.10129<br>0.35168 | 0.10715<br>0.36315 | 0.10391<br>0.35724 | 0.10325<br>0.34925 | AVRG  |         | 0.10224            |    | 4.98988        |
| 135 Phorate                   | ++++<br>0.32146 | 0.31876<br>0.31166 | 0.35168<br>0.31166 | 0.36315<br>0.31166 | 0.35724<br>0.31166 | 0.34925<br>0.31166 | AVRG  |         | 0.33903            |    | 6.19510        |



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| Compound                    | 1       | Level 1 | 10      | Level 2 | 20      | Level 3 | 40 | Level 4 | 50 | Level 5 | 80 | Level 6 | Curve | b | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|-----------------------------|---------|---------|---------|---------|---------|---------|----|---------|----|---------|----|---------|-------|---|--------------------|----|----------------|
| 136 1,3,5-Trinitrobenzene   | ++++    | 0.08409 | 0.09165 | 0.10970 | 0.10739 | ++++    |    |         |    |         |    |         |       |   | 0.10607            |    | 14.75008       |
|                             | 0.11831 | 0.12525 |         |         |         |         |    |         |    |         |    |         |       |   |                    |    |                |
| 137 Phenacetin              | ++++    | 0.23125 | 0.24376 | 0.26114 | 0.26627 | ++++    |    |         |    |         |    |         |       |   | 0.26317            |    | 8.82366        |
|                             | 0.28494 | 0.29169 |         |         |         |         |    |         |    |         |    |         |       |   |                    |    |                |
| 138 Diallate                | ++++    | 0.24247 | 0.25507 | 0.25975 | 0.25942 | ++++    |    |         |    |         |    |         |       |   | 0.25253            |    | 2.86594        |
|                             | 0.25331 | 0.24518 |         |         |         |         |    |         |    |         |    |         |       |   |                    |    |                |
| 139 Dimethoate              | ++++    | 0.14447 | 0.17371 | 0.19768 | 0.20272 | 0.21708 |    |         |    |         |    |         |       |   | 0.19696            |    | 14.60424       |
|                             | 0.22505 | 0.21797 |         |         |         |         |    |         |    |         |    |         |       |   |                    |    |                |
| 140 4-Aminobiphenyl         | ++++    | 0.49021 | 0.52039 | 0.59720 | 0.60499 | ++++    |    |         |    |         |    |         |       |   |                    |    |                |
|                             | 0.54558 | 0.48554 |         |         |         |         |    |         |    |         |    |         |       |   | 0.54065            |    | 9.55857        |
| 141 Pentachloronitrobenzene | ++++    | 0.06569 | 0.07086 | 0.07565 | 0.07639 | ++++    |    |         |    |         |    |         |       |   |                    |    |                |
|                             | 0.07161 | 0.06869 |         |         |         |         |    |         |    |         |    |         |       |   | 0.07148            |    | 5.70324        |
| 142 Pronamide               | ++++    | 0.25780 | 0.27864 | 0.28320 | 0.27471 | ++++    |    |         |    |         |    |         |       |   | 0.26013            |    | 9.05751        |
|                             | 0.24399 | 0.22242 |         |         |         |         |    |         |    |         |    |         |       |   |                    |    |                |
| 143 Dinoseb                 | ++++    | 8898    | 20220   | 66360   | 67952   | ++++    |    |         |    |         |    |         |       |   |                    |    |                |
|                             | 175851  | 218613  |         |         |         |         |    |         |    |         |    |         |       |   | 0.20374            |    | 0.99719        |
| 144 Disulfoton              | ++++    | 0.22704 | 0.25585 | 0.27659 | 0.26627 | 0.26581 |    |         |    |         |    |         |       |   | 0.15626            |    |                |
|                             | 0.25942 | 0.23218 |         |         |         |         |    |         |    |         |    |         |       |   | 0.25474            |    | 7.22518        |

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 Integrator : HP RTE  
 Method file : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
 Cal Date : 05-Mar-2010 07:47 jos00786

| Compound                         | 1<br>Level 1    | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b       | Coefficients<br>ml | m2 | %RSD<br>or R^2 |
|----------------------------------|-----------------|--------------------|---------------|---------------|---------------|---------------|-------|---------|--------------------|----|----------------|
| 145 Methyl parathion             | ++++<br>304747  | 16828<br>372274    | 43771         | 98807         | 139345        | 230970        | LINR  | 0.13061 | 0.19761            |    | 0.99958        |
| 146 4-Nitroquinoline-1-oxide     | ++++<br>0.00633 | 0.00917<br>++++    | 0.00790       | 0.00869       | 0.00813       | ++++          | AVRG  |         | 0.00804            |    | 13.41214       |
| 147 Methapyrilene                | ++++<br>0.25896 | 0.29788<br>0.22924 | 0.29898       | 0.28649       | 0.27921       | ++++          | AVRG  |         | 0.27513            |    | 9.75211        |
| 148 Isodrin                      | ++++<br>0.09680 | 0.08848<br>0.09557 | 0.08950       | 0.09277       | 0.09433       | ++++          | AVRG  |         | 0.09291            |    | 3.58592        |
| 149 Aramite                      | ++++<br>0.04205 | 0.03639<br>0.03712 | 0.03672       | 0.03995       | 0.04165       | ++++          | AVRG  |         | 0.03898            |    | 6.56750        |
| 150 Kepone                       | ++++<br>0.07915 | 0.06267<br>0.07263 | 0.06270       | 0.06464       | 0.06695       | ++++          | AVRG  |         | 0.06812            |    | 9.61370        |
| 151 p- (Dimethylamino)azobenzene | ++++<br>0.31880 | 0.27261<br>0.32786 | 0.30268       | 0.31762       | 0.31829       | ++++          | AVRG  |         | 0.30964            |    | 6.41744        |
| 152 Chlorobenzilate              | ++++<br>0.33340 | 0.26745<br>0.36153 | 0.31076       | 0.32373       | 0.32162       | ++++          | AVRG  |         | 0.31975            |    | 9.65768        |
| 153 3,3'-Dimethylbenzidine       | ++++<br>0.49598 | 0.46533<br>0.44788 | 0.47413       | 0.47686       | 0.49976       | ++++          | AVRG  |         | 0.47666            |    | 4.05773        |

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| Compound                          | 1<br>Level 1       | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b       | Coefficients<br>ml | m2 | %RSD<br>or R^2 |
|-----------------------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|-------|---------|--------------------|----|----------------|
| 154 Famphur                       | ++++<br>504898     | 24117<br>598117    | 67020         | 153185        | 208840        | 380727        | LINR  | 0.12584 | 0.38384            |    | 0.99970        |
| 155 2-Acetylaminofluorene         | ++++<br>0.27455    | 0.20283<br>0.24688 | 0.21139       | 0.25129       | 0.27948       | ++++          | AVRG  |         | 0.24440            |    | 12.95235       |
| 157 7,12Dimethylbenz(a)anthracene | ++++<br>0.65247    | 0.43898<br>0.67822 | 0.53786       | 0.56686       | 0.57760       | ++++          | AVRG  |         | 0.57533            |    | 14.87264       |
| 158 3-Methylcholanthrene          | ++++<br>0.40458    | 0.32445<br>0.40597 | 0.33620       | 0.36924       | 0.38521       | ++++          | AVRG  |         | 0.37094            |    | 9.28675        |
| 26 Phthalic anhydride             | ++++<br>149010     | 6817<br>182268     | 19378         | 53011         | 65011         | ++++          | LINR  | 0.10202 | 0.08873            |    | 0.99961        |
| 173 Carbazole                     | 0.59215<br>0.67632 | 0.63823<br>0.70294 | 0.57441       | 0.63386       | 0.67317       | ++++          | AVRG  |         | 0.64158            |    | 7.25417        |
| 174 Hexachlorophene               | ++++<br>++++       | ++++<br>++++       | ++++          | ++++          | ++++          | ++++          | AVRG  |         | 0.000e+00          |    | 0.000e+00      |
| 179 Dibenzo(a,e)pyrene            | ++++<br>0.20130    | 0.21972<br>++++    | 0.16394       | 0.24324       | 0.20657       | ++++          | AVRG  |         | 0.20695            |    | 14.00811       |
| 185 (2,3-Dibromopropyl)phosphate  | ++++<br>++++       | ++++<br>++++       | ++++          | ++++          | ++++          | ++++          | AVRG  |         | 0.000e+00          |    | 0.000e+00      |

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| Compound               | 1<br>Level 1    | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b       | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|------------------------|-----------------|--------------------|---------------|---------------|---------------|---------------|-------|---------|--------------------|----|----------------|
| 184 p-Benzquinone      | ++++<br>0.09008 | 0.02471<br>0.11216 | 0.03418       | 0.07909       | 0.12223       | ++++          | AVRG  |         | 0.07707            |    | 51.98034       |
| 191 Parathion          | ++++<br>108126  | 6594<br>136680     | 16606         | 37476         | 51586         | 85724         | LINR  | 0.10632 | 0.07128            |    | 0.99972        |
| 192 Methoxychlor       | ++++<br>0.44914 | 0.40192<br>0.40847 | 0.42858       | 0.48837       | 0.42405       | ++++          | AVRG  |         | 0.43342            |    | 7.29108        |
| 210 m-Toluidine        | ++++<br>1.46732 | 1.24156<br>++++    | 1.41449       | 1.45268       | 1.52615       | ++++          | AVRG  |         | 1.42044            |    | 7.58623        |
| 211 p-Toluidine        | ++++<br>1.30124 | 1.07363<br>++++    | 1.04910       | 1.26766       | 1.16063       | ++++          | AVRG  |         | 1.17045            |    | 9.62384        |
| 212 Cis Diallyte       | ++++<br>0.24568 | 0.22456<br>0.24333 | 0.22882       | 0.22904       | 0.23736       | ++++          | AVRG  |         | 0.23480            |    | 3.67139        |
| 213 Trans Diallyte     | ++++<br>0.29801 | 0.28525<br>0.28845 | 0.30008       | 0.30559       | 0.30520       | ++++          | AVRG  |         | 0.29710            |    | 2.86594        |
| 214 1,4-Dinitrobenzene | ++++<br>0.21226 | 0.16893<br>0.21702 | 0.18816       | 0.21158       | 0.20475       | ++++          | AVRG  |         | 0.20045            |    | 9.20206        |
| 215 2-Ethoxyethanol    | ++++<br>0.51792 | 0.42285<br>0.52549 | 0.47954       | 0.52516       | 0.52837       | ++++          | AVRG  |         | 0.49989            |    | 8.38245        |

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| Compound                           | 1<br>Level 1    | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b       | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|------------------------------------|-----------------|--------------------|---------------|---------------|---------------|---------------|-------|---------|--------------------|----|----------------|
| 216 Methylenebis(2-chloroaniline)  | ++++<br>142048  | 6277<br>148483     | 11455         | 40462         | 45730         | ++++          | LINR  | 0.27316 | 0.14330            |    | 0.99043        |
| 226 2,2'-Dichlorobenzil            | ++++<br>0.71215 | 0.59788<br>0.70291 | 0.66206       | 0.72071       | 0.71613       | 0.74144       | AVRG  |         | 0.69332            |    | 6.99662        |
| 227 4-Chlorothioanisole            | ++++<br>0.25930 | 0.20331<br>0.24804 | 0.21700       | 0.24151       | 0.26540       | 0.25769       | AVRG  |         | 0.24175            |    | 9.62932        |
| 228 4-Chlorothiophenol             | ++++<br>247600  | 12270<br>307939    | 30972         | 80857         | 114712        | 184752        | LINR  | 0.16005 | 0.23975            |    | 0.99896        |
| 229 bis (p-Chlorophenyl) sulfone   | ++++<br>0.39735 | 0.34736<br>0.39315 | 0.36077       | 0.39486       | 0.39503       | 0.39986       | AVRG  |         | 0.38406            |    | 5.45661        |
| 230 bis (p-Chlorophenyl) disulfide | ++++<br>0.14577 | 0.10928<br>0.14542 | 0.11986       | 0.12980       | 0.13311       | 0.14392       | AVRG  |         | 0.13245            |    | 10.58857       |
| 231 Diphenyl disulfide             | ++++<br>0.23836 | 0.21191<br>0.23438 | 0.21688       | 0.23163       | 0.23997       | 0.23801       | AVRG  |         | 0.23016            |    | 4.87249        |
| 232 Diphenyl sulfide               | ++++<br>0.74361 | 0.66124<br>0.71934 | 0.70896       | 0.74317       | 0.76547       | 0.74072       | AVRG  |         | 0.72607            |    | 4.67353        |
| 233 Phenyl sulfone                 | ++++<br>0.43469 | 0.39312<br>0.41585 | 0.40349       | 0.42588       | 0.44208       | 0.42827       | AVRG  |         | 0.42048            |    | 4.13878        |

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| Compound                      | 1<br>Level 1    | 10<br>Level 2      | 20<br>Level 3      | 40<br>Level 4      | 50<br>Level 5      | 80<br>Level 6      | Curve | b       | Coefficients<br>ml | m2 | %RSD<br>or R^2 |
|-------------------------------|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------|---------|--------------------|----|----------------|
| 234 Hydroxymethyl phthalimide | ++++<br>0.08347 | 0.10050<br>0.08069 | 0.09040<br>0.08069 | 0.09254<br>0.08069 | 0.06606<br>0.08069 | 0.08596<br>0.08596 | AVRG  |         | 0.08566            |    | 12.64277       |
| 235 Phthalic acid             | ++++<br>98447   | 2679<br>132685     | 9929<br>132685     | 27171<br>132685    | 36742<br>132685    | 73761<br>132685    | LINR  | 0.30882 | 0.10480            |    | 0.99384        |
| 236 Thiophenol                | ++++<br>351737  | 21569<br>430285    | 49916<br>430285    | 121864<br>430285   | 167497<br>430285   | 268557<br>430285   | LINR  | 0.10043 | 1.24069            |    | 0.99776        |
| 237 bis(Chloromethyl)ether    | ++++<br>0.93454 | 0.82301<br>0.8387  | 0.85537<br>0.8387  | 0.90291<br>0.8387  | 0.92091<br>0.8387  | 0.93364<br>0.8387  | AVRG  |         | 0.89489            |    | 4.68453        |
| 238 Octachlorostyrene         | ++++<br>0.07566 | 0.06203<br>0.07470 | 0.06526<br>0.07470 | 0.07137<br>0.07470 | 0.07391<br>0.07470 | 0.07247<br>0.07470 | AVRG  |         | 0.07077            |    | 7.27734        |
| 239 Dibenzo(a,h)pyrene        | ++++<br>0.19156 | 0.27899<br>0.30532 | 0.29299<br>0.30532 | 0.26130<br>0.30532 | 0.19709<br>0.30532 | 0.21746<br>0.30532 | AVRG  |         | 0.24924            |    | 18.78029       |
| 240 Benzo(j)fluoranthene      | ++++<br>0.84394 | 0.71408<br>0.88100 | 0.79792<br>0.88100 | 0.78355<br>0.88100 | 0.90530<br>0.88100 | 0.83654<br>0.88100 | AVRG  |         | 0.82319            |    | 7.81119        |
| 241 Dibenzo(a,j)acridine      | ++++<br>0.53749 | 0.47090<br>0.54782 | 0.48448<br>0.54782 | 0.50634<br>0.54782 | 0.43929<br>0.54782 | 0.49660<br>0.54782 | AVRG  |         | 0.49756            |    | 7.55382        |
| 242 Dibenzo(a,h)acridine      | ++++<br>0.50887 | 0.44960<br>0.52897 | 0.46575<br>0.52897 | 0.48978<br>0.52897 | 0.41485<br>0.52897 | 0.47441<br>0.52897 | AVRG  |         | 0.47603            |    | 7.96182        |

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| Compound                     | 1<br>Level 1    | 10<br>Level 2      | 20<br>Level 3      | 40<br>Level 4      | 50<br>Level 5      | 80<br>Level 6      | Curve | b | Coefficients<br>m1 m2 | %RSD<br>or R^2 |
|------------------------------|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------|---|-----------------------|----------------|
| 243 Quinoline                | ++++<br>0.52741 | 0.49575<br>0.49996 | 0.51515<br>0.51515 | 0.51844<br>0.51844 | 0.53151<br>0.53151 | 0.51320<br>0.51320 | AVRG  |   | 0.51449               | 2.55467        |
| 244 2,4-Toluene Diisocyanate | ++++<br>0.31134 | 0.27834<br>0.30799 | 0.31180<br>0.31180 | 0.31498<br>0.31498 | 0.32959<br>0.32959 | 0.30397<br>0.30397 | AVRG  |   | 0.30829               | 5.01846        |
| 245 Dibenzo(a,i)pyrene       | ++++<br>0.12004 | 0.18491<br>0.19857 | 0.19399<br>0.19399 | 0.16566<br>0.16566 | 0.11737<br>0.11737 | 0.14105<br>0.14105 | AVRG  |   | 0.16023               | 21.42137       |
| 246 1-Nitropyrene            | ++++<br>0.14085 | 0.05825<br>0.11988 | 0.06720<br>0.06720 | 0.08899<br>0.08899 | 0.08145<br>0.08145 | 0.12424<br>0.12424 | AVRG  |   | 0.09727               | 32.19501       |
| 247 5-Methylchrysene         | ++++<br>0.51803 | 0.44505<br>0.48405 | 0.47444<br>0.47444 | 0.47675<br>0.47675 | 0.49549<br>0.49549 | 0.49789<br>0.49789 | AVRG  |   | 0.48453               | 4.72295        |
| 248 Dibenzo(a,l)pyrene       | ++++<br>0.21052 | 0.26584<br>0.28064 | 0.26824<br>0.26824 | 0.26786<br>0.26786 | 0.19837<br>0.19837 | 0.22100<br>0.22100 | AVRG  |   | 0.24464               | 13.66501       |
| 249 7H-Dibenzo(c,g)carbazole | ++++<br>0.34925 | 0.30878<br>0.37054 | 0.31668<br>0.31668 | 0.34368<br>0.34368 | 0.25878<br>0.25878 | 0.31859<br>0.31859 | AVRG  |   | 0.32376               | 11.10683       |
| 250 1-Hexanol                | ++++<br>0.89542 | 0.85211<br>0.85111 | 0.92574<br>0.92574 | 0.94146<br>0.94146 | 0.95065<br>0.95065 | 0.81541<br>0.81541 | AVRG  |   | 0.89027               | 5.82639        |
| 251 Propylene glycol         | ++++<br>++++    | ++++<br>++++       | ++++<br>++++       | ++++<br>++++       | ++++<br>++++       | ++++<br>++++       | AVRG  |   | 0.000e+00             | 0.000e+00      |

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| Compound                      | 1<br>Level 1       | 10<br>Level 2      | 20<br>Level 3 | 40<br>Level 4 | 50<br>Level 5 | 80<br>Level 6 | Curve | b       | Coefficients<br>m1 | m2 | %RSD<br>or R^2 |
|-------------------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|-------|---------|--------------------|----|----------------|
|                               | 100                | 120                |               |               |               |               |       |         |                    |    |                |
|                               | Level 7            | Level 8            |               |               |               |               |       |         |                    |    |                |
| M 222 Trichlorophenols        | ++++<br>0.32129    | 0.23592<br>0.32951 | 0.27931       | 0.30520       | 0.30785       | ++++          | AVRG  |         | 0.29651            |    | 11.55941       |
| M 223 Tetrachlorophenols      | ++++<br>222771     | 14203<br>248937    | 29470         | 84648         | 97311         | ++++          | LINR  | 0.12479 | 0.29336            |    | 0.99942        |
| M 224 Benzo(b,k)fluoranthene  | 0.85079<br>1.14945 | 0.86993<br>1.16136 | 0.98309       | 1.08453       | 1.16497       | ++++          | AVRG  |         | 1.03773            |    | 13.17951       |
| M 225 TTO Sum Semivolatiles   | ++++<br>++++       | ++++<br>++++       | ++++          | ++++          | ++++          | ++++          | AVRG  |         | 0.000e+00          |    | 0.000e+00      |
| \$ 3 2-Fluorophenol           | ++++<br>0.95099    | 0.81608<br>0.98036 | 0.90901       | 0.96624       | 0.96007       | ++++          | AVRG  |         | 0.93046            |    | 6.55710        |
| \$ 5 Phenol-d5                | ++++<br>1.18734    | 1.02453<br>1.20619 | 1.14032       | 1.20772       | 1.20054       | ++++          | AVRG  |         | 1.16111            |    | 6.15460        |
| \$ 187 2-Chlorophenol-d4      | ++++<br>++++       | ++++<br>++++       | ++++          | ++++          | ++++          | ++++          | AVRG  |         | 0.000e+00          |    | 0.000e+00      |
| \$ 188 1,2-Dichlorobenzene-d4 | ++++<br>++++       | ++++<br>++++       | ++++          | ++++          | ++++          | ++++          | AVRG  |         | 0.000e+00          |    | 0.000e+00      |
| \$ 20 Nitrobenzene-d5         | ++++<br>0.26849    | 0.28874<br>0.26373 | 0.29893       | 0.29849       | 0.29261       | ++++          | AVRG  |         | 0.28517            |    | 5.37049        |



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| Compound                   | 1               | 10                 | 20      | 40      | 50      | 80      | Curve | b | Coefficients | m1      | m2 | %RSD<br>or R <sup>2</sup> |
|----------------------------|-----------------|--------------------|---------|---------|---------|---------|-------|---|--------------|---------|----|---------------------------|
|                            | Level 1         | Level 2            | Level 3 | Level 4 | Level 5 | Level 6 |       |   |              |         |    |                           |
|                            | 100             | 120                |         |         |         |         |       |   |              |         |    |                           |
|                            | Level 7         | Level 8            |         |         |         |         |       |   |              |         |    |                           |
| \$ 39 2-Fluorobiphenyl     | ++++<br>1.04630 | 0.98480<br>1.06033 | 1.08591 | 1.12792 | 1.13984 | ++++    | AVRG  |   |              | 1.07418 |    | 5.31448                   |
| \$ 60 2,4,6-Tribromophenol | ++++<br>0.12192 | 0.10325<br>0.12865 | 0.11179 | 0.12188 | 0.11795 | ++++    | AVRG  |   |              | 0.11757 |    | 7.59483                   |
| \$ 81 p-Terphenyl-d14      | ++++<br>0.59672 | 0.64573<br>0.69860 | 0.55873 | 0.65580 | 0.67297 | ++++    | AVRG  |   |              | 0.63809 |    | 8.07039                   |

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 03:29  
End Cal Date : 28-FEB-2010 15:40  
Quant Method : ISTD  
Target Version : 3.50  
Integrator : HP RTE  
Method file : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Cal Date : 05-Mar-2010 07:47 jos00786

| Curve    | Formula          | Units    |
|----------|------------------|----------|
| Averaged | Amt = Rsp/ml     | Response |
| Linear   | Amt = b + Rsp/ml | Response |

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 25-FEB-2010 16:10  
Lab File ID: s4b2463.d Init. Cal. Date(s): 25-FEB-2010 25-FEB-2010  
Analysis Type: Init. Cal. Times: 03:29 15:48  
Lab Sample ID: WBN100215-09.1 Quant Type: ISTD  
Method: /chem/MSD4.i/s022410a.b/MSD4-M8270C-AQA-022410A.m

| COMPOUND                       | RRF / AMOUNT | RF40     | CCAL<br>RRF40 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE    |
|--------------------------------|--------------|----------|---------------|------------|-------------|--------------------|---------------|
| 3 2-Fluorophenol               | 0.93046      | 0.96457  | 0.96457       | 0.000      | 3.66668     | 60.00000           | Averaged      |
| 5 Phenol-d5                    | 1.16111      | 1.16461  | 1.16461       | 0.000      | 0.30165     | 60.00000           | Averaged      |
| 20 Nitrobenzene-d5             | 0.28517      | 0.30116  | 0.30116       | 0.000      | 5.60916     | 60.00000           | Averaged      |
| 39 2-Fluorobiphenyl            | 1.07418      | 1.13724  | 1.13724       | 0.000      | 5.86975     | 60.00000           | Averaged      |
| 60 2,4,6-Tribromophenol        | 0.11757      | 0.12316  | 0.12316       | 0.000      | 4.75082     | 60.00000           | Averaged      |
| 81 p-Terphenyl-d14             | 0.63809      | 0.73133  | 0.73133       | 0.000      | 14.61257    | 60.00000           | Averaged      |
| 1 N-Methyl-N-nitrosomethylami  | 0.64917      | 0.63681  | 0.63681       | 0.000      | -1.90448    | 60.00000           | Averaged      |
| 2 Pyridine                     | 0.89300      | 0.95183  | 0.95183       | 0.000      | 6.58702     | 60.00000           | Averaged      |
| 4 Aniline                      | 0.50637      | 0.47754  | 0.47754       | 0.000      | -5.69345    | 60.00000           | Averaged      |
| 6 Phenol                       | 1.20170      | 1.22597  | 1.22597       | 0.001      | 2.01976     | 20.00000           | Averaged ccc  |
| 7 bis(2-Chloroethyl) ether     | 0.80331      | 0.75384  | 0.75384       | 0.000      | -6.15758    | 60.00000           | Averaged      |
| 8 2-Chlorophenol               | 1.03215      | 1.09920  | 1.09920       | 0.000      | 6.49656     | 60.00000           | Averaged      |
| 203 n-Decane                   | 1.00759      | 1.08975  | 1.08975       | 0.000      | 8.15370     | 60.00000           | Averaged      |
| 9 1,3-Dichlorobenzene          | 1.16391      | 1.20462  | 1.20462       | 0.000      | 3.49767     | 60.00000           | Averaged      |
| 11 1,4-Dichlorobenzene         | 1.23800      | 1.25791  | 1.25791       | 0.001      | 1.60791     | 20.00000           | Averaged ccc  |
| 13 1,2-Dichlorobenzene         | 1.11179      | 1.19048  | 1.19048       | 0.000      | 7.07755     | 60.00000           | Averaged      |
| 14 bis(2-Chloroisopropyl)ether | 1.36142      | 1.34864  | 1.34864       | 0.000      | -0.93885    | 60.00000           | Averaged      |
| 12 Benzyl alcohol              | 0.56740      | 0.56289  | 0.56289       | 0.000      | -0.79516    | 60.00000           | Averaged      |
| 15 o-Cresol                    | 0.83040      | 0.86101  | 0.86101       | 0.000      | 3.68643     | 60.00000           | Averaged      |
| 18 m,p-Cresols                 | 0.99713      | 1.02588  | 1.02588       | 0.000      | 2.88372     | 60.00000           | Averaged      |
| 17 N-Nitrosodipropylamine      | 0.77345      | 0.77526  | 0.77526       | 0.050      | 0.23375     | 60.00000           | Averaged spcc |
| 19 Hexachloroethane            | 0.45942      | 0.46113  | 0.46113       | 0.000      | 0.37268     | 60.00000           | Averaged      |
| 21 Nitrobenzene                | 0.27158      | 0.27266  | 0.27266       | 0.000      | 0.39802     | 60.00000           | Averaged      |
| 22 Isophorone                  | 0.49835      | 0.48387  | 0.48387       | 0.000      | -2.90517    | 60.00000           | Averaged      |
| 23 2-Nitrophenol               | 0.13559      | 0.14419  | 0.14419       | 0.001      | 6.33982     | 20.00000           | Averaged ccc  |
| 24 2,4-Dimethylphenol          | 0.22585      | 0.22406  | 0.22406       | 0.000      | -0.79217    | 60.00000           | Averaged      |
| 25 bis(2-Chloroethoxy)methane  | 0.29655      | 0.27990  | 0.27990       | 0.000      | -5.61587    | 60.00000           | Averaged      |
| 26 2,4-Dichlorophenol          | 0.19392      | 0.20001  | 0.20001       | 0.001      | 3.14413     | 20.00000           | Averaged ccc  |
| 27 Benzoic acid                | 41.70664     | 40.00000 | 0.13587       | 0.000      | 4.26660     | 60.00000           | Linear        |
| 28 1,2,4-Trichlorobenzene      | 0.23349      | 0.22978  | 0.22978       | 0.000      | -1.58803    | 60.00000           | Averaged      |
| 30 Naphthalene                 | 0.79443      | 0.78186  | 0.78186       | 0.000      | -1.58326    | 60.00000           | Averaged      |
| 204 alpha-Terpineol            | 0.18531      | 0.17646  | 0.17646       | 0.000      | -4.77870    | 60.00000           | Averaged      |
| 31 4-Chloroaniline             | 0.36606      | 0.34698  | 0.34698       | 0.000      | -5.21193    | 60.00000           | Averaged      |
| 32 Hexachlorobutadiene         | 0.13374      | 0.13822  | 0.13822       | 0.001      | 3.35312     | 20.00000           | Averaged ccc  |
| 33 4-Chloro-3-methylphenol     | 0.18826      | 0.19321  | 0.19321       | 0.001      | 2.62402     | 20.00000           | Averaged ccc  |
| 34 2-Methylnaphthalene         | 0.48750      | 0.51011  | 0.51011       | 0.000      | 4.63863     | 60.00000           | Averaged      |

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 25-FEB-2010 16:10  
Lab File ID: s4b2463.d Init. Cal. Date(s): 25-FEB-2010 25-FEB-2010  
Analysis Type: Init. Cal. Times: 03:29 15:48  
Lab Sample ID: WBN100215-09.1 Quant Type: ISTD  
Method: /chem/MSD4.i/s022410a.b/MSD4-M8270C-AQA-022410A.m

| COMPOUND                      | RRF / AMOUNT | RF40     | CCAL<br>RRF40 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE   |
|-------------------------------|--------------|----------|---------------|------------|-------------|--------------------|--------------|
| 35 1-Methylnaphthalene        | 0.48024      | 0.48016  | 0.48016       | 0.000      | -0.01643    | 60.00000           | Averaged     |
| 36 Hexachlorocyclopentadiene  | 31.93317     | 40.00000 | 0.13273       | 0.050      | -20.16707   | 60.00000           | Linear spcc  |
| 205 2,3-Dichloroaniline       | 0.52762      | 0.51905  | 0.51905       | 0.000      | -1.62287    | 60.00000           | Averaged     |
| 37 2,4,6-Trichlorophenol      | 0.28364      | 0.28627  | 0.28627       | 0.001      | 0.93002     | 20.00000           | Averaged ccc |
| 38 2,4,5-Trichlorophenol      | 39.17791     | 40.00000 | 0.31586       | 0.000      | -2.05523    | 60.00000           | Linear       |
| 40 2-Chloronaphthalene        | 0.90393      | 0.92445  | 0.92445       | 0.000      | 2.27051     | 60.00000           | Averaged     |
| 42 o-Nitroaniline             | 0.25504      | 0.25285  | 0.25285       | 0.000      | -0.86028    | 60.00000           | Averaged     |
| 41 m-Nitroaniline             | 0.20279      | 0.19002  | 0.19002       | 0.000      | -6.29650    | 60.00000           | Averaged     |
| 43 Dimethylphthalate          | 1.02848      | 1.00553  | 1.00553       | 0.000      | -2.23127    | 60.00000           | Averaged     |
| 44 2,6-Dinitrotoluene         | 0.23587      | 0.23176  | 0.23176       | 0.000      | -1.74188    | 60.00000           | Averaged     |
| 50 2,4-Dinitrotoluene         | 0.28204      | 0.27625  | 0.27625       | 0.000      | -2.05125    | 60.00000           | Averaged     |
| 45 Acenaphthylene             | 1.39830      | 1.46900  | 1.46900       | 0.000      | 5.05606     | 60.00000           | Averaged     |
| 47 Acenaphthene               | 0.93738      | 0.91337  | 0.91337       | 0.001      | -2.56124    | 20.00000           | Averaged ccc |
| 48 2,4-Dinitrophenol          | 36.06526     | 40.00000 | 0.07283       | 0.050      | -9.83686    | 60.00000           | Linear spcc  |
| 49 Dibenzofuran               | 1.23164      | 1.25235  | 1.25235       | 0.000      | 1.68188     | 60.00000           | Averaged     |
| 51 Diethylphthalate           | 1.00062      | 0.97787  | 0.97787       | 0.000      | -2.27397    | 60.00000           | Averaged     |
| 52 4-Nitrophenol              | 36.50969     | 40.00000 | 0.12367       | 0.050      | -8.72577    | 60.00000           | Linear spcc  |
| 53 Fluorene                   | 1.03877      | 1.03501  | 1.03501       | 0.000      | -0.36220    | 60.00000           | Averaged     |
| 54 4-Chlorophenylphenylether  | 0.49885      | 0.48674  | 0.48674       | 0.000      | -2.42766    | 60.00000           | Averaged     |
| 55 2-Methyl-4,6-dinitrophenol | 44.41663     | 40.00000 | 0.10185       | 0.000      | 11.04157    | 60.00000           | Linear       |
| 56 p-Nitroaniline             | 0.19925      | 0.20157  | 0.20157       | 0.000      | 1.16392     | 60.00000           | Averaged     |
| 133 Diphenylamine             | 0.51827      | 0.51762  | 0.51762       | 0.001      | -0.12512    | 20.00000           | Averaged ccc |
| 58 1,2-Diphenylhydrazine      | 0.65589      | 0.66556  | 0.66556       | 0.000      | 1.47452     | 60.00000           | Averaged     |
| 61 4-Bromophenylphenylether   | 0.17588      | 0.17017  | 0.17017       | 0.000      | -3.24222    | 60.00000           | Averaged     |
| 63 Hexachlorobenzene          | 0.18608      | 0.18452  | 0.18452       | 0.000      | -0.84069    | 60.00000           | Averaged     |
| 65 Pentachlorophenol          | 38.04076     | 40.00000 | 0.07055       | 0.001      | -4.89811    | 20.00000           | Linear ccc   |
| 206 n-Octadecane              | 0.34717      | 0.36754  | 0.36754       | 0.000      | 5.86659     | 60.00000           | Averaged     |
| 68 Phenanthrene               | 0.88809      | 0.85502  | 0.85502       | 0.000      | -3.72364    | 60.00000           | Averaged     |
| 69 Anthracene                 | 0.85480      | 0.86848  | 0.86848       | 0.000      | 1.60067     | 60.00000           | Averaged     |
| 72 Di-n-butylphthalate        | 0.93363      | 0.94227  | 0.94227       | 0.000      | 0.92485     | 60.00000           | Averaged     |
| 76 Fluoranthene               | 0.79395      | 0.80982  | 0.80982       | 0.001      | 1.99826     | 20.00000           | Averaged ccc |
| 79 Pyrene                     | 1.07185      | 1.06512  | 1.06512       | 0.000      | -0.62806    | 60.00000           | Averaged     |
| 85 Butylbenzylphthalate       | 0.48250      | 0.50843  | 0.50843       | 0.000      | 5.37446     | 60.00000           | Averaged     |
| 89 Benzo(a)anthracene         | 0.91853      | 0.86925  | 0.86925       | 0.000      | -5.36491    | 60.00000           | Averaged     |
| 92 Chrysene                   | 0.87098      | 0.83304  | 0.83304       | 0.000      | -4.35602    | 60.00000           | Averaged     |
| 93 bis(2-Ethylhexyl)phthalate | 0.68918      | 0.69848  | 0.69848       | 0.000      | 1.34951     | 60.00000           | Averaged     |

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 25-FEB-2010 16:10  
 Lab File ID: s4b2463.d Init. Cal. Date(s): 25-FEB-2010 25-FEB-2010  
 Analysis Type: Init. Cal. Times: 03:29 15:48  
 Lab Sample ID: WBN100215-09.1 Quant Type: ISTD  
 Method: /chem/MSD4.i/s022410a.b/MSD4-M8270C-AQA-022410A.m

| COMPOUND                        | RRF / AMOUNT | RF40     | CCAL RRF40 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE   |
|---------------------------------|--------------|----------|------------|---------|-------------|-----------------|--------------|
| 94 Di-n-octylphthalate          | 41.93765     | 40.00000 | 1.71412    | 0.001   | 4.84411     | 20.00000        | Linear ccc   |
| 95 Benzo(b)fluoranthene         | 1.01729      | 0.99215  | 0.99215    | 0.000   | -2.47154    | 60.00000        | Averaged     |
| 96 Benzo(k)fluoranthene         | 1.05818      | 1.14472  | 1.14472    | 0.000   | 8.17831     | 60.00000        | Averaged     |
| 97 Benzo(a)pyrene               | 0.80844      | 0.81387  | 0.81387    | 0.001   | 0.67153     | 20.00000        | Averaged ccc |
| 99 Indeno(1,2,3-cd)pyrene       | 0.66515      | 0.61582  | 0.61582    | 0.000   | -7.41608    | 60.00000        | Averaged     |
| 100 Dibenzo(a,h)anthracene      | 0.55316      | 0.51516  | 0.51516    | 0.000   | -6.86985    | 60.00000        | Averaged     |
| 101 Benzo(ghi)perylene          | 0.53657      | 0.48099  | 0.48099    | 0.000   | -10.35915   | 60.00000        | Averaged     |
| 126 m-Dinitrobenzene            | 0.16672      | 0.16622  | 0.16622    | 0.000   | -0.29961    | 60.00000        | Averaged     |
| 130 2,3,4,6-Tetrachlorophenol   | 34.00211     | 40.00000 | 0.21276    | 0.000   | -14.99472   | 60.00000        | Linear       |
| 143 Dinoseb                     | 36.00041     | 40.00000 | 0.10880    | 0.000   | -9.99897    | 60.00000        | Linear       |
| 173 Carbazole                   | 0.64158      | 0.67535  | 0.67535    | 0.000   | 5.26282     | 60.00000        | Averaged     |
| 184 p-Benzoquinone              | 0.07707      | 0.07963  | 0.07963    | 0.000   | 3.31936     | 60.00000        | Averaged     |
| 192 Methoxychlor                | 0.43342      | 0.36279  | 0.36279    | 0.000   | -16.29710   | 60.00000        | Averaged     |
| 211 p-Toluidine                 | 1.17045      | 0.98161  | 0.98161    | 0.000   | -16.13460   | 60.00000        | Averaged     |
| 210 m-Toluidine                 | 1.42044      | 1.31477  | 1.31477    | 0.000   | -7.43946    | 60.00000        | Averaged     |
| 215 2-Ethoxyethanol             | 0.49989      | 0.54609  | 0.54609    | 0.000   | 9.24294     | 60.00000        | Averaged     |
| 179 Dibenzo(a,e)pyrene          | 0.20695      | 0.15345  | 0.15345    | 0.000   | -25.85147   | 60.00000        | Averaged     |
| 26 Phthalic anhydride           | 44.34548     | 40.00000 | 0.08932    | 0.000   | 10.86371    | 60.00000        | Linear       |
| 214 1,4-Dinitrobenzene          | 0.20045      | 0.20345  | 0.20345    | 0.000   | 1.49616     | 60.00000        | Averaged     |
| 216 Methylenebis(2-chloroanilin | 39.49539     | 40.00000 | 0.10235    | 0.000   | -1.26153    | 60.00000        | Linear       |
| M 222 Trichlorophenols          | 0.29651      | 0.30107  | 0.30107    | 0.000   | 1.53480     | 60.00000        | Averaged     |
| M 223 Tetrachlorophenols        | 34.00211     | 40.00000 | 0.21276    | 0.000   | -14.99472   | 60.00000        | Linear       |
| M 224 Benzo(b,k)fluoranthene    | 1.03773      | 1.06843  | 1.06843    | 0.000   | 2.95829     | 60.00000        | Averaged     |

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Data file : /chem/MSD4.i/s022410a.b/s4b2463.d  
Lab Smp Id: WBN100215-09.1 Client Smp ID: MEGAICV  
Inj Date : 25-FEB-2010 16:10  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |WBN100215-09.1|ICV|1|SVMF|1|MEGAICV  
Misc Info : |MSD8270|WBN100217-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s022410a.b/MSD4-M8270C-AQA-022410A.m  
Meth Date : 26-Feb-2010 15:07 jos00786 Quant Type: ISTD  
Cal Date : 25-FEB-2010 15:48 Cal File: s4b2462.d  
Als bottle: 18 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGA.sub  
Target Version: 3.50  
Processing Host: kilroy

| Compounds                       | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|---------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                 | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| * 10 1,4-Dichlorobenzene-d4     | 152       | 3.930  | 3.930  | (1.000) | 156243   | 40.0000            |                   |
| * 29 Naphthalene-d8             | 136       | 4.796  | 4.796  | (1.000) | 620641   | 40.0000            |                   |
| * 46 Acenaphthene-d10           | 164       | 6.048  | 6.048  | (1.000) | 305523   | 40.0000            |                   |
| * 67 Phenanthrene-d10           | 188       | 7.037  | 7.037  | (1.000) | 482316   | 40.0000            |                   |
| * 91 Chrysene-d12               | 240       | 8.749  | 8.749  | (1.000) | 383803   | 40.0000            |                   |
| * 98 Perylene-d12               | 264       | 10.289 | 10.289 | (1.000) | 236560   | 40.0000            |                   |
| \$ 3 2-Fluorophenol             | 112       | 3.117  | 3.117  | (0.793) | 150708   | 40.0000            | 41.5              |
| \$ 5 Phenol-d5                  | 99        | 3.641  | 3.641  | (0.926) | 181962   | 40.0000            | 40.1              |
| \$ 20 Nitrobenzene-d5           | 82        | 4.294  | 4.294  | (0.895) | 186913   | 40.0000            | 42.2              |
| \$ 39 2-Fluorobiphenyl          | 172       | 5.540  | 5.540  | (0.916) | 347452   | 40.0000            | 42.3              |
| \$ 60 2,4,6-Tribromophenol      | 329       | 6.588  | 6.588  | (1.089) | 37628    | 40.0000            | 41.9              |
| \$ 81 p-Terphenyl-d14           | 244       | 7.968  | 7.968  | (0.911) | 280688   | 40.0000            | 45.8              |
| 1 N-Methyl-N-nitrosomethylamine | 74        | 2.438  | 2.438  | (0.620) | 99497    | 40.0000            | 39.2              |
| 2 Pyridine                      | 79        | 2.475  | 2.475  | (0.630) | 148716   | 40.0000            | 42.6              |
| 4 Aniline                       | 66        | 3.716  | 3.716  | (0.946) | 74612    | 40.0000            | 37.7              |
| 6 Phenol                        | 94        | 3.652  | 3.652  | (0.929) | 191549   | 40.0000            | 40.8              |
| 7 bis(2-Chloroethyl) ether      | 63        | 3.732  | 3.732  | (0.950) | 117783   | 40.0000            | 37.5              |
| 8 2-Chlorophenol                | 128       | 3.796  | 3.796  | (0.966) | 171743   | 40.0000            | 42.6              |
| 203 n-Decane                    | 43        | 3.769  | 3.769  | (0.959) | 170266   | 40.0000            | 43.3              |
| 9 1,3-Dichlorobenzene           | 146       | 3.898  | 3.898  | (0.992) | 188213   | 40.0000            | 41.4              |
| 11 1,4-Dichlorobenzene          | 146       | 3.941  | 3.941  | (1.003) | 196539   | 40.0000            | 40.6              |
| 13 1,2-Dichlorobenzene          | 146       | 4.042  | 4.042  | (1.029) | 186004   | 40.0000            | 42.8              |
| 14 bis(2-Chloroisopropyl)ether  | 45        | 4.069  | 4.069  | (1.035) | 210715   | 40.0000            | 39.6              |
| 12 Benzyl alcohol               | 108       | 3.999  | 3.999  | (1.018) | 87948    | 40.0000            | 39.7              |
| 15 o-Cresol                     | 107       | 4.048  | 4.048  | (1.030) | 134527   | 40.0000            | 41.5              |
| 18 m,p-Cresols                  | 107       | 4.149  | 4.149  | (1.056) | 160287   | 40.0000            | 41.2              |

| Compounds                     | QUANT SIG |       |        |         |          | AMOUNTS            |                   |
|-------------------------------|-----------|-------|--------|---------|----------|--------------------|-------------------|
|                               | MASS      | RT    | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| =====                         | =====     | ==    | =====  | =====   | =====    | =====              | =====             |
| 17 N-Nitrosodipropylamine     | 70        | 4.171 | 4.171  | (1.061) | 121129   | 40.0000            | 40.1              |
| 19 Hexachloroethane           | 117       | 4.272 | 4.272  | (1.087) | 72049    | 40.0000            | 40.1              |
| 21 Nitrobenzene               | 77        | 4.310 | 4.310  | (0.899) | 169222   | 40.0000            | 40.2              |
| 22 Isophorone                 | 82        | 4.465 | 4.465  | (0.931) | 300308   | 40.0000            | 38.8              |
| 23 2-Nitrophenol              | 139       | 4.524 | 4.524  | (0.943) | 89491    | 40.0000            | 42.5              |
| 24 2,4-Dimethylphenol         | 122       | 4.513 | 4.513  | (0.941) | 139059   | 40.0000            | 39.7              |
| 25 bis(2-Chloroethoxy)methane | 93        | 4.582 | 4.582  | (0.955) | 173715   | 40.0000            | 37.8              |
| 26 2,4-Dichlorophenol         | 162       | 4.689 | 4.689  | (0.978) | 124136   | 40.0000            | 41.2              |
| 27 Benzoic acid               | 105       | 4.577 | 4.577  | (0.954) | 84328    | 40.0000            | 41.7              |
| 28 1,2,4-Trichlorobenzene     | 180       | 4.748 | 4.748  | (0.990) | 142610   | 40.0000            | 39.4              |
| 30 Naphthalene                | 128       | 4.812 | 4.812  | (1.003) | 485252   | 40.0000            | 39.4              |
| 204 alpha-Terpineol           | 59        | 4.791 | 4.791  | (0.999) | 109516   | 40.0000            | 38.1              |
| 31 4-Chloroaniline            | 127       | 4.828 | 4.828  | (1.007) | 215352   | 40.0000            | 37.9              |
| 32 Hexachlorobutadiene        | 225       | 4.877 | 4.877  | (1.017) | 85785    | 40.0000            | 41.3              |
| 33 4-Chloro-3-methylphenol    | 107       | 5.144 | 5.144  | (1.072) | 119911   | 40.0000            | 41.0              |
| 34 2-Methylnaphthalene        | 142       | 5.294 | 5.294  | (1.104) | 316597   | 40.0000            | 41.8              |
| 35 1-Methylnaphthalene        | 142       | 5.369 | 5.369  | (1.119) | 298007   | 40.0000            | 40.0              |
| 36 Hexachlorocyclopentadiene  | 237       | 5.395 | 5.395  | (0.892) | 40552    | 40.0000            | 31.9              |
| 205 2,3-Dichloroaniline       | 161       | 5.492 | 5.492  | (0.908) | 158583   | 40.0000            | 39.4              |
| 37 2,4,6-Trichlorophenol      | 196       | 5.481 | 5.481  | (0.906) | 87463    | 40.0000            | 40.4              |
| 38 2,4,5-Trichlorophenol      | 196       | 5.513 | 5.513  | (0.912) | 96502    | 40.0000            | 39.2              |
| 40 2-Chloronaphthalene        | 162       | 5.652 | 5.652  | (0.935) | 282441   | 40.0000            | 40.9              |
| 42 o-Nitroaniline             | 65        | 5.711 | 5.711  | (0.944) | 77250    | 40.0000            | 39.6              |
| 41 m-Nitroaniline             | 138       | 6.005 | 6.005  | (0.993) | 58055    | 40.0000            | 37.5              |
| 43 Dimethylphthalate          | 163       | 5.818 | 5.818  | (0.962) | 307212   | 40.0000            | 39.1              |
| 44 2,6-Dinitrotoluene         | 165       | 5.871 | 5.871  | (0.971) | 70808    | 40.0000            | 39.3              |
| 50 2,4-Dinitrotoluene         | 165       | 6.160 | 6.160  | (1.019) | 84402    | 40.0000            | 39.2              |
| 45 Acenaphthylene             | 152       | 5.957 | 5.957  | (0.985) | 448812   | 40.0000            | 42.0              |
| 47 Acenaphthene               | 154       | 6.075 | 6.075  | (1.004) | 279055   | 40.0000            | 39.0              |
| 48 2,4-Dinitrophenol          | 184       | 6.075 | 6.075  | (1.004) | 22252    | 40.0000            | 36.1              |
| 49 Dibenzofuran               | 168       | 6.192 | 6.192  | (1.024) | 382622   | 40.0000            | 40.7              |
| 51 Diethylphthalate           | 149       | 6.299 | 6.299  | (1.042) | 298762   | 40.0000            | 39.1              |
| 52 4-Nitrophenol              | 139       | 6.091 | 6.091  | (1.007) | 37785    | 40.0000            | 36.5              |
| 53 Fluorene                   | 166       | 6.422 | 6.422  | (1.062) | 316219   | 40.0000            | 39.8              |
| 54 4-Chlorophenylphenylether  | 204       | 6.401 | 6.401  | (1.058) | 148711   | 40.0000            | 39.0              |
| 55 2-Methyl-4,6-dinitrophenol | 198       | 6.438 | 6.438  | (0.915) | 49122    | 40.0000            | 44.4              |
| 56 p-Nitroaniline             | 138       | 6.428 | 6.428  | (1.063) | 61585    | 40.0000            | 40.5              |
| 133 Diphenylamine             | 169       | 6.481 | 6.481  | (0.921) | 249655   | 40.0000            | 39.9              |
| 58 1,2-Diphenylhydrazine      | 77        | 6.513 | 6.513  | (0.926) | 321009   | 40.0000            | 40.6              |
| 61 4-Bromophenylphenylether   | 248       | 6.727 | 6.727  | (0.956) | 82078    | 40.0000            | 38.7              |
| 63 Hexachlorobenzene          | 284       | 6.786 | 6.786  | (0.964) | 88995    | 40.0000            | 39.7              |
| 65 Pentachlorophenol          | 266       | 6.904 | 6.904  | (0.981) | 34027    | 40.0000            | 38.0              |
| 206 n-Octadecane              | 57        | 6.882 | 6.882  | (0.978) | 177271   | 40.0000            | 42.3              |
| 68 Phenanthrene               | 178       | 7.054 | 7.054  | (1.002) | 412390   | 40.0000            | 38.5              |
| 69 Anthracene                 | 178       | 7.086 | 7.086  | (1.007) | 418881   | 40.0000            | 40.6              |
| 72 Di-n-butylphthalate        | 149       | 7.326 | 7.326  | (1.041) | 454470   | 40.0000            | 40.4              |
| 76 Fluoranthene               | 202       | 7.776 | 7.776  | (1.105) | 390587   | 40.0000            | 40.8              |

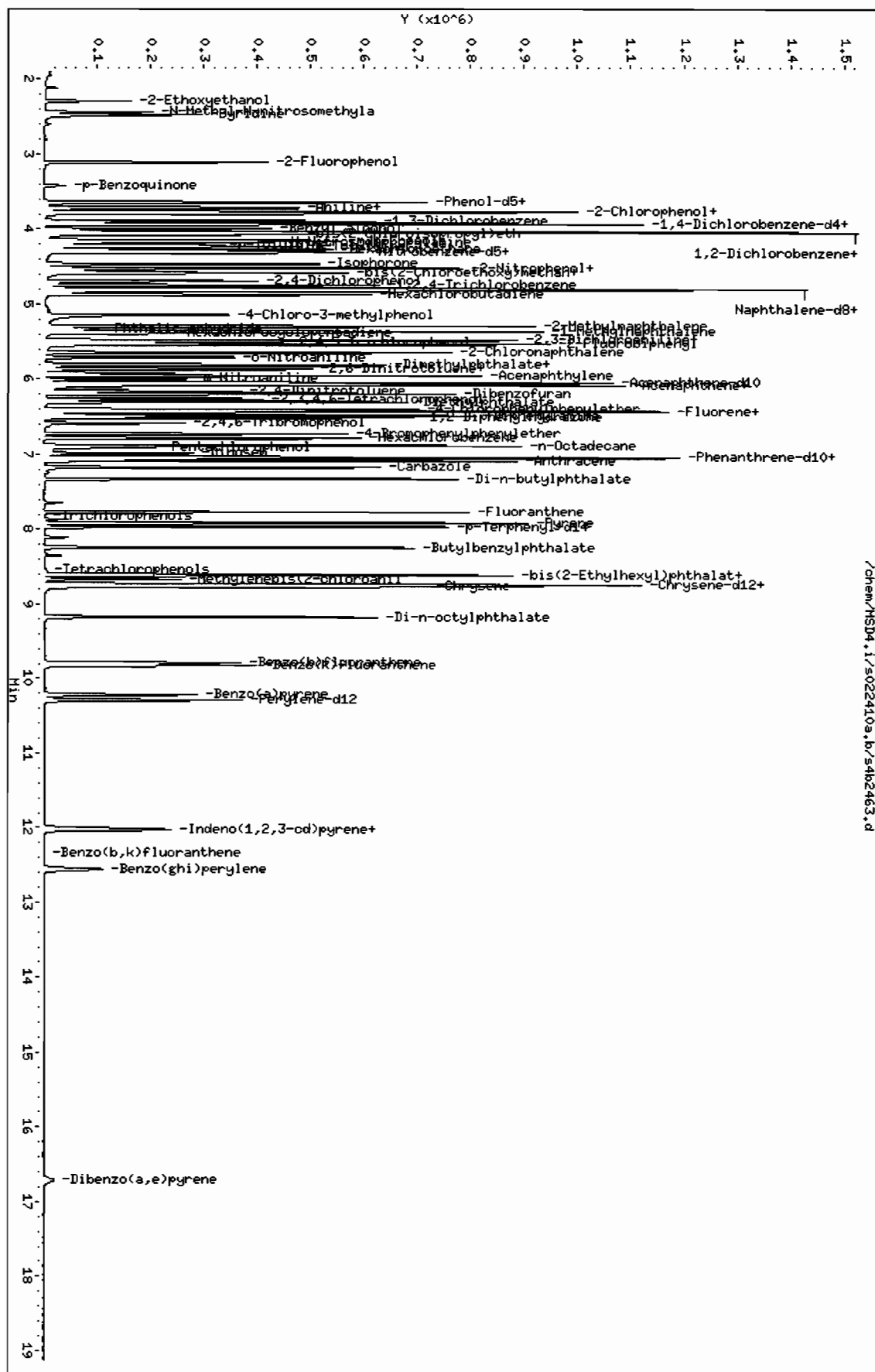
| Compounds                          | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|------------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                    | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| 79 Pyrene                          | 202       | 7.915  | 7.915  | (0.905) | 408795   | 40.0000            | 39.7              |
| 85 Butylbenzylphthalate            | 149       | 8.241  | 8.241  | (0.942) | 195138   | 40.0000            | 42.1              |
| 89 Benzo (a)anthracene             | 228       | 8.738  | 8.738  | (0.999) | 333621   | 40.0000            | 37.8              |
| 92 Chrysene                        | 228       | 8.770  | 8.770  | (1.002) | 319723   | 40.0000            | 38.2              |
| 93 bis (2-Ethylhexyl)phthalate     | 149       | 8.610  | 8.610  | (0.984) | 268078   | 40.0000            | 40.5              |
| 94 Di-n-octylphthalate             | 149       | 9.177  | 9.177  | (0.892) | 405492   | 40.0000            | 41.9              |
| 95 Benzo (b)fluoranthene           | 252       | 9.797  | 9.797  | (0.952) | 234702   | 40.0000            | 39.0              |
| 96 Benzo (k)fluoranthene           | 252       | 9.829  | 9.829  | (0.955) | 270794   | 40.0000            | 43.3              |
| 97 Benzo (a)pyrene                 | 252       | 10.220 | 10.220 | (0.993) | 192528   | 40.0000            | 40.3              |
| 99 Indeno (1,2,3-cd)pyrene         | 276       | 12.022 | 12.022 | (1.168) | 145679   | 40.0000            | 37.0              |
| 100 Dibenzo (a,h)anthracene        | 278       | 12.028 | 12.028 | (1.169) | 121867   | 40.0000            | 37.2              |
| 101 Benzo (ghi)perylene            | 276       | 12.557 | 12.557 | (1.220) | 113782   | 40.0000            | 35.8              |
| 126 m-Dinitrobenzene               | 168       | 5.861  | 5.861  | (0.969) | 50785    | 40.0000            | 39.9              |
| 130 2,3,4,6-Tetrachlorophenol      | 232       | 6.262  | 6.262  | (1.035) | 65003    | 40.0000            | 34.0              |
| 143 Dinoseb                        | 211       | 6.995  | 6.995  | (0.994) | 52474    | 40.0000            | 36.0              |
| 173 Carbazole                      | 167       | 7.171  | 7.171  | (1.019) | 325731   | 40.0000            | 42.1              |
| 184 p-Benzoquinone                 | 54        | 3.422  | 3.422  | (0.871) | 12442    | 40.0000            | 41.3              |
| 192 Methoxychlor                   | 227       | 8.599  | 8.599  | (0.983) | 139238   | 40.0000            | 33.5              |
| 211 p-Toluidine                    | 106       | 4.208  | 4.208  | (1.071) | 153369   | 40.0000            | 33.5              |
| 210 m-Toluidine                    | 106       | 4.229  | 4.229  | (1.076) | 205423   | 40.0000            | 37.0              |
| 215 2-Ethoxyethanol                | 59        | 2.288  | 2.288  | (0.582) | 85323    | 40.0000            | 43.7              |
| 179 Dibenzo (a,e)pyrene            | 302       | 16.708 | 16.708 | (1.624) | 36301    | 40.0000            | 29.6              |
| 26 Phthalic anhydride              | 104       | 5.337  | 5.337  | (1.113) | 55435    | 40.0000            | 44.3              |
| 214 1,4-Dinitrobenzene             | 75        | 5.802  | 5.802  | (0.959) | 62159    | 40.0000            | 40.6              |
| 216 Methylenebis (2-chloroaniline) | 231       | 8.663  | 8.663  | (0.990) | 39281    | 40.0000            | 39.5              |
| M 222 Trichlorophenols             | 196       |        |        |         | 183965   | 80.0000            | 81.2              |
| M 223 Tetrachlorophenols           | 232       |        |        |         | 65003    | 40.0000            | 34.0              |
| M 224 Benzo (b,k)fluoranthene      | 252       |        |        |         | 505496   | 80.0000            | 82.4              |



Data File: /chem/MSD4.i/s022410a.b/s4b2463.d  
 Date: 25-FEB-2010 16:10  
 Client ID: HECALICV  
 Sample Info: IABN100215-09.11CV111SVH111HECALICV  
 Column phase: J&W DB-5MS

/chem/MSD4.i/s022410a.b/s4b2463.d

Instrument: MSD4.1  
 Operator: JHB3  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 25-FEB-2010 17:05  
Lab File ID: s4b2465.d Init. Cal. Date(s): 25-FEB-2010 25-FEB-2010  
Analysis Type: Init. Cal. Times: 03:29 15:48  
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD  
Method: /chem/MSD4.i/s022410a.b/MSD4-M8270C-AQA-022410A.m

| COMPOUND                       | RRF / AMOUNT | RF40    | CCAL<br>RRF40 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE |
|--------------------------------|--------------|---------|---------------|------------|-------------|--------------------|------------|
| 209 Benzaldehyde               | 0.80177      | 0.61467 | 0.61467       | 0.000      | -23.33598   | 60.00000           | Averaged   |
| 16 Acetophenone                | 1.16943      | 1.04927 | 1.04927       | 0.000      | -10.27508   | 60.00000           | Averaged   |
| 189 Caprolactam                | 0.08524      | 0.08452 | 0.08452       | 0.000      | -0.84614    | 60.00000           | Averaged   |
| 208 1,1'-Biphenyl              | 1.19408      | 1.15704 | 1.15704       | 0.000      | -3.10203    | 60.00000           | Averaged   |
| 207 Atrazine                   | 0.03767      | 0.03637 | 0.03637       | 0.000      | -3.43442    | 60.00000           | Averaged   |
| 77 Benzidine                   | 0.28259      | 0.25792 | 0.25792       | 0.000      | -8.72883    | 60.00000           | Averaged   |
| 90 3,3'-Dichlorobenzidine      | 0.24789      | 0.25554 | 0.25554       | 0.000      | 3.08359     | 60.00000           | Averaged   |
| 102 1,4-Dioxane                | 0.36128      | 0.40932 | 0.40932       | 0.000      | 13.29941    | 60.00000           | Averaged   |
| 103 Methyl methacrylate        | 0.19684      | 0.22570 | 0.22570       | 0.000      | 14.66305    | 60.00000           | Averaged   |
| 104 Ethyl methacrylate         | 0.81257      | 0.90993 | 0.90993       | 0.000      | 11.98171    | 60.00000           | Averaged   |
| 105 2-Picoline                 | 1.17340      | 1.10836 | 1.10836       | 0.000      | -5.54270    | 60.00000           | Averaged   |
| 106 N-Nitrosomethylethylamine  | 0.46493      | 0.45052 | 0.45052       | 0.000      | -3.10008    | 60.00000           | Averaged   |
| 107 Methyl methanesulfonate    | 0.44515      | 0.45456 | 0.45456       | 0.000      | 2.11266     | 60.00000           | Averaged   |
| 108 N-Nitrosodiethylamine      | 0.50195      | 0.48442 | 0.48442       | 0.000      | -3.49239    | 60.00000           | Averaged   |
| 109 Ethyl Methanesulfonate     | 0.59658      | 0.67270 | 0.67270       | 0.000      | 12.75925    | 60.00000           | Averaged   |
| 110 Pentachloroethane          | 0.31042      | 0.39245 | 0.39245       | 0.000      | 26.42626    | 60.00000           | Averaged   |
| 111 N-Nitrosopyrrolidine       | 0.51683      | 0.48313 | 0.48313       | 0.000      | -6.52037    | 60.00000           | Averaged   |
| 113 N-Nitrosomorpholine        | 0.53142      | 0.52702 | 0.52702       | 0.000      | -0.82825    | 60.00000           | Averaged   |
| 114 o-Toluidine                | 1.74083      | 1.67666 | 1.67666       | 0.000      | -3.68627    | 60.00000           | Averaged   |
| 115 N-Nitrosopiperidine        | 0.13918      | 0.13492 | 0.13492       | 0.000      | -3.06251    | 60.00000           | Averaged   |
| 116 a,a-Dimethylphenethylamine | 0.62951      | 0.61819 | 0.61819       | 0.000      | -1.79928    | 60.00000           | Averaged   |
| 118 2,6-Dichlorophenol         | 0.20803      | 0.20140 | 0.20140       | 0.000      | -3.18568    | 60.00000           | Averaged   |
| 119 Hexachloropropene          | 0.10393      | 0.15053 | 0.15053       | 0.000      | 44.84134    | 60.00000           | Averaged   |
| 120 p-Phenylenediamine         | 0.20766      | 0.22341 | 0.22341       | 0.000      | 7.58405     | 60.00000           | Averaged   |
| 121 N-Nitrosodi-n-butylamine   | 0.19550      | 0.19493 | 0.19493       | 0.000      | -0.29590    | 60.00000           | Averaged   |
| 122 Safrole                    | 0.19518      | 0.21317 | 0.21317       | 0.000      | 9.21697     | 60.00000           | Averaged   |
| 123 1,2,4,5-Tetrachlorobenzene | 0.42863      | 0.43414 | 0.43414       | 0.000      | 1.28600     | 60.00000           | Averaged   |
| 124 Isosafrole                 | 0.33382      | 0.41717 | 0.41717       | 0.000      | 24.96627    | 60.00000           | Averaged   |
| 125 1,4-Naphthoquinone         | 0.28008      | 0.27025 | 0.27025       | 0.000      | -3.51168    | 60.00000           | Averaged   |
| 127 Pentachlorobenzene         | 0.37325      | 0.36337 | 0.36337       | 0.000      | -2.64646    | 60.00000           | Averaged   |
| 128 1-Naphthylamine            | 0.82637      | 0.86465 | 0.86465       | 0.000      | 4.63204     | 60.00000           | Averaged   |
| 129 2-Naphthylamine            | 0.89188      | 0.95183 | 0.95183       | 0.000      | 6.72229     | 60.00000           | Averaged   |
| 131 5-Nitro-o-toluidine        | 0.24491      | 0.23863 | 0.23863       | 0.000      | -2.56441    | 60.00000           | Averaged   |
| 136 1,3,5-Trinitrobenzene      | 0.10607      | 0.11976 | 0.11976       | 0.000      | 12.91213    | 60.00000           | Averaged   |
| 137 Phenacetin                 | 0.26317      | 0.24642 | 0.24642       | 0.000      | -6.36471    | 60.00000           | Averaged   |
| 138 Diallate                   | 0.25253      | 0.22899 | 0.22899       | 0.000      | -9.32039    | 60.00000           | Averaged   |

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 25-FEB-2010 17:05  
Lab File ID: s4b2465.d Init. Cal. Date(s): 25-FEB-2010 25-FEB-2010  
Analysis Type: Init. Cal. Times: 03:29 15:48  
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD  
Method: /chem/MSD4.i/s022410a.b/MSD4-M8270C-AQA-022410A.m

| COMPOUND                        | RRF / AMOUNT | RF40    | CCAL<br>RRF40 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE |
|---------------------------------|--------------|---------|---------------|------------|-------------|--------------------|------------|
| 212 Cis Diallate                | 0.23480      | 0.28192 | 0.28192       | 0.000      | 20.07008    | 60.00000           | Averaged   |
| 213 Trans Diallate              | 0.29710      | 0.26941 | 0.26941       | 0.000      | -9.32039    | 60.00000           | Averaged   |
| 140 4-Aminobiphenyl             | 0.54065      | 0.59863 | 0.59863       | 0.000      | 10.72389    | 60.00000           | Averaged   |
| 141 Pentachloronitrobenzene     | 0.07148      | 0.07282 | 0.07282       | 0.000      | 1.87316     | 60.00000           | Averaged   |
| 142 Pronamide                   | 0.26013      | 0.27611 | 0.27611       | 0.000      | 6.14314     | 60.00000           | Averaged   |
| 146 4-Nitroquinoline-1-oxide    | 0.00804      | 0.00782 | 0.00782       | 0.000      | -2.77340    | 60.00000           | Averaged   |
| 147 Methapyrilene               | 0.27513      | 0.30441 | 0.30441       | 0.000      | 10.64367    | 60.00000           | Averaged   |
| 148 Isodrin                     | 0.09291      | 0.07942 | 0.07942       | 0.000      | -14.52216   | 60.00000           | Averaged   |
| 149 Aramite                     | 0.03898      | 0.03499 | 0.03499       | 0.000      | -10.24257   | 60.00000           | Averaged   |
| 150 Kepone                      | 0.06812      | 0.05931 | 0.05931       | 0.000      | -12.93214   | 60.00000           | Averaged   |
| 151 p-(Dimethylamino)azobenzene | 0.30964      | 0.29261 | 0.29261       | 0.000      | -5.50229    | 60.00000           | Averaged   |
| 152 Chlorobenzilate             | 0.31975      | 0.28789 | 0.28789       | 0.000      | -9.96444    | 60.00000           | Averaged   |
| 153 3,3'-Dimethylbenzidine      | 0.47666      | 0.44279 | 0.44279       | 0.000      | -7.10523    | 60.00000           | Averaged   |
| 155 2-Acetylaminofluorene       | 0.24440      | 0.25314 | 0.25314       | 0.000      | 3.57384     | 60.00000           | Averaged   |
| 157 7,12Dimethylbenz(a)anthrace | 0.57533      | 0.51276 | 0.51276       | 0.000      | -10.87673   | 60.00000           | Averaged   |
| 158 3-Methylcholanthrene        | 0.37094      | 0.38010 | 0.38010       | 0.000      | 2.46748     | 60.00000           | Averaged   |

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Data file : /chem/MSD4.i/s022410a.b/s4b2465.d  
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV  
Inj Date : 25-FEB-2010 17:05  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |WBN100218-08.1|ICV|1|SVMF|1|APICV  
Misc Info : |MSD8270|WBN100217-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s022410a.b/MSD4-M8270C-AQA-022410A.m  
Meth Date : 26-Feb-2010 15:08 jos00786 Quant Type: ISTD  
Cal Date : 25-FEB-2010 15:48 Cal File: s4b2462.d  
Als bottle: 20 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AP12.sub  
Target Version: 3.50  
Processing Host: kilroy

| Compounds                     | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|-------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                               | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| =====                         | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| * 10 1,4-Dichlorobenzene-d4   | 152       | 3.930  | 3.930  | (1.000) | 158215   | 40.0000            |                   |
| * 29 Naphthalene-d8           | 136       | 4.797  | 4.797  | (1.000) | 560309   | 40.0000            |                   |
| * 46 Acenaphthene-d10         | 164       | 6.048  | 6.048  | (1.000) | 320533   | 40.0000            |                   |
| * 67 Phenanthrene-d10         | 188       | 7.043  | 7.043  | (1.000) | 504915   | 40.0000            |                   |
| * 91 Chrysene-d12             | 240       | 8.755  | 8.755  | (1.000) | 383205   | 40.0000            |                   |
| * 98 Perylene-d12             | 264       | 10.306 | 10.306 | (1.000) | 254833   | 40.0000            |                   |
| 209 Benzaldehyde              | 77        | 3.657  | 3.657  | (0.931) | 97250    | 40.0000            | 30.7              |
| 16 Acetophenone               | 105       | 4.182  | 4.182  | (1.064) | 166010   | 40.0000            | 35.9              |
| 189 Caprolactam               | 113       | 5.075  | 5.075  | (1.058) | 47356    | 40.0000            | 39.7              |
| 208 1,1'-Biphenyl             | 154       | 5.620  | 5.620  | (0.929) | 370870   | 40.0000            | 38.8              |
| 207 Atrazine                  | 173       | 6.808  | 6.808  | (0.967) | 18366    | 40.0000            | 38.6              |
| 77 Benzidine                  | 184       | 7.835  | 7.835  | (0.895) | 98838    | 40.0000            | 36.5              |
| 90 3,3'-Dichlorobenzidine     | 252       | 8.685  | 8.685  | (0.992) | 97923    | 40.0000            | 41.2              |
| 102 1,4-Dioxane               | 88        | 2.293  | 2.293  | (0.584) | 64761    | 40.0000            | 45.3              |
| 103 Methyl methacrylate       | 100       | 2.283  | 2.283  | (0.581) | 35709    | 40.0000            | 45.9              |
| 104 Ethyl methacrylate        | 69        | 2.641  | 2.641  | (0.672) | 143965   | 40.0000            | 44.8              |
| 105 2-Picoline                | 93        | 2.834  | 2.834  | (0.721) | 175359   | 40.0000            | 37.8              |
| 106 N-Nitrosomethylethylamine | 88        | 2.871  | 2.871  | (0.731) | 71279    | 40.0000            | 38.8              |
| 107 Methyl methanesulfonate   | 80        | 3.032  | 3.032  | (0.771) | 71918    | 40.0000            | 40.8              |
| 108 N-Nitrosodiethylamine     | 102       | 3.262  | 3.262  | (0.830) | 76643    | 40.0000            | 38.6              |
| 109 Ethyl Methanesulfonate    | 79        | 3.417  | 3.417  | (0.869) | 106431   | 40.0000            | 45.1              |
| 110 Pentachloroethane         | 167       | 3.754  | 3.754  | (0.955) | 62091    | 40.0000            | 50.6              |
| 111 N-Nitrosopyrrolidine      | 100       | 4.171  | 4.171  | (1.061) | 76439    | 40.0000            | 37.4              |
| 113 N-Nitrosomorpholine       | 56        | 4.192  | 4.192  | (1.067) | 83382    | 40.0000            | 39.7              |
| 114 o-Toluidine               | 106       | 4.208  | 4.208  | (1.071) | 265272   | 40.0000            | 38.5              |
| 115 N-Nitrosopiperidine       | 114       | 4.412  | 4.412  | (0.920) | 75598    | 40.0000            | 38.8              |

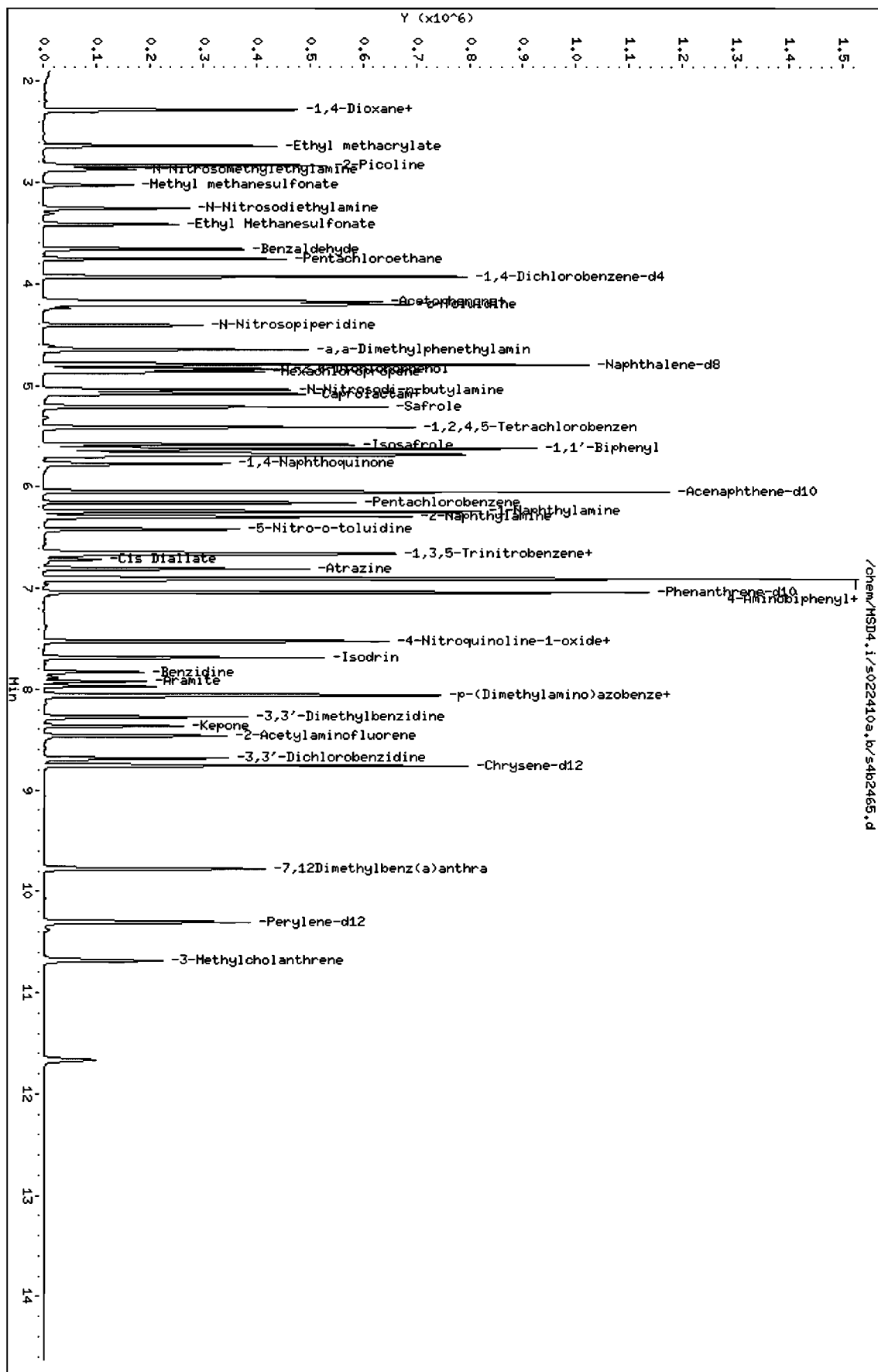
| Compounds                         | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|-----------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                   | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| =====                             | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| 116 a,a-Dimethylphenethylamine    | 58        | 4.652  | 4.652  | (0.970) | 346375   | 40.0000            | 39.3              |
| 118 2,6-Dichlorophenol            | 162       | 4.839  | 4.839  | (1.009) | 112847   | 40.0000            | 38.7              |
| 119 Hexachloropropene             | 213       | 4.866  | 4.866  | (1.014) | 84343    | 40.0000            | 57.9              |
| 120 p-Phenylenediamine            | 108       | 5.080  | 5.080  | (1.059) | 125178   | 40.0000            | 43.0              |
| 121 N-Nitrosodi-n-butylamine      | 84        | 5.043  | 5.043  | (1.051) | 109219   | 40.0000            | 39.9              |
| 122 Safrole                       | 162       | 5.208  | 5.208  | (1.086) | 119439   | 40.0000            | 43.7              |
| 123 1,2,4,5-Tetrachlorobenzene    | 216       | 5.412  | 5.412  | (0.895) | 139156   | 40.0000            | 40.5              |
| 124 Isosafrole                    | 162       | 5.583  | 5.583  | (0.923) | 133716   | 40.0000            | 50.0              |
| 125 1,4-Naphthoquinone            | 158       | 5.770  | 5.770  | (0.954) | 86623    | 40.0000            | 38.6              |
| 127 Pentachlorobenzene            | 250       | 6.161  | 6.161  | (1.019) | 116472   | 40.0000            | 38.9              |
| 128 1-Naphthylamine               | 143       | 6.246  | 6.246  | (1.033) | 277148   | 40.0000            | 41.8              |
| 129 2-Naphthylamine               | 143       | 6.294  | 6.294  | (1.041) | 305093   | 40.0000            | 42.7              |
| 131 5-Nitro-o-toluidine           | 152       | 6.417  | 6.417  | (1.061) | 76490    | 40.0000            | 39.0              |
| 136 1,3,5-Trinitrobenzene         | 75        | 6.637  | 6.637  | (0.942) | 60469    | 40.0000            | 45.2              |
| 137 Phenacetin                    | 108       | 6.669  | 6.669  | (0.947) | 124423   | 40.0000            | 37.4 (Q)          |
| 138 Diallate                      | 86        | 6.653  | 6.653  | (0.945) | 115623   | 40.0000            | 36.3              |
| 212 Cis Diallate                  | 86        | 6.717  | 6.717  | (0.954) | 21352    | 6.00000            | 7.2               |
| 213 Trans Diallate                | 86        | 6.653  | 6.653  | (0.945) | 115623   | 34.0000            | 30.8              |
| 140 4-Aminobiphenyl               | 169       | 6.899  | 6.899  | (0.979) | 302258   | 40.0000            | 44.3              |
| 141 Pentachloronitrobenzene       | 237       | 6.915  | 6.915  | (0.982) | 36767    | 40.0000            | 40.7 (Q)          |
| 142 Pronamide                     | 173       | 6.904  | 6.904  | (0.980) | 139410   | 40.0000            | 42.4              |
| 146 4-Nitroquinoline-1-oxide      | 101       | 7.519  | 7.519  | (1.068) | 3949     | 40.0000            | 38.9              |
| 147 Methapyrilene                 | 58        | 7.530  | 7.530  | (1.069) | 153701   | 40.0000            | 44.2              |
| 148 Isodrin                       | 193       | 7.690  | 7.690  | (1.092) | 40098    | 40.0000            | 34.2              |
| 149 Aramite                       | 185       | 7.926  | 7.926  | (1.125) | 17666    | 40.0000            | 35.9              |
| 150 Kepone                        | 272       | 8.364  | 8.364  | (1.188) | 29948    | 40.0000            | 34.8              |
| 151 p-(Dimethylamino)azobenzene   | 120       | 8.054  | 8.054  | (0.920) | 112128   | 40.0000            | 37.8              |
| 152 Chlorobenzilate               | 251       | 8.070  | 8.070  | (0.922) | 110320   | 40.0000            | 36.0              |
| 153 3,3'-Dimethylbenzidine        | 212       | 8.273  | 8.273  | (0.945) | 169679   | 40.0000            | 37.2              |
| 155 2-Acetylaminofluorene         | 181       | 8.460  | 8.460  | (0.966) | 97004    | 40.0000            | 41.4              |
| 157 7,12Dimethylbenz(a)anthracene | 256       | 9.776  | 9.776  | (0.949) | 130667   | 40.0000            | 35.6              |
| 158 3-Methylcholanthrene          | 268       | 10.685 | 10.685 | (1.037) | 96861    | 40.0000            | 41.0              |

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD4.i/s022410a,b/s4b2465.d  
 Date : 25-FEB-2010 17:05  
 Client ID: APICV  
 Sample Info: IMBN00248-08.11CV111SVHF11APICV  
 Column phase: J&W DB-SMS

Instrument: HSD4.i  
 Operator: JHB3  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 04-MAR-2010 15:49  
Lab File ID: s4c0410.d Init. Cal. Date(s): 25-FEB-2010 28-FEB-2010  
Analysis Type: Init. Cal. Times: 03:29 15:40  
Lab Sample ID: WBN100225-05.4 Quant Type: ISTD  
Method: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

| COMPOUND                       | RRF / AMOUNT | RF40     | CCAL<br>RRF40 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE    |
|--------------------------------|--------------|----------|---------------|------------|-------------|--------------------|---------------|
| \$ 3 2-Fluorophenol            | 0.93046      | 0.76863  | 0.76863       | 0.000      | -17.39196   | 60.00000           | Averaged      |
| \$ 5 Phenol-d5                 | 1.16111      | 1.03745  | 1.03745       | 0.000      | -10.65013   | 60.00000           | Averaged      |
| \$ 20 Nitrobenzene-d5          | 0.28517      | 0.24490  | 0.24490       | 0.000      | -14.11907   | 60.00000           | Averaged      |
| \$ 39 2-Fluorobiphenyl         | 1.07418      | 1.09426  | 1.09426       | 0.000      | 1.86926     | 60.00000           | Averaged      |
| \$ 60 2,4,6-Tribromophenol     | 0.11757      | 0.11806  | 0.11806       | 0.000      | 0.41663     | 60.00000           | Averaged      |
| \$ 81 p-Terphenyl-d14          | 0.63809      | 0.67161  | 0.67161       | 0.000      | 5.25219     | 60.00000           | Averaged      |
| 1 N-Methyl-N-nitrosomethylami  | 0.64917      | 0.52156  | 0.52156       | 0.000      | -19.65760   | 60.00000           | Averaged      |
| 2 Pyridine                     | 0.89300      | 0.71907  | 0.71907       | 0.000      | -19.47742   | 60.00000           | Averaged      |
| 4 Aniline                      | 0.50637      | 0.43005  | 0.43005       | 0.000      | -15.07099   | 60.00000           | Averaged      |
| 6 Phenol                       | 1.20170      | 1.09265  | 1.09265       | 0.001      | -9.07482    | 20.00000           | Averaged ccc  |
| 7 bis(2-Chloroethyl) ether     | 0.80331      | 0.80835  | 0.80835       | 0.000      | 0.62728     | 60.00000           | Averaged      |
| 8 2-Chlorophenol               | 1.03215      | 0.88898  | 0.88898       | 0.000      | -13.87127   | 60.00000           | Averaged      |
| 203 n-Decane                   | 1.00759      | 1.09505  | 1.09505       | 0.000      | 8.67942     | 60.00000           | Averaged      |
| 9 1,3-Dichlorobenzene          | 1.16391      | 1.11317  | 1.11317       | 0.000      | -4.35929    | 60.00000           | Averaged      |
| 11 1,4-Dichlorobenzene         | 1.23800      | 1.25264  | 1.25264       | 0.001      | 1.18244     | 20.00000           | Averaged ccc  |
| 13 1,2-Dichlorobenzene         | 1.11179      | 1.13312  | 1.13312       | 0.000      | 1.91854     | 60.00000           | Averaged      |
| 14 bis(2-Chloroisopropyl)ether | 1.36142      | 1.31348  | 1.31348       | 0.000      | -3.52136    | 60.00000           | Averaged      |
| 12 Benzyl alcohol              | 0.56740      | 0.43671  | 0.43671       | 0.000      | -23.03357   | 60.00000           | Averaged      |
| 15 o-Cresol                    | 0.83040      | 0.83301  | 0.83301       | 0.000      | 0.31388     | 60.00000           | Averaged      |
| 18 m,p-Cresols                 | 0.99713      | 0.85857  | 0.85857       | 0.000      | -13.89555   | 60.00000           | Averaged      |
| 17 N-Nitrosodipropylamine      | 0.77345      | 0.72499  | 0.72499       | 0.050      | -6.26539    | 60.00000           | Averaged spcc |
| 19 Hexachloroethane            | 0.45942      | 0.46036  | 0.46036       | 0.000      | 0.20380     | 60.00000           | Averaged      |
| 21 Nitrobenzene                | 0.27158      | 0.26011  | 0.26011       | 0.000      | -4.22216    | 60.00000           | Averaged      |
| 22 Isophorone                  | 0.49835      | 0.46896  | 0.46896       | 0.000      | -5.89657    | 60.00000           | Averaged      |
| 23 2-Nitrophenol               | 0.13559      | 0.12081  | 0.12081       | 0.001      | -10.90187   | 20.00000           | Averaged ccc  |
| 24 2,4-Dimethylphenol          | 0.22585      | 0.21310  | 0.21310       | 0.000      | -5.64428    | 60.00000           | Averaged      |
| 25 bis(2-Chloroethoxy)methane  | 0.29655      | 0.28158  | 0.28158       | 0.000      | -5.04739    | 60.00000           | Averaged      |
| 26 2,4-Dichlorophenol          | 0.19392      | 0.16052  | 0.16052       | 0.001      | -17.22372   | 20.00000           | Averaged ccc  |
| 27 Benzoic acid                | 30.39069     | 40.00000 | 0.08691       | 0.000      | -24.02329   | 60.00000           | Linear        |
| 28 1,2,4-Trichlorobenzene      | 0.23349      | 0.22103  | 0.22103       | 0.000      | -5.33683    | 60.00000           | Averaged      |
| 30 Naphthalene                 | 0.79443      | 0.79300  | 0.79300       | 0.000      | -0.18061    | 60.00000           | Averaged      |
| 204 alpha-Terpineol            | 0.18531      | 0.20095  | 0.20095       | 0.000      | 8.43768     | 60.00000           | Averaged      |
| 31 4-Chloroaniline             | 0.36606      | 0.32740  | 0.32740       | 0.000      | -10.56298   | 60.00000           | Averaged      |
| 32 Hexachlorobutadiene         | 0.13374      | 0.13159  | 0.13159       | 0.001      | -1.60338    | 20.00000           | Averaged ccc  |
| 33 4-Chloro-3-methylphenol     | 0.18826      | 0.16078  | 0.16078       | 0.001      | -14.59865   | 20.00000           | Averaged ccc  |
| 34 2-Methylnaphthalene         | 0.48750      | 0.47224  | 0.47224       | 0.000      | -3.13121    | 60.00000           | Averaged      |

GEL Laboratories LLC  
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 04-MAR-2010 15:49  
Lab File ID: s4c0410.d Init. Cal. Date(s): 25-FEB-2010 28-FEB-2010  
Analysis Type: Init. Cal. Times: 03:29 15:40  
Lab Sample ID: WBN100225-05.4 Quant Type: ISTD  
Method: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

| COMPOUND                      | RRF / AMOUNT | RF40     | CCAL<br>RRF40 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE   |
|-------------------------------|--------------|----------|---------------|------------|-------------|--------------------|--------------|
| 35 1-Methylnaphthalene        | 0.48024      | 0.48215  | 0.48215       | 0.000      | 0.39736     | 60.00000           | Averaged     |
| 36 Hexachlorocyclopentadiene  | 25.61596     | 40.00000 | 0.09919       | 0.050      | -35.96009   | 60.00000           | Linear spcc  |
| 205 2,3-Dichloroaniline       | 0.52762      | 0.52651  | 0.52651       | 0.000      | -0.20916    | 60.00000           | Averaged     |
| 37 2,4,6-Trichlorophenol      | 0.28364      | 0.28508  | 0.28508       | 0.001      | 0.50937     | 20.00000           | Averaged ccc |
| 38 2,4,5-Trichlorophenol      | 34.88587     | 40.00000 | 0.27471       | 0.000      | -12.78532   | 60.00000           | Linear       |
| 40 2-Chloronaphthalene        | 0.90393      | 0.90748  | 0.90748       | 0.000      | 0.39280     | 60.00000           | Averaged     |
| 42 o-Nitroaniline             | 0.25504      | 0.22499  | 0.22499       | 0.000      | -11.78271   | 60.00000           | Averaged     |
| 41 m-Nitroaniline             | 0.20279      | 0.14690  | 0.14690       | 0.000      | -27.55797   | 60.00000           | Averaged     |
| 43 Dimethylphthalate          | 1.02848      | 1.01409  | 1.01409       | 0.000      | -1.39884    | 60.00000           | Averaged     |
| 44 2,6-Dinitrotoluene         | 0.23587      | 0.21260  | 0.21260       | 0.000      | -9.86485    | 60.00000           | Averaged     |
| 50 2,4-Dinitrotoluene         | 0.28204      | 0.25365  | 0.25365       | 0.000      | -10.06713   | 60.00000           | Averaged     |
| 45 Acenaphthylene             | 1.39830      | 1.43256  | 1.43256       | 0.000      | 2.45026     | 60.00000           | Averaged     |
| 47 Acenaphthene               | 0.93738      | 1.01644  | 1.01644       | 0.001      | 8.43502     | 20.00000           | Averaged ccc |
| 48 2,4-Dinitrophenol          | 38.61307     | 40.00000 | 0.08055       | 0.050      | -3.46733    | 60.00000           | Linear spcc  |
| 49 Dibenzofuran               | 1.23164      | 1.25041  | 1.25041       | 0.000      | 1.52417     | 60.00000           | Averaged     |
| 51 Diethylphthalate           | 1.00062      | 1.08841  | 1.08841       | 0.000      | 8.77325     | 60.00000           | Averaged     |
| 52 4-Nitrophenol              | 34.42413     | 40.00000 | 0.11478       | 0.050      | -13.93967   | 60.00000           | Linear spcc  |
| 53 Fluorene                   | 1.03877      | 1.16096  | 1.16096       | 0.000      | 11.76271    | 60.00000           | Averaged     |
| 54 4-Chlorophenylphenylether  | 0.49885      | 0.51967  | 0.51967       | 0.000      | 4.17378     | 60.00000           | Averaged     |
| 55 2-Methyl-4,6-dinitrophenol | 32.27468     | 40.00000 | 0.06881       | 0.000      | -19.31329   | 60.00000           | Linear       |
| 56 p-Nitroaniline             | 0.19925      | 0.15004  | 0.15004       | 0.000      | -24.69735   | 60.00000           | Averaged     |
| 133 Diphenylamine             | 0.51827      | 0.44531  | 0.44531       | 0.001      | -14.07647   | 20.00000           | Averaged ccc |
| 58 1,2-Diphenylhydrazine      | 0.65589      | 0.66170  | 0.66170       | 0.000      | 0.88620     | 60.00000           | Averaged     |
| 61 4-Bromophenylphenylether   | 0.17588      | 0.17099  | 0.17099       | 0.000      | -2.77987    | 60.00000           | Averaged     |
| 63 Hexachlorobenzene          | 0.18608      | 0.18586  | 0.18586       | 0.000      | -0.11701    | 60.00000           | Averaged     |
| 65 Pentachlorophenol          | 34.01409     | 40.00000 | 0.06095       | 0.001      | -14.96478   | 20.00000           | Linear ccc   |
| 206 n-Octadecane              | 0.34717      | 0.38380  | 0.38380       | 0.000      | 10.55000    | 60.00000           | Averaged     |
| 68 Phenanthrene               | 0.88809      | 0.94252  | 0.94252       | 0.000      | 6.12933     | 60.00000           | Averaged     |
| 69 Anthracene                 | 0.85480      | 0.90984  | 0.90984       | 0.000      | 6.43986     | 60.00000           | Averaged     |
| 72 Di-n-butylphthalate        | 0.93363      | 1.06363  | 1.06363       | 0.000      | 13.92381    | 60.00000           | Averaged     |
| 76 Fluoranthene               | 0.79395      | 0.93166  | 0.93166       | 0.001      | 17.34445    | 20.00000           | Averaged ccc |
| 79 Pyrene                     | 1.07185      | 1.14530  | 1.14530       | 0.000      | 6.85301     | 60.00000           | Averaged     |
| 85 Butylbenzylphthalate       | 0.48250      | 0.55989  | 0.55989       | 0.000      | 16.03947    | 60.00000           | Averaged     |
| 89 Benzo(a)anthracene         | 0.91853      | 0.90917  | 0.90917       | 0.000      | -1.01843    | 60.00000           | Averaged     |
| 92 Chrysene                   | 0.87098      | 0.90166  | 0.90166       | 0.000      | 3.52310     | 60.00000           | Averaged     |
| 93 bis(2-Ethylhexyl)phthalate | 0.68918      | 0.75664  | 0.75664       | 0.000      | 9.78830     | 60.00000           | Averaged     |



GEL Laboratories LLC  
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 04-MAR-2010 15:49  
Lab File ID: s4c0410.d Init. Cal. Date(s): 25-FEB-2010 28-FEB-2010  
Analysis Type: Init. Cal. Times: 03:29 15:40  
Lab Sample ID: WBN100225-05.4 Quant Type: ISTD  
Method: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

| COMPOUND                        | RRF / AMOUNT | RF40     | CCAL RRF40 | MIN RRF | %D / %DRIFT | MAX %D / %DRIFT | CURVE TYPE   |
|---------------------------------|--------------|----------|------------|---------|-------------|-----------------|--------------|
| 94 Di-n-octylphthalate          | 35.42626     | 40.00000 | 1.40856    | 0.001   | -11.43435   | 20.00000        | Linear ccc   |
| 95 Benzo(b)fluoranthene         | 1.01729      | 0.99225  | 0.99225    | 0.000   | -2.46085    | 60.00000        | Averaged     |
| 96 Benzo(k)fluoranthene         | 1.05818      | 1.09074  | 1.09074    | 0.000   | 3.07791     | 60.00000        | Averaged     |
| 97 Benzo(a)pyrene               | 0.80844      | 0.84670  | 0.84670    | 0.001   | 4.73264     | 20.00000        | Averaged ccc |
| 99 Indeno(1,2,3-cd)pyrene       | 0.66515      | 0.82242  | 0.82242    | 0.000   | 23.64436    | 60.00000        | Averaged     |
| 100 Dibenzo(a,h)anthracene      | 0.55316      | 0.70566  | 0.70566    | 0.000   | 27.56837    | 60.00000        | Averaged     |
| 101 Benzo(ghi)perylene          | 0.53657      | 0.61696  | 0.61696    | 0.000   | 14.98308    | 60.00000        | Averaged     |
| 126 m-Dinitrobenzene            | 0.16672      | 0.14186  | 0.14186    | 0.000   | -14.91497   | 60.00000        | Averaged     |
| 130 2,3,4,6-Tetrachlorophenol   | 30.77342     | 40.00000 | 0.18908    | 0.000   | -23.06645   | 60.00000        | Linear       |
| 143 Dinoseb                     | 35.10906     | 40.00000 | 0.10531    | 0.000   | -12.22735   | 60.00000        | Linear       |
| 173 Carbazole                   | 0.64158      | 0.34305  | 0.34305    | 0.000   | -46.53019   | 60.00000        | Averaged     |
| 184 p-Benzoquinone              | 0.07707      | 0.02964  | 0.02964    | 0.000   | -61.54520   | 60.00000        | Averaged <-  |
| 192 Methoxychlor                | 0.43342      | 0.45114  | 0.45114    | 0.000   | 4.08878     | 60.00000        | Averaged     |
| 211 p-Toluidine                 | 1.17045      | 0.90762  | 0.90762    | 0.000   | -22.45593   | 60.00000        | Averaged     |
| 210 m-Toluidine                 | 1.42044      | 1.01123  | 1.01123    | 0.000   | -28.80877   | 60.00000        | Averaged     |
| 215 2-Ethoxyethanol             | 0.49989      | 0.36460  | 0.36460    | 0.000   | -27.06292   | 60.00000        | Averaged     |
| 179 Dibenzo(a,e)pyrene          | 0.20695      | 0.24824  | 0.24824    | 0.000   | 19.94831    | 60.00000        | Averaged     |
| 26 Phthalic anhydride           | 28.73517     | 40.00000 | 0.05469    | 0.000   | -28.16208   | 60.00000        | Linear       |
| 214 1,4-Dinitrobenzene          | 0.20045      | 0.19783  | 0.19783    | 0.000   | -1.30792    | 60.00000        | Averaged     |
| 216 Methylenebis(2-chloroanilin | 29.87018     | 40.00000 | 0.06787    | 0.000   | -25.32455   | 60.00000        | Linear       |
| M 222 Trichlorophenols          | 0.29651      | 0.27989  | 0.27989    | 0.000   | -5.60509    | 60.00000        | Averaged     |
| M 223 Tetrachlorophenols        | 30.77342     | 40.00000 | 0.18908    | 0.000   | -23.06645   | 60.00000        | Linear       |
| M 224 Benzo(b,k)fluoranthene    | 1.03773      | 1.04150  | 1.04150    | 0.000   | 0.36308     | 60.00000        | Averaged     |

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Data file : /chem/MSD4.i/s030410a.b/s4c0410.d  
Lab Smp Id: WBN100225-05.4 Client Smp ID: MEGACVS  
Inj Date : 04-MAR-2010 15:49  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |WBN100225-05.4|CVS|1|SVMF|1|MEGACVS  
Misc Info : |MSD8270|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:48 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGA.sub  
Target Version: 3.50  
Processing Host: kilroy

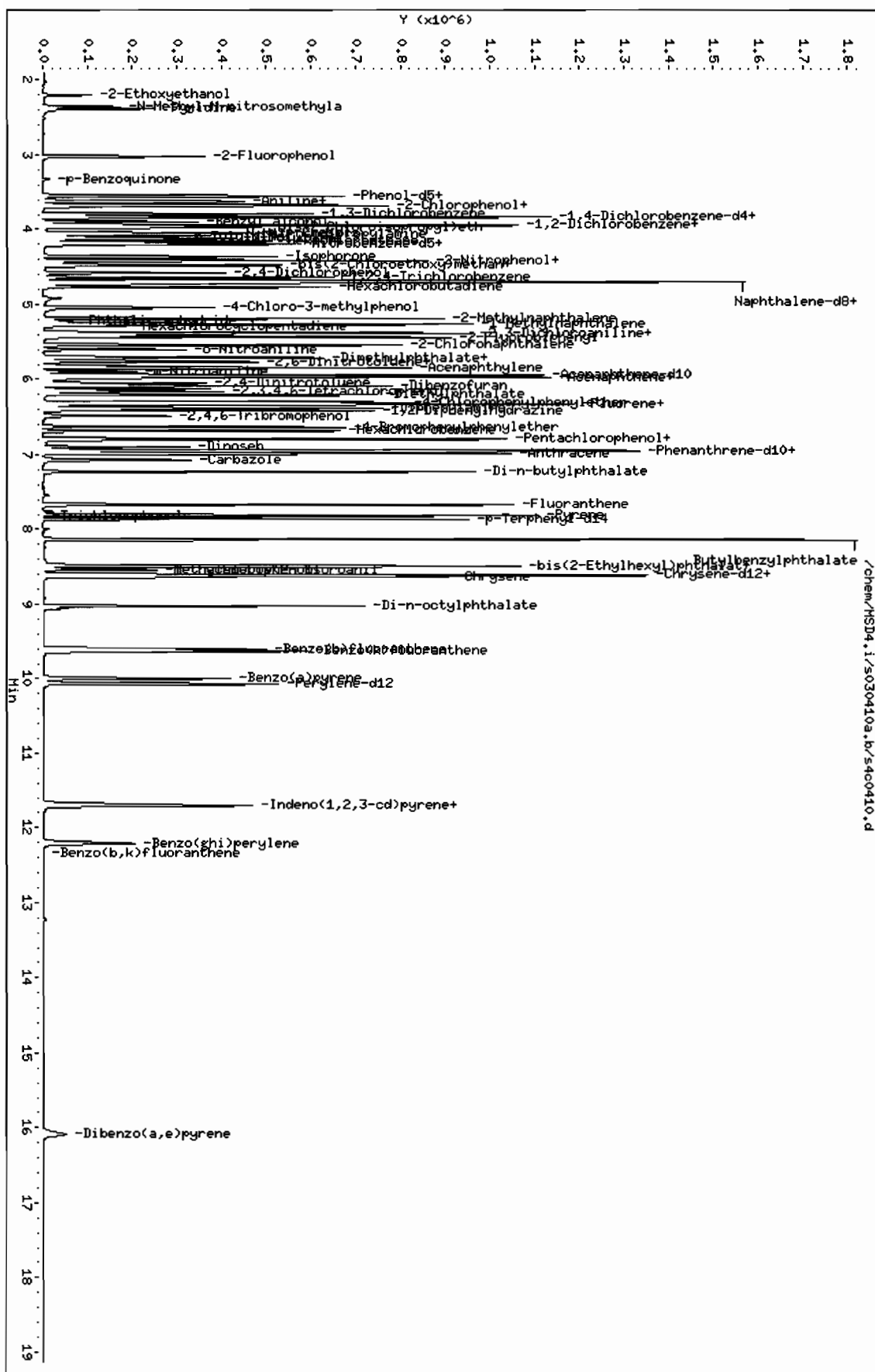
| Compounds                       | QUANT SIG | MASS | RT     | EXP RT | REL RT  | RESPONSE | AMOUNTS |         |
|---------------------------------|-----------|------|--------|--------|---------|----------|---------|---------|
|                                 |           |      |        |        |         |          | CAL-AMT | ON-COL  |
|                                 |           |      |        |        |         |          | (ng/ul) | (ng/ul) |
| * 10 1,4-Dichlorobenzene-d4     |           | 152  | 3.829  | 3.829  | (1.000) | 148556   | 40.0000 |         |
| * 29 Naphthalene-d8             |           | 136  | 4.690  | 4.690  | (1.000) | 619539   | 40.0000 |         |
| * 46 Acenaphthene-d10           |           | 164  | 5.941  | 5.941  | (1.000) | 296815   | 40.0000 |         |
| * 67 Phenanthrene-d10           |           | 188  | 6.936  | 6.936  | (1.000) | 516247   | 40.0000 |         |
| * 91 Chrysene-d12               |           | 240  | 8.610  | 8.610  | (1.000) | 441582   | 40.0000 |         |
| * 98 Perylene-d12               |           | 264  | 10.070 | 10.070 | (1.000) | 314762   | 40.0000 |         |
| \$ 3 2-Fluorophenol             |           | 112  | 3.021  | 3.021  | (0.789) | 114185   | 40.0000 | 33.0    |
| \$ 5 Phenol-d5                  |           | 99   | 3.545  | 3.545  | (0.926) | 154119   | 40.0000 | 35.7    |
| \$ 20 Nitrobenzene-d5           |           | 82   | 4.192  | 4.192  | (0.894) | 151727   | 40.0000 | 34.4    |
| \$ 39 2-Fluorobiphenyl          |           | 172  | 5.433  | 5.433  | (0.914) | 324794   | 40.0000 | 40.7    |
| \$ 60 2,4,6-Tribromophenol      |           | 329  | 6.481  | 6.481  | (1.091) | 35043    | 40.0000 | 40.2    |
| \$ 81 p-Terphenyl-d14           |           | 244  | 7.861  | 7.861  | (0.913) | 296569   | 40.0000 | 42.1    |
| 1 N-Methyl-N-nitrosomethylamine |           | 74   | 2.352  | 2.352  | (0.614) | 77481    | 40.0000 | 32.1    |
| 2 Pyridine                      |           | 79   | 2.384  | 2.384  | (0.623) | 106822   | 40.0000 | 32.2    |
| 4 Aniline                       |           | 66   | 3.615  | 3.615  | (0.944) | 63887    | 40.0000 | 34.0    |
| 6 Phenol                        |           | 94   | 3.556  | 3.556  | (0.929) | 162319   | 40.0000 | 36.4    |
| 7 bis(2-Chloroethyl) ether      |           | 63   | 3.631  | 3.631  | (0.948) | 120085   | 40.0000 | 40.2    |
| 8 2-Chlorophenol                |           | 128  | 3.695  | 3.695  | (0.965) | 132063   | 40.0000 | 34.4    |
| 203 n-Decane                    |           | 43   | 3.673  | 3.673  | (0.959) | 162676   | 40.0000 | 43.5    |
| 9 1,3-Dichlorobenzene           |           | 146  | 3.791  | 3.791  | (0.990) | 165368   | 40.0000 | 38.2    |
| 11 1,4-Dichlorobenzene          |           | 146  | 3.839  | 3.839  | (1.003) | 186087   | 40.0000 | 40.5    |
| 13 1,2-Dichlorobenzene          |           | 146  | 3.941  | 3.941  | (1.029) | 168332   | 40.0000 | 40.8    |
| 14 bis(2-Chloroisopropyl)ether  |           | 45   | 3.973  | 3.973  | (1.038) | 195125   | 40.0000 | 38.6    |
| 12 Benzyl alcohol               |           | 108  | 3.898  | 3.898  | (1.018) | 64876    | 40.0000 | 30.8    |
| 15 o-Cresol                     |           | 107  | 3.946  | 3.946  | (1.031) | 123748   | 40.0000 | 40.1    |
| 18 m,p-Cresols                  |           | 107  | 4.053  | 4.053  | (1.059) | 127546   | 40.0000 | 34.4    |

| Compounds                     | QUANT SIG |       |        |         |          | AMOUNTS            |                   |
|-------------------------------|-----------|-------|--------|---------|----------|--------------------|-------------------|
|                               | MASS      | RT    | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| =====                         | =====     | ==    | =====  | =====   | =====    | =====              | =====             |
| 17 N-Nitrosodipropylamine     | 70        | 4.069 | 4.069  | (1.063) | 107702   | 40.0000            | 37.5              |
| 19 Hexachloroethane           | 117       | 4.165 | 4.165  | (1.088) | 68389    | 40.0000            | 40.1              |
| 21 Nitrobenzene               | 77        | 4.203 | 4.203  | (0.896) | 161148   | 40.0000            | 38.3              |
| 22 Isophorone                 | 82        | 4.358 | 4.358  | (0.929) | 290539   | 40.0000            | 37.6              |
| 23 2-Nitrophenol              | 139       | 4.417 | 4.417  | (0.942) | 74848    | 40.0000            | 35.6              |
| 24 2,4-Dimethylphenol         | 122       | 4.412 | 4.412  | (0.941) | 132023   | 40.0000            | 37.7              |
| 25 bis(2-Chloroethoxy)methane | 93        | 4.481 | 4.481  | (0.956) | 174451   | 40.0000            | 38.0              |
| 26 2,4-Dichlorophenol         | 162       | 4.577 | 4.577  | (0.976) | 99446    | 40.0000            | 33.1              |
| 27 Benzoic acid               | 105       | 4.476 | 4.476  | (0.954) | 53845    | 40.0000            | 30.4              |
| 28 1,2,4-Trichlorobenzene     | 180       | 4.641 | 4.641  | (0.990) | 136934   | 40.0000            | 37.9              |
| 30 Naphthalene                | 128       | 4.706 | 4.706  | (1.003) | 491294   | 40.0000            | 39.9              |
| 204 alpha-Terpineol           | 59        | 4.684 | 4.684  | (0.999) | 124495   | 40.0000            | 43.4              |
| 31 4-Chloroaniline            | 127       | 4.727 | 4.727  | (1.008) | 202834   | 40.0000            | 35.8              |
| 32 Hexachlorobutadiene        | 225       | 4.770 | 4.770  | (1.017) | 81526    | 40.0000            | 39.4              |
| 33 4-Chloro-3-methylphenol    | 107       | 5.037 | 5.037  | (1.074) | 99610    | 40.0000            | 34.2              |
| 34 2-Methylnaphthalene        | 142       | 5.187 | 5.187  | (1.106) | 292568   | 40.0000            | 38.7              |
| 35 1-Methylnaphthalene        | 142       | 5.262 | 5.262  | (1.122) | 298709   | 40.0000            | 40.2              |
| 36 Hexachlorocyclopentadiene  | 237       | 5.289 | 5.289  | (0.890) | 29441    | 40.0000            | 25.6              |
| 205 2,3-Dichloroaniline       | 161       | 5.385 | 5.385  | (0.906) | 156277   | 40.0000            | 39.9              |
| 37 2,4,6-Trichlorophenol      | 196       | 5.380 | 5.380  | (0.905) | 84616    | 40.0000            | 40.2              |
| 38 2,4,5-Trichlorophenol      | 196       | 5.406 | 5.406  | (0.910) | 81538    | 40.0000            | 34.9              |
| 40 2-Chloronaphthalene        | 162       | 5.540 | 5.540  | (0.932) | 269353   | 40.0000            | 40.2              |
| 42 o-Nitroaniline             | 65        | 5.604 | 5.604  | (0.943) | 66780    | 40.0000            | 35.3              |
| 41 m-Nitroaniline             | 138       | 5.898 | 5.898  | (0.993) | 43603    | 40.0000            | 29.0              |
| 43 Dimethylphthalate          | 163       | 5.711 | 5.711  | (0.961) | 300997   | 40.0000            | 39.4              |
| 44 2,6-Dinitrotoluene         | 165       | 5.770 | 5.770  | (0.971) | 63103    | 40.0000            | 36.0              |
| 50 2,4-Dinitrotoluene         | 165       | 6.054 | 6.054  | (1.019) | 75286    | 40.0000            | 36.0              |
| 45 Acenaphthylene             | 152       | 5.845 | 5.845  | (0.984) | 425205   | 40.0000            | 41.0              |
| 47 Acenaphthene               | 154       | 5.968 | 5.968  | (1.004) | 301696   | 40.0000            | 43.4              |
| 48 2,4-Dinitrophenol          | 184       | 5.968 | 5.968  | (1.004) | 23909    | 40.0000            | 38.6              |
| 49 Dibenzofuran               | 168       | 6.086 | 6.086  | (1.024) | 371140   | 40.0000            | 40.6              |
| 51 Diethylphthalate           | 149       | 6.198 | 6.198  | (1.043) | 323057   | 40.0000            | 43.5              |
| 52 4-Nitrophenol              | 139       | 5.989 | 5.989  | (1.008) | 34068    | 40.0000            | 34.4              |
| 53 Fluorene                   | 166       | 6.321 | 6.321  | (1.064) | 344590   | 40.0000            | 44.7              |
| 54 4-Chlorophenylphenylether  | 204       | 6.300 | 6.300  | (1.060) | 154247   | 40.0000            | 41.7              |
| 55 2-Methyl-4,6-dinitrophenol | 198       | 6.337 | 6.337  | (0.914) | 35525    | 40.0000            | 32.3              |
| 56 p-Nitroaniline             | 138       | 6.321 | 6.321  | (1.064) | 44535    | 40.0000            | 30.1              |
| 133 Diphenylamine             | 169       | 6.380 | 6.380  | (0.920) | 229891   | 40.0000            | 34.4              |
| 58 1,2-Diphenylhydrazine      | 77        | 6.407 | 6.407  | (0.924) | 341600   | 40.0000            | 40.4              |
| 61 4-Bromophenylphenylether   | 248       | 6.626 | 6.626  | (0.955) | 88272    | 40.0000            | 38.9              |
| 63 Hexachlorobenzene          | 284       | 6.685 | 6.685  | (0.964) | 95951    | 40.0000            | 40.0              |
| 65 Pentachlorophenol          | 266       | 6.802 | 6.802  | (0.981) | 31464    | 40.0000            | 34.0              |
| 206 n-Octadecane              | 57        | 6.786 | 6.786  | (0.978) | 198136   | 40.0000            | 44.2              |
| 68 Phenanthrene               | 178       | 6.952 | 6.952  | (1.002) | 486575   | 40.0000            | 42.4              |
| 69 Anthracene                 | 178       | 6.984 | 6.984  | (1.007) | 469704   | 40.0000            | 42.6              |
| 72 Di-n-butylphthalate        | 149       | 7.230 | 7.230  | (1.042) | 549095   | 40.0000            | 45.6              |
| 76 Fluoranthene               | 202       | 7.669 | 7.669  | (1.106) | 480965   | 40.0000            | 46.9              |

| Compounds                         | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|-----------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                   | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| =====                             | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| 79 Pyrene                         | 202       | 7.813  | 7.813  | (0.907) | 505745   | 40.0000            | 42.7              |
| 85 Butylbenzylphthalate           | 149       | 8.129  | 8.129  | (0.944) | 247238   | 40.0000            | 46.4              |
| 89 Benzo(a)anthracene             | 228       | 8.600  | 8.600  | (0.999) | 401475   | 40.0000            | 39.6              |
| 92 Chrysene                       | 228       | 8.632  | 8.632  | (1.002) | 398159   | 40.0000            | 41.4              |
| 93 bis(2-Ethylhexyl)phthalate     | 149       | 8.493  | 8.493  | (0.986) | 334117   | 40.0000            | 43.9              |
| 94 Di-n-octylphthalate            | 149       | 9.022  | 9.022  | (0.896) | 443361   | 40.0000            | 35.4              |
| 95 Benzo(b)fluoranthene           | 252       | 9.600  | 9.600  | (0.953) | 312324   | 40.0000            | 39.0              |
| 96 Benzo(k)fluoranthene           | 252       | 9.632  | 9.632  | (0.956) | 343325   | 40.0000            | 41.2              |
| 97 Benzo(a)pyrene                 | 252       | 10.001 | 10.001 | (0.993) | 266508   | 40.0000            | 41.9              |
| 99 Indeno(1,2,3-cd)pyrene         | 276       | 11.702 | 11.702 | (1.162) | 258867   | 40.0000            | 49.4              |
| 100 Dibenzo(a,h)anthracene        | 278       | 11.707 | 11.707 | (1.163) | 222116   | 40.0000            | 51.0              |
| 101 Benzo(ghi)perylene            | 276       | 12.204 | 12.204 | (1.212) | 194197   | 40.0000            | 46.0              |
| 126 m-Dinitrobenzene              | 168       | 5.754  | 5.754  | (0.968) | 42105    | 40.0000            | 34.0              |
| 130 2,3,4,6-Tetrachlorophenol     | 232       | 6.161  | 6.161  | (1.037) | 56122    | 40.0000            | 30.8              |
| 143 Dinoseb                       | 211       | 6.893  | 6.893  | (0.994) | 54368    | 40.0000            | 35.1              |
| 173 Carbazole                     | 167       | 7.070  | 7.070  | (1.019) | 177100   | 40.0000            | 21.4              |
| 184 p-Benzoquinone                | 54        | 3.326  | 3.326  | (0.869) | 4403     | 40.0000            | 15.4              |
| 192 Methoxychlor                  | 227       | 8.476  | 8.476  | (0.984) | 199216   | 40.0000            | 41.6              |
| 211 p-Toluidine                   | 106       | 4.107  | 4.107  | (1.073) | 134832   | 40.0000            | 31.0              |
| 210 m-Toluidine                   | 106       | 4.128  | 4.128  | (1.078) | 150224   | 40.0000            | 28.5              |
| 215 2-Ethoxyethanol               | 59        | 2.203  | 2.203  | (0.575) | 54164    | 40.0000            | 29.2              |
| 179 Dibenzo(a,e)pyrene            | 302       | 16.088 | 16.088 | (1.598) | 78136    | 40.0000            | 48.0              |
| 26 Phthalic anhydride             | 104       | 5.230  | 5.230  | (1.115) | 33883    | 40.0000            | 28.7              |
| 214 1,4-Dinitrobenzene            | 75        | 5.701  | 5.701  | (0.959) | 58719    | 40.0000            | 39.5              |
| 216 Methylenebis(2-chloroaniline) | 231       | 8.535  | 8.535  | (0.991) | 29968    | 40.0000            | 29.9              |
| M 222 Trichlorophenols            | 196       |        |        |         | 166154   | 80.0000            | 75.5              |
| M 223 Tetrachlorophenols          | 232       |        |        |         | 56122    | 40.0000            | 30.8              |
| M 224 Benzo(b,k)fluoranthene      | 252       |        |        |         | 655649   | 80.0000            | 80.3              |

Data File: /chem/HSD4.i/s030410a.b/s400410.d  
 Date : 04-MAR-2010 15:49  
 Client ID: MEGACVS  
 Sample Info: IABN100225-05.41CVS111SVH111MEGACVS  
 Column phase: J&M DB-SHS

Instrument: HSD4.i  
 Operator: JHB3  
 Column diameter: 0.20



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 04-MAR-2010 16:21  
Lab File ID: s4c0411.d Init. Cal. Date(s): 25-FEB-2010 28-FEB-2010  
Analysis Type: Init. Cal. Times: 03:29 15:40  
Lab Sample ID: WBN100218-03.5 Quant Type: ISTD  
Method: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

| COMPOUND                       | RRF / AMOUNT | RF40    | CCAL<br>RRF40 | MIN<br>RRF | %D / %DRIFT | MAX<br>%D / %DRIFT | CURVE TYPE |
|--------------------------------|--------------|---------|---------------|------------|-------------|--------------------|------------|
| 209 Benzaldehyde               | 0.80177      | 0.76634 | 0.76634       | 0.000      | -4.41962    | 60.00000           | Averaged   |
| 16 Acetophenone                | 1.16943      | 1.08019 | 1.08019       | 0.000      | -7.63095    | 60.00000           | Averaged   |
| 189 Caprolactam                | 0.08524      | 0.07356 | 0.07356       | 0.000      | -13.69755   | 60.00000           | Averaged   |
| 208 1,1'-Biphenyl              | 1.19408      | 1.09131 | 1.09131       | 0.000      | -8.60660    | 60.00000           | Averaged   |
| 207 Atrazine                   | 0.03767      | 0.03602 | 0.03602       | 0.000      | -4.38719    | 60.00000           | Averaged   |
| 77 Benzidine                   | 0.28259      | 0.15732 | 0.15732       | 0.000      | -44.32783   | 60.00000           | Averaged   |
| 90 3,3'-Dichlorobenzidine      | 0.24789      | 0.24506 | 0.24506       | 0.000      | -1.14465    | 60.00000           | Averaged   |
| 102 1,4-Dioxane                | 0.36128      | 0.28134 | 0.28134       | 0.000      | -22.12630   | 60.00000           | Averaged   |
| 103 Methyl methacrylate        | 0.19684      | 0.15406 | 0.15406       | 0.000      | -21.73149   | 60.00000           | Averaged   |
| 104 Ethyl methacrylate         | 0.81257      | 0.68486 | 0.68486       | 0.000      | -15.71765   | 60.00000           | Averaged   |
| 105 2-Picoline                 | 1.17340      | 1.00946 | 1.00946       | 0.000      | -13.97108   | 60.00000           | Averaged   |
| 106 N-Nitrosomethylethylamine  | 0.46493      | 0.34151 | 0.34151       | 0.000      | -26.54609   | 60.00000           | Averaged   |
| 107 Methyl methanesulfonate    | 0.44515      | 0.37255 | 0.37255       | 0.000      | -16.30912   | 60.00000           | Averaged   |
| 108 N-Nitrosodiethylamine      | 0.50195      | 0.40418 | 0.40418       | 0.000      | -19.47817   | 60.00000           | Averaged   |
| 109 Ethyl Methanesulfonate     | 0.59658      | 0.48427 | 0.48427       | 0.000      | -18.82603   | 60.00000           | Averaged   |
| 110 Pentachloroethane          | 0.31042      | 0.25227 | 0.25227       | 0.000      | -18.73295   | 60.00000           | Averaged   |
| 111 N-Nitrosopyrrolidine       | 0.51683      | 0.42848 | 0.42848       | 0.000      | -17.09471   | 60.00000           | Averaged   |
| 113 N-Nitrosomorpholine        | 0.53142      | 0.50370 | 0.50370       | 0.000      | -5.21532    | 60.00000           | Averaged   |
| 114 o-Toluidine                | 1.74083      | 1.57164 | 1.57164       | 0.000      | -9.71903    | 60.00000           | Averaged   |
| 115 N-Nitrosopiperidine        | 0.13918      | 0.11482 | 0.11482       | 0.000      | -17.50654   | 60.00000           | Averaged   |
| 116 a,a-Dimethylphenethylamine | 0.62951      | 0.57797 | 0.57797       | 0.000      | -8.18748    | 60.00000           | Averaged   |
| 118 2,6-Dichlorophenol         | 0.20803      | 0.17770 | 0.17770       | 0.000      | -14.57831   | 60.00000           | Averaged   |
| 119 Hexachloropropene          | 0.10393      | 0.08483 | 0.08483       | 0.000      | -18.37154   | 60.00000           | Averaged   |
| 120 p-Phenylenediamine         | 0.20766      | 0.20748 | 0.20748       | 0.000      | -0.08683    | 60.00000           | Averaged   |
| 121 N-Nitrosodi-n-butylamine   | 0.19550      | 0.17881 | 0.17881       | 0.000      | -8.54123    | 60.00000           | Averaged   |
| 122 Safrole                    | 0.19518      | 0.17019 | 0.17019       | 0.000      | -12.80252   | 60.00000           | Averaged   |
| 123 1,2,4,5-Tetrachlorobenzene | 0.42863      | 0.38437 | 0.38437       | 0.000      | -10.32549   | 60.00000           | Averaged   |
| 124 Isosafrole                 | 0.33382      | 0.27001 | 0.27001       | 0.000      | -19.11750   | 60.00000           | Averaged   |
| 125 1,4-Naphthoquinone         | 0.28008      | 0.28449 | 0.28449       | 0.000      | 1.57532     | 60.00000           | Averaged   |
| 127 Pentachlorobenzene         | 0.37325      | 0.34528 | 0.34528       | 0.000      | -7.49323    | 60.00000           | Averaged   |
| 128 1-Naphthylamine            | 0.82637      | 0.76742 | 0.76742       | 0.000      | -7.13308    | 60.00000           | Averaged   |
| 129 2-Naphthylamine            | 0.89188      | 0.84258 | 0.84258       | 0.000      | -5.52680    | 60.00000           | Averaged   |
| 131 5-Nitro-o-toluidine        | 0.24491      | 0.20842 | 0.20842       | 0.000      | -14.89951   | 60.00000           | Averaged   |
| 136 1,3,5-Trinitrobenzene      | 0.10607      | 0.11002 | 0.11002       | 0.000      | 3.72829     | 60.00000           | Averaged   |
| 137 Phenacetin                 | 0.26317      | 0.23520 | 0.23520       | 0.000      | -10.62812   | 60.00000           | Averaged   |
| 138 Diallate                   | 0.25253      | 0.23816 | 0.23816       | 0.000      | -5.69257    | 60.00000           | Averaged   |

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD4.i Injection Date: 04-MAR-2010 16:21  
 Lab File ID: s4c0411.d Init. Cal. Date(s): 25-FEB-2010 28-FEB-2010  
 Analysis Type: Init. Cal. Times: 03:29 15:40  
 Lab Sample ID: WBN100218-03.5 Quant Type: ISTD  
 Method: /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m

| COMPOUND                        | RRF / AMOUNT | RF40    | CCAL    | MIN   | MAX         | CURVE TYPE |
|---------------------------------|--------------|---------|---------|-------|-------------|------------|
|                                 |              |         |         | RRF   | %D / %DRIFT |            |
| 212 Cis Diallate                | 0.23480      | 0.16364 | 0.16364 | 0.000 | -30.30601   | Averaged   |
| 213 Trans Diallate              | 0.29710      | 0.28018 | 0.28018 | 0.000 | -5.69257    | Averaged   |
| 140 4-Aminobiphenyl             | 0.54065      | 0.45789 | 0.45789 | 0.000 | -15.30783   | Averaged   |
| 141 Pentachloronitrobenzene     | 0.07148      | 0.07807 | 0.07807 | 0.000 | 9.22285     | Averaged   |
| 142 Pronamide                   | 0.26013      | 0.28379 | 0.28379 | 0.000 | 9.09816     | Averaged   |
| 146 4-Nitroquinoline-1-oxide    | 0.00804      | 0.01014 | 0.01014 | 0.000 | 26.04201    | Averaged   |
| 147 Methapyrilene               | 0.27513      | 0.27749 | 0.27749 | 0.000 | 0.86087     | Averaged   |
| 148 Isodrin                     | 0.09291      | 0.09415 | 0.09415 | 0.000 | 1.33489     | Averaged   |
| 149 Aramite                     | 0.03898      | 0.03283 | 0.03283 | 0.000 | -15.77156   | Averaged   |
| 150 Kepone                      | 0.06812      | 0.06073 | 0.06073 | 0.000 | -10.85323   | Averaged   |
| 151 p-(Dimethylamino)azobenzene | 0.30964      | 0.29318 | 0.29318 | 0.000 | -5.31541    | Averaged   |
| 152 Chlorobenzilate             | 0.31975      | 0.28162 | 0.28162 | 0.000 | -11.92348   | Averaged   |
| 153 3,3'-Dimethylbenzidine      | 0.47666      | 0.37722 | 0.37722 | 0.000 | -20.86175   | Averaged   |
| 155 2-Acetylaminofluorene       | 0.24440      | 0.25972 | 0.25972 | 0.000 | 6.26571     | Averaged   |
| 157 7,12Dimethylbenz(a)anthrace | 0.57533      | 0.45623 | 0.45623 | 0.000 | -20.70134   | Averaged   |
| 158 3-Methylcholanthrene        | 0.37094      | 0.32776 | 0.32776 | 0.000 | -11.64249   | Averaged   |

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Data file : /chem/MSD4.i/s030410a.b/s4c0411.d  
Lab Smp Id: WBN100218-03.5 Client Smp ID: APCVS  
Inj Date : 04-MAR-2010 16:21  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |WBN100218-03.5|CVS|1|SVMF|1|APCVS  
Misc Info : |MSD8270|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:48 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 3 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AP12.sub  
Target Version: 3.50  
Processing Host: kilroy

| Compounds                     | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|-------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                               | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| *****                         | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| * 10 1,4-Dichlorobenzene-d4   | 152       | 3.828  | 3.828  | (1.000) | 153374   | 40.0000            |                   |
| * 29 Naphthalene-d8           | 136       | 4.690  | 4.690  | (1.000) | 558431   | 40.0000            |                   |
| * 46 Acenaphthene-d10         | 164       | 5.941  | 5.941  | (1.000) | 332386   | 40.0000            |                   |
| * 67 Phenanthrene-d10         | 188       | 6.936  | 6.936  | (1.000) | 578750   | 40.0000            |                   |
| * 91 Chrysene-d12             | 240       | 8.616  | 8.616  | (1.000) | 496851   | 40.0000            |                   |
| * 98 Perylene-d12             | 264       | 10.076 | 10.076 | (1.000) | 371566   | 40.0000            |                   |
| 209 Benzaldehyde              | 77        | 3.556  | 3.556  | (0.929) | 117536   | 40.0000            | 38.2              |
| 16 Acetophenone               | 105       | 4.080  | 4.080  | (1.066) | 165673   | 40.0000            | 36.9 (H)          |
| 189 Caprolactam               | 113       | 4.973  | 4.973  | (1.060) | 41080    | 40.0000            | 34.5 (H)          |
| 208 1,1'-Biphenyl             | 154       | 5.513  | 5.513  | (0.928) | 362737   | 40.0000            | 36.6              |
| 207 Atrazine                  | 173       | 6.711  | 6.711  | (0.968) | 20844    | 40.0000            | 38.2 (H)          |
| 77 Benzidine                  | 184       | 7.728  | 7.728  | (0.897) | 78167    | 40.0000            | 22.3 (H)          |
| 90 3,3'-Dichlorobenzidine     | 252       | 8.546  | 8.546  | (0.992) | 121756   | 40.0000            | 39.5 (H)          |
| 102 1,4-Dioxane               | 88        | 2.208  | 2.208  | (0.577) | 43150    | 40.0000            | 31.1              |
| 103 Methyl methacrylate       | 100       | 2.197  | 2.197  | (0.574) | 23629    | 40.0000            | 31.3              |
| 104 Ethyl methacrylate        | 69        | 2.550  | 2.550  | (0.666) | 105039   | 40.0000            | 33.7 (H)          |
| 105 2-Picoline                | 93        | 2.743  | 2.743  | (0.716) | 154825   | 40.0000            | 34.4              |
| 106 N-Nitrosomethylethylamine | 88        | 2.780  | 2.780  | (0.726) | 52379    | 40.0000            | 29.4              |
| 107 Methyl methanesulfonate   | 80        | 2.941  | 2.941  | (0.768) | 57140    | 40.0000            | 33.5              |
| 108 N-Nitrosodiethylamine     | 102       | 3.165  | 3.165  | (0.827) | 61991    | 40.0000            | 32.2              |
| 109 Ethyl Methanesulfonate    | 79        | 3.320  | 3.320  | (0.867) | 74274    | 40.0000            | 32.5 (H)          |
| 110 Pentachloroethane         | 167       | 3.652  | 3.652  | (0.954) | 38691    | 40.0000            | 32.5              |
| 111 N-Nitrosopyrrolidine      | 100       | 4.069  | 4.069  | (1.063) | 65718    | 40.0000            | 33.2              |
| 113 N-Nitrosomorpholine       | 56        | 4.091  | 4.091  | (1.068) | 77255    | 40.0000            | 37.9              |
| 114 o-Toluidine               | 106       | 4.107  | 4.107  | (1.073) | 241048   | 40.0000            | 36.1              |
| 115 N-Nitrosopiperidine       | 114       | 4.305  | 4.305  | (0.918) | 64118    | 40.0000            | 33.0              |



| Compounds                         | QUANT SIG |        |        |         |          | AMOUNTS            |                   |
|-----------------------------------|-----------|--------|--------|---------|----------|--------------------|-------------------|
|                                   | MASS      | RT     | EXP RT | REL RT  | RESPONSE | CAL-AMT<br>(ng/ul) | ON-COL<br>(ng/ul) |
| =====                             | =====     | ==     | =====  | =====   | =====    | =====              | =====             |
| 116 a,a-Dimethylphenethylamine    | 58        | 4.545  | 4.545  | (0.969) | 322757   | 40.0000            | 36.7 (H)          |
| 118 2,6-Dichlorophenol            | 162       | 4.732  | 4.732  | (1.009) | 99234    | 40.0000            | 34.2              |
| 119 Hexachloropropene             | 213       | 4.759  | 4.759  | (1.015) | 47374    | 40.0000            | 32.6              |
| 120 p-Phenylenediamine            | 108       | 4.973  | 4.973  | (1.060) | 115863   | 40.0000            | 40.0 (H)          |
| 121 N-Nitrosodi-n-butylamine      | 84        | 4.936  | 4.936  | (1.052) | 99851    | 40.0000            | 36.6 (H)          |
| 122 Safrole                       | 162       | 5.101  | 5.101  | (1.088) | 95039    | 40.0000            | 34.9              |
| 123 1,2,4,5-Tetrachlorobenzene    | 216       | 5.305  | 5.305  | (0.893) | 127759   | 40.0000            | 35.9              |
| 124 Isosafrole                    | 162       | 5.471  | 5.471  | (0.921) | 89746    | 40.0000            | 32.4              |
| 125 1,4-Naphthoquinone            | 158       | 5.663  | 5.663  | (0.953) | 94562    | 40.0000            | 40.6              |
| 127 Pentachlorobenzene            | 250       | 6.048  | 6.048  | (1.018) | 114766   | 40.0000            | 37.0              |
| 128 1-Naphthylamine               | 143       | 6.134  | 6.134  | (1.032) | 255081   | 40.0000            | 37.1 (H)          |
| 129 2-Naphthylamine               | 143       | 6.187  | 6.187  | (1.041) | 280063   | 40.0000            | 37.8 (H)          |
| 131 5-Nitro-o-toluidine           | 152       | 6.316  | 6.316  | (1.063) | 69277    | 40.0000            | 34.0              |
| 136 1,3,5-Trinitrobenzene         | 75        | 6.540  | 6.540  | (0.943) | 63674    | 40.0000            | 41.5 (H)          |
| 137 Phenacetin                    | 108       | 6.567  | 6.567  | (0.947) | 136124   | 40.0000            | 35.7 (Q)          |
| 138 Diallate                      | 86        | 6.551  | 6.551  | (0.944) | 137833   | 40.0000            | 37.7 (H)          |
| 212 Cis Diallate                  | 86        | 6.615  | 6.615  | (0.954) | 14206    | 6.00000            | 4.2               |
| 213 Trans Diallate                | 86        | 6.551  | 6.551  | (0.944) | 137833   | 34.0000            | 32.1 (H)          |
| 140 4-Aminobiphenyl               | 169       | 6.797  | 6.797  | (0.980) | 265004   | 40.0000            | 33.9              |
| 141 Pentachloronitrobenzene       | 237       | 6.808  | 6.808  | (0.981) | 45184    | 40.0000            | 43.7 (Q)          |
| 142 Pronamide                     | 173       | 6.808  | 6.808  | (0.981) | 164245   | 40.0000            | 43.6              |
| 146 4-Nitroquinoline-1-oxide      | 101       | 7.417  | 7.417  | (1.069) | 5868     | 40.0000            | 50.4              |
| 147 Methapyrilene                 | 58        | 7.423  | 7.423  | (1.070) | 160600   | 40.0000            | 40.3              |
| 148 Isodrin                       | 193       | 7.583  | 7.583  | (1.093) | 54488    | 40.0000            | 40.5 (H)          |
| 149 Aramite                       | 185       | 7.819  | 7.819  | (1.127) | 19002    | 40.0000            | 33.7 (H)          |
| 150 Kepone                        | 272       | 8.236  | 8.236  | (1.187) | 35147    | 40.0000            | 35.6 (H)          |
| 151 p-(Dimethylamino)azobenzene   | 120       | 7.947  | 7.947  | (0.922) | 145669   | 40.0000            | 37.9              |
| 152 Chlorobenzilate               | 251       | 7.958  | 7.958  | (0.924) | 139925   | 40.0000            | 35.2              |
| 153 3,3'-Dimethylbenzidine        | 212       | 8.156  | 8.156  | (0.947) | 187421   | 40.0000            | 31.6 (H)          |
| 155 2-Acetylaminofluorene         | 181       | 8.337  | 8.337  | (0.968) | 129041   | 40.0000            | 42.5              |
| 157 7,12Dimethylbenz(a)anthracene | 256       | 9.573  | 9.573  | (0.950) | 169520   | 40.0000            | 31.7              |
| 158 3-Methylcholanthrene          | 268       | 10.429 | 10.429 | (1.035) | 121783   | 40.0000            | 35.3 (H)          |

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.

Data File: /chem/HSD4.i/s030410a.b/s400411.d

Date : 04-MAR-2010 16:21

Client ID: APCVS

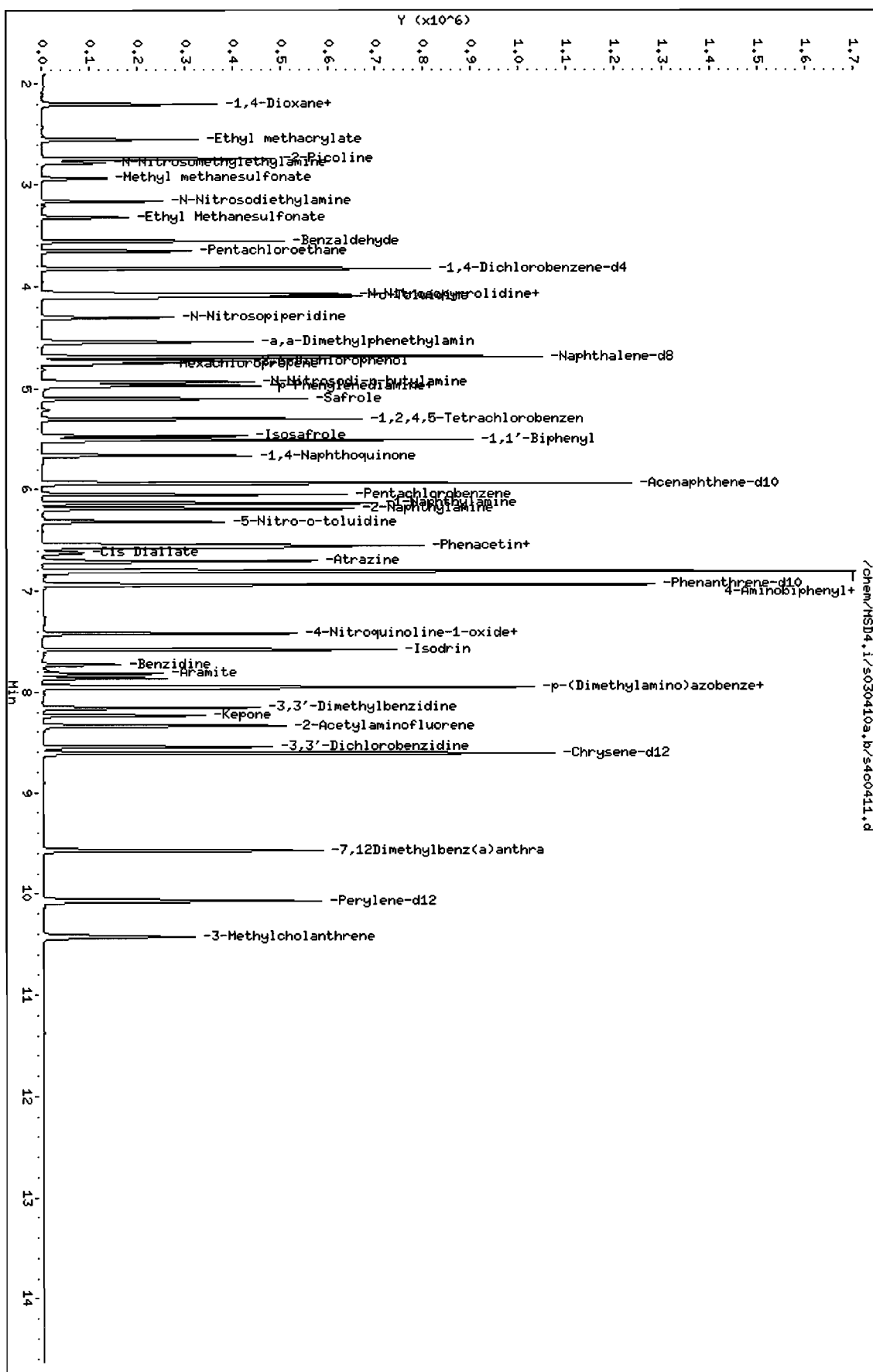
Sample Info: IMBN100218-03.5(CVS)11(SMH)11(APCVS)

Column phase: J&M DB-SMS

Instrument: HSD4.i

Operator: JHB3

Column diameter: 0.20



# QC Data

Data File: /chem/HSD4.i/s022410a.b/s4b2446.d

Page 1

Date : 25-FEB-2010 09:00

Client ID: DFTPP

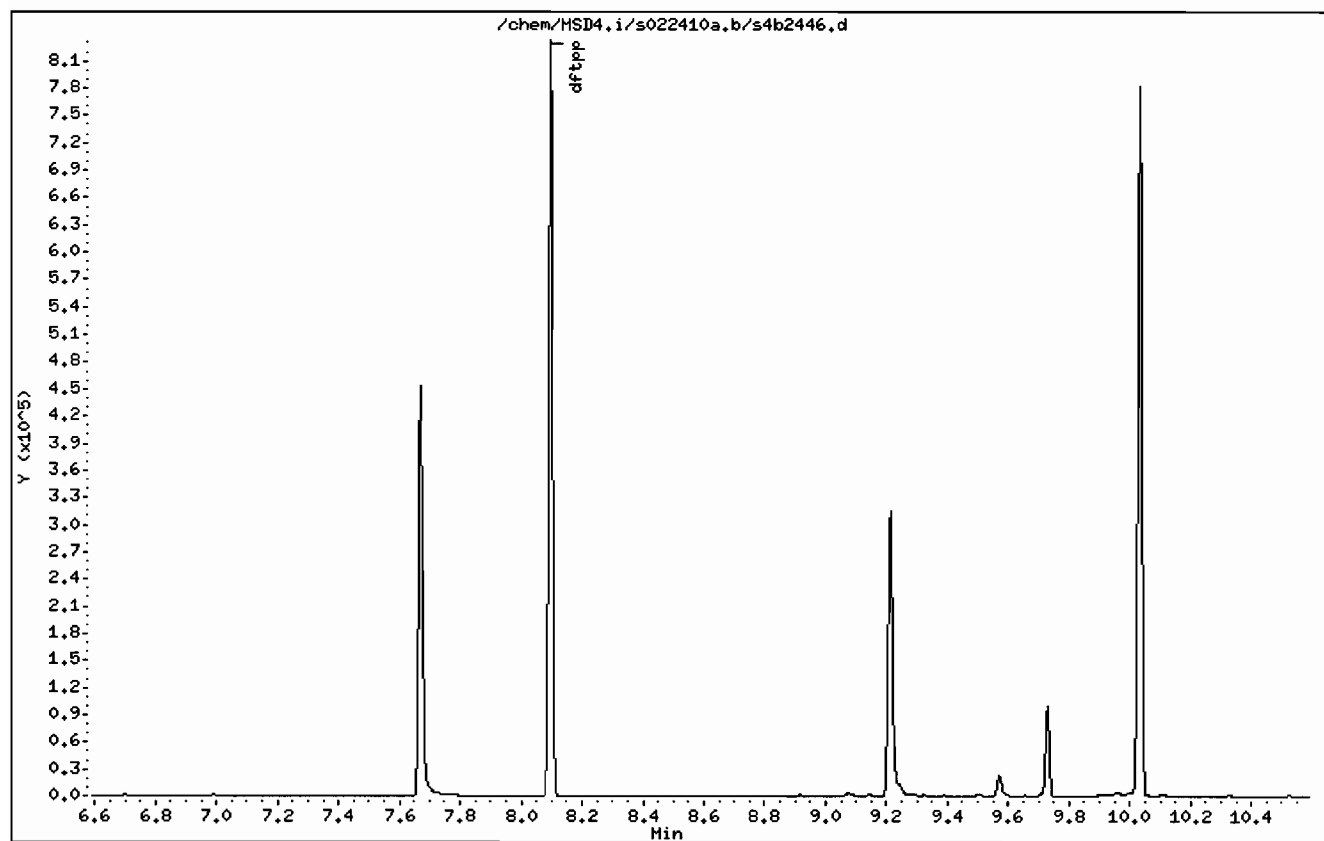
Instrument: HSD4.i

Sample Info: IWBNI00207-01IDFTPP11SVHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Date : 25-FEB-2010 09:00

Client ID: DFTPP

Instrument: MSD4.i

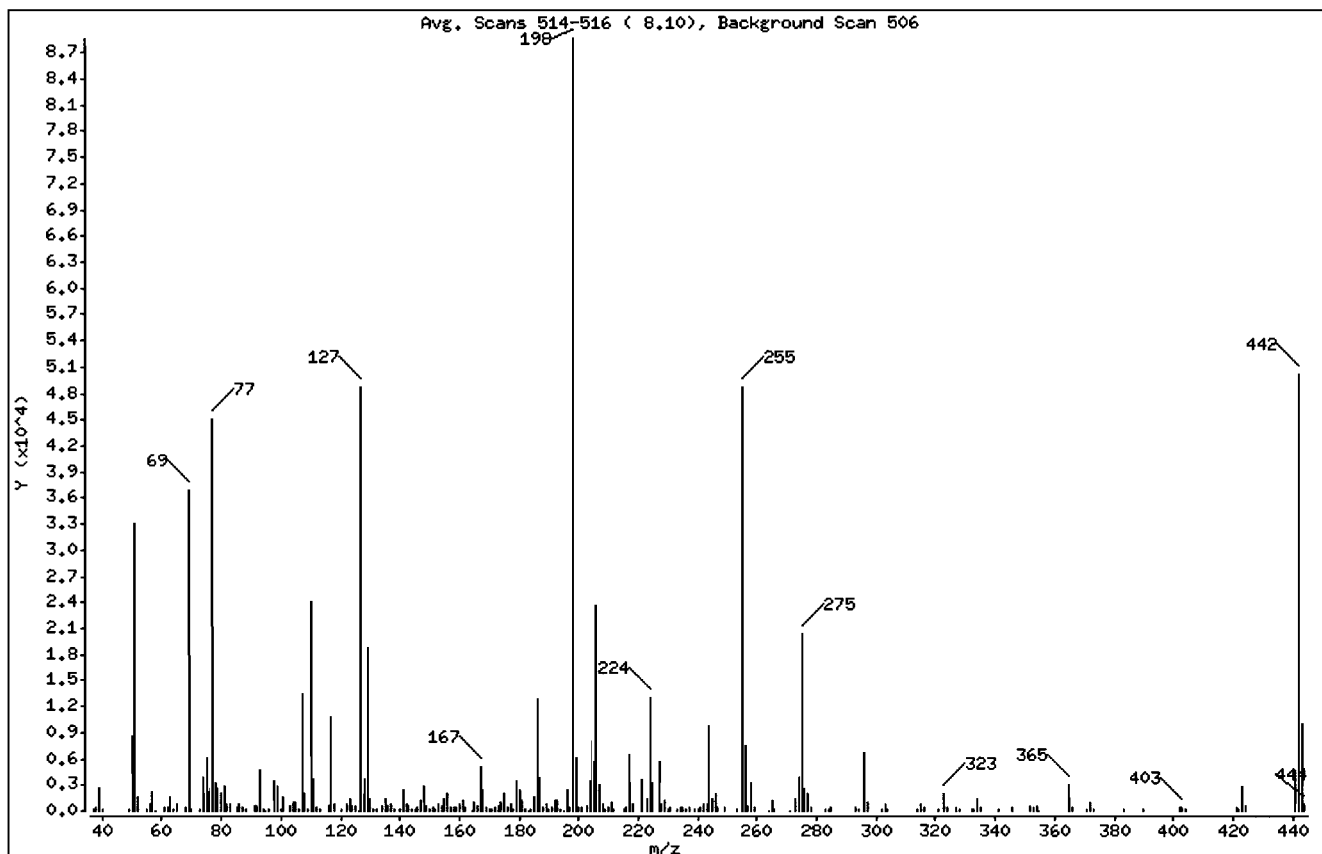
Sample Info: IWBH100207-01IDFTPP11SVMF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

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         | 37.29                |
| 68  | Less than 2.00% of mass 69         | 0.54 ( 1.29)         |
| 69  | Mass 69 relative abundance         | 41.70                |
| 70  | Less than 2.00% of mass 69         | 0.21 ( 0.51)         |
| 127 | 40.00 - 60.00% of mass 198         | 55.00                |
| 197 | Less than 1.00% of mass 198        | 0.38                 |
| 199 | 5.00 - 9.00% of mass 198           | 6.87                 |
| 275 | 10.00 - 30.00% of mass 198         | 23.02                |
| 365 | Greater than 1.00% of mass 198     | 3.41                 |
| 441 | Present, but less than mass 443    | 5.39                 |
| 442 | Greater than 40.00% of mass 198    | 56.57                |
| 443 | 17.00 - 23.00% of mass 442         | 11.22 ( 19.83)       |

Date : 25-FEB-2010 09:00

Client ID: DFTPP

Instrument: MSD4.i

Sample Info: IWBNI00207-01IDFTPP11SVHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s4b2446.d

Spectrum: Avg. Scans 514-516 ( 8.10), Background Scan 506

Location of Maximum: 198.00

Number of points: 237

| m/z   | Y     | m/z    | Y     | m/z    | Y     | m/z    | Y     |
|-------|-------|--------|-------|--------|-------|--------|-------|
| ----- |       |        |       |        |       |        |       |
| 37.00 | 127   | 122.00 | 819   | 185.00 | 1670  | 259.00 | 471   |
| 38.00 | 452   | 123.00 | 1386  | 186.00 | 12890 | 264.00 | 72    |
| 39.00 | 2576  | 124.00 | 617   | 187.00 | 3888  | 265.00 | 1242  |
| 40.00 | 121   | 125.00 | 570   | 188.00 | 361   | 266.00 | 244   |
| 49.00 | 211   | 126.00 | 35    | 189.00 | 816   | 271.00 | 35    |
| ----- |       |        |       |        |       |        |       |
| 50.00 | 8602  | 127.00 | 48776 | 190.00 | 121   | 273.00 | 1524  |
| 51.00 | 33072 | 128.00 | 3738  | 191.00 | 415   | 274.00 | 3822  |
| 52.00 | 1699  | 129.00 | 18752 | 192.00 | 1123  | 275.00 | 20416 |
| 55.00 | 144   | 130.00 | 1499  | 193.00 | 1291  | 276.00 | 2706  |
| 56.00 | 883   | 131.00 | 305   | 194.00 | 255   | 277.00 | 1971  |
| ----- |       |        |       |        |       |        |       |
| 57.00 | 2231  | 132.00 | 152   | 195.00 | 74    | 278.00 | 322   |
| 58.00 | 33    | 134.00 | 531   | 196.00 | 2462  | 283.00 | 223   |
| 61.00 | 380   | 135.00 | 1520  | 197.00 | 341   | 284.00 | 139   |
| 62.00 | 484   | 136.00 | 561   | 198.00 | 88688 | 285.00 | 352   |
| 63.00 | 1532  | 137.00 | 835   | 199.00 | 6095  | 293.00 | 430   |
| ----- |       |        |       |        |       |        |       |
| 64.00 | 188   | 138.00 | 158   | 200.00 | 495   | 294.00 | 116   |
| 65.00 | 724   | 140.00 | 202   | 201.00 | 364   | 296.00 | 6726  |
| 68.00 | 478   | 141.00 | 2424  | 203.00 | 691   | 297.00 | 935   |
| 69.00 | 36984 | 142.00 | 815   | 204.00 | 3551  | 302.00 | 134   |
| 70.00 | 189   | 143.00 | 552   | 205.00 | 5740  | 303.00 | 800   |
| ----- |       |        |       |        |       |        |       |
| 73.00 | 286   | 144.00 | 130   | 206.00 | 23704 | 304.00 | 214   |
| 74.00 | 3912  | 145.00 | 126   | 207.00 | 3049  | 314.00 | 284   |
| 75.00 | 6094  | 146.00 | 450   | 208.00 | 818   | 315.00 | 749   |
| 76.00 | 2178  | 147.00 | 1236  | 209.00 | 266   | 316.00 | 380   |
| 77.00 | 45080 | 148.00 | 2901  | 210.00 | 359   | 321.00 | 169   |
| ----- |       |        |       |        |       |        |       |
| 78.00 | 3218  | 149.00 | 534   | 211.00 | 963   | 323.00 | 2122  |
| 79.00 | 2651  | 150.00 | 146   | 212.00 | 212   | 324.00 | 374   |
| 80.00 | 1963  | 151.00 | 335   | 215.00 | 232   | 327.00 | 415   |
| 81.00 | 2846  | 152.00 | 174   | 216.00 | 506   | 328.00 | 214   |
| 82.00 | 763   | 153.00 | 736   | 217.00 | 6453  | 332.00 | 144   |
| ----- |       |        |       |        |       |        |       |
| 83.00 | 752   | 154.00 | 561   | 218.00 | 839   | 333.00 | 201   |
| 85.00 | 497   | 155.00 | 1390  | 221.00 | 3762  | 334.00 | 1351  |
| 86.00 | 769   | 156.00 | 2120  | 223.00 | 1407  | 335.00 | 318   |
| 87.00 | 383   | 157.00 | 379   | 224.00 | 13098 | 341.00 | 203   |
| 88.00 | 182   | 158.00 | 447   | 225.00 | 3213  | 346.00 | 487   |

Date : 25-FEB-2010 09:00

Client ID: DFTPP

Instrument: HSD4.i

Sample Info: IWBNI00207-01IDFTPP11SVHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-SHS

Column diameter: 0,20

Data File: s4b2446.d

Spectrum: Avg. Scans 514-516 ( 8,10), Background Scan 506

Location of Maximum: 198,00

Number of points: 237

| m/z    | Y     | m/z    | Y    | m/z    | Y     | m/z    | Y     |
|--------|-------|--------|------|--------|-------|--------|-------|
| 91,00  | 599   | 159,00 | 328  | 227,00 | 5793  | 352,00 | 608   |
| 92,00  | 695   | 160,00 | 715  | 228,00 | 750   | 353,00 | 422   |
| 93,00  | 4602  | 161,00 | 1122 | 229,00 | 1162  | 354,00 | 562   |
| 94,00  | 304   | 162,00 | 317  | 230,00 | 147   | 355,00 | 33    |
| 95,00  | 35    | 164,00 | 34   | 231,00 | 468   | 365,00 | 3027  |
| 96,00  | 235   | 165,00 | 932  | 233,00 | 110   | 366,00 | 423   |
| 98,00  | 3555  | 166,00 | 657  | 234,00 | 336   | 371,00 | 166   |
| 99,00  | 2856  | 167,00 | 5089 | 235,00 | 374   | 372,00 | 1049  |
| 100,00 | 251   | 168,00 | 2546 | 236,00 | 252   | 373,00 | 222   |
| 101,00 | 1712  | 169,00 | 427  | 237,00 | 442   | 383,00 | 261   |
| 103,00 | 521   | 170,00 | 148  | 239,00 | 213   | 390,00 | 150   |
| 104,00 | 1038  | 171,00 | 192  | 240,00 | 177   | 402,00 | 377   |
| 105,00 | 1009  | 172,00 | 434  | 241,00 | 331   | 403,00 | 495   |
| 106,00 | 305   | 173,00 | 610  | 242,00 | 719   | 404,00 | 188   |
| 107,00 | 13442 | 174,00 | 975  | 243,00 | 727   | 421,00 | 425   |
| 108,00 | 2097  | 175,00 | 1992 | 244,00 | 9884  | 422,00 | 250   |
| 109,00 | 299   | 176,00 | 472  | 245,00 | 1373  | 423,00 | 2821  |
| 110,00 | 24128 | 177,00 | 830  | 246,00 | 2020  | 424,00 | 624   |
| 111,00 | 3771  | 178,00 | 278  | 247,00 | 387   | 441,00 | 4779  |
| 112,00 | 434   | 179,00 | 3514 | 249,00 | 316   | 442,00 | 50168 |
| 113,00 | 154   | 180,00 | 2428 | 253,00 | 194   | 443,00 | 9949  |
| 116,00 | 677   | 181,00 | 1136 | 255,00 | 48728 | 444,00 | 861   |
| 117,00 | 10830 | 182,00 | 176  | 256,00 | 7489  |        |       |
| 118,00 | 803   | 183,00 | 69   | 257,00 | 517   |        |       |
| 120,00 | 145   | 184,00 | 283  | 258,00 | 3184  |        |       |

Data File: /chem/HSD4.i/s030410a,b/s4c0409.d

Page 1

Date : 04-MAR-2010 15:36

Client ID: DFTPP

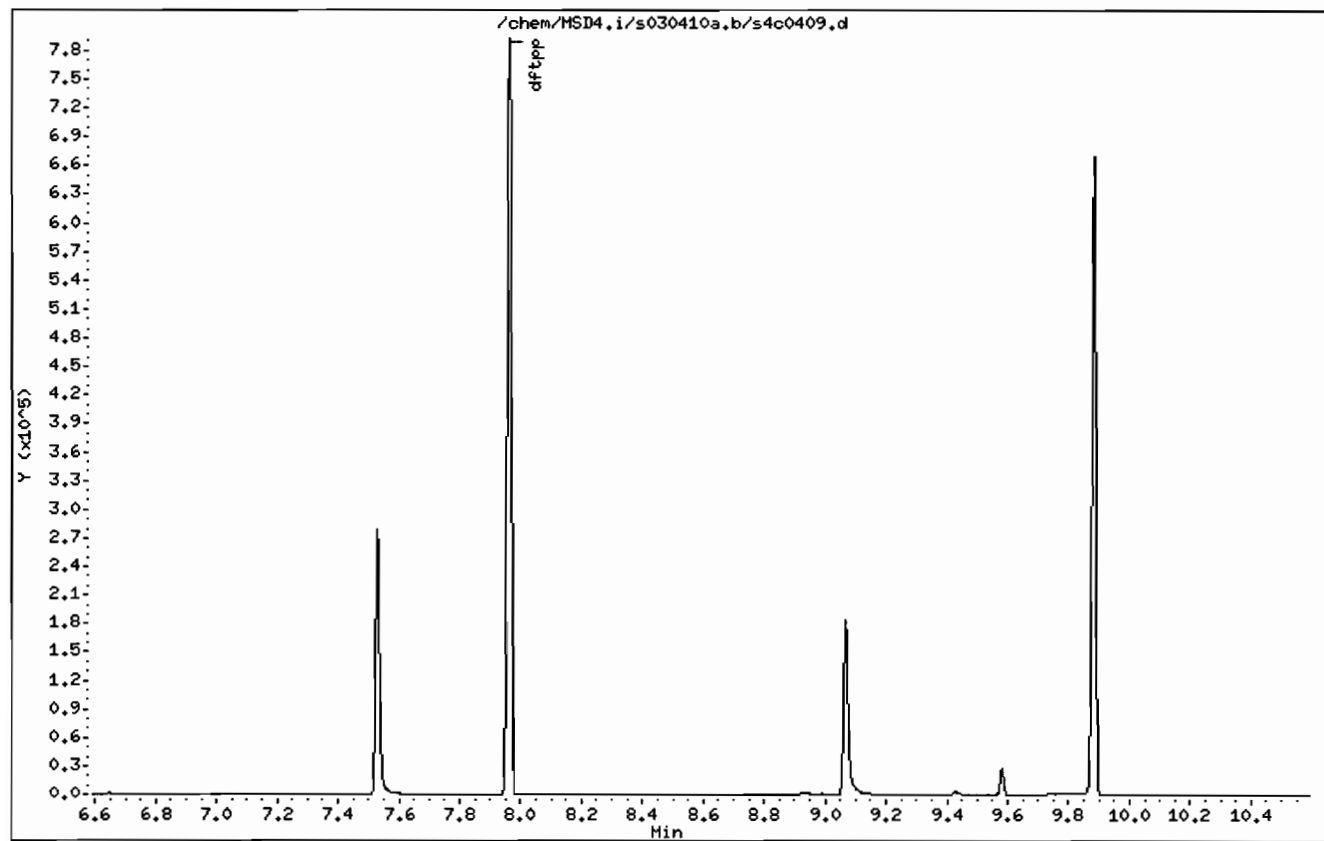
Instrument: MSD4.i

Sample Info: IWBNI00207-01IDFTPP11SVHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20





Date : 04-MAR-2010 15:36

Client ID: DFTPP

Instrument: HSD4.i

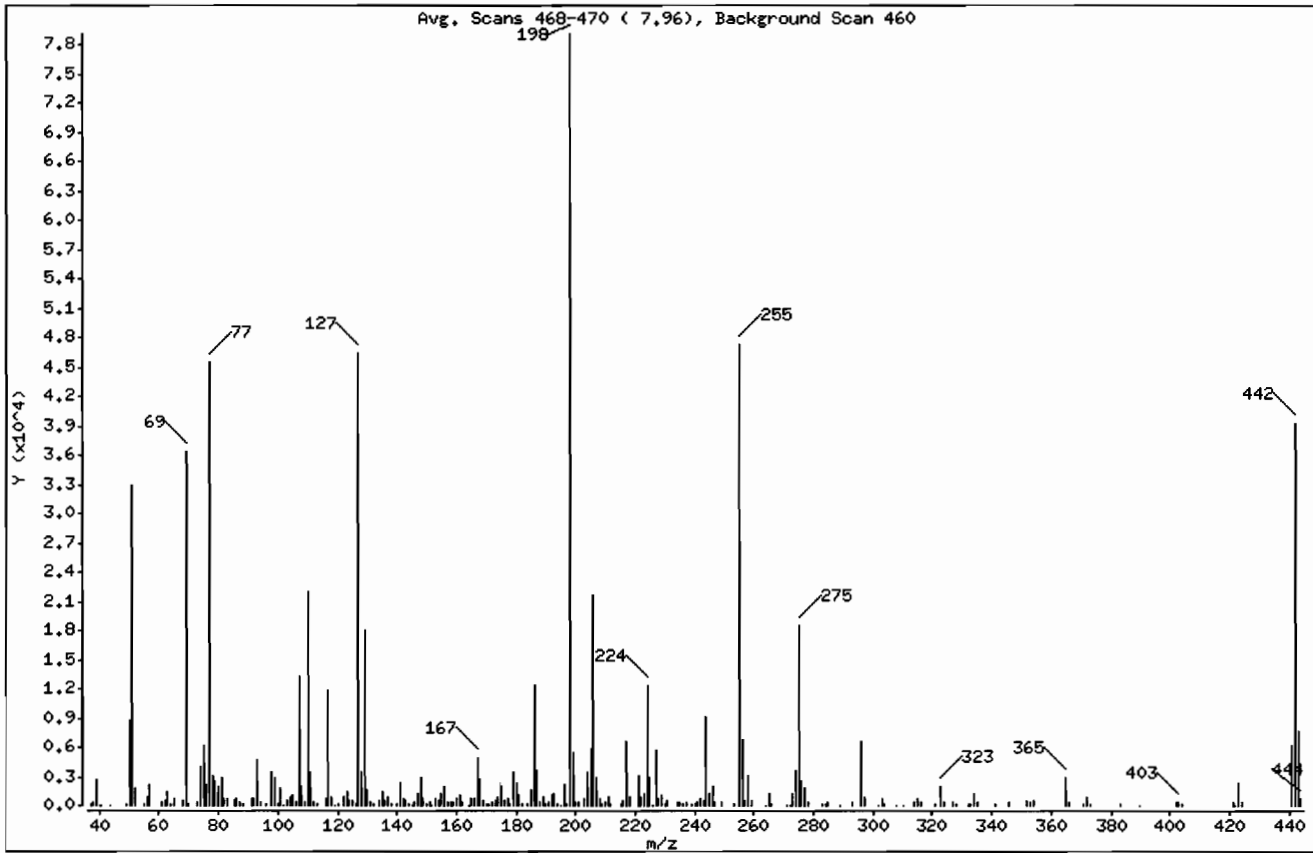
Sample Info: INBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0,20

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         | 41,66                |
| 68  | Less than 2,00% of mass 69         | 0,60 ( 1,30)         |
| 69  | Mass 69 relative abundance         | 45,95                |
| 70  | Less than 2,00% of mass 69         | 0,27 ( 0,58)         |
| 127 | 40,00 - 60,00% of mass 198         | 58,51                |
| 197 | Less than 1,00% of mass 198        | 0,28                 |
| 199 | 5,00 - 9,00% of mass 198           | 6,86                 |
| 275 | 10,00 - 30,00% of mass 198         | 23,49                |
| 365 | Greater than 1,00% of mass 198     | 3,73                 |
| 441 | Present, but less than mass 443    | 7,71                 |
| 442 | Greater than 40,00% of mass 198    | 49,60                |
| 443 | 17,00 - 23,00% of mass 442         | 9,71 ( 19,58)        |

Date : 04-MAR-2010 15:36

Client ID: DFTPP

Instrument: MSD4.i

Sample Info: IWBNI00207-01IDFTPP11SVMF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s4c0409.d

Spectrum: Avg. Scans 468-470 ( 7.96), Background Scan 460

Location of Maximum: 198.00

Number of points: 241

| m/z   | Y     | m/z    | Y     | m/z    | Y     | m/z    | Y     |
|-------|-------|--------|-------|--------|-------|--------|-------|
| ----- |       |        |       |        |       |        |       |
| 37.00 | 128   | 120.00 | 168   | 186.00 | 12416 | 264.00 | 34    |
| 38.00 | 438   | 122.00 | 819   | 187.00 | 3578  | 265.00 | 1332  |
| 39.00 | 2653  | 123.00 | 1381  | 188.00 | 323   | 266.00 | 212   |
| 40.00 | 76    | 124.00 | 636   | 189.00 | 824   | 271.00 | 75    |
| 41.00 | 84    | 125.00 | 518   | 190.00 | 133   | 272.00 | 43    |
| ----- |       |        |       |        |       |        |       |
| 44.00 | 26    | 126.00 | 154   | 191.00 | 325   | 273.00 | 1303  |
| 49.00 | 183   | 127.00 | 46288 | 192.00 | 1125  | 274.00 | 3607  |
| 50.00 | 8716  | 128.00 | 3481  | 193.00 | 1360  | 275.00 | 18576 |
| 51.00 | 32952 | 129.00 | 18048 | 194.00 | 256   | 276.00 | 2579  |
| 52.00 | 1778  | 130.00 | 1563  | 195.00 | 35    | 277.00 | 1803  |
| ----- |       |        |       |        |       |        |       |
| 55.00 | 161   | 131.00 | 316   | 196.00 | 2109  | 278.00 | 309   |
| 56.00 | 865   | 132.00 | 163   | 197.00 | 221   | 283.00 | 178   |
| 57.00 | 2244  | 134.00 | 508   | 198.00 | 79104 | 284.00 | 132   |
| 61.00 | 406   | 135.00 | 1466  | 199.00 | 5427  | 285.00 | 297   |
| 62.00 | 528   | 136.00 | 564   | 200.00 | 425   | 289.00 | 34    |
| ----- |       |        |       |        |       |        |       |
| 63.00 | 1461  | 137.00 | 820   | 201.00 | 339   | 293.00 | 408   |
| 64.00 | 197   | 138.00 | 164   | 203.00 | 673   | 296.00 | 6619  |
| 65.00 | 686   | 140.00 | 184   | 204.00 | 3455  | 297.00 | 947   |
| 68.00 | 471   | 141.00 | 2336  | 205.00 | 5773  | 302.00 | 75    |
| 69.00 | 36344 | 142.00 | 778   | 206.00 | 21720 | 303.00 | 678   |
| ----- |       |        |       |        |       |        |       |
| 70.00 | 212   | 143.00 | 558   | 207.00 | 2850  | 304.00 | 225   |
| 73.00 | 318   | 144.00 | 120   | 208.00 | 751   | 308.00 | 74    |
| 74.00 | 4068  | 145.00 | 72    | 209.00 | 229   | 310.00 | 38    |
| 75.00 | 6159  | 146.00 | 416   | 210.00 | 342   | 314.00 | 327   |
| 76.00 | 2191  | 147.00 | 1199  | 211.00 | 938   | 315.00 | 709   |
| ----- |       |        |       |        |       |        |       |
| 77.00 | 45384 | 148.00 | 2982  | 212.00 | 130   | 316.00 | 391   |
| 78.00 | 3024  | 149.00 | 645   | 215.00 | 261   | 321.00 | 201   |
| 79.00 | 2486  | 150.00 | 153   | 216.00 | 493   | 323.00 | 1942  |
| 80.00 | 2084  | 151.00 | 287   | 217.00 | 6588  | 324.00 | 287   |
| 81.00 | 2965  | 152.00 | 42    | 218.00 | 830   | 327.00 | 396   |
| ----- |       |        |       |        |       |        |       |
| 82.00 | 726   | 153.00 | 800   | 221.00 | 3027  | 328.00 | 172   |
| 83.00 | 692   | 154.00 | 528   | 222.00 | 874   | 332.00 | 163   |
| 85.00 | 533   | 155.00 | 1257  | 223.00 | 1363  | 333.00 | 178   |
| 86.00 | 778   | 156.00 | 1937  | 224.00 | 12379 | 334.00 | 1330  |
| 87.00 | 385   | 157.00 | 385   | 225.00 | 2966  | 335.00 | 307   |

Date : 04-MAR-2010 15:36

Client ID: DFTPP

Instrument: HSD4.i

Sample Info: IWBNI00207-01IDFTPP11SVHF11IDFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s4c0409.d

Spectrum: Avg. Scans 468-470 ( 7.96), Background Scan 460

Location of Maximum: 198.00

Number of points: 241

| m/z    | Y     | m/z    | Y    | m/z    | Y     | m/z    | Y     |
|--------|-------|--------|------|--------|-------|--------|-------|
| 88.00  | 125   | 158.00 | 387  | 226.00 | 78    | 341.00 | 214   |
| 91.00  | 637   | 159.00 | 297  | 227.00 | 5727  | 346.00 | 419   |
| 92.00  | 675   | 160.00 | 753  | 228.00 | 808   | 352.00 | 563   |
| 93.00  | 4799  | 161.00 | 1133 | 229.00 | 1085  | 353.00 | 340   |
| 94.00  | 365   | 162.00 | 362  | 230.00 | 137   | 354.00 | 530   |
| 96.00  | 224   | 164.00 | 84   | 231.00 | 500   | 365.00 | 2953  |
| 98.00  | 3540  | 165.00 | 799  | 234.00 | 359   | 366.00 | 422   |
| 99.00  | 2828  | 166.00 | 664  | 235.00 | 347   | 371.00 | 144   |
| 100.00 | 232   | 167.00 | 4851 | 236.00 | 253   | 372.00 | 899   |
| 101.00 | 1748  | 168.00 | 2657 | 237.00 | 382   | 373.00 | 174   |
| 102.00 | 33    | 169.00 | 484  | 239.00 | 195   | 383.00 | 219   |
| 103.00 | 482   | 170.00 | 137  | 240.00 | 144   | 390.00 | 34    |
| 104.00 | 980   | 171.00 | 187  | 241.00 | 337   | 402.00 | 332   |
| 105.00 | 1012  | 172.00 | 372  | 242.00 | 651   | 403.00 | 419   |
| 106.00 | 301   | 173.00 | 559  | 243.00 | 517   | 404.00 | 157   |
| 107.00 | 13325 | 174.00 | 964  | 244.00 | 9079  | 421.00 | 358   |
| 108.00 | 2052  | 175.00 | 1930 | 245.00 | 1298  | 422.00 | 77    |
| 109.00 | 319   | 176.00 | 455  | 246.00 | 1992  | 423.00 | 2275  |
| 110.00 | 22000 | 177.00 | 777  | 247.00 | 407   | 424.00 | 446   |
| 111.00 | 3537  | 178.00 | 257  | 249.00 | 318   | 441.00 | 6101  |
| 112.00 | 355   | 179.00 | 3504 | 253.00 | 174   | 442.00 | 39232 |
| 113.00 | 142   | 180.00 | 2394 | 255.00 | 47328 | 443.00 | 7684  |
| 116.00 | 654   | 181.00 | 1155 | 256.00 | 6808  | 444.00 | 772   |
| 117.00 | 11817 | 182.00 | 206  | 257.00 | 502   |        |       |
| 118.00 | 863   | 184.00 | 239  | 258.00 | 3078  |        |       |
| 119.00 | 33    | 185.00 | 1716 | 259.00 | 521   |        |       |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914

Matrix: SOIL

Lab Sample ID: 1202050556

Client Sample: QC for batch 956255

Client: LANL010

Project: QC

Client ID: MB for batch 956255

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 956285

Inst: MSD4.I

Dilution: 1

Run Date: 03/04/2010 16:43

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 02/23/2010 10:34

Aliquot: 30 g

Final Volume: 1 mL

Data File: s4c0412-1.d

Column: J&amp;W DB-5MS

Level: LOW

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine | U         | 333    | ug/kg | 66.7    | 333     |
| 108-95-2   | Phenol                        | U         | 333    | ug/kg | 66.7    | 333     |
| 95-57-8    | 2-Chlorophenol                | U         | 333    | ug/kg | 66.7    | 333     |
| 106-46-7   | 1,4-Dichlorobenzene           | U         | 333    | ug/kg | 66.7    | 333     |
| 621-64-7   | N-Nitrosodipropylamine        | U         | 333    | ug/kg | 66.7    | 333     |
| 59-50-7    | 4-Chloro-3-methylphenol       | U         | 333    | ug/kg | 66.7    | 333     |
| 83-32-9    | Acenaphthene                  | U         | 33.3   | ug/kg | 11.0    | 33.3    |
| 121-14-2   | 2,4-Dinitrotoluene            | U         | 333    | ug/kg | 33.3    | 333     |
| 100-02-7   | 4-Nitrophenol                 | U         | 333    | ug/kg | 110     | 333     |
| 87-86-5    | Pentachlorophenol             | U         | 333    | ug/kg | 83.3    | 333     |
| 129-00-0   | Pyrene                        | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 110-86-1   | Pyridine                      | U         | 333    | ug/kg | 66.7    | 333     |
| 62-53-3    | Aniline                       | U         | 333    | ug/kg | 100     | 333     |
| 111-44-4   | bis(2-Chloroethyl) ether      | U         | 333    | ug/kg | 66.7    | 333     |
| 541-73-1   | 1,3-Dichlorobenzene           | U         | 333    | ug/kg | 66.7    | 333     |
| 100-51-6   | Benzyl alcohol                | U         | 333    | ug/kg | 100     | 333     |
| 95-50-1    | 1,2-Dichlorobenzene           | U         | 333    | ug/kg | 66.7    | 333     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   | U         | 333    | ug/kg | 66.7    | 333     |
| 95-48-7    | o-Cresol                      | U         | 333    | ug/kg | 66.7    | 333     |
| 65794-96-9 | m,p-Cresols                   | U         | 333    | ug/kg | 100     | 333     |
| 67-72-1    | Hexachloroethane              | U         | 333    | ug/kg | 66.7    | 333     |
| 98-95-3    | Nitrobenzene                  | U         | 333    | ug/kg | 66.7    | 333     |
| 78-59-1    | Isophorone                    | U         | 333    | ug/kg | 66.7    | 333     |
| 88-75-5    | 2-Nitrophenol                 | U         | 333    | ug/kg | 66.7    | 333     |
| 105-67-9   | 2,4-Dimethylphenol            | U         | 333    | ug/kg | 117     | 333     |
| 111-91-1   | bis(2-Chloroethoxy)methane    | U         | 333    | ug/kg | 66.7    | 333     |
| 120-83-2   | 2,4-Dichlorophenol            | U         | 333    | ug/kg | 66.7    | 333     |
| 65-85-0    | Benzoic acid                  | U         | 667    | ug/kg | 167     | 667     |
| 91-20-3    | Naphthalene                   | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 106-47-8   | 4-Chloroaniline               | U         | 333    | ug/kg | 66.7    | 333     |
| 87-68-3    | Hexachlorobutadiene           | U         | 333    | ug/kg | 66.7    | 333     |
| 91-57-6    | 2-Methylnaphthalene           | U         | 33.3   | ug/kg | 6.67    | 33.3    |
| 77-47-4    | Hexachlorocyclopentadiene     | U         | 333    | ug/kg | 66.7    | 333     |
| 88-06-2    | 2,4,6-Trichlorophenol         | U         | 333    | ug/kg | 66.7    | 333     |
| 95-95-4    | 2,4,5-Trichlorophenol         | U         | 333    | ug/kg | 66.7    | 333     |
| 91-58-7    | 2-Chloronaphthalene           | U         | 33.3   | ug/kg | 11.0    | 33.3    |
| 88-74-4    | 2-Nitroaniline                | U         | 333    | ug/kg | 66.7    | 333     |
|            | o-Nitroaniline                |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                | U         | 333    | ug/kg | 66.7    | 333     |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914  
Lab Sample ID: 1202050556  
Client Sample: QC for batch 956255  
Client ID: MB for batch 956255  
Batch ID: 956285  
Run Date: 03/04/2010 16:43  
Prep Date: 02/23/2010 10:34  
Data File: s4c0412-1.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD4.I  
Analyst: JMB3  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

| CAS No.   | Parmname                   | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-----------|----------------------------|-----------|--------|-------|---------|---------|
|           | <i>m</i> -Nitroaniline     |           |        |       |         |         |
| 131-11-3  | Dimethylphthalate          | U         | 333    | ug/kg | 66.7    | 333     |
| 606-20-2  | 2,6-Dinitrotoluene         | U         | 333    | ug/kg | 33.3    | 333     |
| 208-96-8  | Acenaphthylene             | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 51-28-5   | 2,4-Dinitrophenol          | U         | 667    | ug/kg | 127     | 667     |
| 132-64-9  | Dibenzofuran               | U         | 333    | ug/kg | 66.7    | 333     |
| 84-66-2   | Diethylphthalate           | U         | 333    | ug/kg | 66.7    | 333     |
| 86-73-7   | Fluorene                   | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 7005-72-3 | 4-Chlorophenylphenylether  | U         | 333    | ug/kg | 66.7    | 333     |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol | U         | 333    | ug/kg | 66.7    | 333     |
| 100-01-6  | 4-Nitroaniline             | U         | 333    | ug/kg | 100     | 333     |
|           | <i>p</i> -Nitroaniline     |           |        |       |         |         |
| 122-39-4  | Diphenylamine              | U         | 333    | ug/kg | 66.7    | 333     |
| 122-66-7  | Azobenzene                 | U         | 333    | ug/kg | 66.7    | 333     |
|           | 1,2-Diphenylhydrazine      |           |        |       |         |         |
| 101-55-3  | 4-Bromophenylphenylether   | U         | 333    | ug/kg | 66.7    | 333     |
| 118-74-1  | Hexachlorobenzene          | U         | 333    | ug/kg | 66.7    | 333     |
| 85-01-8   | Phenanthrene               | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 120-12-7  | Anthracene                 | U         | 33.3   | ug/kg | 6.67    | 33.3    |
| 84-74-2   | Di-n-butylphthalate        | U         | 333    | ug/kg | 66.7    | 333     |
| 206-44-0  | Fluoranthene               | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 85-68-7   | Butylbenzylphthalate       | U         | 333    | ug/kg | 66.7    | 333     |
| 56-55-3   | Benzo(a)anthracene         | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 91-94-1   | 3,3'-Dichlorobenzidine     | U         | 333    | ug/kg | 100     | 333     |
| 218-01-9  | Chrysene                   | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate | U         | 333    | ug/kg | 66.7    | 333     |
| 117-84-0  | Di-n-octylphthalate        | U         | 333    | ug/kg | 66.7    | 333     |
| 205-99-2  | Benzo(b)fluoranthene       | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 207-08-9  | Benzo(k)fluoranthene       | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 50-32-8   | Benzo(a)pyrene             | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene     | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 53-70-3   | Dibenzo(a,h)anthracene     | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 191-24-2  | Benzo(ghi)perylene         | U         | 33.3   | ug/kg | 10.0    | 33.3    |
| 120-82-1  | 1,2,4-Trichlorobenzene     | U         | 333    | ug/kg | 66.7    | 333     |

**Tentatively Identified Compound Summary**

| CAS No. | Tentatively Identified Compound (TIC) | RT   | Estimated | Units | Fit | Qual |
|---------|---------------------------------------|------|-----------|-------|-----|------|
|         | Unknown Aldol Condensate              | 2.87 | 966       | ug/kg |     | J    |

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD4.i/s030410a.b/s4c0412-2.d  
Lab Smp Id: 1202050556 Client Smp ID: SBLK01  
Inj Date : 04-MAR-2010 16:43  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |1202050556|956285|1|SVM|1|MB  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 4 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.00000  | weight of sample          |
| M    | 0.00000   | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT | SIG |        |        |         |        | CONCENTRATIONS |                      |                  |
|-----------------------------|-------|-----|--------|--------|---------|--------|----------------|----------------------|------------------|
|                             |       |     | MASS   | RT     | EXP RT  | REL RT | RESPONSE       | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 | 152   |     | 3.823  | 3.829  | (1.000) |        | 135876         | 40.0000              |                  |
| * 29 Naphthalene-d8         | 136   |     | 4.684  | 4.690  | (1.000) |        | 503308         | 40.0000              |                  |
| * 46 Acenaphthene-d10       | 164   |     | 5.936  | 5.941  | (1.000) |        | 294729         | 40.0000              |                  |
| * 67 Phenanthrene-d10       | 188   |     | 6.936  | 6.936  | (1.000) |        | 519093         | 40.0000              |                  |
| * 91 Chrysene-d12           | 240   |     | 8.605  | 8.610  | (1.000) |        | 468013         | 40.0000              |                  |
| * 98 Perylene-d12           | 264   |     | 10.060 | 10.070 | (1.000) |        | 368391         | 40.0000              |                  |
| \$ 3 2-Fluorophenol         | 112   |     | 3.031  | 3.021  | (0.793) |        | 238803         | 75.5545              | 2520             |
| \$ 5 Phenol-d5              | 99    |     | 3.540  | 3.545  | (0.926) |        | 282404         | 71.6005              | 2390             |
| \$ 20 Nitrobenzene-d5       | 82    |     | 4.181  | 4.192  | (0.893) |        | 106546         | 29.6938              | 990              |
| \$ 39 2-Fluorobiphenyl      | 172   |     | 5.428  | 5.433  | (0.914) |        | 253506         | 32.0292              | 1070             |
| \$ 60 2,4,6-Tribromophenol  | 329   |     | 6.476  | 6.481  | (1.091) |        | 72832          | 84.0716              | 2800             |
| \$ 81 p-Terphenyl-d14       | 244   |     | 7.861  | 7.861  | (0.914) |        | 310834         | 41.6339              | 1390             |

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Data file : /chem/MSD4.i/s030410a.b/s4c0412-2.d  
Lab Smp Id: 1202050556 Client Smp ID: SBLK01  
Inj Date : 04-MAR-2010 16:43  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |1202050556|956285|1|SVM|1|MB  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 4 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.00000  | weight of sample          |
| M    | 0.00000   | % moisture                |

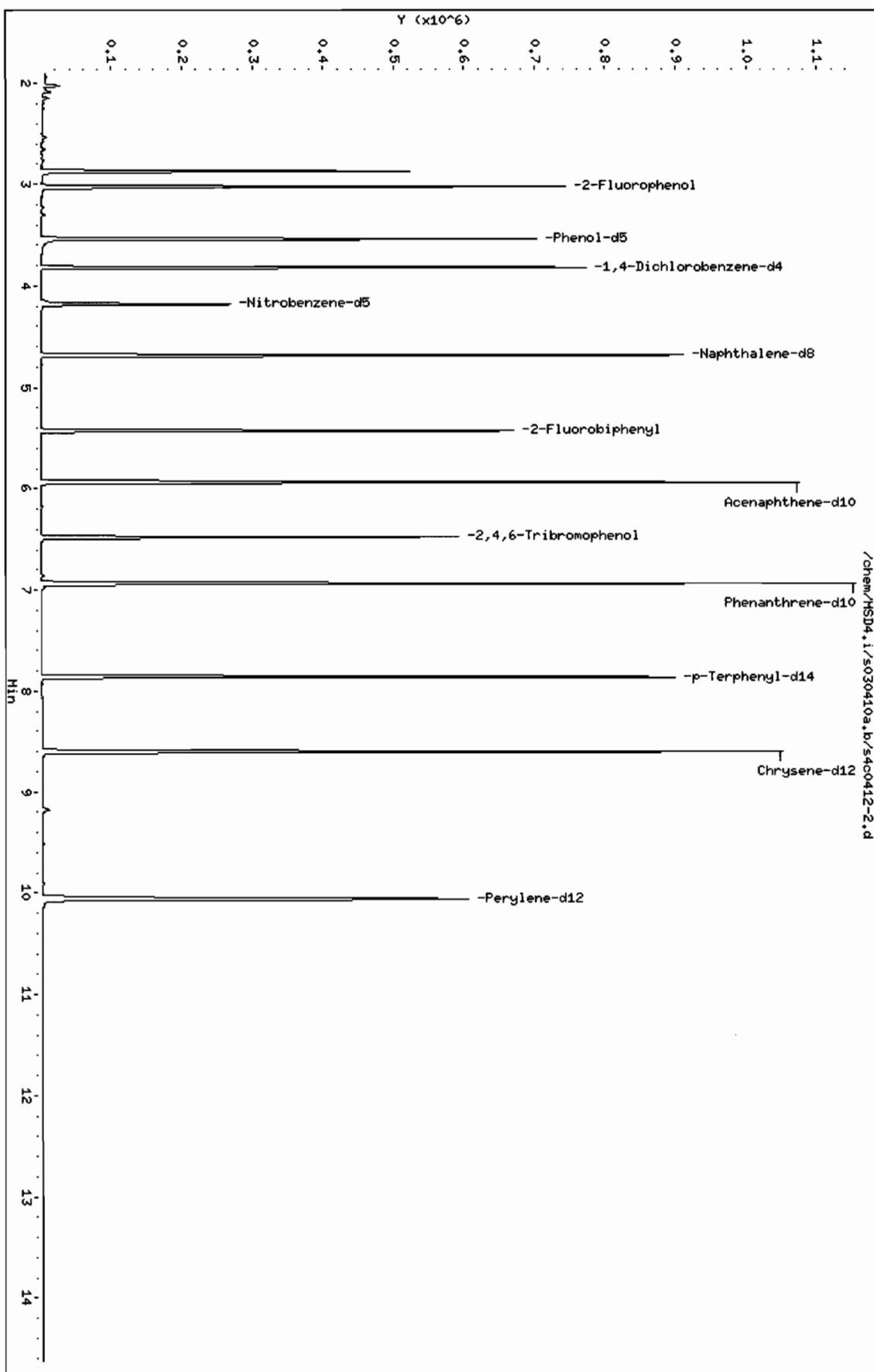
Cpnd Variable Local Compound Variable

| ISTD                        | RT    | AREA   | AMOUNT |
|-----------------------------|-------|--------|--------|
| =====                       | ===== | =====  | =====  |
| * 10 1,4-Dichlorobenzene-d4 | 3.823 | 829804 | 40.000 |

| CONCENTRATIONS           |        |                |               |      | QUANT   |           |        |
|--------------------------|--------|----------------|---------------|------|---------|-----------|--------|
| RT                       | AREA   | ON-COL (ng/ul) | FINAL (ug/Kg) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| ----                     | ----   | -----          | -----         | ---- | -----   | -----     | -----  |
| Unknown Aldol Condensate |        |                |               |      |         |           |        |
| 2.871                    | 601093 | 28.9751564     | 966           | 0    |         | 0         | 10     |

Data File: /chem/HSD4.i/s030410a.b/s400412-2.d  
Date : 04-MAR-2010 16:43  
Client ID: SRLK01  
Sample Info: 11202050556195628511SVH11HB  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: HSD4.i  
Operator: JMB3  
Column diameter: 0.20





Date : 04-MAR-2010 16:43

Client ID: SBLK01

Instrument: MSD4.i

Sample Info: I1202050556195628511SVMI11MB

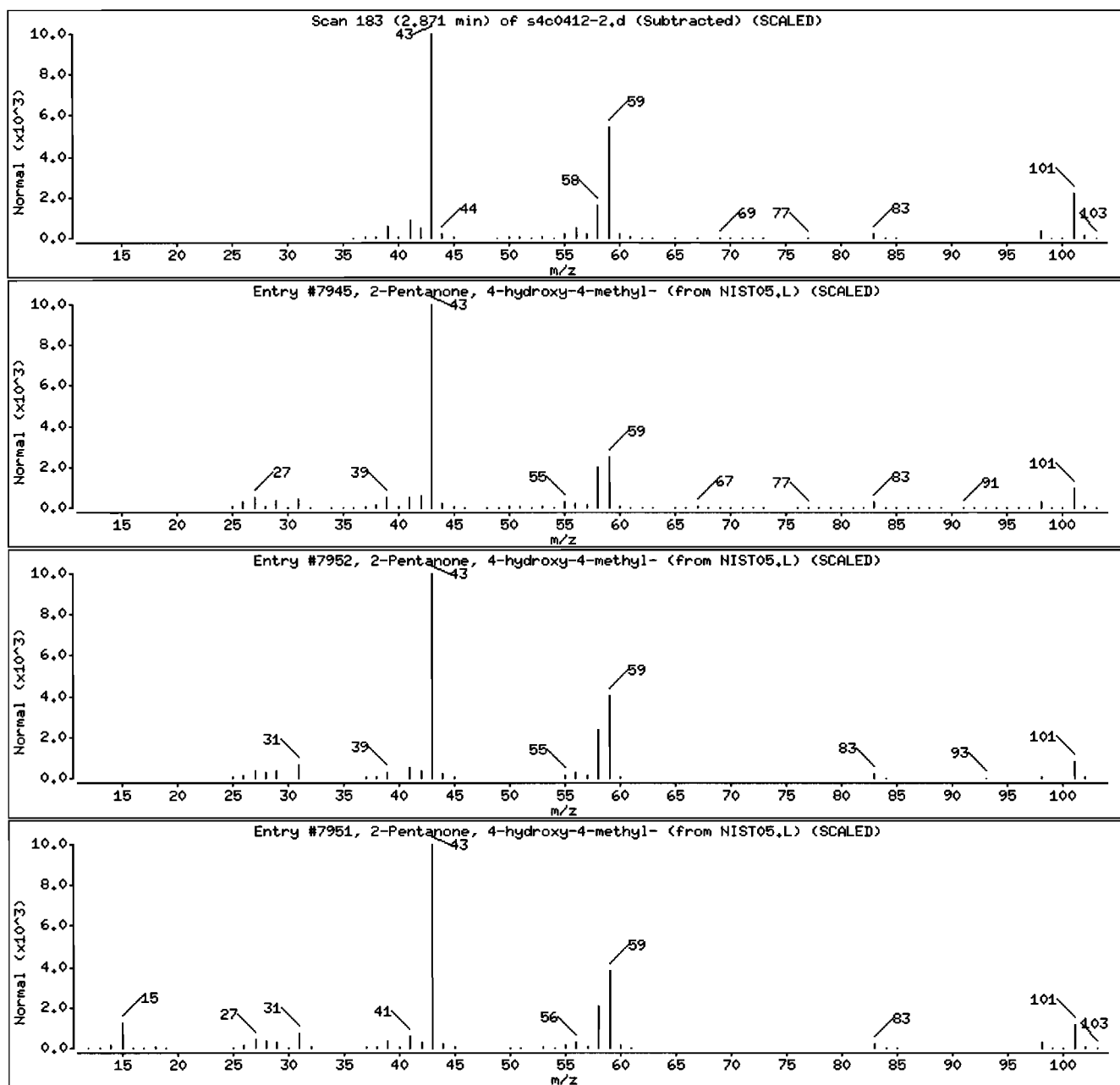
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match    | CAS Number | Library  | Entry | Quality | Formula | Weight |
|----------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown Aldol Condensate         |            |          |       |         |         |        |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7945  | 59      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7952  | 56      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7951  | 50      | C6H12O2 | 116    |



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914

Matrix: SOIL

Lab Sample ID: 1202050557

Client Sample: QC for batch 956255

Client: LANL010

Project: QC

Client ID: LCS for batch 956255

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 956285

Inst: MSD4.I

Dilution: 1

Run Date: 03/04/2010 17:06

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 02/23/2010 10:34

Aliquot: 30 g

Final Volume: 1 mL

Data File: s4c0413-1.d

Column: J&amp;W DB-5MS

Level: LOW

| CAS No.    | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|------------|-------------------------------|-----------|--------|-------|---------|---------|
| 62-75-9    | N-Methyl-N-nitrosomethylamine |           | 826    | ug/kg | 66.7    | 333     |
| 108-95-2   | Phenol                        |           | 1170   | ug/kg | 66.7    | 333     |
| 95-57-8    | 2-Chlorophenol                |           | 1020   | ug/kg | 66.7    | 333     |
| 106-46-7   | 1,4-Dichlorobenzene           |           | 995    | ug/kg | 66.7    | 333     |
| 621-64-7   | N-Nitrosodipropylamine        |           | 1260   | ug/kg | 66.7    | 333     |
| 59-50-7    | 4-Chloro-3-methylphenol       |           | 940    | ug/kg | 66.7    | 333     |
| 83-32-9    | Acenaphthene                  |           | 1110   | ug/kg | 11.0    | 33.3    |
| 121-14-2   | 2,4-Dinitrotoluene            |           | 982    | ug/kg | 33.3    | 333     |
| 100-02-7   | 4-Nitrophenol                 |           | 706    | ug/kg | 110     | 333     |
| 87-86-5    | Pentachlorophenol             |           | 925    | ug/kg | 83.3    | 333     |
| 129-00-0   | Pyrene                        |           | 1110   | ug/kg | 10.0    | 33.3    |
| 110-86-1   | Pyridine                      |           | 774    | ug/kg | 66.7    | 333     |
| 62-53-3    | Aniline                       |           | 1030   | ug/kg | 100     | 333     |
| 111-44-4   | bis(2-Chloroethyl) ether      |           | 1060   | ug/kg | 66.7    | 333     |
| 541-73-1   | 1,3-Dichlorobenzene           |           | 926    | ug/kg | 66.7    | 333     |
| 100-51-6   | Benzyl alcohol                |           | 533    | ug/kg | 100     | 333     |
| 95-50-1    | 1,2-Dichlorobenzene           |           | 1010   | ug/kg | 66.7    | 333     |
| 108-60-1   | bis(2-Chloroisopropyl)ether   |           | 1060   | ug/kg | 66.7    | 333     |
| 95-48-7    | o-Cresol                      |           | 1170   | ug/kg | 66.7    | 333     |
| 65794-96-9 | m,p-Cresols                   |           | 1290   | ug/kg | 100     | 333     |
| 67-72-1    | Hexachloroethane              |           | 925    | ug/kg | 66.7    | 333     |
| 98-95-3    | Nitrobenzene                  |           | 1060   | ug/kg | 66.7    | 333     |
| 78-59-1    | Isophorone                    |           | 1050   | ug/kg | 66.7    | 333     |
| 88-75-5    | 2-Nitrophenol                 |           | 1030   | ug/kg | 66.7    | 333     |
| 105-67-9   | 2,4-Dimethylphenol            |           | 1140   | ug/kg | 117     | 333     |
| 111-91-1   | bis(2-Chloroethoxy)methane    |           | 1050   | ug/kg | 66.7    | 333     |
| 120-83-2   | 2,4-Dichlorophenol            |           | 966    | ug/kg | 66.7    | 333     |
| 65-85-0    | Benzoic acid                  |           | 1880   | ug/kg | 167     | 667     |
| 91-20-3    | Naphthalene                   |           | 1130   | ug/kg | 10.0    | 33.3    |
| 106-47-8   | 4-Chloroaniline               |           | 1080   | ug/kg | 66.7    | 333     |
| 87-68-3    | Hexachlorobutadiene           |           | 999    | ug/kg | 66.7    | 333     |
| 91-57-6    | 2-Methylnaphthalene           |           | 1110   | ug/kg | 6.67    | 33.3    |
| 77-47-4    | Hexachlorocyclopentadiene     |           | 675    | ug/kg | 66.7    | 333     |
| 88-06-2    | 2,4,6-Trichlorophenol         |           | 1160   | ug/kg | 66.7    | 333     |
| 95-95-4    | 2,4,5-Trichlorophenol         |           | 923    | ug/kg | 66.7    | 333     |
| 91-58-7    | 2-Chloronaphthalene           |           | 1060   | ug/kg | 11.0    | 33.3    |
| 88-74-4    | 2-Nitroaniline                |           | 983    | ug/kg | 66.7    | 333     |
|            | <i>o</i> -Nitroaniline        |           |        |       |         |         |
| 99-09-2    | 3-Nitroaniline                |           | 967    | ug/kg | 66.7    | 333     |

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-1914

Matrix: SOIL

Lab Sample ID: 1202050557

Client Sample: QC for batch 956255

Client: LANL010

Project: QC

Client ID: LCS for batch 956255

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Batch ID: 956285

Inst: MSD4.I

Dilution: 1

Run Date: 03/04/2010 17:06

Analyst: JMB3

Inj. Vol: .5 uL

Prep Date: 02/23/2010 10:34

Aliquot: 30 g

Final Volume: 1 mL

Data File: s4c0413-1.d

Column: J&amp;W DB-5MS

Level: LOW

| CAS No.   | Parmname                      | Qualifier | Result | Units | MDL/LOD | PQL/LOQ |
|-----------|-------------------------------|-----------|--------|-------|---------|---------|
|           | <i>m</i> -Nitroaniline        |           |        |       |         |         |
| 131-11-3  | Dimethylphthalate             |           | 1100   | ug/kg | 66.7    | 333     |
| 606-20-2  | 2,6-Dinitrotoluene            |           | 930    | ug/kg | 33.3    | 333     |
| 208-96-8  | Acenaphthylene                |           | 1140   | ug/kg | 10.0    | 33.3    |
| 51-28-5   | 2,4-Dinitrophenol             |           | 961    | ug/kg | 127     | 667     |
| 132-64-9  | Dibenzofuran                  |           | 1100   | ug/kg | 66.7    | 333     |
| 84-66-2   | Diethylphthalate              |           | 1170   | ug/kg | 66.7    | 333     |
| 86-73-7   | Fluorene                      |           | 1210   | ug/kg | 10.0    | 33.3    |
| 7005-72-3 | 4-Chlorophenylphenylether     |           | 1120   | ug/kg | 66.7    | 333     |
| 534-52-1  | 2-Methyl-4,6-dinitrophenol    |           | 917    | ug/kg | 66.7    | 333     |
| 100-01-6  | 4-Nitroaniline                |           | 1370   | ug/kg | 100     | 333     |
|           | <i>p</i> -Nitroaniline        |           |        |       |         |         |
| 122-39-4  | Diphenylamine                 |           | 1140   | ug/kg | 66.7    | 333     |
| 122-66-7  | Azobenzene                    |           | 1150   | ug/kg | 66.7    | 333     |
|           | <i>1,2</i> -Diphenylhydrazine |           |        |       |         |         |
| 101-55-3  | 4-Bromophenylphenylether      |           | 1030   | ug/kg | 66.7    | 333     |
| 118-74-1  | Hexachlorobenzene             |           | 1050   | ug/kg | 66.7    | 333     |
| 85-01-8   | Phenanthrene                  |           | 1140   | ug/kg | 10.0    | 33.3    |
| 120-12-7  | Anthracene                    |           | 1060   | ug/kg | 6.67    | 33.3    |
| 84-74-2   | Di-n-butylphthalate           |           | 1280   | ug/kg | 66.7    | 333     |
| 206-44-0  | Fluoranthene                  |           | 1080   | ug/kg | 10.0    | 33.3    |
| 85-68-7   | Butylbenzylphthalate          |           | 1210   | ug/kg | 66.7    | 333     |
| 56-55-3   | Benzo(a)anthracene            |           | 1020   | ug/kg | 10.0    | 33.3    |
| 91-94-1   | 3,3'-Dichlorobenzidine        |           | 888    | ug/kg | 100     | 333     |
| 218-01-9  | Chrysene                      |           | 1100   | ug/kg | 10.0    | 33.3    |
| 117-81-7  | bis(2-Ethylhexyl)phthalate    |           | 1140   | ug/kg | 66.7    | 333     |
| 117-84-0  | Di-n-octylphthalate           |           | 930    | ug/kg | 66.7    | 333     |
| 205-99-2  | Benzo(b)fluoranthene          |           | 1040   | ug/kg | 10.0    | 33.3    |
| 207-08-9  | Benzo(k)fluoranthene          |           | 987    | ug/kg | 10.0    | 33.3    |
| 50-32-8   | Benzo(a)pyrene                |           | 1050   | ug/kg | 10.0    | 33.3    |
| 193-39-5  | Indeno(1,2,3-cd)pyrene        |           | 1190   | ug/kg | 10.0    | 33.3    |
| 53-70-3   | Dibenzo(a,h)anthracene        |           | 1190   | ug/kg | 10.0    | 33.3    |
| 191-24-2  | Benzo(ghi)perylene            |           | 1110   | ug/kg | 10.0    | 33.3    |
| 120-82-1  | 1,2,4-Trichlorobenzene        |           | 1000   | ug/kg | 66.7    | 333     |

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Data file : /chem/MSD4.i/s030410a.b/s4c0413-2.d  
Lab Smp Id: 1202050557 Client Smp ID: SBLK01LCS  
Inj Date : 04-MAR-2010 17:06  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |1202050557|956285|1|SVM|1|LCS  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 5 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.00000  | weight of sample          |
| M    | 0.00000   | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT SIG | MASS | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |         |
|-----------------------------|-----------|------|--------|--------|---------|----------|----------------|---------|
|                             |           |      |        |        |         |          | ON-COLUMN      | FINAL   |
|                             |           |      |        |        |         |          | (ng/ul)        | (ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 |           | 152  | 3.823  | 3.829  | (1.000) | 145560   | 40.0000        |         |
| * 29 Naphthalene-d8         |           | 136  | 4.690  | 4.690  | (1.000) | 587408   | 40.0000        |         |
| * 46 Acenaphthene-d10       |           | 164  | 5.941  | 5.941  | (1.000) | 292795   | 40.0000        |         |
| * 67 Phenanthrene-d10       |           | 188  | 6.936  | 6.936  | (1.000) | 490864   | 40.0000        |         |
| * 91 Chrysene-d12           |           | 240  | 8.605  | 8.610  | (1.000) | 358428   | 40.0000        |         |
| * 98 Perylene-d12           |           | 264  | 10.060 | 10.070 | (1.000) | 281106   | 40.0000        |         |
| \$ 3 2-Fluorophenol         |           | 112  | 3.026  | 3.021  | (0.792) | 233818   | 69.0557        | 2300    |
| \$ 5 Phenol-d5              |           | 99   | 3.545  | 3.545  | (0.927) | 283629   | 67.1269        | 2240    |
| \$ 20 Nitrobenzene-d5       |           | 82   | 4.187  | 4.192  | (0.893) | 127224   | 30.3803        | 1010    |
| \$ 39 2-Fluorobiphenyl      |           | 172  | 5.433  | 5.433  | (0.914) | 242361   | 30.8234        | 1030    |
| \$ 60 2,4,6-Tribromophenol  |           | 329  | 6.481  | 6.481  | (1.091) | 61903    | 71.9280        | 2400    |
| \$ 81 p-Terphenyl-d14       |           | 244  | 7.861  | 7.861  | (0.914) | 217933   | 38.1152        | 1270    |

| Compounds                      | QUANT SIG |       |        |         |          | CONCENTRATIONS       |                  |
|--------------------------------|-----------|-------|--------|---------|----------|----------------------|------------------|
|                                | MASS      | RT    | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| =====                          | =====     | ==    | =====  | =====   | =====    | =====                | =====            |
| 6 Phenol                       | 94        | 3.550 | 3.556  | (0.929) | 153985   | 35.2129              | 1170             |
| 8 2-Chlorophenol               | 128       | 3.689 | 3.695  | (0.965) | 115137   | 30.6542              | 1020             |
| 11 1,4-Dichlorobenzene         | 146       | 3.834 | 3.839  | (1.003) | 134544   | 29.8649              | 995              |
| 17 N-Nitrosodipropylamine      | 70        | 4.064 | 4.069  | (1.063) | 106248   | 37.7490              | 1260 (Q)         |
| 28 1,2,4-Trichlorobenzene      | 180       | 4.636 | 4.641  | (0.989) | 103021   | 30.0458              | 1000             |
| 33 4-Chloro-3-methylphenol     | 107       | 5.043 | 5.037  | (1.075) | 77985    | 28.2073              | 940              |
| 47 Acenaphthene                | 154       | 5.963 | 5.968  | (1.004) | 227829   | 33.2041              | 1110             |
| 50 2,4-Dinitrotoluene          | 165       | 6.053 | 6.054  | (1.019) | 60833    | 29.4663              | 982              |
| 52 4-Nitrophenol               | 139       | 5.995 | 5.989  | (1.009) | 17057    | 21.1710              | 706              |
| 65 Pentachlorophenol           | 266       | 6.808 | 6.802  | (0.981) | 22597    | 27.7602              | 925              |
| 79 Pyrene                      | 202       | 7.808 | 7.813  | (0.907) | 321050   | 33.4270              | 1110             |
| 2 Pyridine                     | 79        | 2.422 | 2.384  | (0.633) | 75462    | 23.2217              | 774              |
| 4 Aniline                      | 66        | 3.609 | 3.615  | (0.944) | 56996    | 30.9311              | 1030             |
| 7 bis(2-Chloroethyl) ether     | 63        | 3.625 | 3.631  | (0.948) | 92727    | 31.7206              | 1060             |
| 9 1,3-Dichlorobenzene          | 146       | 3.786 | 3.791  | (0.990) | 117667   | 27.7814              | 926              |
| 12 Benzyl alcohol              | 108       | 3.893 | 3.898  | (1.018) | 33018    | 15.9910              | 533              |
| 13 1,2-Dichlorobenzene         | 146       | 3.935 | 3.941  | (1.029) | 122717   | 30.3319              | 1010             |
| 14 bis(2-Chloroisopropyl)ether | 45        | 3.968 | 3.973  | (1.038) | 157676   | 31.8267              | 1060 (Q)         |
| 15 o-Cresol                    | 107       | 3.946 | 3.946  | (1.032) | 106326   | 35.1860              | 1170             |
| 18 m,p-Cresols                 | 107       | 4.048 | 4.053  | (1.059) | 140773   | 38.7959              | 1290             |
| 19 Hexachloroethane            | 117       | 4.160 | 4.165  | (1.088) | 46380    | 27.7419              | 925              |
| 21 Nitrobenzene                | 77        | 4.198 | 4.203  | (0.895) | 126942   | 31.8298              | 1060             |
| 22 Isophorone                  | 82        | 4.353 | 4.358  | (0.928) | 231392   | 31.6183              | 1050             |
| 23 2-Nitrophenol               | 139       | 4.411 | 4.417  | (0.941) | 61391    | 30.8306              | 1030             |
| 24 2,4-Dimethylphenol          | 122       | 4.411 | 4.412  | (0.941) | 113784   | 34.3075              | 1140             |
| 25 bis(2-Chloroethoxy)methane  | 93        | 4.476 | 4.481  | (0.954) | 137210   | 31.5071              | 1050             |
| 26 2,4-Dichlorophenol          | 162       | 4.577 | 4.577  | (0.976) | 82509    | 28.9740              | 966              |
| 27 Benzoic acid                | 105       | 4.486 | 4.476  | (0.957) | 116980   | 56.3306              | 1880             |
| 30 Naphthalene                 | 128       | 4.706 | 4.706  | (1.003) | 396454   | 33.9825              | 1130             |
| 31 4-Chloroaniline             | 127       | 4.727 | 4.727  | (1.008) | 174902   | 32.5357              | 1080             |
| 32 Hexachlorobutadiene         | 225       | 4.764 | 4.770  | (1.016) | 58845    | 29.9628              | 999              |
| 34 2-Methylnaphthalene         | 142       | 5.187 | 5.187  | (1.106) | 239100   | 33.3984              | 1110             |
| 36 Hexachlorocyclopentadiene   | 237       | 5.289 | 5.289  | (0.890) | 20690    | 20.2431              | 675              |
| 37 2,4,6-Trichlorophenol       | 196       | 5.380 | 5.380  | (0.905) | 72055    | 34.7057              | 1160             |
| 38 2,4,5-Trichlorophenol       | 196       | 5.406 | 5.406  | (0.910) | 60208    | 27.6806              | 923              |
| 40 2-Chloronaphthalene         | 162       | 5.540 | 5.540  | (0.932) | 209821   | 31.7111              | 1060             |
| 42 o-Nitroaniline              | 65        | 5.599 | 5.604  | (0.942) | 55080    | 29.5042              | 983              |
| 41 m-Nitroaniline              | 138       | 5.893 | 5.898  | (0.992) | 43076    | 29.0196              | 967              |
| 43 Dimethylphthalate           | 163       | 5.706 | 5.711  | (0.960) | 248168   | 32.9646              | 1100             |
| 44 2,6-Dinitrotoluene          | 165       | 5.765 | 5.770  | (0.970) | 48178    | 27.9046              | 930              |
| 45 Acenaphthylene              | 152       | 5.845 | 5.845  | (0.984) | 351447   | 34.3366              | 1140             |
| 48 2,4-Dinitrophenol           | 184       | 5.968 | 5.968  | (1.004) | 14897    | 28.8193              | 961 (Q)          |
| 49 Dibenzofuran                | 168       | 6.080 | 6.086  | (1.023) | 297734   | 33.0250              | 1100             |
| 51 Diethylphthalate            | 149       | 6.198 | 6.198  | (1.043) | 256272   | 34.9886              | 1170             |
| 53 Fluorene                    | 166       | 6.316 | 6.321  | (1.063) | 275410   | 36.2206              | 1210             |
| 54 4-Chlorophenylphenylether   | 204       | 6.300 | 6.300  | (1.060) | 122916   | 33.6614              | 1120             |
| 55 2-Methyl-4,6-dinitrophenol  | 198       | 6.337 | 6.337  | (0.914) | 27405    | 27.5021              | 917              |

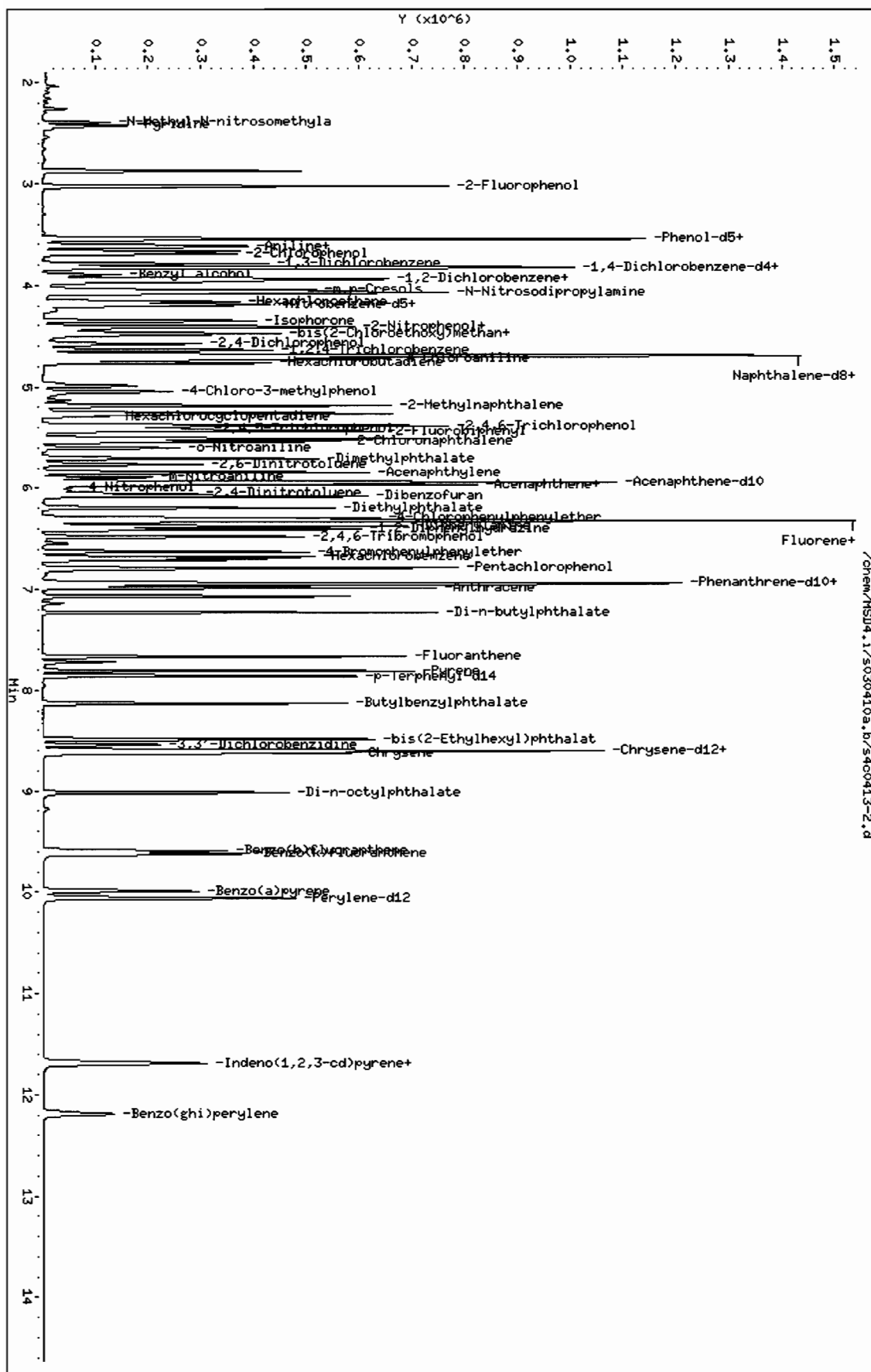
| Compounds                       | QUANT SIG | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |         |
|---------------------------------|-----------|--------|--------|---------|----------|----------------|---------|
|                                 |           |        |        |         |          | ON-COLUMN      | FINAL   |
|                                 | MASS      |        |        |         |          | (ng/ul)        | (ug/Kg) |
| =====                           | =====     | ==     | =====  | =====   | =====    | =====          | =====   |
| 56 p-Nitroaniline               | 138       | 6.321  | 6.321  | (1.064) | 59815    | 41.0111        | 1370    |
| 133 Diphenylamine               | 169       | 6.380  | 6.380  | (0.920) | 217871   | 34.2567        | 1140    |
| 58 1,2-Diphenylhydrazine        | 77        | 6.407  | 6.407  | (0.924) | 278812   | 34.6403        | 1150    |
| 61 4-Bromophenylphenylether     | 248       | 6.626  | 6.626  | (0.955) | 66838    | 30.9680        | 1030    |
| 63 Hexachlorobenzene            | 284       | 6.679  | 6.685  | (0.963) | 72221    | 31.6273        | 1050    |
| 68 Phenanthrene                 | 178       | 6.952  | 6.952  | (1.002) | 373581   | 34.2789        | 1140    |
| 69 Anthracene                   | 178       | 6.984  | 6.984  | (1.007) | 334298   | 31.8691        | 1060    |
| 72 Di-n-butylphthalate          | 149       | 7.230  | 7.230  | (1.042) | 438584   | 38.2804        | 1280    |
| 76 Fluoranthene                 | 202       | 7.669  | 7.669  | (1.106) | 314405   | 32.2697        | 1080    |
| 85 Butylbenzylphthalate         | 149       | 8.129  | 8.129  | (0.945) | 157088   | 36.3331        | 1210    |
| 89 Benzo(a)anthracene           | 228       | 8.594  | 8.600  | (0.999) | 252619   | 30.6924        | 1020    |
| 90 3,3'-Dichlorobenzidine       | 252       | 8.541  | 8.546  | (0.993) | 59163    | 26.6345        | 888     |
| 92 Chrysene                     | 228       | 8.626  | 8.632  | (1.002) | 257126   | 32.9455        | 1100    |
| 93 bis(2-Ethylhexyl)phthalate   | 149       | 8.487  | 8.493  | (0.986) | 211700   | 34.2805        | 1140    |
| 94 Di-n-octylphthalate          | 149       | 9.017  | 9.022  | (0.896) | 296568   | 27.8921        | 930     |
| 95 Benzo(b)fluoranthene         | 252       | 9.594  | 9.600  | (0.954) | 223720   | 31.2932        | 1040    |
| 96 Benzo(k)fluoranthene         | 252       | 9.621  | 9.632  | (0.956) | 220124   | 29.6005        | 987     |
| 97 Benzo(a)pyrene               | 252       | 9.990  | 10.001 | (0.993) | 179346   | 31.5672        | 1050    |
| 99 Indeno(1,2,3-cd)pyrene       | 276       | 11.686 | 11.702 | (1.162) | 166996   | 35.7253        | 1190    |
| 100 Dibenzo(a,h)anthracene      | 278       | 11.691 | 11.707 | (1.162) | 139163   | 35.7980        | 1190    |
| 101 Benzo(ghi)perylene          | 276       | 12.188 | 12.204 | (1.212) | 126094   | 33.4394        | 1110    |
| 1 N-Methyl-N-nitrosomethylamine | 74        | 2.390  | 2.352  | (0.625) | 58556    | 24.7873        | 826     |

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD4.i/s030410a.b/s4c0413-2.d  
 Date : 04-MAR-2010 17:06  
 Client ID: SRLK01LCS  
 Sample Info: 1202050557195628511SVN11LCS  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: HSD4.i  
 Operator: JMB3  
 Column diameter: 0.20



# Miscellaneous Data



# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 956255      Verified by: \_\_\_\_\_  
 Analyst: Robin Hunt  
 Method: SW846 3550B      Lab SOP: GL-OA-E-010 REV# 18  
 Instrument: Semi-Volatiles Manual

| Sample ID                  | Run Date             | Aliquot (g) | Prepped Aliquot (mL) | Prepped Factor (mL/g) |
|----------------------------|----------------------|-------------|----------------------|-----------------------|
| 1202050556 MB              | 23-FEB-2010 10:34:00 | 30          | 1                    | 0.03333               |
| 1202050557 LCS             | 23-FEB-2010 10:34:00 | 30          | 1                    | 0.03333               |
| 247332002                  | 23-FEB-2010 10:34:00 | 30.07       | 1                    | 0.03326               |
| 247332003                  | 23-FEB-2010 10:34:00 | 30.01       | 1                    | 0.03332               |
| 247332004                  | 23-FEB-2010 10:34:00 | 30          | 1                    | 0.03333               |
| 247332005                  | 23-FEB-2010 10:34:00 | 30.01       | 1                    | 0.03332               |
| 247332006                  | 23-FEB-2010 10:34:00 | 30.03       | 1                    | 0.0333                |
| 247332007                  | 23-FEB-2010 10:34:00 | 30.03       | 1                    | 0.0333                |
| 247332008                  | 23-FEB-2010 10:34:00 | 30          | 1                    | 0.03333               |
| 247358001                  | 23-FEB-2010 10:34:00 | 30          | 1                    | 0.03333               |
| 247358002                  | 23-FEB-2010 10:34:00 | 30.03       | 1                    | 0.0333                |
| 247358003                  | 23-FEB-2010 10:34:00 | 30.03       | 1                    | 0.0333                |
| 247358004                  | 23-FEB-2010 10:34:00 | 30.02       | 1                    | 0.03331               |
| 247556001                  | 23-FEB-2010 10:34:00 | 30          | 1                    | 0.03333               |
| 1202050558 MS (247556001)  | 23-FEB-2010 10:34:00 | 30          | 1                    | 0.03333               |
| 1202050559 MSD (247556001) | 23-FEB-2010 10:34:00 | 30.03       | 1                    | 0.0333                |
| 247556002                  | 23-FEB-2010 10:34:00 | 30          | 1                    | 0.03333               |
| 247556003                  | 23-FEB-2010 10:34:00 | 30.04       | 1                    | 0.03329               |
| 247556004                  | 23-FEB-2010 10:34:00 | 30.01       | 1                    | 0.03332               |
| 247556005                  | 23-FEB-2010 10:34:00 | 30.01       | 1                    | 0.03332               |

| Type  | Sample Id  | Description                 | Serial Number | Spike Amt | Units | Comments:             |
|-------|------------|-----------------------------|---------------|-----------|-------|-----------------------|
| LCS   | 1202050557 | BNA LCS w/o Benzidine 50ppm | UEI00204-14   | 1         | mL    | Verified By: JAM      |
| LCS   | 1202050557 | BENZIDINE LCS               | UEI00217-22   | 1         | mL    | Final Solvent: CH2Cl2 |
| MS    | 1202050558 | BNA LCS w/o Benzidine 50ppm | UEI00204-14   | 1         | mL    |                       |
| MS    | 1202050558 | BENZIDINE LCS               | UEI00217-22   | 1         | mL    |                       |
| MSD   | 1202050559 | BNA LCS w/o Benzidine 50ppm | UEI00204-14   | 1         | mL    |                       |
| MSD   | 1202050559 | BENZIDINE LCS               | UEI00217-22   | 1         | mL    |                       |
| SURR  | All        | BNA for all Surrogate       | UEI00212-10   | 1         | mL    |                       |
| REGNT | All        | Acetone                     | 100211-BI     | 150       | mL    |                       |
| REGNT | All        | Methylene Chloride          | 1269262-D     | 150       | mL    |                       |
| SOURC | All        | SODIUM SULFATE              | 1269268       | 30        | g     |                       |

## GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD4

DATE: 03/04/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1239699-D  
Multiplier Voltage: 1212 Emv Extr. Injection Volume: 0.5, 1.0 ul  
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01  
CALIBRATION & QC INFORMATION:  
Initial Calibration Dates: See Calibration History and Standard Logbook.  
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD4.i/s030410a.b

| Data File    | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch  | SDG      | Dilution | Client  | Comments   |
|--------------|-------------------|---------|---------------------|--------|----------|----------|---------|--|
| Is4c0409.d   | WBN100207-01      | JMB3    | 04-MAR-2010 15:36   | DFTPP  | s030410  | 1.0      | DFTPP   | 8270c TUNE: PASSES                                 |
| Is4c0410.d   | WBN100225-05.4    | JMB3    | 04-MAR-2010 15:49   | ICVS   | s030410a | 1.0      | MEGACVS | 8270c MEGA CVS (IS1: 148556)                       |
| Is4c0411.d   | WBN100218-03.5    | JMB3    | 04-MAR-2010 16:21   | ICVS   | s030410a | 1.0      | APCVS   | 8270c AP CVS                                       |
| Is4c0412-1.d | 1202050556        | JMB3    | 04-MAR-2010 16:43   | 956285 | 10-1905  | 1.0      | MB      |  |
| Is4c0412-2.d | 1202050556        | JMB3    | 04-MAR-2010 16:43   | 956285 | 10-1914  | 1.0      | MB      |  |
| Is4c0412.d   | 1202050556        | JMB3    | 04-MAR-2010 16:43   | 956285 | 10-1953  | 1.0      | MB      |  |
| Is4c0413-1.d | 1202050557        | JMB3    | 04-MAR-2010 17:06   | 956285 | 10-1905  | 1.0      | LCS     |  |
| Is4c0413-2.d | 1202050557        | JMB3    | 04-MAR-2010 17:06   | 956285 | 10-1914  | 1.0      | LCS     |  |
| Is4c0413.d   | 1202050557        | JMB3    | 04-MAR-2010 17:06   | 956285 | 10-1953  | 1.0      | LCS     |  |
| Is4c0414.d   | 247332002         | JMB3    | 04-MAR-2010 17:28   | 956285 | 10-1905  | 1.0      | LANL    |  |
| Is4c0415.d   | 247332003         | JMB3    | 04-MAR-2010 17:50   | 956285 | 10-1905  | 1.0      | LANL    |  |
| Is4c0416.d   | 247332004         | JMB3    | 04-MAR-2010 18:12   | 956285 | 10-1905  | 1.0      | LANL    |  |
| Is4c0417.d   | 247332005         | JMB3    | 04-MAR-2010 18:35   | 956285 | 10-1905  | 1.0      | LANL    | REPORT: fails surr - rx s7c0813 passes out of hold |
| Is4c0418.d   | 247332006         | JMB3    | 04-MAR-2010 18:57   | 956285 | 10-1905  | 1.0      | LANL    |  |
| Is4c0419.d   | 247332007         | JMB3    | 04-MAR-2010 19:19   | 956285 | 10-1905  | 1.0      | LANL    |  |
| Is4c0420.d   | 247332008         | JMB3    | 04-MAR-2010 19:42   | 956285 | 10-1905  | 1.0      | LANL    |  |
| Is4c0421.d   | 248077001         | JMB3    | 04-MAR-2010 20:04   | 958143 | 1248077  | 1.0      | SUBR    |  |
| Is4c0422.d   | 1202054710        | JMB3    | 04-MAR-2010 20:26   | 958143 | 1248077  | 1.0      | MS      |  |
| Is4c0423.d   | 1202054711        | JMB3    | 04-MAR-2010 20:48   | 958143 | 1248077  | 1.0      | MSD     |  |

|           |            |      |                    |         |          |              |   |
|-----------|------------|------|--------------------|---------|----------|--------------|---|
| s4c0424.d | 1248077002 | JMB3 | 104-MAR-2010 21:10 | 1958143 | 1248077  | 1.0 SUBR     |   |
| s4c0425.d | 1248077003 | JMB3 | 104-MAR-2010 21:32 | 1958143 | 1248077  | 1.0 SUBR     |   |
| s4c0426.d | 1248077004 | JMB3 | 104-MAR-2010 21:54 | 1958143 | 1248077  | 1.0 SUBR     |   |
| s4c0427.d | 1248077005 | JMB3 | 104-MAR-2010 22:16 | 1958143 | 1248077  | 1.0 SUBR     |   |
| s4c0428.d | 1248077006 | JMB3 | 104-MAR-2010 22:38 | 1958143 | 1248077  | 1.0 SUBR     |   |
| s4c0429.d | 1248077007 | JMB3 | 104-MAR-2010 23:01 | 1958143 | 1248077  | 1.0 SUBR     |   |
| s4c0430.d | 1247358001 | JMB3 | 104-MAR-2010 23:23 | 1956285 | 110-1914 | 1.0 LANL     | REPORT: fails ISTD - rerun s4c0530 confirms failure |
| s4c0431.d | 1247358002 | JMB3 | 104-MAR-2010 23:45 | 1956285 | 110-1914 | 1.0 LANL     |   |
| s4c0432.d | 1247358003 | JMB3 | 105-MAR-2010 00:07 | 1956285 | 110-1914 | 1.0 LANL     |   |
| s4c0433.d | 1247358004 | JMB3 | 105-MAR-2010 00:29 | 1956285 | 110-1914 | 1.0 LANL     |   |
| s4c0434.d | 1247556001 | JMB3 | 105-MAR-2010 00:51 | 1956285 | 110-1953 | 1.0 LANL     |   |
| s4c0435.d | 1202050558 | JMB3 | 105-MAR-2010 01:17 | 1956285 | 110-1953 | 1.0 MS_LANL  |   |
| s4c0436.d | 1202050559 | JMB3 | 105-MAR-2010 01:39 | 1956285 | 110-1953 | 1.0 MSD_LANL |   |
| s4c0437.d | 1247556002 | JMB3 | 105-MAR-2010 02:01 | 1956285 | 110-1953 | 1.0 LANL     |   |
| s4c0438.d | 1247556004 | JMB3 | 105-MAR-2010 02:23 | 1956285 | 110-1953 | 1.0 LANL     |   |
| s4c0439.d | 1247556005 | JMB3 | 105-MAR-2010 02:45 | 1956285 | 110-1953 | 1.0 LANL     | DUSE: fails ISTD - see rerun s4c0441                |
| s4c0440.d | 1247556003 | JMB3 | 105-MAR-2010 03:06 | 1956285 | 110-1953 | 1.0 LANL     | REPORT: fails ISTD - rerun s4c0442 confirms         |
| s4c0441.d | 1247556005 | JMB3 | 105-MAR-2010 03:28 | 1956285 | 110-1953 | 1.0 LANL     |   |
| s4c0442.d | 1247556003 | JMB3 | 105-MAR-2010 03:50 | 1956285 | 110-1953 | 1.0 LANL     | DUSE: rerun of s4c0440 - fails ISTD - CONFIRMATION  |

Instrument Batch: /chem/MSD4.1/s030410a.b

# GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD4

DATE: 02/24/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY: \_\_\_\_\_  
 HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1239699-D  
 Multiplier Voltage: 1212 Emv Extr. Injection Volume: 0.5, 1.0 ul  
 DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01  
 CALIBRATION & QC INFORMATION:  
 Initial Calibration Dates: See Calibration History and Standard Logbook.  
 Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD4.i/s022410a.b

| Data File    | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG       | Dilution | Client  | Comments         |
|--------------|-------------------|---------|---------------------|-------|-----------|----------|---------|------------------|
| ls4b2410.d   | WBN100207-01      | JMB3    | 124-FEB-2010 17:04  | DFTPP | is022410  | 1.0      | DFTPP   | DUSE             |
| ls4b2411.d   | WBN100215-05.2    | JMB3    | 124-FEB-2010 17:17  | ICVS  | is022410a | 1.0      | MEGACVS | DUSE             |
| ls4b2412.d   | WBN100218-05.3    | JMB3    | 124-FEB-2010 17:43  | ICVS  | is022410a | 1.0      | APCVS   | DUSE             |
| ls4b2413.d   | WBN100207-01      | JMB3    | 124-FEB-2010 18:05  | DFTPP | is022410a | 1.0      | DFTPP   | DUSE             |
| ls4b2414.d   | WBN100215-05.2    | JMB3    | 124-FEB-2010 18:17  | ICVS  | is022410a | 1.0      | MEGACVS | DUSE             |
| ls4b2415.d   | WBN100207-01      | JMB3    | 124-FEB-2010 18:41  | DFTPP | is022410a | 1.0      | DFTPP   | DUSE             |
| ls4b2416.d   | WBN100215-05.2    | JMB3    | 124-FEB-2010 18:54  | ICVS  | is022410a | 1.0      | MEGACVS | DUSE             |
| ls4b2417.d   | WBN100215-05.2    | JMB3    | 124-FEB-2010 19:22  | ICVS  | is022410a | 1.0      | MEGACVS | DUSE             |
| ls4b2418-D.d | WBN100207-01      | JMB3    | 124-FEB-2010 20:29  | DFTPP | is022410a | 1.0      | DFTPP   | 8270d TUNE: PEST |
| ls4b2418.d   | WBN100207-01      | JMB3    | 124-FEB-2010 20:29  | DFTPP | is022410a | 1.0      | DFTPP   | 8270c TUNE: PEST |
| ls4b2419.d   | WBN100215-05.2    | JMB3    | 124-FEB-2010 20:40  | ICVS  | is022410a | 1.0      | MEGACVS | DUSE             |
| ls4b2420.d   | WBN100218-05.3    | JMB3    | 124-FEB-2010 21:01  | ICVS  | is022410a | 1.0      | APCVS   | DUSE             |
| ls4b2421.d   | WBN100215-08      | JMB3    | 124-FEB-2010 21:23  | ICAL  | is022410a | 1.0      | MEG001  | DUSE             |
| ls4b2422.d   | WBN100215-07      | JMB3    | 124-FEB-2010 21:50  | ICAL  | is022410a | 1.0      | MEG010  | DUSE             |
| ls4b2423.d   | WBN100215-06      | JMB3    | 124-FEB-2010 22:17  | ICAL  | is022410a | 1.0      | MEG020  | DUSE             |
| ls4b2424.d   | WBN100215-05.1    | JMB3    | 124-FEB-2010 22:44  | ICAL  | is022410a | 1.0      | MEG040  | DUSE             |
| ls4b2425.d   | WBN100215-04      | JMB3    | 124-FEB-2010 23:10  | ICAL  | is022410a | 1.0      | MEG050  | DUSE             |
| ls4b2426.d   | WBN100215-03      | JMB3    | 124-FEB-2010 23:37  | ICAL  | is022410a | 1.0      | MEG080  | DUSE             |
| ls4b2427.d   | WBN100215-02      | JMB3    | 125-FEB-2010 00:04  | ICAL  | is022410a | 1.0      | MEG100  | DUSE             |

|             |                |      |                   |       |          |               |                       |  |
|-------------|----------------|------|-------------------|-------|----------|---------------|-----------------------|--|
| s4b2428.d   | WBN100215-01   | JMB3 | 25-FEB-2010 00:30 | ICAL  | s022410a | 1.0 MEG120    | DUSE                  |  |
| s4b2429.d   | WBN100218-01   | JMB3 | 25-FEB-2010 00:57 | ICAL  | s022410a | 1.0 AP010     | DUSE                  |  |
| s4b2430.d   | WBN100218-02   | JMB3 | 25-FEB-2010 01:19 | ICAL  | s022410a | 1.0 AP020     | DUSE                  |  |
| s4b2431.d   | WBN100218-03.1 | JMB3 | 25-FEB-2010 01:41 | ICAL  | s022410a | 1.0 AP040     | DUSE                  |  |
| s4b2432.d   | WBN100218-04   | JMB3 | 25-FEB-2010 02:02 | ICAL  | s022410a | 1.0 AP050     | DUSE                  |  |
| s4b2433.d   | WBN100218-05   | JMB3 | 25-FEB-2010 02:24 | ICAL  | s022410a | 1.0 AP080     | DUSE                  |  |
| s4b2434.d   | WBN100218-06   | JMB3 | 25-FEB-2010 02:46 | ICAL  | s022410a | 1.0 AP0100    | DUSE                  |  |
| s4b2435.d   | WBN100218-07   | JMB3 | 25-FEB-2010 03:07 | ICAL  | s022410a | 1.0 AP120     | DUSE                  |  |
| s4b2436.d   | WBN100205-25   | JMB3 | 25-FEB-2010 03:29 | ICAL  | s022410a | 1.0 PEST010   |                       |  |
| s4b2437.d   | WBN100205-24   | JMB3 | 25-FEB-2010 03:51 | ICAL  | s022410a | 1.0 PEST020   |                       |  |
| s4b2438.d   | WBN100205-23.1 | JMB3 | 25-FEB-2010 04:13 | ICAL  | s022410a | 1.0 PEST040   |                       |  |
| s4b2439.d   | WBN100205-22   | JMB3 | 25-FEB-2010 04:34 | ICAL  | s022410a | 1.0 PEST050   |                       |  |
| s4b2440.d   | WBN100205-21   | JMB3 | 25-FEB-2010 04:56 | ICAL  | s022410a | 1.0 PEST080   |                       |  |
| s4b2441.d   | WBN100205-20   | JMB3 | 25-FEB-2010 05:18 | ICAL  | s022410a | 1.0 PEST100   |                       |  |
| s4b2442.d   | WBN100205-19   | JMB3 | 25-FEB-2010 05:39 | ICAL  | s022410a | 1.0 PEST120   |                       |  |
| s4b2443.d   | WBN100215-09.1 | JMB3 | 25-FEB-2010 06:01 | ICV   | s022410a | 1.0 MEGA1CV   | DUSE                  |  |
| s4b2444.d   | WBN100218-08.1 | JMB3 | 25-FEB-2010 06:28 | ICV   | s022410a | 1.0 AP1CV     | DUSE                  |  |
| s4b2445-D.d | WBN100205-25.1 | JMB3 | 25-FEB-2010 06:49 | ICV   | s022410a | 1.0 PEST1CV   | 8270d PEST ICV        |  |
| s4b2445.d   | WBN100205-25.1 | JMB3 | 25-FEB-2010 06:49 | ICV   | s022410a | 1.0 PEST1CV   | 8270c PEST ICV        |  |
| s4b2446-D.d | WBN100207-01   | JMB3 | 25-FEB-2010 09:00 | DFTPP | s022410a | 1.0 DFTPP     | 8270d TUNE: MEGA - AP |  |
| s4b2446.d   | WBN100207-01   | JMB3 | 25-FEB-2010 09:00 | DFTPP | s022410a | 1.0 DFTPP     | 8270c TUNE: MEGA - AP |  |
| s4b2447.d   | INSTBLANK      | JMB3 | 25-FEB-2010 09:12 | IB    | s022410a | 1.0 INSTBLANK |                       |  |
| s4b2448.d   | WBN100215-08   | JMB3 | 25-FEB-2010 09:39 | ICAL  | s022410a | 1.0 MEG001    |                       |  |
| s4b2449-D.d | WBN100215-07   | JMB3 | 25-FEB-2010 10:06 | ICAL  | s022410a | 1.0 MEG010    | 8270d                 |  |
| s4b2449.d   | WBN100215-07   | JMB3 | 25-FEB-2010 10:06 | ICAL  | s022410a | 1.0 MEG010    |                       |  |
| s4b2450-D.d | WBN100215-06   | JMB3 | 25-FEB-2010 10:32 | ICAL  | s022410a | 1.0 MEG020    | 8270d                 |  |
| s4b2450.d   | WBN100215-06   | JMB3 | 25-FEB-2010 10:32 | ICAL  | s022410a | 1.0 MEG020    |                       |  |

|             |                |      |                   |      |          |  |             |                |   |
|-------------|----------------|------|-------------------|------|----------|--|-------------|----------------|---|
| s4b2451.d   | WBN100215-05.1 | JMB3 | 25-FEB-2010 10:59 | ICAL | s022410a |  | 1.0 MEG040  |                | + |
| s4b2452.d   | WBN100215-04   | JMB3 | 25-FEB-2010 11:26 | ICAL | s022410a |  | 1.0 MEG050  |                | + |
| s4b2453.d   | WBN100215-03   | JMB3 | 25-FEB-2010 11:52 | ICAL | s022410a |  | 1.0 MEG080  |                | + |
| s4b2454.d   | WBN100215-02   | JMB3 | 25-FEB-2010 12:19 | ICAL | s022410a |  | 1.0 MEGA100 |                | + |
| s4b2455.d   | WBN100215-01   | JMB3 | 25-FEB-2010 12:46 | ICAL | s022410a |  | 1.0 MEGA120 |                | + |
| s4b2456.d   | WBN100218-01   | JMB3 | 25-FEB-2010 13:38 | ICAL | s022410a |  | 1.0 AP010   |                | + |
| s4b2457.d   | WBN100218-02   | JMB3 | 25-FEB-2010 14:00 | ICAL | s022410a |  | 1.0 AP020   |                | + |
| s4b2458.d   | WBN100218-03.1 | JMB3 | 25-FEB-2010 14:21 | ICAL | s022410a |  | 1.0 AP040   |                | + |
| s4b2459.d   | WBN100218-04   | JMB3 | 25-FEB-2010 14:43 | ICAL | s022410a |  | 1.0 AP050   |                | + |
| s4b2460.d   | WBN100218-05   | JMB3 | 25-FEB-2010 15:05 | ICAL | s022410a |  | 1.0 AP080   |                | + |
| s4b2461.d   | WBN100218-06   | JMB3 | 25-FEB-2010 15:27 | ICAL | s022410a |  | 1.0 AP0100  |                | + |
| s4b2462.d   | WBN100218-07   | JMB3 | 25-FEB-2010 15:48 | ICAL | s022410a |  | 1.0 AP120   |                | + |
| s4b2463-D.d | WBN100215-09.1 | JMB3 | 25-FEB-2010 16:10 | ICV  | s022410a |  | 1.0 MEGAICV | 8270d MEGA ICV | + |
| s4b2463.d   | WBN100215-09.1 | JMB3 | 25-FEB-2010 16:10 | ICV  | s022410a |  | 1.0 MEGAICV | 8270c MEGA ICV | + |
| s4b2464.d   | WBN100218-08.1 | JMB3 | 25-FEB-2010 16:37 | ICV  | s022410a |  | 1.0 APICV   | DOSE           | + |
| s4b2465-D.d | WBN100218-08.1 | JMB3 | 25-FEB-2010 17:05 | ICV  | s022410a |  | 1.0 APICV   | 8270d AP ICV   | + |
| s4b2465.d   | WBN100218-08.1 | JMB3 | 25-FEB-2010 17:05 | ICV  | s022410a |  | 1.0 APICV   | 8270c AP ICV   | + |

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Data file : /chem/MSD4.i/s030510.b/s4c0530.d  
Lab Smp Id: 247358001 Client Smp ID: RE36-10-7427  
Inj Date : 05-MAR-2010 21:23  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |247358001|956285|1|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030510.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 14:54 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 28  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.00000  | weight of sample          |
| M    | 36.44900  | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT SIG<br>MASS | RT    | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS       |                  |
|-----------------------------|-------------------|-------|--------|---------|----------|----------------------|------------------|
|                             |                   |       |        |         |          | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 | 152               | 3.764 | 3.764  | (1.000) | 158982   | 40.0000              |                  |
| * 29 Naphthalene-d8         | 136               | 4.625 | 4.625  | (1.000) | 622907   | 40.0000              |                  |
| * 46 Acenaphthene-d10       | 164               | 5.877 | 5.877  | (1.000) | 378473   | 40.0000              |                  |
| * 67 Phenanthrene-d10       | 188               | 6.877 | 6.877  | (1.000) | 645747   | 40.0000              |                  |
| * 91 Chrysene-d12           | 240               | 8.546 | 8.541  | (1.000) | 410952   | 40.0000              |                  |
| * 98 Perylene-d12           | 264               | 9.963 | 9.958  | (1.000) | 166412   | 40.0000              |                  |
| \$ 3 2-Fluorophenol         | 112               | 2.967 | 2.962  | (0.788) | 225969   | 61.1033              | 3200             |
| \$ 5 Phenol-d5              | 99                | 3.497 | 3.486  | (0.929) | 273544   | 59.2744              | 3110             |
| \$ 20 Nitrobenzene-d5       | 82                | 4.122 | 4.128  | (0.891) | 128647   | 28.9694              | 1520             |
| \$ 39 2-Fluorobiphenyl      | 172               | 5.369 | 5.369  | (0.914) | 278480   | 27.3993              | 1440             |
| \$ 60 2,4,6-Tribromophenol  | 329               | 6.422 | 6.423  | (1.093) | 76233    | 68.5265              | 3590             |
| \$ 81 p-Terphenyl-d14       | 244               | 7.808 | 7.808  | (0.914) | 258788   | 39.4757              | 2070             |

| Compounds       | QUANT SIG | MASS | RT    | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |          |
|-----------------|-----------|------|-------|--------|---------|----------|----------------|----------|
|                 |           |      |       |        |         |          | ON-COLUMN      | FINAL    |
|                 |           |      |       |        |         |          | (ng/ul)        | (ug/Kg)  |
| 68 Phenanthrene |           | 178  | 6.893 | 6.893  | (1.002) | 4708     | 0.32838        | 17.2 (a) |
| 76 Fluoranthene |           | 202  | 7.615 | 7.615  | (1.107) | 7091     | 0.55324        | 29.0 (a) |

#### QC Flag Legend

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



## ION RATIO REPORT

## SV REPORT

Data file: s4c0530.d

Report Date: 03/08/2010 07:44

Lab. ID: 247358001

SampleType: SAMPLE

Injection Date: 05-MAR-2010 21:23

Operator: JMB3

Instrument: MSD4.i

Sample Info: |247358001|956285|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100227-01|

Comment:

Method used: /chem/MSD4.i/s030510.b/MSD4-M8270C-AQA-022810.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-1914

Sample Matrix: SOIL

| MASS                            | RESPONSE | RT   | EXPECT RT | TARGET RANGE   | RATIO | QUAL |
|---------------------------------|----------|------|-----------|----------------|-------|------|
| =====                           |          |      |           |                |       |      |
| 1 N-Methyl-N-nitrosomethylamine |          |      |           | CAS#: 62-75-9  |       |      |
| 74                              | 7765     | 2.04 | 2.29      | 80-120         | 100   | (T)  |
| 42                              | 1954     | 2.05 | 2.29      | 45-105         | 25    | (QT) |
| 43                              | 16188    | 2.05 | 2.29      | 2- 62          | 208   | (QT) |
| -----                           |          |      |           |                |       |      |
| 4 Aniline                       |          |      |           | CAS#: 62-53-3  |       |      |
| 66                              | 13929    | 3.50 | 3.55      | 80-120         | 100   | ( )  |
| 93                              | 28191    | 3.53 | 3.55      | 458-518        | 202   | (Q)  |
| -----                           |          |      |           |                |       |      |
| 17 N-Nitrosodipropylamine       |          |      |           | CAS#: 621-64-7 |       |      |
| 70                              | 18822    | 4.12 | 4.00      | 80-120         | 100   | (T)  |
| 42                              | 9456     | 4.12 | 4.00      | 25- 85         | 50    | (T)  |
| -----                           |          |      |           |                |       |      |
| 22 Isophorone                   |          |      |           | CAS#: 78-59-1  |       |      |
| 82                              | 128647   | 4.12 | 4.29      | 80-120         | 100   | (T)  |
| 138                             | 74       | 4.19 | 4.29      | 0- 51          | 0     | (T)  |
| -----                           |          |      |           |                |       |      |
| 25 bis(2-Chloroethoxy)methane   |          |      |           | CAS#: 111-91-1 |       |      |
| 93                              | 10030    | 4.30 | 4.42      | 80-120         | 100   | (T)  |
| 123                             | 624      | 4.27 | 4.42      | 0- 47          | 6     | (T)  |
| 95                              | 3224     | 4.30 | 4.42      | 3- 63          | 32    | (T)  |
| -----                           |          |      |           |                |       |      |
| 27 Benzoic acid                 |          |      |           | CAS#: 65-85-0  |       |      |
| 105                             | 6563     | 4.40 | 4.41      | 80-120         | 100   | ( )  |
| 122                             | 5657     | 4.41 | 4.41      | 51-111         | 86    | ( )  |
| 77                              | 4445     | 4.40 | 4.41      | 48-108         | 68    | ( )  |
| -----                           |          |      |           |                |       |      |

| MASS                          | RESPONSE | RT   | EXPECT RT | TARGET RANGE | RATIO | QUAL |
|-------------------------------|----------|------|-----------|--------------|-------|------|
| <hr/>                         |          |      |           |              |       |      |
| 42 o-Nitroaniline             |          |      | CAS#:     | 88-74-4      |       |      |
| 65                            | 5885     | 5.48 | 5.54      | 80-120       | 100   | (T)  |
| 92                            | 1170     | 5.48 | 5.54      | 39- 99       | 20    | (QT) |
| 138                           | 293      | 5.56 | 5.54      | 90-150       | 5     | (Q)  |
| <hr/>                         |          |      |           |              |       |      |
| 43 Dimethylphthalate          |          |      | CAS#:     | 131-11-3     |       |      |
| 163                           | 67628    | 5.88 | 5.65      | 80-120       | 100   | (T)  |
| 164                           | 378473   | 5.88 | 5.65      | 0- 40        | 560   | (QT) |
| <hr/>                         |          |      |           |              |       |      |
| 44 2,6-Dinitrotoluene         |          |      | CAS#:     | 606-20-2     |       |      |
| 165                           | 50606    | 5.88 | 5.71      | 80-120       | 100   | (T)  |
| 63                            | 1276     | 5.87 | 5.71      | 43-103       | 3     | (QT) |
| <hr/>                         |          |      |           |              |       |      |
| 50 2,4-Dinitrotoluene         |          |      | CAS#:     | 121-14-2     |       |      |
| 165                           | 50606    | 5.88 | 5.99      | 80-120       | 100   | (T)  |
| 89                            | 964      | 5.88 | 5.99      | 44-104       | 2     | (QT) |
| 63                            | 1276     | 5.87 | 5.99      | 20- 80       | 3     | (QT) |
| <hr/>                         |          |      |           |              |       |      |
| 52 4-Nitrophenol              |          |      | CAS#:     | 100-02-7     |       |      |
| 139                           | 430      | 5.94 | 5.94      | 80-120       | 100   | ( )  |
| 109                           | 670      | 5.99 | 5.94      | 33- 93       | 156   | (Q)  |
| 65                            | 1373     | 5.94 | 5.94      | 54-114       | 319   | (Q)  |
| <hr/>                         |          |      |           |              |       |      |
| 53 Fluorene                   |          |      | CAS#:     | 86-73-7      |       |      |
| 166                           | 3967     | 6.42 | 6.26      | 80-120       | 100   | (T)  |
| 165                           | 3941     | 6.42 | 6.26      | 61-121       | 99    | (T)  |
| 167                           | 1174     | 6.42 | 6.26      | 0- 44        | 30    | (T)  |
| <hr/>                         |          |      |           |              |       |      |
| 55 2-Methyl-4,6-dinitrophenol |          |      | CAS#:     | 534-52-1     |       |      |
| 198                           | 258      | 6.42 | 6.28      | 80-120       | 100   | (T)  |
| 105                           | 1111     | 6.43 | 6.28      | 13- 73       | 429   | (QT) |
| 51                            | 740      | 6.42 | 6.28      | 25- 85       | 286   | (QT) |
| <hr/>                         |          |      |           |              |       |      |
| 68 Phenanthrene               |          |      | CAS#:     | 85-01-8      |       |      |
| 178                           | 4708     | 6.89 | 6.89      | 80-120       | 100   | ( )  |
| 179                           | 1074     | 6.89 | 6.89      | 0- 46        | 23    | ( )  |
| 176                           | 805      | 6.89 | 6.89      | 0- 49        | 17    | ( )  |
| <hr/>                         |          |      |           |              |       |      |
| 69 Anthracene                 |          |      | CAS#:     | 120-12-7     |       |      |
| 178                           | 4708     | 6.89 | 6.93      | 80-120       | 100   | ( )  |
| 179                           | 1074     | 6.89 | 6.93      | 0- 46        | 23    | ( )  |
| 176                           | 805      | 6.89 | 6.93      | 0- 49        | 17    | ( )  |
| <hr/>                         |          |      |           |              |       |      |
| 76 Fluoranthene               |          |      | CAS#:     | 206-44-0     |       |      |
| 202                           | 7091     | 7.62 | 7.62      | 80-120       | 100   | ( )  |
| 203                           | 1309     | 7.62 | 7.62      | 0- 48        | 18    | ( )  |
| 101                           | 2245     | 7.61 | 7.62      | 0- 42        | 32    | ( )  |
| <hr/>                         |          |      |           |              |       |      |

| MASS                          | RESPONSE | RT             | EXPECT RT | TARGET RANGE | RATIO | QUAL |
|-------------------------------|----------|----------------|-----------|--------------|-------|------|
| =====                         |          |                |           |              |       |      |
| 79 Pyrene                     |          | CAS#: 129-00-0 |           |              |       |      |
| 202                           | 7093     | 7.75           | 7.75      | 80-120       | 100   | ( )  |
| 200                           | 3736     | 7.75           | 7.75      | 0- 51        | 53    | (Q)  |
| 101                           | 1966     | 7.75           | 7.75      | 0- 43        | 28    | ( )  |
| -----                         |          |                |           |              |       |      |
| 85 Butylbenzylphthalate       |          | CAS#: 85-68-7  |           |              |       |      |
| 149                           | 38842    | 8.30           | 8.08      | 80-120       | 100   | (T)  |
| 91                            | 90237    | 8.32           | 8.08      | 38- 98       | 232   | (QT) |
| 206                           | 773      | 8.30           | 8.08      | 0- 52        | 2     | (T)  |
| -----                         |          |                |           |              |       |      |
| 89 Benzo(a)anthracene         |          | CAS#: 56-55-3  |           |              |       |      |
| 228                           | 4434     | 8.54           | 8.53      | 80-120       | 100   | ( )  |
| 226                           | 2418     | 8.53           | 8.53      | 0- 56        | 55    | ( )  |
| 229                           | 2217     | 8.52           | 8.53      | 0- 50        | 50    | ( )  |
| -----                         |          |                |           |              |       |      |
| 92 Chrysene                   |          | CAS#: 218-01-9 |           |              |       |      |
| 228                           | 3663     | 8.56           | 8.56      | 80-120       | 100   | ( )  |
| 229                           | 1354     | 8.59           | 8.56      | 0- 50        | 37    | ( )  |
| 226                           | 2133     | 8.56           | 8.56      | 0- 59        | 58    | ( )  |
| -----                         |          |                |           |              |       |      |
| 93 bis(2-Ethylhexyl)phthalate |          | CAS#: 117-81-7 |           |              |       |      |
| 149                           | 32117    | 8.48           | 8.43      | 80-120       | 100   | ( )  |
| 167                           | 43084    | 8.48           | 8.43      | 2- 62        | 134   | (Q)  |
| -----                         |          |                |           |              |       |      |
| 94 Di-n-octylphthalate        |          | CAS#: 117-84-0 |           |              |       |      |
| 149                           | 9475     | 8.97           | 8.95      | 80-120       | 100   | ( )  |
| 43                            | 76549    | 8.97           | 8.95      | 0- 39        | 808   | (Q)  |
| -----                         |          |                |           |              |       |      |
| 95 Benzo(b)fluoranthene       |          | CAS#: 205-99-2 |           |              |       |      |
| 252                           | 2370     | 9.51           | 9.51      | 80-120       | 100   | ( )  |
| 253                           | 874      | 9.51           | 9.51      | 0- 52        | 37    | ( )  |
| 125                           | 415      | 9.52           | 9.51      | 0- 42        | 18    | ( )  |
| -----                         |          |                |           |              |       |      |
| 96 Benzo(k)fluoranthene       |          | CAS#: 207-08-9 |           |              |       |      |
| 252                           | 2370     | 9.51           | 9.54      | 80-120       | 100   | ( )  |
| 253                           | 874      | 9.51           | 9.54      | 0- 52        | 37    | ( )  |
| 125                           | 415      | 9.52           | 9.54      | 0- 41        | 18    | ( )  |
| -----                         |          |                |           |              |       |      |
| 97 Benzo(a)pyrene             |          | CAS#: 50-32-8  |           |              |       |      |
| 252                           | 2082     | 10.03          | 9.89      | 80-120       | 100   | (T)  |
| 253                           | 441      | 10.03          | 9.89      | 0- 52        | 21    | (T)  |
| 125                           | 269      | 10.03          | 9.89      | 0- 43        | 13    | (T)  |

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD4.i/s030510.b/s4c0530.d  
Lab Smp Id: 247358001 Client Smp ID: RE36-10-7427  
Inj Date : 05-MAR-2010 21:23  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |247358001|956285|1|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030510.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 14:54 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 28  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1914.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.00000  | weight of sample          |
| M    | 36.44900  | % moisture                |

Cpnd Variable Local Compound Variable

| ISTD                        | RT    | AREA    | AMOUNT |
|-----------------------------|-------|---------|--------|
| =====                       | ===== | =====   | =====  |
| * 10 1,4-Dichlorobenzene-d4 | 3.764 | 992294  | 40.000 |
| * 46 Acenaphthene-d10       | 5.877 | 1937334 | 40.000 |
| * 67 Phenanthrene-d10       | 6.877 | 1718459 | 40.000 |
| * 91 Chrysene-d12           | 8.546 | 1918887 | 40.000 |
| * 98 Perylene-d12           | 9.963 | 558726  | 40.000 |

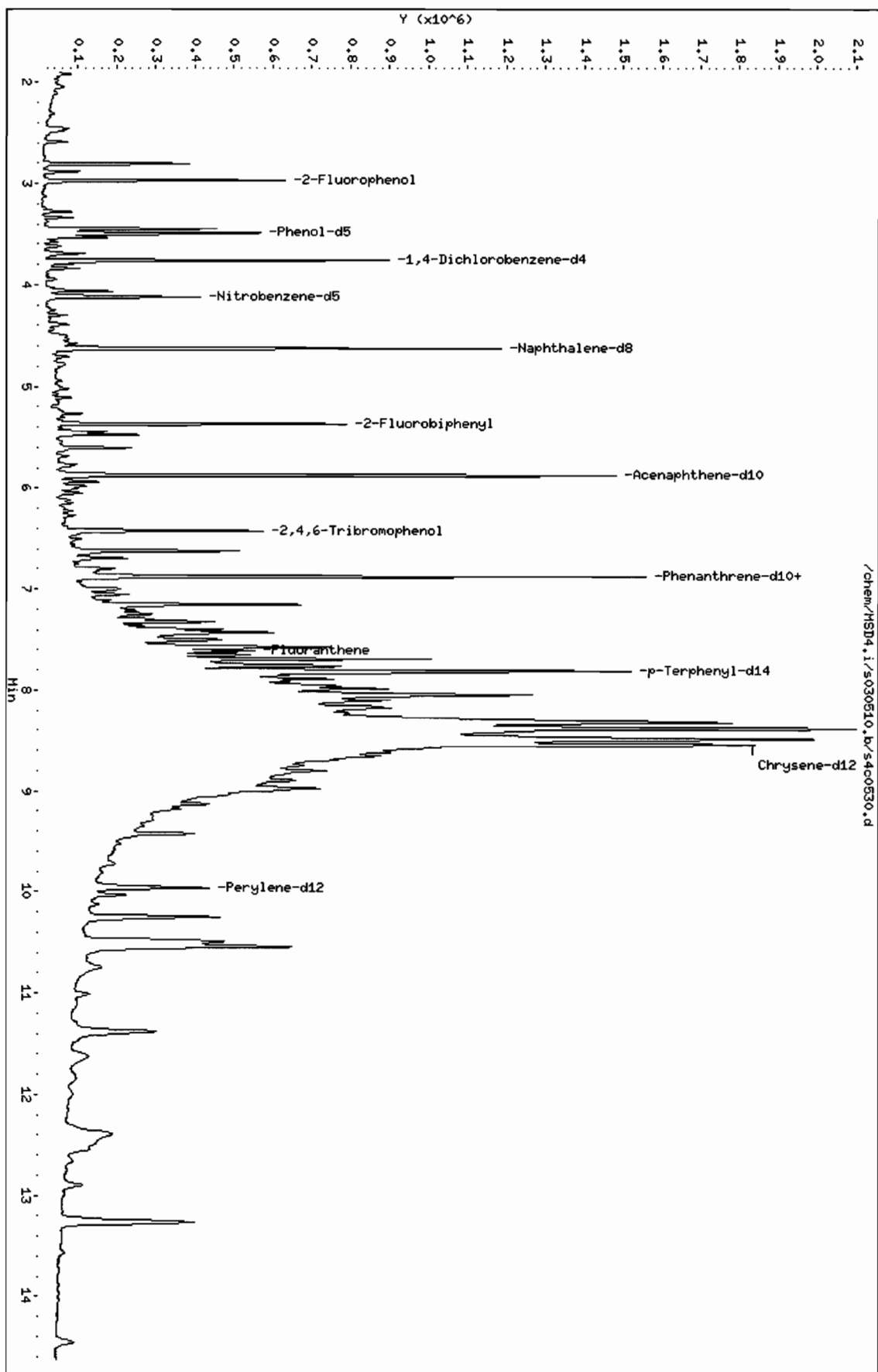
| CONCENTRATIONS |       |                |               |       | QUANT   |           |        |
|----------------|-------|----------------|---------------|-------|---------|-----------|--------|
| RT             | AREA  | ON-COL (ng/ul) | FINAL (ug/Kg) | QUAL  | LIBRARY | LIB ENTRY | CPND # |
| =====          | ===== | =====          | =====         | ===== | =====   | =====     | =====  |

| RT                                       | CONCENTRATIONS |                |               | QUAL  | QUANT             |           | CPND # |
|--|----------------|----------------|---------------|-------|-------------------|-----------|--------|
|  | AREA           | ON-COL (ng/ul) | FINAL (ug/Kg) |       | LIBRARY           | LIB ENTRY |        |
| =====                                    | ====           | =====          | =====         | ===== | =====             | =====     | =====  |
| Unknown Aldol Condensate                 |                |                |               |       | CAS #:            |           |        |
| 2.807                                    | 441894         | 17.8129995     | 934           | 0     |                   | 0         | 10     |
| Unknown                                  |                |                |               |       | CAS #:            |           |        |
| 3.449                                    | 552429         | 22.2687346     | 1170          | 0     |                   | 0         | 10     |
| Vanillin                                 |                |                |               |       | CAS #: 121-33-5   |           |        |
| 5.476                                    | 303027         | 6.25656567     | 328           | 98    | NIST05.L          | 24743     | 46     |
| Tetradecanoic acid                       |                |                |               |       | CAS #: 544-63-8   |           |        |
| 6.620                                    | 566820         | 13.1936800     | 692           | 99    | NIST05.L          | 77275     | 67     |
| n-Hexadecanoic acid                      |                |                |               |       | CAS #: 57-10-3    |           |        |
| 7.155                                    | 725437         | 16.8857624     | 886           | 99    | NIST05.L          | 96235     | 67     |
| Unknown                                  |                |                |               |       | CAS #:            |           |        |
| 7.326                                    | 302105         | 7.03198784     | 369           | 0     |                   | 0         | 67     |
| Unknown                                  |                |                |               |       | CAS #:            |           |        |
| 7.396                                    | 402803         | 9.37590160     | 492           | 0     |                   | 0         | 67     |
| 1-Phenanthrenecarboxaldehyde, 1,2,3,4,4a |                |                |               |       | CAS #: 24035-50-5 |           |        |
| 7.428                                    | 498784         | 11.6100307     | 609           | 81    | NIST05.L          | 114981    | 67     |
| Unknown                                  |                |                |               |       | CAS #:            |           |        |
| 7.497                                    | 408545         | 9.50956071     | 499           | 0     |                   | 0         | 67     |
| 9-Octadecenoic acid, (E)-                |                |                |               |       | CAS #: 112-79-8   |           |        |
| 7.572                                    | 875134         | 20.3702048     | 1070          | 97    | NIST05.L          | 113363    | 67     |
| Unknown                                  |                |                |               |       | CAS #:            |           |        |
| 7.690                                    | 777263         | 18.0920907     | 949           | 0     |                   | 0         | 67     |
| Unknown                                  |                |                |               |       | CAS #:            |           |        |
| 7.760                                    | 660671         | 13.7719633     | 722           | 0     |                   | 0         | 91     |
| Unknown                                  |                |                |               |       | CAS #:            |           |        |
| 7.984                                    | 326129         | 6.79828607     | 356           | 0     |                   | 0         | 91     |
| Unknown                                  |                |                |               |       | CAS #:            |           |        |
| 8.048                                    | 1239698        | 25.8420120     | 1360          | 0     |                   | 0         | 91     |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 |                |                |               |       | CAS #: 1235-74-1  |           |        |
| 8.102                                    | 301314         | 6.28101445     | 329           | 95    | NIST05.L          | 133620    | 91     |

| RT  | CONCENTRATIONS |                |               | QUAL  | QUANT             |           | CPND # |
|---|----------------|----------------|---------------|-------|-------------------|-----------|--------|
|   | AREA           | ON-COL (ng/ul) | FINAL (ug/Kg) |       | LIBRARY           | LIB ENTRY |        |
| =====                                     | =====          | =====          | =====         | ===== | =====             | =====     | =====  |
| Kauren-18-ol, acetate, (4.beta.)-         |                |                |               |       | CAS #: 72150-74-4 |           |        |
| 8.177                                     | 380736         | 7.93659480     | 416           | 92    | NIST05.L          | 142610    | 91     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 8.321                                     | 2988002        | 62.2861313     | 3270          | 0     |                   | 0         | 91     |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4  |                |                |               |       | CAS #: 5155-70-4  |           |        |
| 8.385                                     | 2118834        | 44.1679709     | 2320          | 96    | NIST05.L          | 125035    | 91     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 8.487                                     | 1893617        | 39.4732168     | 2070          | 0     |                   | 0         | 91     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 8.803                                     | 379550         | 7.91186740     | 415           | 0     |                   | 0         | 91     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 8.974                                     | 594472         | 12.3920164     | 650           | 0     |                   | 0         | 91     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 9.033                                     | 326834         | 6.81299559     | 357           | 0     |                   | 0         | 91     |
| Octadecane, 1-chloro-                     |                |                |               |       | CAS #: 3386-33-2  |           |        |
| 9.428                                     | 409443         | 29.3126317     | 1540          | 97    | NIST05.L          | 117263    | 98     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 10.247                                    | 798724         | 57.1817729     | 3000          | 0     |                   | 0         | 98     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 10.487                                    | 1073018        | 76.8188348     | 4030          | 0     |                   | 0         | 98     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 10.541                                    | 1356115        | 97.0861717     | 5090          | 0     |                   | 0         | 98     |
| 2 (3H)-Furanone, dihydro-3,4-bis[(4-hydro |                |                |               |       | CAS #: 580-72-3   |           |        |
| 10.744                                    | 440725         | 31.5521524     | 1650          | 92    | NIST05.L          | 156200    | 98     |
| Unknown                                   |                |                |               |       | CAS #:            |           |        |
| 11.381                                    | 773470         | 55.3737933     | 2900          | 0     |                   | 0         | 98     |
| .beta.-Sitosterol                         |                |                |               |       | CAS #: 83-46-5    |           |        |
| 12.386                                    | 1035392        | 74.1251797     | 3890          | 99    | NIST05.L          | 174399    | 98     |
| Stigmast-4-en-3-one                       |                |                |               |       | CAS #: 1058-61-3  |           |        |
| 13.263                                    | 1017542        | 72.8472344     | 3820          | 95    | NIST05.L          | 173936    | 98     |

Data File: /chem/HSD4.i/s030510.b/s4c0530.d  
Date : 05-MAR-2010 21:23  
Client ID: RE36-10-7427  
Sample Info: 1247358001/95628511SVH11LRL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SMS

Instrument: HSD4.i  
Operator: JMB3  
Column diameter: 0.20



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001|956285|1|SVH11|LANL

Volume Injected (uL): 0.5

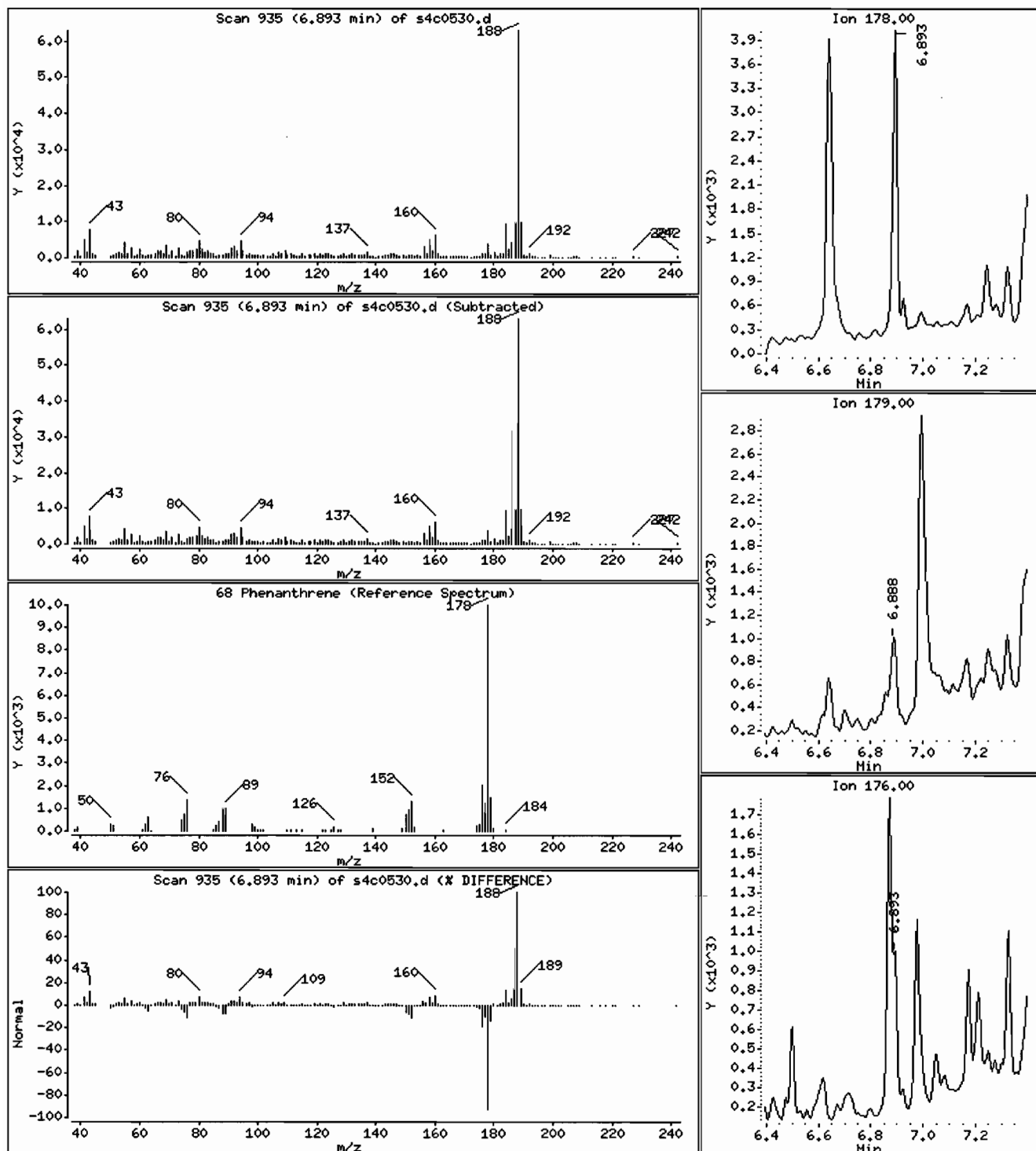
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 17.2 ug/Kg





Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247359001I956285I1ISVMI1ILANL

Volume Injected (uL): 0.5

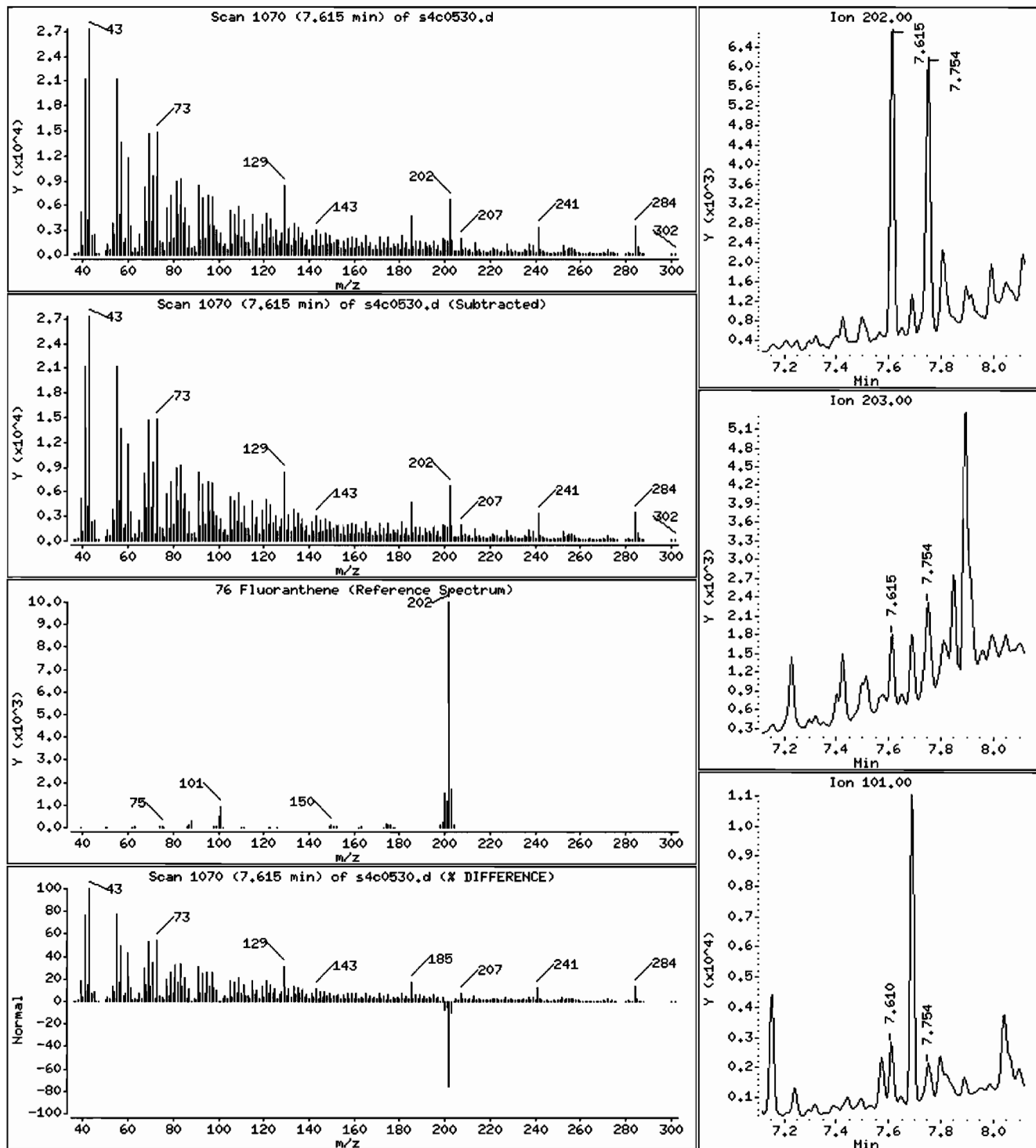
Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 29.0 ug/Kg



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511SVMI11LANL

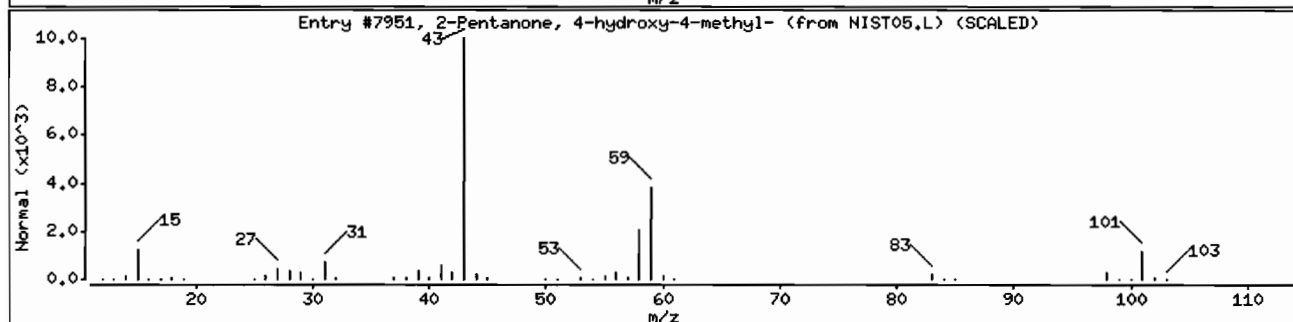
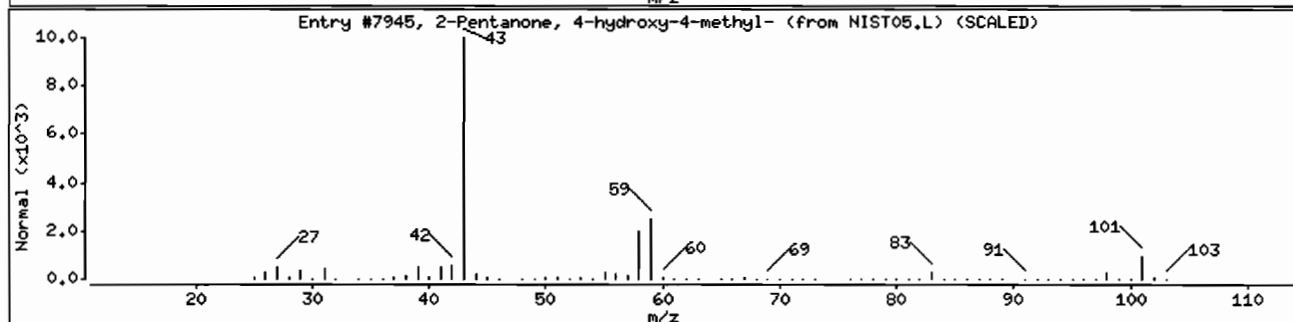
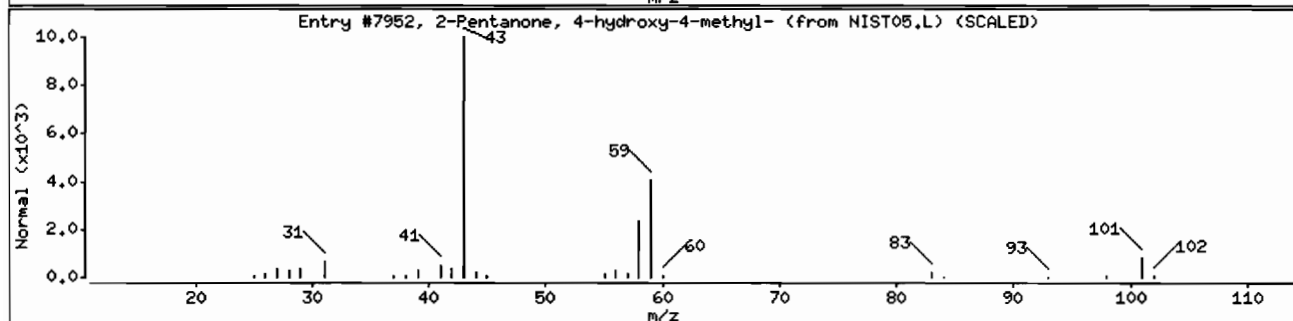
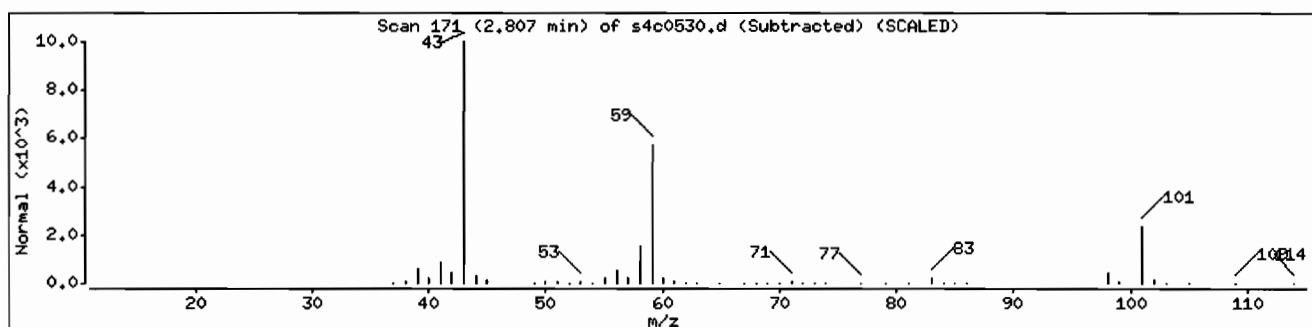
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match    | CAS Number | Library  | Entry | Quality | Formula | Weight |
|----------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown Aldol Condensate         |            |          |       |         |         |        |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7952  | 47      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7945  | 38      | C6H12O2 | 116    |
| 2-Pentanone, 4-hydroxy-4-methyl- | 123-42-2   | NIST05.L | 7951  | 38      | C6H12O2 | 116    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001|956285|1|SVM|1|LANL

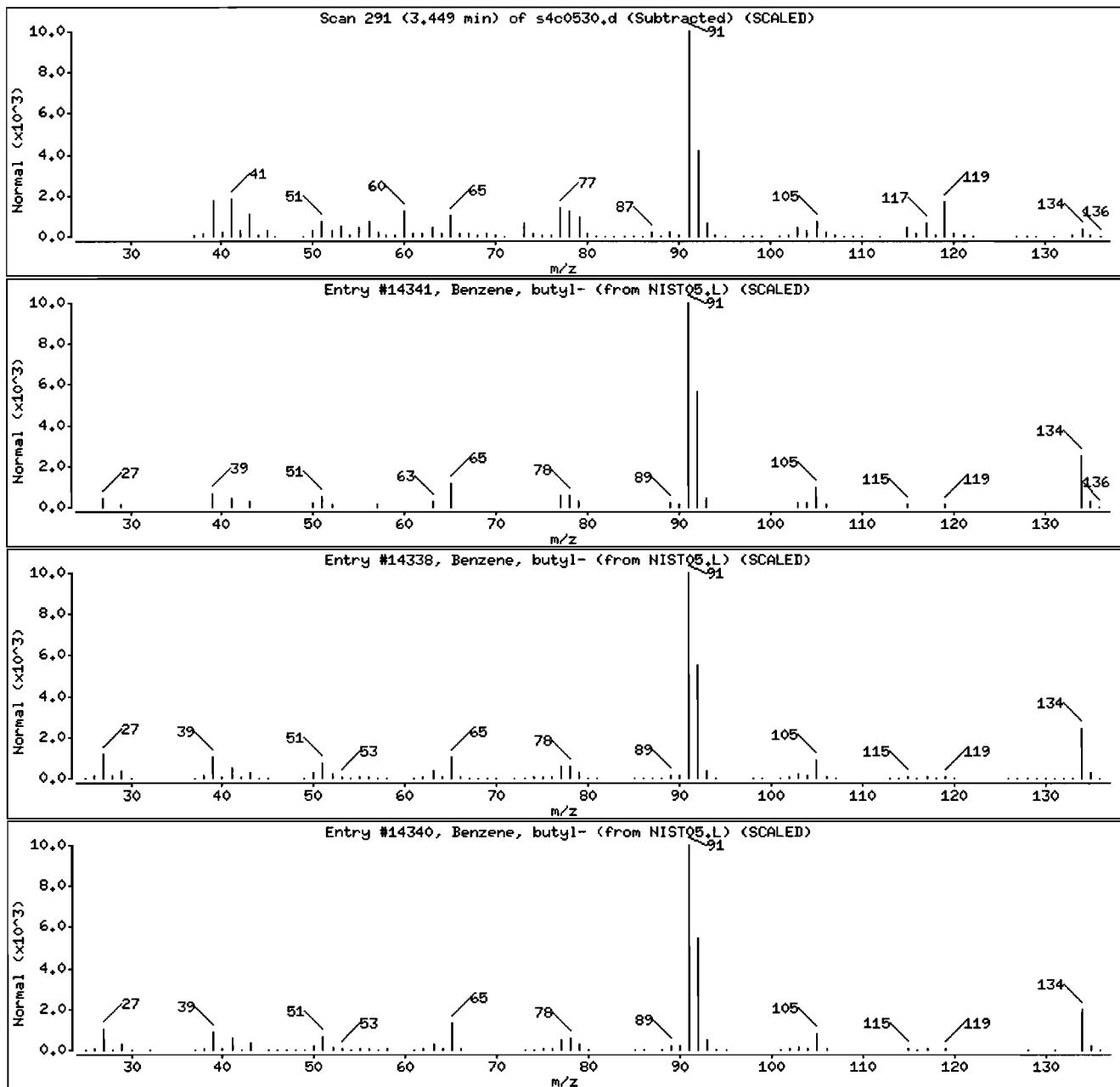
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula | Weight |
|-------------------------------|------------|----------|-------|---------|---------|--------|
| Unknown                       |            |          |       |         |         |        |
| Benzene, butyl-               | 104-51-8   | NIST05.L | 14341 | 49      | C10H14  | 134    |
| Benzene, butyl-               | 104-51-8   | NIST05.L | 14338 | 47      | C10H14  | 134    |
| Benzene, butyl-               | 104-51-8   | NIST05.L | 14340 | 47      | C10H14  | 134    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVMI11LANL

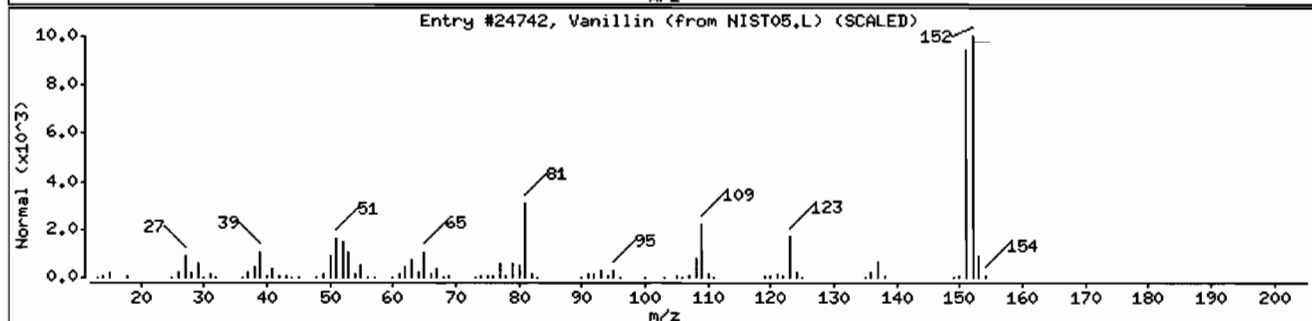
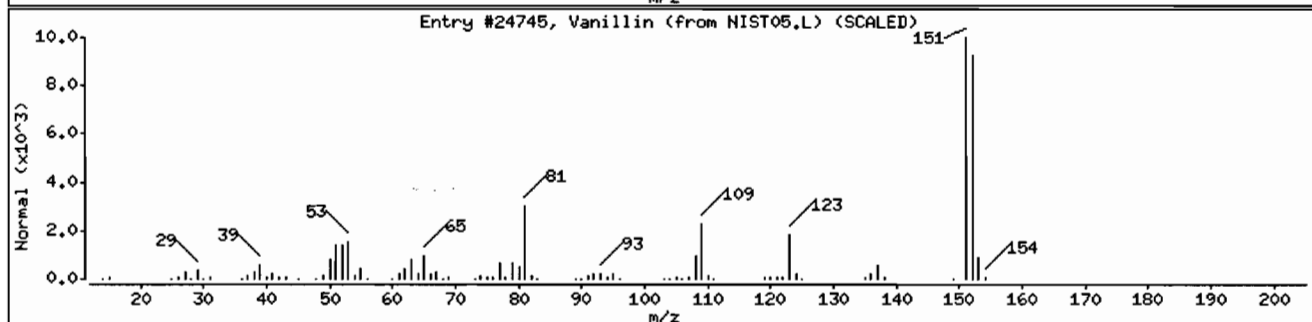
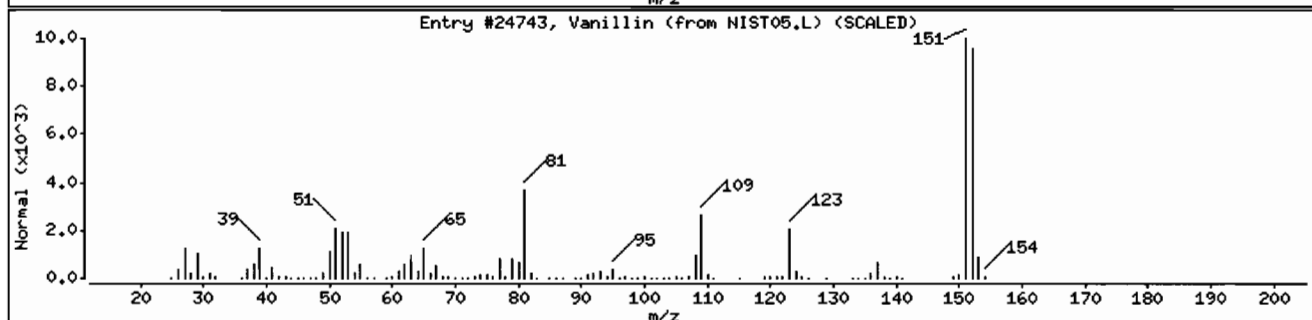
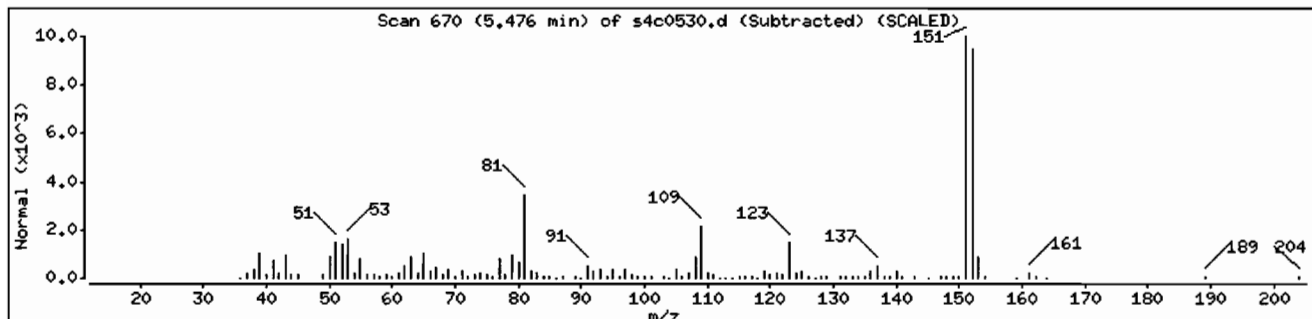
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula | Weight |
|-------------------------------|------------|----------|-------|---------|---------|--------|
| Vanillin                      | 121-33-5   | NIST05.L | 24743 | 98      | C8H8O3  | 152    |
| Vanillin                      | 121-33-5   | NIST05.L | 24745 | 97      | C8H8O3  | 152    |
| Vanillin                      | 121-33-5   | NIST05.L | 24742 | 97      | C8H8O3  | 152    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511ISVH111LANL

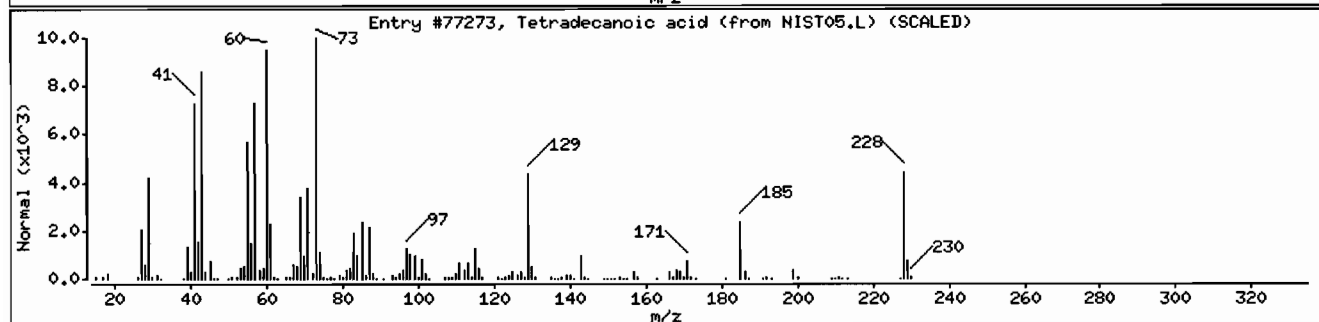
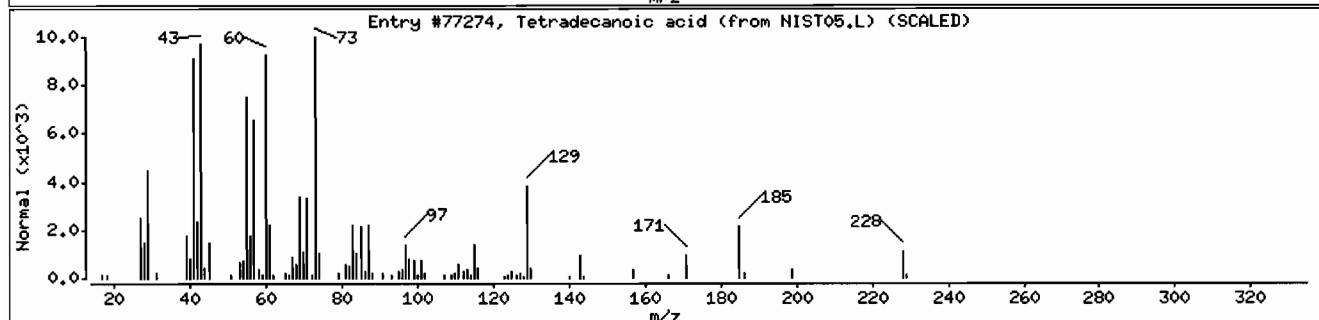
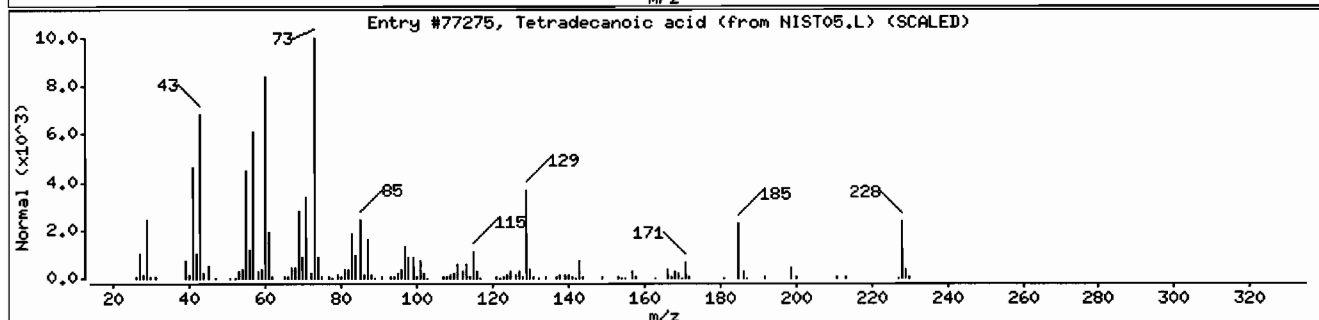
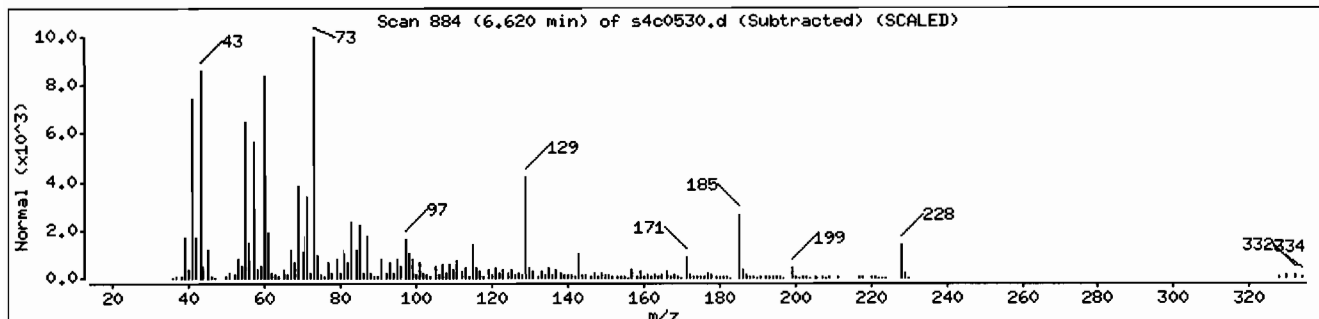
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula  | Weight |
|-------------------------------|------------|----------|-------|---------|----------|--------|
| Tetradecanoic acid            | 544-63-8   | NIST05.L | 77275 | 99      | C14H28O2 | 228    |
| Tetradecanoic acid            | 544-63-8   | NIST05.L | 77274 | 98      | C14H28O2 | 228    |
| Tetradecanoic acid            | 544-63-8   | NIST05.L | 77273 | 96      | C14H28O2 | 228    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 124735800195628511SVH11ILANL

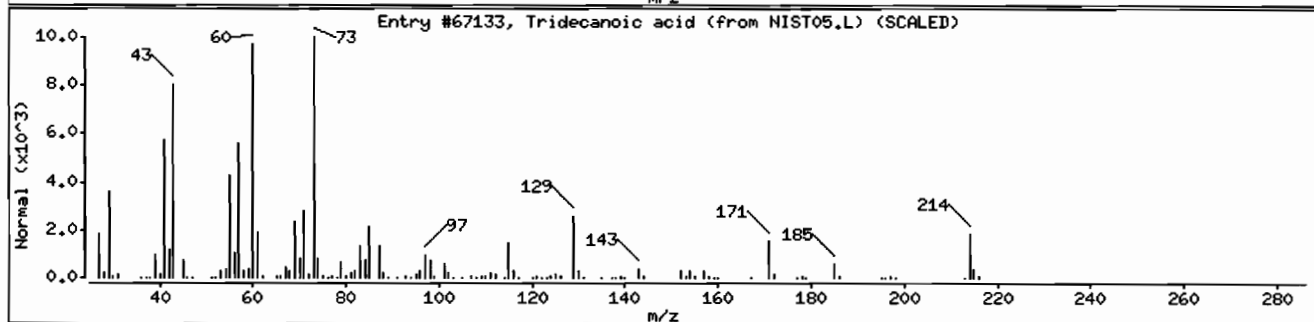
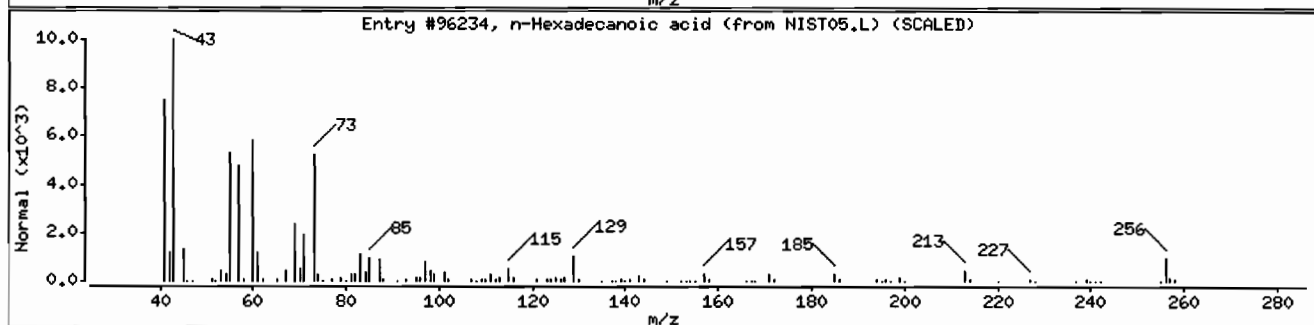
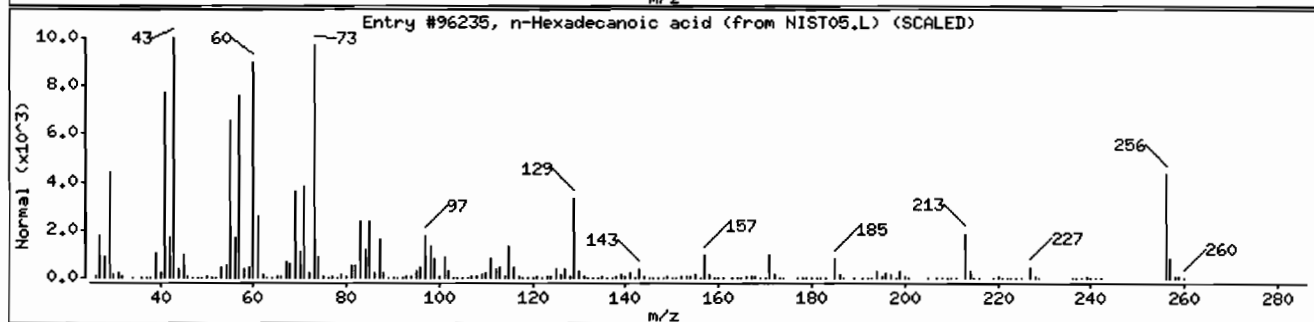
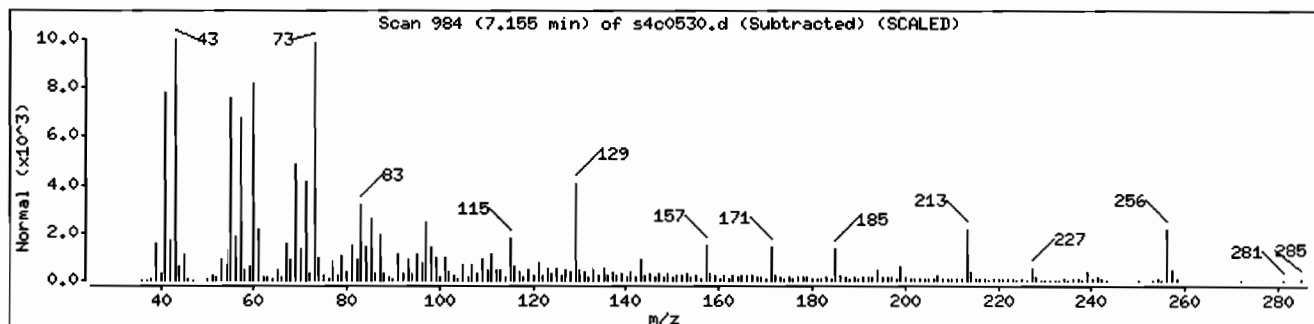
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry | Quality | Formula  | Weight |
|-------------------------------|------------|----------|-------|---------|----------|--------|
| n-Hexadecanoic acid           | 57-10-3    | NIST05.L | 96235 | 99      | C16H32O2 | 256    |
| n-Hexadecanoic acid           | 57-10-3    | NIST05.L | 96234 | 95      | C16H32O2 | 256    |
| Tridecanoic acid              | 638-53-9   | NIST05.L | 67133 | 93      | C13H26O2 | 214    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001I9562851IISVM11ILANL

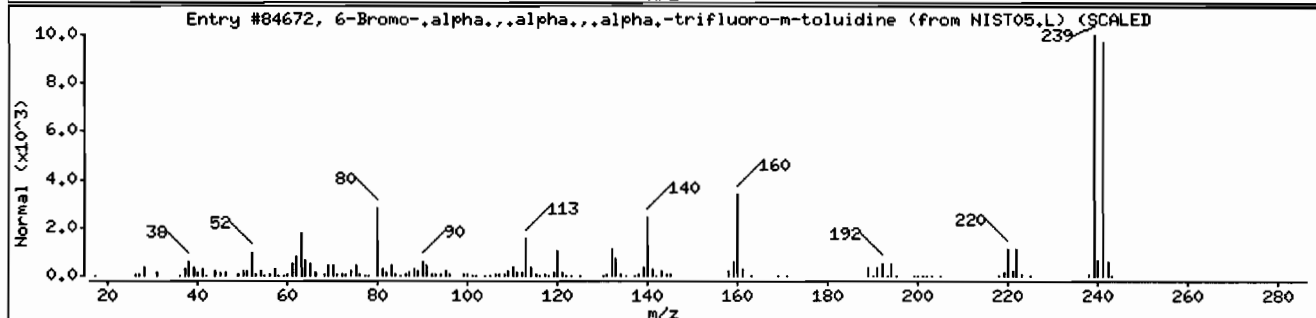
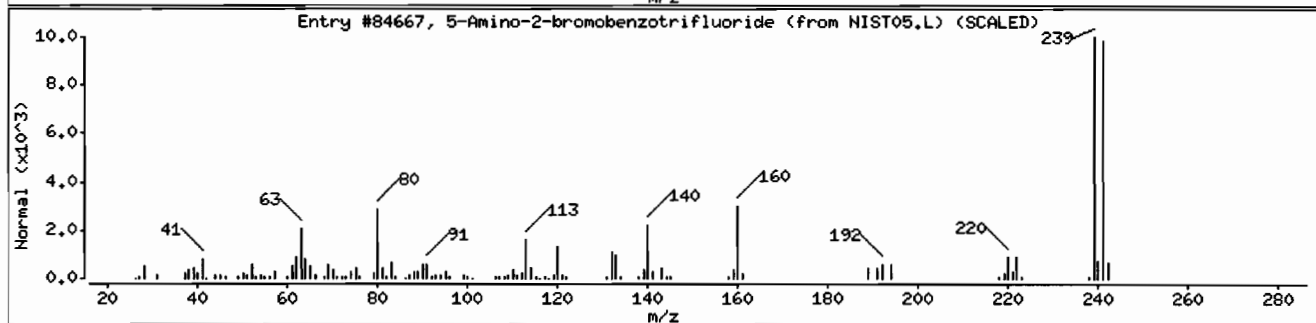
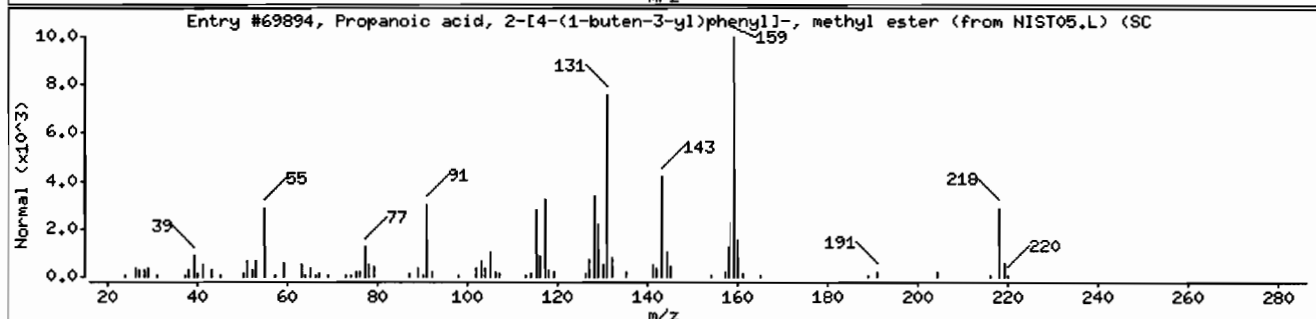
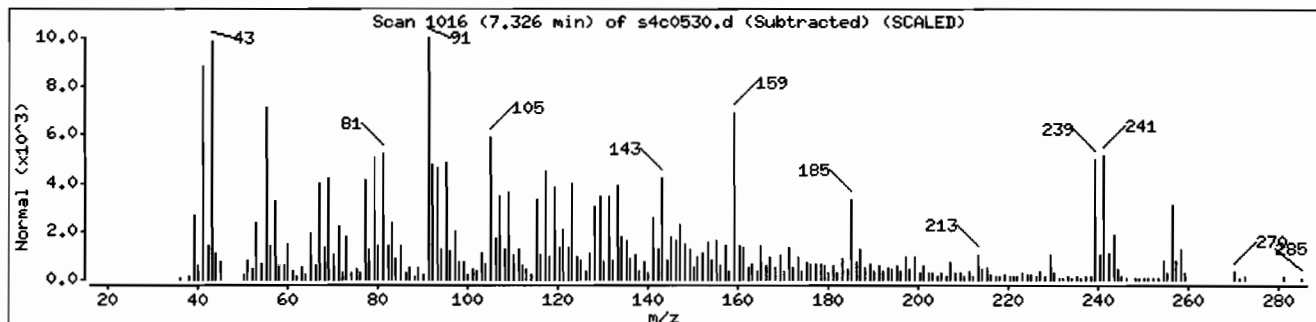
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number   | Library  | Entry | Quality | Formula   | Weight |
|---|--------------|----------|-------|---------|-----------|--------|
| Unknown                                   |              |          |       |         |           |        |
| Propanoic acid, 2-[4-(1-buten-3-yl)pheny] | 1000161-46-7 | NIST05.L | 69894 | 45      | C14H18O2  | 218    |
| 5-Amino-2-bromobenzotrifluoride           | 393-36-2     | NIST05.L | 84667 | 15      | C7H5BrF3N | 239    |
| 6-Bromo-.alpha.,.alpha.,.alpha.-trifluor  | 454-79-5     | NIST05.L | 84672 | 15      | C7H5BrF3N | 239    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511SVMI11LANL

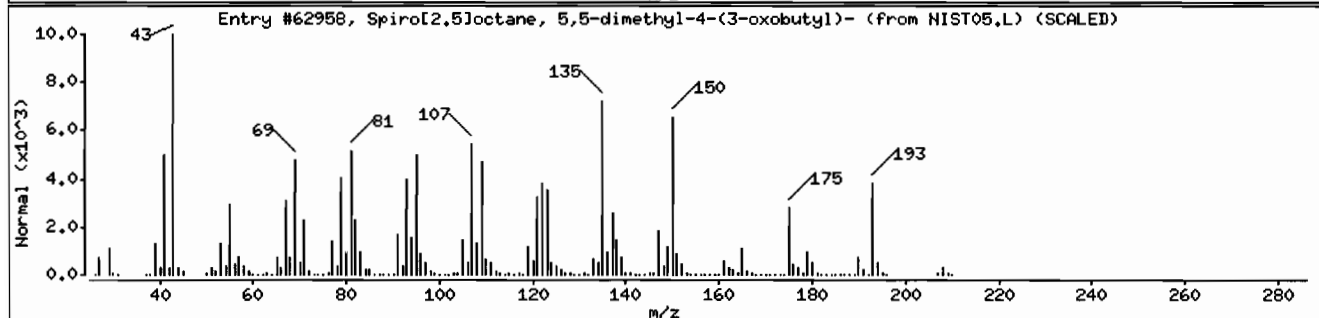
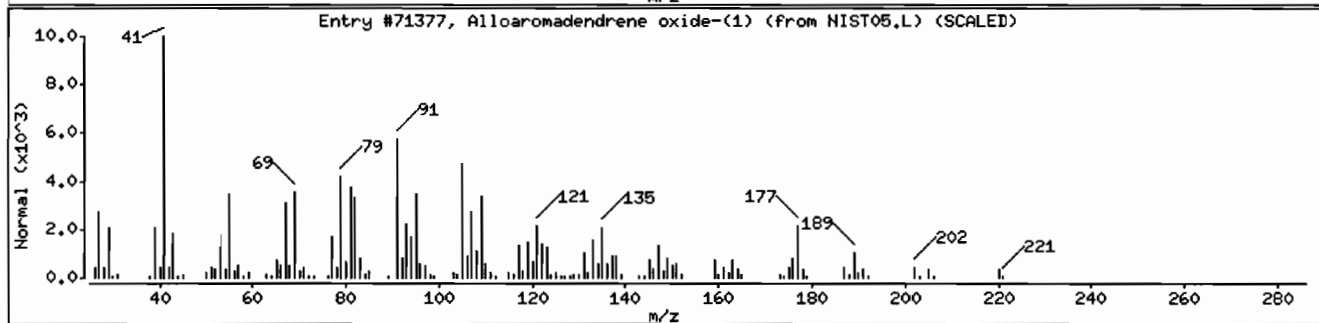
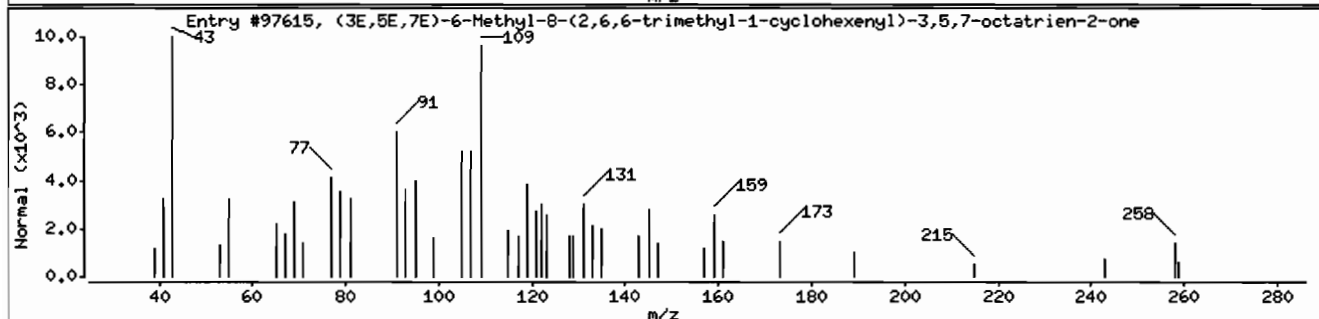
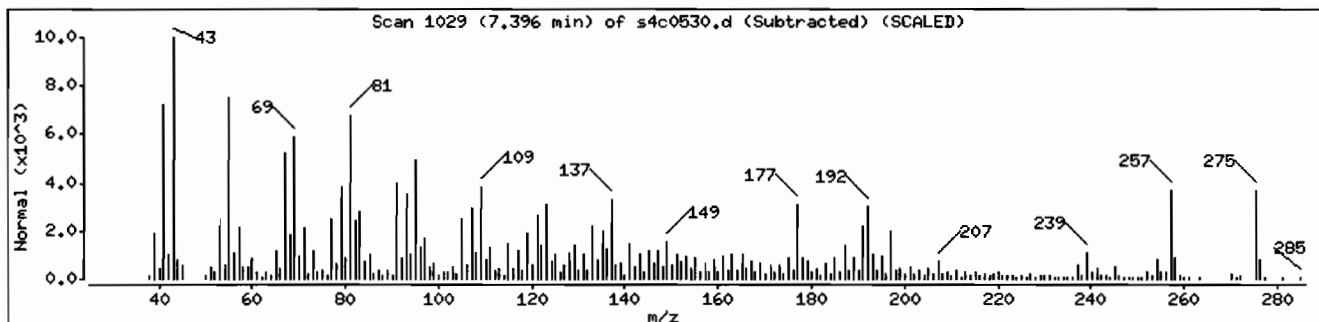
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula | Weight |
|--|--------------|----------|-------|---------|---------|--------|
| Unknown                                  |              |          |       |         |         |        |
| (3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1 | 17974-57-1   | NIST05.L | 97615 | 59      | C18H26O | 258    |
| Alloaromadendrene oxide-(1)              | 1000156-12-8 | NIST05.L | 71377 | 49      | C15H24O | 220    |
| Spiro[2.5]octane, 5,5-dimethyl-4-(3-oxob | 77143-32-9   | NIST05.L | 62958 | 47      | C14H24O | 208    |





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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001195628511SVMI11LANL

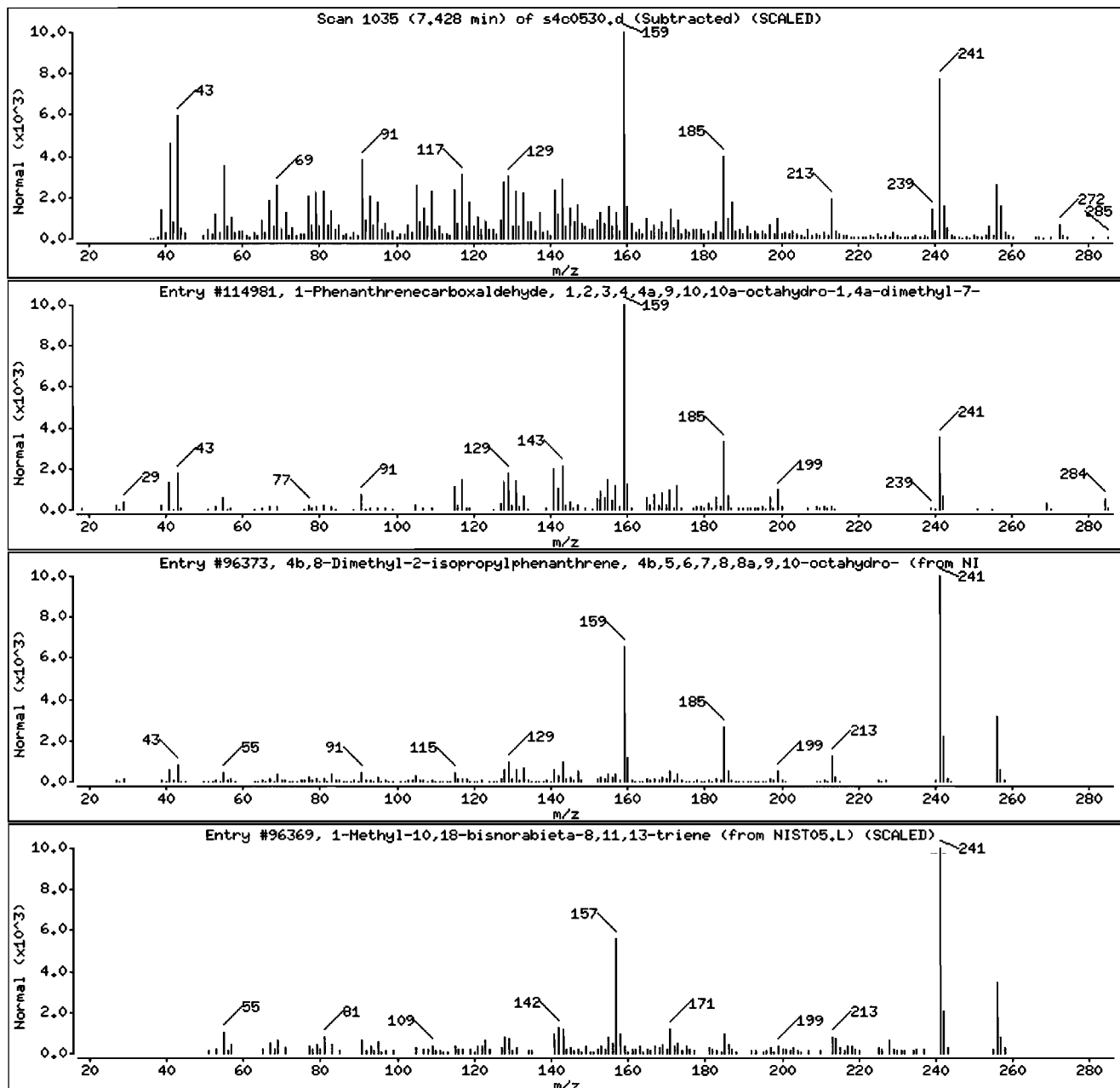
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match              | CAS Number   | Library  | Entry  | Quality | Formula | Weight |
|--|--------------|----------|--------|---------|---------|--------|
| 1-Phenanthrenecarboxaldehyde, 1,2,3,4,4a   | 24035-50-5   | NIST05.L | 114981 | 81      | C20H28O | 284    |
| 4b,8-Dimethyl-2-isopropylphenanthrene, 4   | 1000197-14-1 | NIST05.L | 96373  | 70      | C19H28  | 256    |
| 1-Methyl-10,18-bisnorabieta-8,11,13-triene | 1000293-16-9 | NIST05.L | 96369  | 51      | C19H28  | 256    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511ISVH11ILANL

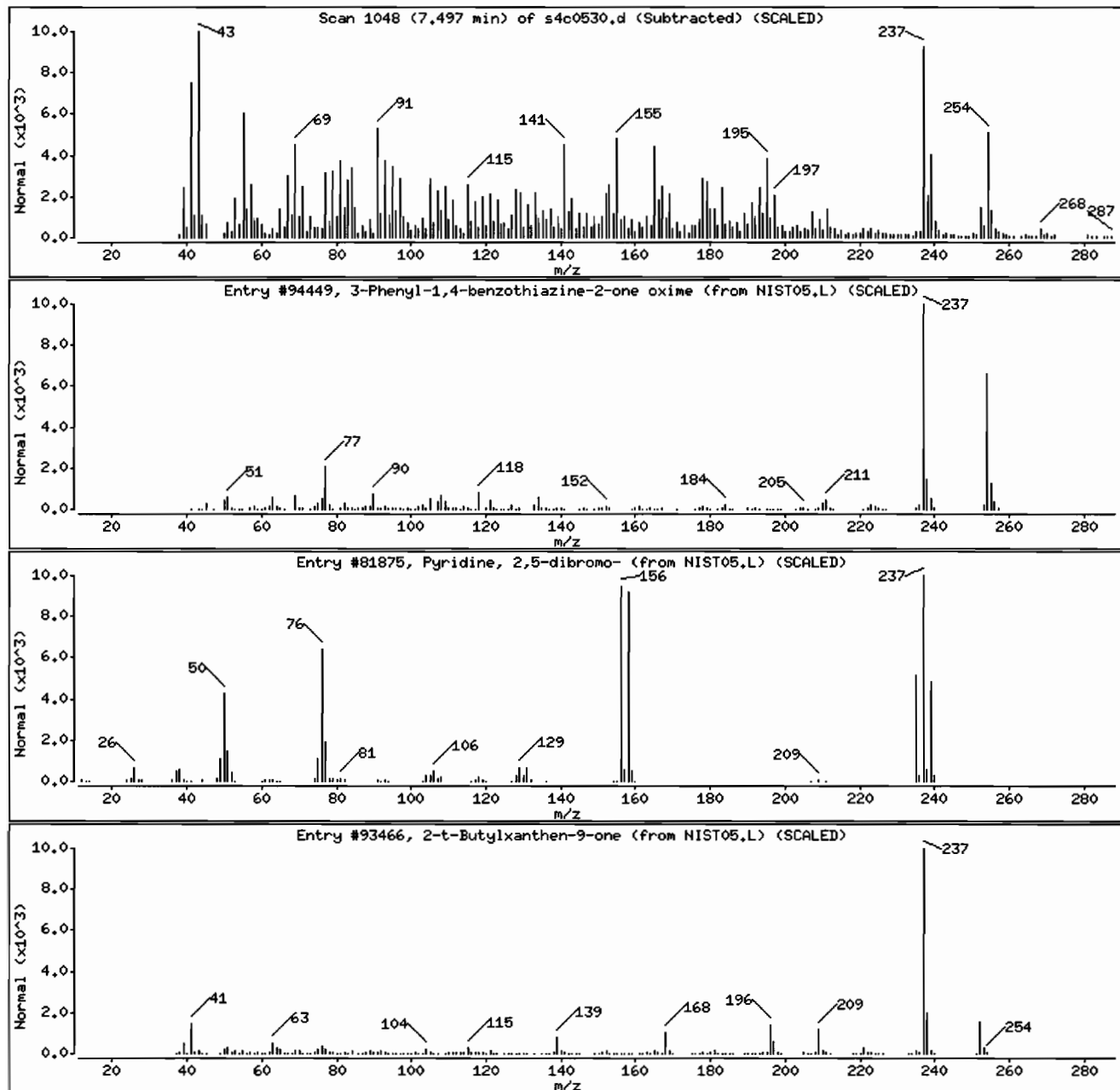
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match          | CAS Number | Library  | Entry | Quality | Formula    | Weight |
|--|------------|----------|-------|---------|------------|--------|
| Unknown                                |            |          |       |         |            |        |
| 3-Phenyl-1,4-benzothiazine-2-one oxime | 95981-03-6 | NIST05.L | 94449 | 47      | C14H10N2OS | 254    |
| Pyridine, 2,5-dibromo-                 | 624-28-2   | NIST05.L | 81875 | 35      | C5H3Br2N   | 235    |
| 2-t-Butylxanthen-9-one                 | 40305-52-0 | NIST05.L | 93466 | 35      | C17H16O2   | 252    |



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Instrument: HSD4.i

Sample Info: 1247358001195628511SVMI11LANL

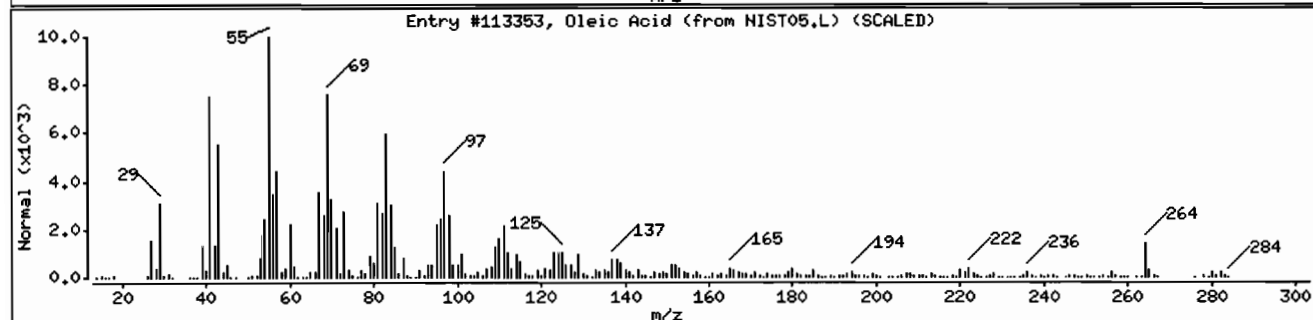
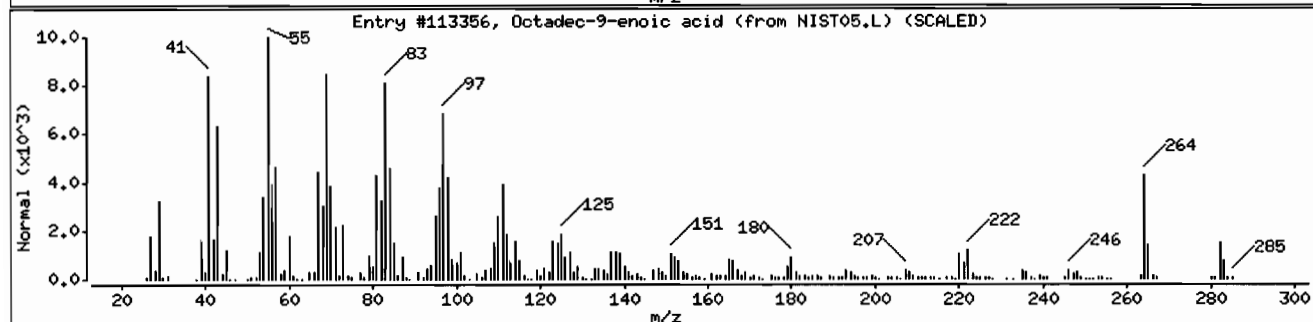
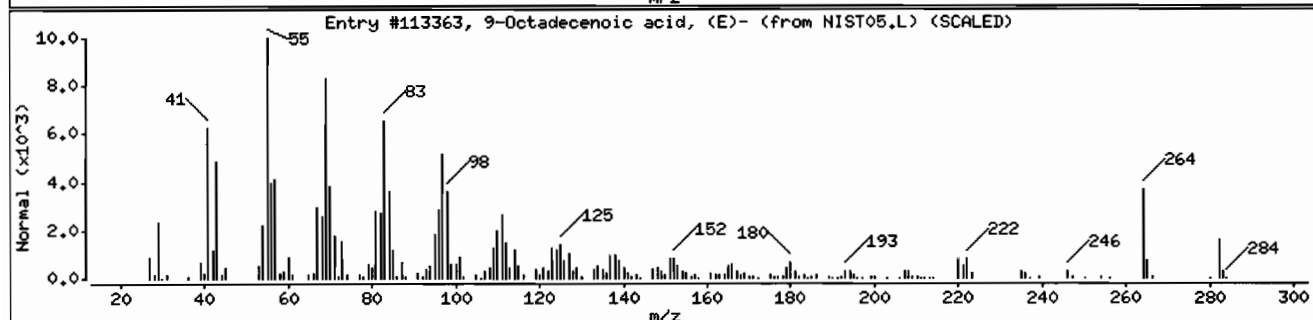
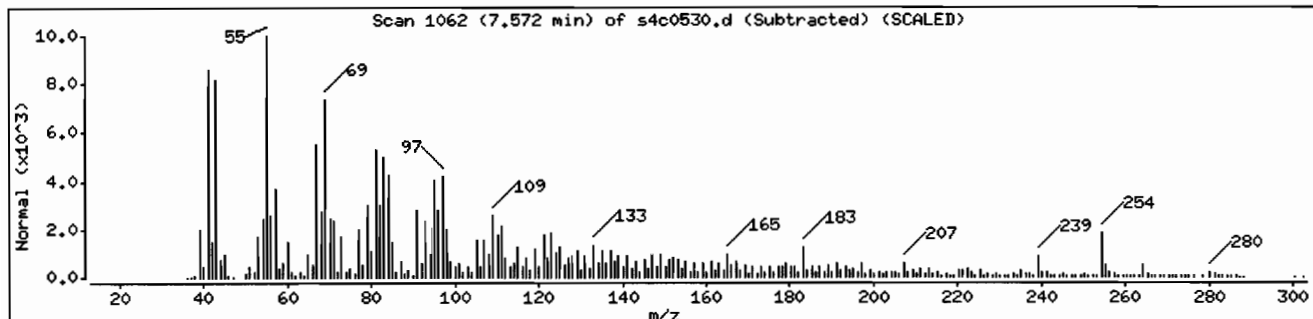
Volume Injected (uL): 0.5

Operator: JHB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|-------------------------------|--------------|----------|--------|---------|----------|--------|
| 9-Octadecenoic acid, (E)-     | 112-79-8     | NIST05.L | 113363 | 97      | C18H34O2 | 282    |
| Octadec-9-enoic acid          | 1000190-13-7 | NIST05.L | 113356 | 89      | C18H34O2 | 282    |
| Oleic Acid                    | 112-80-1     | NIST05.L | 113353 | 86      | C18H34O2 | 282    |



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Client ID: RE36-10-7427

Instrument: HSD4.i

Sample Info: 12473580011956285111SVH111LANL

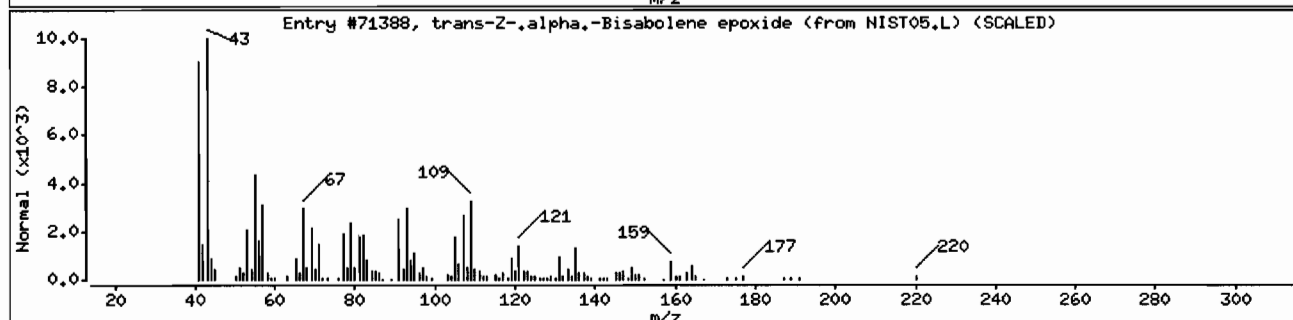
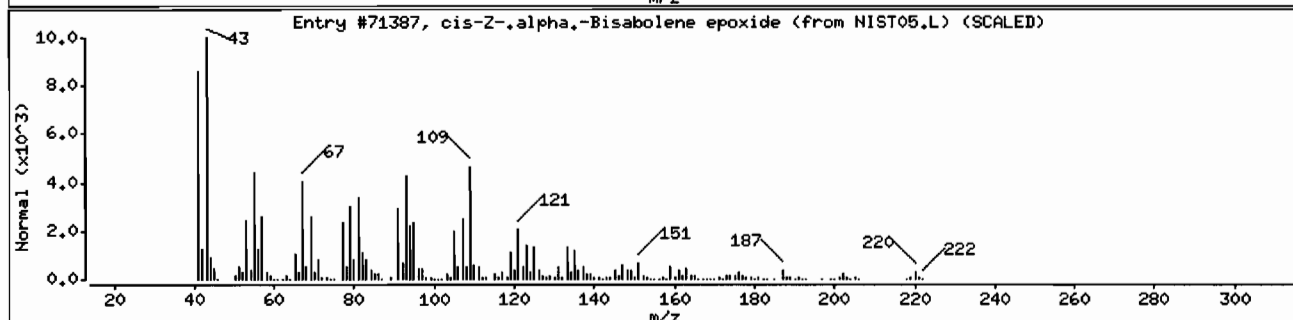
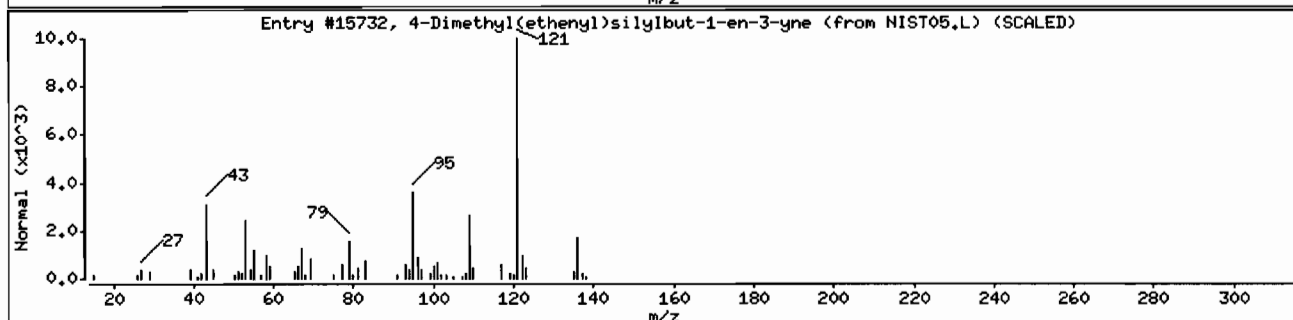
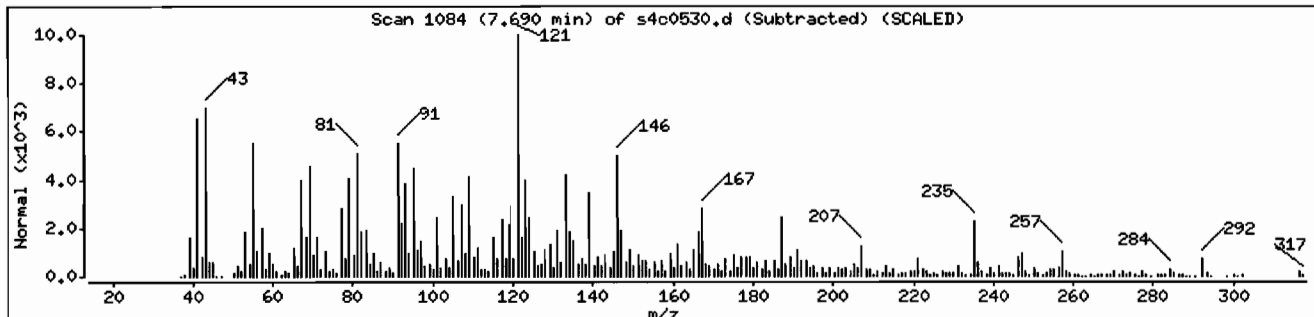
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match          | CAS Number   | Library  | Entry | Quality | Formula | Weight |
|--|--------------|----------|-------|---------|---------|--------|
| Unknown                                |              |          |       |         |         |        |
| 4-Dimethyl(ethenyl)silylbut-1-en-3-yne | 18292-17-6   | NIST05.L | 15732 | 30      | C8H12Si | 136    |
| cis-Z-.alpha.-Bisabolene epoxide       | 1000131-71-2 | NIST05.L | 71387 | 25      | C15H24O | 220    |
| trans-Z-.alpha.-Bisabolene epoxide     | 1000131-71-1 | NIST05.L | 71388 | 25      | C15H24O | 220    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 124735800195628511SVH111LANL

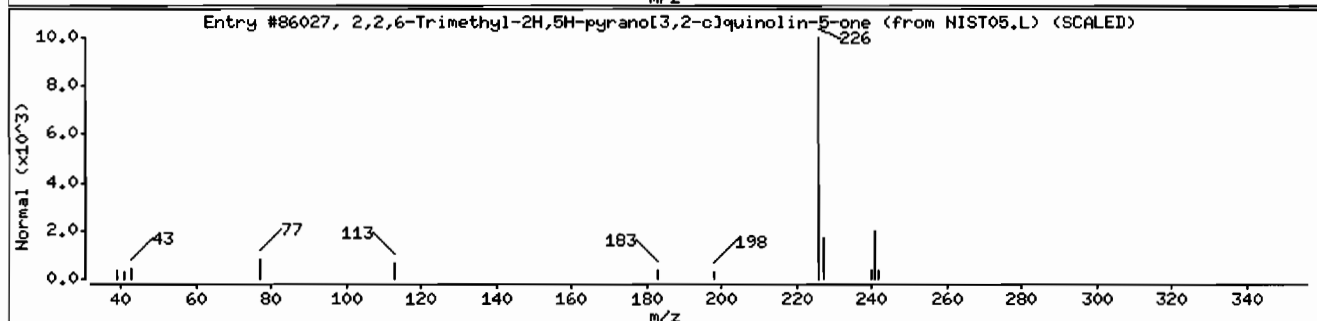
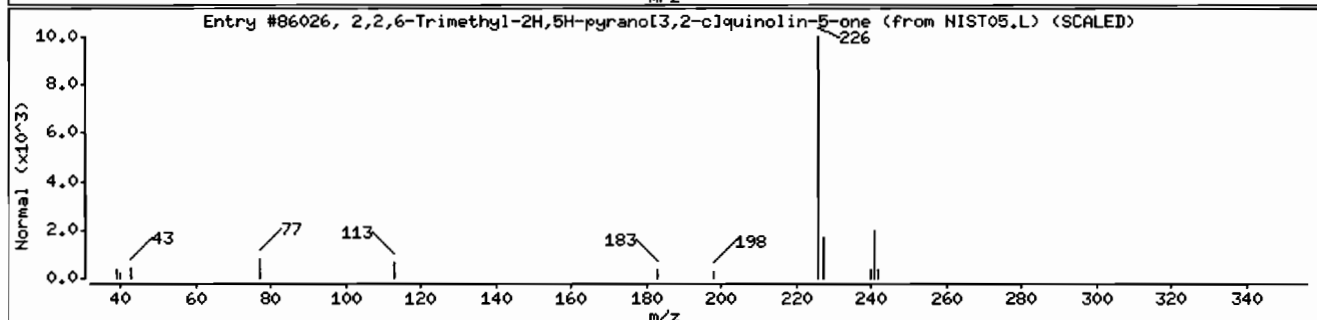
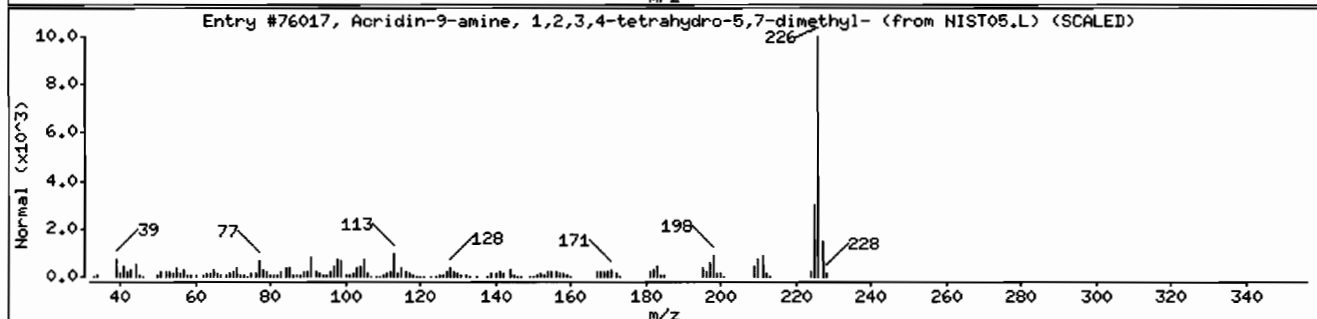
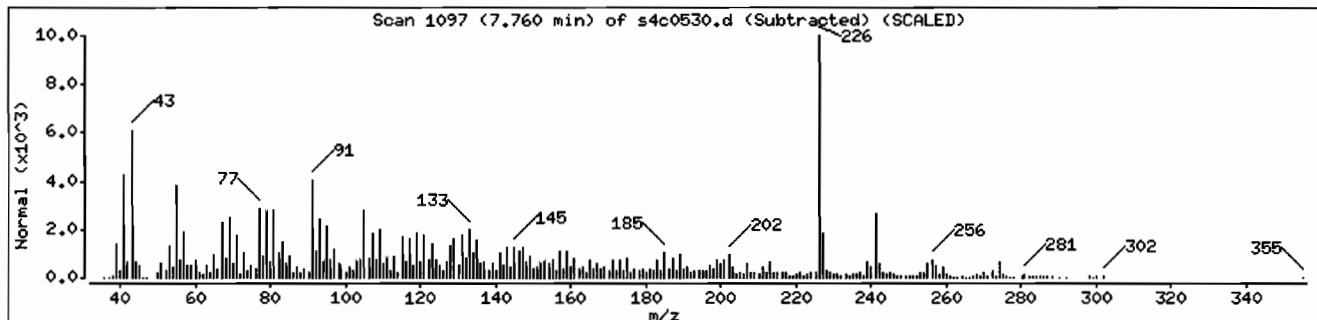
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number   | Library  | Entry | Quality | Formula   | Weight |
|---|--------------|----------|-------|---------|-----------|--------|
| Unknown                                   |              |          |       |         |           |        |
| Acridin-9-amine, 1,2,3,4-tetrahydro-5,7-  | 1000300-57-6 | NIST05.L | 76017 | 53      | C15H18N2  | 226    |
| 2,2,6-Trimethyl-2H,5H-pyranol[3,2-c]quino | 50333-13-6   | NIST05.L | 86026 | 53      | C15H15N02 | 241    |
| 2,2,6-Trimethyl-2H,5H-pyranol[3,2-c]quino | 50333-13-6   | NIST05.L | 86027 | 49      | C15H15N02 | 241    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

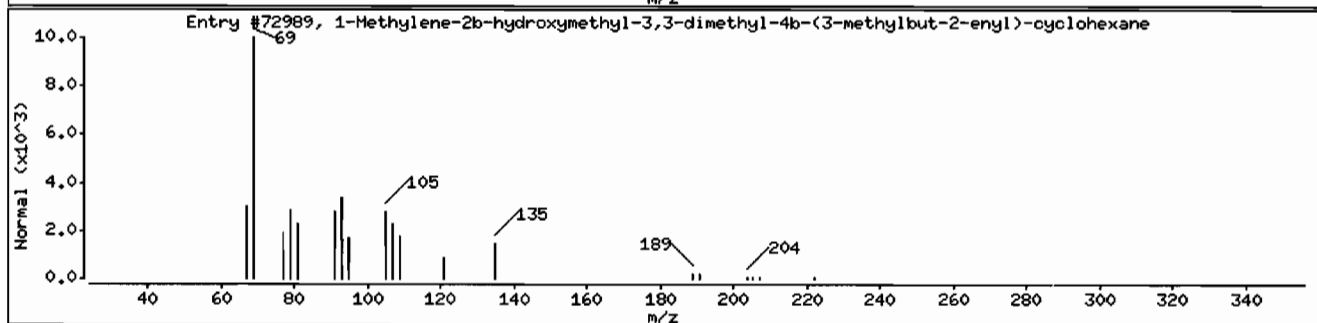
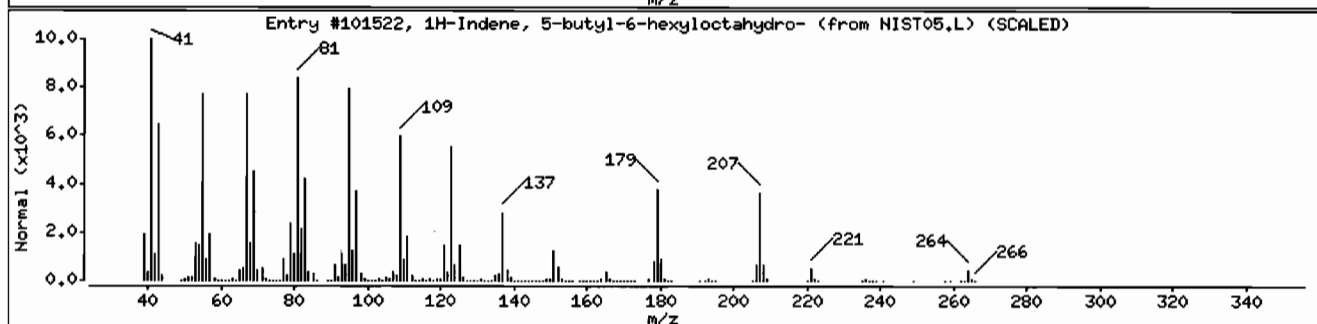
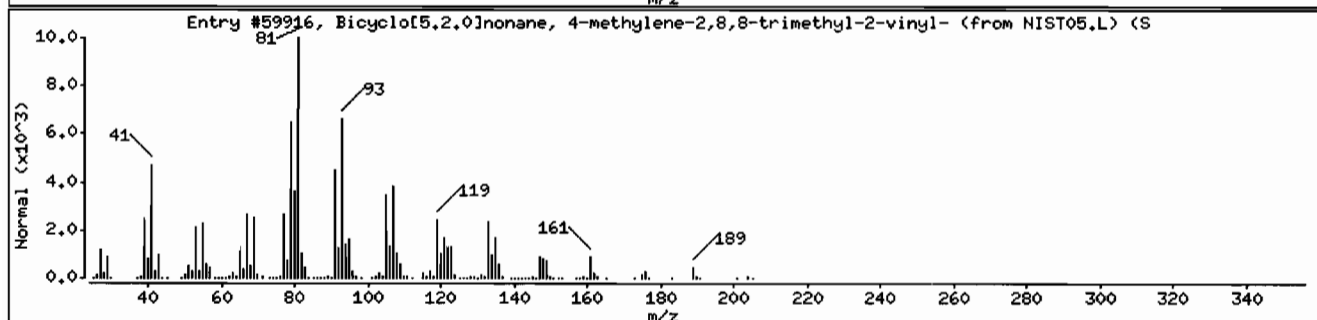
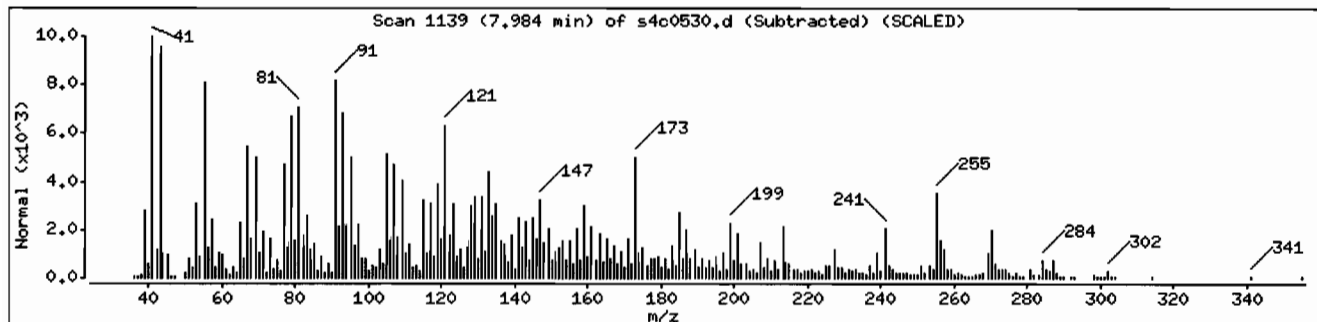
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula | Weight |
|--|--------------|----------|--------|---------|---------|--------|
| Unknown                                  |              |          |        |         |         |        |
| Bicyclo[5.2.0]nonane, 4-methylene-2,8,8- | 1000159-38-2 | NIST05.L | 59916  | 70      | C15H24  | 204    |
| 1H-Indene, 5-butyl-6-hexyloctahydro-     | 55044-36-5   | NIST05.L | 101522 | 56      | C19H36  | 264    |
| 1-Methylene-2b-hydroxymethyl-3,3-dimethy | 1000144-10-6 | NIST05.L | 72989  | 51      | C15H26O | 222    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001195628511ISVM111LANL

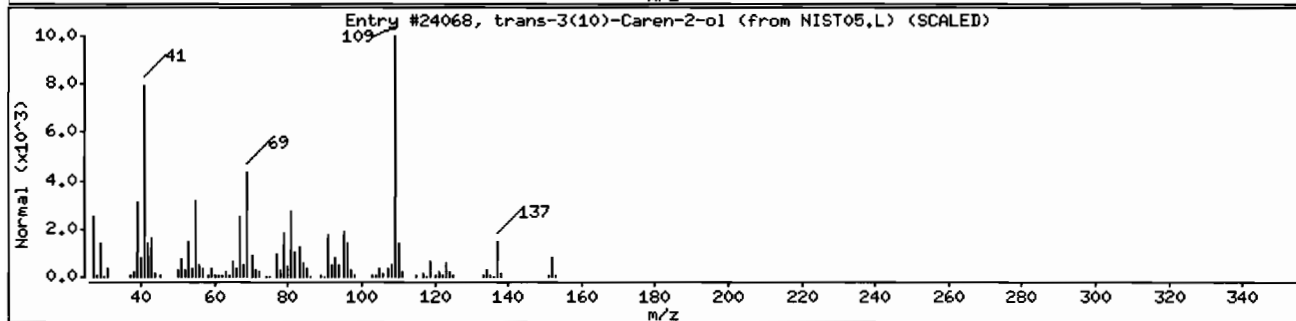
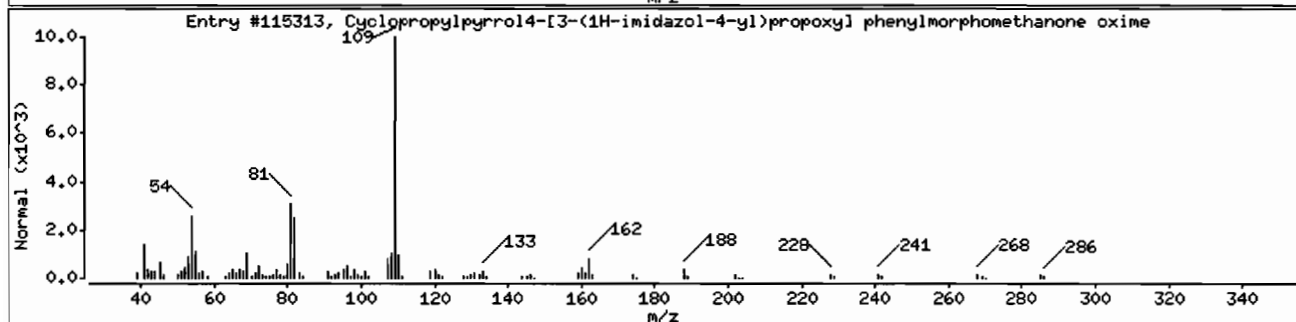
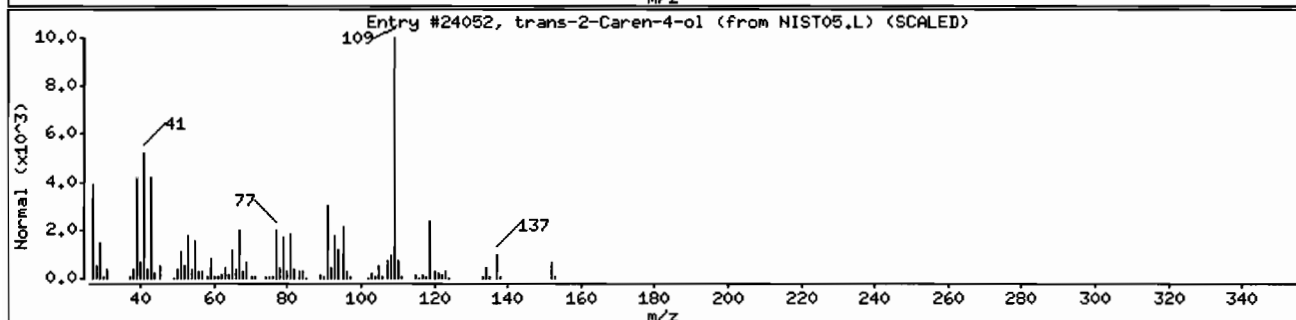
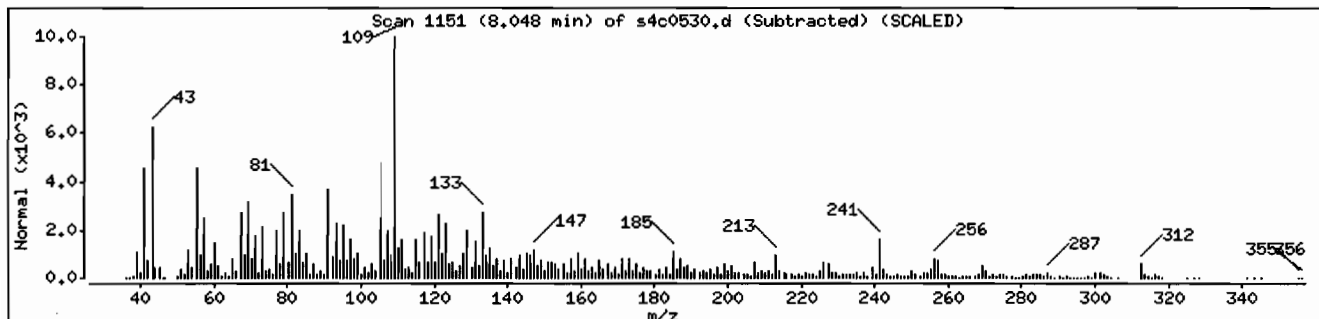
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match              | CAS Number   | Library  | Entry  | Quality | Formula    | Weight |
|--|--------------|----------|--------|---------|------------|--------|
| Unknown                                    |              |          |        |         |            |        |
| trans-2-Caren-4-ol                         | 4017-82-7    | NIST05.L | 24052  | 38      | C10H16O    | 152    |
| Cyclopropylpyrrol-4-[3-(1H-imidazol-4-yl)] | 1000311-87-8 | NIST05.L | 115313 | 38      | C16H19N3O2 | 285    |
| trans-3(10)-Caren-2-ol                     | 1000151-66-5 | NIST05.L | 24068  | 38      | C10H16O    | 152    |



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Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001|9562851|ISVM1|ILANL

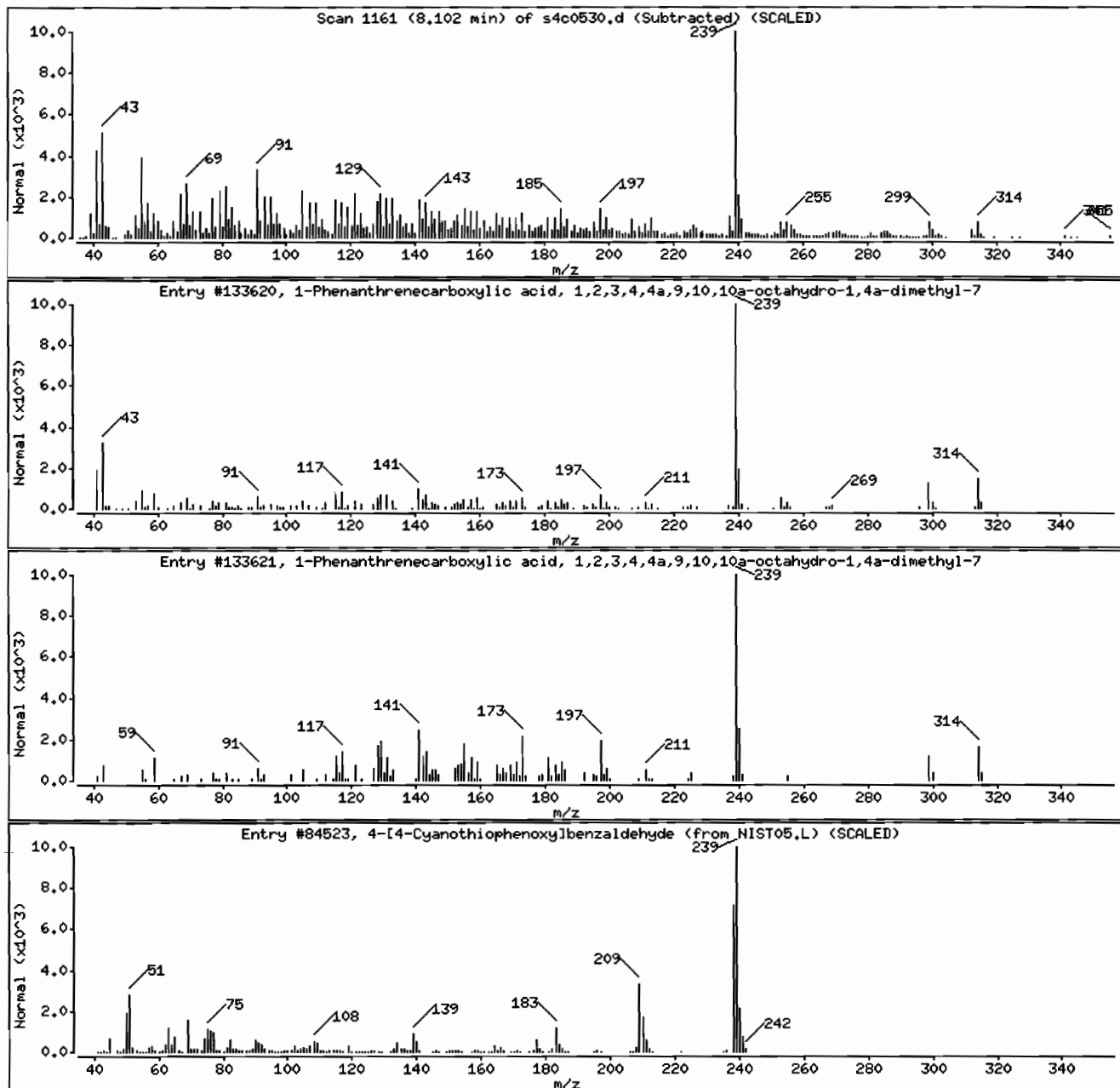
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1235-74-1    | NIST05.L | 133620 | 95      | C21H30O2 | 314    |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1235-74-1    | NIST05.L | 133621 | 78      | C21H30O2 | 314    |
| 4-[4-Cyanothiophenoxy]benzaldehyde       | 1000212-26-1 | NIST05.L | 84523  | 50      | C14H9NOS | 239    |





Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511SVMI11LANL

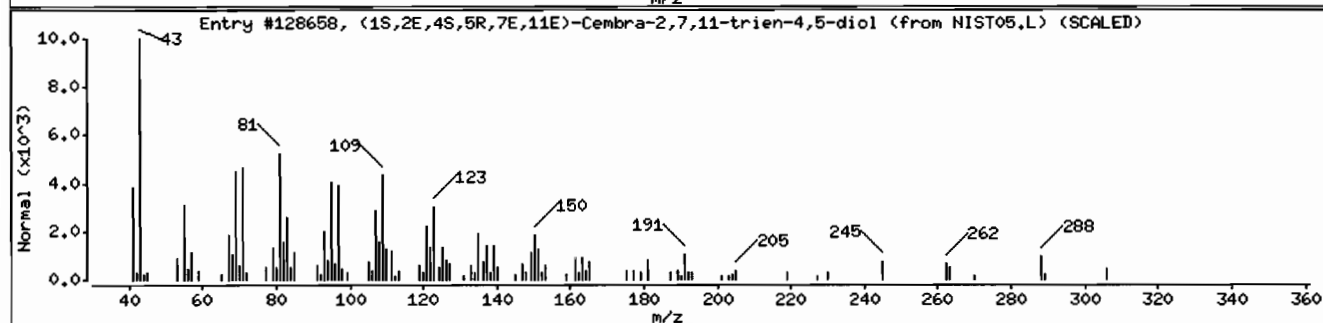
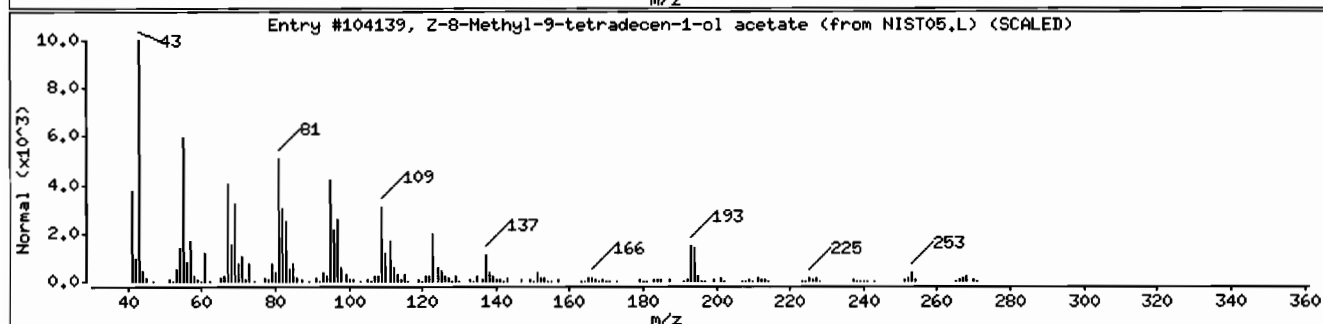
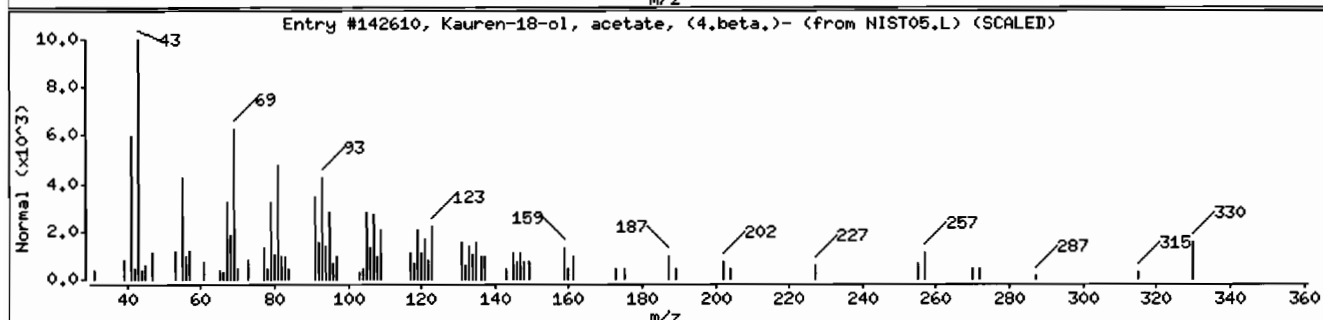
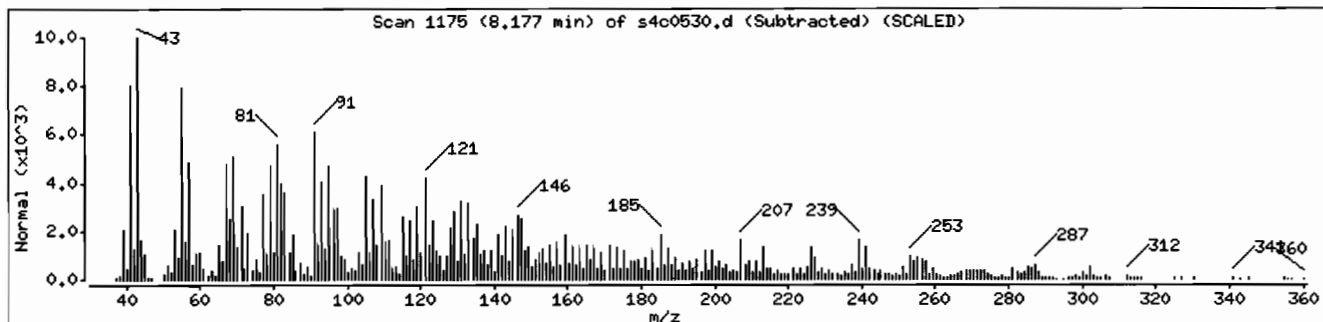
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| Kauren-18-ol, acetate, (4,beta,)-        | 72150-74-4   | NIST05.L | 142610 | 92      | C22H34O2 | 330    |
| Z-8-Methyl-9-tetradecen-1-ol acetate     | 1000130-82-4 | NIST05.L | 104139 | 62      | C17H32O2 | 268    |
| (1S,2E,4S,5R,7E,11E)-Cembra-2,7,11-trien | 1000140-92-3 | NIST05.L | 128658 | 60      | C20H34O2 | 306    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: HSD4.i

Sample Info: 12473580011956285111SVMI11LANL

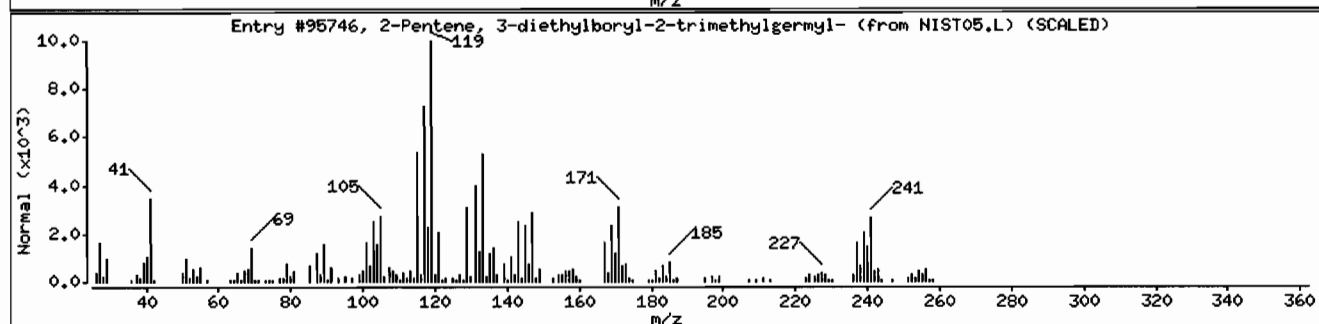
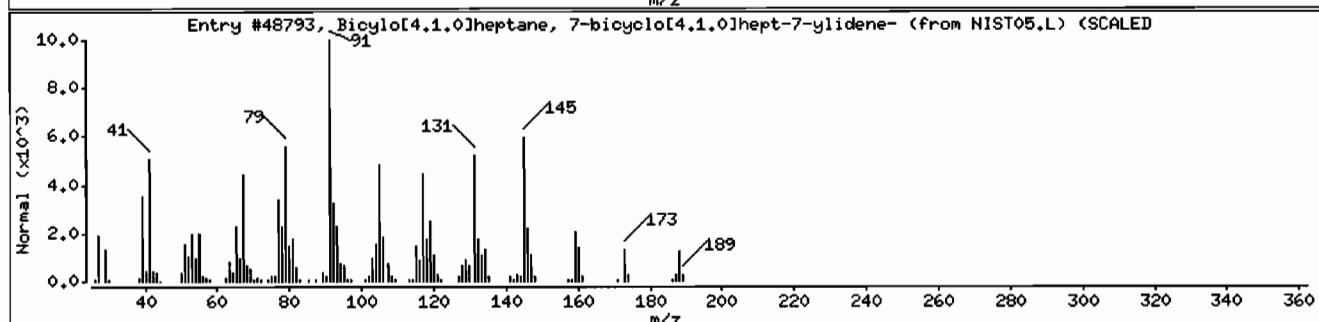
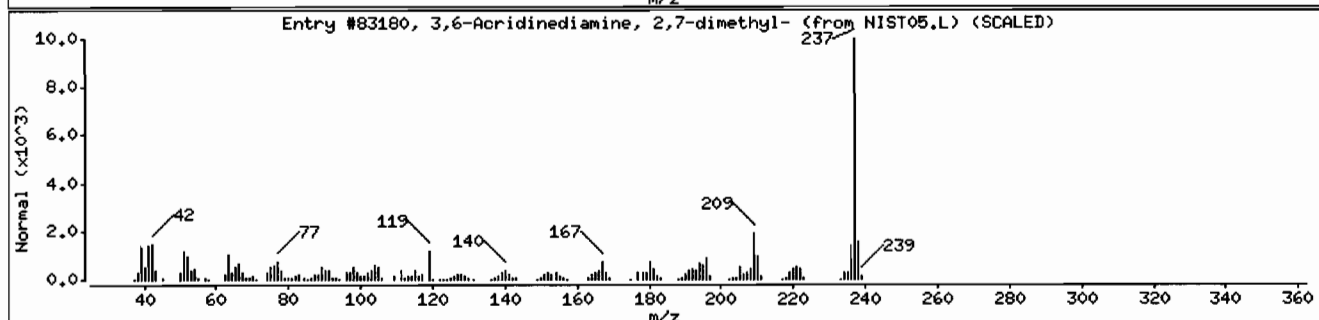
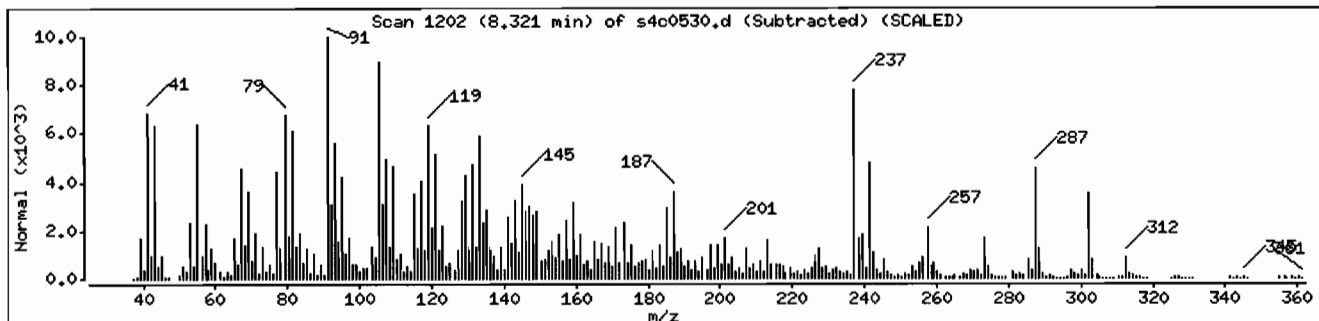
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number   | Library  | Entry | Quality | Formula   | Weight |
|---|--------------|----------|-------|---------|-----------|--------|
| Unknown                                   |              |          |       |         |           |        |
| 3,6-Acridinediamine, 2,7-dimethyl-        | 92-26-2      | NIST05.L | 83180 | 44      | C15H15N3  | 237    |
| Bicyclo[4.1.0]heptane, 7-bicyclo[4.1.0]he | 1000152-39-9 | NIST05.L | 48793 | 35      | C14H20    | 188    |
| 2-Pentene, 3-diethylboryl-2-trimethylger  | 1000153-65-0 | NIST05.L | 95746 | 30      | C12H27BGe | 256    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511SVH11ILANL

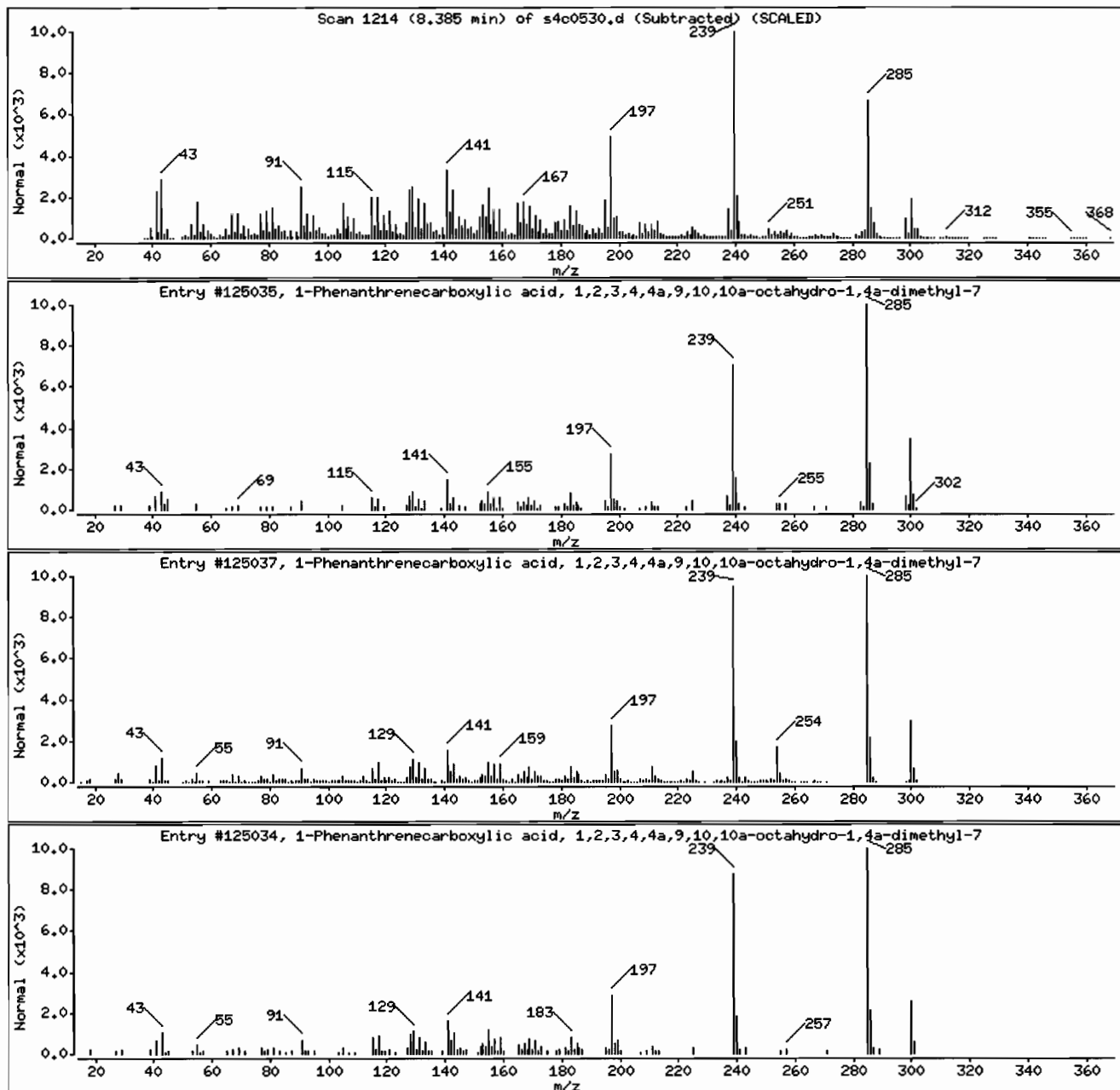
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--|------------|----------|--------|---------|----------|--------|
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 5155-70-4  | NIST05.L | 125035 | 96      | C20H28O2 | 300    |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1740-19-8  | NIST05.L | 125037 | 90      | C20H28O2 | 300    |
| 1-Phenanthrenecarboxylic acid, 1,2,3,4,4 | 1740-19-8  | NIST05.L | 125034 | 87      | C20H28O2 | 300    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001195628511ISVM111LANL

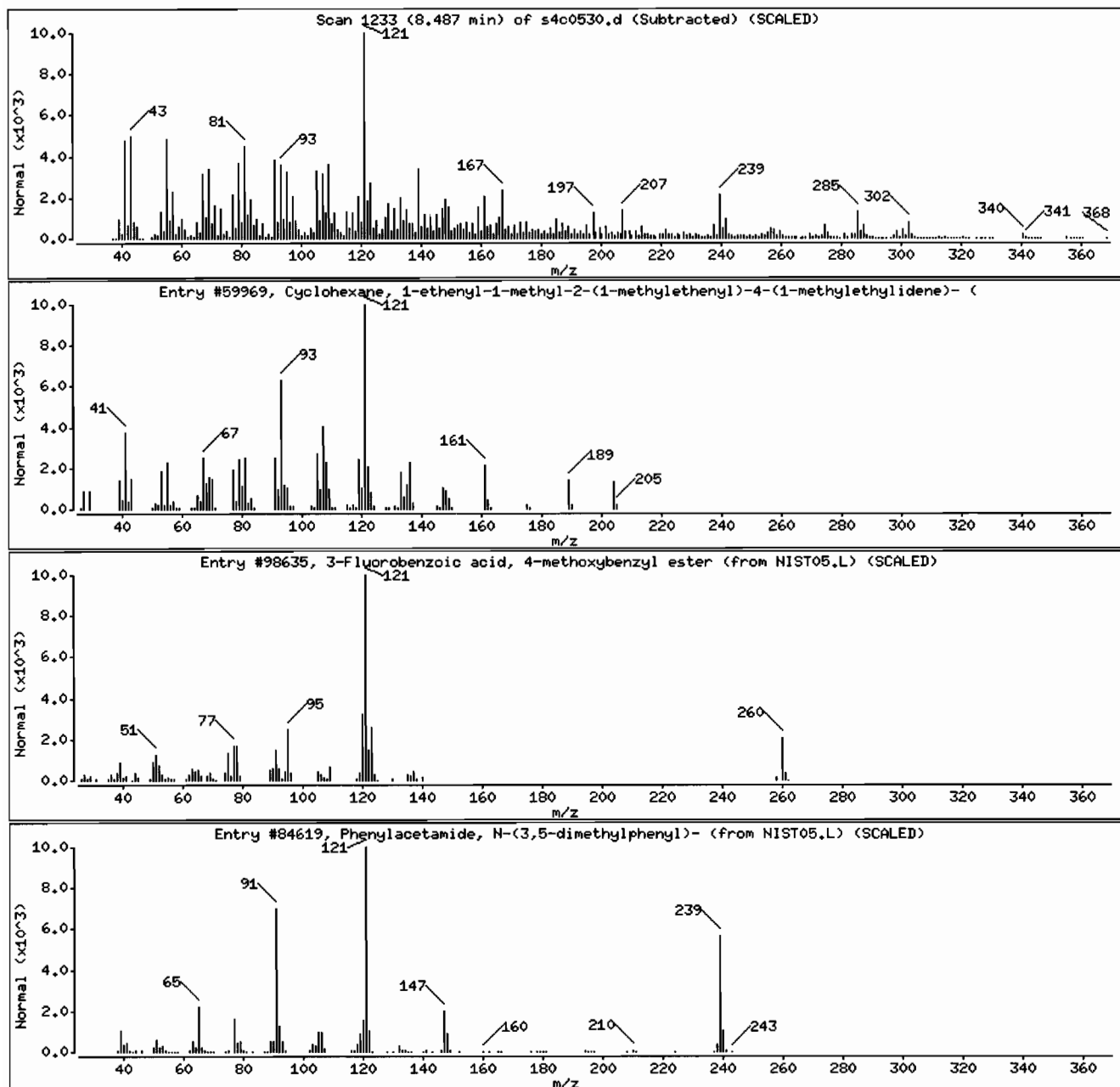
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry | Quality | Formula   | Weight |
|--|--------------|----------|-------|---------|-----------|--------|
| Unknown                                  |              |          |       |         |           |        |
| Cyclohexane, 1-ethenyl-1-methyl-2-(1-met | 3242-08-8    | NIST05.L | 59969 | 78      | C15H24    | 204    |
| 3-Fluorobenzoic acid, 4-methoxybenzyl es | 1000279-93-0 | NIST05.L | 98635 | 38      | C15H13FO3 | 260    |
| Phenylacetamide, N-(3,5-dimethylphenyl)- | 329937-72-6  | NIST05.L | 84619 | 30      | C16H17NO  | 239    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511ISVM11ILANL

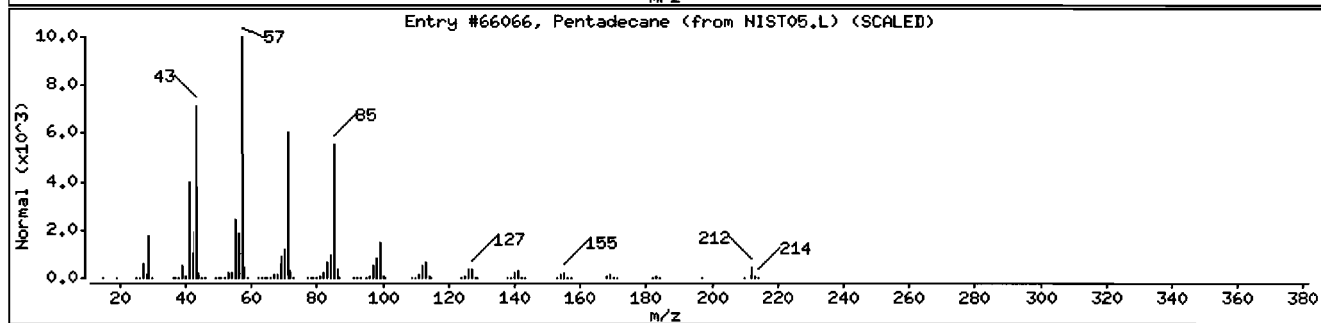
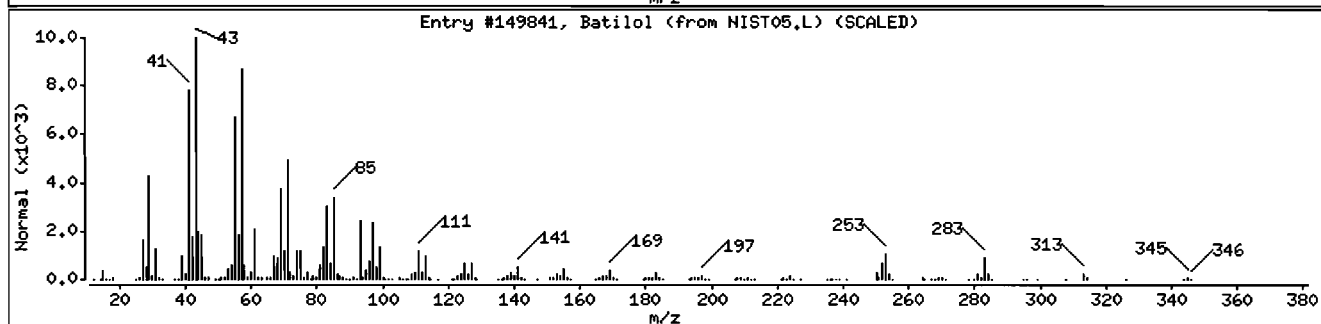
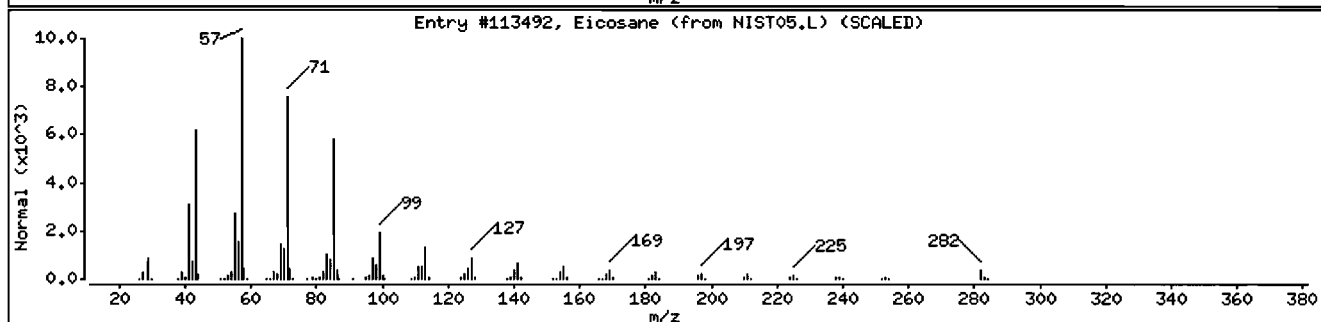
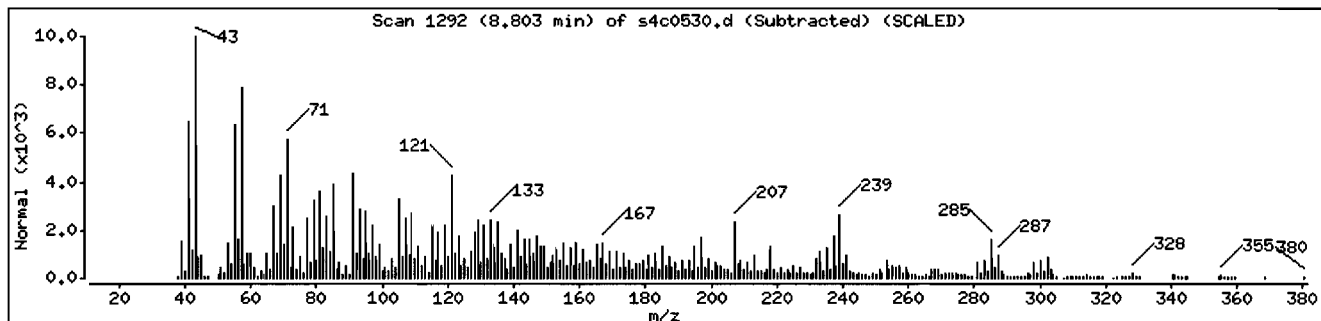
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|-------------------------------|------------|----------|--------|---------|----------|--------|
| Unknown                       |            |          |        |         |          |        |
| Eicosane                      | 112-95-8   | NIST05.L | 113492 | 56      | C20H42   | 282    |
| Batilol                       | 544-62-7   | NIST05.L | 149841 | 55      | C21H44O3 | 344    |
| Pentadecane                   | 629-62-9   | NIST05.L | 66066  | 53      | C15H32   | 212    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I2473580011956285111SVH111LANL

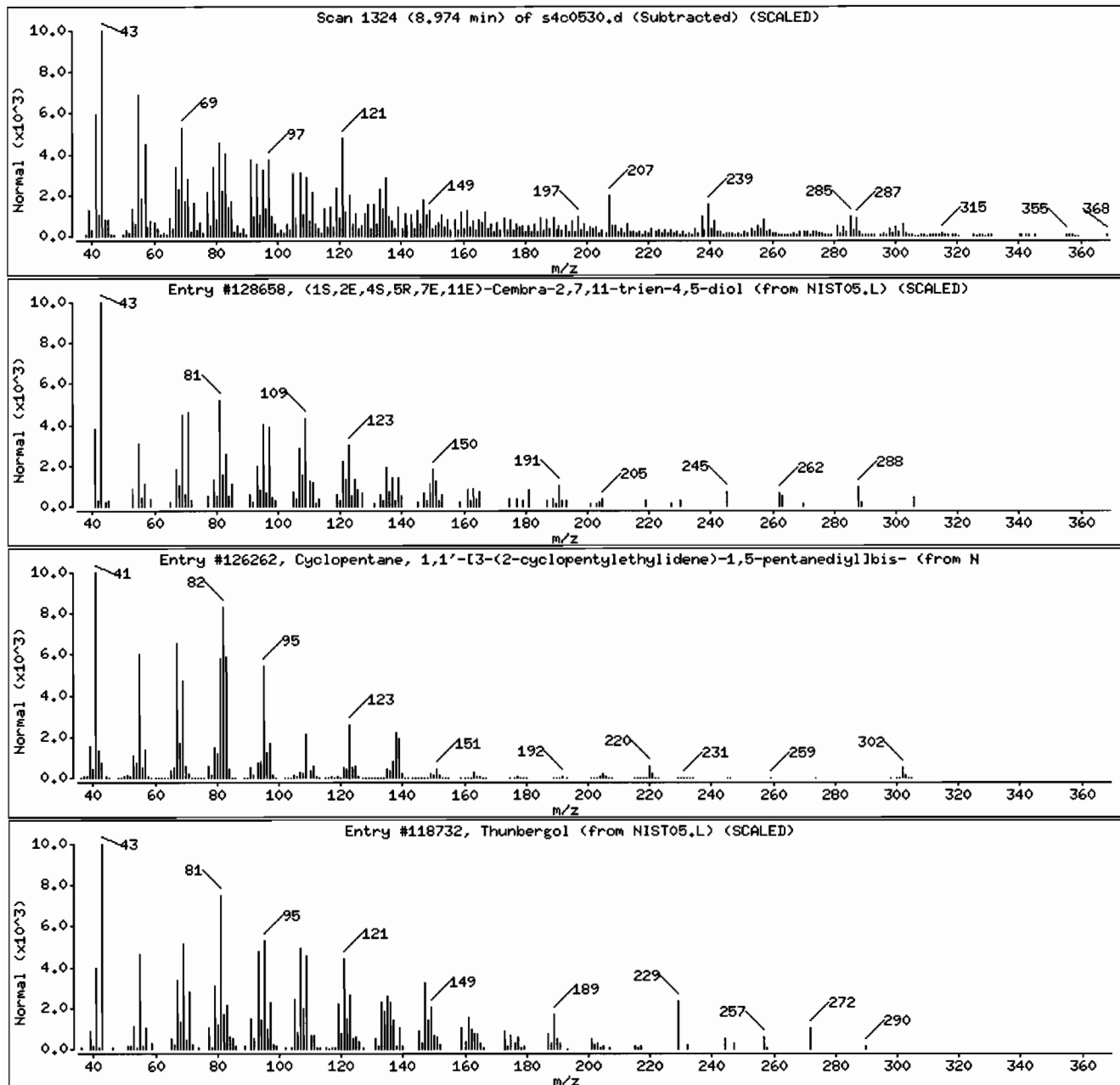
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| Unknown                                  |              |          |        |         |          |        |
| (1S,2E,4S,5R,7E,11E)-Cembra-2,7,11-trien | 1000140-92-3 | NIST05.L | 128658 | 55      | C20H34O2 | 306    |
| Cyclopentane, 1,1'-[3-(2-cyclopentylethy | 54934-71-3   | NIST05.L | 126262 | 42      | C22H38   | 302    |
| Thunbergol                               | 25269-17-4   | NIST05.L | 118732 | 42      | C20H34O  | 290    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I24735800195628511SVMI11LANL

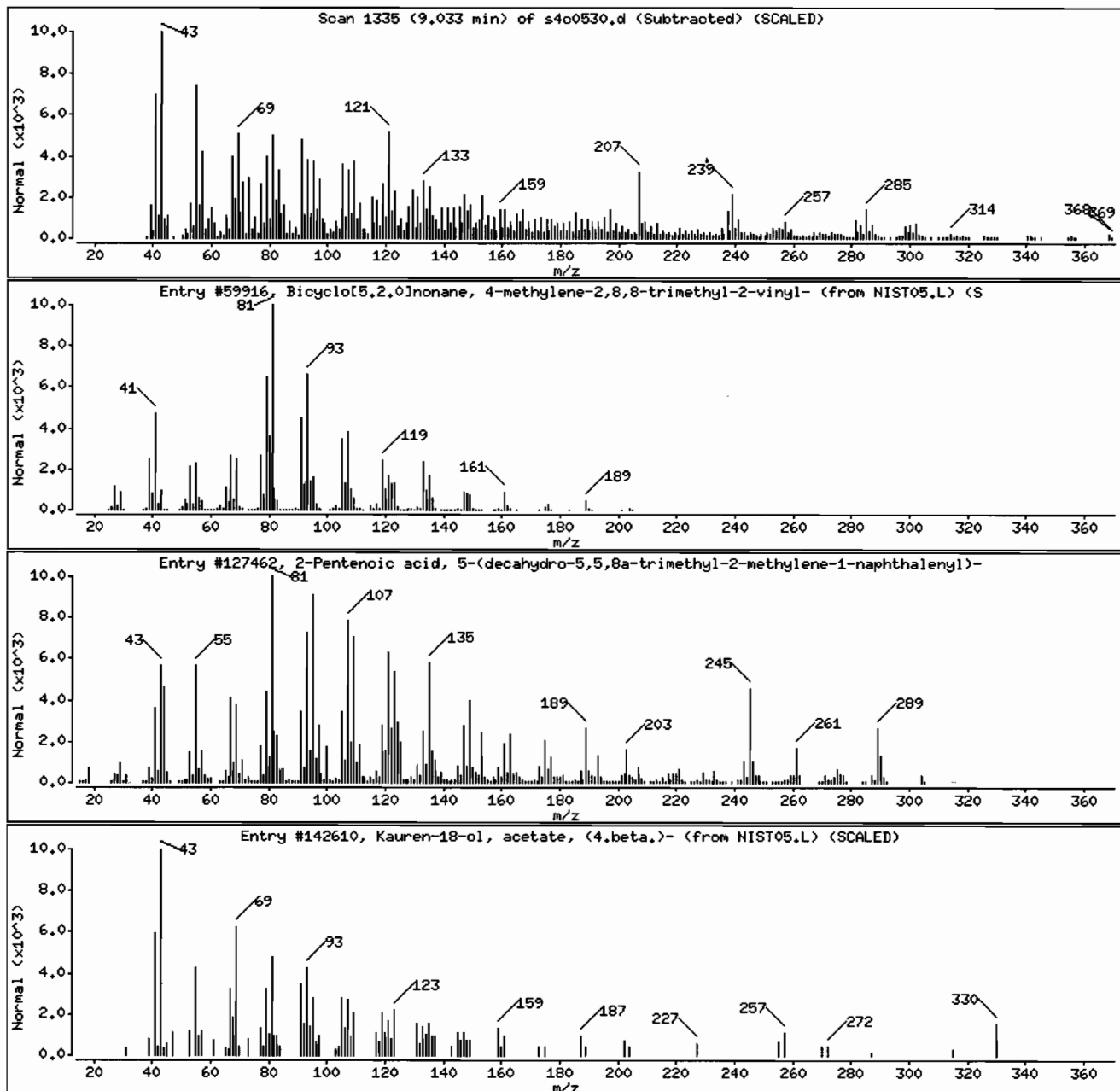
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number   | Library  | Entry  | Quality | Formula  | Weight |
|--|--------------|----------|--------|---------|----------|--------|
| Unknown                                  |              |          |        |         |          |        |
| Bicyclo[5.2.0]nonane, 4-methylene-2,8,8- | 1000159-38-2 | NIST05.L | 59916  | 53      | C15H24   | 204    |
| 2-Pentenoic acid, 5-(decahydro-5,5,8a-tr | 24470-48-2   | NIST05.L | 127462 | 47      | C20H32O2 | 304    |
| Kauren-18-ol, acetate, (4.beta.)-        | 72150-74-4   | NIST05.L | 142610 | 46      | C22H34O2 | 330    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 12473580011956285111SVH111LANL

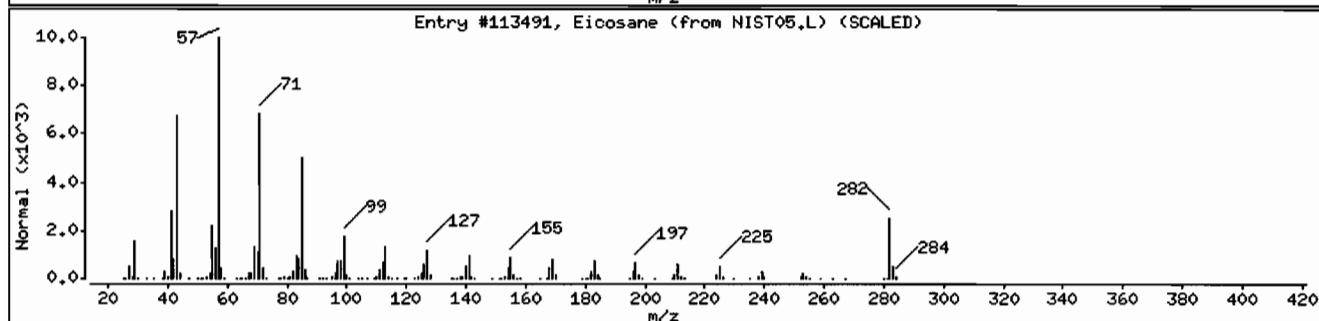
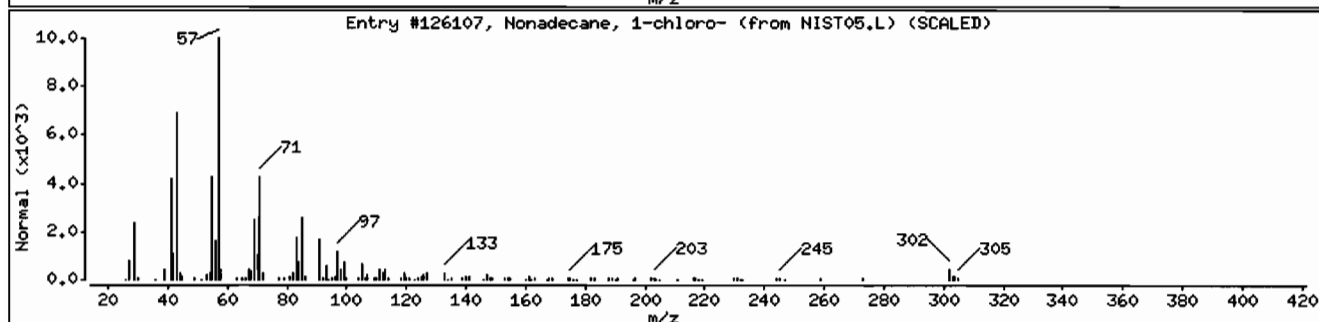
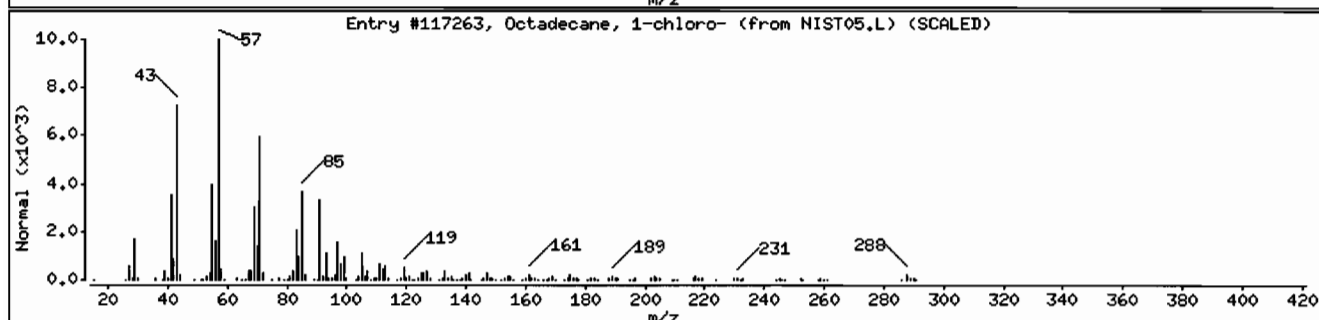
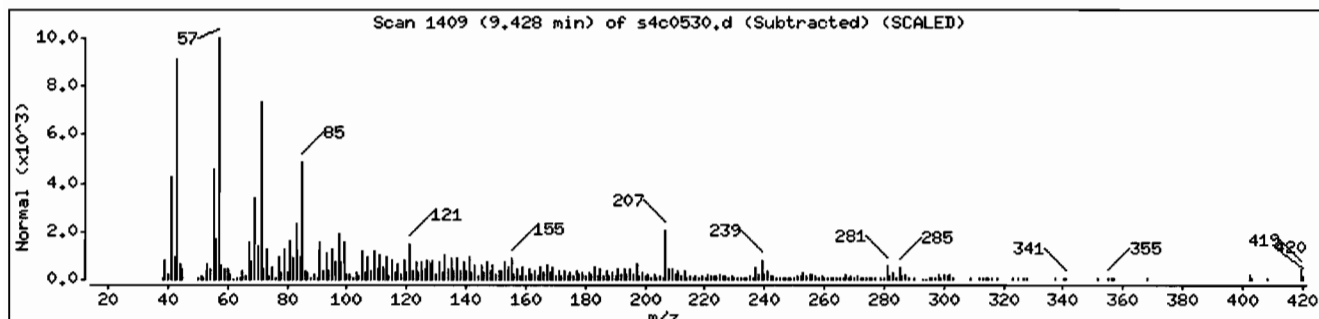
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|-------------------------------|------------|----------|--------|---------|----------|--------|
| Octadecane, 1-chloro-         | 3386-33-2  | NIST05.L | 117263 | 97      | C18H37Cl | 288    |
| Nonadecane, 1-chloro-         | 62016-76-6 | NIST05.L | 126107 | 94      | C19H39Cl | 302    |
| Eicosane                      | 112-95-8   | NIST05.L | 113491 | 93      | C20H42   | 282    |





Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511ISVH11ILANL

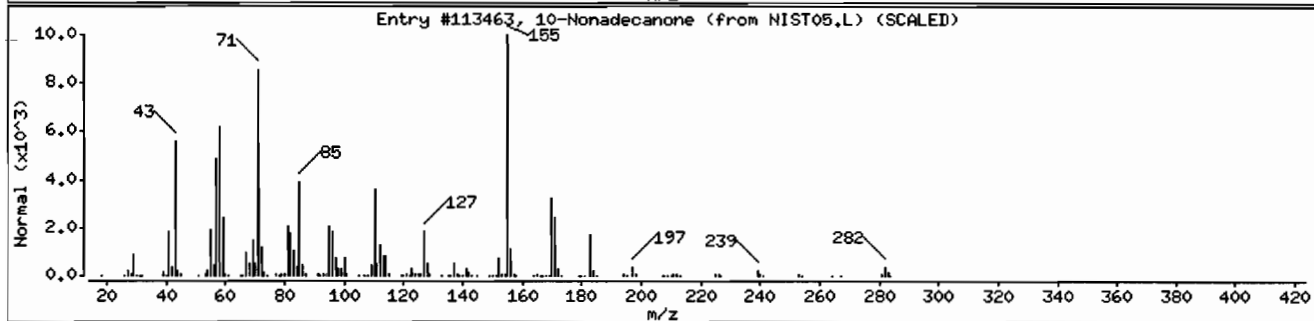
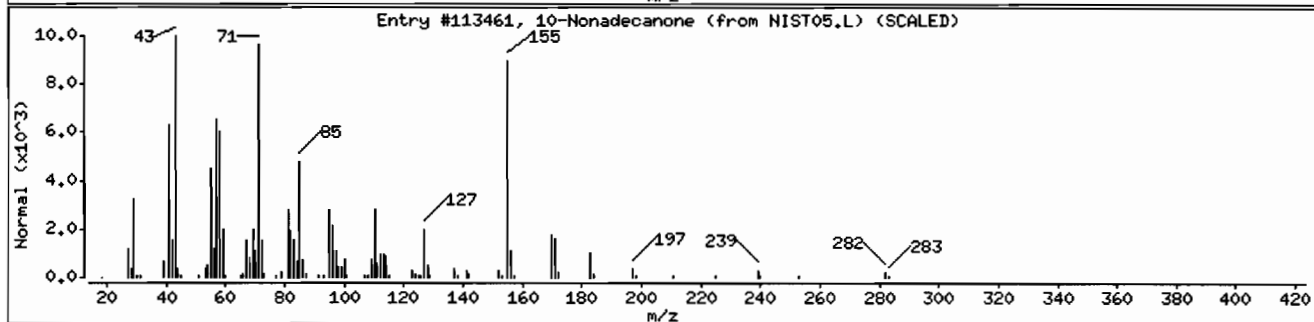
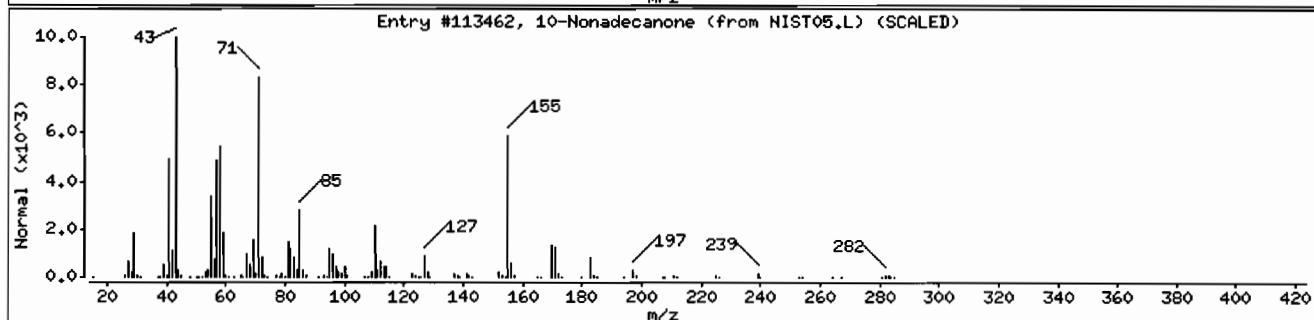
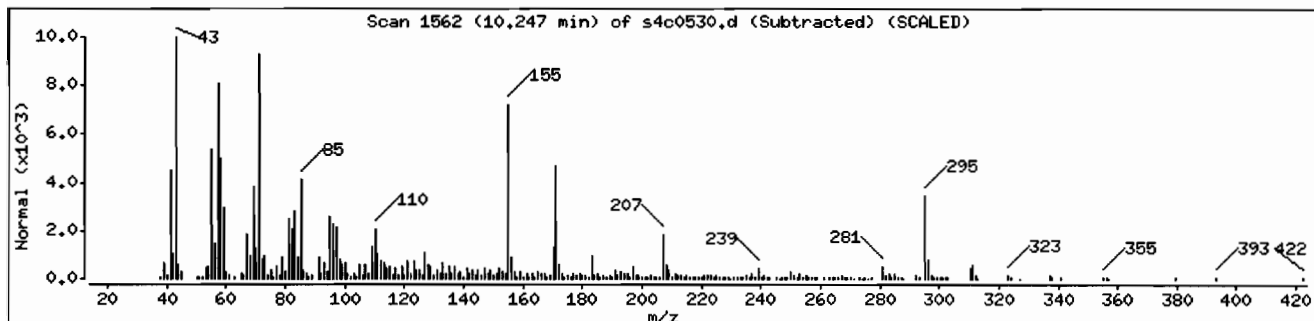
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula | Weight |
|-------------------------------|------------|----------|--------|---------|---------|--------|
| Unknown                       |            |          |        |         |         |        |
| 10-Nonadecanone               | 504-57-4   | NIST05.L | 113462 | 53      | C19H38O | 282    |
| 10-Nonadecanone               | 504-57-4   | NIST05.L | 113461 | 50      | C19H38O | 282    |
| 10-Nonadecanone               | 504-57-4   | NIST05.L | 113463 | 38      | C19H38O | 282    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: 1247358001195628511ISVH11ILANL

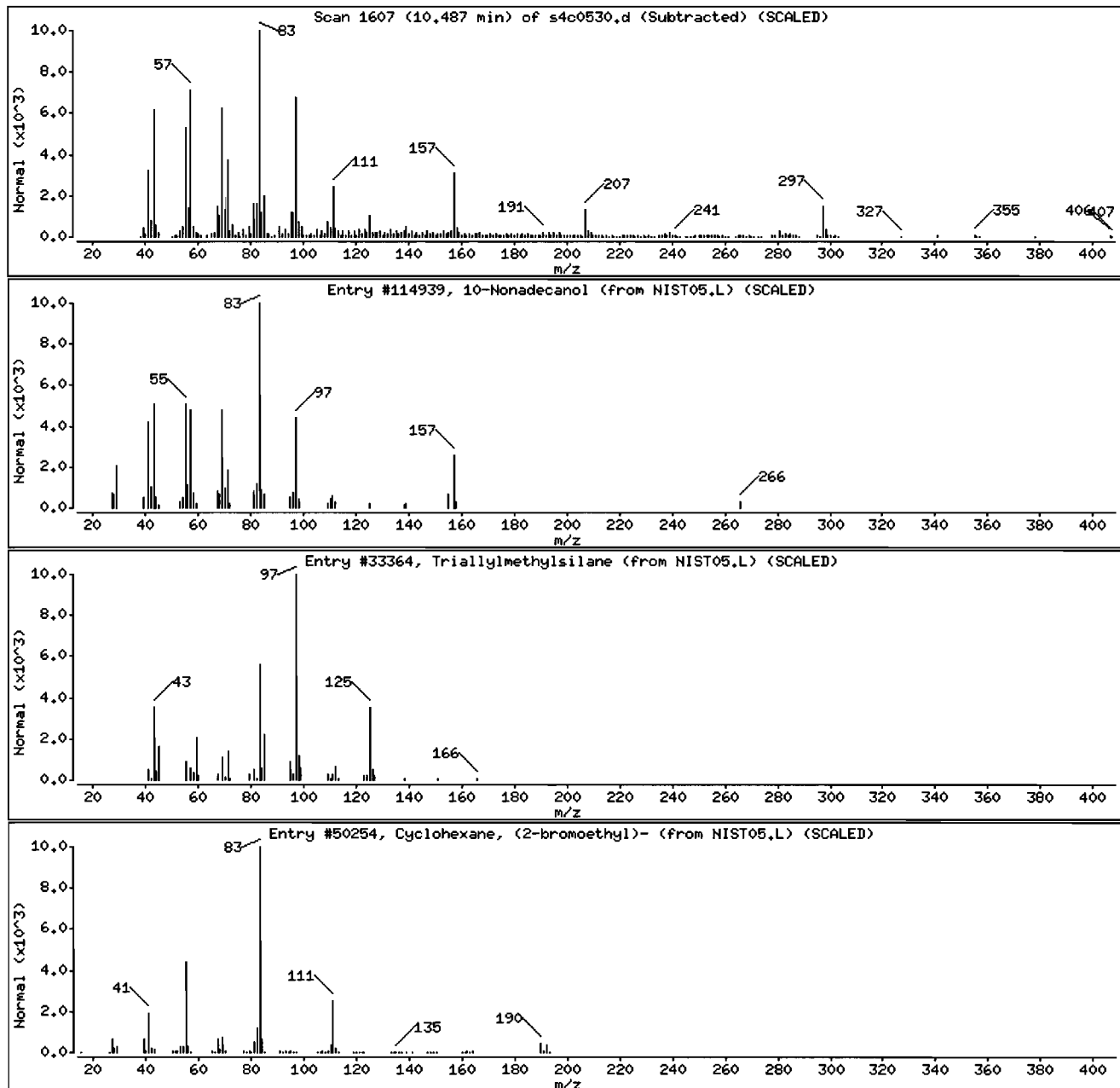
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|-------------------------------|------------|----------|--------|---------|----------|--------|
| Unknown                       |            |          |        |         |          |        |
| 10-Nonadecanol                | 16840-84-9 | NIST05.L | 114939 | 58      | C19H40O  | 284    |
| Triallylmethylsilane          | 1112-91-0  | NIST05.L | 33364  | 41      | C10H18Si | 166    |
| Cyclohexane, (2-bromoethyl)-  | 1647-26-3  | NIST05.L | 50254  | 38      | C8H15Br  | 190    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I2473580011956285111SVH111LANL

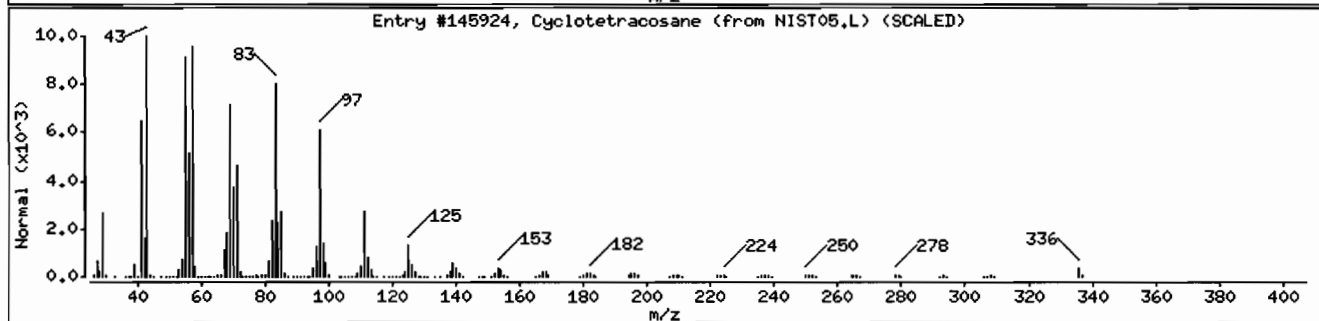
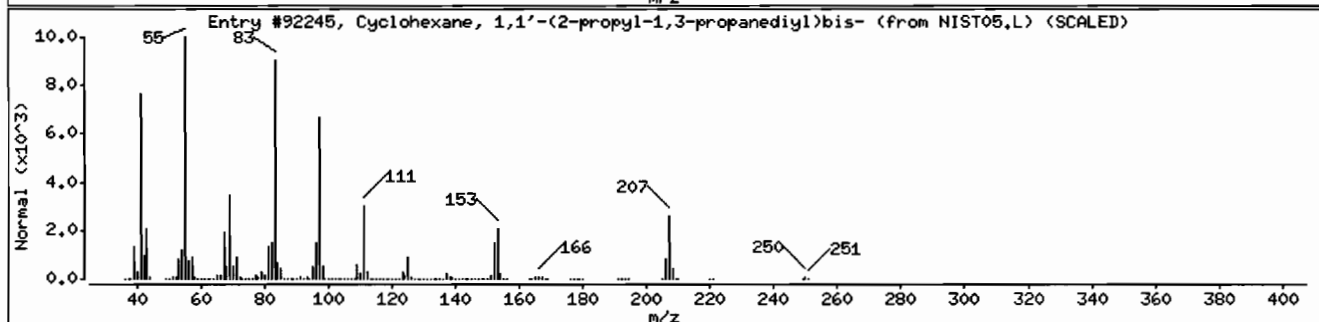
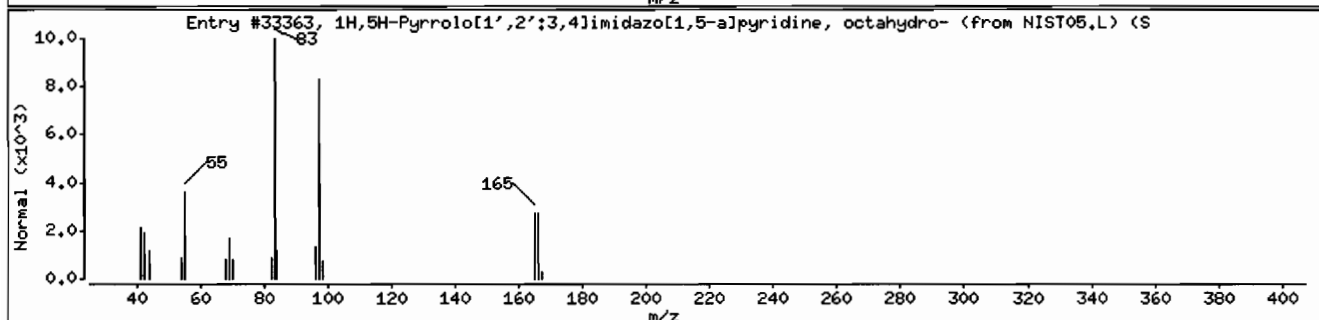
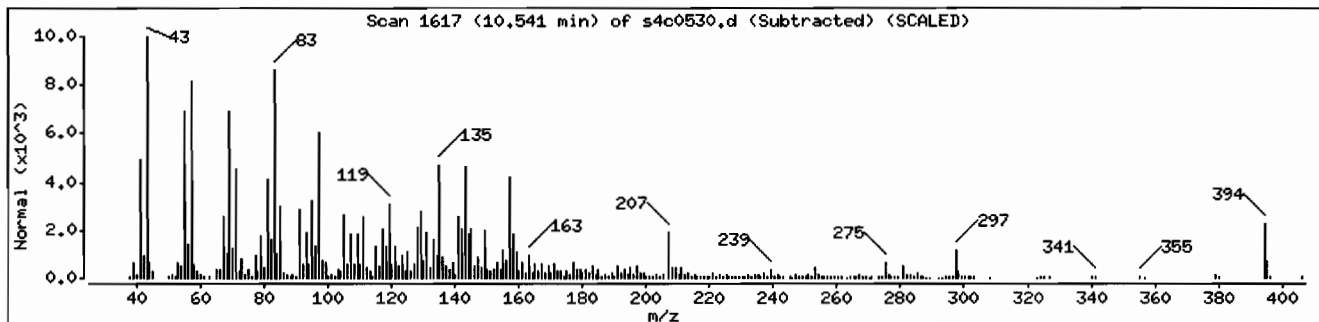
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match             | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|---|------------|----------|--------|---------|----------|--------|
| Unknown                                   |            |          |        |         |          |        |
| 1H,5H-Pyrrolo[1',2':3,4]imidazo[1,5-a]py  | 54966-11-9 | NIST05.L | 33363  | 30      | C10H18N2 | 166    |
| Cyclohexane, 1,1'-(2-propyl-1,3-propanedi | 55030-21-2 | NIST05.L | 92245  | 30      | C18H34   | 250    |
| Cyclotetrasiloxane                        | 297-03-0   | NIST05.L | 145924 | 25      | C24H48   | 336    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: HSD4.i

Sample Info: 12473580011956285111SVH111LANL

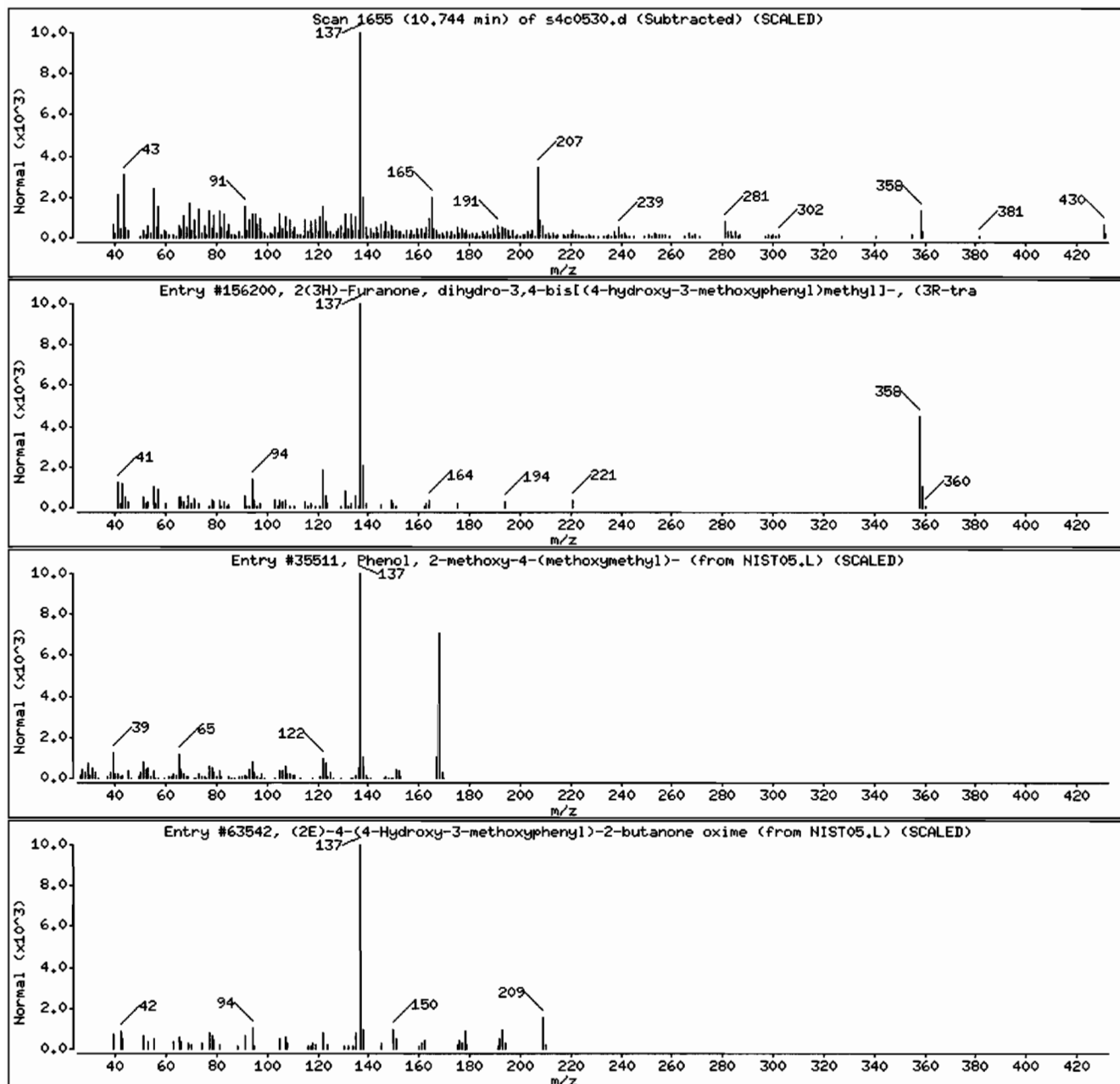
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match                                       | CAS Number   | Library  | Entry  | Quality | Formula   | Weight |
|---|--------------|----------|--------|---------|-----------|--------|
| 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]- | 580-72-3     | NIST05.L | 156200 | 92      | C20H22O6  | 358    |
| Phenol, 2-methoxy-4-(methoxymethyl)-                                | 5533-03-9    | NIST05.L | 35511  | 50      | C9H12O3   | 168    |
| (2E)-4-(4-Hydroxy-3-methoxyphenyl)-2-but                            | 1000297-96-4 | NIST05.L | 63542  | 50      | C11H15NO3 | 209    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001195628511SVH111LANL

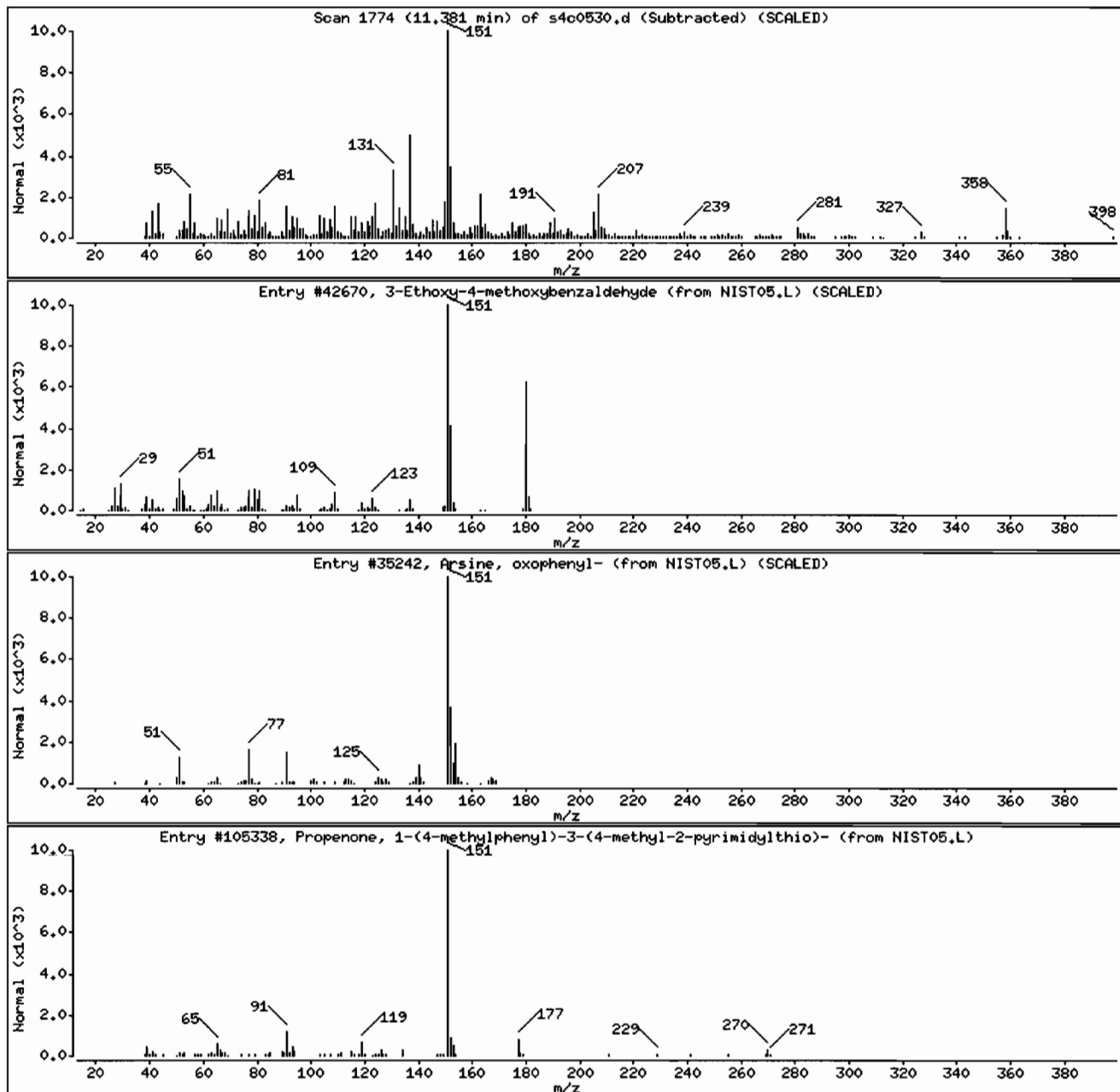
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number  | Library  | Entry  | Quality | Formula    | Weight |
|--|-------------|----------|--------|---------|------------|--------|
| Unknown                                  |             |          |        |         |            |        |
| 3-Ethoxy-4-methoxybenzaldehyde           | 1131-52-8   | NIST05.L | 42670  | 46      | C10H12O3   | 180    |
| Arsine, oxophenyl-                       | 637-03-6    | NIST05.L | 35242  | 38      | C6H5AsO    | 168    |
| Propenone, 1-(4-methylphenyl)-3-(4-methy | 276880-71-8 | NIST05.L | 105338 | 30      | C15H14N2OS | 270    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001|956285|1|SVM|1|LANL

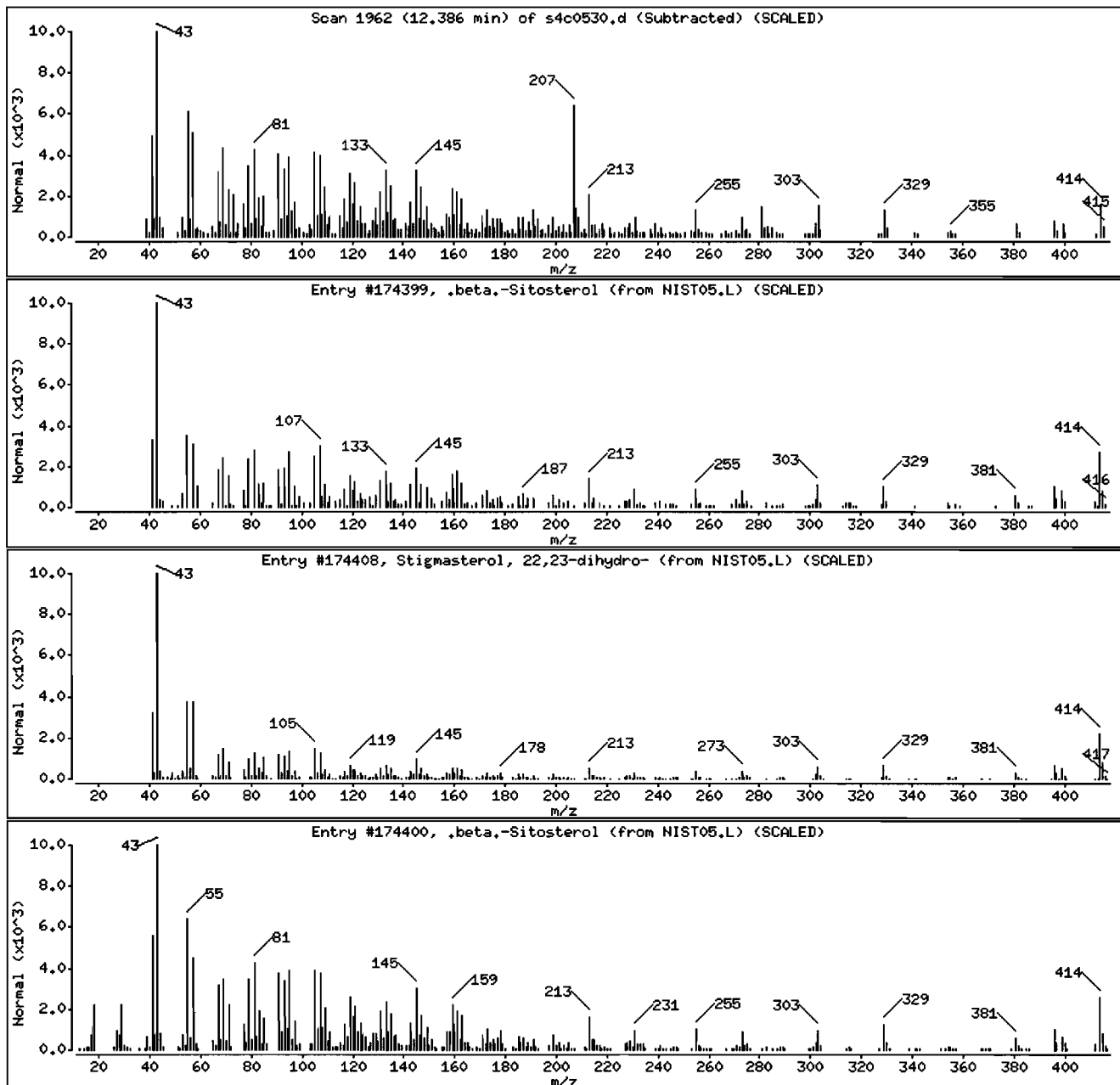
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match | CAS Number   | Library  | Entry  | Quality | Formula | Weight |
|-------------------------------|--------------|----------|--------|---------|---------|--------|
| .beta.-Sitosterol             | 83-46-5      | NIST05.L | 174399 | 99      | C29H50O | 414    |
| Stigmasterol, 22,23-dihydro-  | 1000214-20-7 | NIST05.L | 174408 | 96      | C29H50O | 414    |
| .beta.-Sitosterol             | 83-46-5      | NIST05.L | 174400 | 95      | C29H50O | 414    |



Date : 05-MAR-2010 21:23

Client ID: RE36-10-7427

Instrument: MSD4.i

Sample Info: I247358001195628511ISVMI1ILANL

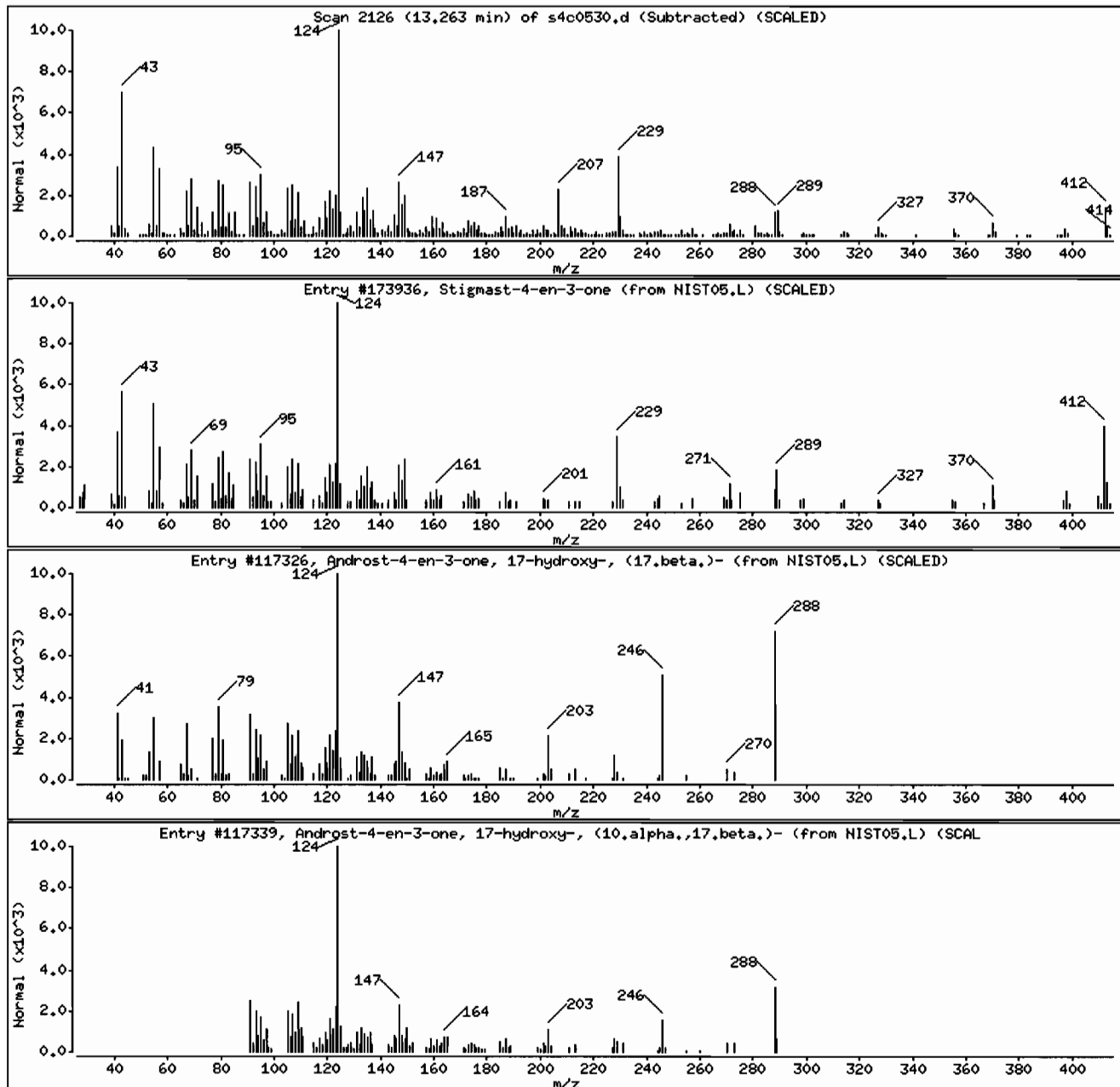
Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

| Library Search Compound Match            | CAS Number | Library  | Entry  | Quality | Formula  | Weight |
|--|------------|----------|--------|---------|----------|--------|
| Stigmast-4-en-3-one                      | 1058-61-3  | NIST05.L | 173936 | 95      | C29H48O  | 412    |
| Androst-4-en-3-one, 17-hydroxy-, (17.bet | 58-22-0    | NIST05.L | 117326 | 46      | C19H28O2 | 288    |
| Androst-4-en-3-one, 17-hydroxy-, (10.alp | 604-39-7   | NIST05.L | 117339 | 46      | C19H28O2 | 288    |



GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD4.i/s030410a.b/s4c0435.d  
Lab Smp Id: 1202050558 Client Smp ID: RE16-10-1514MS  
Inj Date : 05-MAR-2010 01:17  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |1202050558|956285|1|SVM|1|MS\_LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 27 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1953.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.00000  | weight of sample          |
| M    | 11.25160  | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT SIG |        |        |         |        |          | CONCENTRATIONS       |                  |
|-----------------------------|-----------|--------|--------|---------|--------|----------|----------------------|------------------|
|                             |           | MASS   | RT     | EXP RT  | REL RT | RESPONSE | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 | 152       | 3.823  | 3.829  | (1.000) | 169492 | 40.0000  |                      |                  |
| * 29 Naphthalene-d8         | 136       | 4.690  | 4.690  | (1.000) | 722002 | 40.0000  |                      |                  |
| * 46 Acenaphthene-d10       | 164       | 5.941  | 5.941  | (1.000) | 359081 | 40.0000  |                      |                  |
| * 67 Phenanthrene-d10       | 188       | 6.936  | 6.936  | (1.000) | 649096 | 40.0000  |                      |                  |
| * 91 Chrysene-d12           | 240       | 8.616  | 8.610  | (1.000) | 443676 | 40.0000  |                      |                  |
| * 98 Perylene-d12           | 264       | 10.065 | 10.070 | (1.000) | 199536 | 40.0000  |                      |                  |
| \$ 3 2-Fluorophenol         | 112       | 3.021  | 3.021  | (0.790) | 201212 | 51.0350  | 1920                 |                  |
| \$ 5 Phenol-d5              | 99        | 3.550  | 3.545  | (0.929) | 242274 | 49.2431  | 1850                 |                  |
| \$ 20 Nitrobenzene-d5       | 82        | 4.187  | 4.192  | (0.893) | 78852  | 15.3192  | 575 (R)              |                  |
| \$ 39 2-Fluorobiphenyl      | 172       | 5.433  | 5.433  | (0.914) | 238473 | 24.7302  | 929                  |                  |
| \$ 60 2,4,6-Tribromophenol  | 329       | 6.487  | 6.481  | (1.092) | 67548  | 63.9986  | 2400                 |                  |
| \$ 81 p-Terphenyl-d14       | 244       | 7.861  | 7.861  | (0.912) | 243062 | 34.3422  | 1290                 |                  |



| Compounds                       | QUANT SIG<br>MASS | RT    | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS       |                  |
|---------------------------------|-------------------|-------|--------|---------|----------|----------------------|------------------|
|                                 |                   |       |        |         |          | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| =====                           | =====             | ==    | =====  | =====   | =====    | =====                | =====            |
| 6 Phenol                        | 94                | 3.556 | 3.556  | (0.930) | 129924   | 25.5156              | 958              |
| 8 2-Chlorophenol                | 128               | 3.695 | 3.695  | (0.966) | 94972    | 21.7152              | 816              |
| 11 1,4-Dichlorobenzene          | 146               | 3.834 | 3.839  | (1.003) | 78644    | 14.9919              | 563              |
| 17 N-Nitrosodipropylamine       | 70                | 4.064 | 4.069  | (1.063) | 71651    | 21.8625              | 821 (Q)          |
| 28 1,2,4-Trichlorobenzene       | 180               | 4.641 | 4.641  | (0.990) | 86538    | 20.5337              | 771              |
| 33 4-Chloro-3-methylphenol      | 107               | 5.048 | 5.037  | (1.076) | 80173    | 23.5928              | 886              |
| 47 Acenaphthene                 | 154               | 5.968 | 5.968  | (1.004) | 226242   | 26.8860              | 1010             |
| 50 2,4-Dinitrotoluene           | 165               | 6.053 | 6.054  | (1.019) | 64817    | 25.6004              | 962              |
| 52 4-Nitrophenol                | 139               | 6.000 | 5.989  | (1.010) | 30017    | 27.1121              | 1020             |
| 65 Pentachlorophenol            | 266               | 6.808 | 6.802  | (0.981) | 30154    | 27.9364              | 1050             |
| 79 Pyrene                       | 202               | 7.813 | 7.813  | (0.907) | 342093   | 28.7743              | 1080             |
| 2 Pyridine                      | 79                | 2.411 | 2.384  | (0.631) | 69355    | 18.3289              | 688              |
| 4 Aniline                       | 66                | 3.609 | 3.615  | (0.944) | 44390    | 20.6885              | 777 (Q)          |
| 7 bis(2-Chloroethyl) ether      | 63                | 3.625 | 3.631  | (0.948) | 74634    | 21.9263              | 824 (Q)          |
| 9 1,3-Dichlorobenzene           | 146               | 3.786 | 3.791  | (0.990) | 94489    | 19.1590              | 720              |
| 12 Benzyl alcohol               | 108               | 3.919 | 3.898  | (1.025) | 64793    | 26.9492              | 1010 (Q)         |
| 13 1,2-Dichlorobenzene          | 146               | 3.935 | 3.941  | (1.029) | 85413    | 18.1306              | 681              |
| 14 bis(2-Chloroisopropyl) ether | 45                | 3.968 | 3.973  | (1.038) | 139011   | 24.0973              | 905              |
| 15 o-Cresol                     | 107               | 3.951 | 3.946  | (1.034) | 61223    | 17.3996              | 654 (Q)          |
| 18 m,p-Cresols                  | 107               | 4.048 | 4.053  | (1.059) | 113149   | 26.7800              | 1000             |
| 19 Hexachloroethane             | 117               | 4.165 | 4.165  | (1.090) | 26736    | 13.7339              | 516              |
| 21 Nitrobenzene                 | 77                | 4.203 | 4.203  | (0.896) | 102149   | 20.8384              | 783              |
| 22 Isophorone                   | 82                | 4.358 | 4.358  | (0.929) | 185342   | 20.6046              | 774              |
| 23 2-Nitrophenol                | 139               | 4.417 | 4.417  | (0.942) | 55627    | 22.7282              | 854              |
| 24 2,4-Dimethylphenol           | 122               | 4.417 | 4.412  | (0.942) | 105857   | 25.9674              | 975              |
| 25 bis(2-Chloroethoxy) methane  | 93                | 4.476 | 4.481  | (0.954) | 107693   | 20.1192              | 756              |
| 26 2,4-Dichlorophenol           | 162               | 4.577 | 4.577  | (0.976) | 76327    | 21.8066              | 819              |
| 27 Benzoic acid                 | 105               | 4.486 | 4.476  | (0.957) | 124100   | 50.0295              | 1880             |
| 30 Naphthalene                  | 128               | 4.706 | 4.706  | (1.003) | 342611   | 23.8927              | 897              |
| 31 4-Chloroaniline              | 127               | 4.727 | 4.727  | (1.008) | 147879   | 22.3807              | 841              |
| 32 Hexachlorobutadiene          | 225               | 4.770 | 4.770  | (1.017) | 43123    | 17.8642              | 671              |
| 34 2-Methylnaphthalene          | 142               | 5.187 | 5.187  | (1.106) | 228522   | 25.9702              | 975              |
| 36 Hexachlorocyclopentadiene    | 237               | 5.289 | 5.289  | (0.890) | 7705     | 10.9752              | 412 (R)          |
| 37 2,4,6-Trichlorophenol        | 196               | 5.380 | 5.380  | (0.905) | 71704    | 28.1612              | 1060             |
| 38 2,4,5-Trichlorophenol        | 196               | 5.412 | 5.406  | (0.911) | 69827    | 26.5154              | 996              |
| 40 2-Chloronaphthalene          | 162               | 5.540 | 5.540  | (0.932) | 183368   | 22.5974              | 849              |
| 42 o-Nitroaniline               | 65                | 5.604 | 5.604  | (0.943) | 55330    | 24.1669              | 908              |
| 41 m-Nitroaniline               | 138               | 5.898 | 5.898  | (0.993) | 51766    | 28.4362              | 1070             |
| 43 Dimethylphthalate            | 163               | 5.711 | 5.711  | (0.961) | 236085   | 25.5706              | 960              |
| 44 2,6-Dinitrotoluene           | 165               | 5.770 | 5.770  | (0.971) | 49222    | 23.2465              | 873              |
| 45 Acenaphthylene               | 152               | 5.845 | 5.845  | (0.984) | 351599   | 28.0102              | 1050             |
| 48 2,4-Dinitrophenol            | 184               | 5.968 | 5.968  | (1.004) | 17720    | 28.3142              | 1060             |
| 49 Dibenzofuran                 | 168               | 6.086 | 6.086  | (1.024) | 293491   | 26.5448              | 997              |
| 51 Diethylphthalate             | 149               | 6.198 | 6.198  | (1.043) | 255879   | 28.4860              | 1070             |
| 53 Fluorene                     | 166               | 6.321 | 6.321  | (1.064) | 276239   | 29.6232              | 1110             |
| 54 4-Chlorophenylphenylether    | 204               | 6.300 | 6.300  | (1.060) | 121506   | 27.1327              | 1020             |
| 55 2-Methyl-4,6-dinitrophenol   | 198               | 6.337 | 6.337  | (0.914) | 29423    | 23.6422              | 888              |

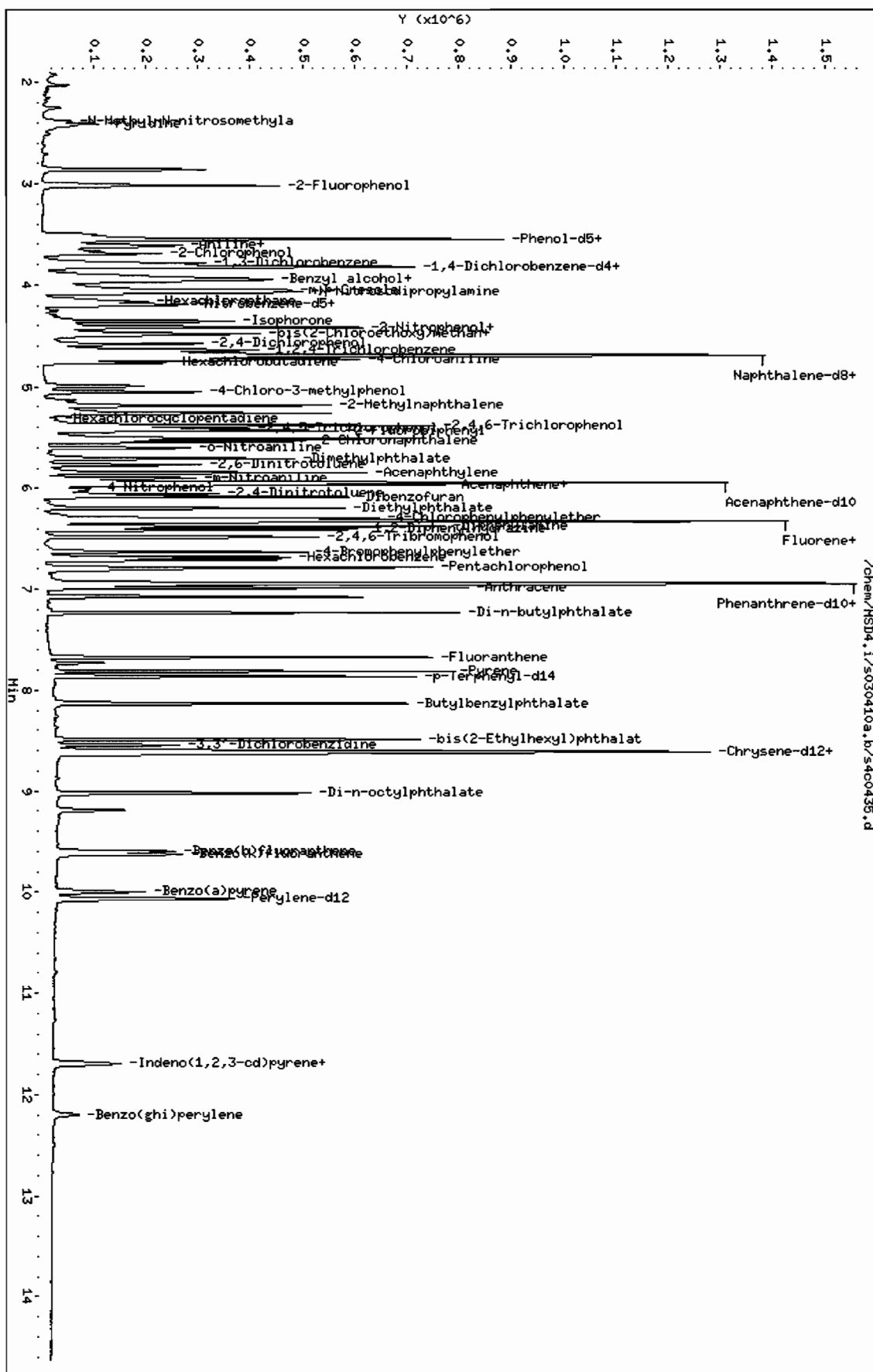
| Compounds                       | QUANT SIG<br>MASS | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS       |                  |
|---------------------------------|-------------------|--------|--------|---------|----------|----------------------|------------------|
|                                 |                   |        |        |         |          | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| =====                           | =====             | ==     | =====  | =====   | =====    | =====                | =====            |
| 56 p-Nitroaniline               | 138               | 6.326  | 6.321  | (1.065) | 60251    | 33.6842              | 1260             |
| 133 Diphenylamine               | 169               | 6.380  | 6.380  | (0.920) | 222168   | 26.4168              | 992              |
| 58 1,2-Diphenylhydrazine        | 77                | 6.407  | 6.407  | (0.924) | 272577   | 25.6101              | 962              |
| 61 4-Bromophenylphenylether     | 248               | 6.626  | 6.626  | (0.955) | 69012    | 24.1806              | 908              |
| 63 Hexachlorobenzene            | 284               | 6.685  | 6.685  | (0.964) | 69622    | 23.0567              | 866              |
| 68 Phenanthrene                 | 178               | 6.952  | 6.952  | (1.002) | 392859   | 27.2603              | 1020             |
| 69 Anthracene                   | 178               | 6.984  | 6.984  | (1.007) | 365510   | 26.3504              | 990              |
| 72 Di-n-butylphthalate          | 149               | 7.230  | 7.230  | (1.042) | 462016   | 30.4953              | 1140             |
| 76 Fluoranthene                 | 202               | 7.674  | 7.669  | (1.106) | 345201   | 26.7935              | 1010             |
| 85 Butylbenzylphthalate         | 149               | 8.134  | 8.129  | (0.944) | 175966   | 32.8795              | 1230             |
| 89 Benzo(a)anthracene           | 228               | 8.605  | 8.600  | (0.999) | 259738   | 25.4939              | 958              |
| 90 3,3'-Dichlorobenzidine       | 252               | 8.546  | 8.546  | (0.992) | 61922    | 22.5203              | 846              |
| 92 Chrysene                     | 228               | 8.632  | 8.632  | (1.002) | 222408   | 23.0217              | 865              |
| 93 bis(2-Ethylhexyl)phthalate   | 149               | 8.492  | 8.493  | (0.986) | 237749   | 31.1015              | 1170             |
| 94 Di-n-octylphthalate          | 149               | 9.022  | 9.022  | (0.896) | 299651   | 37.4119              | 1400             |
| 95 Benzo(b)fluoranthene         | 252               | 9.600  | 9.600  | (0.954) | 133766   | 26.3597              | 990              |
| 96 Benzo(k)fluoranthene         | 252               | 9.632  | 9.632  | (0.957) | 138634   | 26.2634              | 986              |
| 97 Benzo(a)pyrene               | 252               | 9.995  | 10.001 | (0.993) | 99323    | 24.6288              | 925              |
| 99 Indeno(1,2,3-cd)pyrene       | 276               | 11.691 | 11.702 | (1.162) | 66860    | 20.1505              | 757              |
| 100 Dibenzo(a,h)anthracene      | 278               | 11.696 | 11.707 | (1.162) | 58657    | 21.2571              | 798              |
| 101 Benzo(ghi)perylene          | 276               | 12.199 | 12.204 | (1.212) | 47388    | 17.7044              | 665              |
| 1 N-Methyl-N-nitrosomethylamine | 74                | 2.384  | 2.352  | (0.624) | 55883    | 20.3156              | 763              |

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
R - Spike/Surrogate failed recovery limits.

Data File: /chem/HSD4.i/s030410a.b/s400435.d  
 Date: 05-MAR-2010 01:17  
 Client ID: REL6-10-1514HS  
 Sample Info: 11202050558195628511SVH11HS\_L0NL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SMS

Instrument: HSD4.i  
 Operator: JHB3  
 Column diameter: 0.20



Data File: /chem/MSD4.i/s030410a.b/s4c0436.d  
Report Date: 05-Mar-2010 08:38

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Data file : /chem/MSD4.i/s030410a.b/s4c0436.d  
Lab Smp Id: 1202050559 Client Smp ID: RE16-10-1514MSD  
Inj Date : 05-MAR-2010 01:39  
Operator : JMB3 Inst ID: MSD4.i  
Smp Info : |1202050559|956285|1|SVM|1|MSD\_LANL  
Misc Info : |MSD8270\_S|WBN100227-01|  
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness  
Method : /chem/MSD4.i/s030410a.b/MSD4-M8270C-AQA-022810.m  
Meth Date : 05-Mar-2010 07:51 jos00786 Quant Type: ISTD  
Cal Date : 28-FEB-2010 13:51 Cal File: s4b2808.d  
Als bottle: 28 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-1953.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

| Name | Value     | Description               |
|------|-----------|---------------------------|
| DF   | 1.00000   | Dilution Factor           |
| Uf   | 500.00000 | ng unit correction factor |
| Vt   | 1.00000   | volume of final ext       |
| Vi   | 0.50000   | volume injected           |
| Ws   | 30.03000  | weight of sample          |
| M    | 11.25160  | % moisture                |

Cpnd Variable Local Compound Variable

| Compounds                   | QUANT SIG |        |        |         | RESPONSE | CONCENTRATIONS       |                  |
|-----------------------------|-----------|--------|--------|---------|----------|----------------------|------------------|
|                             | MASS      | RT     | EXP RT | REL RT  |          | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| * 10 1,4-Dichlorobenzene-d4 | 152       | 3.823  | 3.829  | (1.000) | 177329   | 40.0000              |                  |
| * 29 Naphthalene-d8         | 136       | 4.690  | 4.690  | (1.000) | 704232   | 40.0000              |                  |
| * 46 Acenaphthene-d10       | 164       | 5.941  | 5.941  | (1.000) | 377404   | 40.0000              |                  |
| * 67 Phenanthrene-d10       | 188       | 6.936  | 6.936  | (1.000) | 640356   | 40.0000              |                  |
| * 91 Chrysene-d12           | 240       | 8.589  | 8.610  | (1.000) | 410824   | 40.0000              |                  |
| * 98 Perylene-d12           | 264       | 10.033 | 10.070 | (1.000) | 199789   | 40.0000              |                  |
| \$ 3 2-Fluorophenol         | 112       | 3.031  | 3.021  | (0.793) | 175401   | 42.5222              | 1600             |
| \$ 5 Phenol-d5              | 99        | 3.550  | 3.545  | (0.929) | 231439   | 44.9619              | 1690             |
| \$ 20 Nitrobenzene-d5       | 82        | 4.187  | 4.192  | (0.893) | 91035    | 18.1324              | 680              |
| \$ 39 2-Fluorobiphenyl      | 172       | 5.433  | 5.433  | (0.914) | 214405   | 21.1548              | 794              |
| \$ 60 2,4,6-Tribromophenol  | 329       | 6.481  | 6.481  | (1.091) | 68198    | 61.4774              | 2310             |
| \$ 81 p-Terphenyl-d14       | 244       | 7.856  | 7.861  | (0.915) | 238227   | 36.3506              | 1360             |

| Compounds                      | QUANT SIG |       |        |         |          | CONCENTRATIONS       |                  |
|--------------------------------|-----------|-------|--------|---------|----------|----------------------|------------------|
|                                | MASS      | RT    | EXP RT | REL RT  | RESPONSE | ON-COLUMN<br>(ng/ul) | FINAL<br>(ug/Kg) |
| =====                          | ====      | ==    | =====  | =====   | =====    | =====                | =====            |
| 6 Phenol                       | 94        | 3.556 | 3.556  | (0.930) | 120900   | 22.6940              | 852              |
| 8 2-Chlorophenol               | 128       | 3.695 | 3.695  | (0.966) | 90155    | 19.7028              | 739              |
| 11 1,4-Dichlorobenzene         | 146       | 3.834 | 3.839  | (1.003) | 67210    | 12.2460              | 459 (R)          |
| 17 N-Nitrosodipropylamine      | 70        | 4.064 | 4.069  | (1.063) | 78407    | 22.8666              | 858 (Q)          |
| 28 1,2,4-Trichlorobenzene      | 180       | 4.636 | 4.641  | (0.989) | 70817    | 17.2274              | 646              |
| 33 4-Chloro-3-methylphenol     | 107       | 5.048 | 5.037  | (1.076) | 82018    | 24.7448              | 928              |
| 47 Acenaphthene                | 154       | 5.963 | 5.968  | (1.004) | 205882   | 23.2786              | 873              |
| 50 2,4-Dinitrotoluene          | 165       | 6.053 | 6.054  | (1.019) | 65743    | 24.7055              | 927              |
| 52 4-Nitrophenol               | 139       | 6.005 | 5.989  | (1.011) | 24153    | 22.5173              | 845              |
| 65 Pentachlorophenol           | 266       | 6.808 | 6.802  | (0.981) | 27382    | 26.3869              | 990              |
| 79 Pyrene                      | 202       | 7.802 | 7.813  | (0.908) | 335708   | 30.4953              | 1140             |
| 2 Pyridine                     | 79        | 2.416 | 2.384  | (0.632) | 49861    | 12.5947              | 472              |
| 4 Aniline                      | 66        | 3.609 | 3.615  | (0.944) | 36026    | 16.0483              | 602              |
| 7 bis(2-Chloroethyl) ether     | 63        | 3.625 | 3.631  | (0.948) | 64009    | 17.9737              | 674              |
| 9 1,3-Dichlorobenzene          | 146       | 3.791 | 3.791  | (0.992) | 57162    | 11.0782              | 416 (R)          |
| 13 1,2-Dichlorobenzene         | 146       | 3.935 | 3.941  | (1.029) | 67175    | 13.6290              | 511 (R)          |
| 14 bis(2-Chloroisopropyl)ether | 45        | 3.967 | 3.973  | (1.038) | 112139   | 18.5800              | 697 (Q)          |
| 15 o-Cresol                    | 107       | 3.951 | 3.946  | (1.034) | 108711   | 29.5302              | 1110             |
| 18 m,p-Cresols                 | 107       | 4.048 | 4.053  | (1.059) | 124032   | 28.0584              | 1050             |
| 19 Hexachloroethane            | 117       | 4.165 | 4.165  | (1.090) | 20108    | 9.87273              | 370 (aR)         |
| 21 Nitrobenzene                | 77        | 4.203 | 4.203  | (0.896) | 90798    | 18.9902              | 712              |
| 22 Isophorone                  | 82        | 4.353 | 4.358  | (0.928) | 189349   | 21.5813              | 810              |
| 23 2-Nitrophenol               | 139       | 4.417 | 4.417  | (0.942) | 52593    | 22.0307              | 827              |
| 24 2,4-Dimethylphenol          | 122       | 4.411 | 4.412  | (0.941) | 99865    | 25.1157              | 942              |
| 25 bis(2-Chloroethoxy)methane  | 93        | 4.476 | 4.481  | (0.954) | 112719   | 21.5895              | 810              |
| 26 2,4-Dichlorophenol          | 162       | 4.577 | 4.577  | (0.976) | 79540    | 23.2979              | 874              |
| 27 Benzoic acid                | 105       | 4.481 | 4.476  | (0.956) | 119400   | 49.4894              | 1860             |
| 30 Naphthalene                 | 128       | 4.706 | 4.706  | (1.003) | 277420   | 19.8346              | 744              |
| 31 4-Chloroaniline             | 127       | 4.727 | 4.727  | (1.008) | 132257   | 20.5215              | 770              |
| 32 Hexachlorobutadiene         | 225       | 4.764 | 4.770  | (1.016) | 34673    | 14.7261              | 552              |
| 34 2-Methylnaphthalene         | 142       | 5.187 | 5.187  | (1.106) | 194571   | 22.6698              | 851              |
| 36 Hexachlorocyclopentadiene   | 237       | 5.289 | 5.289  | (0.890) | 5978     | 9.91714              | 372 (aR)         |
| 37 2,4,6-Trichlorophenol       | 196       | 5.380 | 5.380  | (0.905) | 67699    | 25.2974              | 949              |
| 38 2,4,5-Trichlorophenol       | 196       | 5.412 | 5.406  | (0.911) | 68952    | 25.2888              | 949              |
| 40 2-Chloronaphthalene         | 162       | 5.540 | 5.540  | (0.932) | 186715   | 21.8927              | 821              |
| 42 o-Nitroaniline              | 65        | 5.604 | 5.604  | (0.943) | 56666    | 23.5488              | 884              |
| 41 m-Nitroaniline              | 138       | 5.898 | 5.898  | (0.993) | 47510    | 24.8313              | 932              |
| 43 Dimethylphthalate           | 163       | 5.706 | 5.711  | (0.960) | 241931   | 24.9316              | 935              |
| 44 2,6-Dinitrotoluene          | 165       | 5.765 | 5.770  | (0.970) | 50708    | 22.7856              | 855              |
| 45 Acenaphthylene              | 152       | 5.845 | 5.845  | (0.984) | 326461   | 24.7449              | 928              |
| 48 2,4-Dinitrophenol           | 184       | 5.968 | 5.968  | (1.004) | 13235    | 23.6011              | 886 (Q)          |
| 49 Dibenzofuran                | 168       | 6.080 | 6.086  | (1.023) | 291943   | 25.1229              | 943              |
| 51 Diethylphthalate            | 149       | 6.198 | 6.198  | (1.043) | 263918   | 27.9545              | 1050             |
| 53 Fluorene                    | 166       | 6.321 | 6.321  | (1.064) | 265982   | 27.1385              | 1020             |
| 54 4-Chlorophenylphenylether   | 204       | 6.300 | 6.300  | (1.060) | 120902   | 25.6871              | 964              |
| 55 2-Methyl-4,6-dinitrophenol  | 198       | 6.337 | 6.337  | (0.914) | 25690    | 21.7267              | 815              |
| 56 p-Nitroaniline              | 138       | 6.326 | 6.321  | (1.065) | 62184    | 33.0771              | 1240             |

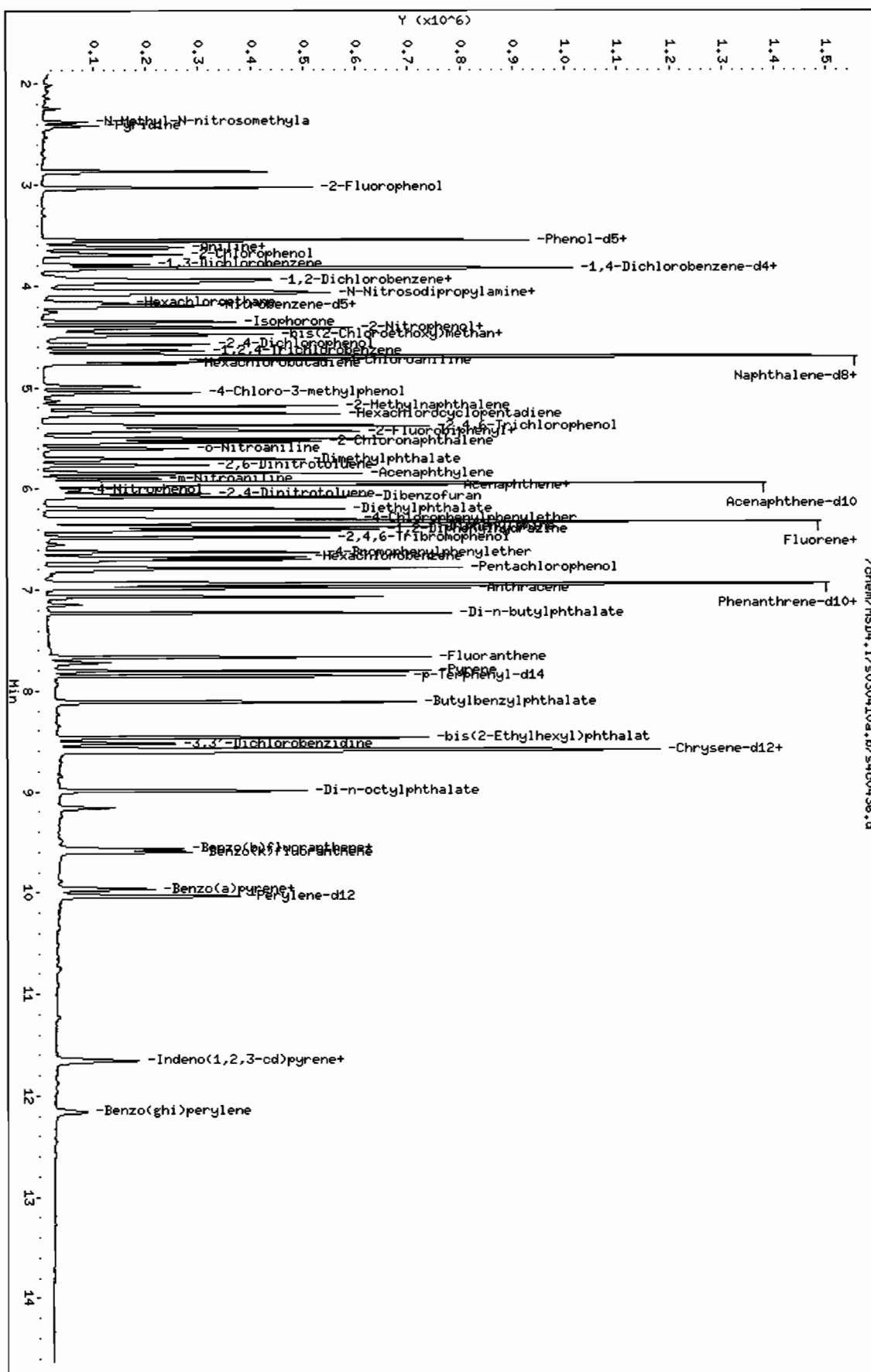
| Compounds                       | QUANT SIG | MASS  | RT     | EXP RT | REL RT  | RESPONSE | CONCENTRATIONS |          |
|---------------------------------|-----------|-------|--------|--------|---------|----------|----------------|----------|
|                                 |           |       |        |        |         |          | ON-COLUMN      | FINAL    |
|                                 |           |       |        |        |         |          | (ng/ul)        | (ug/Kg)  |
| =====                           | =====     | ===== | =====  | =====  | =====   | =====    | =====          | =====    |
| 133 Diphenylamine               |           | 169   | 6.380  | 6.380  | (0.920) | 229531   | 27.6648        | 1040     |
| 58 1,2-Diphenylhydrazine        |           | 77    | 6.406  | 6.407  | (0.924) | 280670   | 26.7304        | 1000     |
| 61 4-Bromophenylphenylether     |           | 248   | 6.626  | 6.626  | (0.955) | 70052    | 24.8800        | 934      |
| 63 Hexachlorobenzene            |           | 284   | 6.679  | 6.685  | (0.963) | 71558    | 24.0213        | 901      |
| 68 Phenanthrene                 |           | 178   | 6.952  | 6.952  | (1.002) | 371747   | 26.1474        | 981      |
| 69 Anthracene                   |           | 178   | 6.984  | 6.984  | (1.007) | 359667   | 26.2831        | 986      |
| 72 Di-n-butylphthalate          |           | 149   | 7.230  | 7.230  | (1.042) | 467026   | 31.2467        | 1170     |
| 76 Fluoranthene                 |           | 202   | 7.663  | 7.669  | (1.105) | 334592   | 26.3245        | 988      |
| 85 Butylbenzylphthalate         |           | 149   | 8.113  | 8.129  | (0.945) | 172578   | 34.8250        | 1310     |
| 89 Benzo (a) anthracene         |           | 228   | 8.578  | 8.600  | (0.999) | 238663   | 25.2986        | 949 (H)  |
| 90 3,3'-Dichlorobenzidine       |           | 252   | 8.525  | 8.546  | (0.993) | 63886    | 25.0926        | 942      |
| 92 Chrysene                     |           | 228   | 8.610  | 8.632  | (1.002) | 232001   | 25.9350        | 973      |
| 93 bis (2-Ethylhexyl) phthalate |           | 149   | 8.466  | 8.493  | (0.986) | 230585   | 32.5765        | 1220     |
| 94 Di-n-octylphthalate          |           | 149   | 8.995  | 9.022  | (0.897) | 291187   | 36.4686        | 1370     |
| 95 Benzo (b) fluoranthene       |           | 252   | 9.573  | 9.600  | (0.954) | 136824   | 26.9282        | 1010 (H) |
| 96 Benzo (k) fluoranthene       |           | 252   | 9.600  | 9.632  | (0.957) | 154530   | 29.2377        | 1100     |
| 97 Benzo (a) pyrene             |           | 252   | 9.963  | 10.001 | (0.993) | 108449   | 26.8577        | 1010 (H) |
| 99 Indeno (1,2,3-cd) pyrene     |           | 276   | 11.653 | 11.702 | (1.162) | 83553    | 25.1496        | 944      |
| 100 Dibenzo (a,h) anthracene    |           | 278   | 11.659 | 11.707 | (1.162) | 71489    | 25.8746        | 971      |
| 101 Benzo (ghi) perylene        |           | 276   | 12.162 | 12.204 | (1.212) | 59379    | 22.1562        | 831      |
| 1 N-Methyl-N-nitrosomethylamine |           | 74    | 2.374  | 2.352  | (0.621) | 43340    | 15.0594        | 565      |

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation (BLOQ).
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.
- H - Operator selected an alternate compound hit.

Data File: /chem/HSD4.i/s030410a.b/s400436.d  
 Date : 05-MAR-2010 01:39  
 Client ID: REL6-10-1514HSD  
 Sample Info: 1120205059195628511/SW111HSD\_LANL  
 Volume Injected (uL): 0.5  
 Column phase: JMW DB-SHS

Instrument: HSD4.i  
 Operator: JHB3  
 Column diameter: 0.20



# LC/MS/MS EXPLOSIVES ANALYSIS



**LC/MS/MS Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1914**

**Method/Analysis Information**

**Procedure:** Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)

**Analytical Method:** SW846 8321A Modified

**Prep Method:** SW846 8330 PREP

**Analytical Batch Number:** 955065

**Prep Batch Number:** 955064

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

| <b>Sample ID</b> | <b>Client ID</b>                                      |
|------------------|---|
| 247358001        | RE36-10-7427  |
| 247358002        | RE36-10-7423  |
| 247358003        | RE36-10-7428  |
| 247358004        | RE36-10-7424  |
| 1202047529       | Method Blank (MB)                                     |
| 1202047530       | Laboratory Control Sample (LCS)                       |
| 1202047531       | 247327002(WST15-10-8941) Matrix Spike (MS)            |
| 1202047532       | 247327002(WST15-10-8941) Matrix Spike Duplicate (MSD) |

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

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## **Primary Analyte Analysis**

### **Calibration Information**

#### **Initial Calibration**

All initial calibration requirements for this analysis have been met for this SDG.

#### **Calibration Verification Standard Requirements**

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

#### **Calibration Blank Requirements**

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

#### **CRI Requirements**

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

#### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

#### **Laboratory Control Sample (LCS) Recovery**

The LCS recovered Tetryl at 49.0%. The recovery limits are 51-112%. Since the MS met acceptance limits for Tetryl, method control was achieved. The samples have exceeded twice their hold time; therefore, the data are reported. Please see data exception report 807207.

#### **QC Sample Designation**

Client sample 247327002 (WST15-10-8941) from SDG 10-1898 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

#### **Matrix Spike (MS) Recovery Statement**

The MS spike recoveries were within the established acceptance limits.

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recovered Tetryl at 35.5%. The recovery limits are 36-124%. Since the MS met acceptance limits for Tetryl, method control was achieved. The data are reported. Please see data exception report 807207.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The MS/MSD RPD for Tetryl was 35.0%. The acceptance limits are 0-30%. Since all other RPD recoveries for this analysis met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported. Please see data exception report 807207.

#### **Internal Standard (ISTD) Acceptance**

The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

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## **Technical Information**

### **Holding Time Specifications**

All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

### **Sample Dilutions**

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

### **Sample Re-extraction/Re-analysis**

Samples 247358001(RE36-10-7427), 247358002(RE36-10-7423), 247358003(RE36-10-7428) and 247358004(RE36-10-7424) were re-analyzed due to bracketing CCV and CRI recoveries that did not meet acceptance criteria. The re-analysis passed acceptance criteria and is reported.

### **Secondary Analyte Analysis**

## **Calibration Information**

### **Initial Calibration**

All initial calibration requirements for this analysis have been met for this SDG.

### **Calibration Verification Standard Requirements**

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

### **Calibration Blank Requirements**

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

### **CRI Requirements**

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

## **Quality Control (QC) Information**

### **Method Blank (MB) Statement**

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

### **Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries were within the established acceptance limits.

#### **QC Sample Designation**

Client sample 247327002 (WST15-10-8941) from SDG 10-1898 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

#### **Matrix Spike (MS) Recovery Statement**

The MS recovered TATB at 276%. The recovery limits are 29-155%. Since the LCS met acceptance limits for TATB, the data are reported. Please see data exception report 807207.

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD spike recoveries were within the established acceptance limits.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The MS/MSD RPD for TATB was 85.6%. The acceptance limits are 0-30%. Since all other RPD recoveries for this analysis met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported. Please see data exception report 807207.

#### **Internal Standard (ISTD) Acceptance**

The internal standards were not added to the secondary analyte extracts.

#### **Technical Information**

##### **Holding Time Specifications**

All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

##### **Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

##### **Sample Dilutions**

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

##### **Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

#### **Miscellaneous Information**

##### **Data Exception (DER) Documentation**

Data exception report 807209 was generated for this SDG.

The LCS recovered Tetryl at 49.0%. The recovery limits are 51-112%. Since the MS met acceptance limits for Tetryl, method control was achieved. The samples have exceeded twice their hold time; therefore, the data are reported.

The MS recovered TATB at 276%. The recovery limits are 29-155%. Since the LCS met acceptance limits for TATB, the data are reported.

The MSD recovered Tetryl at 35.5%. The recovery limits are 36-124%. Since the MS met acceptance limits for Tetryl, method control was achieved. The data are reported.

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The MS/MSD RPD for Tetryl was 35.0%. The acceptance limits are 0-30%. The MS/MSD RPD for TATB was 85.6%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported.

#### **Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

#### **Flagging Convention**

The samples were not originally analyzed using SW-846 Method 8330.

#### **Additional Comments**

Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

#### **System Configuration**

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

#### **Chromatographic Columns**

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Review Validation:**

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M. Maurer Date: 03/25/10

# SAMPLE DATA SUMMARY

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7427

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358001

Sample Amount 2

Moisture: 36.4

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319018a

Date Analyzed: 20-MAR-10 01:15

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7427

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358001

Sample Amount 2

Moisture: 36.4

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050114.wiff

Date Analyzed: 06-MAR-10 22:41

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7423

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358002

Sample Amount 2

Moisture: 51.1

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319019a

Date Analyzed: 20-MAR-10 01:45

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7423

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358002

Sample Amount 2

Moisture: 51.1

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050115.wiff

Date Analyzed: 06-MAR-10 22:57

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7428

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358003

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319020a

Date Analyzed: 20-MAR-10 02:14

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7428

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358003

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050116.wiff

Date Analyzed: 06-MAR-10 23:13

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7424

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358004

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319021a

Date Analyzed: 20-MAR-10 02:44

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7424

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358004

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050117.wiff

Date Analyzed: 06-MAR-10 23:29

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

# QUALITY CONTROL SUMMARY



# High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

| Lab Sample ID | Client Sample ID     | DNT  | QC Limits | Flg |
|---------------|----------------------|------|-----------|-----|
| 247358001     | RE36-10-7427         | 92.4 | 70 - 144  |     |
| 247358001     | RE36-10-7427         | 104  | 70 - 144  |     |
| 247358002     | RE36-10-7423         | 94   | 70 - 144  |     |
| 247358002     | RE36-10-7423         | 102  | 70 - 144  |     |
| 247358003     | RE36-10-7428         | 90.8 | 70 - 144  |     |
| 247358003     | RE36-10-7428         | 104  | 70 - 144  |     |
| 247358004     | RE36-10-7424         | 93   | 70 - 144  |     |
| 247358004     | RE36-10-7424         | 106  | 70 - 144  |     |
| 1202047529    | MB for batch 955064  | 98.6 | 70 - 144  |     |
| 1202047529    | MB for batch 955064  | 96.8 | 70 - 144  |     |
| 1202047530    | LCS for batch 955064 | 101  | 70 - 144  |     |
| 1202047530    | LCS for batch 955064 | 94.4 | 70 - 144  |     |

DNT = 3,4-Dinitrotoluene

**3B**  
**High Explosives LCS/LCS Duplicate Summary**

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1914

Extract Batch Code: 955064

Date Extracted: 24-FEB-10

GEL LCS ID: 1202047530

GEL LCSDUP ID:

Analysis Date/Time: 16-MAR-10 05:19

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

| Compound                   | Spike Added | LCS Conc | LCS Rec # | LCSD Conc | LCSD Rec # | RPD # | RPD | Recovery Limits |
|----------------------------|-------------|----------|-----------|-----------|------------|-------|-----|-----------------|
| m-Nitrotoluene             | 5000        | 5040     | 101       |           |            |       |     | 73 - 118        |
| 2,6-Dinitrotoluene         | 5000        | 4980     | 99.6      |           |            |       |     | 89 - 120        |
| 4-Amino-2,6-dinitrotoluene | 5000        | 4850     | 97        |           |            |       |     | 84 - 130        |
| Nitrobenzene               | 5000        | 4500     | 90        |           |            |       |     | 71 - 122        |
| m-Dinitrobenzene           | 5000        | 4500     | 90        |           |            |       |     | 83 - 122        |
| Tetryl                     | 5000        | 2450     | 49 *      |           |            |       |     | 51 - 112        |
| RDX                        | 5000        | 4870     | 97.4      |           |            |       |     | 81 - 137        |
| PETN                       | 5000        | 5360     | 107       |           |            |       |     | 64 - 137        |
| HMX                        | 5000        | 4520     | 90.4      |           |            |       |     | 58 - 138        |
| 2-Amino-4,6-dinitrotoluene | 5000        | 5160     | 103       |           |            |       |     | 90 - 130        |
| 2,4-Dinitrotoluene         | 5000        | 5540     | 111       |           |            |       |     | 87 - 137        |
| o-Nitrotoluene             | 5000        | 4860     | 97.2      |           |            |       |     | 72 - 119        |
| 1,3,5-Trinitrobenzene      | 5000        | 3920     | 78.4      |           |            |       |     | 69 - 126        |
| 2,4,6-Trinitrotoluene      | 5000        | 4760     | 95.2      |           |            |       |     | 73 - 149        |
| p-Nitrotoluene             | 5000        | 4970     | 99.4      |           |            |       |     | 67 - 131        |

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

\* Values outside of QC limits

**3B**  
**High Explosives LCS/LCS Duplicate Summary**

**Lab Name:** GEL Laboratories LLC

**Client ID:** LCS

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1914

**Extract Batch Code:** 955064

**Date Extracted:** 24-FEB-10

**GEL LCS ID:** 1202047530

**GEL LCSDUP ID:**

**Analysis Date/Time:** 06-MAR-10 18:46

**DUP Analysis Date/Time:**

**Reporting Units:** ug/kg

**QC Type:** LCS/LCSD

| Compound                   | Spike Added | LCS Conc | LCS Rec # | LCSD Conc | LCSD Rec # | RPD # | RPD | Recovery Limits |
|----------------------------|-------------|----------|-----------|-----------|------------|-------|-----|-----------------|
| 2,4-Diamino-6-nitrotoluene | 5000        | 4450     | 89        |           |            |       |     | 52 - 114        |
| 2,6-Diamino-4-nitrotoluene | 5000        | 4810     | 96.2      |           |            |       |     | 64 - 122        |
| TATB                       | 5000        | 5220     | 104       |           |            |       |     | 28 - 162        |
| 3,5-Dinitroaniline         | 5000        | 5060     | 101       |           |            |       |     | 70 - 127        |
| tris(o-cresyl) phosphate   | 5000        | 5210     | 104       |           |            |       |     | 84 - 119        |

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

\* Values outside of QC limits

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1914

Extract Batch Code: 955064

Date Extracted: 24-FEB-10

GEL Spike ID: 1202047531

GEL SpikeDup ID: 1202047532

Analysis Date/Time: 16-MAR-10 06:48

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

| Compound                   | Spike Added | Sample Conc | MS Conc | MS Rec # | MSD Conc | MSD Rec # | RPD # | RPD Limit | Rec Limits |
|----------------------------|-------------|-------------|---------|----------|----------|-----------|-------|-----------|------------|
| 1,3,5-Trinitrobenzene      | 5000        | 0           | 4420    | 88.4     | 4420     | 88.3      | .09   | 30        | 50 - 140   |
| 2,4,6-Trinitrotoluene      | 5000        | 0           | 5700    | 114      | 4680     | 93.7      | 19.6  | 30        | 76 - 144   |
| 2,4-Dinitrotoluene         | 5000        | 0           | 4890    | 97.8     | 5320     | 106       | 8.34  | 30        | 86 - 135   |
| 2,6-Dinitrotoluene         | 5000        | 0           | 4850    | 97       | 4830     | 96.7      | .35   | 30        | 90 - 118   |
| 2-Amino-4,6-dinitrotoluene | 5000        | 0           | 5990    | 120      | 5200     | 104       | 14.1  | 30        | 85 - 137   |
| 4-Amino-2,6-dinitrotoluene | 5000        | 0           | 5330    | 107      | 4830     | 96.6      | 9.86  | 30        | 72 - 143   |
| HMX                        | 5000        | 228         | 5810    | 112      | 5490     | 105       | 5.7   | 30        | 51 - 144   |
| Nitrobenzene               | 5000        | 0           | 4740    | 94.7     | 4770     | 95.4      | .672  | 30        | 70 - 122   |
| PETN                       | 5000        | 0           | 5150    | 103      | 5600     | 112       | 8.38  | 30        | 60 - 140   |
| RDX                        | 5000        | 0           | 5260    | 105      | 5990     | 120       | 13    | 30        | 59 - 152   |
| Tetryl                     | 5000        | 0           | 2530    | 50.5     | 1770     | 35.5 *    | 35 *  | 30        | 36 - 124   |
| m-Dinitrobenzene           | 5000        | 0           | 4720    | 94.4     | 4510     | 90.1      | 4.66  | 30        | 85 - 118   |
| m-Nitrotoluene             | 5000        | 0           | 4250    | 85.1     | 4010     | 80.2      | 5.87  | 30        | 70 - 120   |
| o-Nitrotoluene             | 5000        | 0           | 4160    | 83.1     | 4060     | 81.2      | 2.29  | 30        | 69 - 123   |
| p-Nitrotoluene             | 5000        | 0           | 3900    | 78       | 3990     | 79.7      | 2.18  | 30        | 65 - 133   |

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

# High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1914

Extract Batch Code: 955064

Date Extracted: 24-FEB-10

GEL Spike ID: 1202047531

GEL SpikeDup ID: 1202047532

Analysis Date/Time: 06-MAR-10 19:17

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

| Compound                   | Spike Added | Sample Conc | MS Conc | MS Rec # | MSD Conc | MSD Rec # | RPD #  | RPD Limit | Rec Limits |
|----------------------------|-------------|-------------|---------|----------|----------|-----------|--------|-----------|------------|
| 2,6-Diamino-4-nitrotoluene | 5000        | 0           | 4430    | 88.6     | 4440     | 88.8      | .225   | 30        | 55 - 130   |
| 3,5-Dinitroaniline         | 5000        | 0           | 5100    | 102      | 5430     | 109       | 6.27   | 30        | 73 - 129   |
| TATB                       | 5000        | 0           | 13800   | 276 *    | 5530     | 111       | 85.6 * | 30        | 29 - 155   |
| 2,4-Diamino-6-nitrotoluene | 5000        | 0           | 3390    | 67.8     | 3310     | 66.2      | 2.39   | 26        | 34 - 135   |
| tris(o-cresyl) phosphate   | 5000        | 0           | 5110    | 102      | 5160     | 103       | .974   | 30        | 72 - 127   |

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

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 14-MAR-10 14:59

GEL Data File: EXP0314001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 427.53       |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 451.034      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Mon Mar 15 10:16:43 2010, Page 1 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

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Calibration: Untitled, Time: Mon Mar 15 10:15:48 2010

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Date: 14-Mar-2010

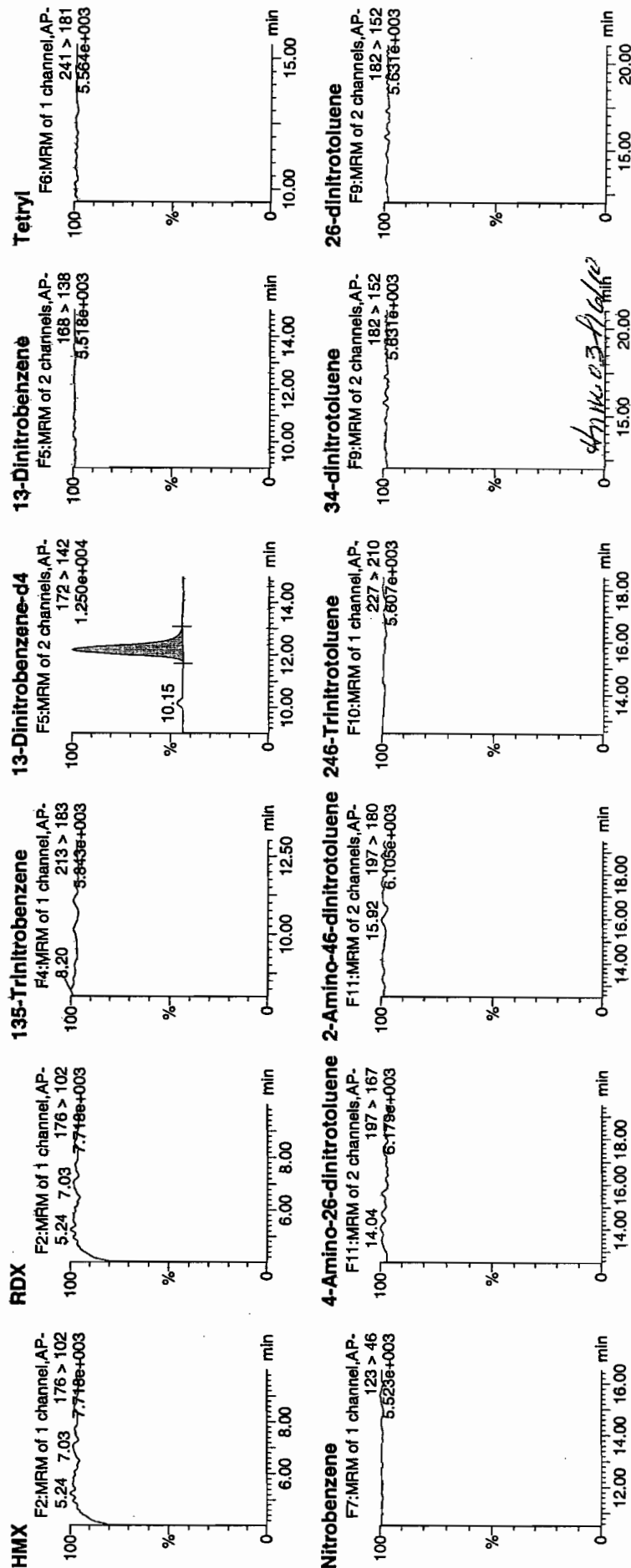
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Vial: 1:1,A

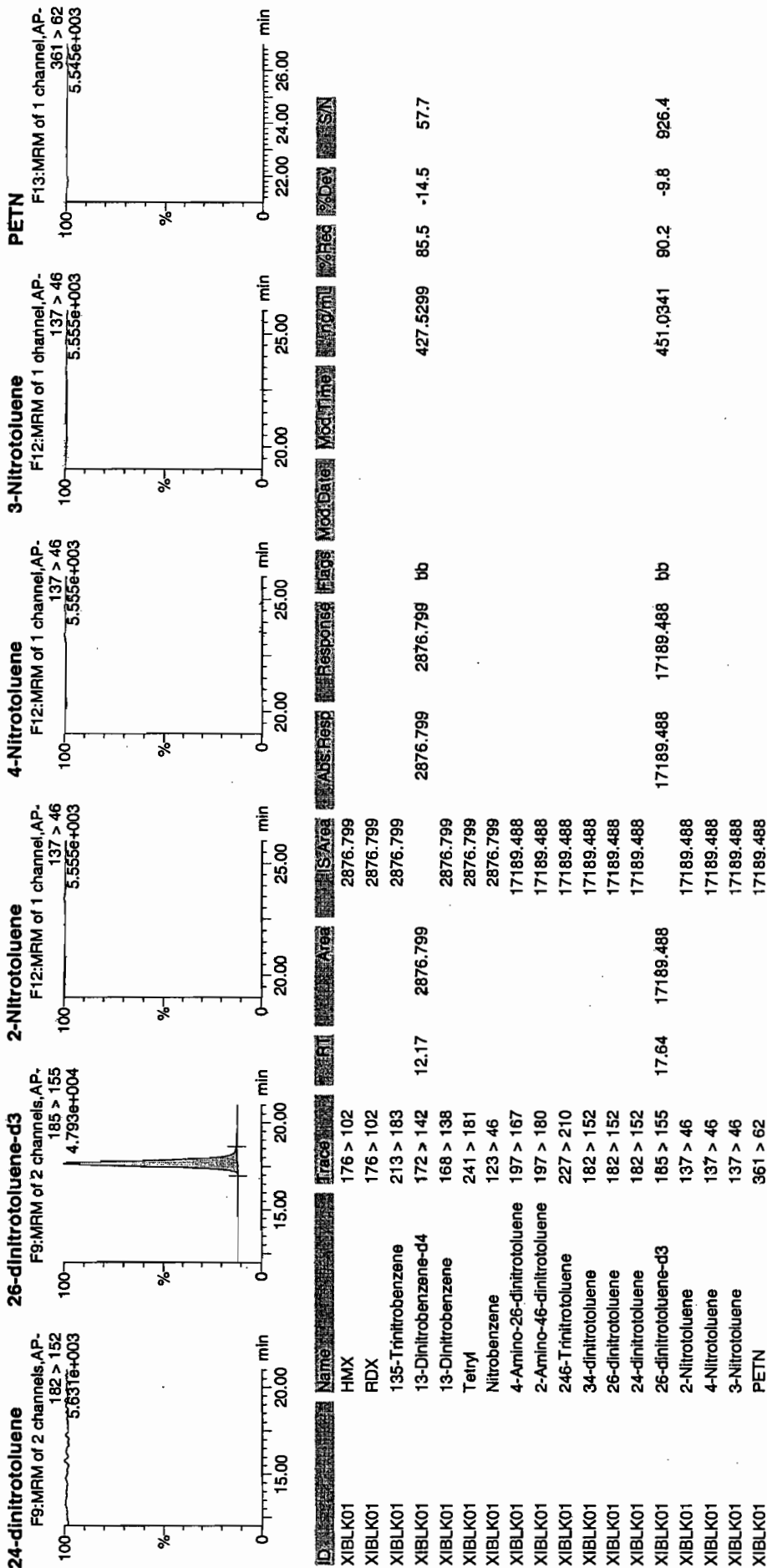
Page 552 of 942

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GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Dataset: C:\MASSLYN\New\_Exp\_PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010





Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 14-MAR-10 15:28

GEL Data File: EXP0314002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 439.79       |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 459.668      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

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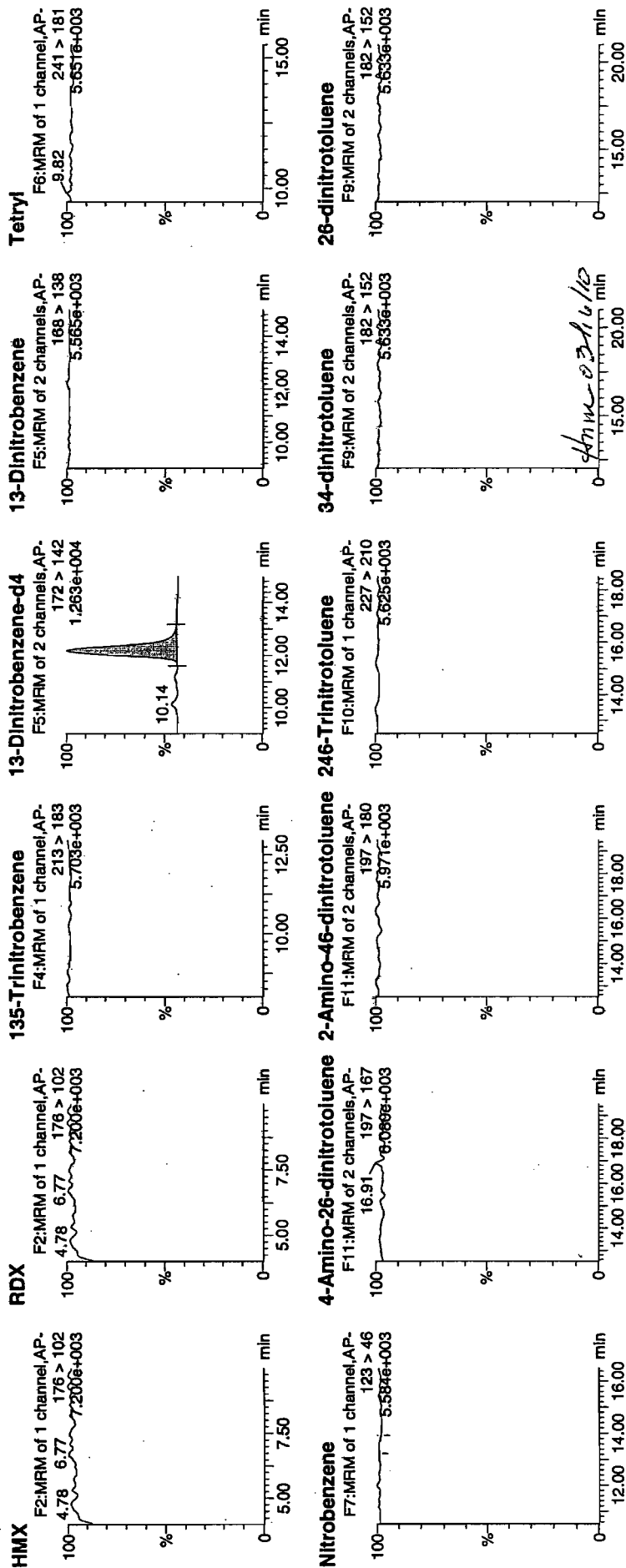
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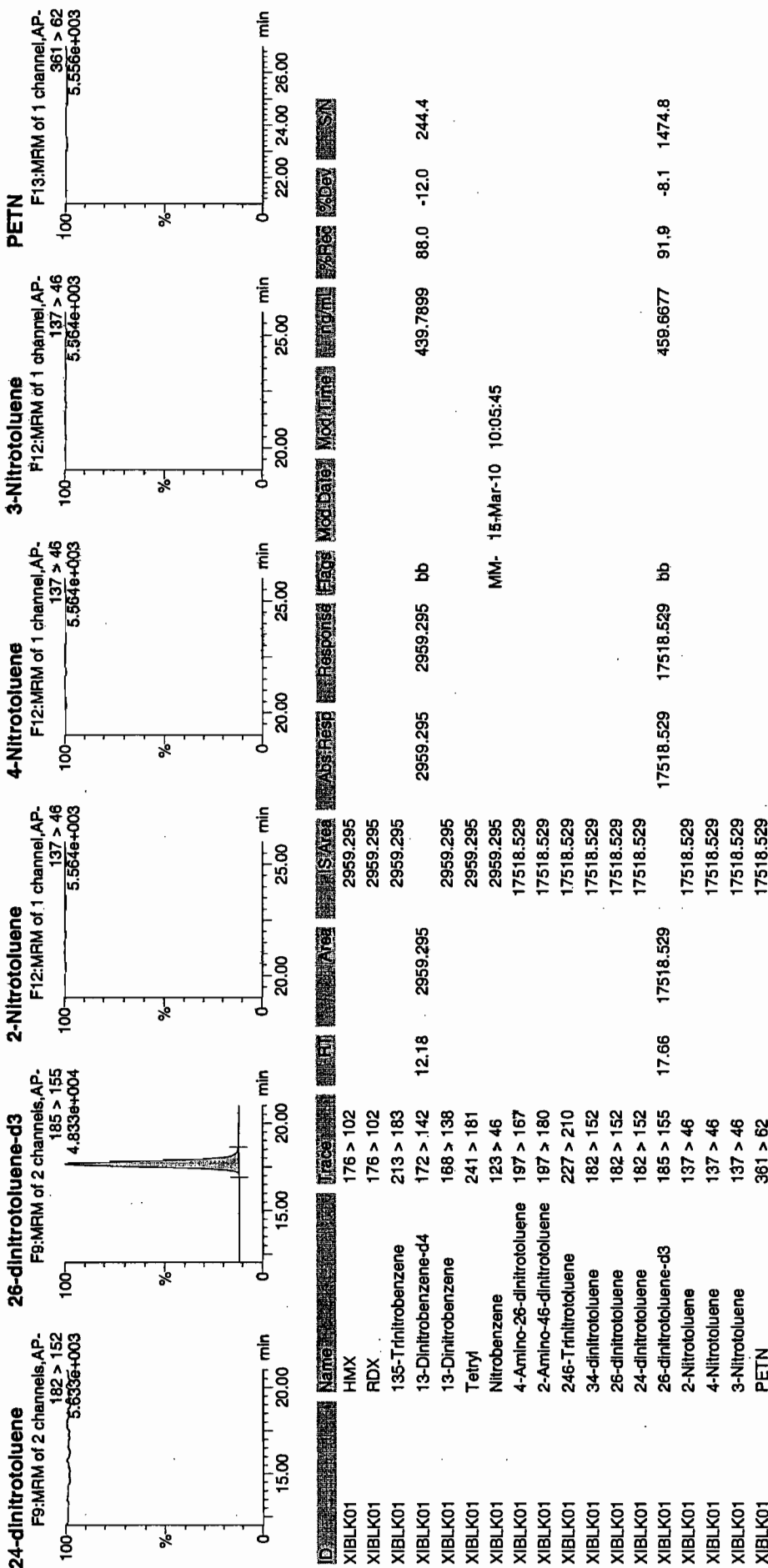
Vial: 1:1,A

W/1/10  
3/1/10



Dataset: C:\MASSLYNX\New\_Exp\_PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 19-MAR-10 16:54

GEL Data File: EXP0319001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 423.048      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 475.815      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Mar 20 11:06:08 2010, Page 1 of 73

Dataset: C:\MASSLYNX\New\_Exp\PRO031910expA.qld, Time: Sat Mar 20 11:05:24 2010

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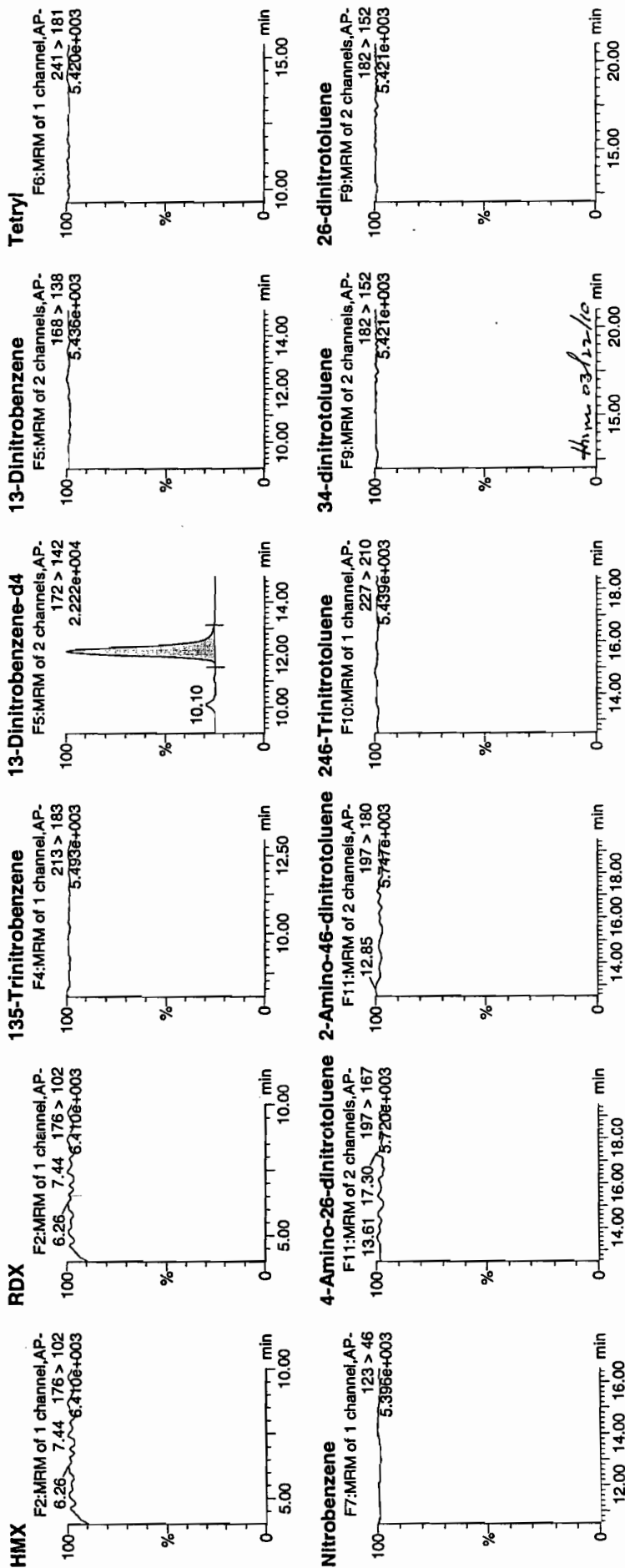
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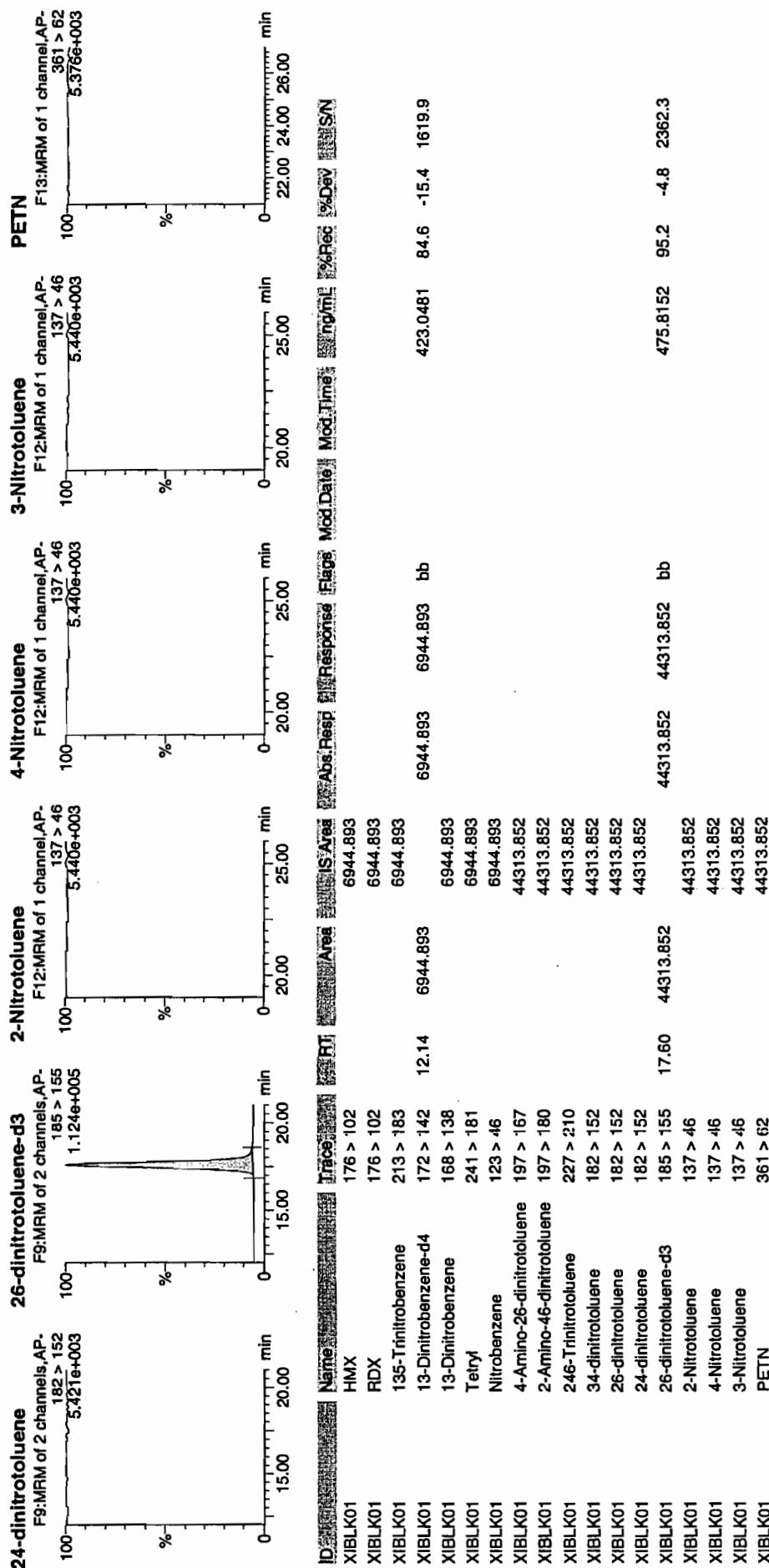
1/10/10



Printed: Sat Mar 20 11:06:08 2010, Page 2 of 73

# Quantify Sample Report GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 19-MAR-10 17:23

GEL Data File: EXP0319002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 529.637      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 530.201      |

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Date: 19-Mar-2010

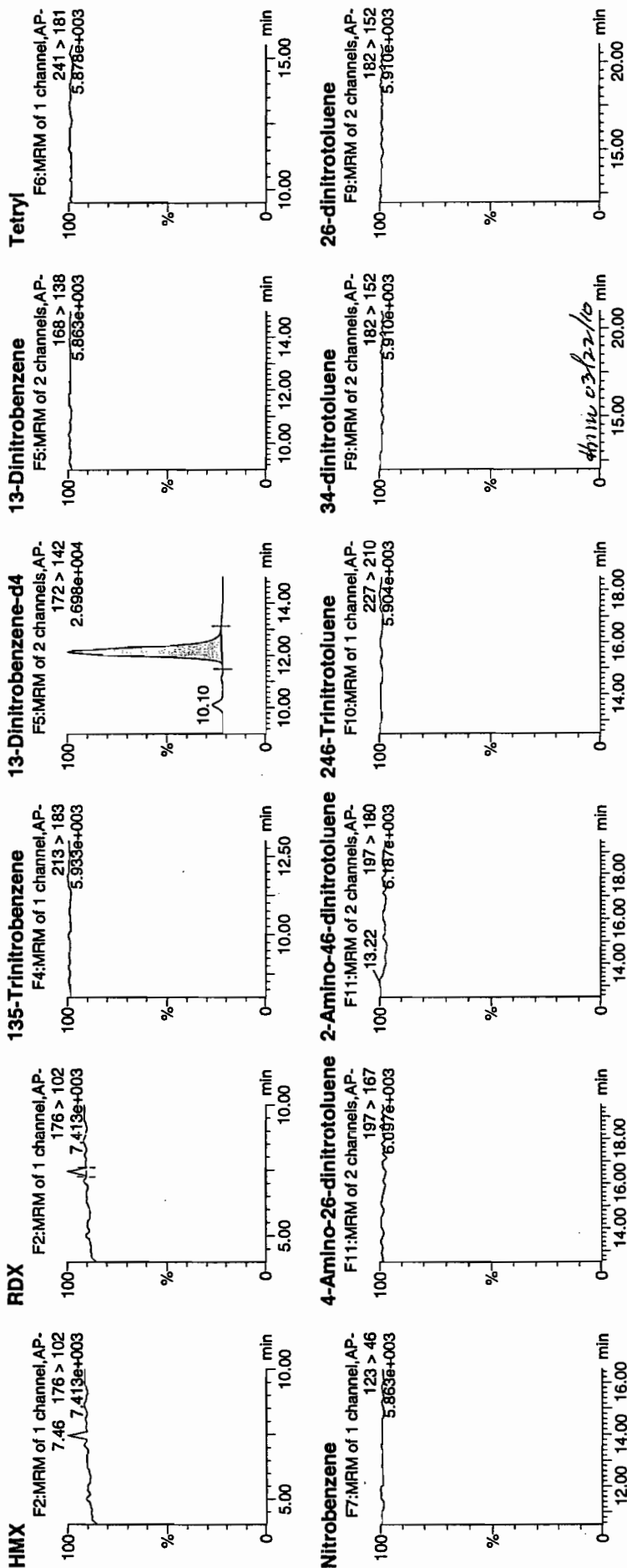
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ID: XIBLK01

Vial: 1:1,A

MM  
3/22/10

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05-MAR-10 17:07

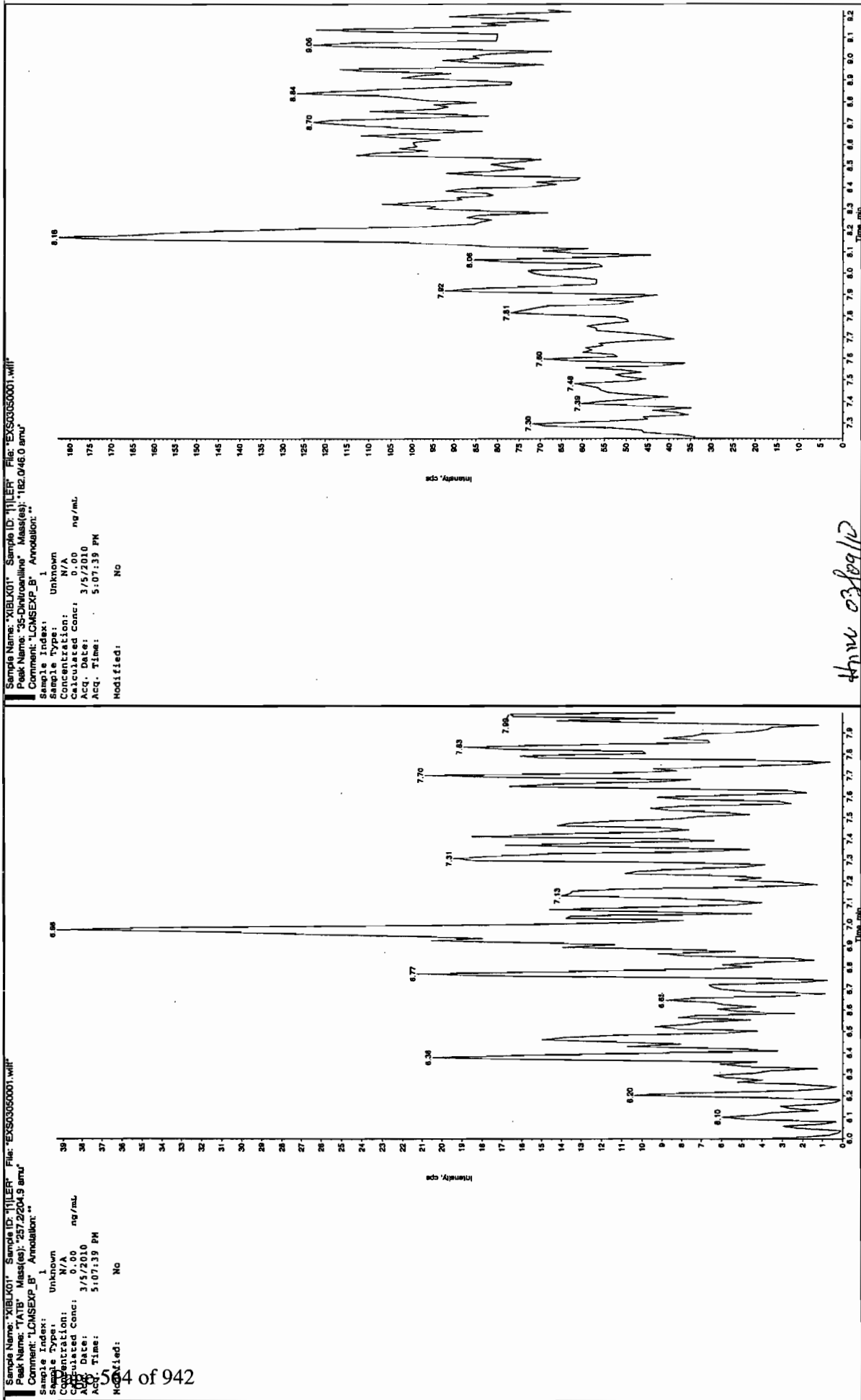
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Instrument ID: LCMSMS

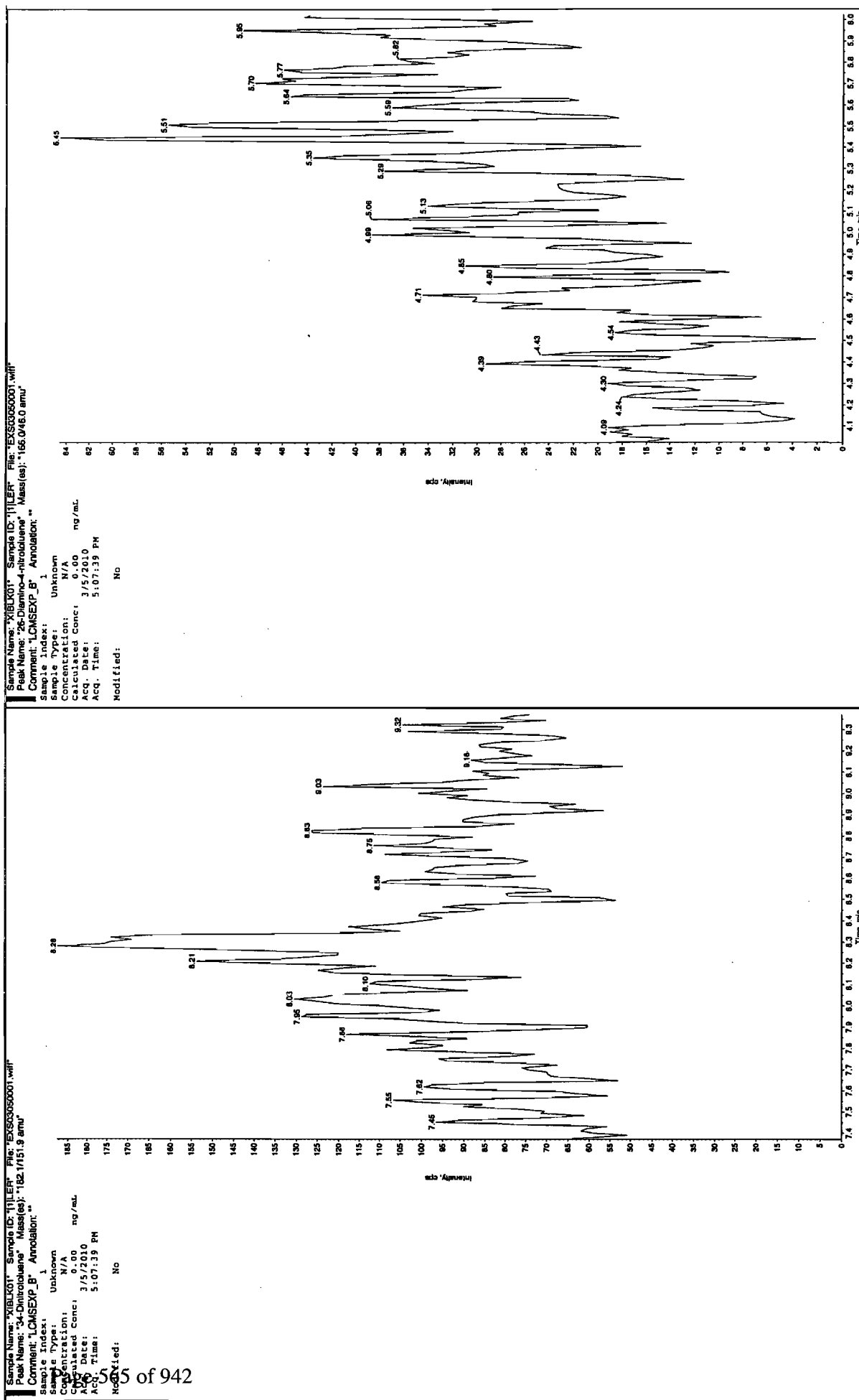
Column: Phenomenex Ultracarb 5u ODS(20)

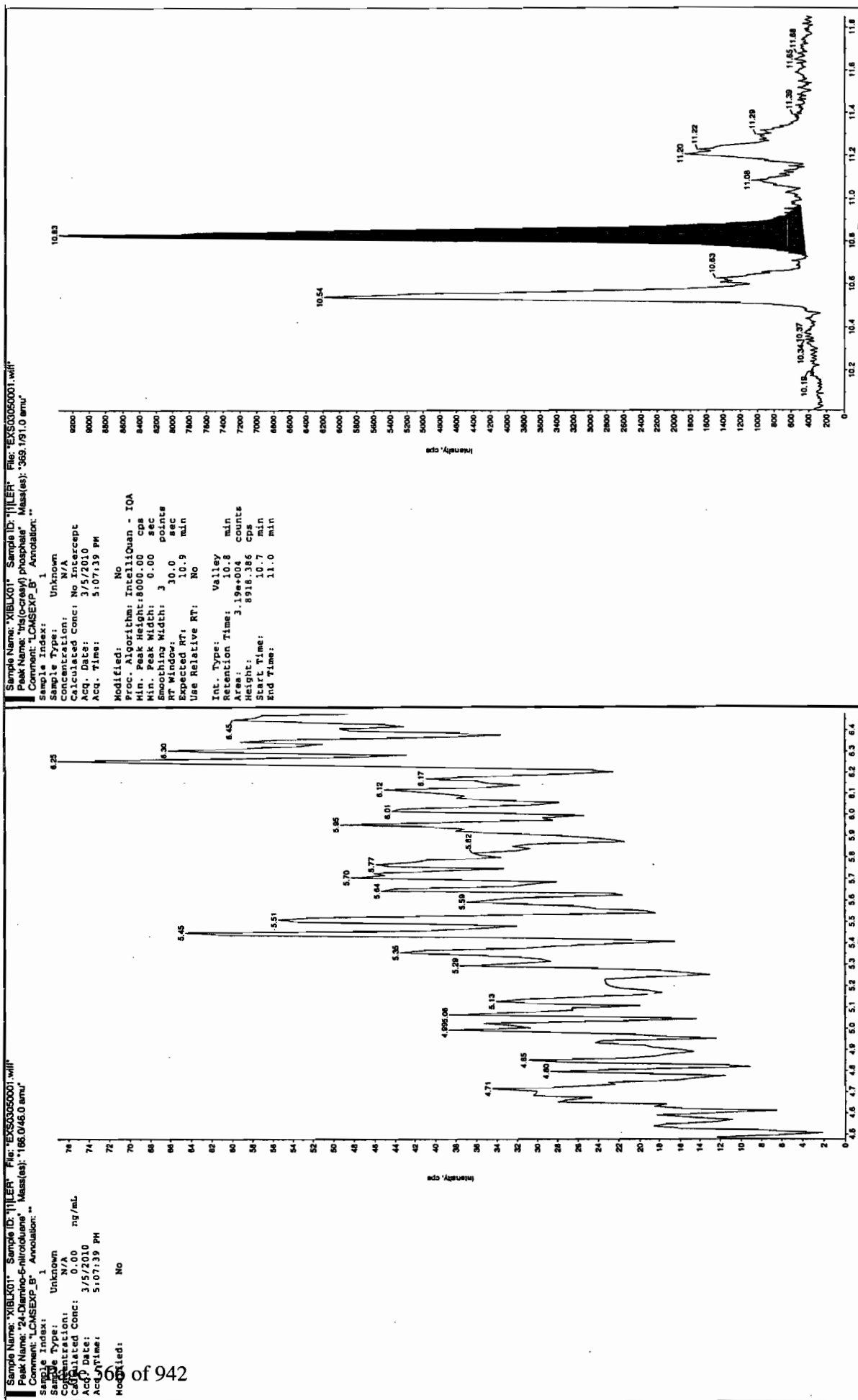
| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

Jan 31/10



Jan 31/10





\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05-MAR-10 17:23

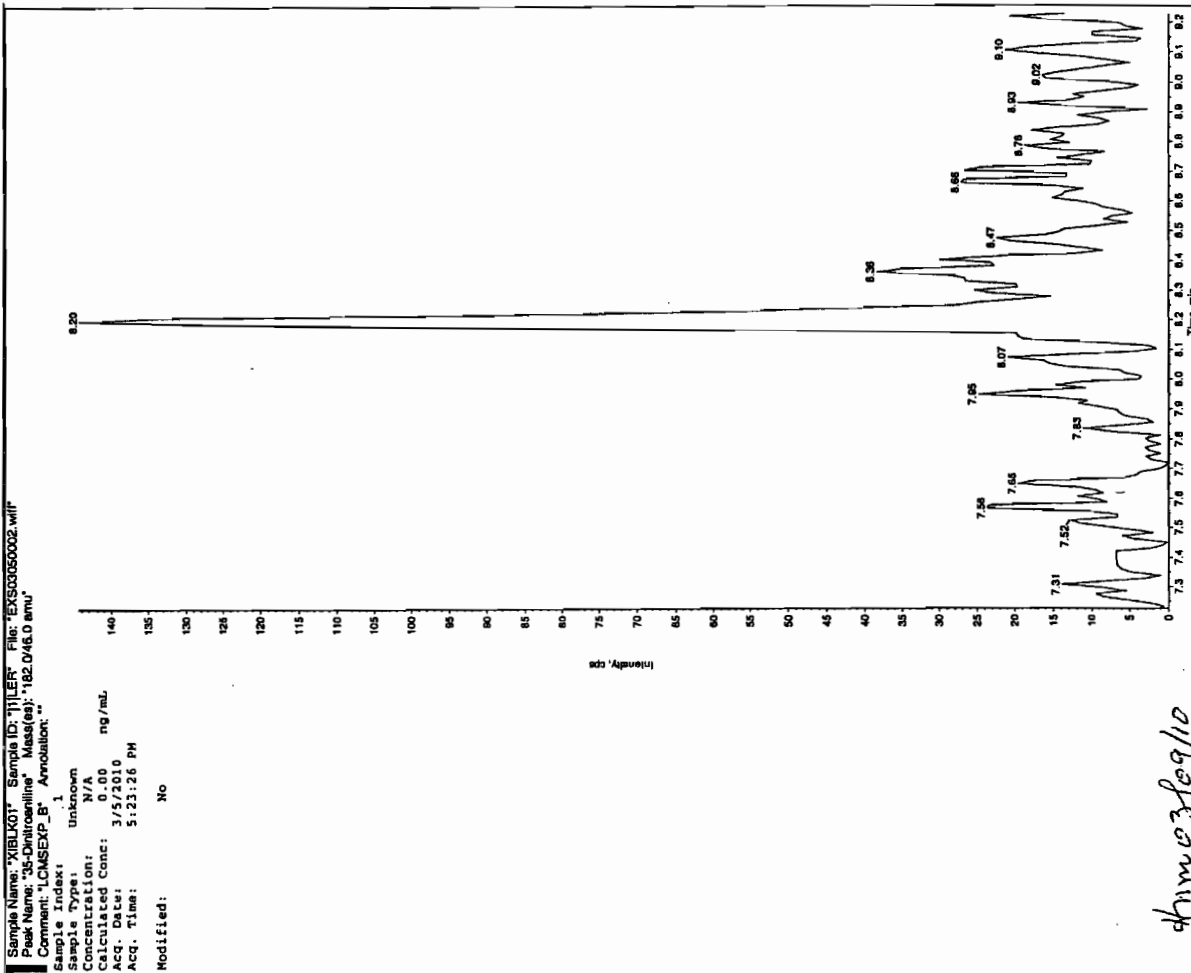
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Instrument ID: LCMSMS

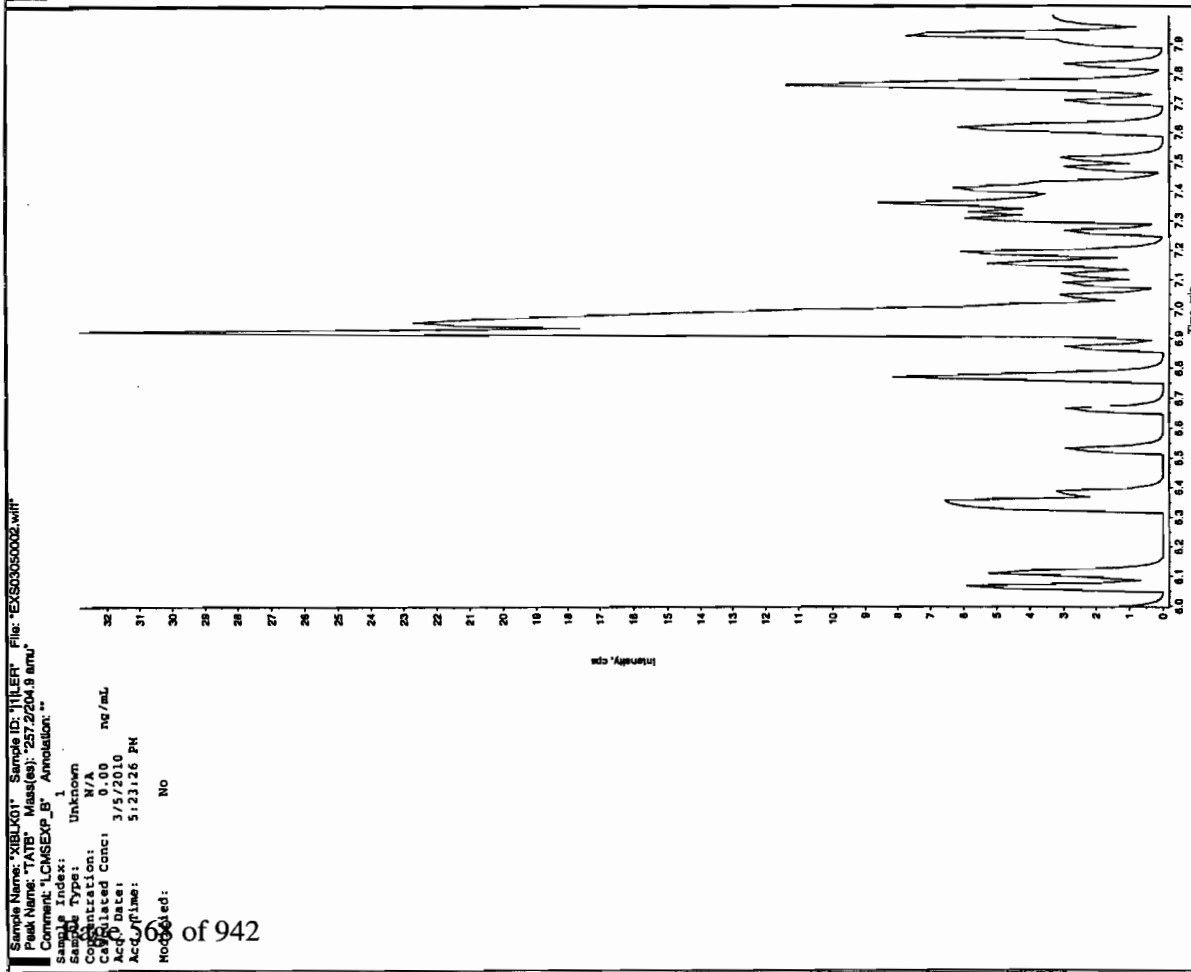
Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

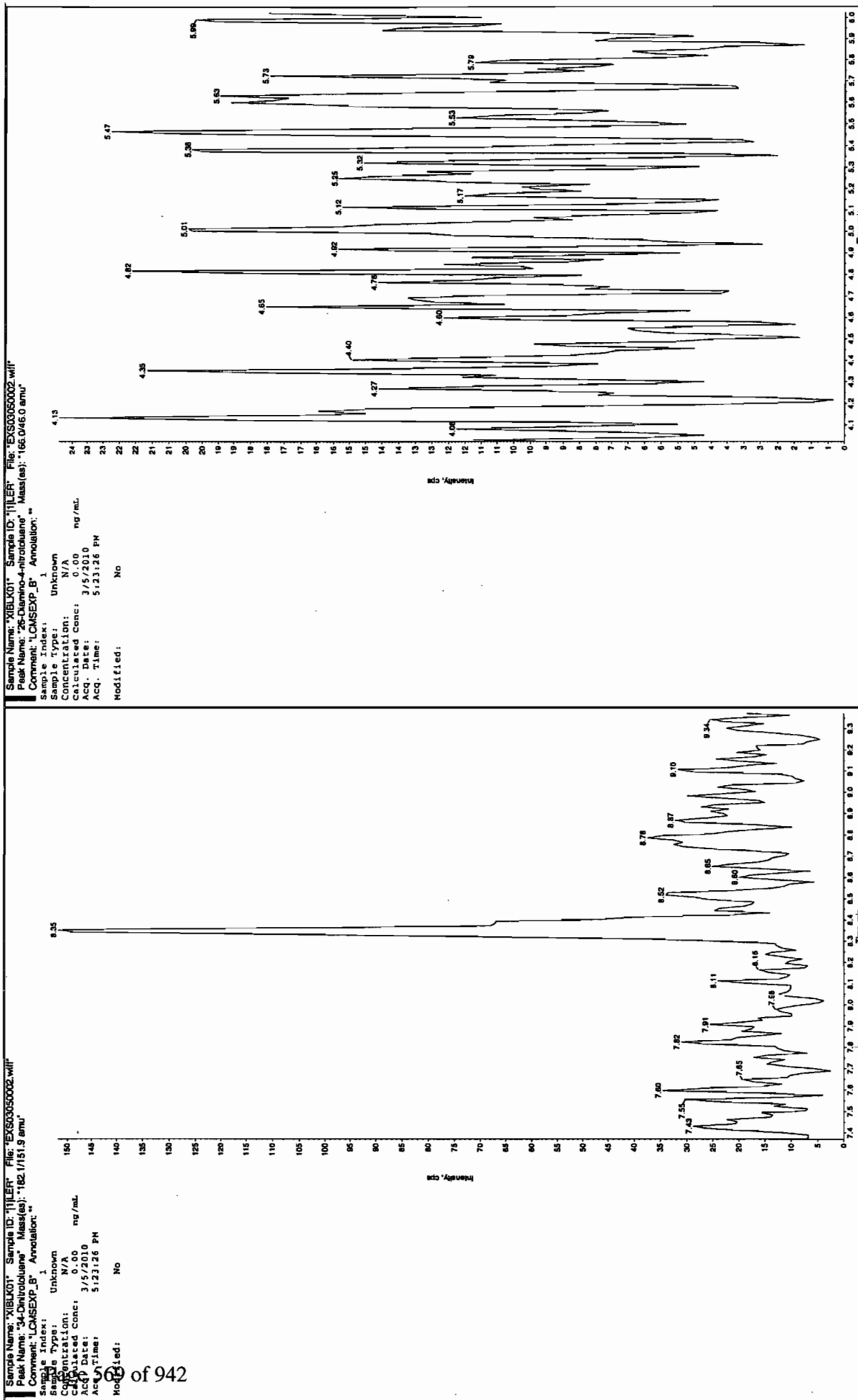
Jan 3/10



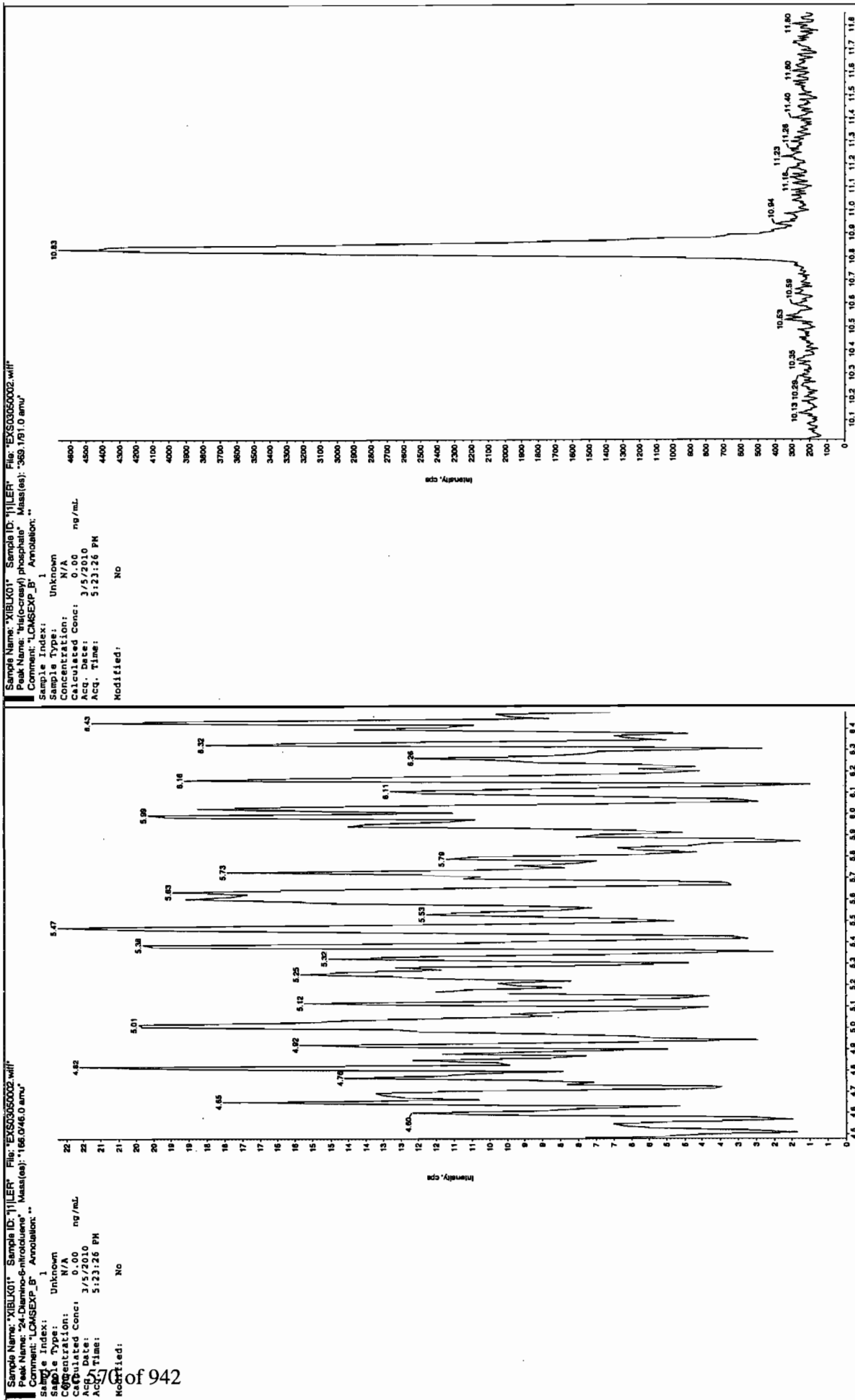
4/10/03 8/9/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 14-MAR-10 18:54

GEL Data File: EXP0314009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 430.467      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 459.165      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

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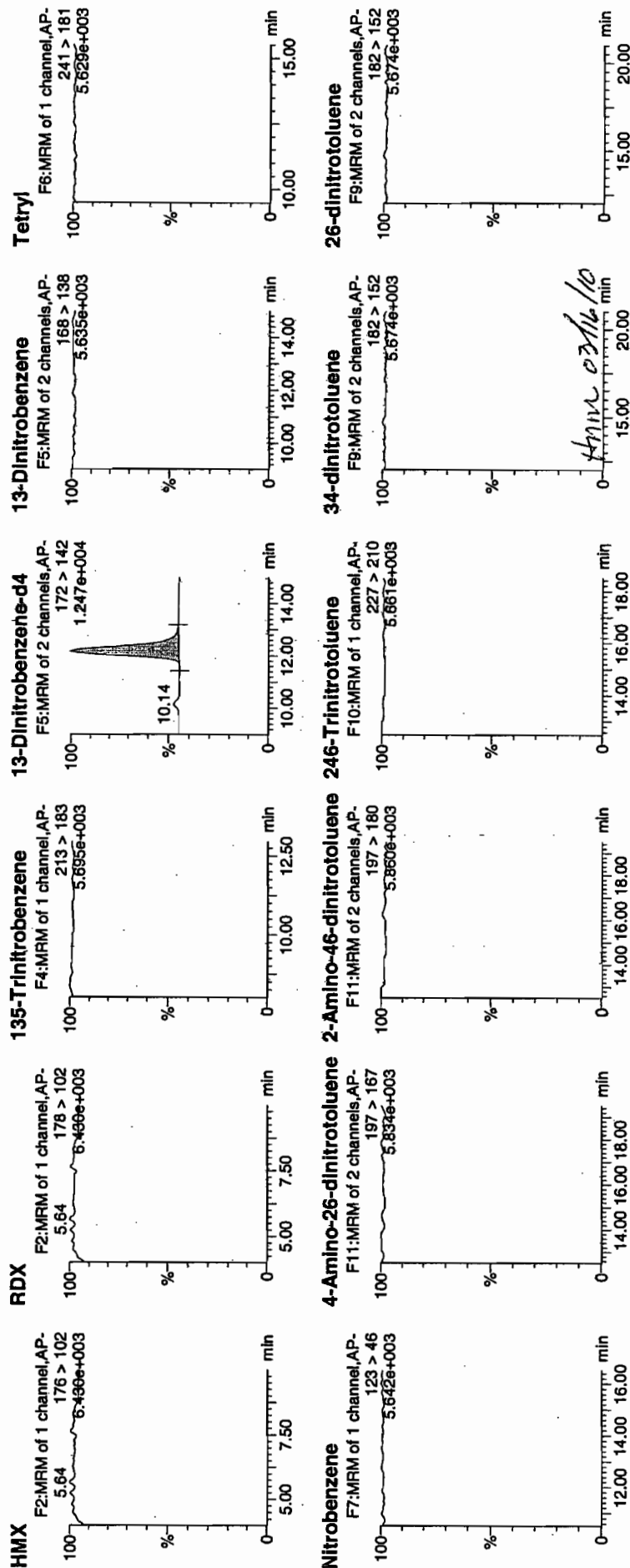
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Time: 18:54:49

ID: XIBLK02

Vial: 1:1,A

Page 572 of 942

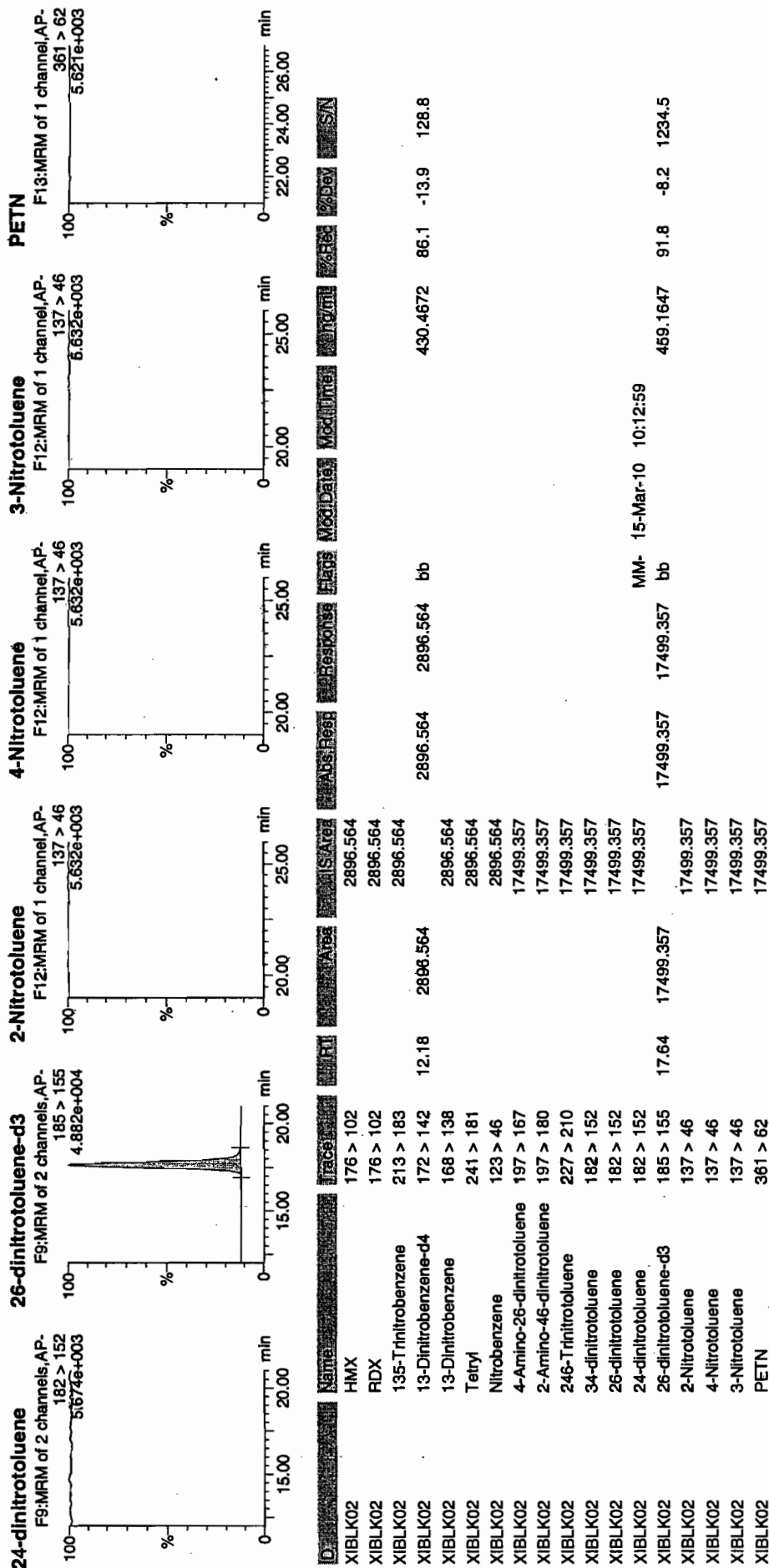


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Mon Mar 15 10:16:43 2010, Page 18 of 77

Dataset: C:\MASSLYNX\New\_Exp\PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 14-MAR-10 19:53

GEL Data File: EXP0314011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 441.78       |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 488.086      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314011a

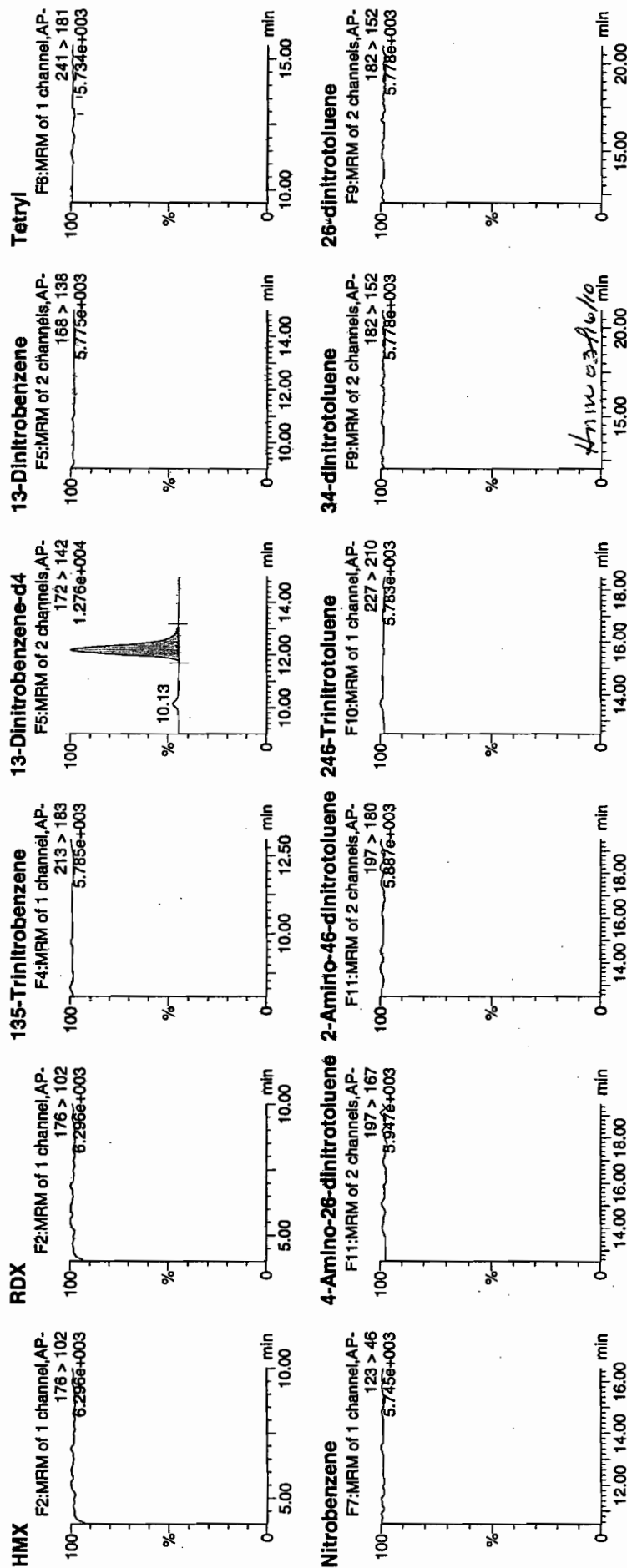
Date: 14-Mar-2010

Time: 19:53:46

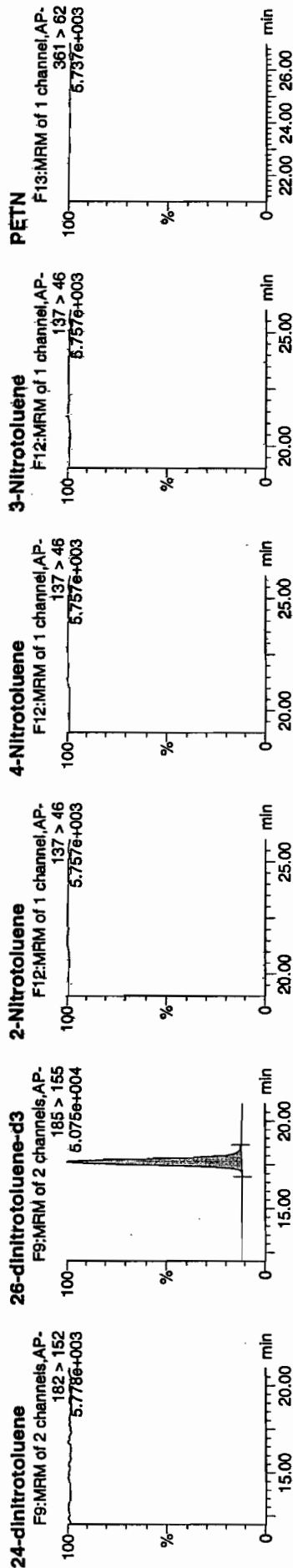
ID: XIBLK03

Vial: 1:1, A

MTT  
3/15/10



Dataset: C:\MASSLYNX\New\_Exp\_PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010



| ID      | Name                      | Trace     | Area  | ISArea    | AbsResp | Response  | Flags | ModDate       | ModTime  | Conc/mL  | %Rec | %Dev  | SN     |
|---------|---------------------------|-----------|-------|-----------|---------|-----------|-------|---------------|----------|----------|------|-------|--------|
| XIBLK03 | HMX                       | 176 > 102 |       | 2972.687  |         |           |       |               |          |          |      |       |        |
| XIBLK03 | RDX                       | 176 > 102 |       | 2972.687  |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 135-Trinitrobenzene       | 213 > 183 |       | 2972.687  |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17 | 2972.687  |         | 2972.687  | bb    | MM- 15-Mar-10 | 10:05:04 | 441.7801 | 88.4 | -11.6 | 597.8  |
| XIBLK03 | 13-Dinitrobenzene         | 168 > 138 |       | 2972.687  |         |           |       |               |          |          |      |       |        |
| XIBLK03 | Tetryl                    | 241 > 181 |       | 2972.687  |         |           |       |               |          |          |      |       |        |
| XIBLK03 | Nitrobenzene              | 123 > 46  |       | 2972.687  |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 4-Amino-26-dinitrotoluene | 197 > 167 |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 2-Amino-46-dinitrotoluene | 197 > 180 |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 246-Trinitrotoluene       | 227 > 210 |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 34-dinitrotoluene         | 182 > 152 |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 26-dinitrotoluene         | 182 > 152 |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 24-dinitrotoluene         | 182 > 152 |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 26-dinitrotoluene-d3      | 185 > 155 | 17.66 | 18601.584 |         | 18601.584 | bb    |               |          | 488.0860 | 97.6 | -2.4  | 1451.3 |
| XIBLK03 | 2-Nitrotoluene            | 137 > 46  |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 4-Nitrotoluene            | 137 > 46  |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | 3-Nitrotoluene            | 137 > 46  |       | 18601.584 |         |           |       |               |          |          |      |       |        |
| XIBLK03 | PETN                      | 361 > 62  |       | 18601.584 |         |           |       |               |          |          |      |       |        |

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 15-MAR-10 02:17

GEL Data File: EXP0314024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 519.294      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 524.66       |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |



Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314024a

Date: 15-Mar-2010

Time: 02:17:01

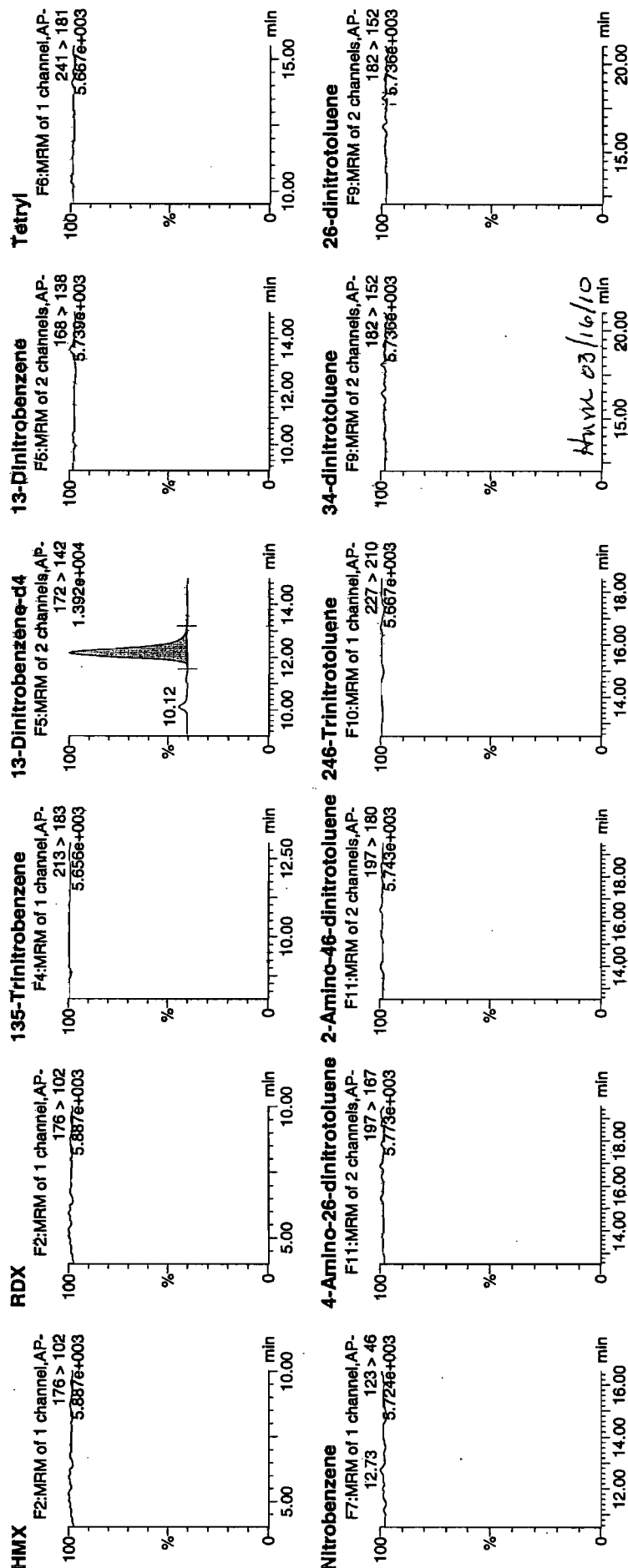
ID: XIBLK04

Vial: 1:1,A

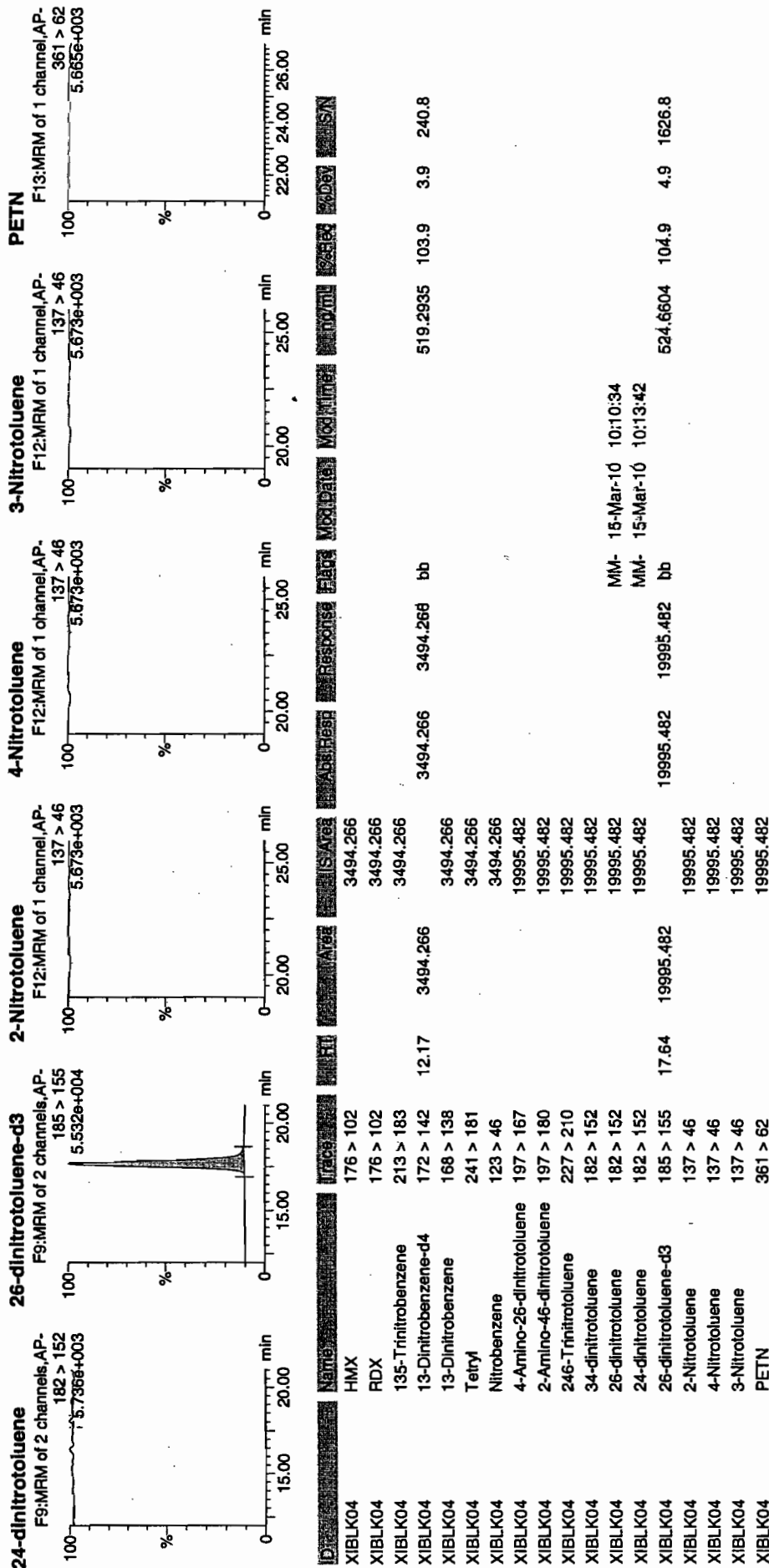
WRT  
3/15/10

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Dataset: C:\MASSLYNX\New\_Exp\_PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 15-MAR-10 08:40

GEL Data File: EXP0314037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 534.53       |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 574.82       |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314037a

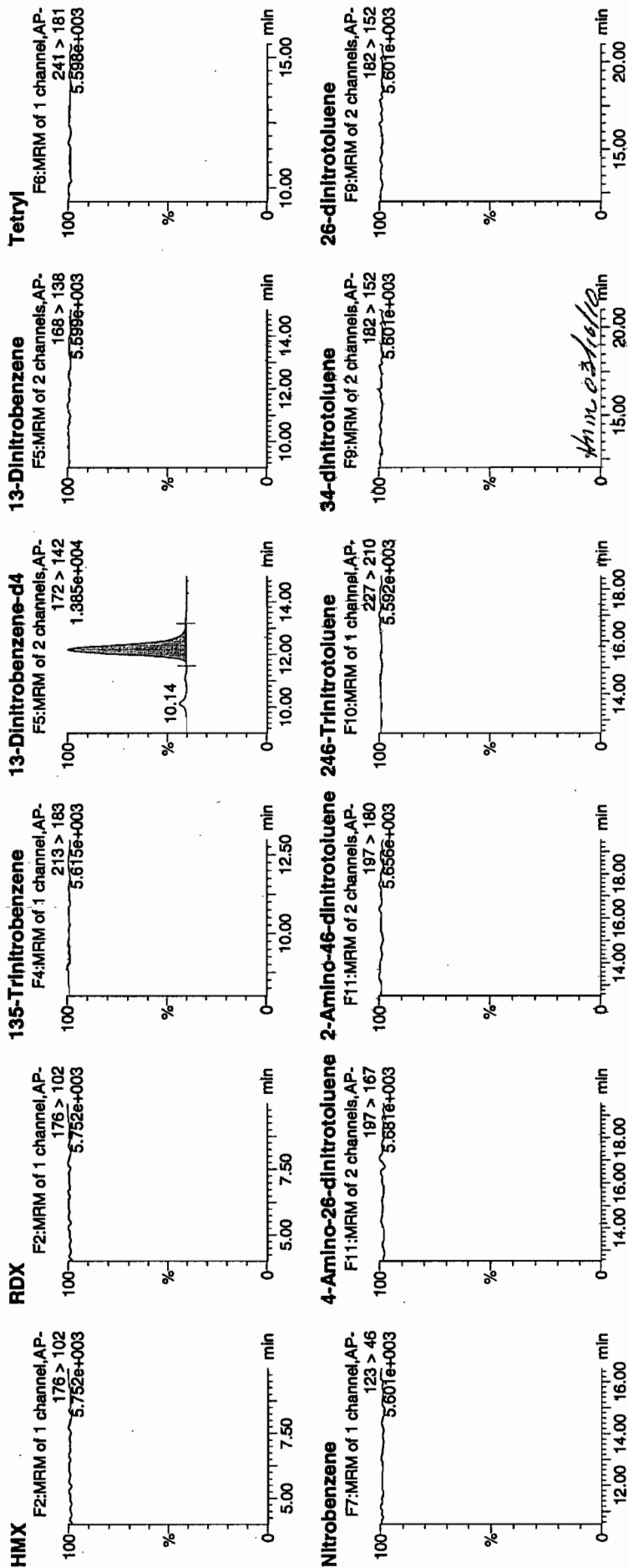
Date: 15-Mar-2010

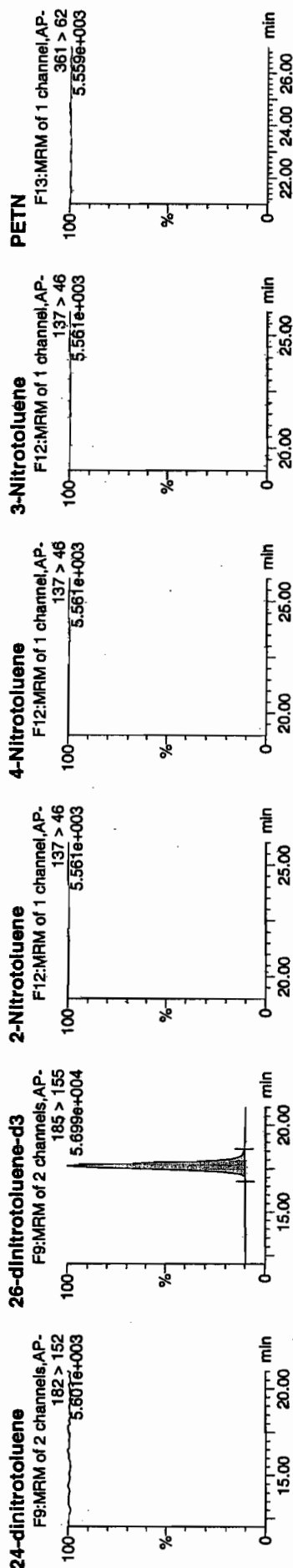
Time: 08:40:21

ID: XIBLK05

Vial: 1:1,A

MR  
3/15/10





| ID      | Name                      | Trace     | RT    | Area      | SA | MS        | Response  | Peak | ModDate | ModTime | Volume   | %Rec  | %Exp | Thesis |
|---------|---------------------------|-----------|-------|-----------|----|-----------|-----------|------|---------|---------|----------|-------|------|--------|
| XIBLK05 | HMX                       | 176 > 102 |       |           |    | 3596.789  |           |      |         |         |          |       |      |        |
| XIBLK05 | RDX                       | 176 > 102 |       |           |    | 3596.789  |           |      |         |         |          |       |      |        |
| XIBLK05 | 135-Trinitrobenzene       | 213 > 183 |       |           |    | 3596.789  |           |      |         |         |          |       |      |        |
| XIBLK05 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.18 | 3698.789  |    |           | 3596.789  | bb   |         |         | 534.5298 | 106.9 | 6.9  | 476.3  |
| XIBLK05 | 13-Dinitrobenzene         | 188 > 138 |       |           |    | 3596.789  |           |      |         |         |          |       |      |        |
| XIBLK05 | Tetryl                    | 241 > 181 |       |           |    | 3596.789  |           |      |         |         |          |       |      |        |
| XIBLK05 | Nitrobenzene              | 123 > 46  |       |           |    | 3596.789  |           |      |         |         |          |       |      |        |
| XIBLK05 | 4-Amino-26-dinitrotoluene | 197 > 167 |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | 2-Amino-46-dinitrotoluene | 197 > 180 |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | 246-Trinitrotoluene       | 227 > 210 |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | 34-dinitrotoluene         | 182 > 152 |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | 26-dinitrotoluene         | 182 > 152 |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | 24-dinitrotoluene         | 182 > 152 |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 21907.143 |    |           | 21907.143 | bb   |         |         | 574.8203 | 115.0 | 15.0 | 2964.3 |
| XIBLK05 | 2-Nitrotoluene            | 137 > 46  |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | 4-Nitrotoluene            | 137 > 46  |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | 3-Nitrotoluene            | 137 > 46  |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |
| XIBLK05 | PETN                      | 361 > 62  |       |           |    | 21907.143 |           |      |         |         |          |       |      |        |

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 15-MAR-10 10:38

GEL Data File: EXP0314041a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 517.575      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 525.528      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

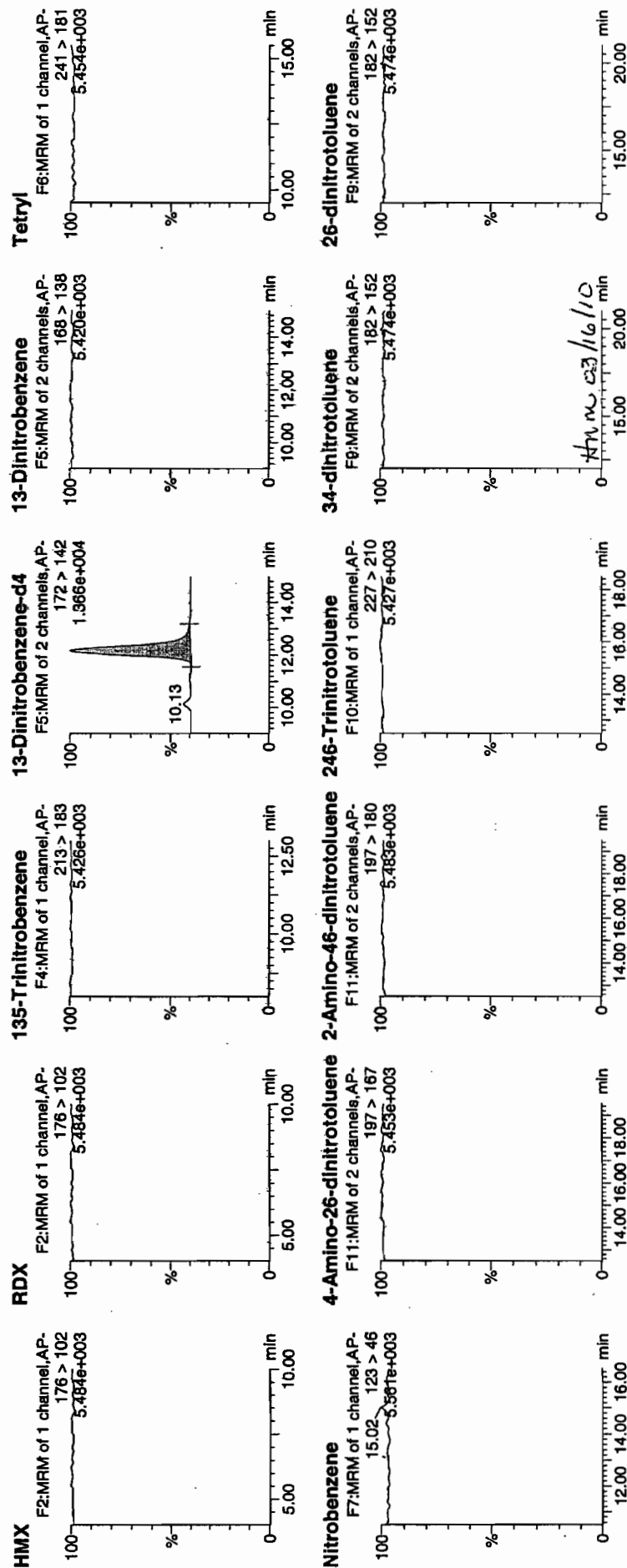
Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314041a

Date: 15-Mar-2010

Time: 10:38:21

ID: XIBLK06

Vial: 1:1,A

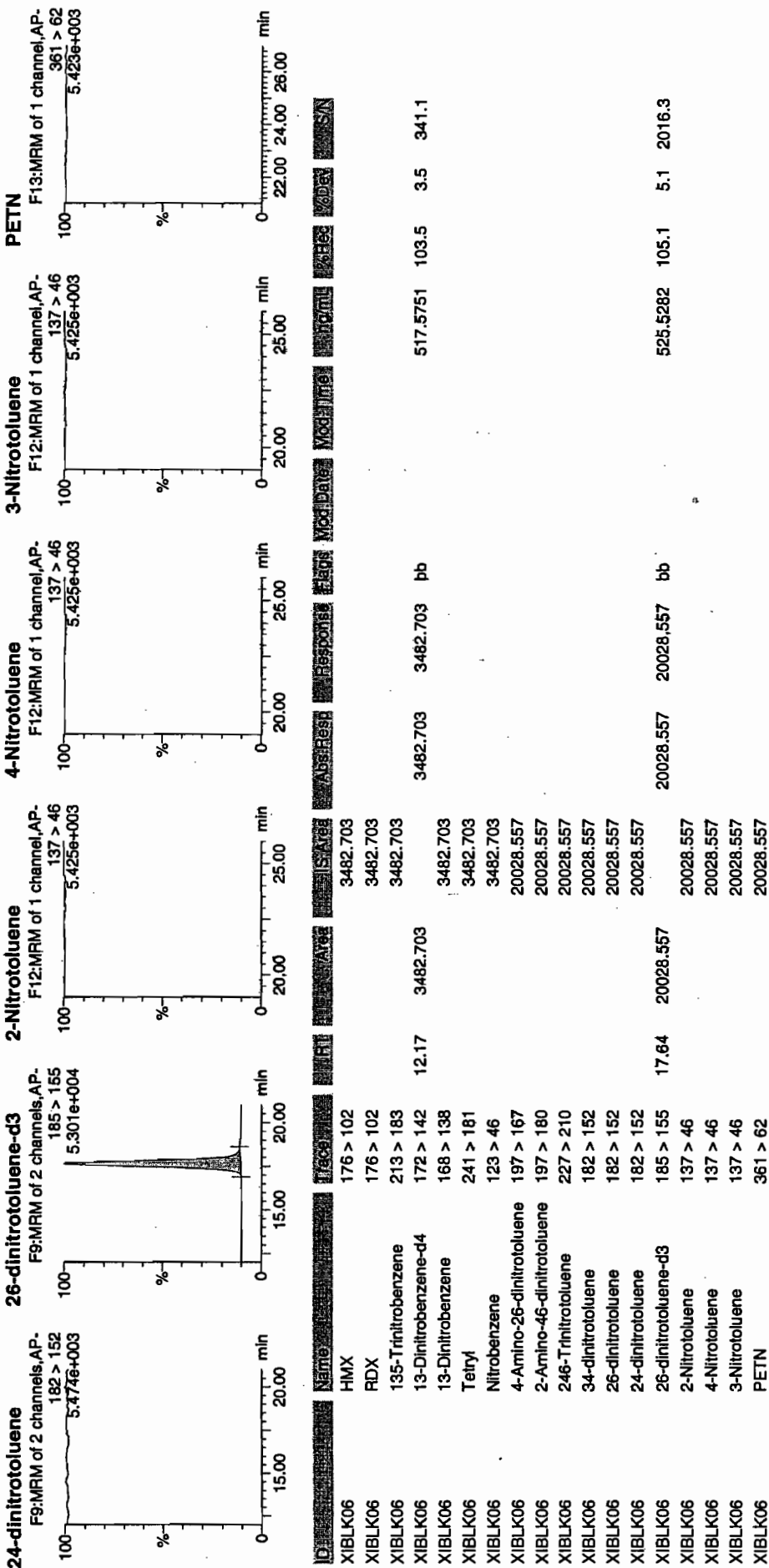


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Mar 16 09:29:05 2010, Page 6 of 79

Dataset: C:\MASSLYNX\New\_Exp\PRO1031410expA1.qld, Time: Tue Mar 16 09:27:58 2010





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 15-MAR-10 15:04

GEL Data File: EXP0314050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 458.313      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 508.096      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314050a

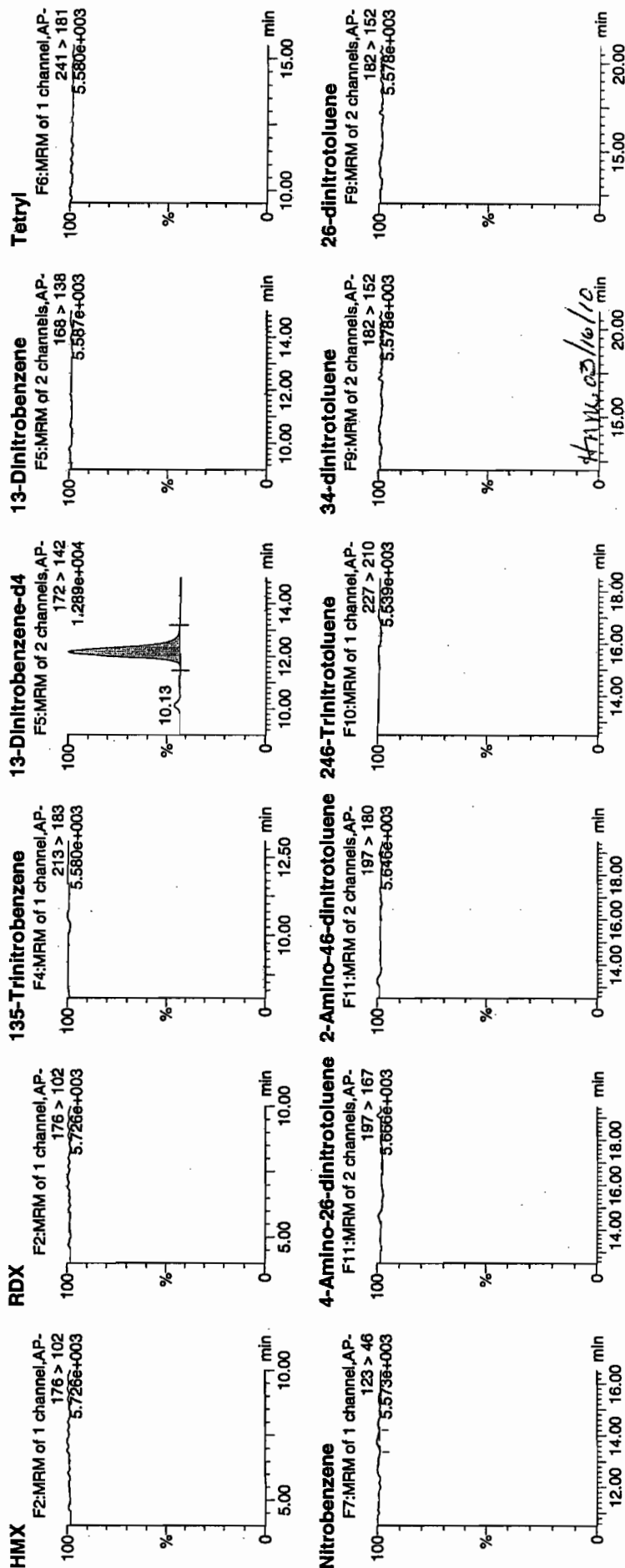
Date: 15-Mar-2010

Time: 15:04:04

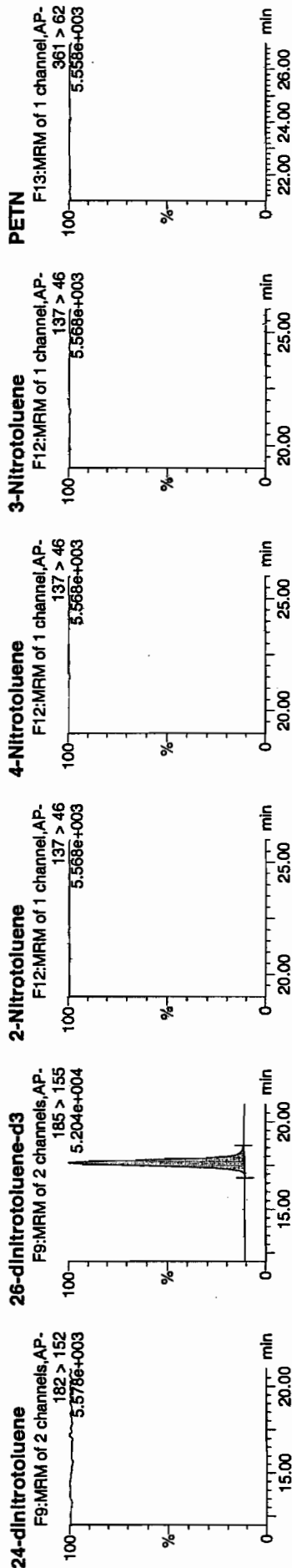
ID: XIBLK07

Vial: 1:1,A

WAT  
3/16/10



Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010



| ID      | Name                      | InChIKey  | MW    | SAVED     | Abs.Ret   | Response  | Pack | Mod.Date | Mod.Time  | %H <sub>2</sub> O | %B <sub>2</sub> | S/N    |
|---------|---------------------------|-----------|-------|-----------|-----------|-----------|------|----------|-----------|-------------------|-----------------|--------|
| XIBLK07 | HMX                       | 176 > 102 |       | 3083.932  |           |           |      |          |           |                   |                 |        |
| XIBLK07 | RDX                       | 176 > 102 |       | 3083.932  |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 135-Trinitrobenzene       | 213 > 183 |       | 3083.932  |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17 | 3083.932  | 3083.932  | 3083.932  | bb   |          |           | 458.3126          | 91.7            | -8.3   |
| XIBLK07 | 13-Dinitrobenzene         | 168 > 138 |       | 3083.932  |           |           |      |          |           |                   |                 | 380.0  |
| XIBLK07 | Tetryl                    | 241 > 181 |       | 3083.932  |           |           |      |          |           |                   |                 |        |
| XIBLK07 | Nitrobenzene              | 123 > 46  |       | 3083.932  |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 4-Amino-26-dinitrotoluene | 197 > 167 |       | 19364.199 |           |           |      | MM-      | 16-Mar-10 | 09:18:44          |                 |        |
| XIBLK07 | 2-Amino-46-dinitrotoluene | 197 > 180 |       | 19364.199 |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 246-Trinitrotoluene       | 227 > 210 |       | 19364.199 |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 34-dinitrotoluene         | 182 > 152 |       | 19364.199 |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 26-dinitrotoluene         | 182 > 152 |       | 19364.199 |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 24-dinitrotoluene         | 182 > 152 |       | 19364.199 |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 19364.199 | 19364.199 | 19364.199 | bb   |          |           | 508.0962          | 101.6           | 1.6    |
| XIBLK07 | 2-Nitrotoluene            | 137 > 46  |       | 19364.199 |           |           |      |          |           |                   |                 | 1868.7 |
| XIBLK07 | 4-Nitrotoluene            | 137 > 46  |       | 19364.199 |           |           |      |          |           |                   |                 |        |
| XIBLK07 | 3-Nitrotoluene            | 137 > 46  |       | 19364.199 |           |           |      |          |           |                   |                 |        |
| XIBLK07 | PETN                      | 361 > 62  |       | 19364.199 |           |           |      |          |           |                   |                 |        |

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 15-MAR-10 21:27

GEL Data File: EXP0314063a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 457.347      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 472.899      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314063a

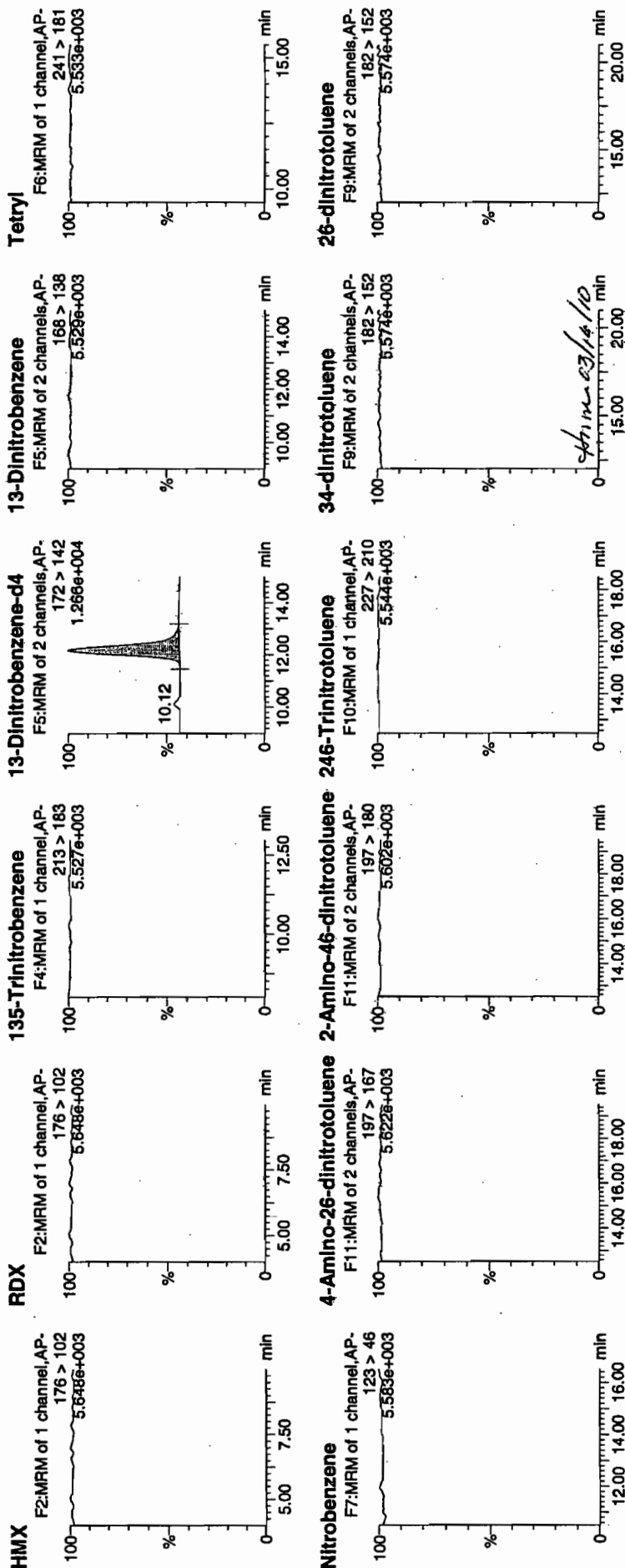
Date: 15-Mar-2010

Time: 21:27:39

ID: XIBLK08

Vial: 1:1,A

WAT  
3/16/10

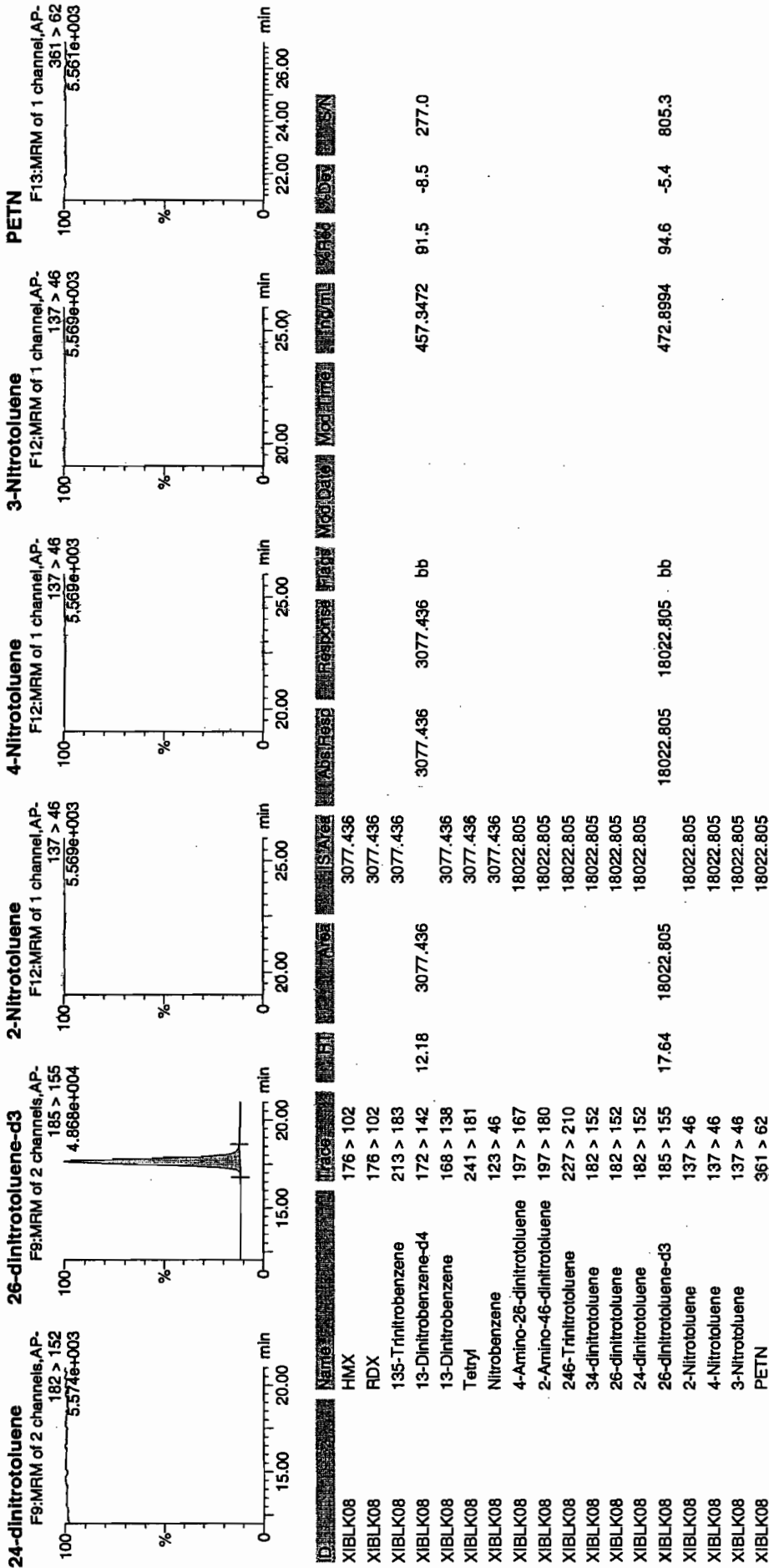


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Mar 16 09:29:05 2010, Page 50 of 79

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 15-MAR-10 23:55

GEL Data File: EXP0314068a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 462.466      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 497.279      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314068a

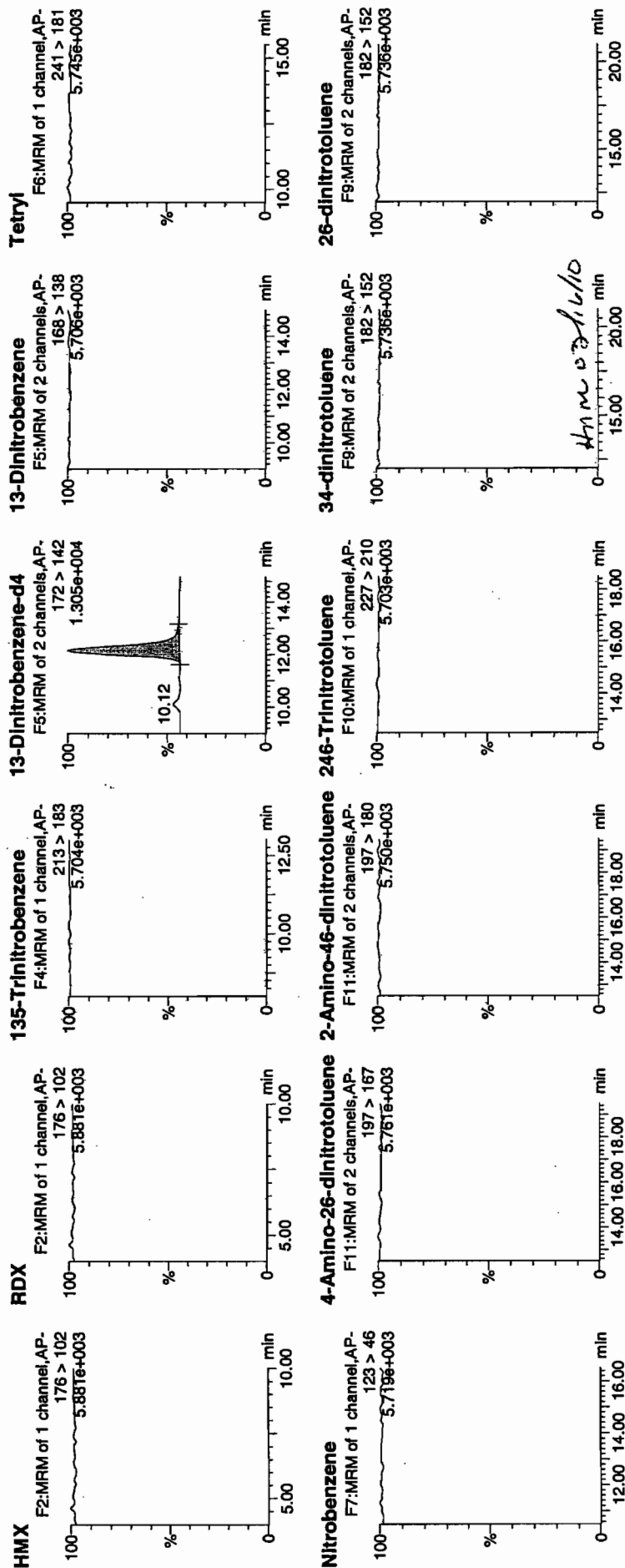
Date: 15-Mar-2010

Time: 23:55:16

ID: XIBLK09

Vial: 1:1,A

3/16/10





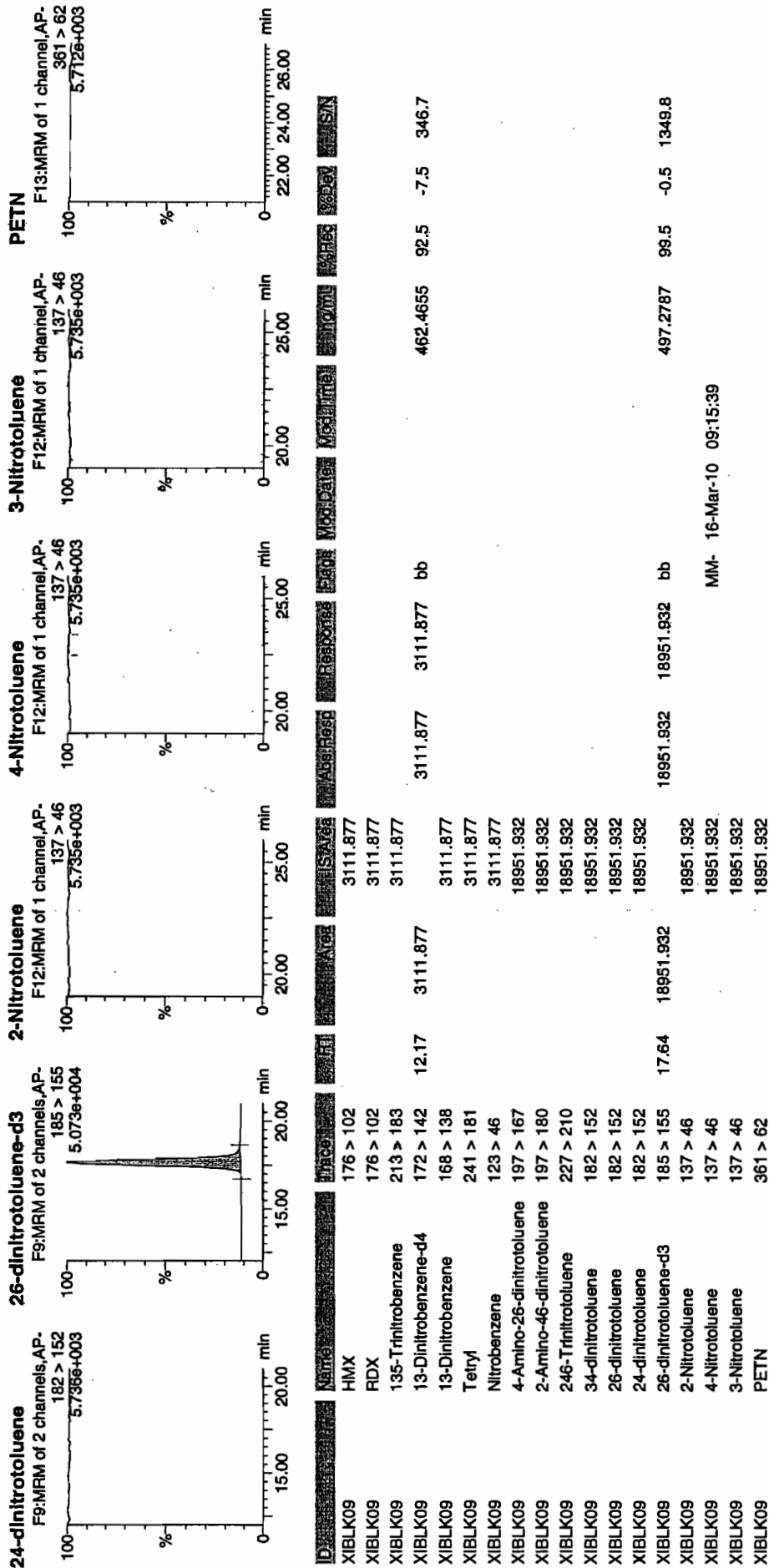
# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Mar 16 09:29:05 2010, Page 60 of 79

Dataset: C:\MASSLYNX\New\_Exp\_PROV031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

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4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 16-MAR-10 03:51

GEL Data File: EXP0314076a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 472.447      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 500.195      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Mar 16 09:29:05 2010, Page 75 of 79

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\data\EXP0314076a

Date: 16-Mar-2010

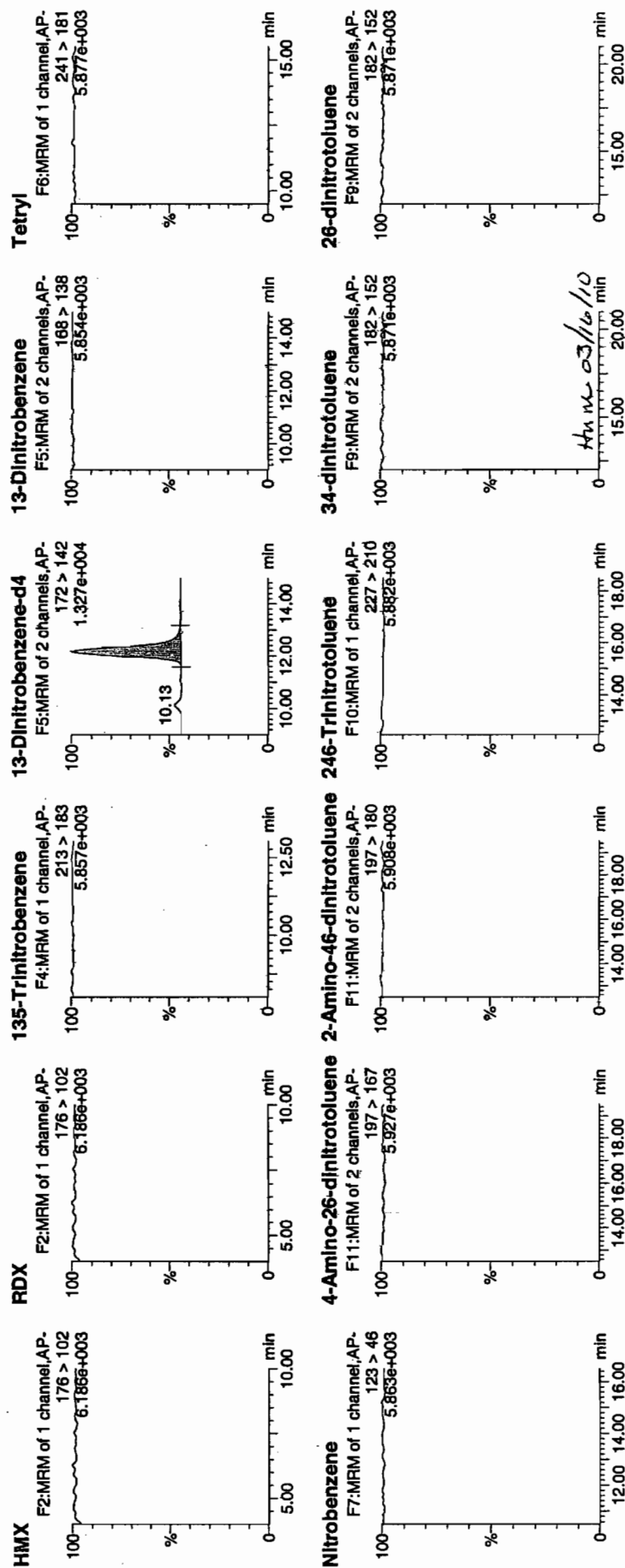
Time: 03:51:15

ID: XIBLK10

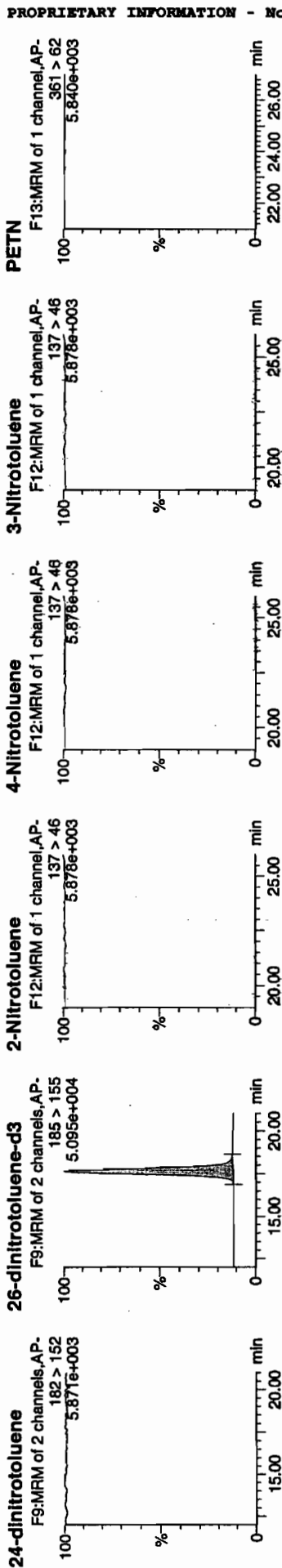
Vial: 1:1,A

3/16/10  
MAY

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Dataset: C:\MASSLYNX\New\_Exp\_PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010



| ID      | Name                      | Mass      | Time      | Area      | Height | Ratio    | SN              |
|---------|---------------------------|-----------|-----------|-----------|--------|----------|-----------------|
| XIBLK10 | HMX                       | 176 > 102 | 3179.039  |           |        |          |                 |
| XIBLK10 | RDX                       | 176 > 102 | 3179.039  |           |        |          |                 |
| XIBLK10 | 135-Trinitrobenzene       | 213 > 183 | 3179.039  |           |        |          |                 |
| XIBLK10 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17     | 3179.039  |        |          |                 |
| XIBLK10 | 13-Dinitrobenzene         | 168 > 138 | 3179.039  |           |        |          |                 |
| XIBLK10 | Tetryl                    | 241 > 181 | 3179.039  |           |        |          |                 |
| XIBLK10 | Nitrobenzene              | 123 > 46  | 3179.039  |           |        |          |                 |
| XIBLK10 | 4-Amino-26-dinitrotoluene | 197 > 167 | 19063.061 |           |        |          |                 |
| XIBLK10 | 2-Amino-46-dinitrotoluene | 197 > 180 | 19063.061 |           |        |          |                 |
| XIBLK10 | 246-Trinitrotoluene       | 227 > 210 | 19063.061 |           |        |          |                 |
| XIBLK10 | 34-dinitrotoluene         | 182 > 152 | 19063.061 |           |        |          |                 |
| XIBLK10 | 26-dinitrotoluene         | 182 > 152 | 19063.061 |           |        |          |                 |
| XIBLK10 | 24-dinitrotoluene         | 182 > 152 | 19063.061 |           |        |          |                 |
| XIBLK10 | 26-dinitrotoluene-d3      | 185 > 155 | 17.84     | 19063.061 |        |          |                 |
| XIBLK10 | 2-Nitrotoluene            | 137 > 46  | 19063.061 |           |        |          |                 |
| XIBLK10 | 4-Nitrotoluene            | 137 > 46  | 19063.061 |           |        |          |                 |
| XIBLK10 | 3-Nitrotoluene            | 137 > 46  | 19063.061 |           |        |          |                 |
| XIBLK10 | PETN                      | 361 > 62  | 500.1946  | 100.0     | 0.0    | 1986.1   |                 |
|         |                           |           | 3179.039  | 3179.039  | bb     | 472.4467 | 94.5 -5.5 209.6 |

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 16-MAR-10 07:47

GEL Data File: EXP0314084a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 605.177      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 544.973      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |



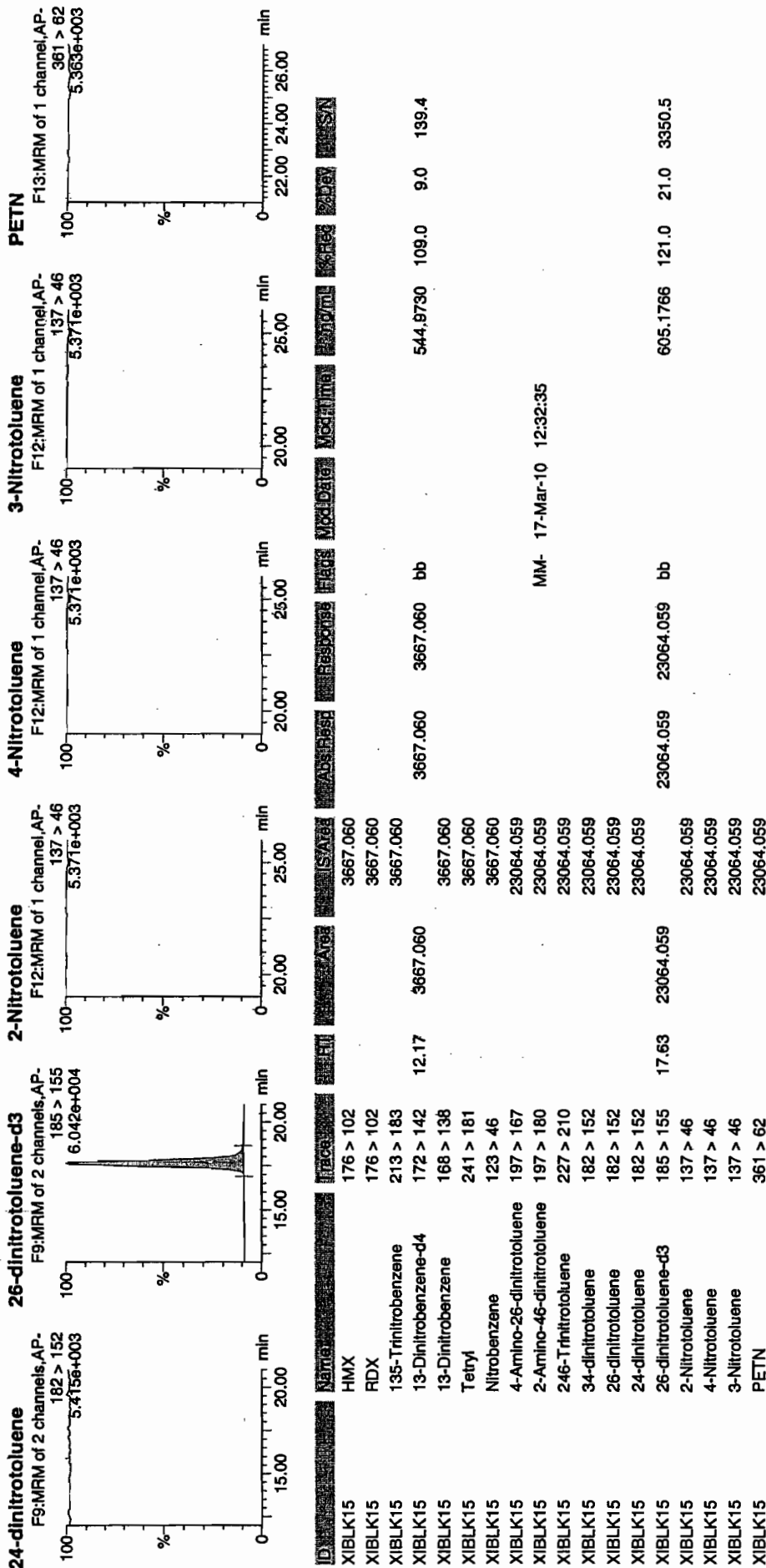
# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Mar 17 12:37:22 2010, Page 14 of 99

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 16-MAR-10 10:14

GEL Data File: EXP0314089a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 542.414      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 553.984      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |



# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Mar 17 12:37:22 2010, Page 23 of 99

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314089a

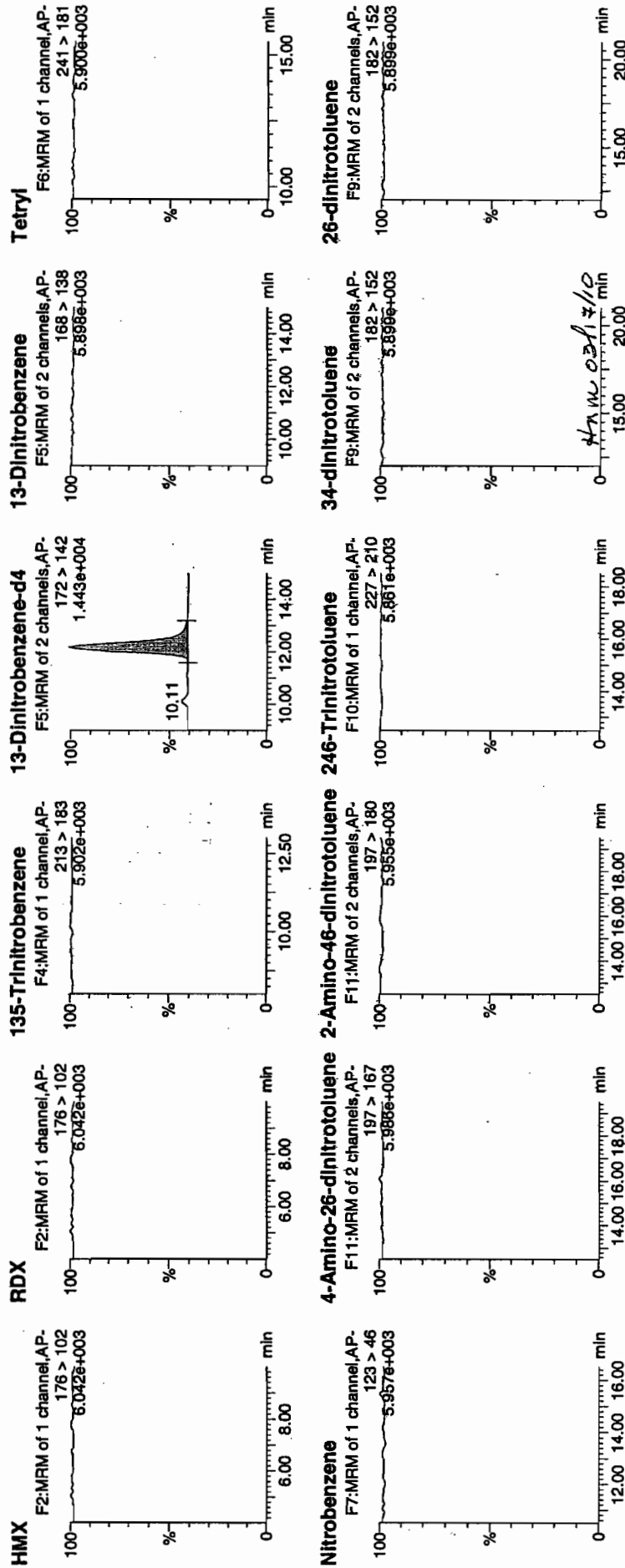
Date: 16-Mar-2010

Time: 10:14:44

ID: XIBLK11

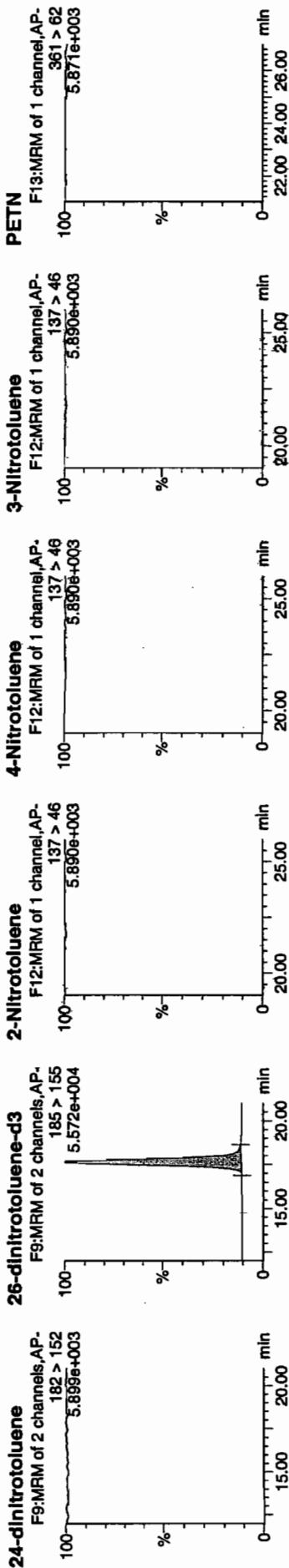
Vial: 1:1,A

WTF  
3/19/10



Dataset: C:\MASS\YNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

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| ID      | Name                      | Trace     | RU    | Area      | ISAtest   | Absorptance | Response  | Height | Molecular Weight | Empirical Formula | Density | Boiling Point | Ref.   |
|---------|---------------------------|-----------|-------|-----------|-----------|-------------|-----------|--------|------------------|-------------------|---------|---------------|--------|
| XIBLK11 | HMX                       | 176 > 102 |       |           | 3649.838  |             |           |        |                  |                   |         |               | SA     |
| XIBLK11 | RDX                       | 176 > 102 |       |           | 3649.838  |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 135-Trinitrobenzene       | 213 > 183 |       |           | 3649.838  |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17 | 3649.838  |           | 3649.838    | 3649.838  | bb     |                  | 542.4136          | 108.5   | 8.5           | 412.2  |
| XIBLK11 | 13-Dinitrobenzene         | 168 > 138 |       |           | 3649.838  |             |           |        |                  |                   |         |               |        |
| XIBLK11 | Tetryl                    | 241 > 181 |       |           | 3649.838  |             |           |        |                  |                   |         |               |        |
| XIBLK11 | Nitrobenzene              | 123 > 46  |       |           | 3649.838  |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 4-Amino-26-dinitrotoluene | 197 > 167 |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 2-Amino-46-dinitrotoluene | 197 > 180 |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 248-Trinitrotoluene       | 227 > 210 |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 34-dinitrotoluene         | 182 > 152 |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 26-dinitrotoluene         | 182 > 152 |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 24-dinitrotoluene         | 182 > 152 |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 21113.055 |           | 21113.055   | 21113.055 | bb     |                  | 553.9843          | 110.8   | 10.8          | 1960.2 |
| XIBLK11 | 2-Nitrotoluene            | 137 > 46  |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 4-Nitrotoluene            | 137 > 46  |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | 3-Nitrotoluene            | 197 > 46  |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |
| XIBLK11 | PETN                      | 361 > 62  |       |           | 21113.055 |             |           |        |                  |                   |         |               |        |

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 19-MAR-10 20:50

GEL Data File: EXP0319009a

Instrument ID: LCMSMS

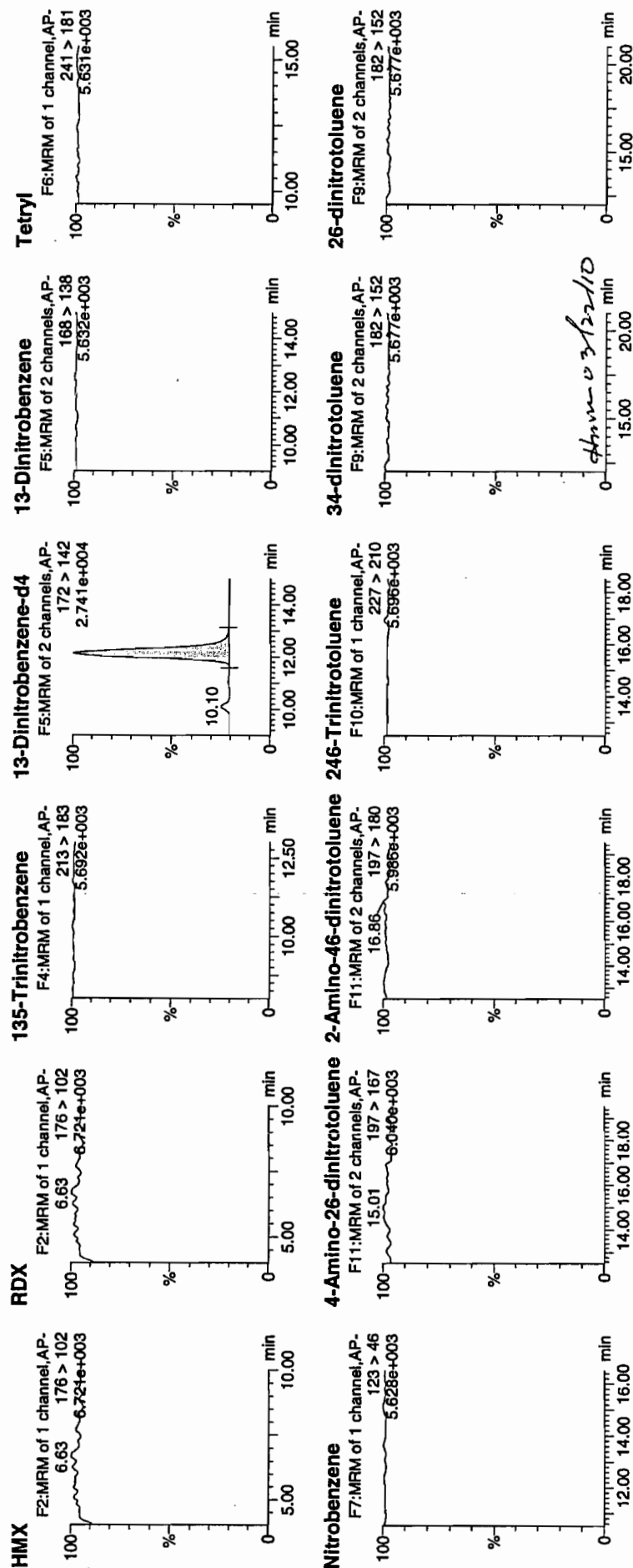
Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 542.302      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 453.96       |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |

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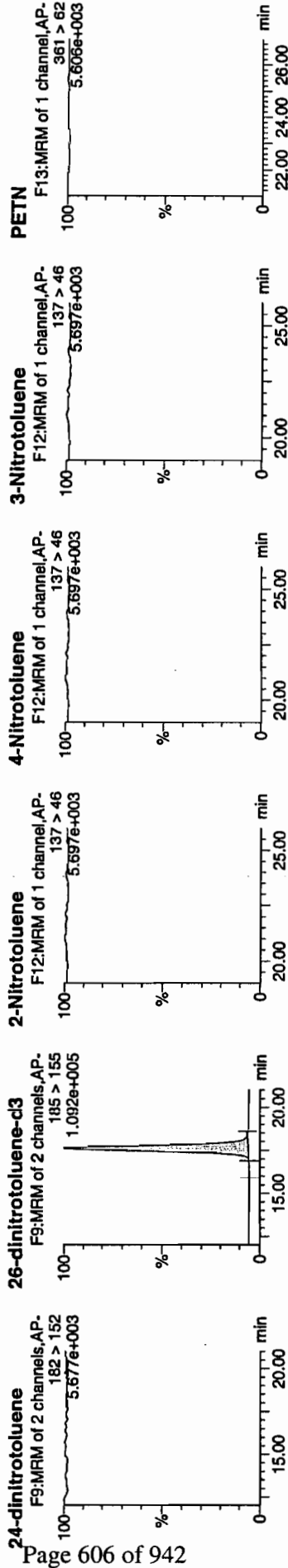
11/11  
 3/12/10



Printed: Sat Mar 20 11:06:08 2010, Page 18 of 73

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010



| ID      | Name                      | Trace     | Area  | IS Area   | Abs Resp | Response  | Flags | Mod Date | Mod Time | %Rec     | %Dev  | S/N    |
|---------|---------------------------|-----------|-------|-----------|----------|-----------|-------|----------|----------|----------|-------|--------|
| XIBLK02 | HMX                       | 176 > 102 |       | 8902.596  |          |           |       |          |          |          |       |        |
| XIBLK02 | RDX                       | 176 > 102 |       | 8902.596  |          |           |       |          |          |          |       |        |
| XIBLK02 | 135-Trinitrobenzene       | 213 > 183 |       | 8902.596  |          |           |       |          |          |          |       |        |
| XIBLK02 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.14 | 8902.596  |          | 8902.596  | bb    |          |          | 542.3015 | 108.5 | 701.2  |
| XIBLK02 | 13-Dinitrobenzene         | 168 > 138 |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | Tetryl                    | 241 > 181 |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | Nitrobenzene              | 123 > 46  |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | 4-Amino-26-dinitrotoluene | 197 > 167 |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | 2-Amino-46-dinitrotoluene | 197 > 180 |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | 246-Trinitrotoluene       | 227 > 210 |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | 34-dinitrotoluene         | 182 > 152 |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | 26-dinitrotoluene         | 182 > 152 |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | 24-dinitrotoluene         | 182 > 152 |       |           |          |           |       |          |          |          |       |        |
| XIBLK02 | 26-dinitrotoluene-d3      | 185 > 155 | 17.60 | 42278.402 |          | 42278.402 | bb    |          |          | 453.9598 | 90.8  | 3635.3 |
| XIBLK02 | 2-Nitrotoluene            | 137 > 46  |       | 42278.402 |          |           |       |          |          |          |       |        |
| XIBLK02 | 4-Nitrotoluene            | 137 > 46  |       | 42278.402 |          |           |       |          |          |          |       |        |
| XIBLK02 | 3-Nitrotoluene            | 137 > 46  |       | 42278.402 |          |           |       |          |          |          |       |        |
| XIBLK02 | PETN                      | 361 > 62  |       |           |          |           |       |          |          |          |       |        |

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 19-MAR-10 21:49

GEL Data File: EXP0319011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 436.341      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 460.101      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |

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Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0319011a

Date: 19-Mar-2010

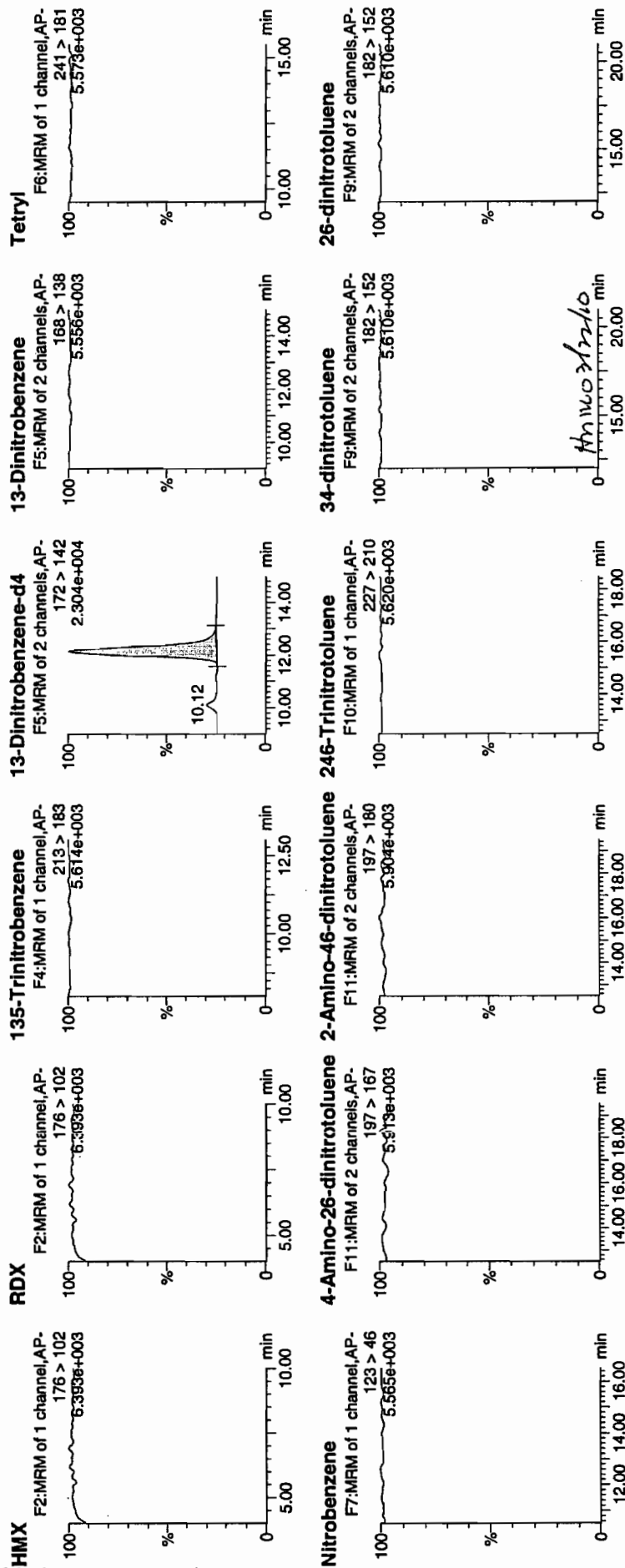
Time: 21:49:07

ID: XIBLK03

Vial: 1:1,A

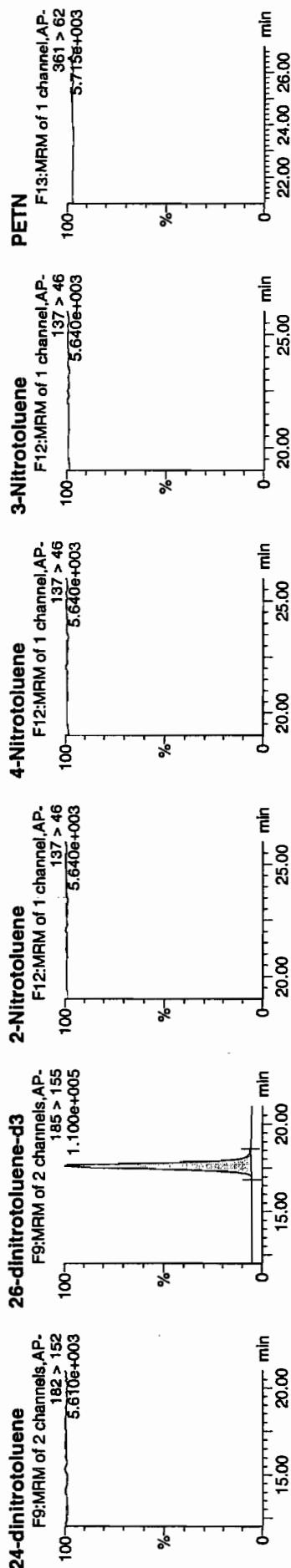
3/12/10

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**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010



| ID      | Name                      | Trace     | RT    | Area      | IS Area   | Abs:Resp | Response | Flags | Mod.Date | Mod.Time | Ring/ml  | %Rec | %Dev  | SN     |
|---------|---------------------------|-----------|-------|-----------|-----------|----------|----------|-------|----------|----------|----------|------|-------|--------|
| XIBLK03 | HMx                       | 176 > 102 |       |           | 7163.110  |          |          |       |          |          |          |      |       |        |
| XIBLK03 | RDX                       | 176 > 102 |       |           | 7163.110  |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 135-Trinitrobenzene       | 213 > 183 |       |           | 7163.110  |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.14 | 7163.110  |           |          |          | bb    |          |          | 436.3407 | 87.3 | -12.7 | 365.1  |
| XIBLK03 | 13-Dinitrobenzene         | 168 > 138 |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | Tetryl                    | 241 > 181 |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | Nitrobenzene              | 123 > 46  |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 4-Amino-26-dinitrotoluene | 197 > 167 |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 2-Amino-46-dinitrotoluene | 197 > 180 |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 246-Trinitrotoluene       | 227 > 210 |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 34-dinitrotoluene         | 182 > 152 |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 26-dinitrotoluene         | 182 > 152 |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 24-dinitrotoluene         | 182 > 152 |       |           |           |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 26-dinitrotoluene-d3      | 185 > 155 | 17.60 | 42850.355 |           |          |          |       |          |          | 460.1011 | 92.0 | -8.0  | 3587.8 |
| XIBLK03 | 2-Nitrotoluene            | 137 > 46  |       |           | 42850.355 |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 4-Nitrotoluene            | 137 > 46  |       |           | 42850.355 |          |          |       |          |          |          |      |       |        |
| XIBLK03 | 3-Nitrotoluene            | 137 > 46  |       |           | 42850.355 |          |          |       |          |          |          |      |       |        |
| XIBLK03 | PETN                      | 361 > 62  |       |           | 42850.355 |          |          |       |          |          |          |      |       |        |



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 20-MAR-10 03:43

GEL Data File: EXP0319023a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| 1,3,5-Trinitrobenzene      | 0    | 0            |
| 1,3-Dinitrobenzene-d4      | 500  | 405.596      |
| 2,4,6-Trinitrotoluene      | 0    | 0            |
| 2,4-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene         | 0    | 0            |
| 2,6-Dinitrotoluene-d3      | 500  | 447.464      |
| 2-Amino-4,6-dinitrotoluene | 0    | 0            |
| 4-Amino-2,6-dinitrotoluene | 0    | 0            |
| HMX                        | 0    | 0            |
| Nitrobenzene               | 0    | 0            |
| PETN                       | 0    | 0            |
| RDX                        | 0    | 0            |
| Tetryl                     | 0    | 0            |
| m-Dinitrobenzene           | 0    | 0            |
| m-Nitrotoluene             | 0    | 0            |
| o-Nitrotoluene             | 0    | 0            |
| p-Nitrotoluene             | 0    | 0            |

**Quantify Sample Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

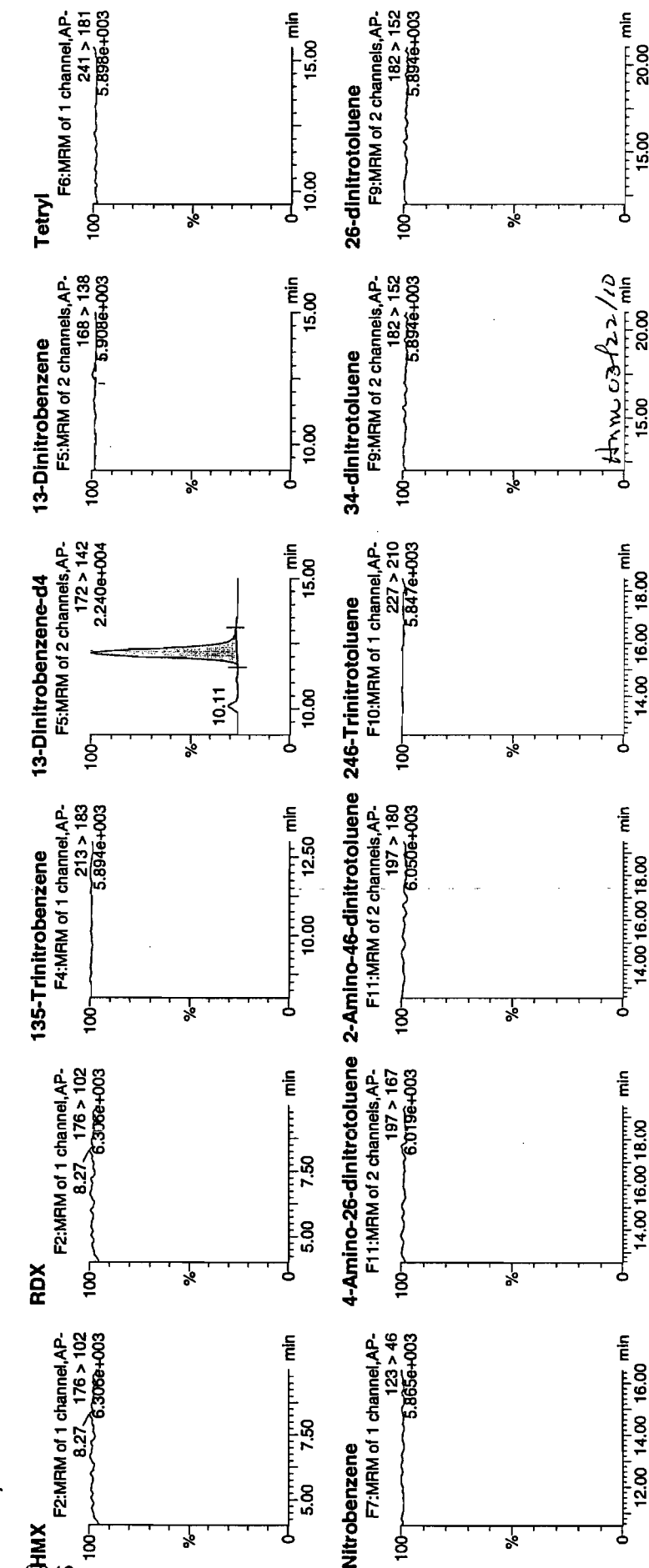
Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0319023a

Date: 20-Mar-2010

Time: 03:43:01

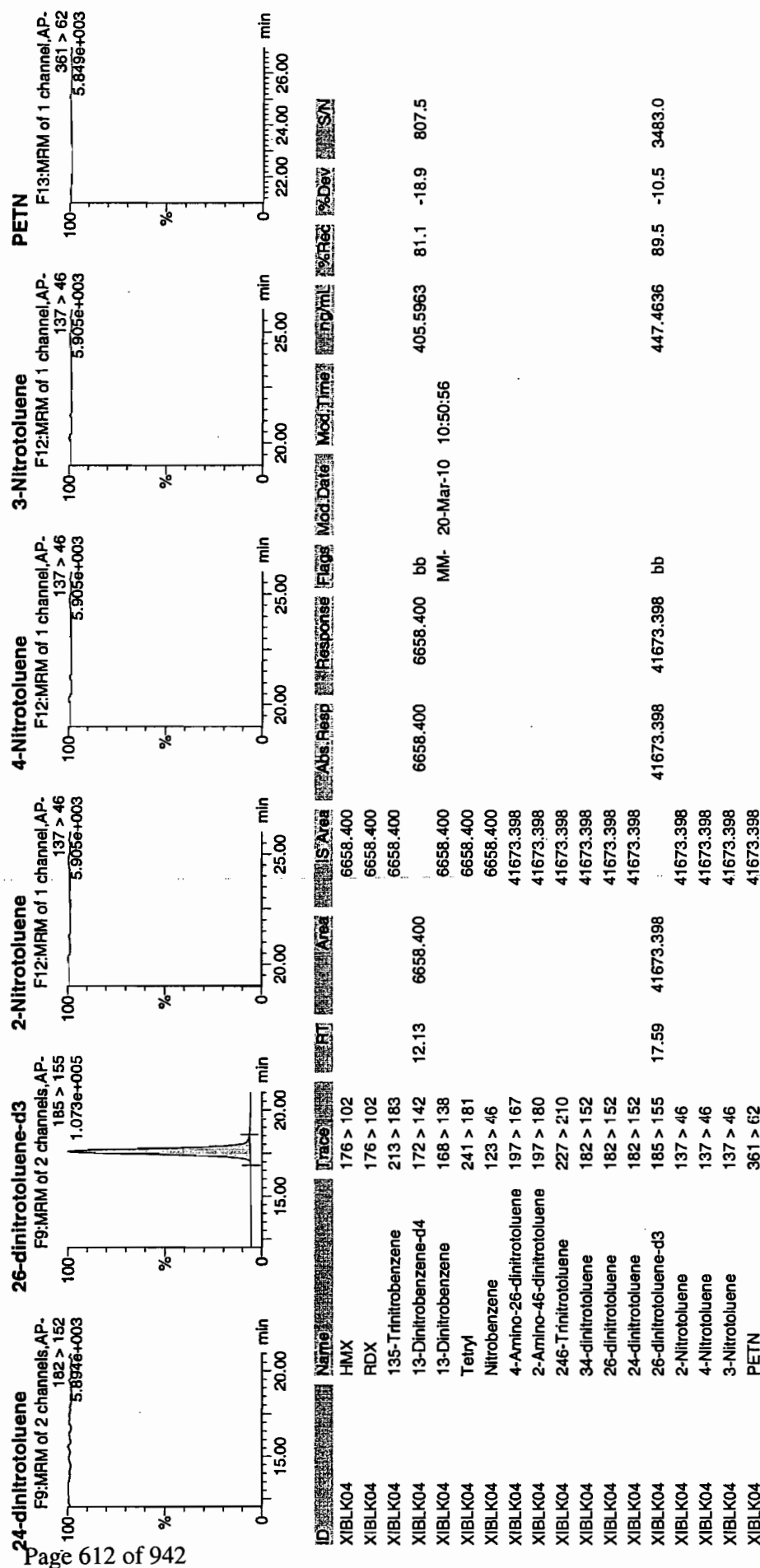
ID: XIBLK04

Vial: 1:1,A



**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 05-MAR-10 19:29

GEL Data File: EXS03050010.wiff

Instrument ID: LCMSMS

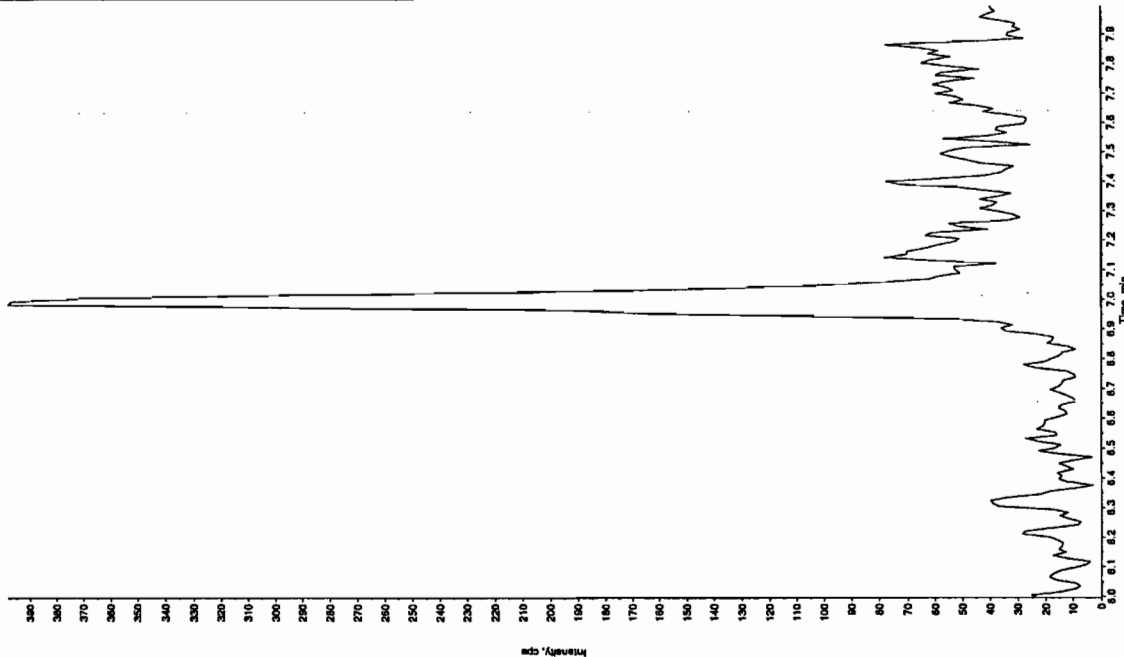
Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 1.24         |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

Jan 3/9/10

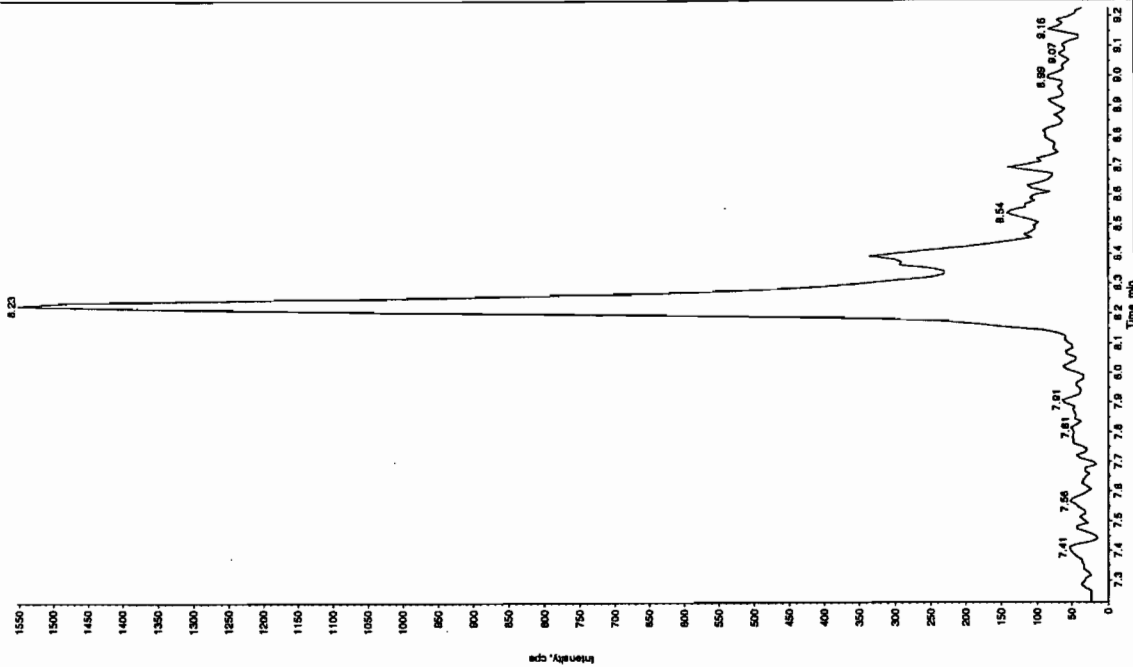
Sample Name: "XIBLU02" Sample ID: "1111ER" File: "EX030350010.wif"  
Peak Name: "TATB" Mass(es): "237.2024.9 amu"  
Comment: "LCMSXP\_B" Annotation: "

Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Calculated Conc: 0.00  
Acq. Date: 3/5/2010  
Acq. Time: 7:29:01 PM  
Modified: No

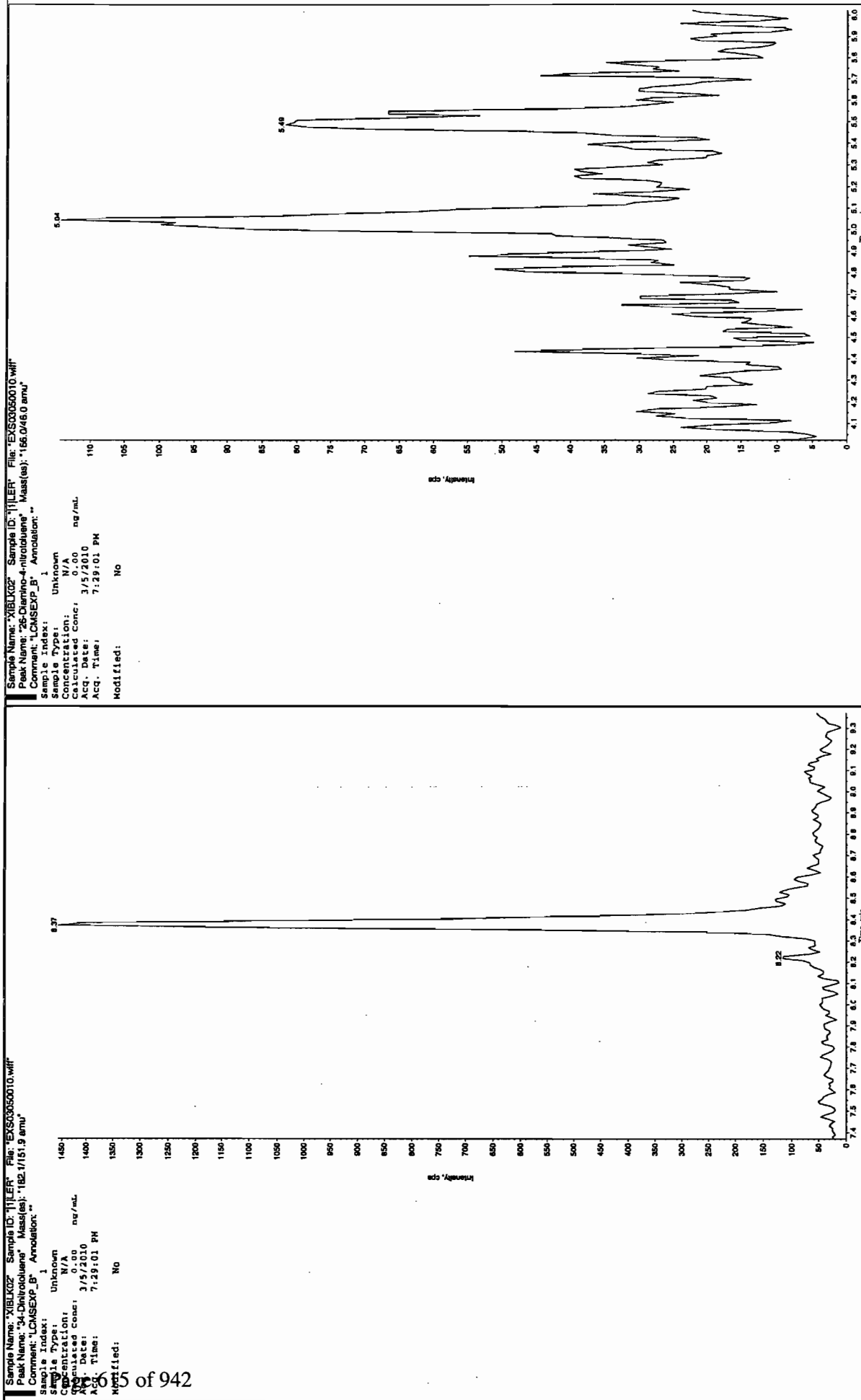


Sample Name: "XIBLU02" Sample ID: "1111ER" File: "EX030350010.wif"  
Peak Name: "35-Dinitrobenzyl" Mass(es): "182.046.0 amu"  
Comment: "LCMSXP\_B" Annotation: "

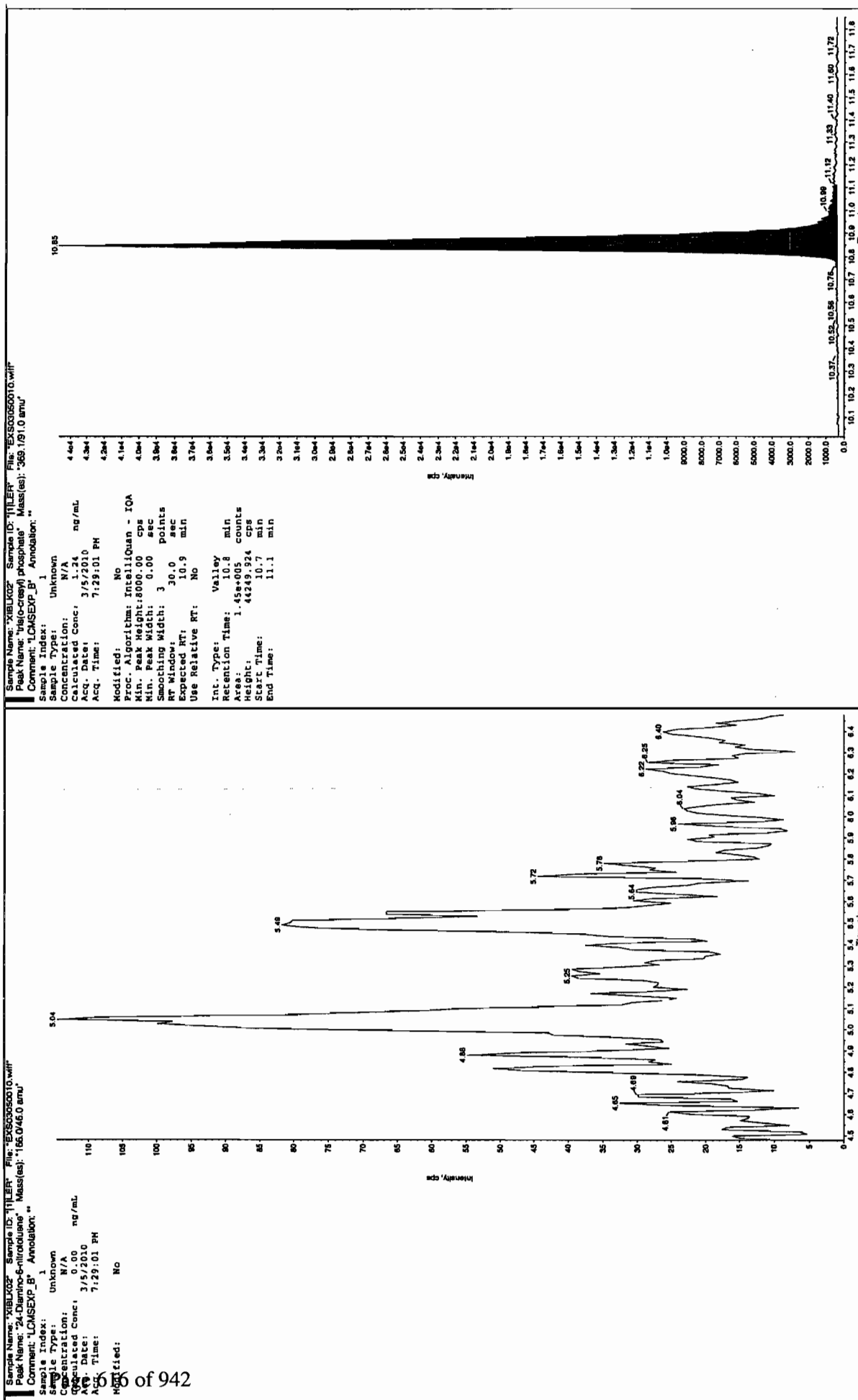
Sample Index: 1  
Sample Type: Unknown  
Concentration: 0.00 ng/mL  
Calculated Conc: 0.00  
Acq. Date: 3/5/2010  
Acq. Time: 7:29:01 PM  
Modified: No



dmms0910



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 05-MAR-10 20:00

GEL Data File: EXS03050012.wiff

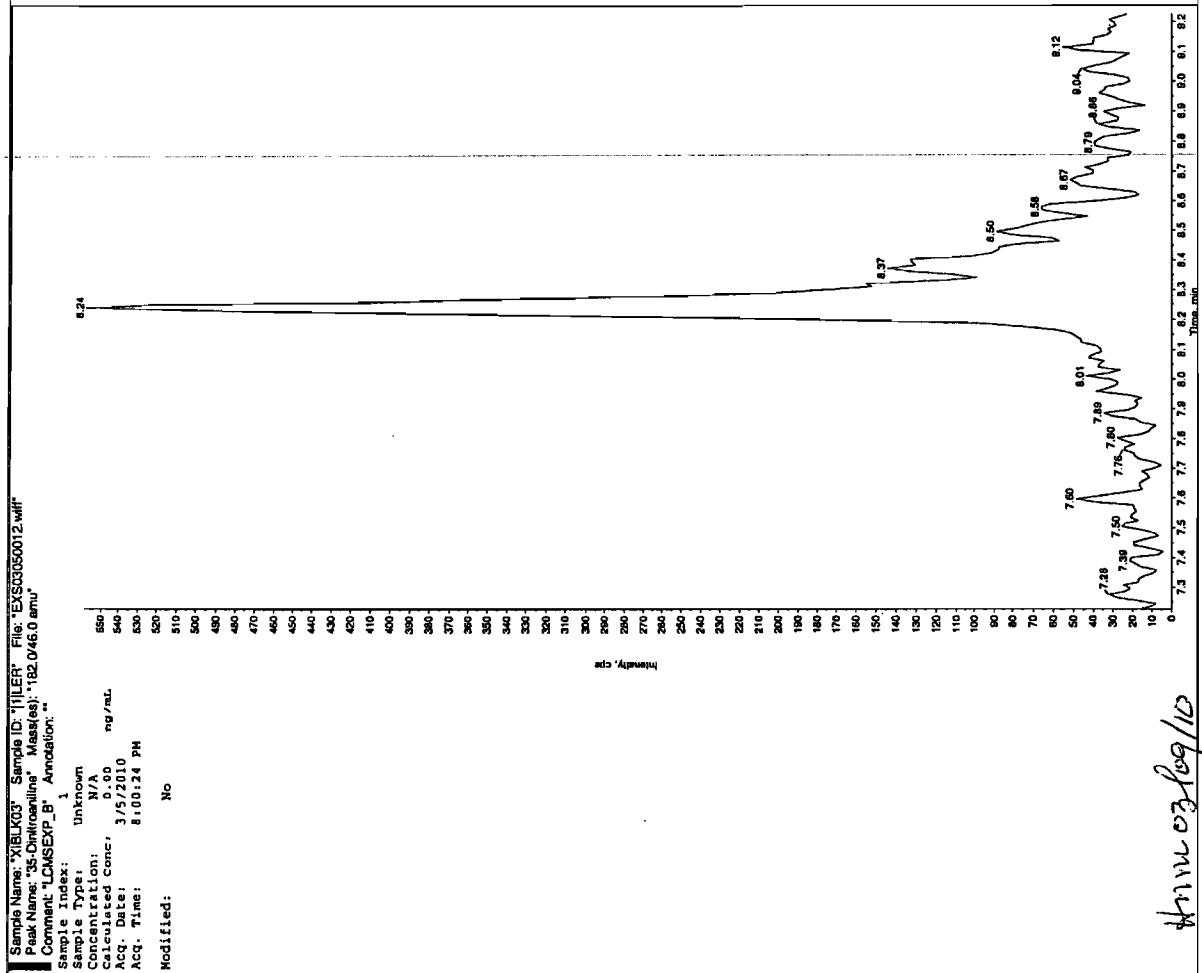
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

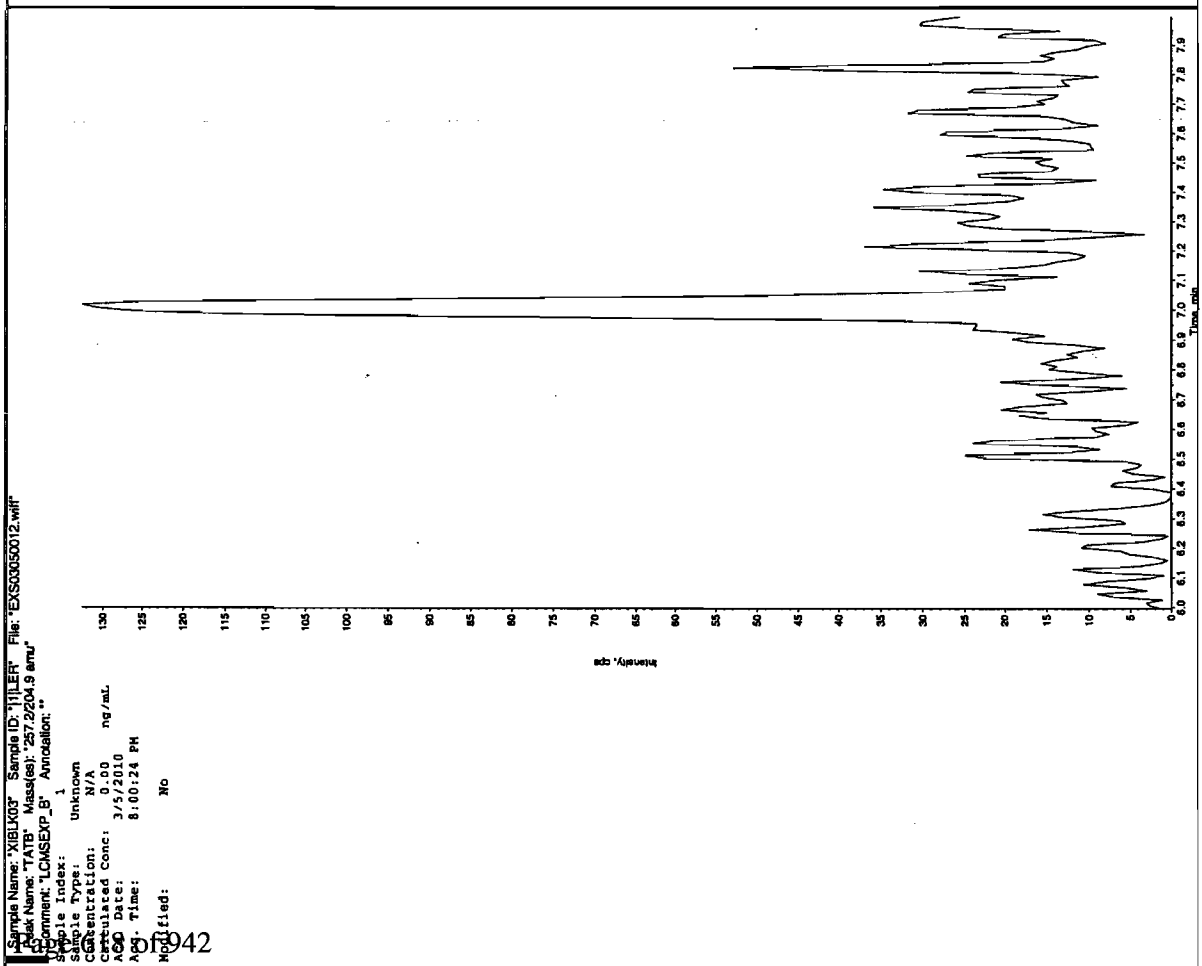
| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |



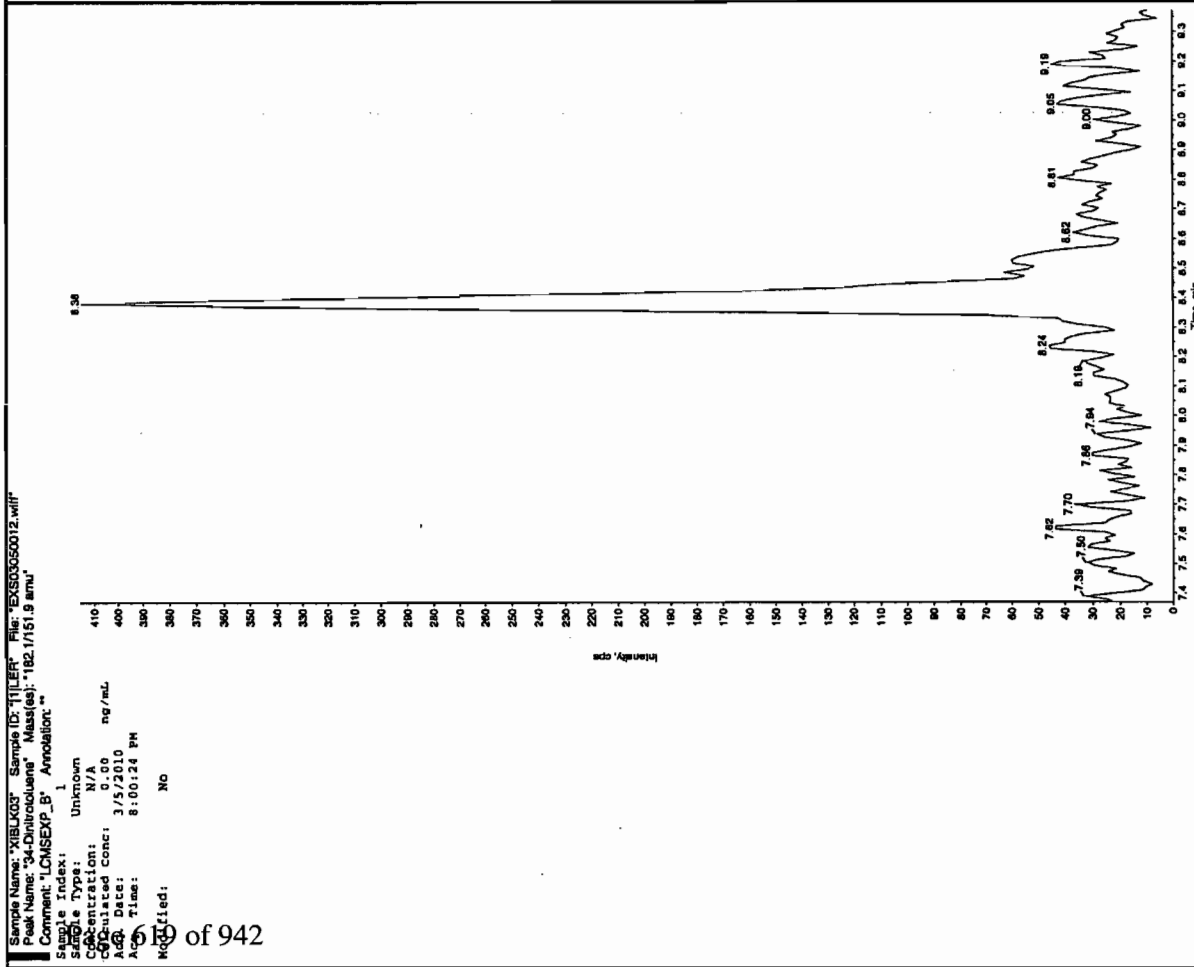
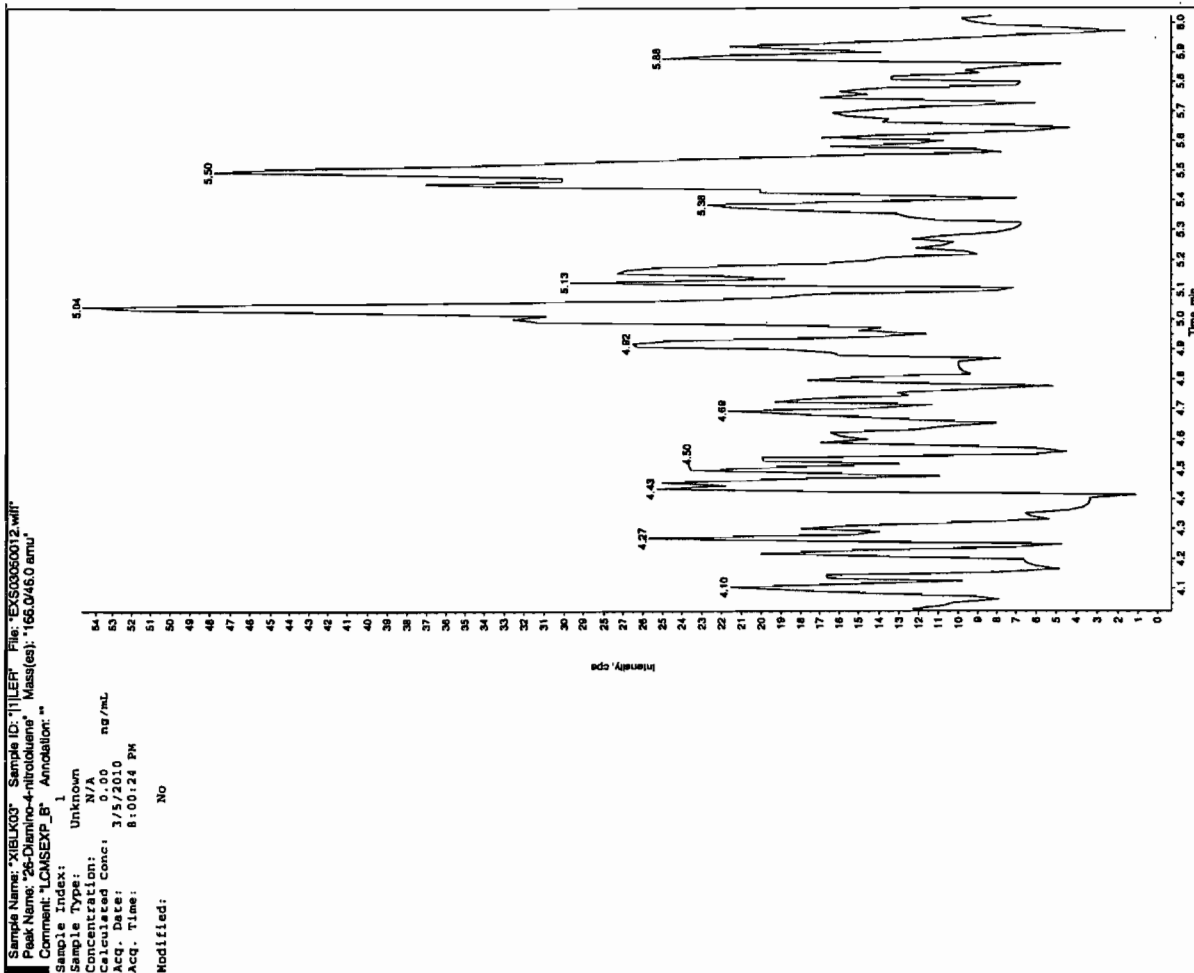
Sen 3/9/10



mm 03/09/10



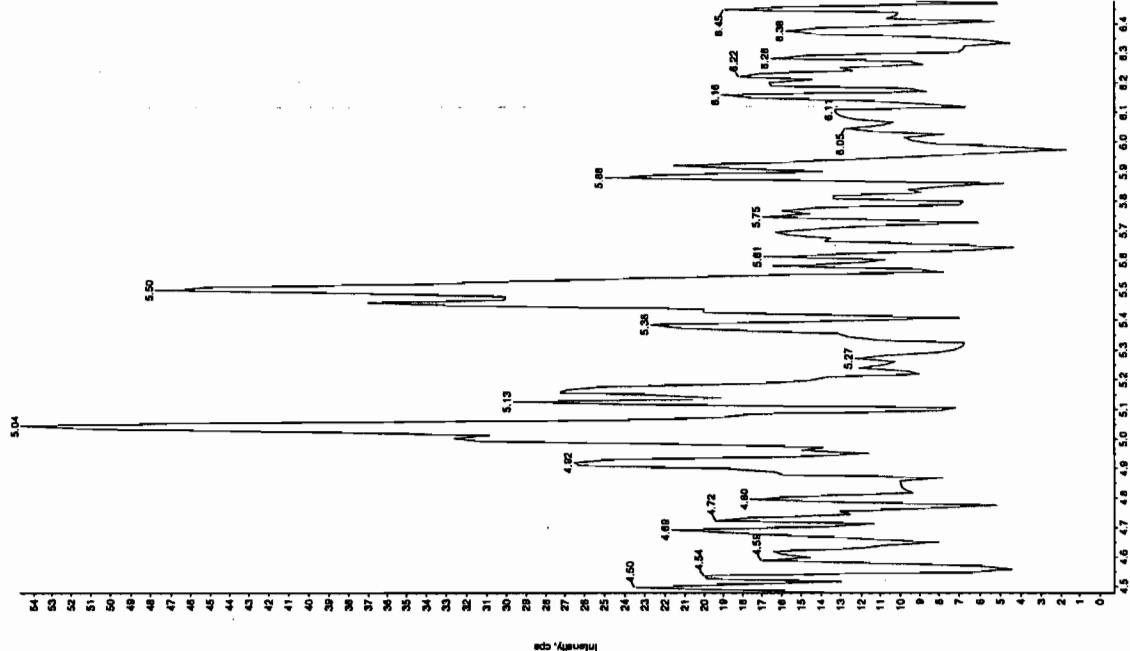
0942



Sample Name: "XBLX03" Sample ID: "11LER" File: "EX03050012.wif"  
 Peak Name: "24-Diamino-5-nitrofluorene" Mass(es): "163.048.0 amu"  
 Comment: "LCMS-EXP-B" Acquisition: "1"

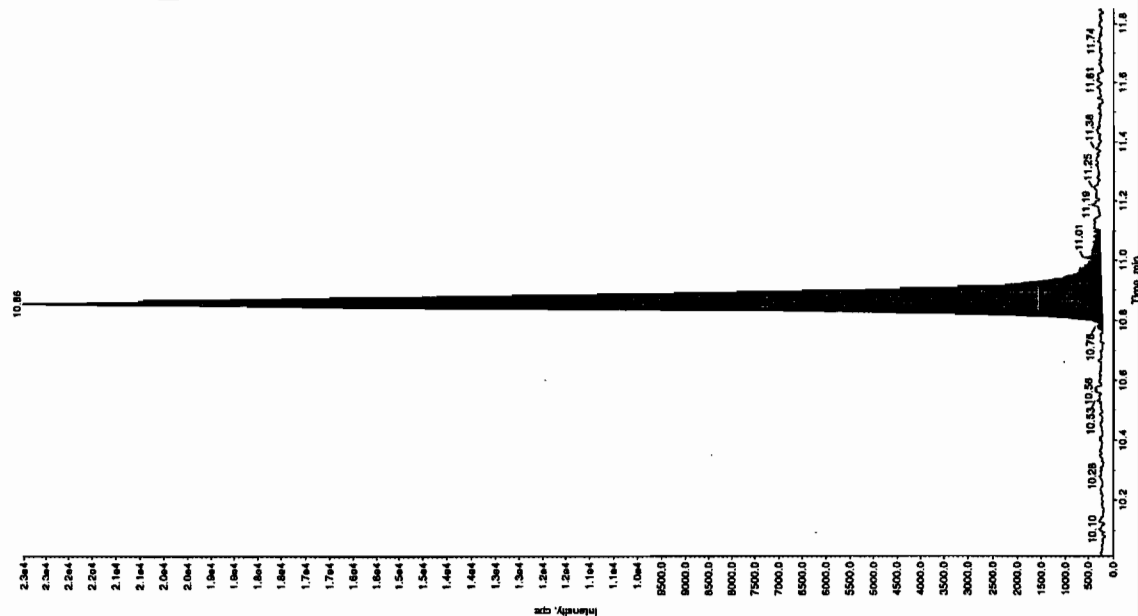
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acquisition Date: 3/5/2010  
 Acquisition Time: 8:00:24 PM  
 Modified: NO

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Sample Name: "XBLX03" Sample ID: "11LER" File: "EX03050012.wif"  
 Peak Name: "bis(2-oxocyclopropyl) phosphite" Mass(es): "359.191.0 amu"  
 Comment: "LCMS-EXP-B" Acquisition: "1"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Acquisition Date: 3/5/2010  
 Acquisition Time: 8:00:24 PM  
 Modified: NO  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 7.77e+004 counts  
 Height: 22798.788 cps  
 Start Time: 10.8 min  
 End Time: 11.1 min



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 05-MAR-10 23:24

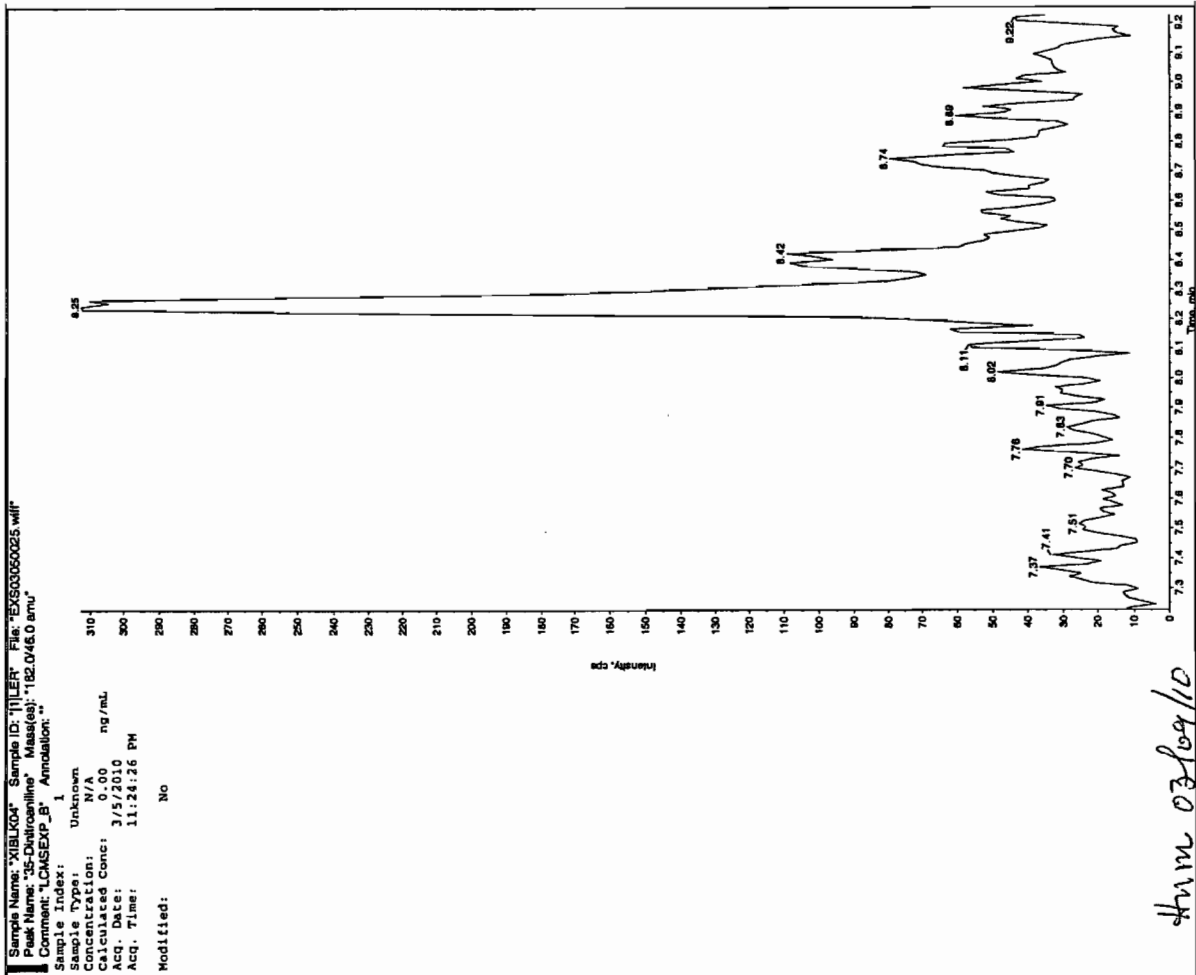
GEL Data File: EXS03050025.wiff

Instrument ID: LCMSMS

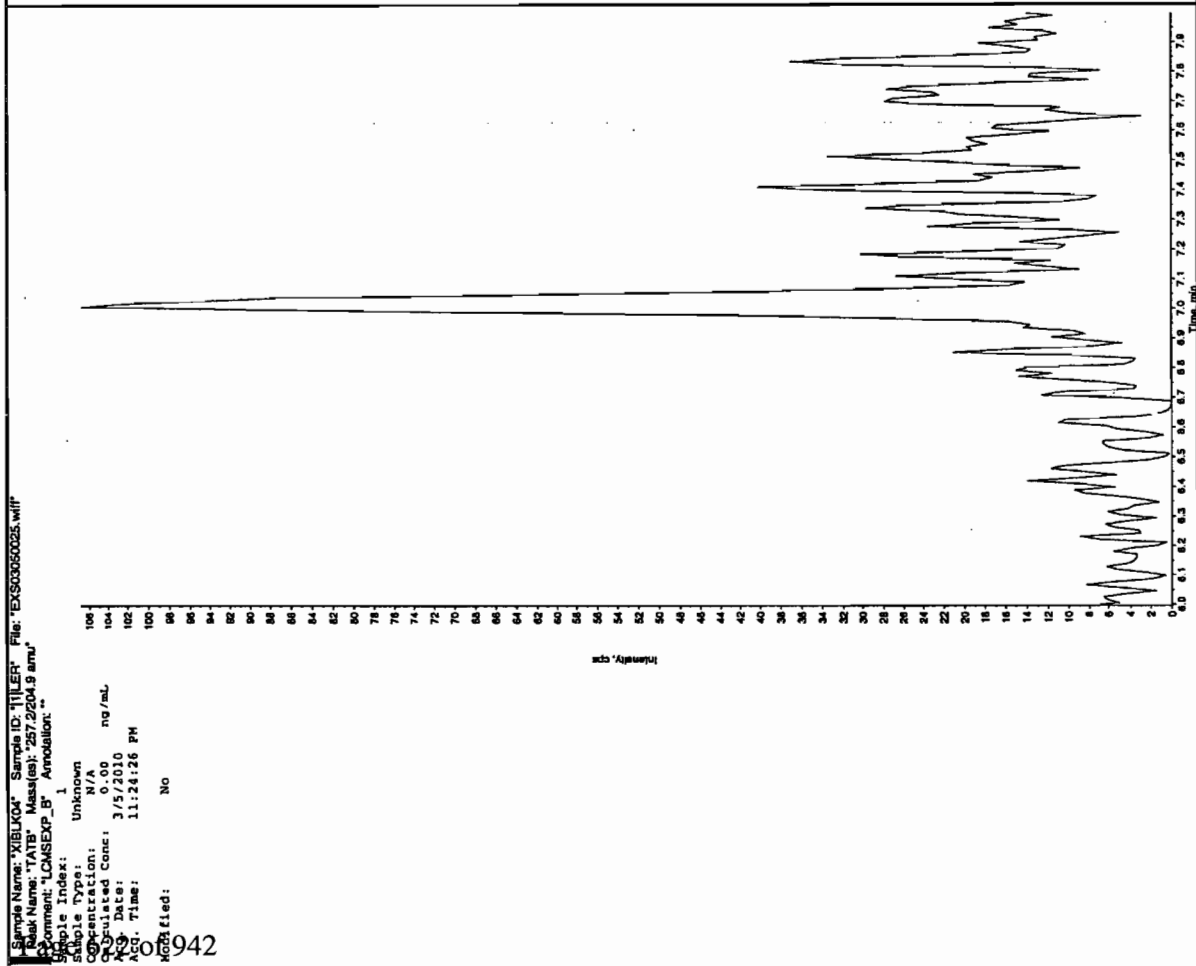
Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

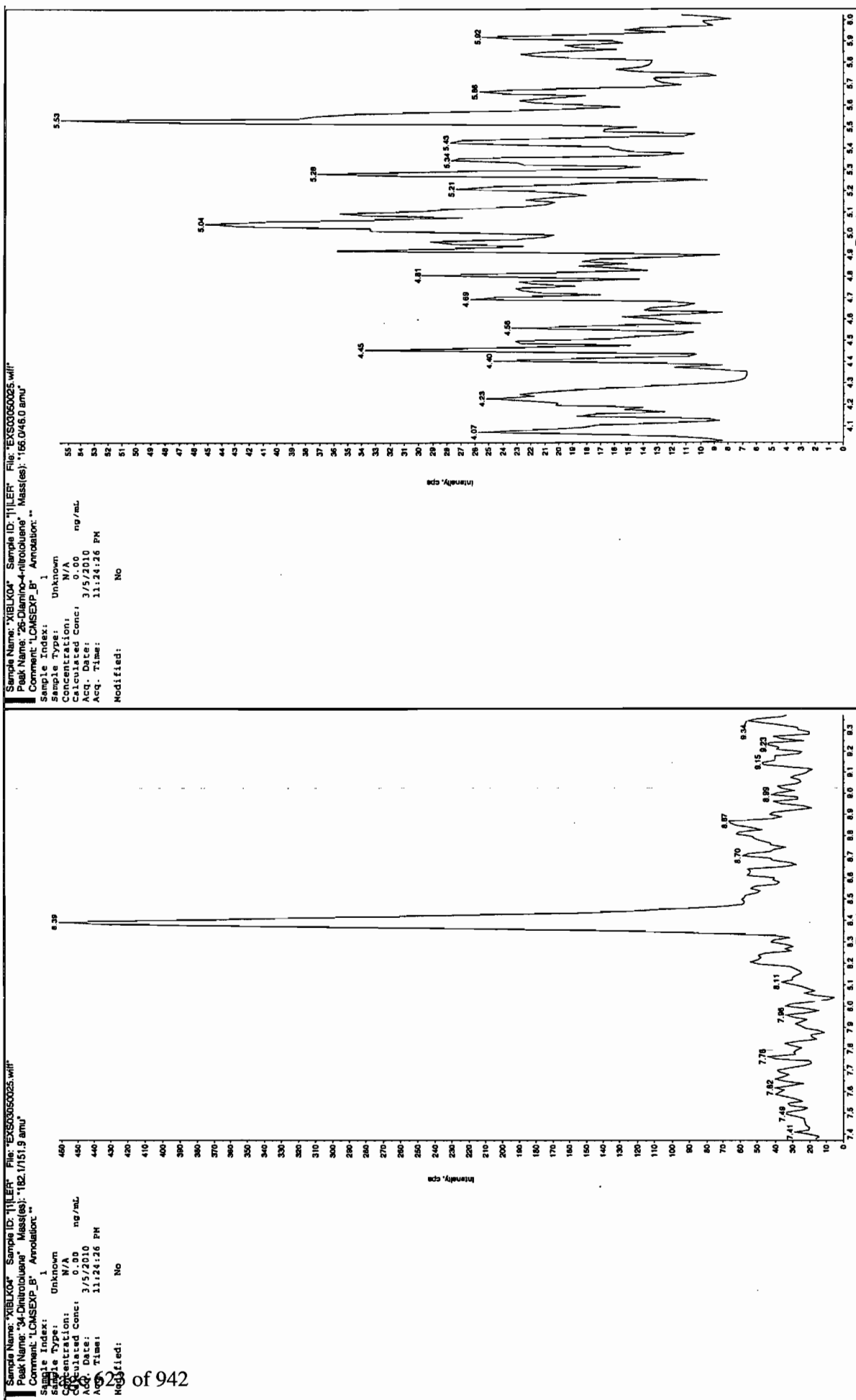
20A 3/9/10

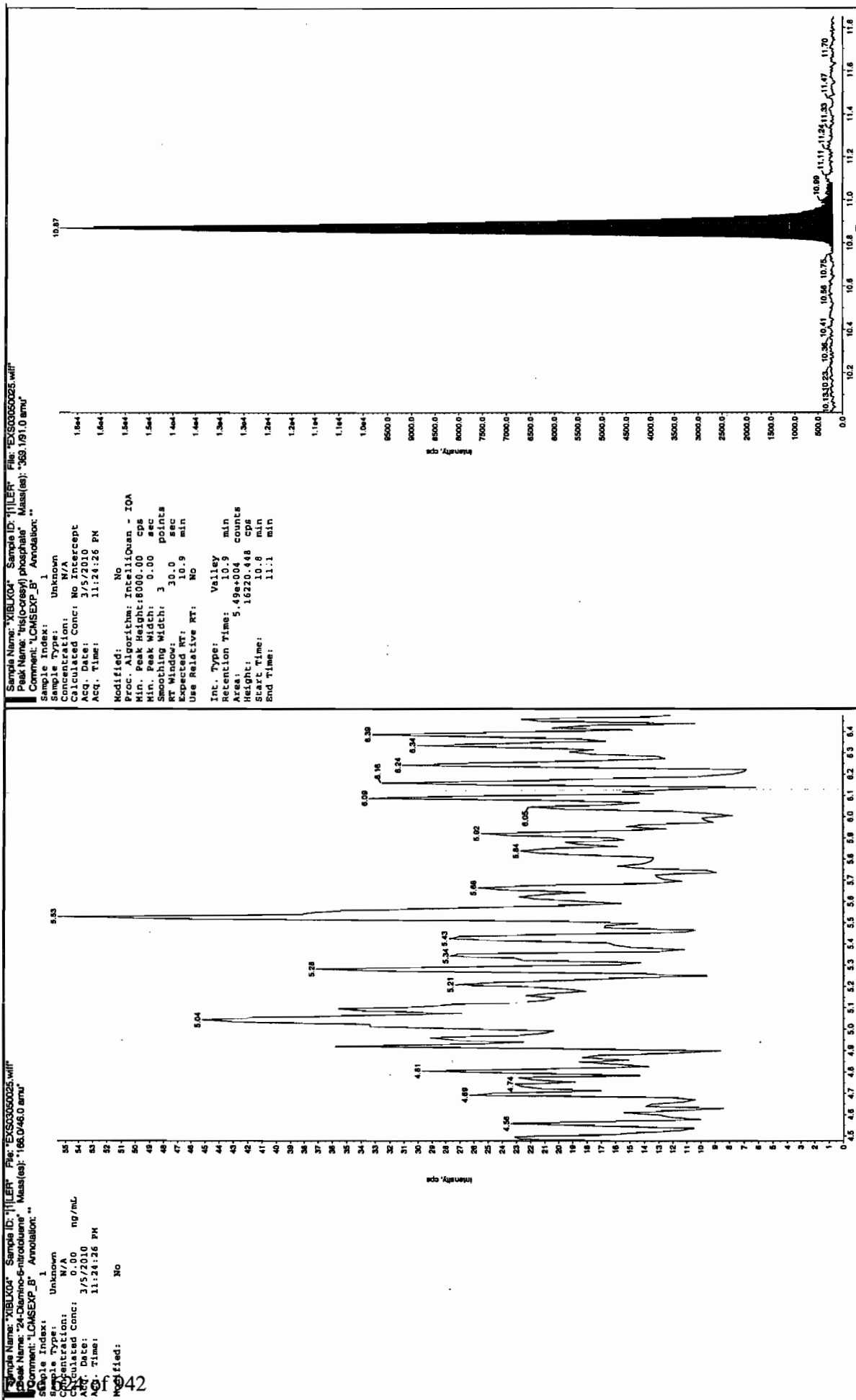


Hum 03/09/10



0942





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 06-MAR-10 02:17

GEL Data File: EXS03050036.wiff

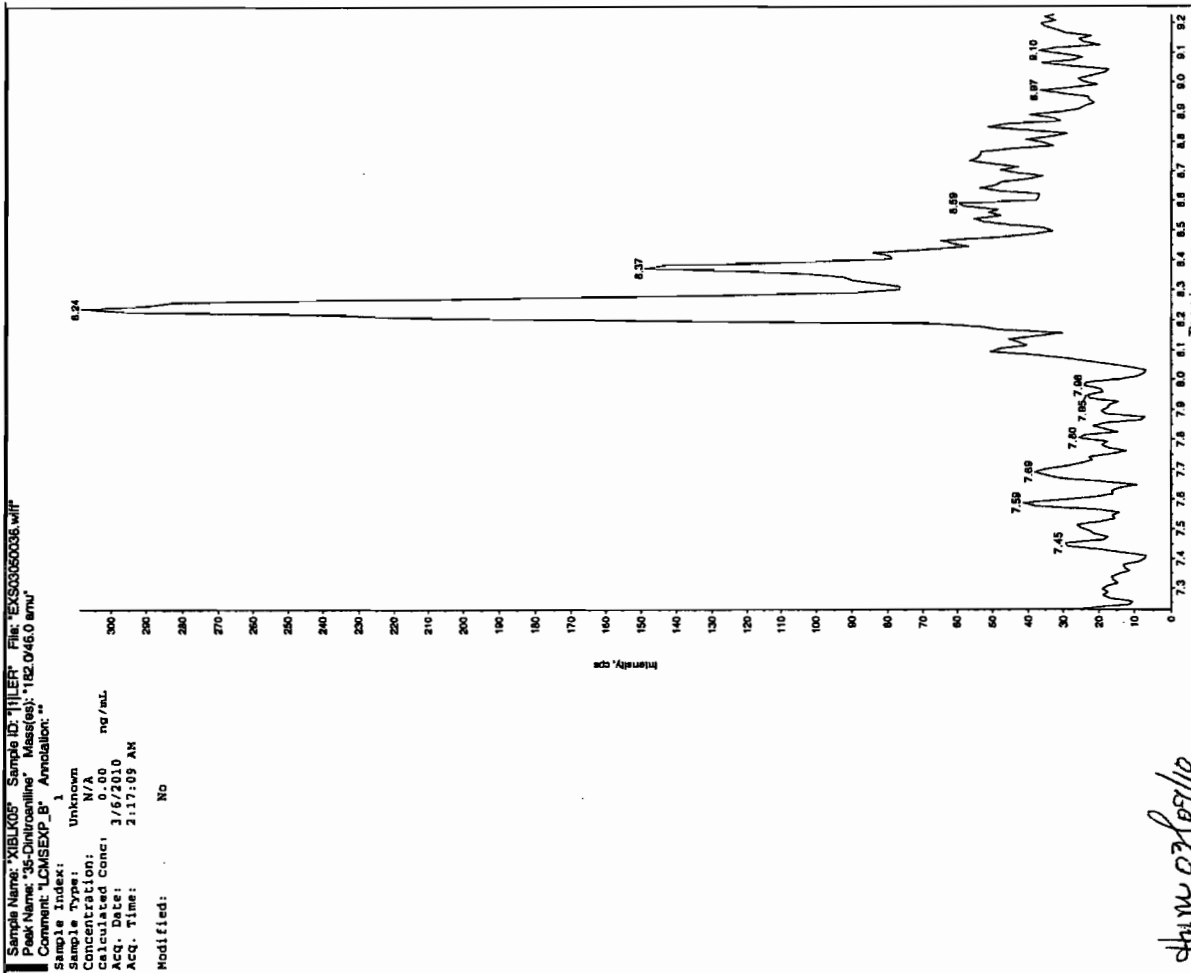
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

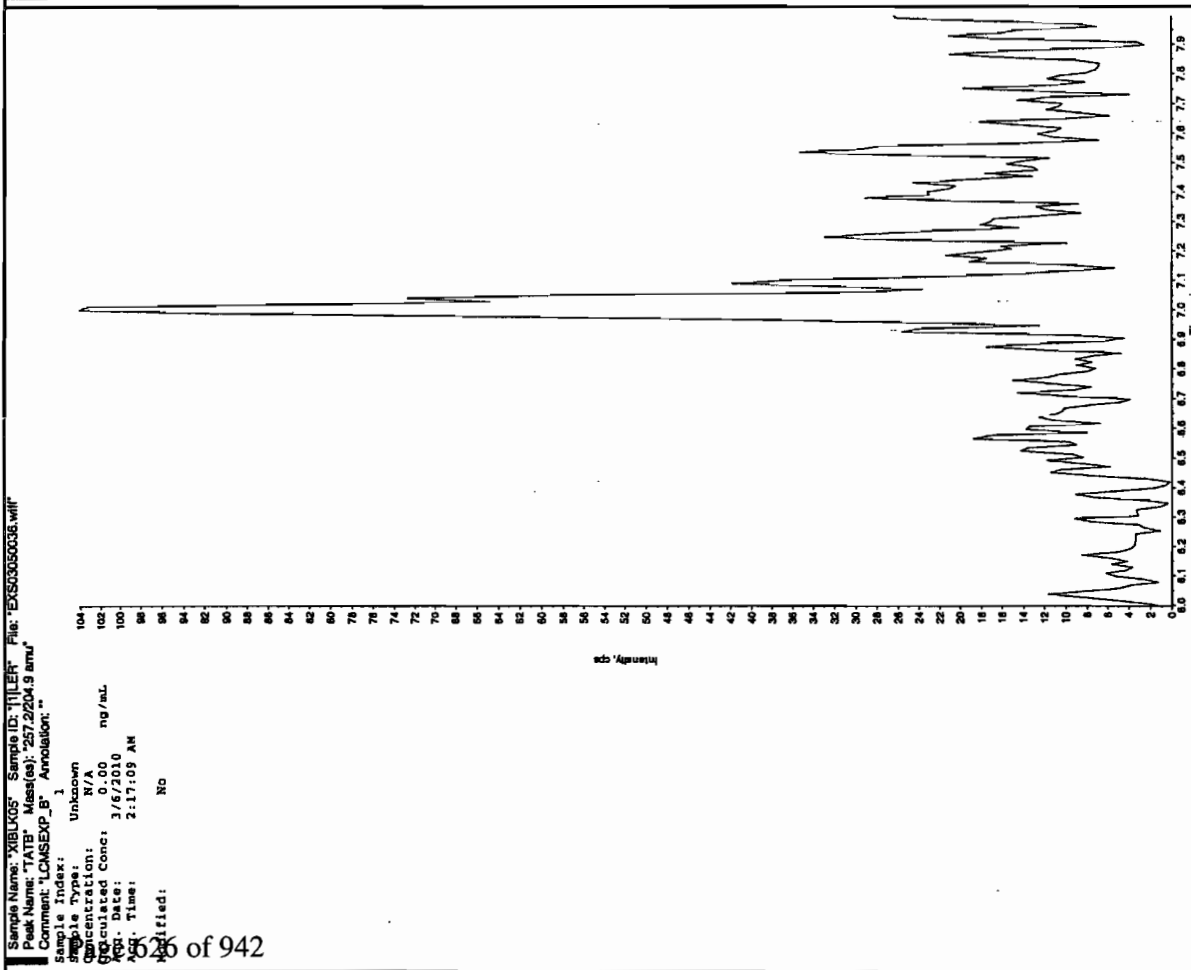
| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |

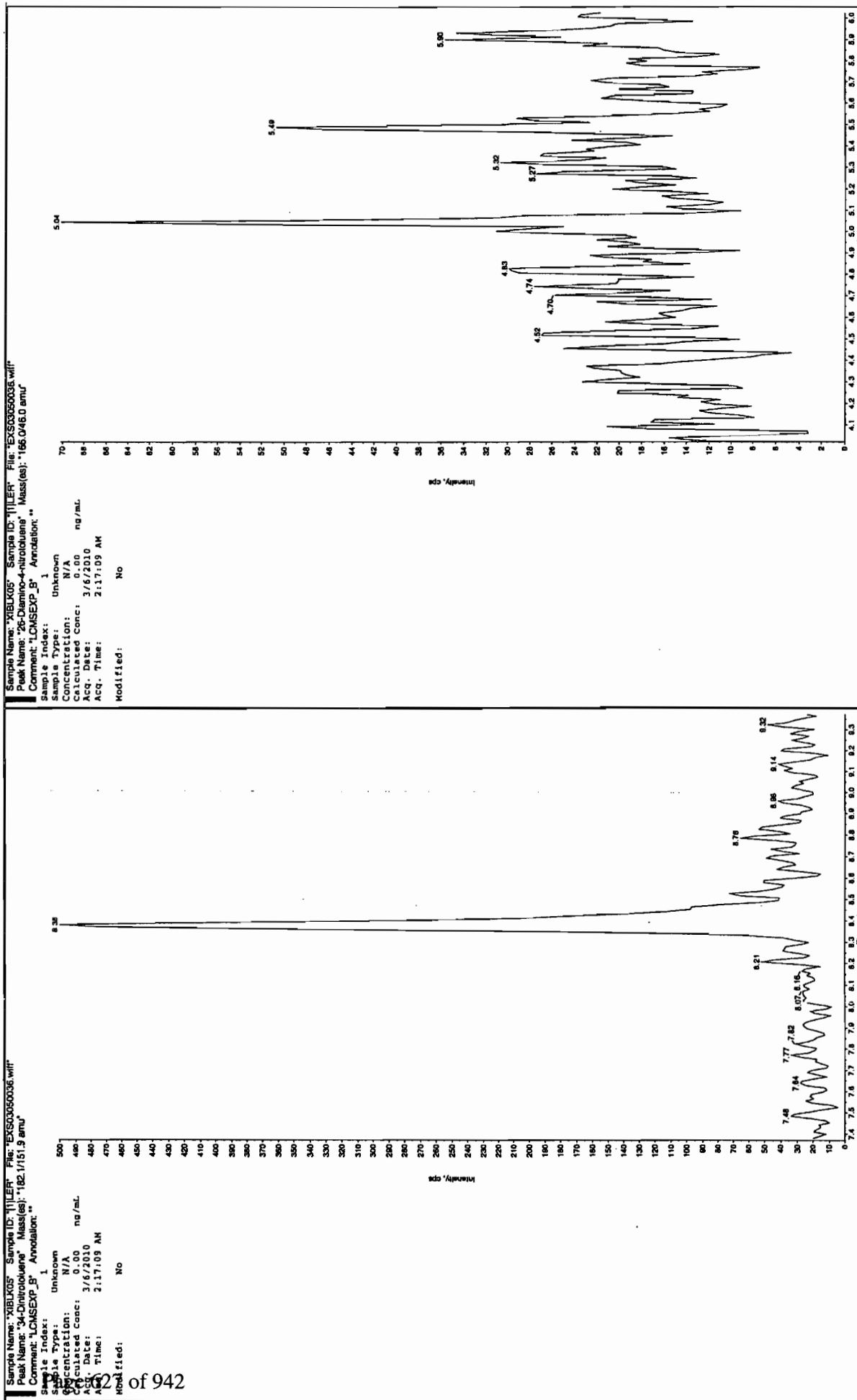


See 3/9/10



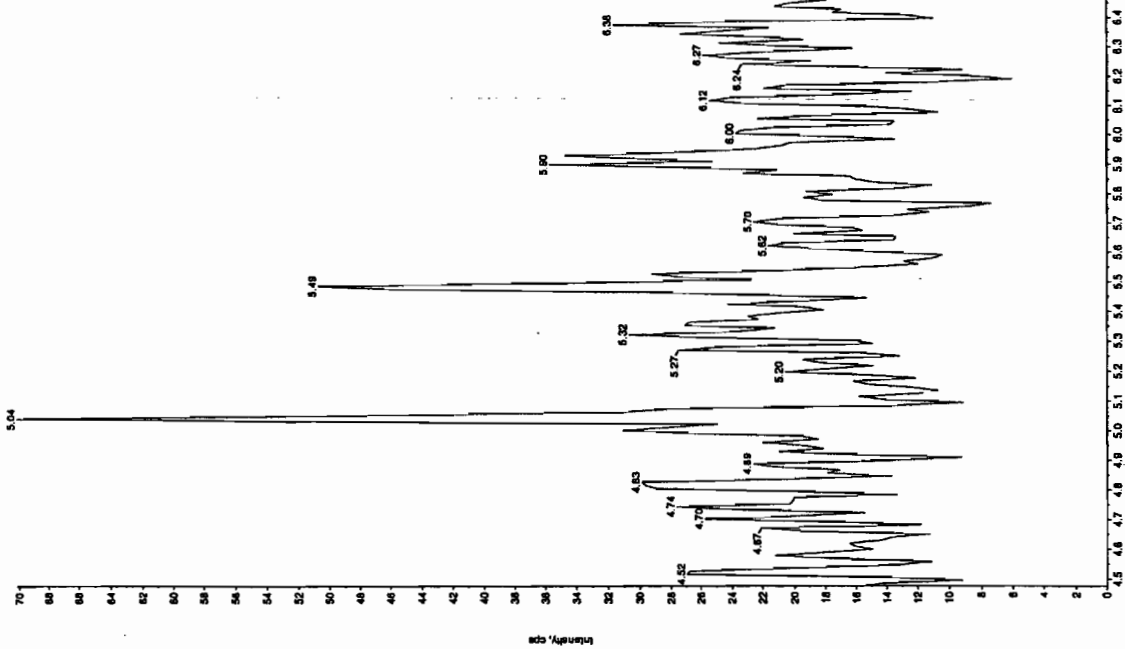
dim 03/09/10





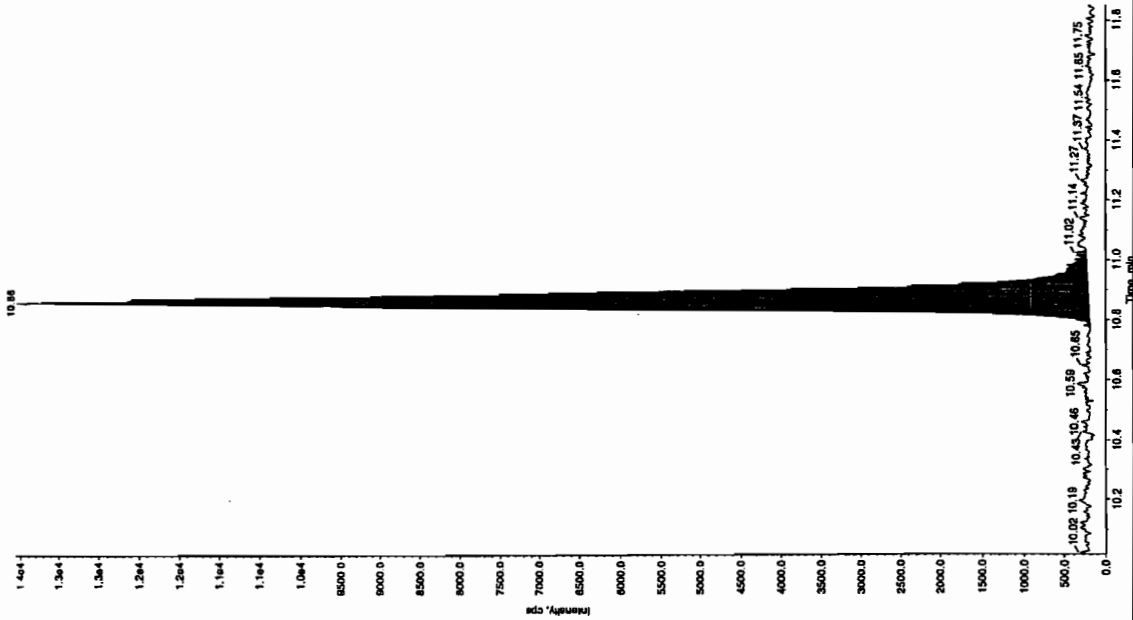
Sample Name: "XIBLK05" Sample ID: "JILER" File: "EX5000000036.wif"  
 Peak Name: "24-Dinitro-6-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 3/6/2010  
 Acq. Time: 2:17:09 AM  
 Modified: No



Sample Name: "XIBLK05" Sample ID: "JILER" File: "EX5000000036.wif"  
 Peak Name: "Tri(o-cresyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 3/6/2010  
 Acq. Time: 2:17:09 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 10.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 4.56e+004 counts  
 Height: 13337.638 cps  
 Start Time: 10.8 min  
 End Time: 11.0 min



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 06-MAR-10 05:41

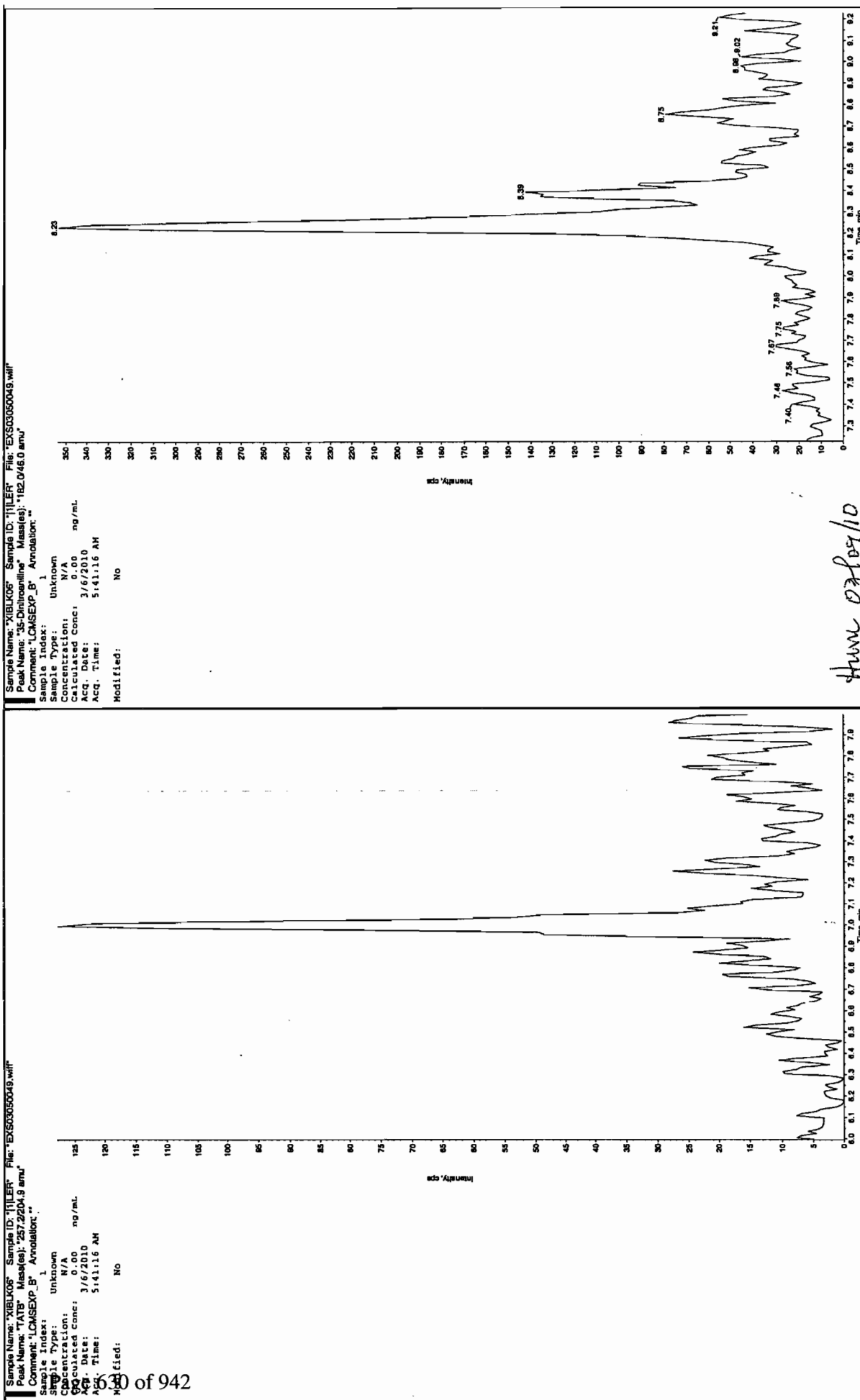
GEL Data File: EXS03050049.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

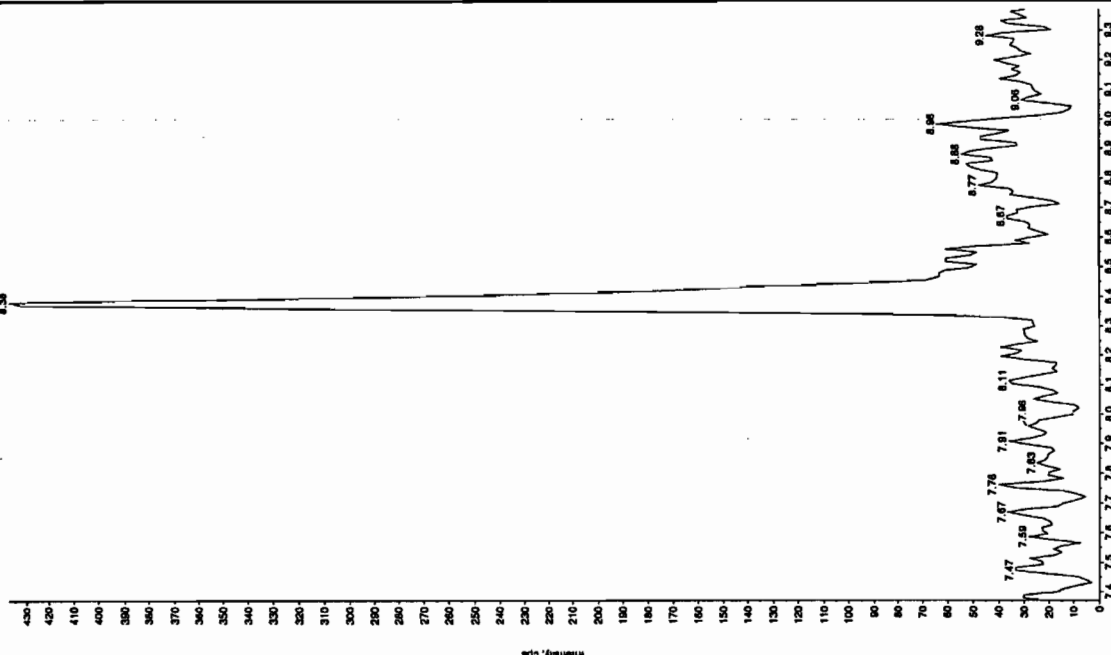
San 3/9/10



Hum 03/09/10

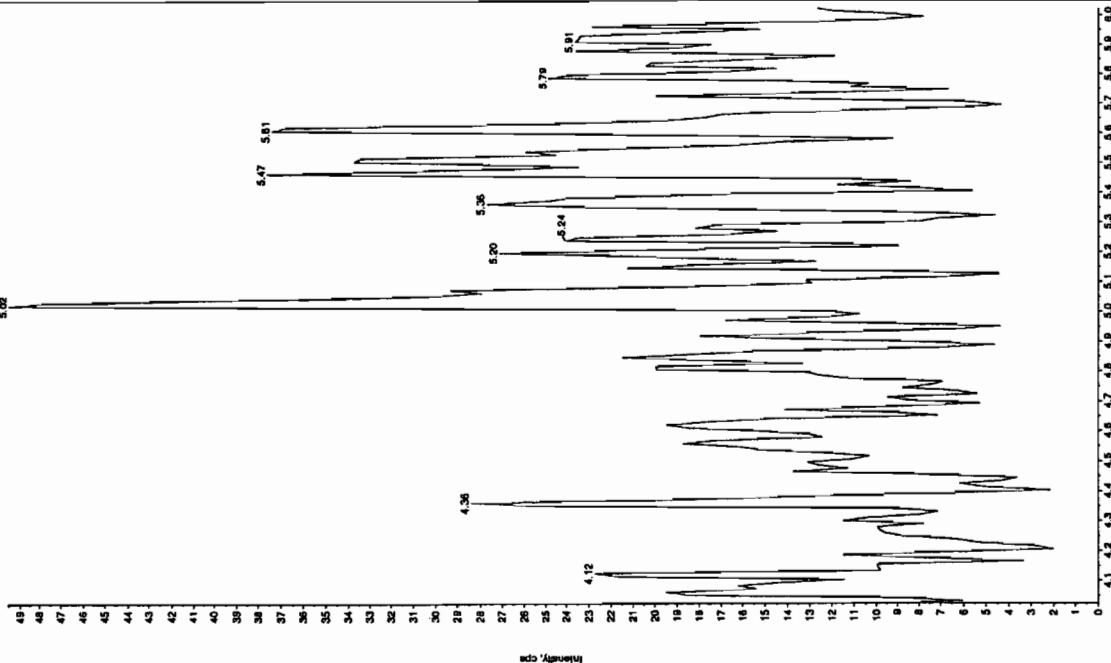
Sample Name: "XIBLK06" Sample ID: "11LER" File: "EXS03050049.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1751.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Date: 3/6/2010  
 Time: 5:41:16 AM  
 Modified: No



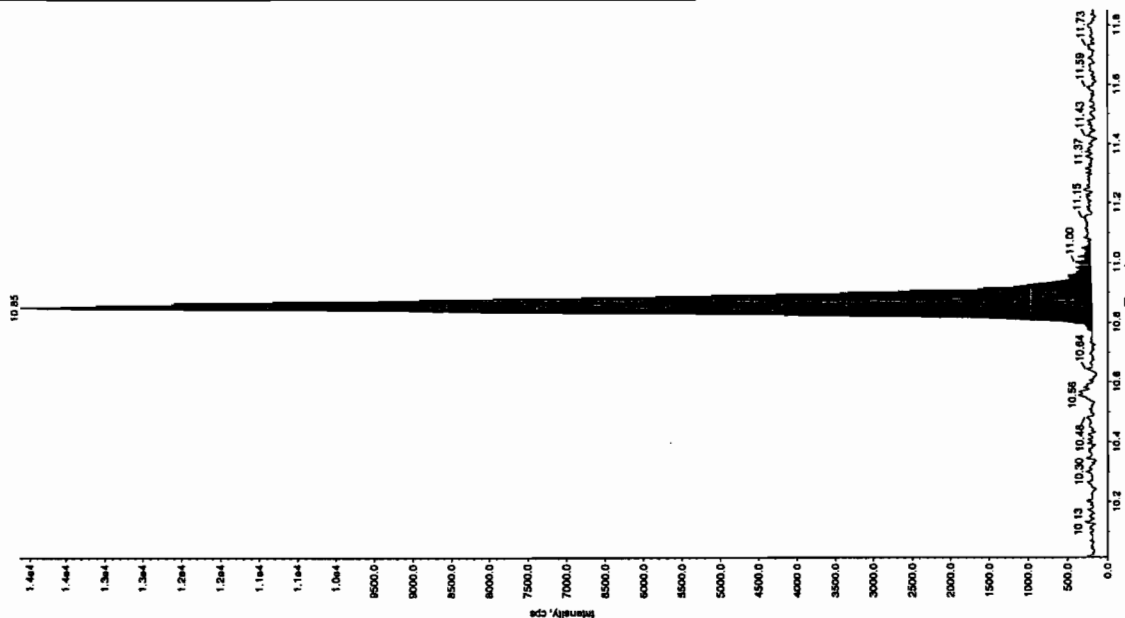
Sample Name: "XIBLK06" Sample ID: "11LER" File: "EXS03050049.wif"  
 Peak Name: "26-Dinitro-4-nitrofluorene" Mass(es): "166.0461.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Date: 3/6/2010  
 Time: 5:41:16 AM  
 Modified: No



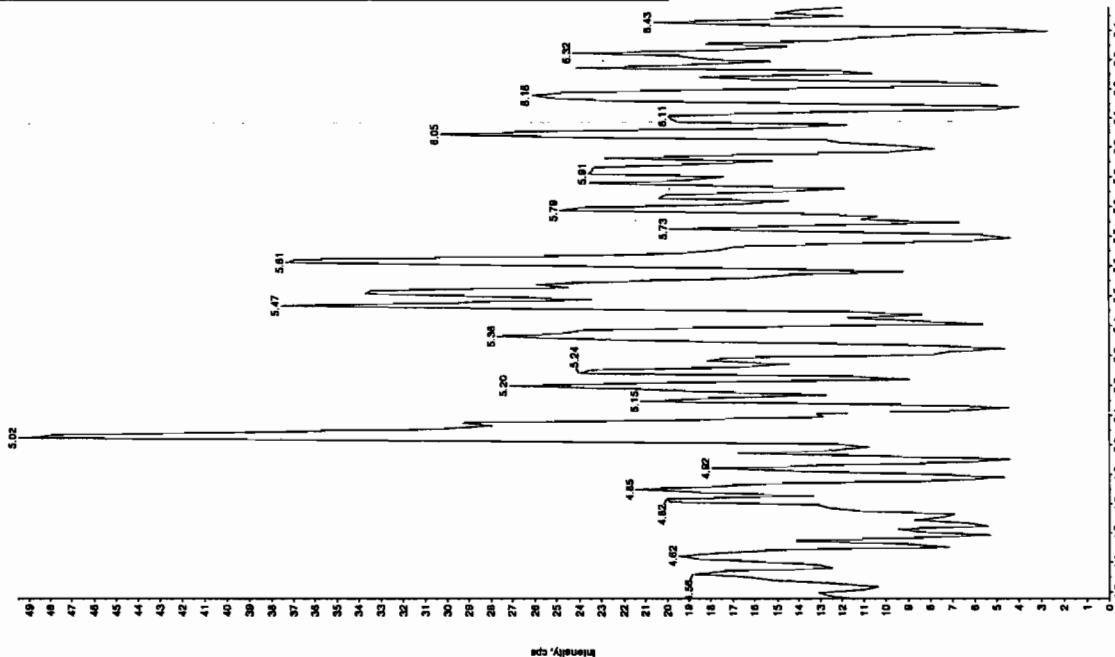
Sample Name: "XIBLK06" Sample ID: "11LER" File: "EXS03050049.wif"  
 Peak Name: "tris-(o-cresyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Estimated Conc: No/Absccept  
 Acq. Date: 3/6/2010  
 Acq. Time: 5:41:16 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 10.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 4.64e+004 counts  
 Height: 13940.733 cps  
 Start Time: 10.5 min  
 End Time: 11.1 min



Sample Name: "XIBLK06" Sample ID: "11LER" File: "EXS03050049.wif"  
 Peak Name: "24-Diamino-6-nitroindene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Estimated Conc: No/Absccept  
 Acq. Date: 3/6/2010  
 Acq. Time: 5:41:16 AM  
 Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 06-MAR-10 08:49

GEL Data File: EXS03050061.wiff

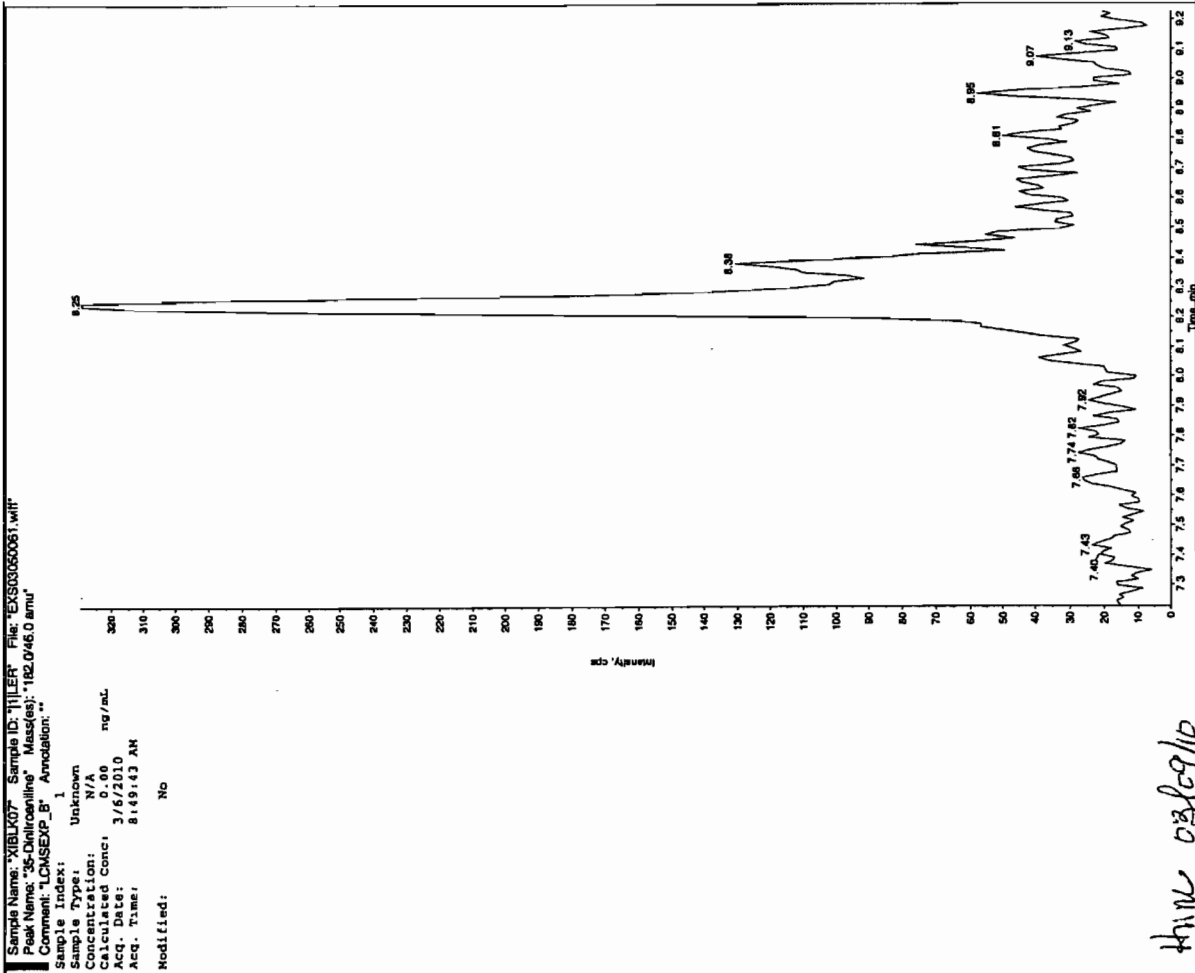
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

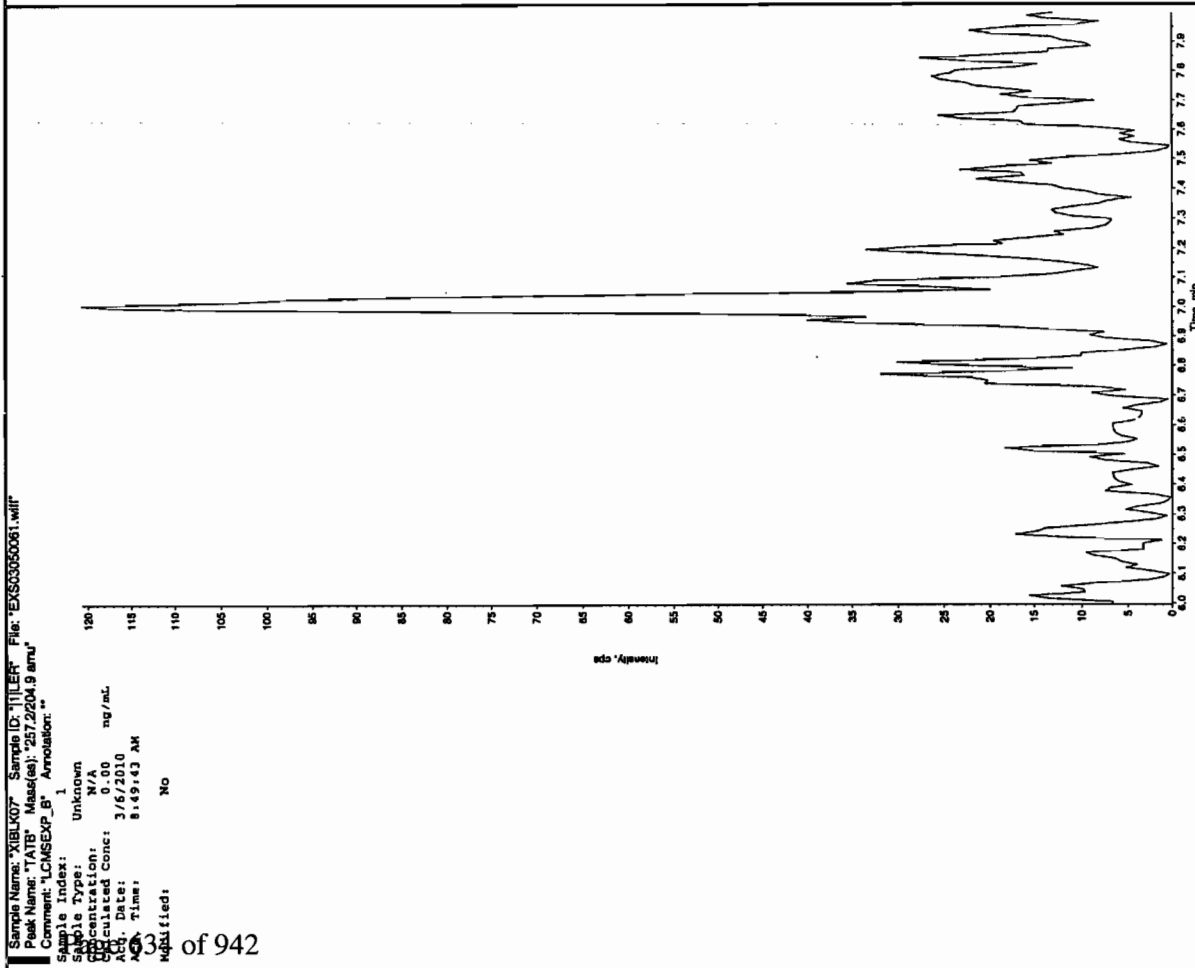
| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |

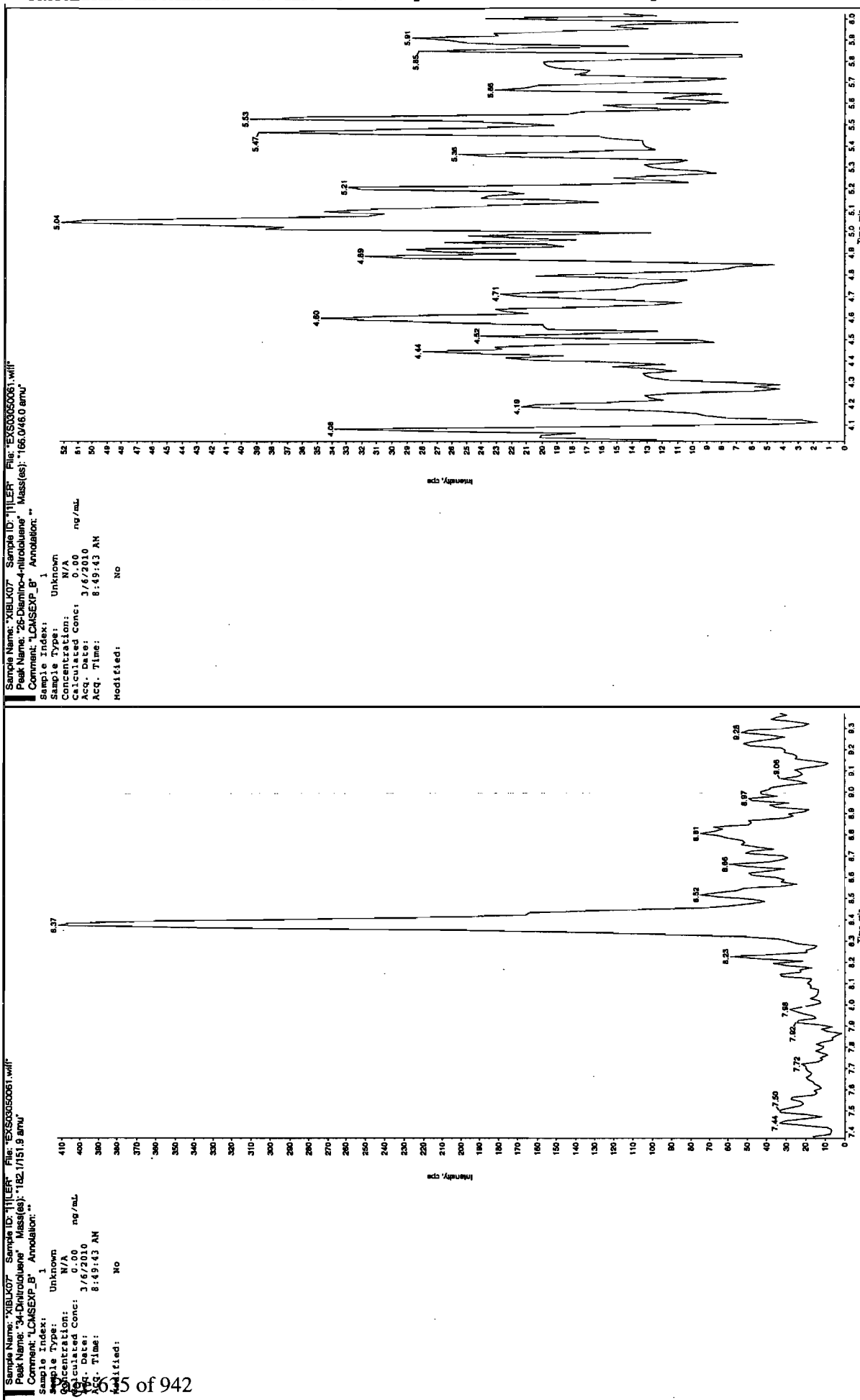


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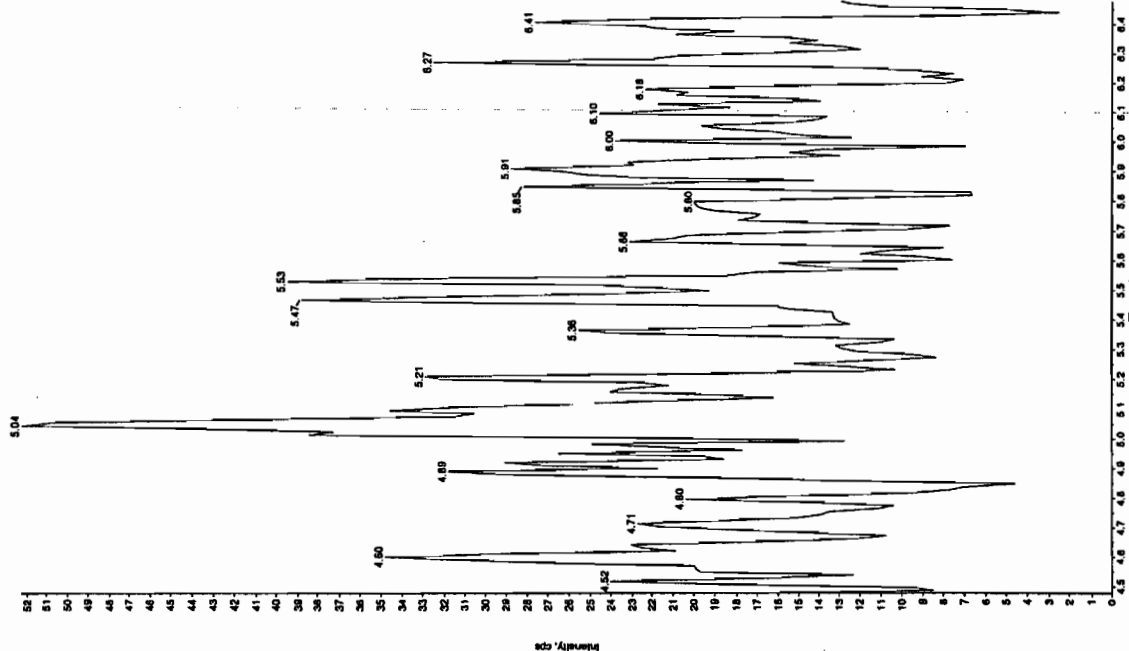
hunk 03/09/10





Sample Name: "XBLK07" Sample ID: "111ER" File: "EX303050081.wif"  
 Peak Name: "bis(2-oxocresyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LOMEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 3/6/2010  
 Acq. Time: 8:49:43 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 10.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Peak Height: 13667.697 cps  
 Start Time: 10.8 min  
 End Time: 11.1 min



Sample Name: "XBLK07" Sample ID: "111ER" File: "EX303050081.wif"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.048.0 amu"  
 Comment: "LOMEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 8:49:43 AM  
 Modified: No

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 06-MAR-10 10:23

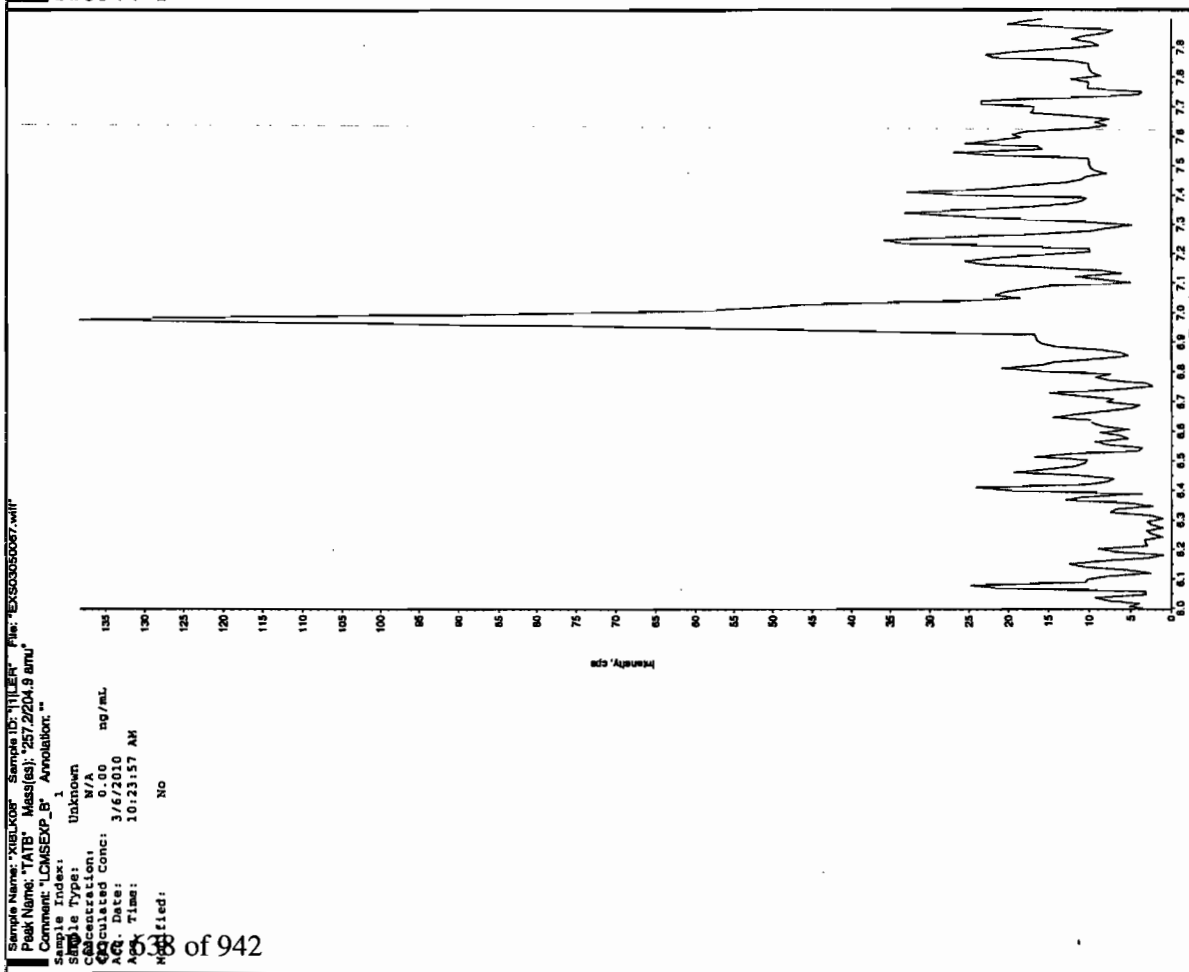
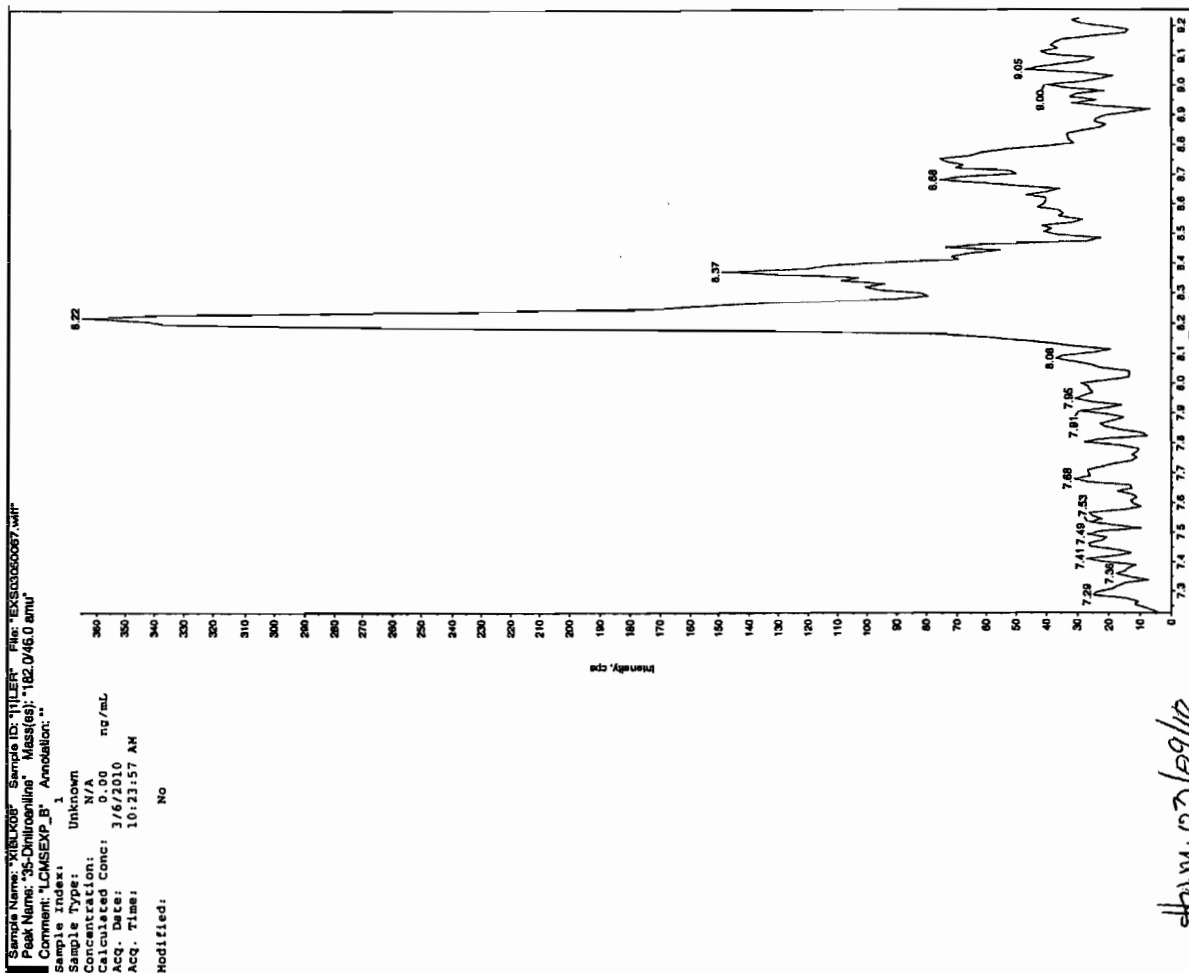
GEL Data File: EXS03050067.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

GLA 3/9/10



4/10/03/09/10

Sample Name: "XIBUX08" Sample ID: "JILER" File: "EXS03050067.wid"  
Peak Name: "26-Diamino-4-nitroclutene" Mass(es): "166.0/46.0 amu"  
Comment: "LCMSEXP\_B" Annotation: ""

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

|              |         |
|--------------|---------|
| Sample Type: | Unknown |
|--------------|---------|

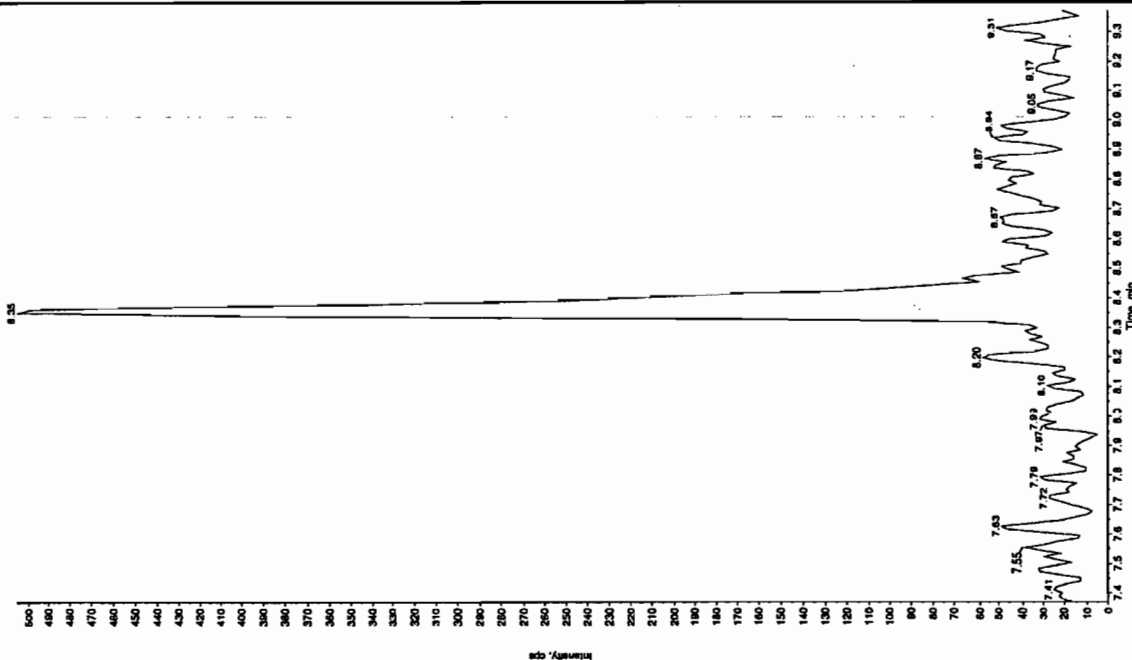
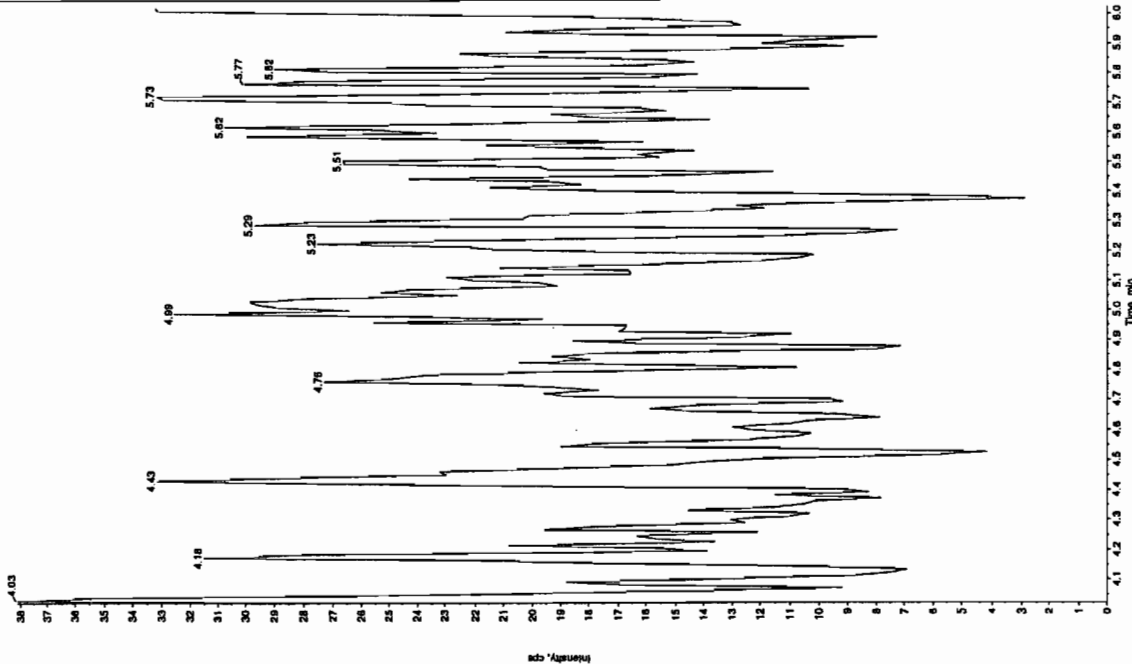
concentration: N/A

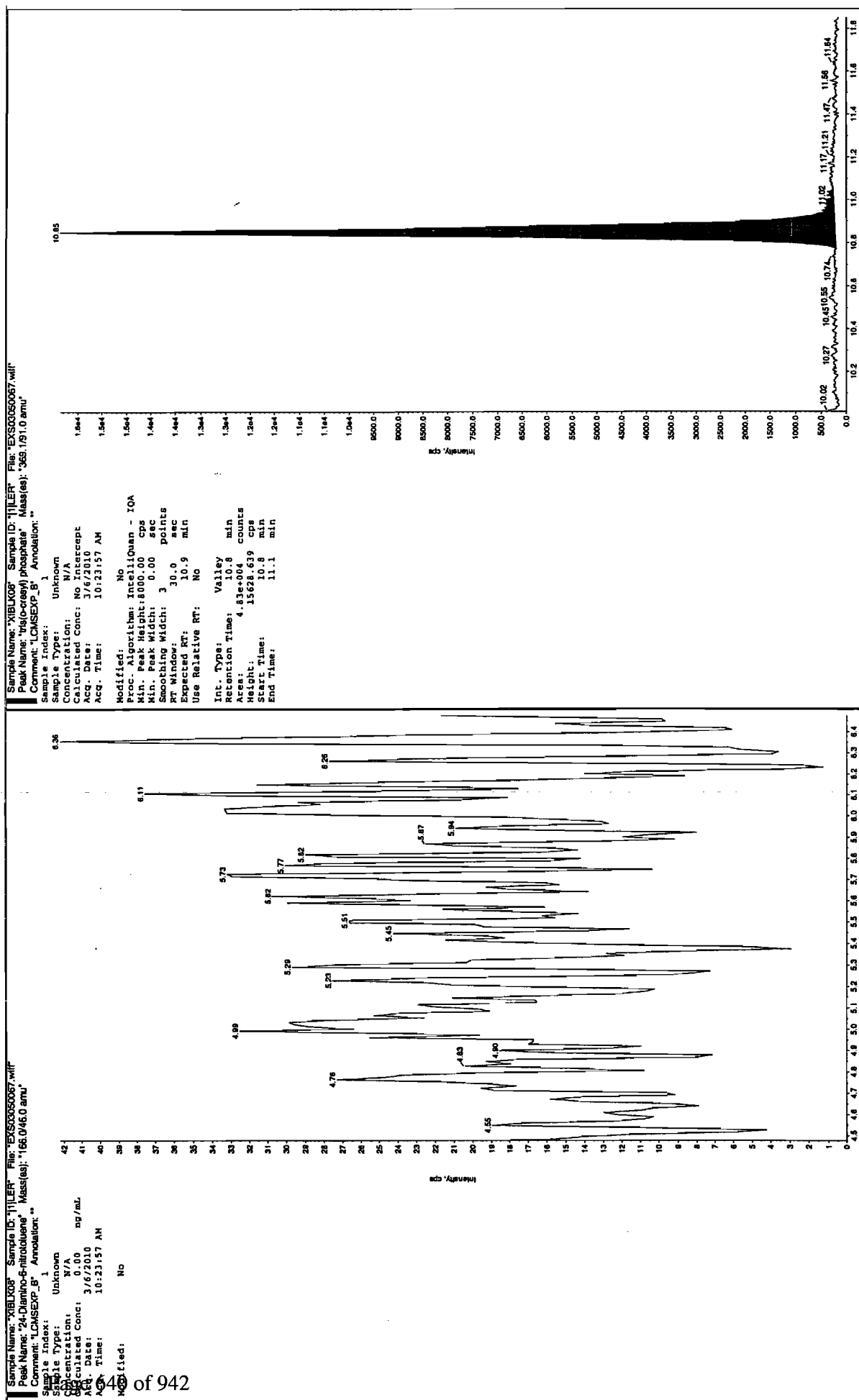
Calculated Conc: 0.00  
Exp. Date: 3/6/2010

Req. Date: 3/6/2010  
Req. Time: 10:23:57

Eq. Time: 10:23:57

| Modified: | No |
|-----------|----|
|           |    |





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06-MAR-10 13:48

GEL Data File: EXS03050080.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

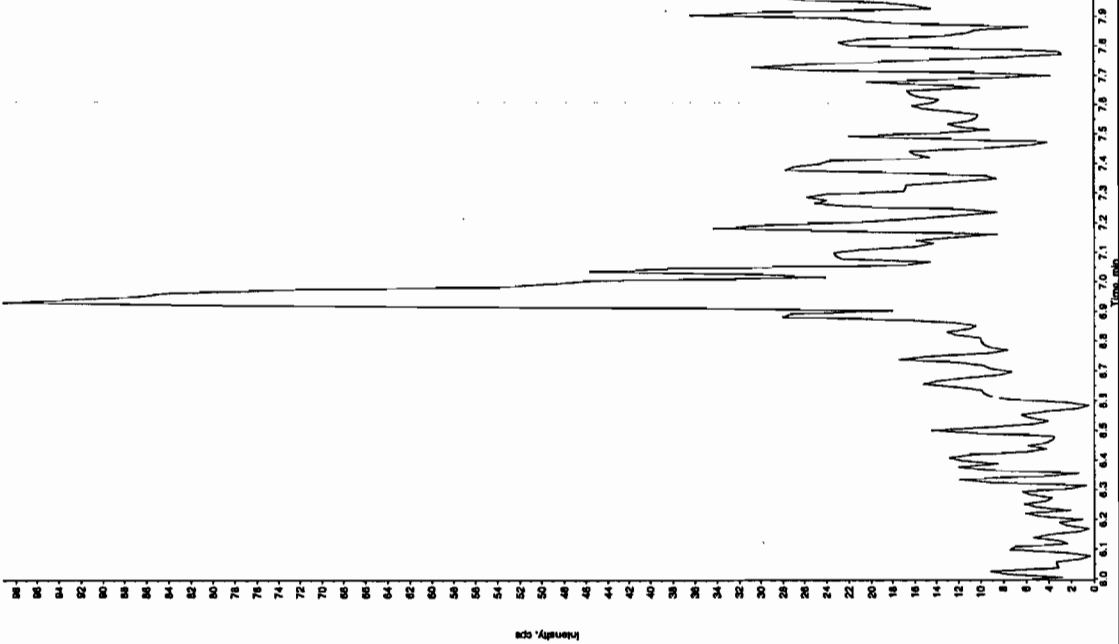
| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |
| 3,4-Dinitrotoluene         | 0    | 0            |



for 3a/10

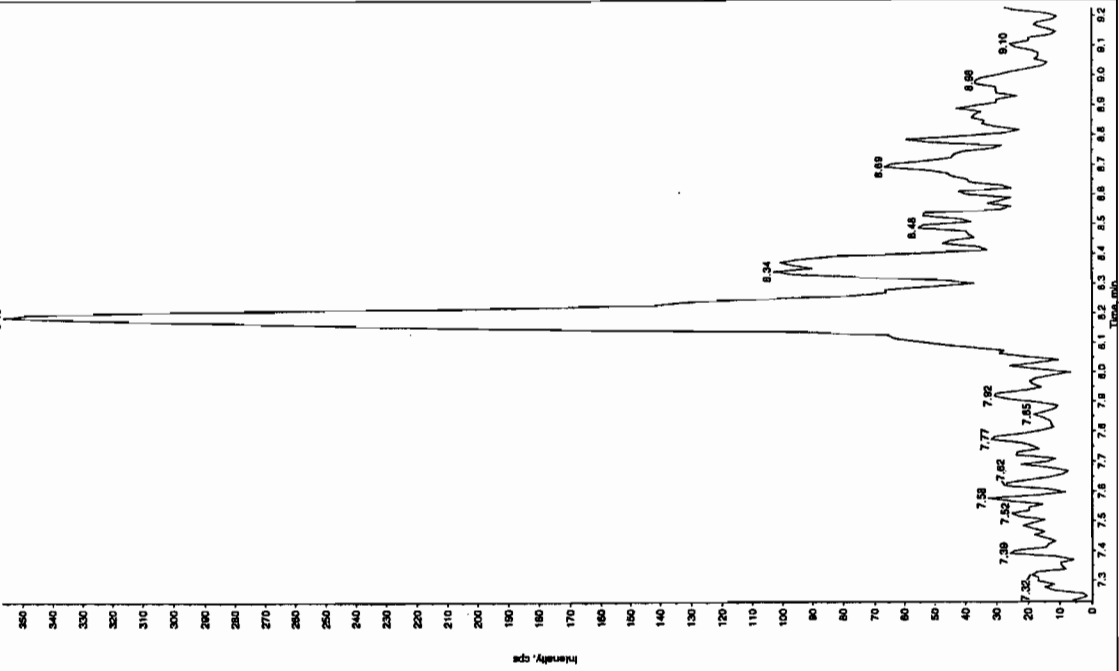
Sample Name: 'XIBLK09' Sample ID: 'HILER' File: 'EX503050080.wif'  
Peak Name: '1A1B' Mass(es): '257.204.9 amu'  
Comment: 'LCMSXP\_B' Annotation: ''

Sample Index: 1  
Sample Type: Unknown  
Sample Concentration: 0.00 ng/mL  
Acq. Date: 3/6/2010  
Acq. Time: 1:48:09 PM  
Modified: No

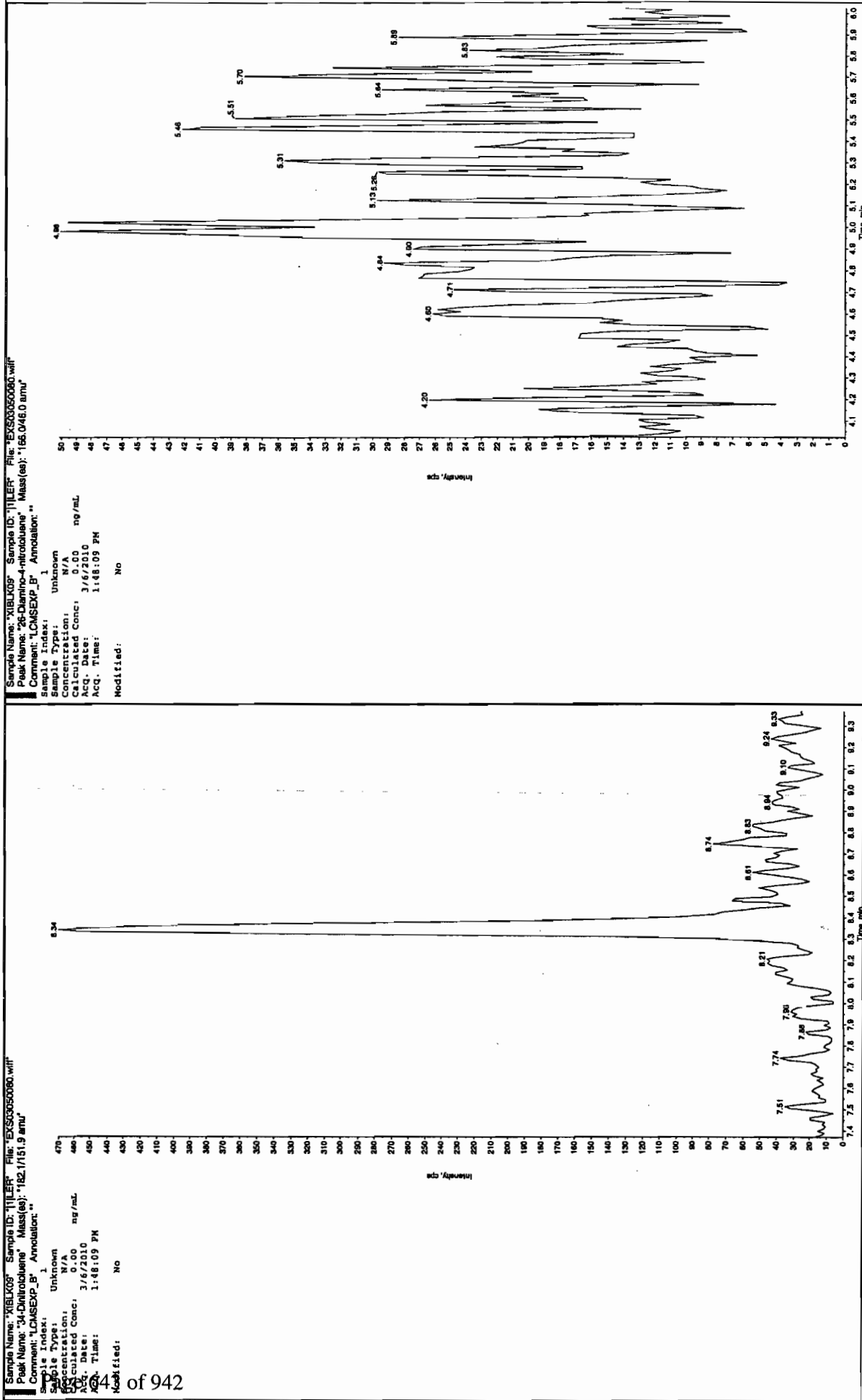


Sample Name: 'XIBLK09' Sample ID: 'HILER' File: 'EX503050080.wif'  
Peak Name: '35-Dinitroaniline' Mass(es): '182.046.0 amu'  
Comment: 'LCMSXP\_B' Annotation: ''

Sample Index: 1  
Sample Type: Unknown  
Sample Concentration: 0.00 ng/mL  
Acq. Date: 3/6/2010  
Acq. Time: 1:48:09 PM  
Modified: No

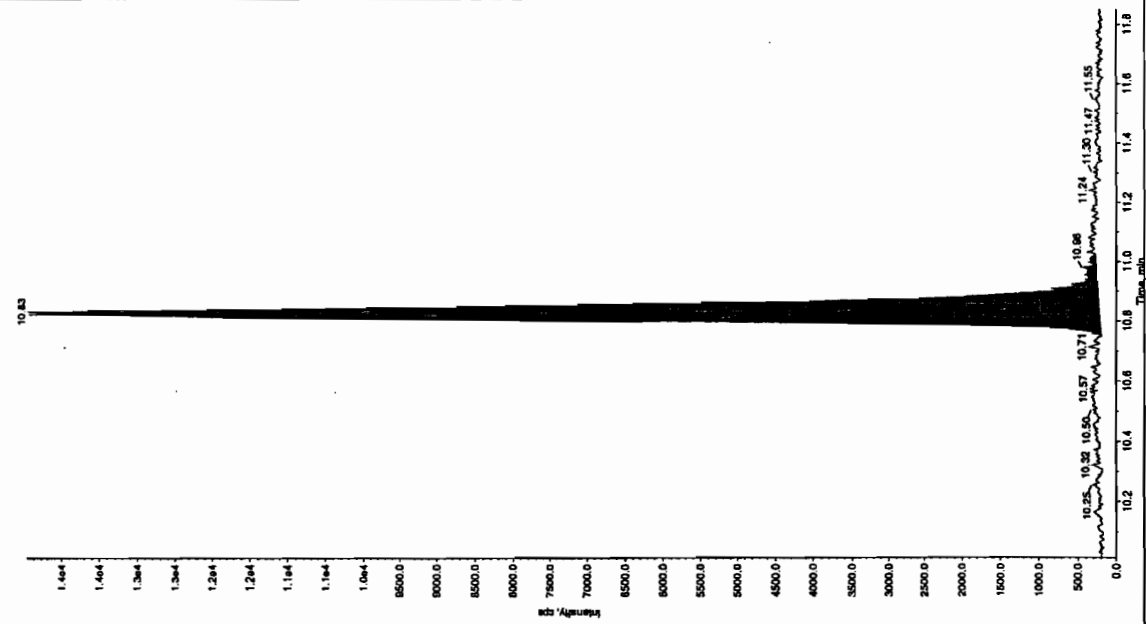


for 3a/10



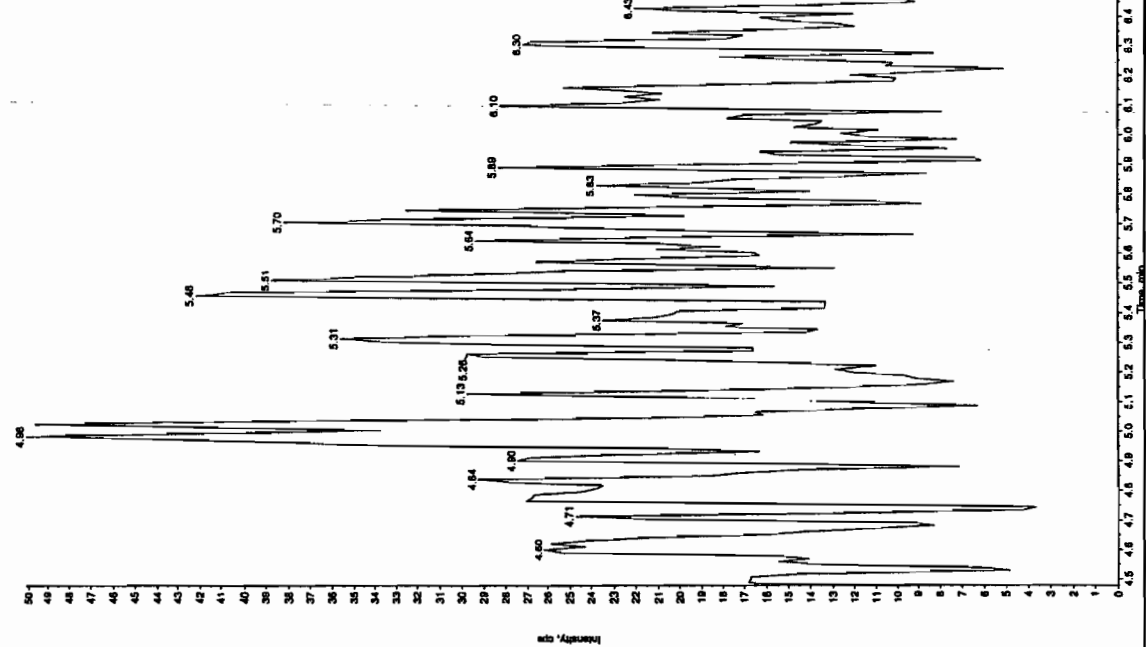
Sample Name: "XIEL09" Sample ID: "11LER" File: "EX03050080.wif"  
 Peak Name: "m(c-cres) phosphate" Mass(es): "359.1910 and"  
 Concentration: "1.044" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: No Intercept  
 Acq. Date: 3/6/2010  
 Acq. Time: 1:48:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Weight: 8000.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 30.0 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 5.03e+004 counts  
 Height: 14267.236 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "XIEL09" Sample ID: "11LER" File: "EX03050080.wif"  
 Peak Name: "24-Diamino-6-nitroquene" Mass(es): "(58.046.0 and"  
 Concentration: "1.044" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 1:48:09 PM  
 Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06-MAR-10 15:06

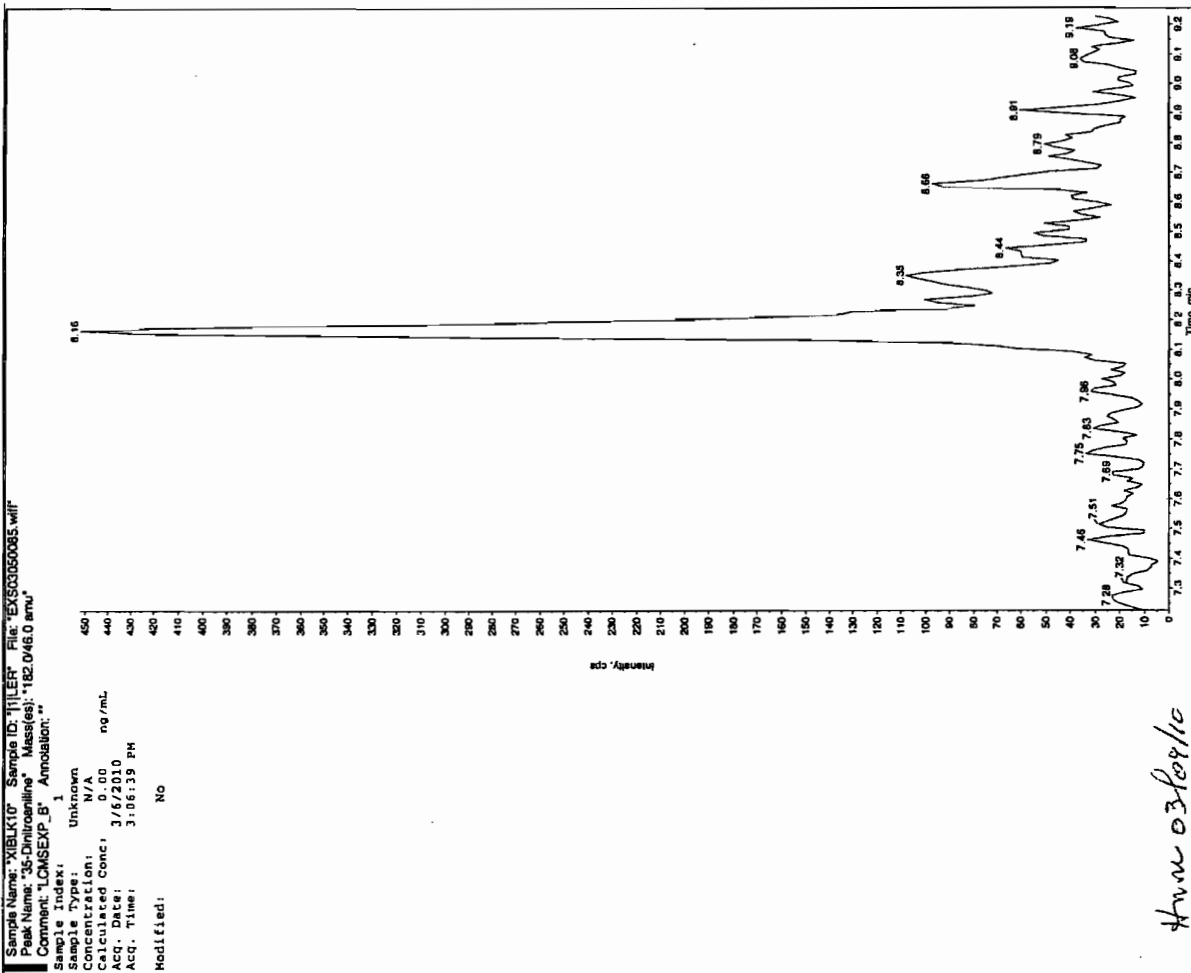
GEL Data File: EXS03050085.wiff

Instrument ID: LCMSMS

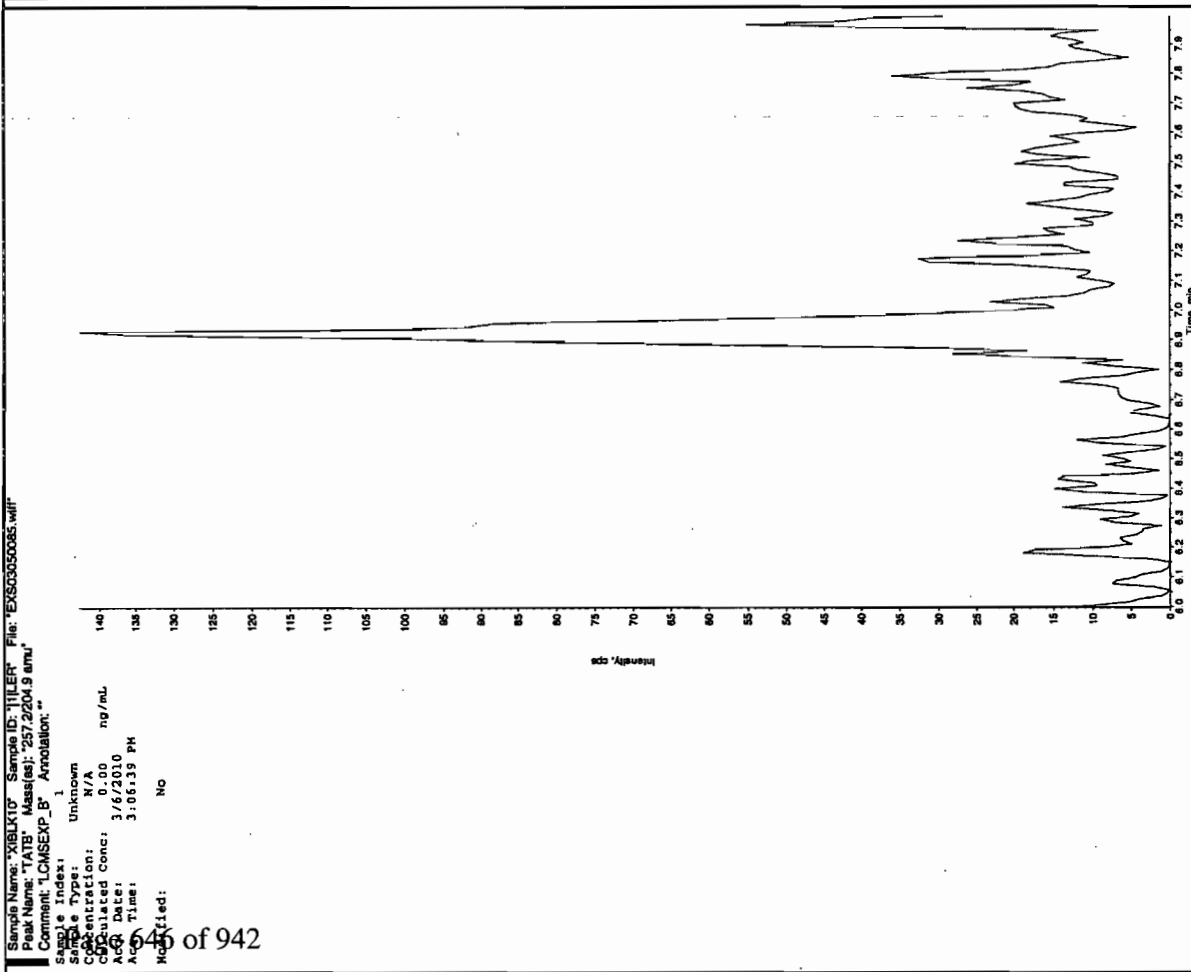
Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

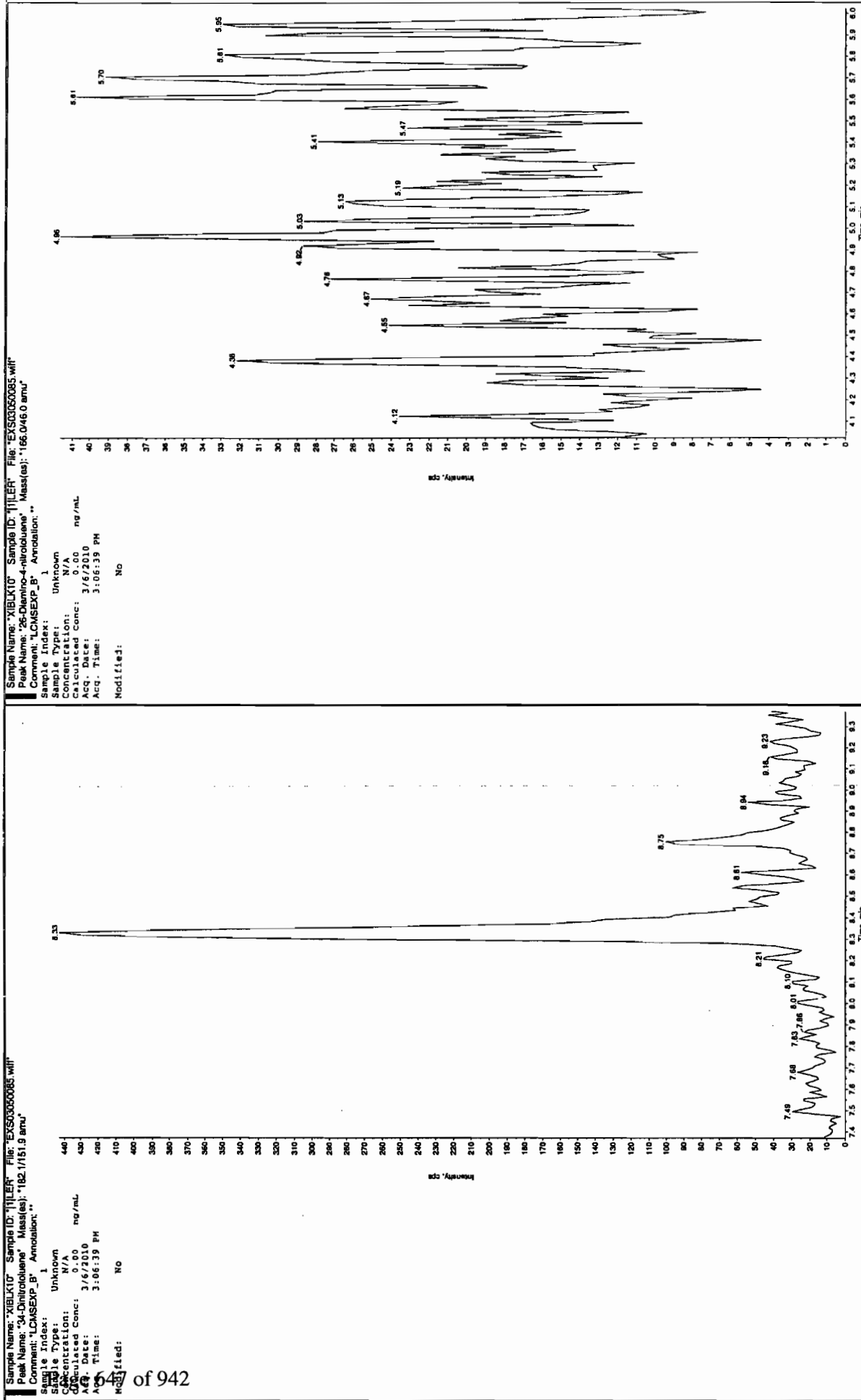
Don 3/9/10

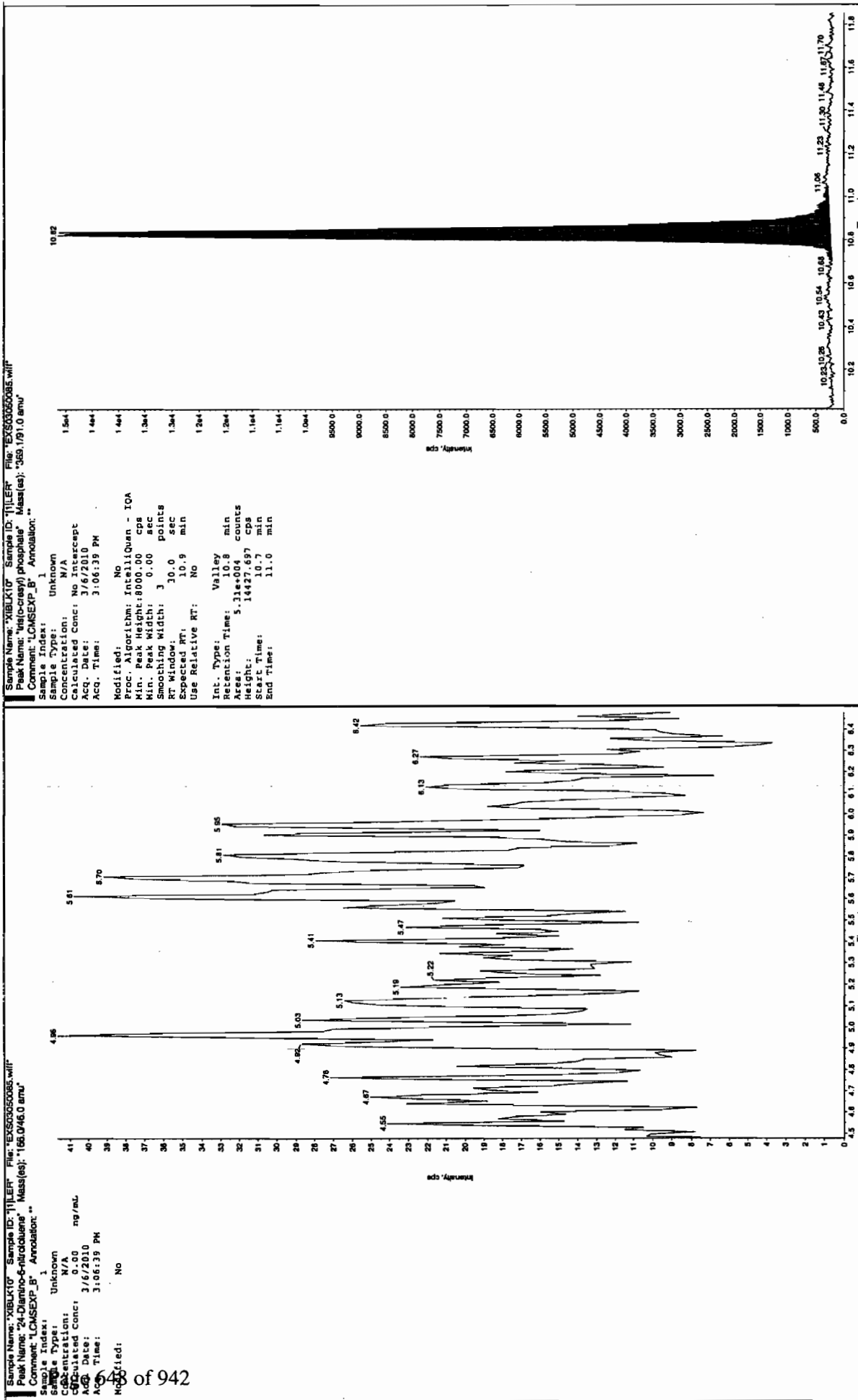


Don 03/09/10



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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 06-MAR-10 17:28

GEL Data File: EXS03050094.wiff

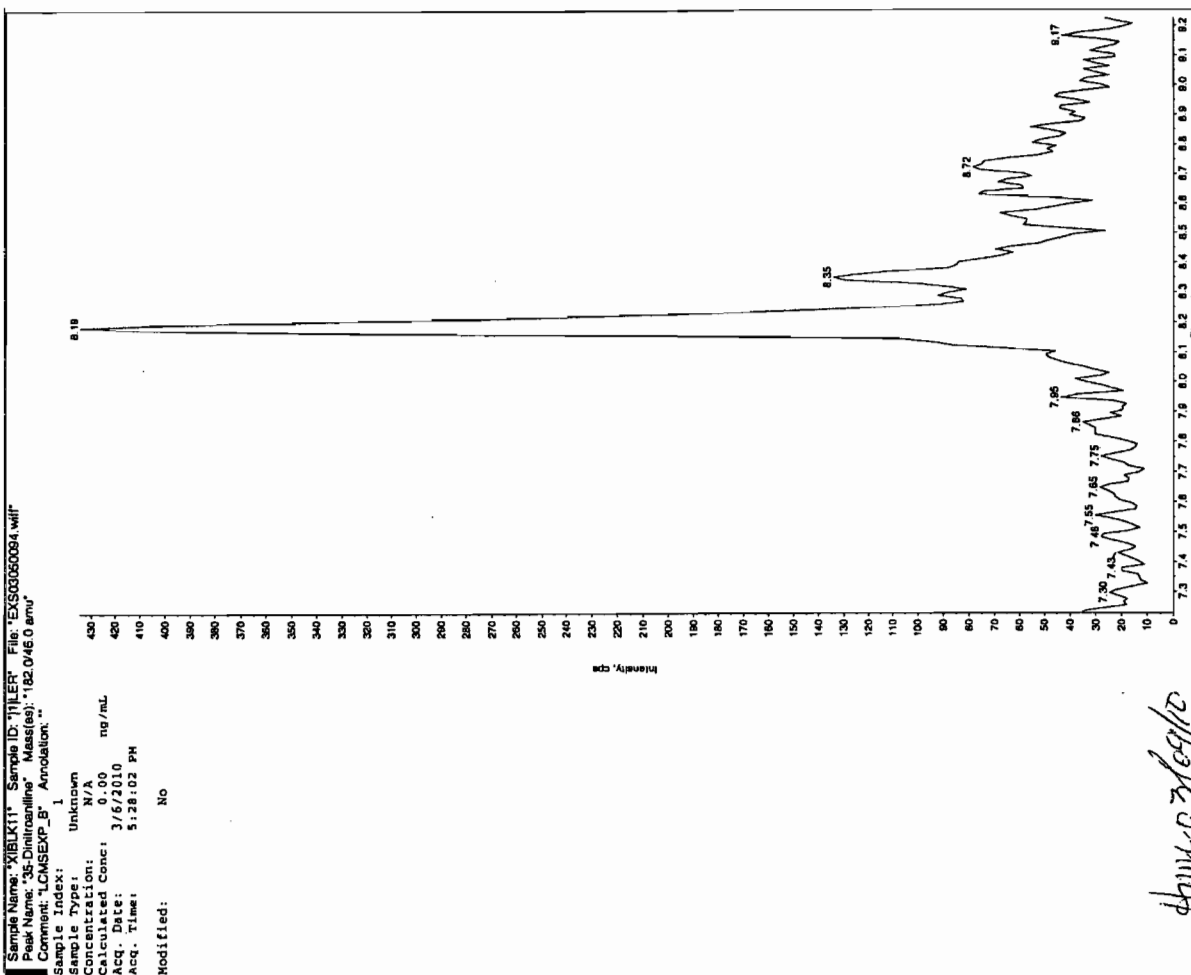
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

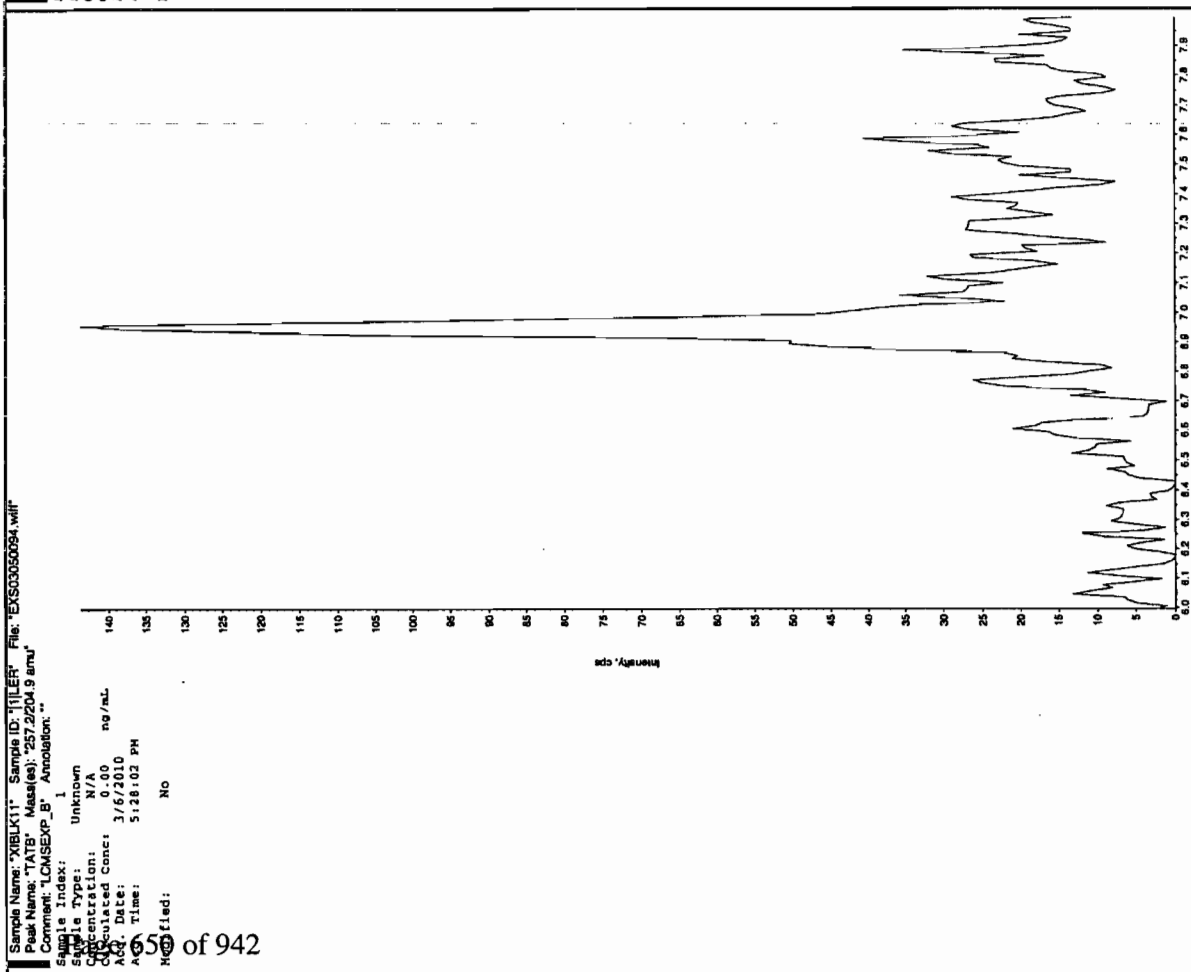
| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

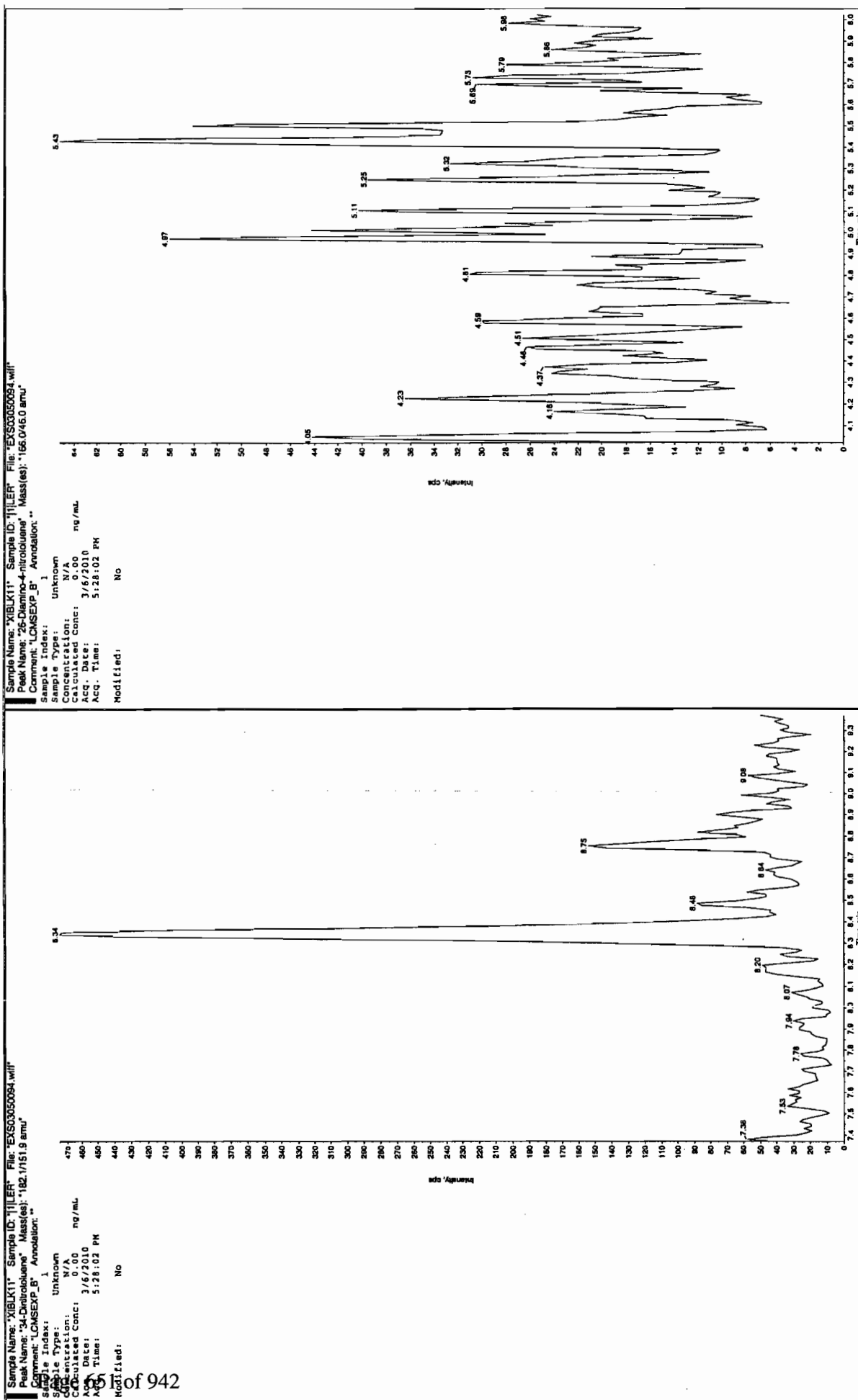


Sen 3/9/10



4/11/10 3/9/10

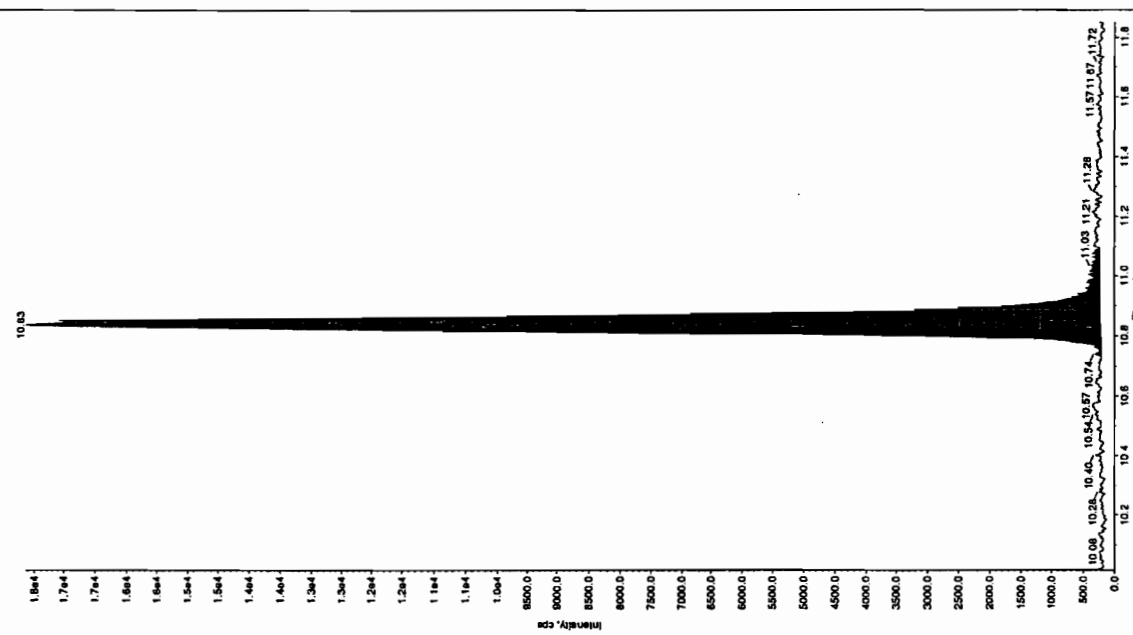
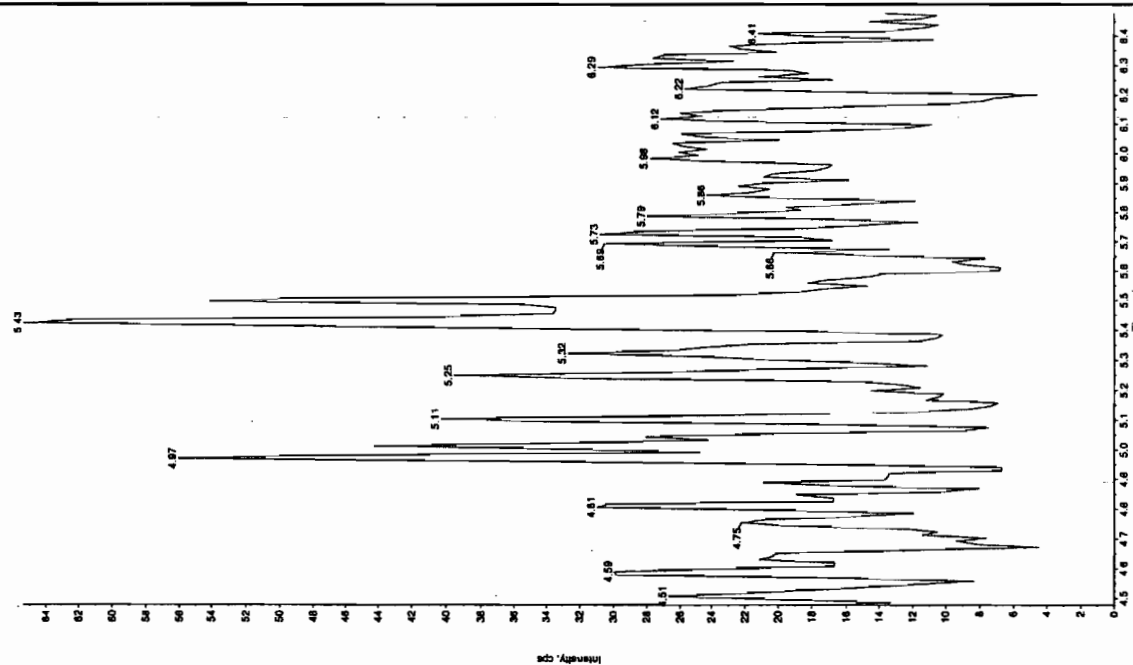




Sample Name: "XIBLK11" Sample ID: "IJLER" File: "EXS03050094.wif"  
 Peak Name: "24-Dinitro-6-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 5:28:02 PM  
 Modified: No

Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 10.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 6.59e+004 counts  
 Height: 17422.045 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 06-MAR-10 18:15

GEL Data File: EXS03050097.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

Jan 3/9/10

Sample Name: "XIBLK12" Sample ID: "TILER" File: "EXS03050097.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

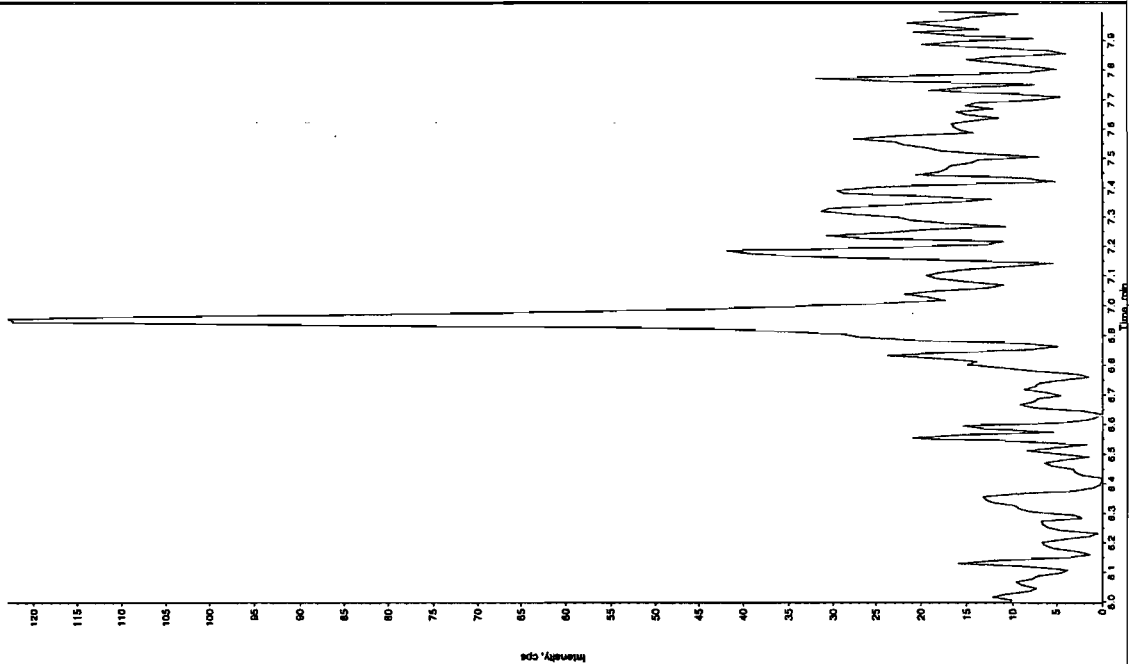
Concentration: N/A

Calculated Conc: 3/6/2010 ng/mL

Acq. Date: 3/6/2010

Acq. Time: 6:15:06 PM

Modified: No



Sample Name: "XIBLK12" Sample ID: "TILER" File: "EXS03050097.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

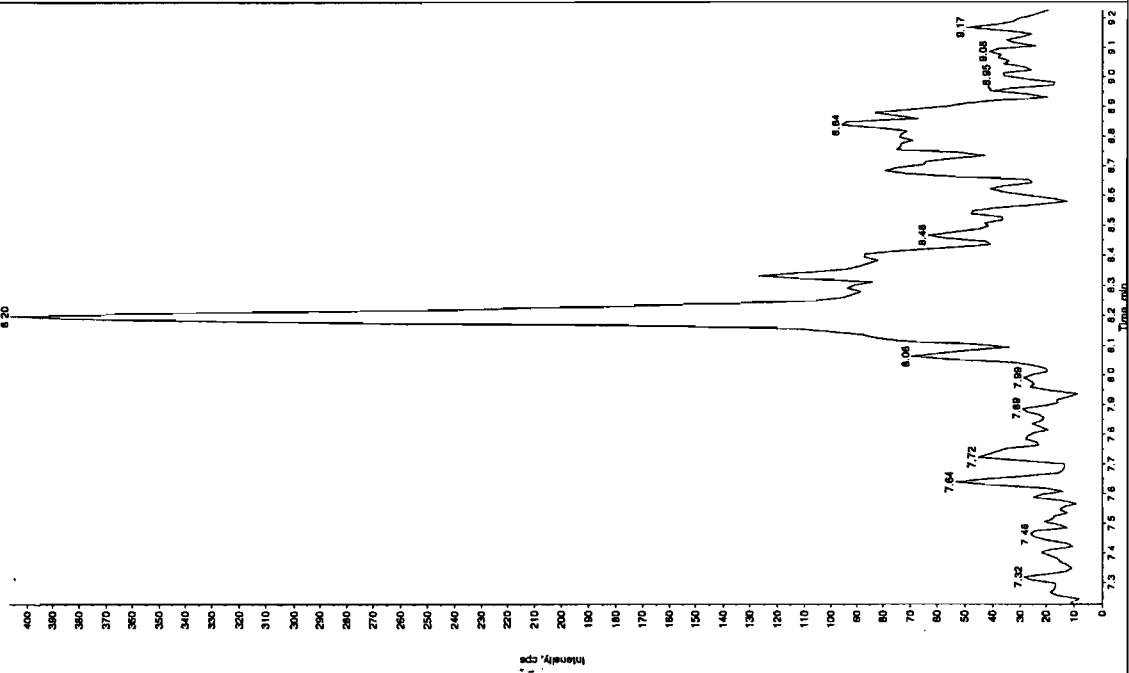
Concentration: N/A

Calculated Conc: 3/6/2010 ng/mL

Acq. Date: 3/6/2010

Acq. Time: 6:15:06 PM

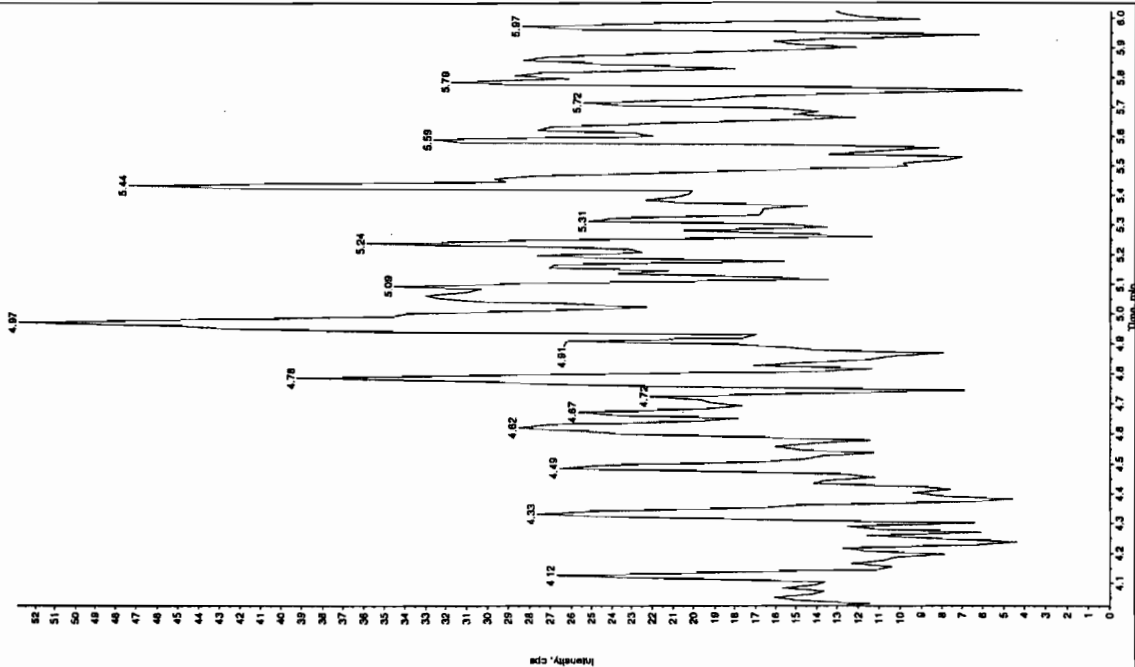
Modified: No



Jan 3/9/10

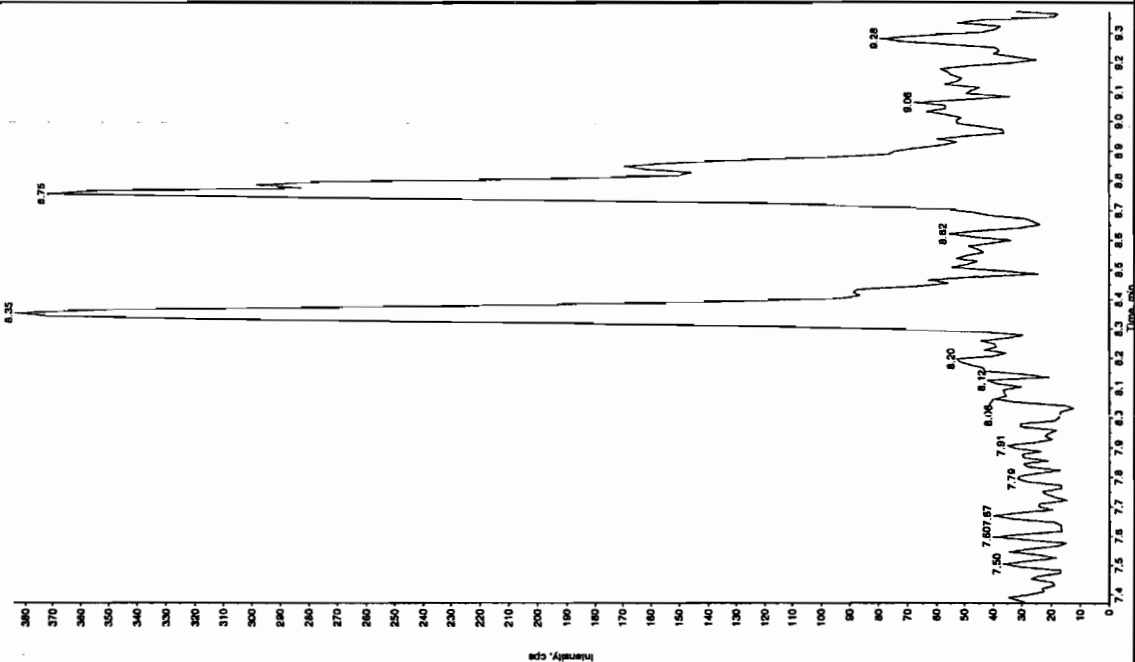
Sample Name: "XIBLK12" Sample ID: "11LER" File: "EXS03050097.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

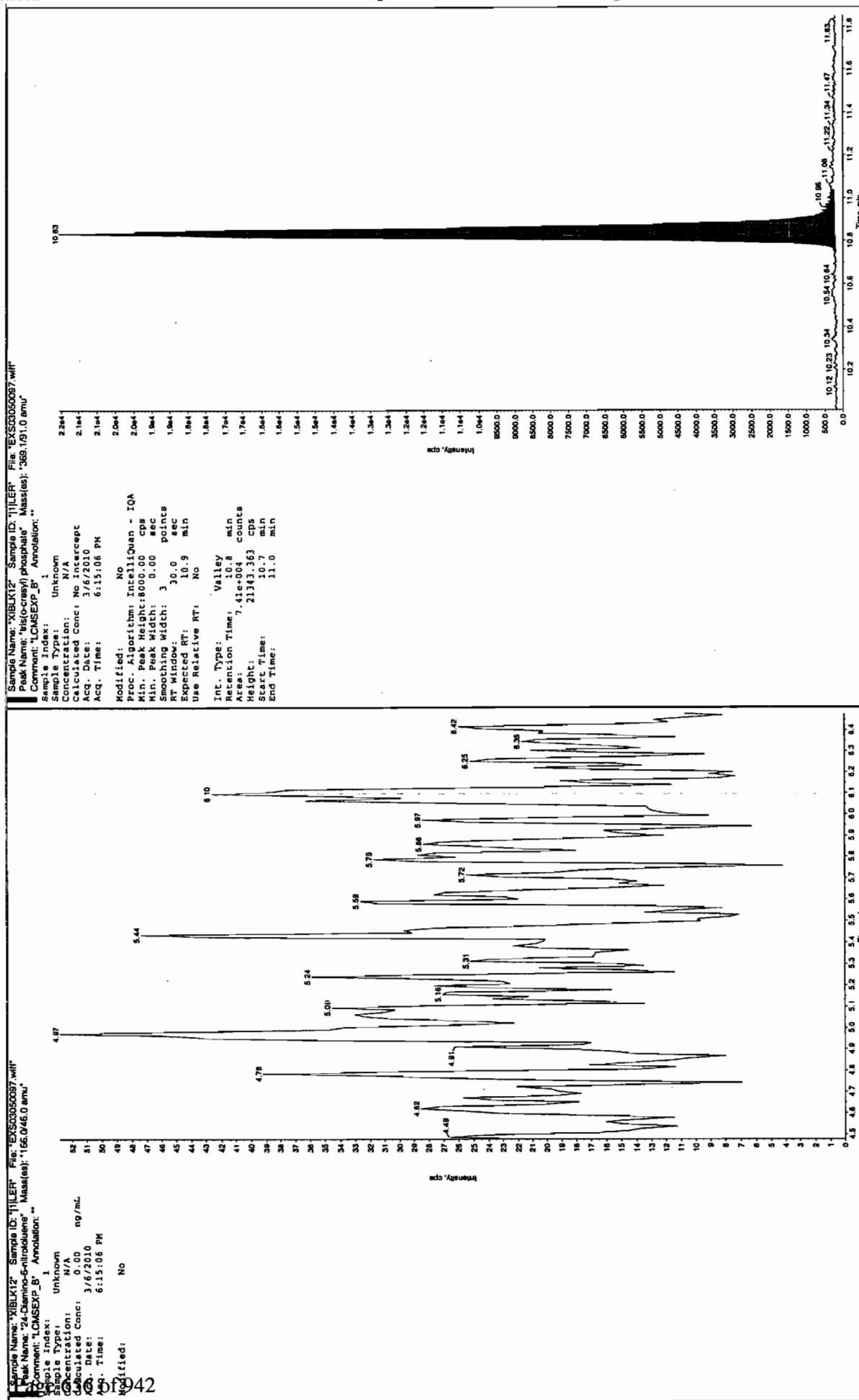
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 6:15:06 PM  
 Modified: No



Sample Name: "XIBLK12" Sample ID: "11LER" File: "EXS03050097.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 6:15:06 PM  
 Modified: No





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 06-MAR-10 20:52

GEL Data File: EXS03050107.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |



for 3/9/10

Sample Name: "XIBLK13" Sample ID: "1111ER" File: "EX0303050107.wif"

Peak Name: "TATB" Mass(es): "267.2204.9 and"

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

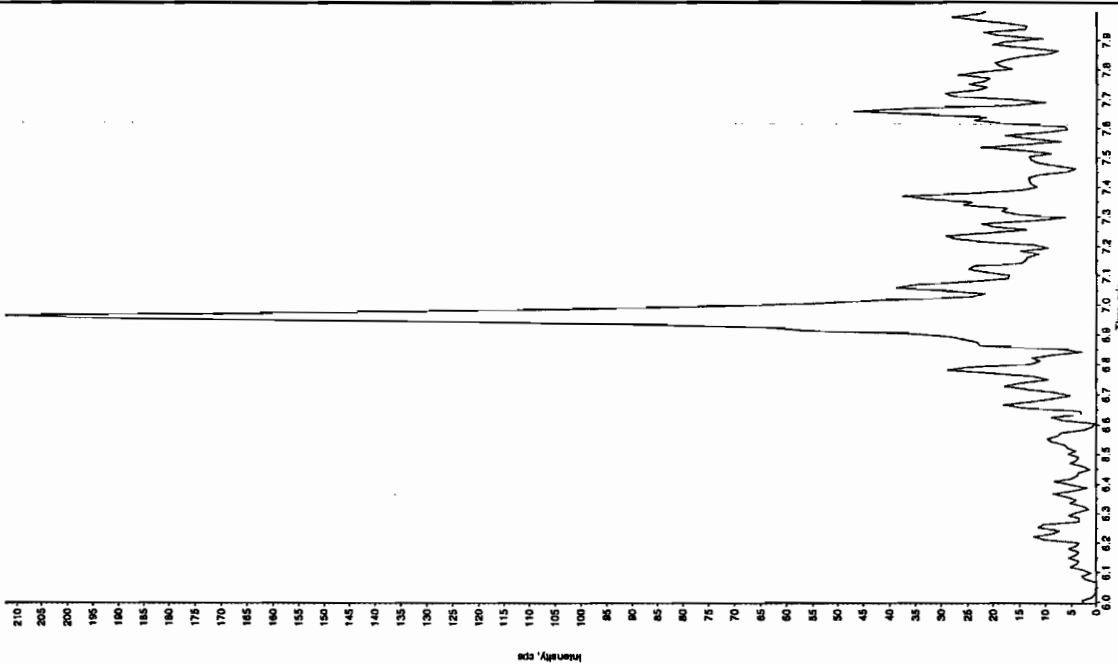
Sample Type: Unknown

Concentration: 0.00 ng/mL

Acq. Date: 3/6/2010

Acq. Time: 8:52:01 PM

Modified: No



Sample Name: "XIBLK13" Sample ID: "1111ER" File: "EX0303050107.wif"

Peak Name: "3S-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

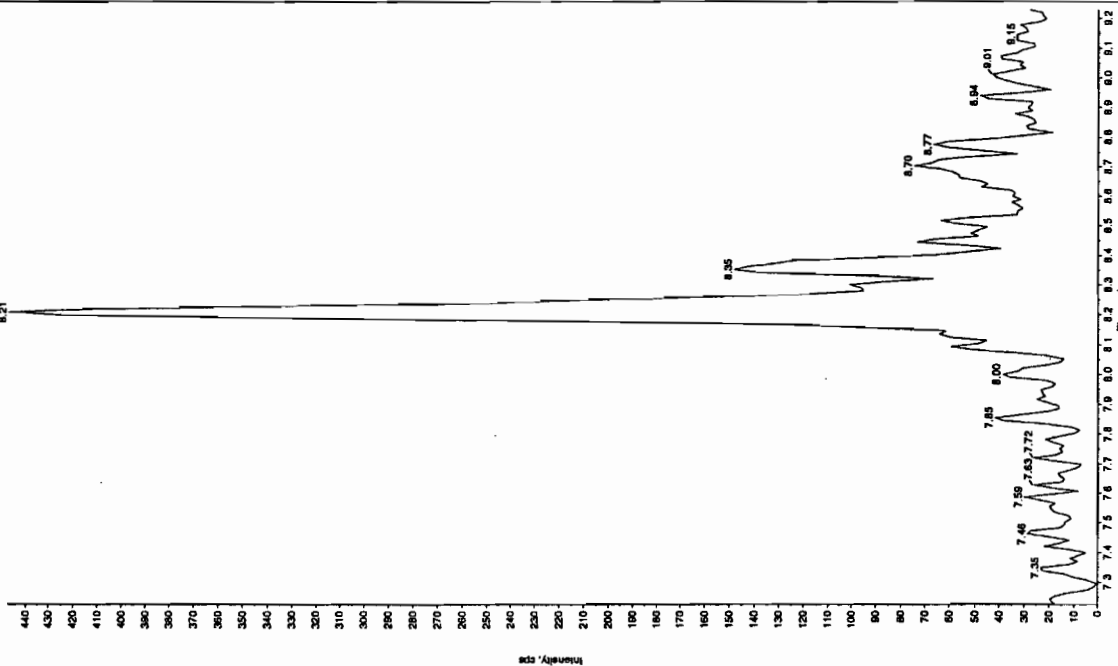
Sample Type: Unknown

Concentration: 0.00 ng/mL

Acq. Date: 3/6/2010

Acq. Time: 8:52:01 PM

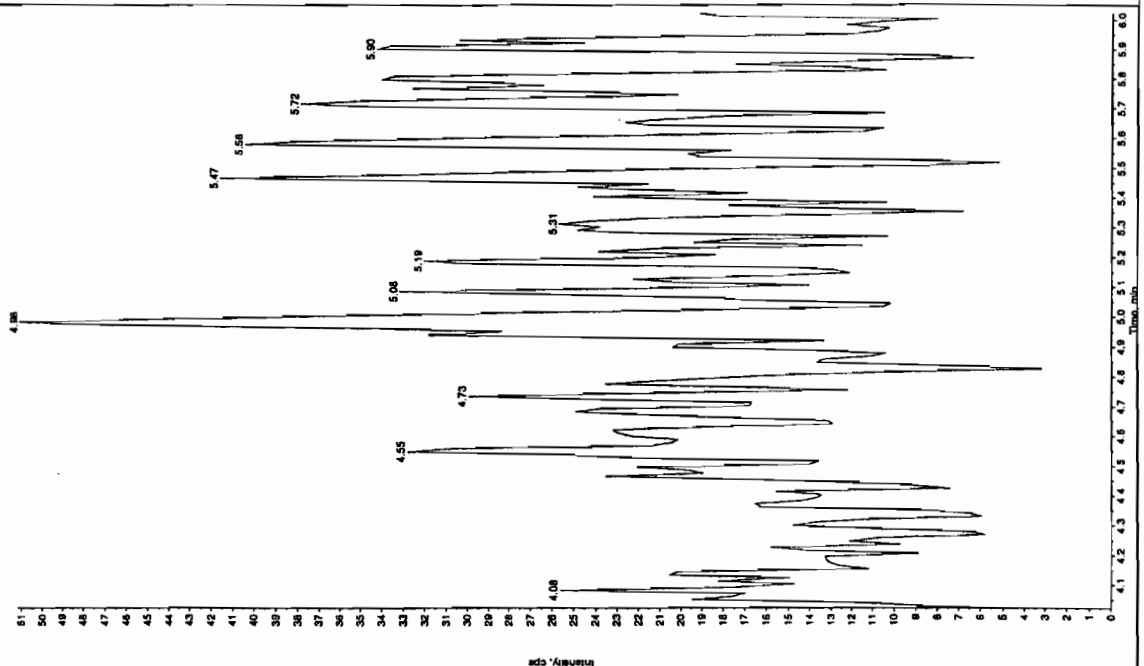
Modified: No



for 3/9/10

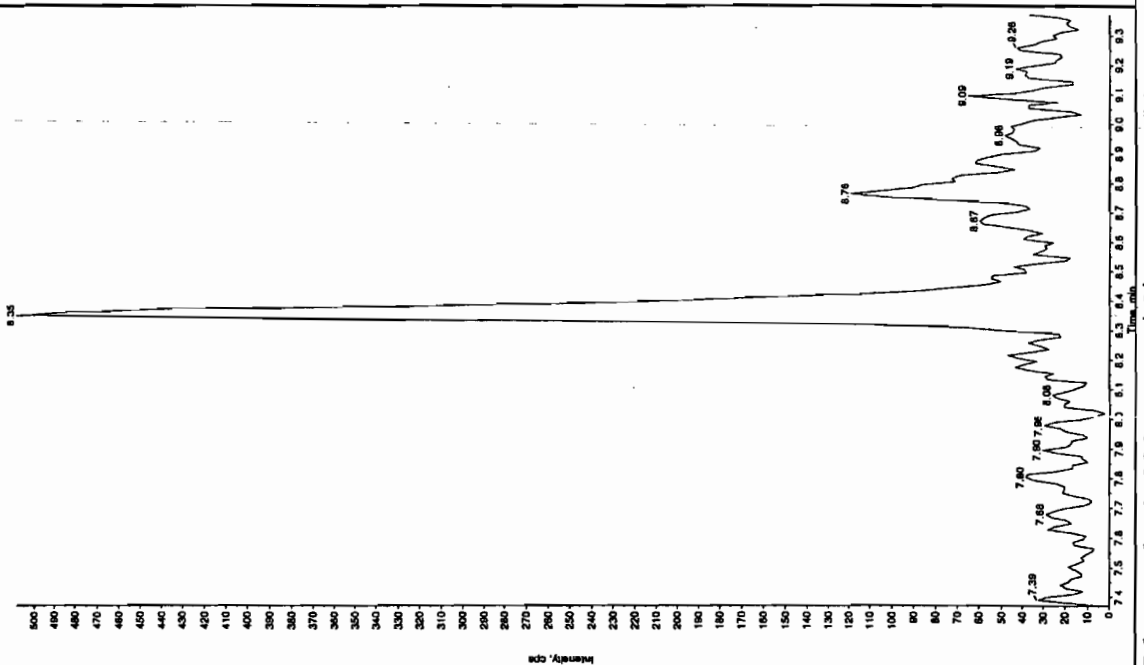
Sample Name: "XIBLK13" Sample ID: "111111" File: "EX503050107.wif"  
 Peak Name: "25-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 8:52:01 PM  
 Modified: No



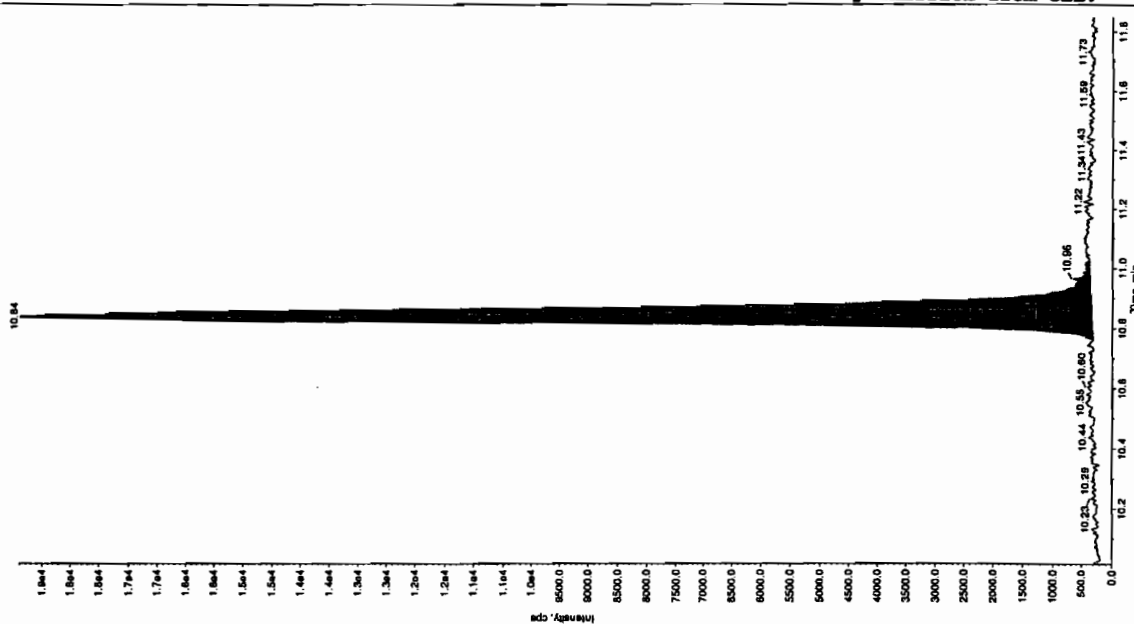
Sample Name: "XIBLK13" Sample ID: "111111" File: "EX503050107.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 8:52:01 PM  
 Modified: No



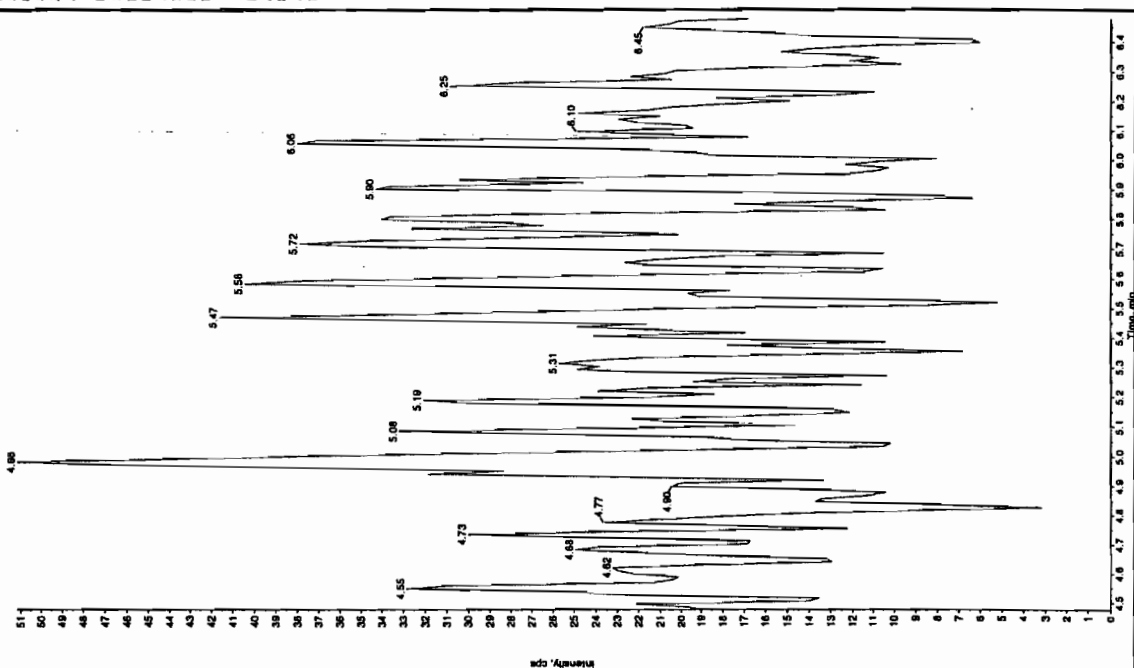
Sample Name: "XIBLK13" Sample ID: "JILER" File: "EX503050107.wif"  
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 8:52:01 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Peak Height: 6564000 counts  
 Mass: 18580.671 amu  
 Start Time: 10.8 min  
 End Time: 11.0 min



Sample Name: "XIBLK13" Sample ID: "JILER" File: "EX503050107.wif"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "165.0/46.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 8:52:01 PM  
 Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1914

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 07-MAR-10 00:00

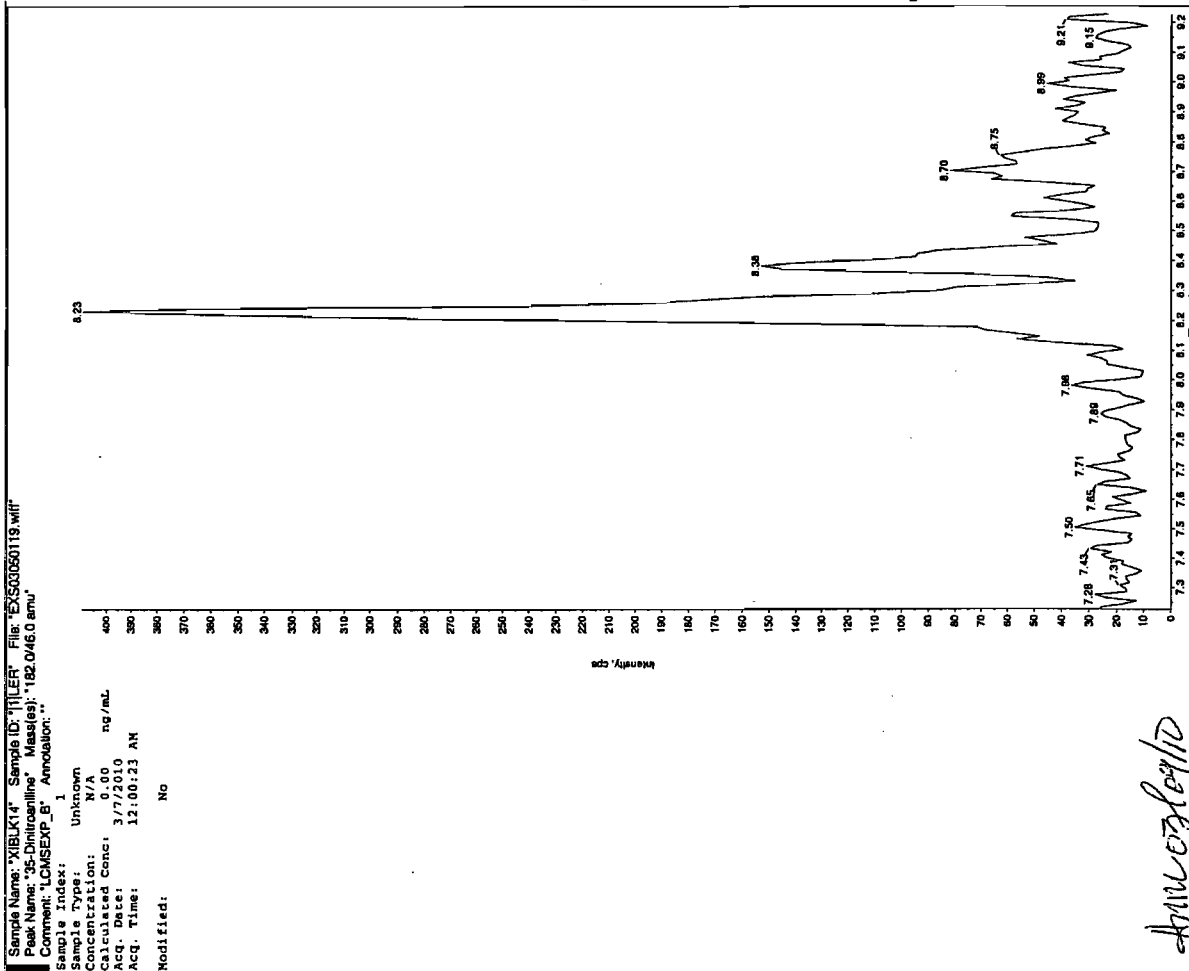
GEL Data File: EXS03050119.wiff

Instrument ID: LCMSMS

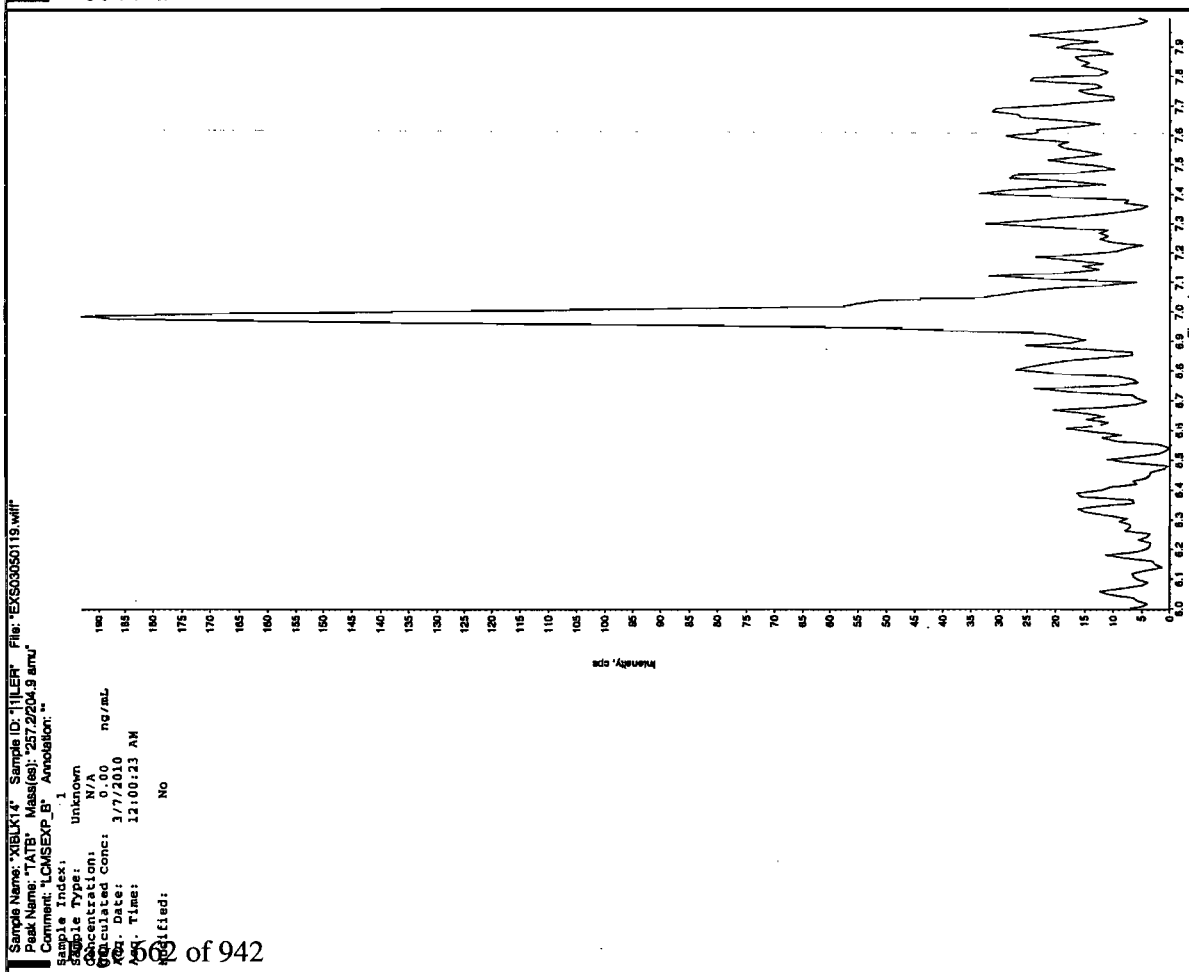
Column: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found (ug/L) |
|----------------------------|------|--------------|
| 3,4-Dinitrotoluene         | 0    | 0            |
| tris(o-cresyl) phosphate   | 0    | 0            |
| TATB                       | 0    | 0            |
| 3,5-Dinitroaniline         | 0    | 0            |
| 2,4-Diamino-6-nitrotoluene | 0    | 0            |
| 2,6-Diamino-4-nitrotoluene | 0    | 0            |

Sen 3/9/10

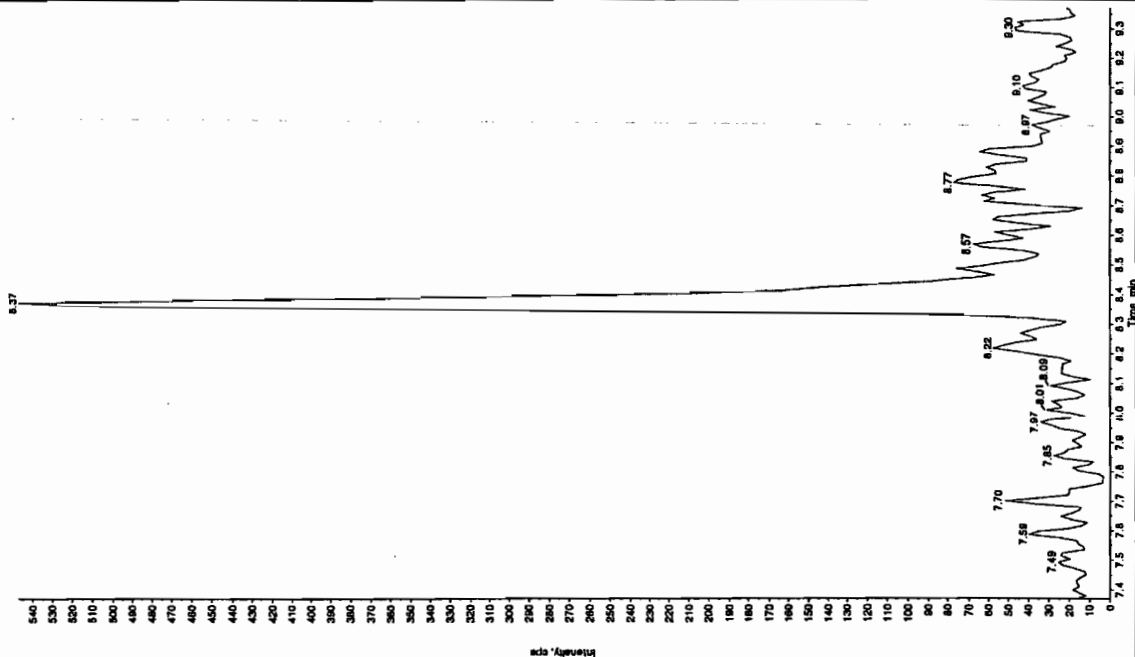


Amu 8321A



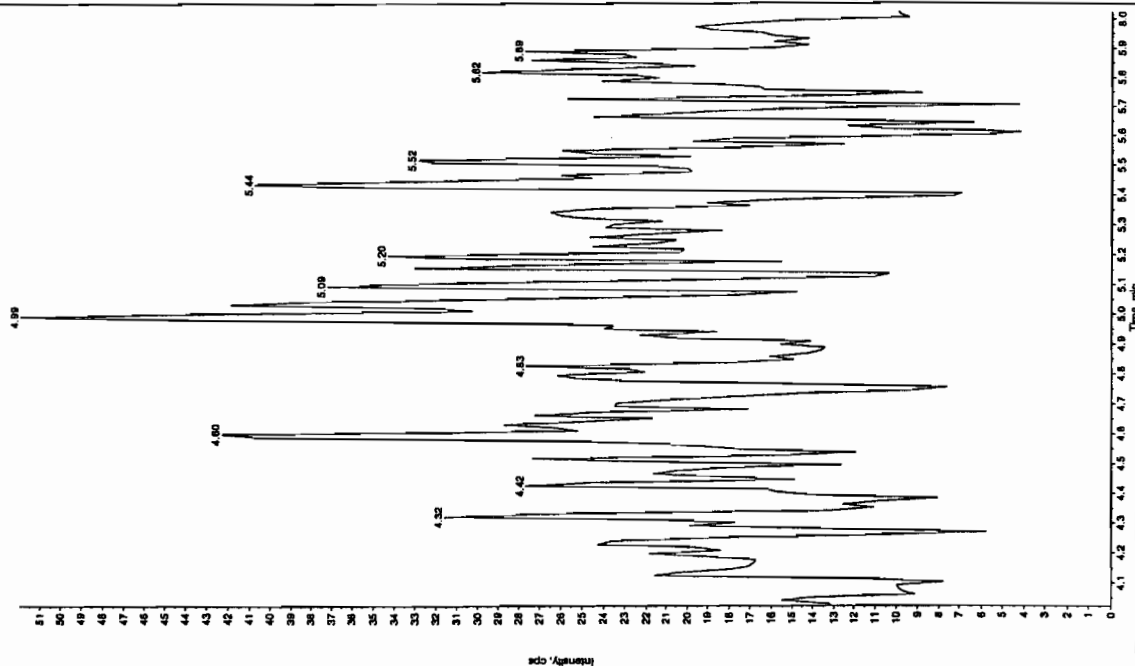
Sample Name: "XIBLK14" Sample ID: "JILF" File: "EX503050119.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

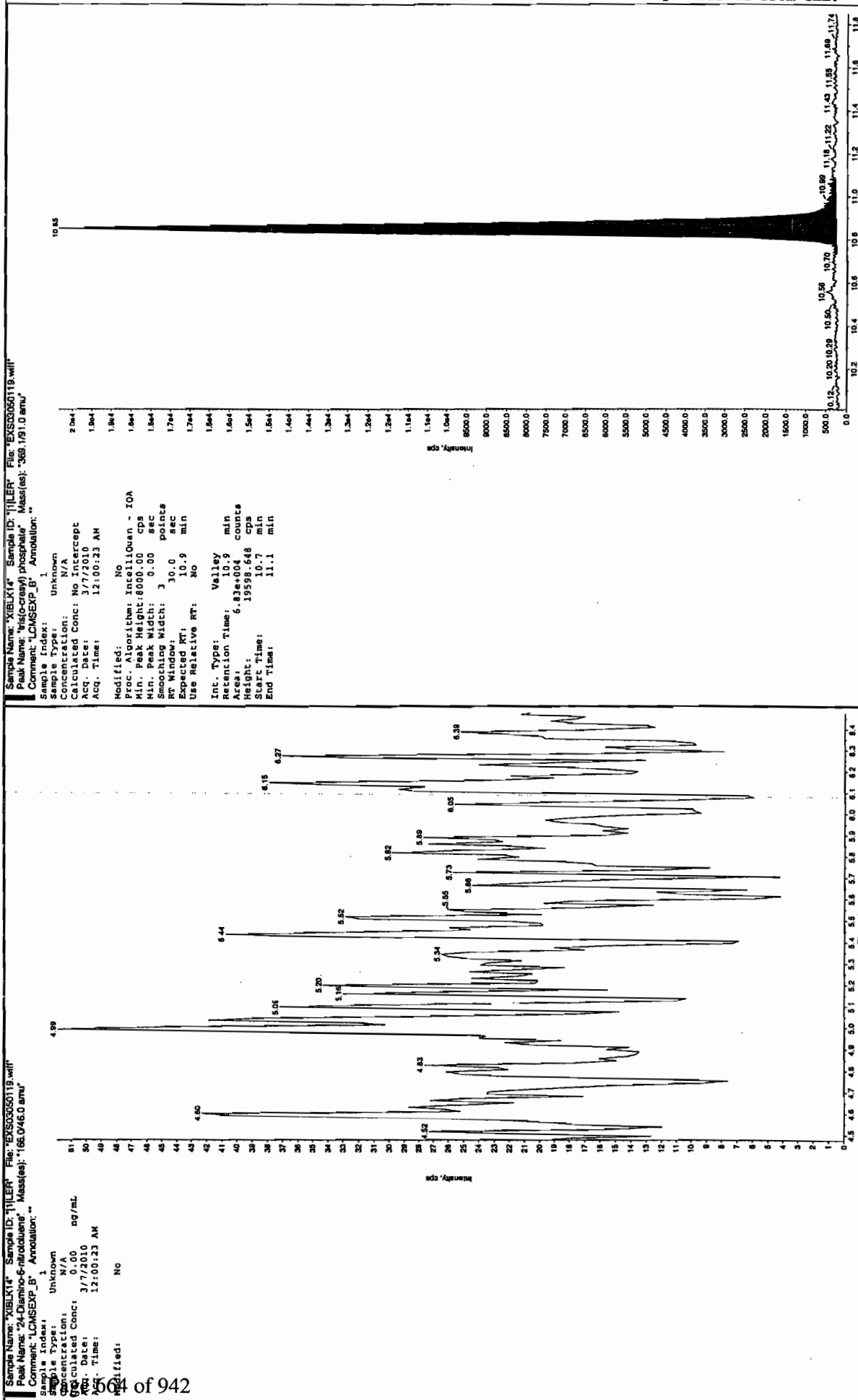
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/7/2010  
 Acq. Time: 12:00:23 AM  
 Modified: No



Sample Name: "XIBLK14" Sample ID: "JILF" File: "EX503050119.wif"  
 Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "186.0/166.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/7/2010  
 Acq. Time: 12:00:23 AM  
 Modified: No





Nairb.ref

;Positive ion monoisotopic and average masses from solution  
 ;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H<sub>2</sub>O.  
 ;Most useful general purpose calibrant for all low  
 ;MW applications, including MS/MS work.  
 ;At high resolution, readily covers from m/z 50-2000.  
 ;At reduced resolution, can be used to over m/z 3000.  
 ;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.  
 Updated 20 April '95

|             |     |
|-------------|-----|
| 22.9898     | 100 |
| 84.9118     | 100 |
| 172.8840    | 100 |
| 322.7782    | 100 |
| 472.6725    | 100 |
| 622.5667    | 100 |
| 772.4610    | 100 |
| 922.3552    | 100 |
| 1072.2494   | 100 |
| ; 1222.1437 | 100 |
| ; 1372.0379 | 100 |
| ; 1521.9321 | 100 |
| ; 1671.8264 | 100 |
| ; 1821.7206 | 100 |
| ; 1971.6149 | 100 |
| ; 2121.5091 | 100 |
| ; 2271.4033 | 100 |
| ; 2421.2976 | 100 |
| ; 2571.1918 | 100 |
| ; 2721.0861 | 100 |
| ; 2870.9803 | 100 |
| ; 3020.8745 | 100 |
| ; 3170.7688 | 100 |
| ; 3320.6630 | 100 |
| ; 3470.5572 | 100 |
| ; 3620.4515 | 100 |
| ; 3770.3457 | 100 |
| ; 3920.2400 | 100 |



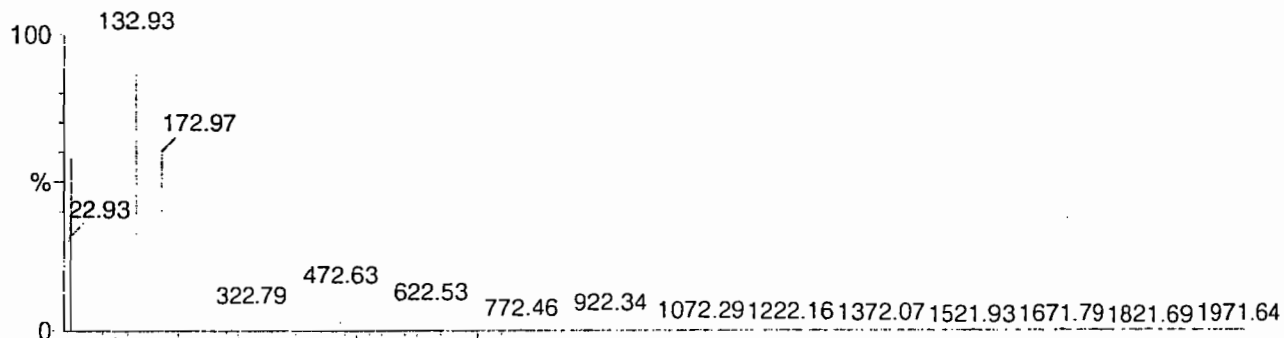
Calibration Report - MS1 Static

Page 1 of 1

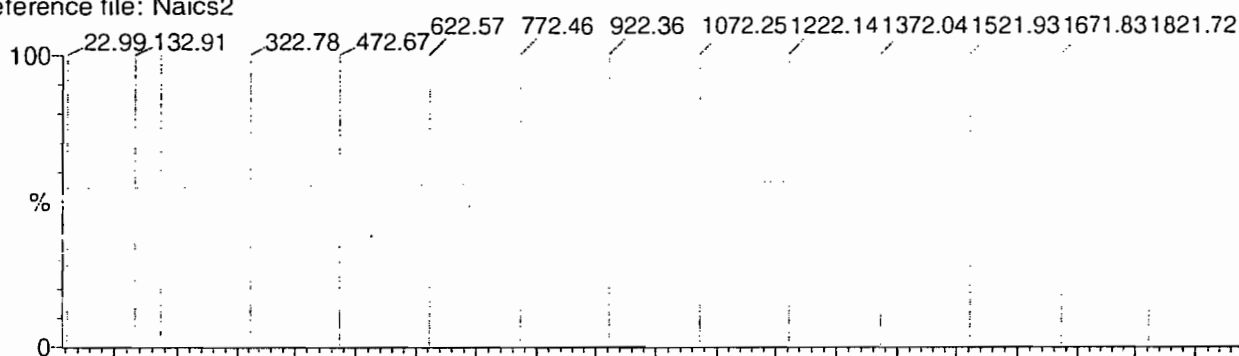
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

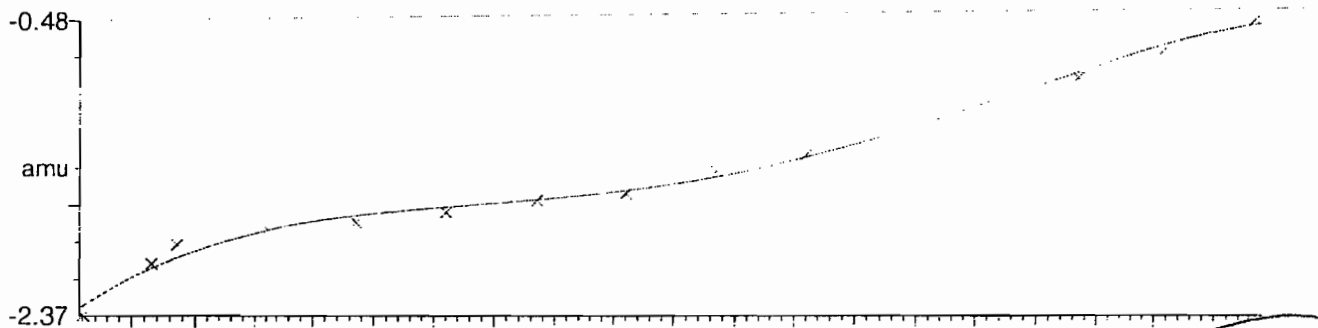
15 matches of 15 tested references



Reference file: Naics2

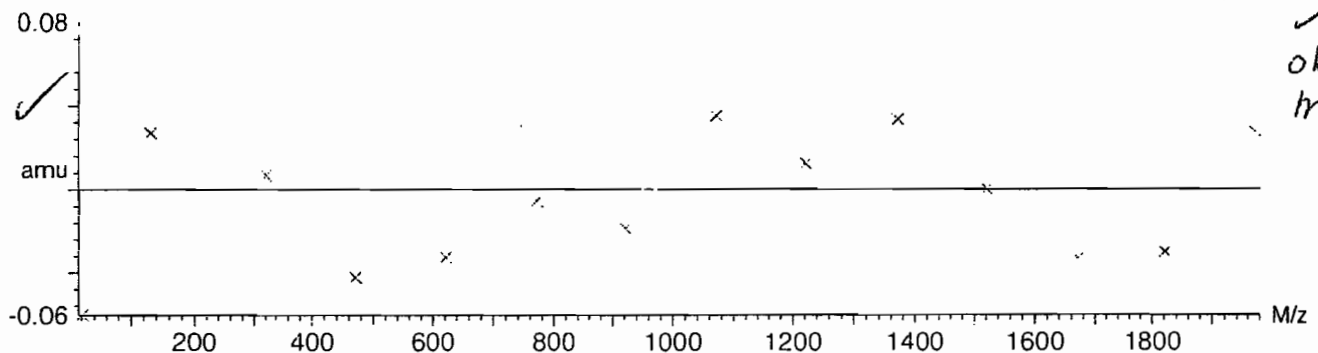


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-1.673470 \times 10^{-9} \pm 0.036953$



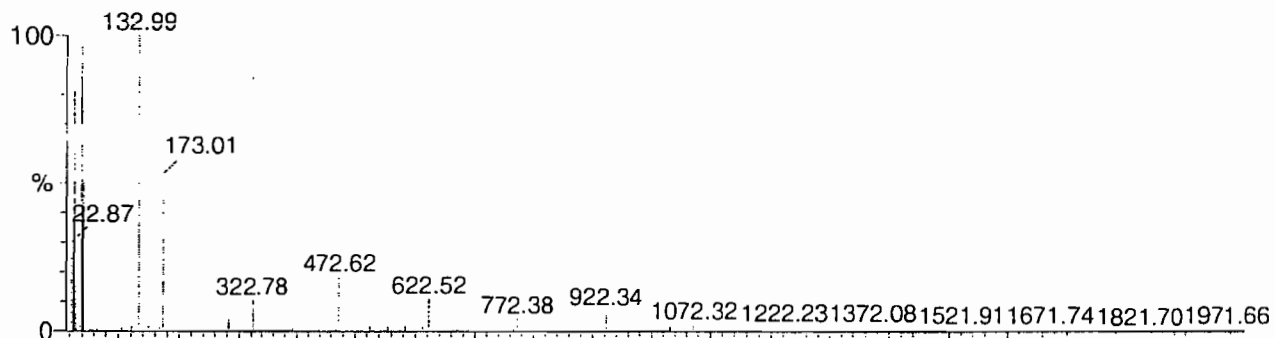
Calibration Report - MS1 Scanning

Page 1 of 1

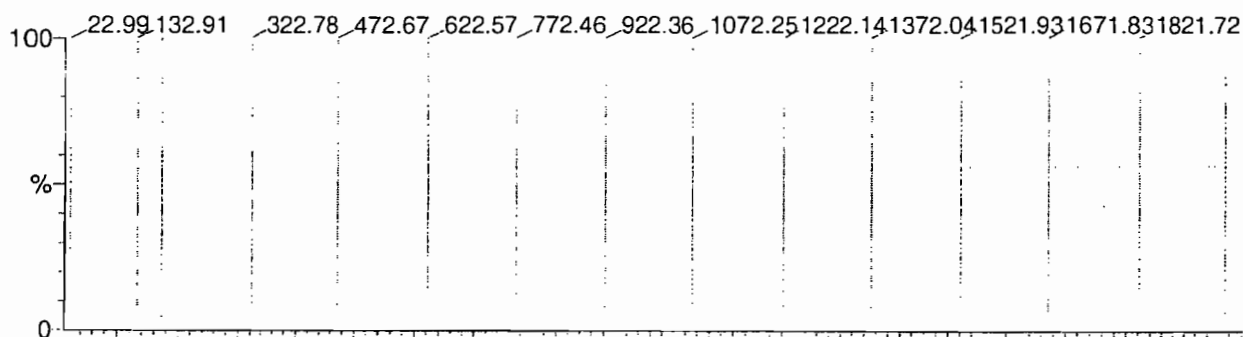
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

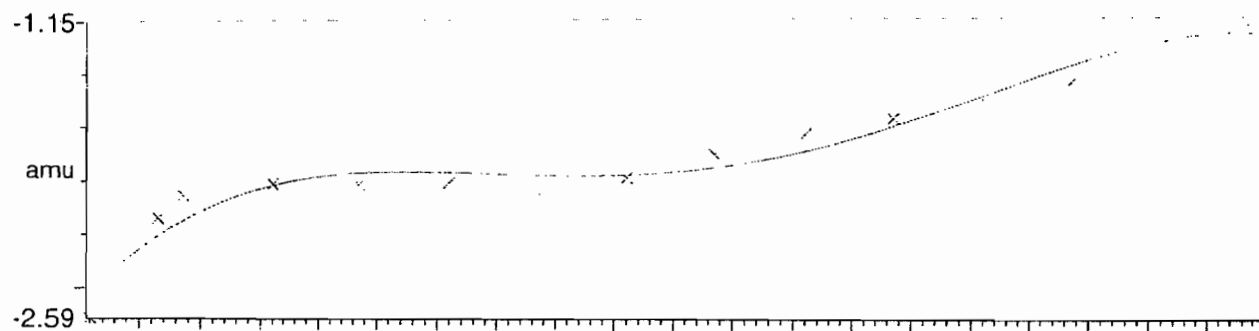
15 matches of 15 tested references.



Reference file: Naics2

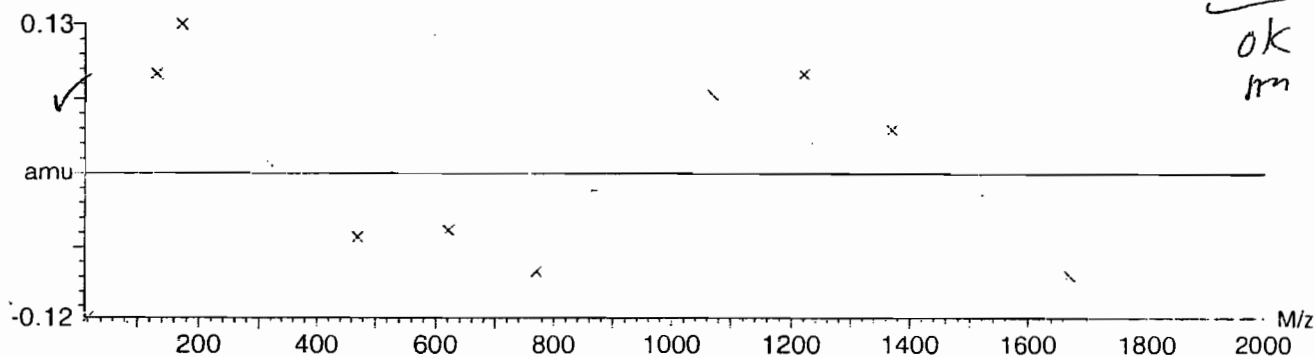


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-5.432715 \times 10^{-9} \pm 0.069858$



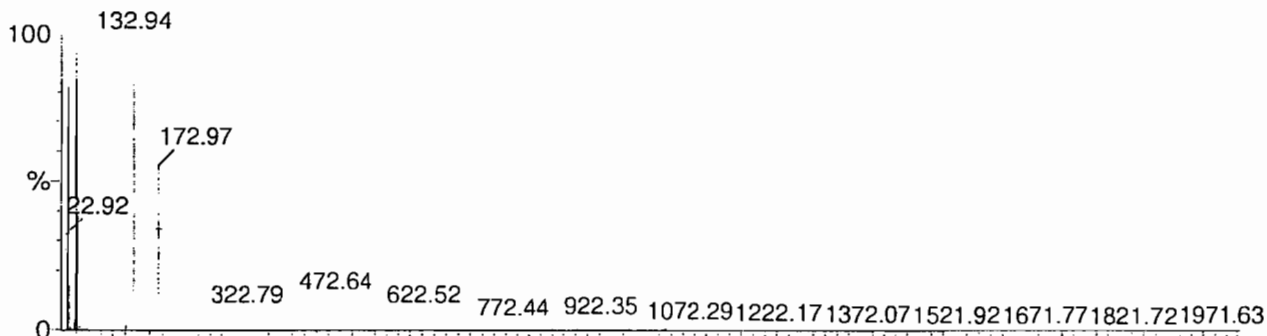
Calibration Report - MS1 Scan Speed Compensation

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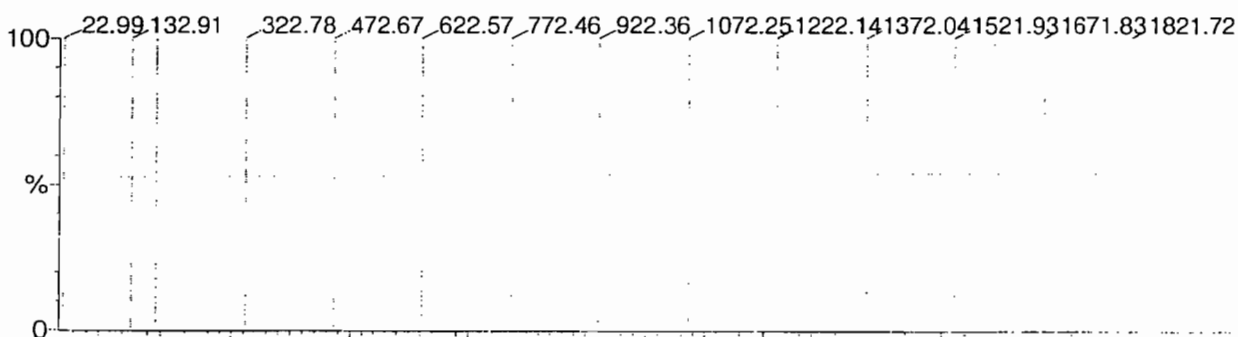
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

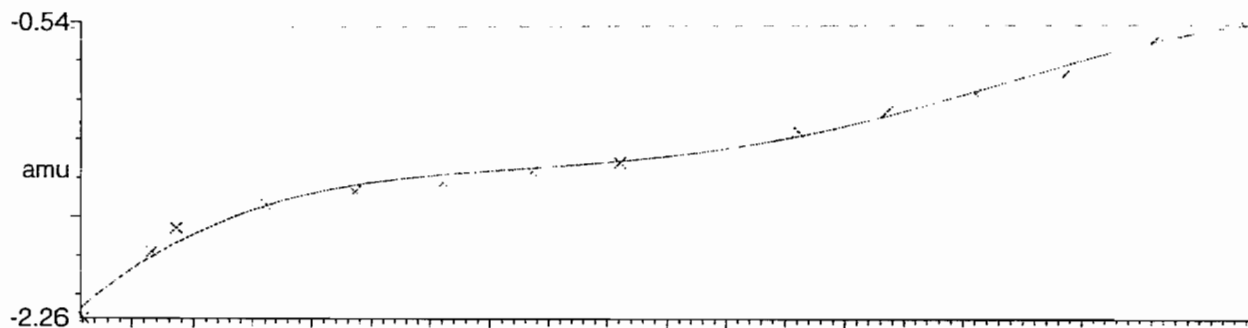
15 matches of 15 tested references



Reference file: Naics2

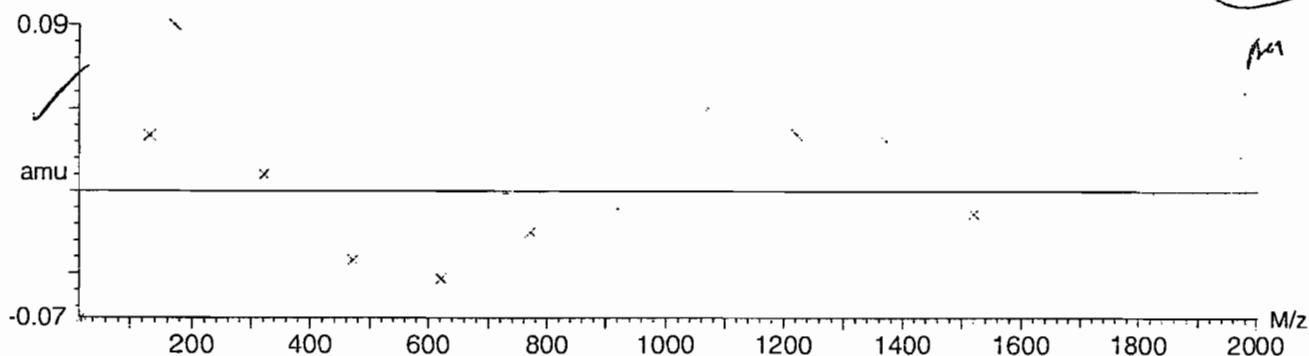


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.486639 \times 10^{-9} \pm 0.040487$



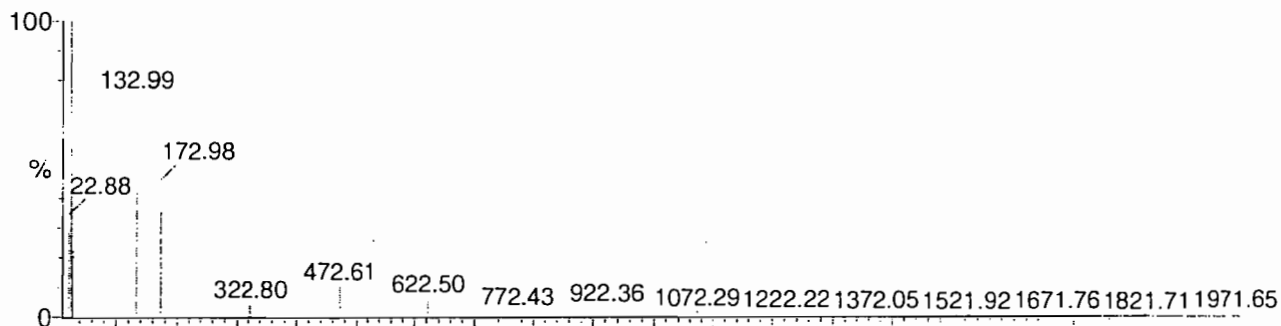
Calibration Report - MS2 Static

Page 1 of 1

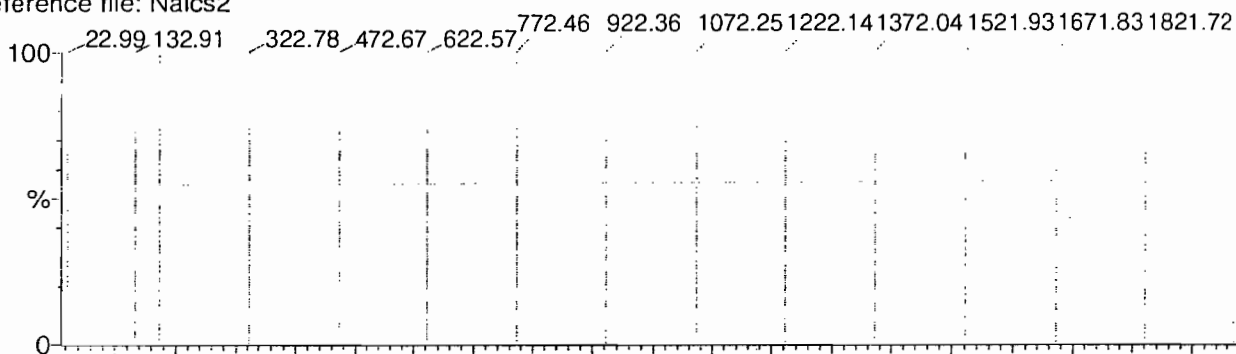
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

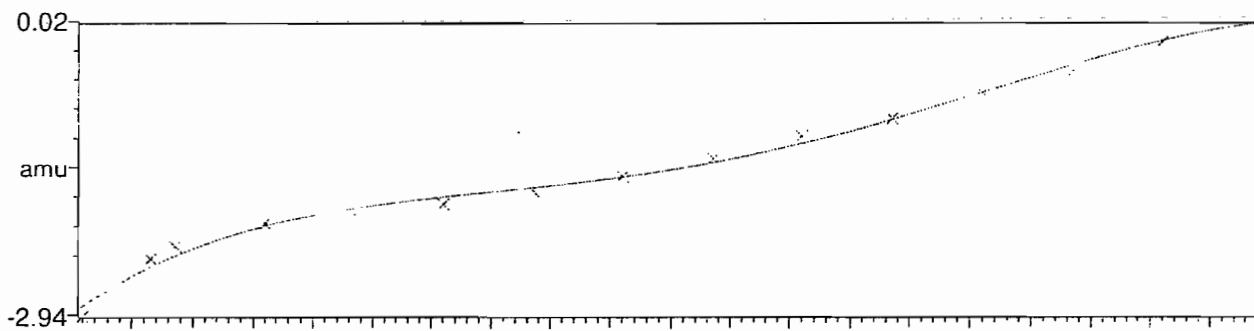
15 matches of 15 tested references



Reference file: Naics2

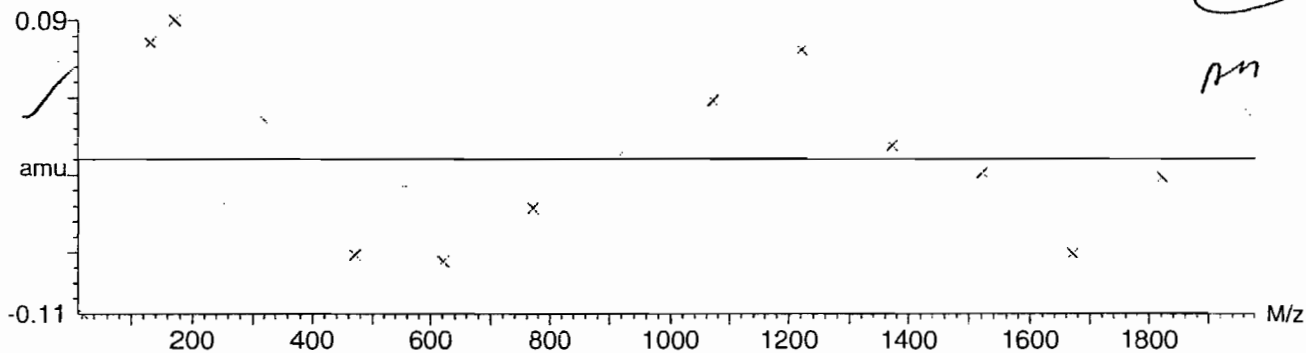


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $2.048910 \times 10^{-9} \pm 0.057803$



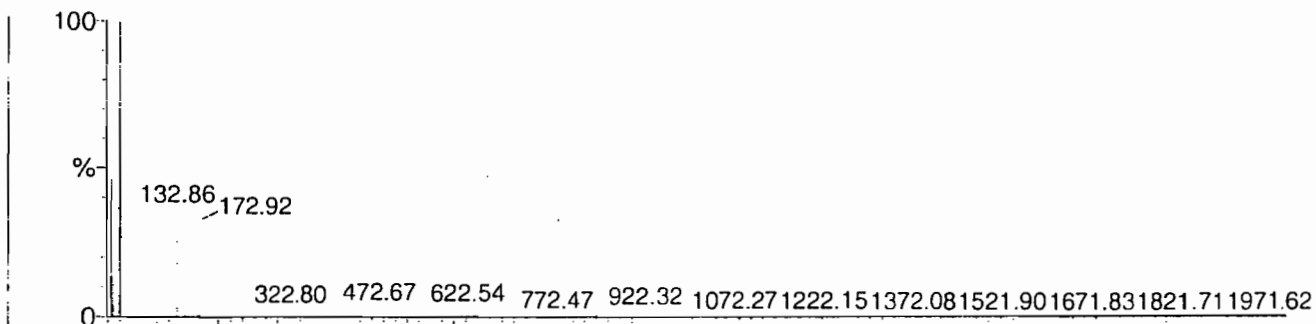
Calibration Report - MS2 Scanning

Page 1 of 1

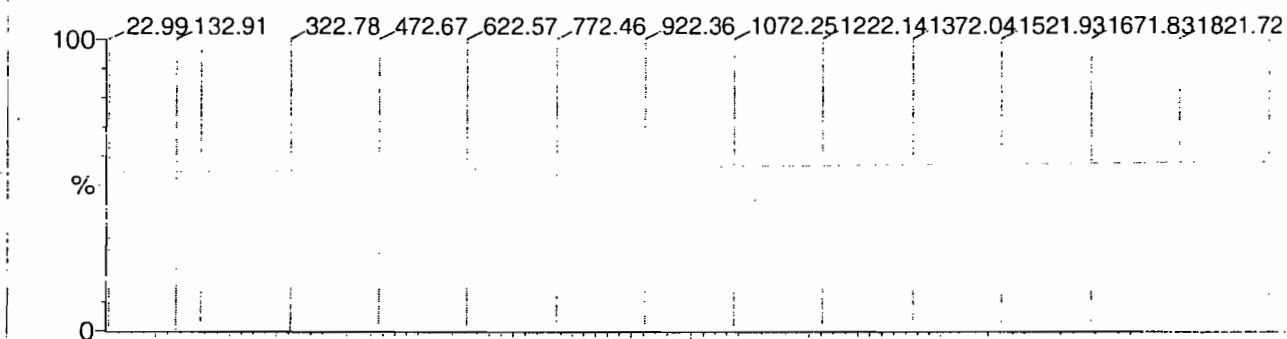
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

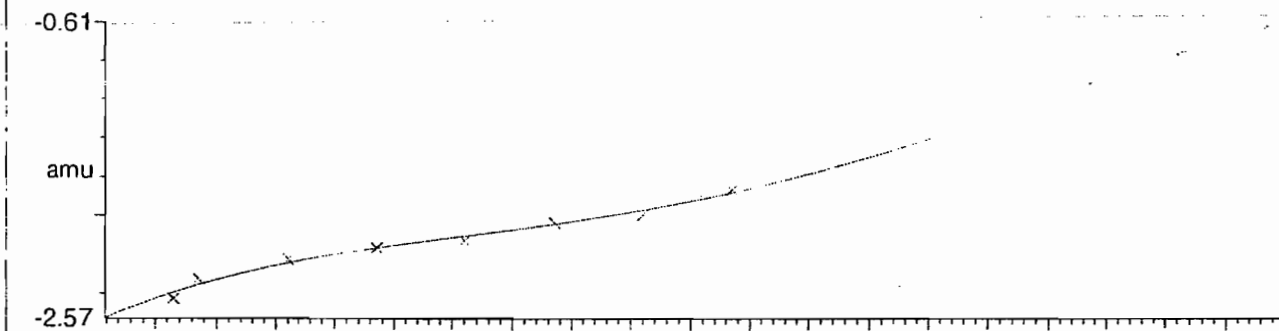
14 matches of 15 tested references



Reference file: Naics2

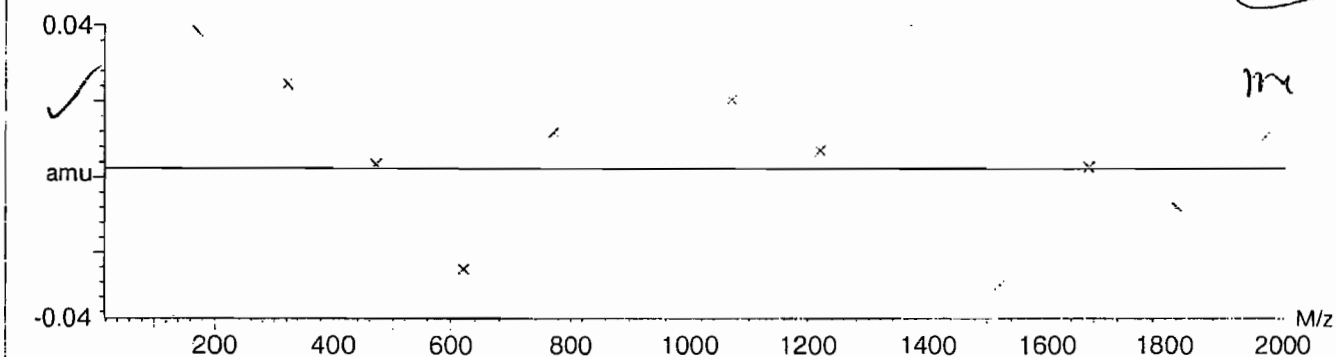


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-2.623502 \times 10^{-9} \pm 0.025622$



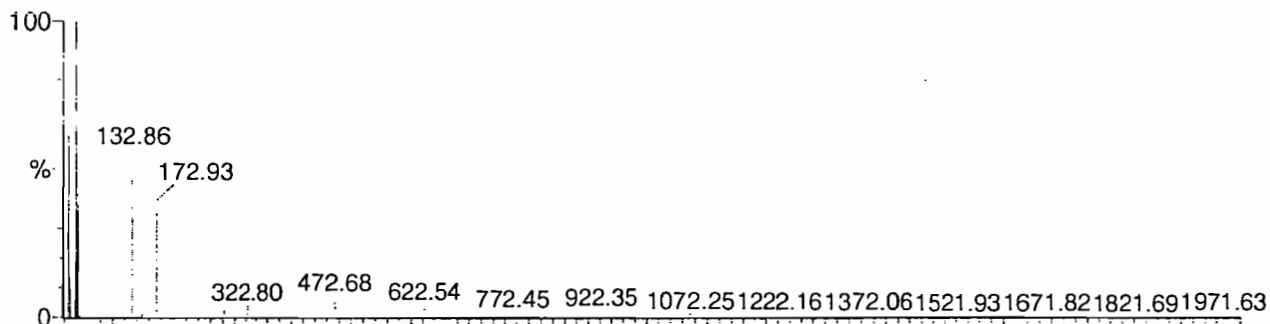
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

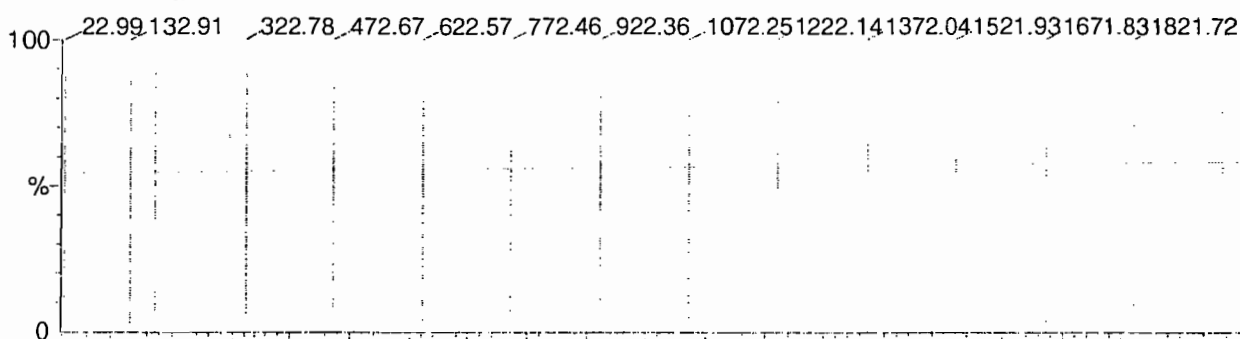
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

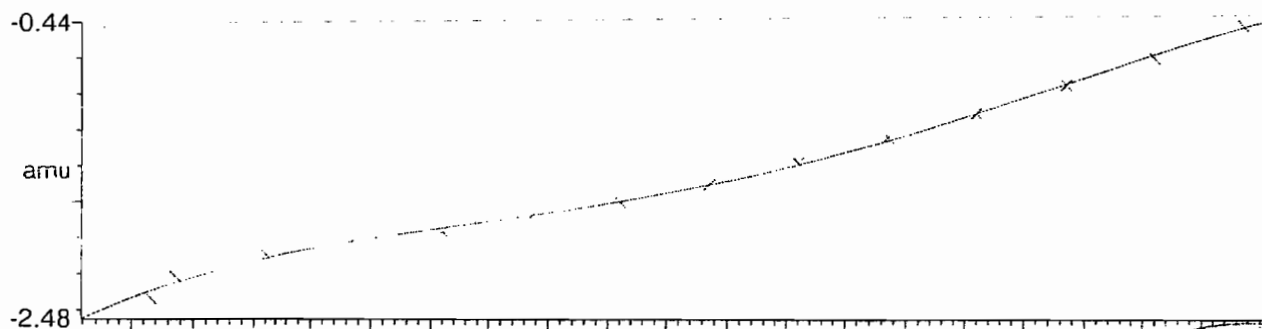
14 matches of 15 tested references



Reference file: Naics2

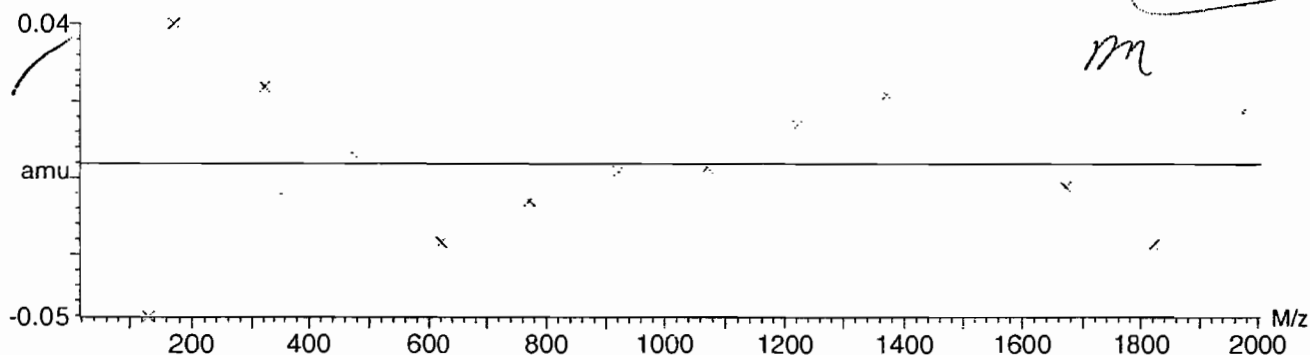


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $-6.785350 \times 10^{-9} \pm 0.023134$

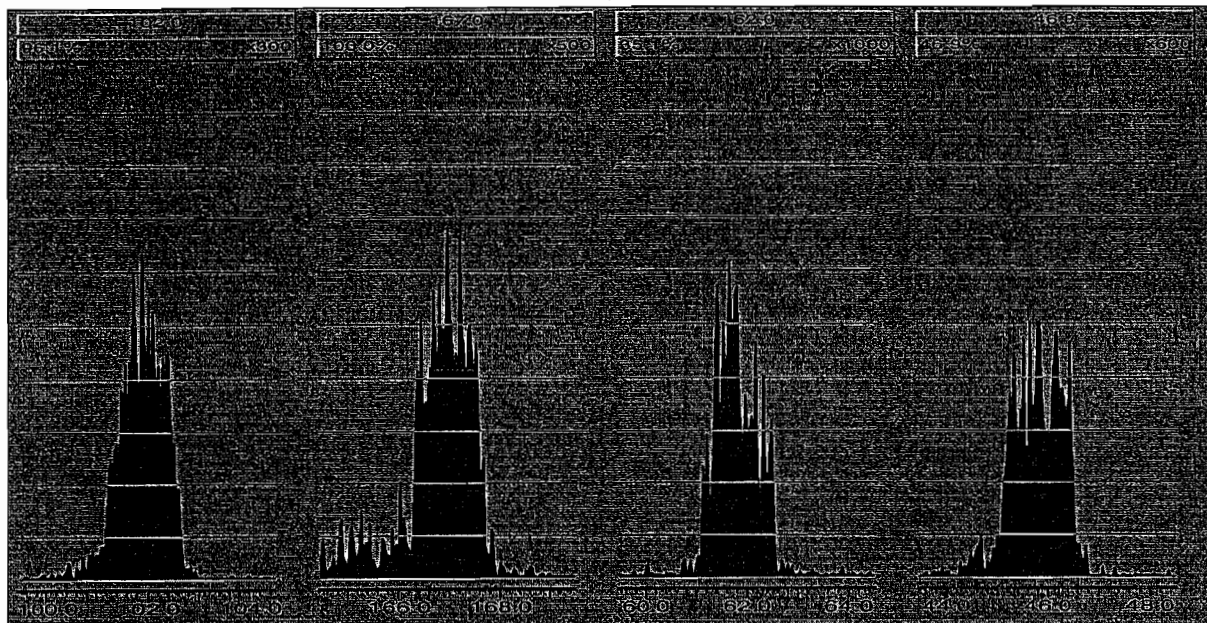


Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\NEW\_EXP.PROVACQUDB\explosives04.IPR

Printed : Sun Mar 14 12:47:33 2010

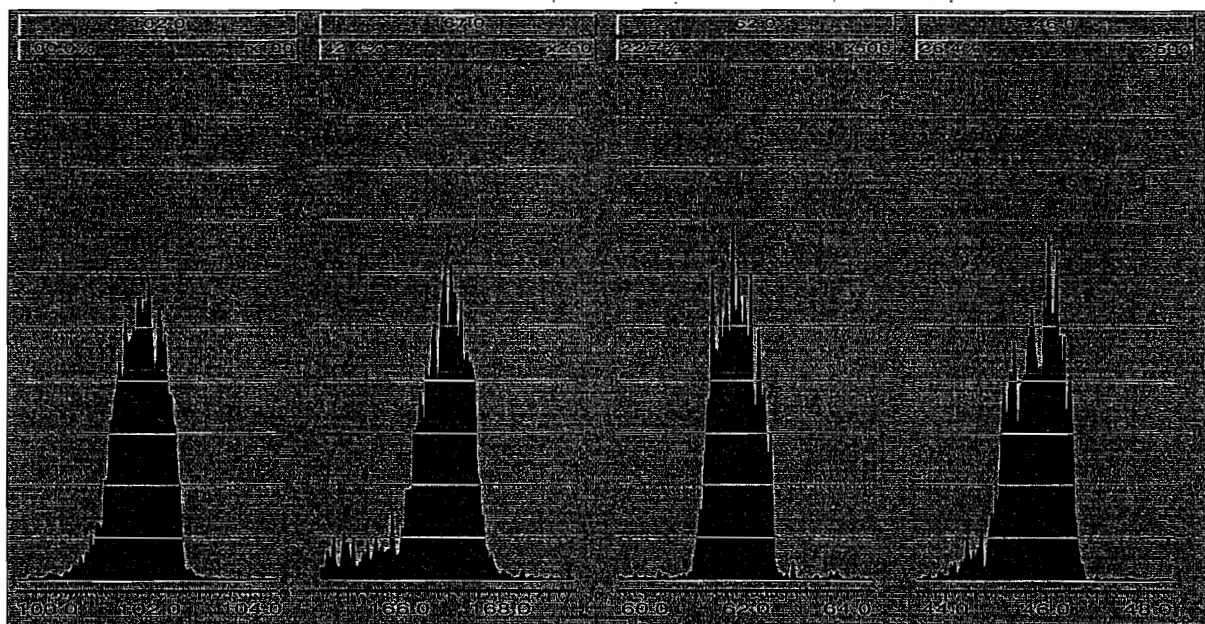


Quattro Micro Tune Parameters

Page 1

Parameter File: C:\MASSLYNX\NEW\_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Fri Mar 19 12:20:57 2010





# High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

|                      | Analysis Date/Time | GEL Data File | IS1 (DNB) (Area) # | RT (min) # | IS2 (DNT) (Area) # | RT2 (min) # |
|----------------------|--------------------|---------------|--------------------|------------|--------------------|-------------|
|                      |                    |               | 3364.442           | 12.175     | 19055.667          | 17.644      |
| Upper Limit          |                    |               | 4373.7746          | 12.675     | 24772.3671         | 18.144      |
| Lower Limit          |                    |               | 2355.1094          | 11.675     | 13338.9669         | 17.144      |
| MB for batch 955064  | 16-mar-10 04:50    | EXP0314078a   | 3528.74            | 12.17      | 20031.3            | 17.641      |
| LCS for batch 955064 | 16-mar-10 05:19    | EXP0314079a   | 3687.47            | 12.17      | 20843.3            | 17.64       |

|              | Analysis Date/Time | GEL Data File | IS1 (DNB) (Area) # | RT (min) # | IS2 (DNT) (Area) # | RT2 (min) # |
|--------------|--------------------|---------------|--------------------|------------|--------------------|-------------|
|              |                    |               | 8208.162           | 12.135     | 46566.233          | 17.593      |
| Upper Limit  |                    |               | 10670.6106         | 12.635     | 60536.1029         | 18.093      |
| Lower Limit  |                    |               | 5745.7134          | 11.635     | 32596.3631         | 17.093      |
| RE36-10-7427 | 20-mar-10 01:15    | EXP0319018a   | 7309.47            | 12.136     | 45298.5            | 17.597      |
| RE36-10-7423 | 20-mar-10 01:45    | EXP0319019a   | 7901.56            | 12.136     | 45425              | 17.597      |
| RE36-10-7428 | 20-mar-10 02:14    | EXP0319020a   | 7062.8             | 12.136     | 43814.8            | 17.597      |
| RE36-10-7424 | 20-mar-10 02:44    | EXP0319021a   | 7074.21            | 12.136     | 42624.2            | 17.597      |

IS1 (DNB) = 1,3-Dinitrobenzene-d4

IS2 (DNT) = 2,6-Dinitrotoluene-d2

Area Upper Limit = + 30% of average IS area from multipoint calibration

Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT

RT Lower Limit = -0.5 of average multipoint RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits

# SAMPLE DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7427

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358001

Sample Amount 2

Moisture: 36.4

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319018a

Date Analyzed: 20-MAR-10 01:15

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument X Concentrated Extract Volume X Dilution  
Value Sample Amount Factor

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Mar 20 11:06:08 2010, Page 35 of 73

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0319018a

Date: 20-Mar-2010

Time: 01:15:32

ID: 247358001

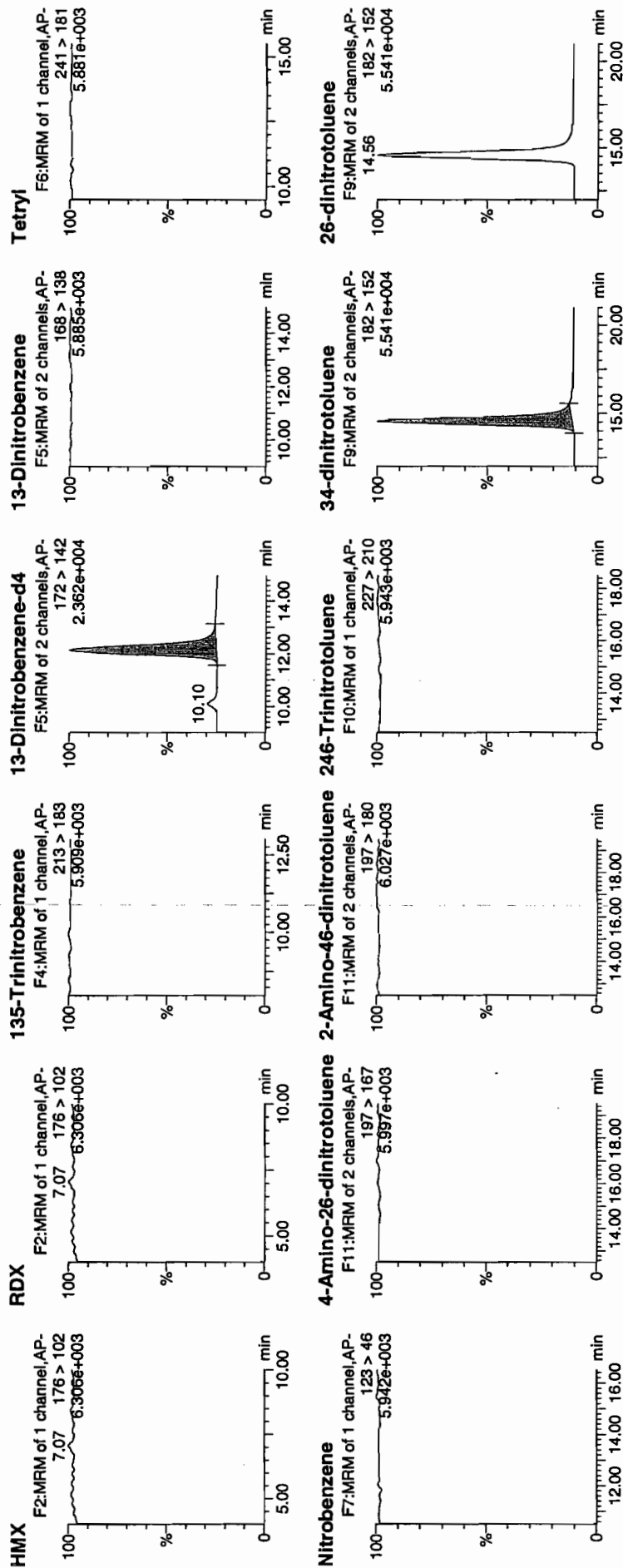
Vial: 1:5,F

WAT  
3/22/10

WAT/955065 / 21

Page 677 of 942

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WAT  
3/22/10

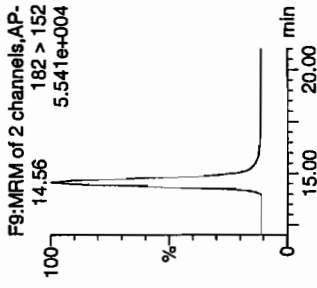
# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

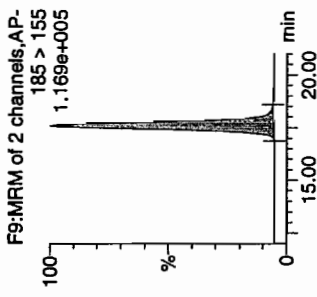
Printed: Sat Mar 20 11:06:08 2010, Page 36 of 73

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

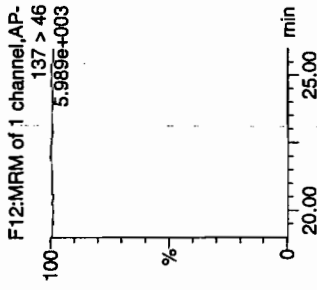
## 24-dinitrotoluene



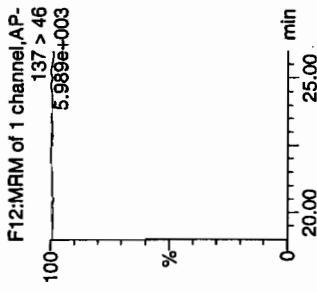
## 26-dinitrotoluene-d3



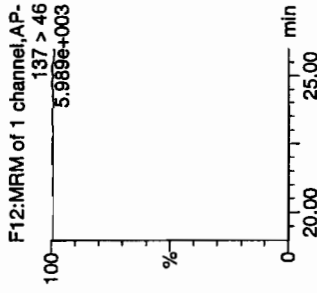
## 2-Nitrotoluene



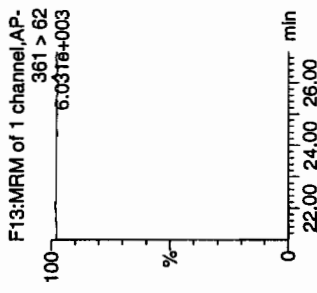
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



| ID | Name | Mass | Area | Height | Area | Height | Response | Peak | Mod Date | Mod Time | % Rec | Label | SN |
|----|------|------|------|--------|------|--------|----------|------|----------|----------|-------|-------|----|
|----|------|------|------|--------|------|--------|----------|------|----------|----------|-------|-------|----|

|           |                           |           |           |           |           |           |           |    |           |           |           |       |        |
|-----------|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----|-----------|-----------|-----------|-------|--------|
| 247358001 | HMx                       | 176 > 102 | 7309.467  | 7309.467  | 7309.467  | 7309.467  | 7309.467  | bb | 7309.467  | 445.2561  | 89.1      | -10.9 | 500.8  |
| 247358001 | RDX                       | 176 > 102 | 7309.467  | 7309.467  | 7309.467  | 7309.467  | 7309.467  | bb | 7309.467  | 230.9844  | 92.4      | -7.6  | 1360.3 |
| 247358001 | 135-Trinitrobenzene       | 213 > 183 | 7309.467  | 7309.467  | 7309.467  | 7309.467  | 7309.467  | bb | 7309.467  | 486.3882  | 97.3      | -2.7  | 2135.9 |
| 247358001 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.14     | 7309.467  | 7309.467  | 7309.467  | 7309.467  | bb | 7309.467  | 23352.668 | 257.764   | bb    |        |
| 247358001 | 13-Dinitrobenzene         | 168 > 138 | 7309.467  | 7309.467  | 7309.467  | 7309.467  | 7309.467  | bb | 7309.467  | 23352.668 | 257.764   | bb    |        |
| 247358001 | Tetryl                    | 241 > 181 | 7309.467  | 7309.467  | 7309.467  | 7309.467  | 7309.467  | bb | 7309.467  | 23352.668 | 257.764   | bb    |        |
| 247358001 | Nitrobenzene              | 123 > 46  | 7309.467  | 7309.467  | 7309.467  | 7309.467  | 7309.467  | bb | 7309.467  | 23352.668 | 257.764   | bb    |        |
| 247358001 | 4-Amino-26-dinitrotoluene | 197 > 167 | 14.56     | 23352.668 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 2-Amino-46-dinitrotoluene | 197 > 180 | 14.56     | 23352.668 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 246-Trinitrotoluene       | 227 > 210 | 14.56     | 23352.668 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 34-dinitrotoluene         | 182 > 152 | 17.60     | 45298.543 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 26-dinitrotoluene         | 182 > 152 | 17.60     | 45298.543 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 24-dinitrotoluene         | 182 > 152 | 17.60     | 45298.543 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 26-dinitrotoluene-d3      | 185 > 155 | 17.60     | 45298.543 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 2-Nitrotoluene            | 137 > 46  | 45298.543 | 45298.543 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 4-Nitrotoluene            | 137 > 46  | 45298.543 | 45298.543 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | 3-Nitrotoluene            | 137 > 46  | 45298.543 | 45298.543 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |
| 247358001 | PETN                      | 361 > 62  | 45298.543 | 45298.543 | 45298.543 | 45298.543 | 45298.543 | bb | 45298.543 | 45298.543 | 45298.543 | bb    |        |

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7427

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358001

Sample Amount 2

Moisture: 36.4

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050114.wiff

Date Analyzed: 06-MAR-10 22:41

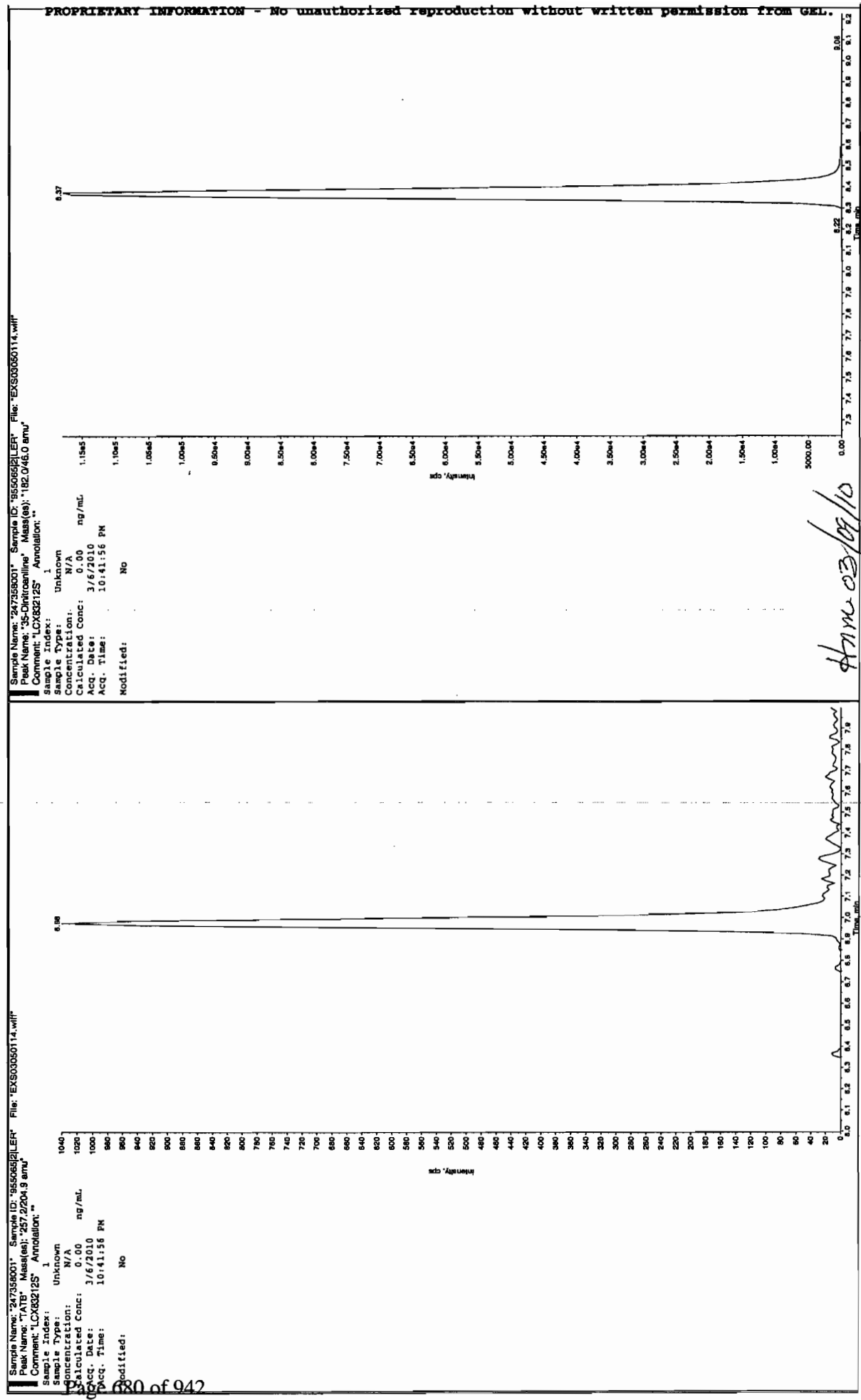
Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

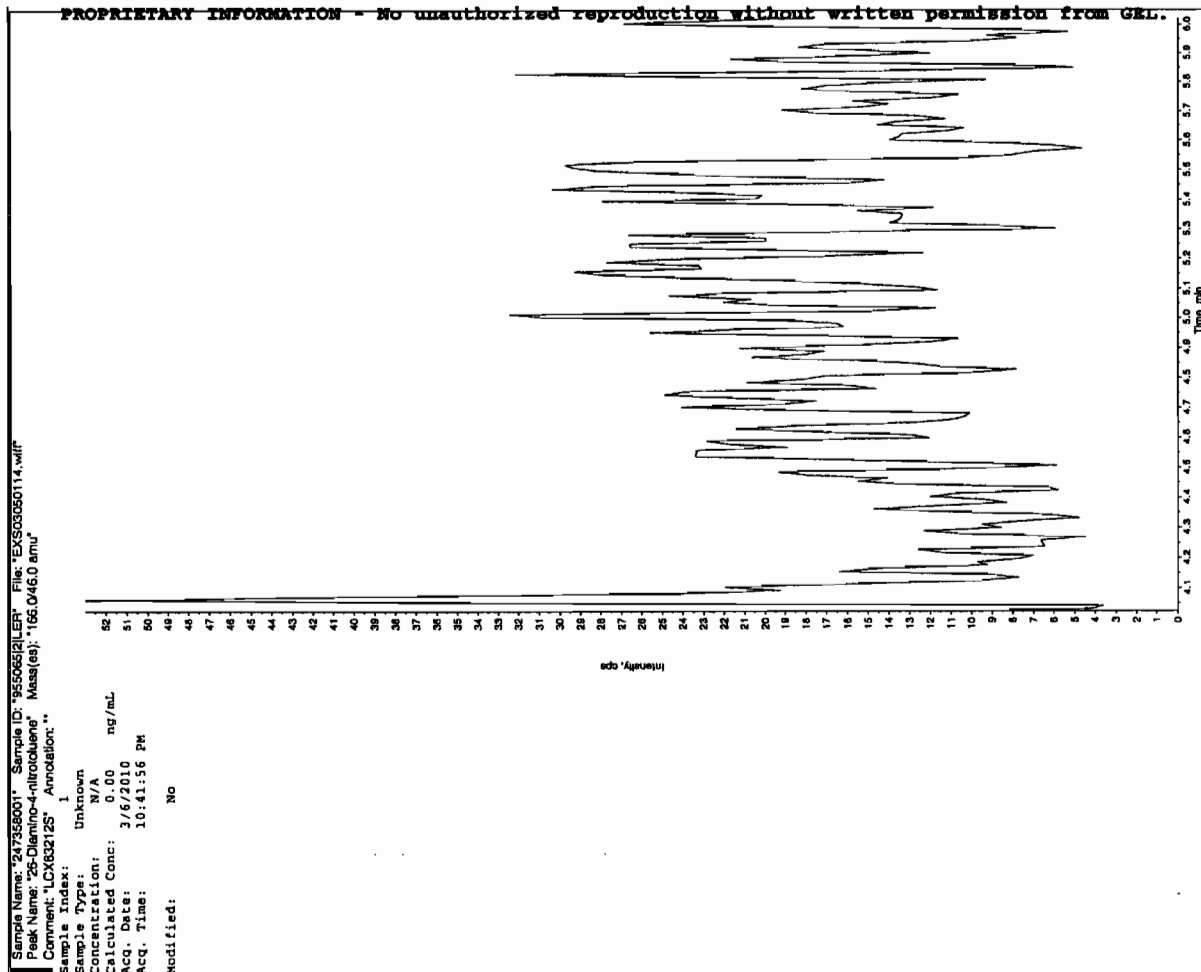
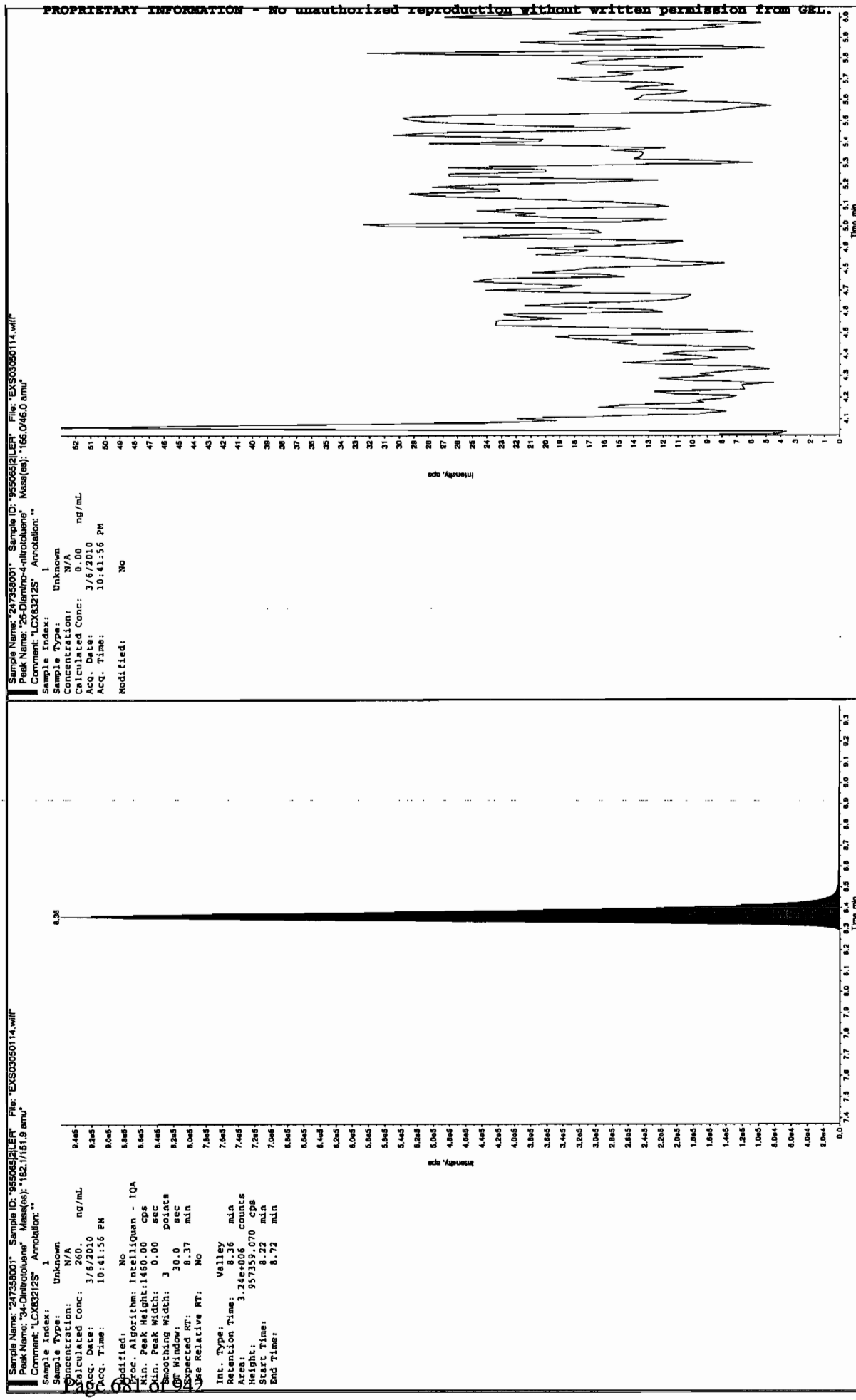
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Don 3/9/10



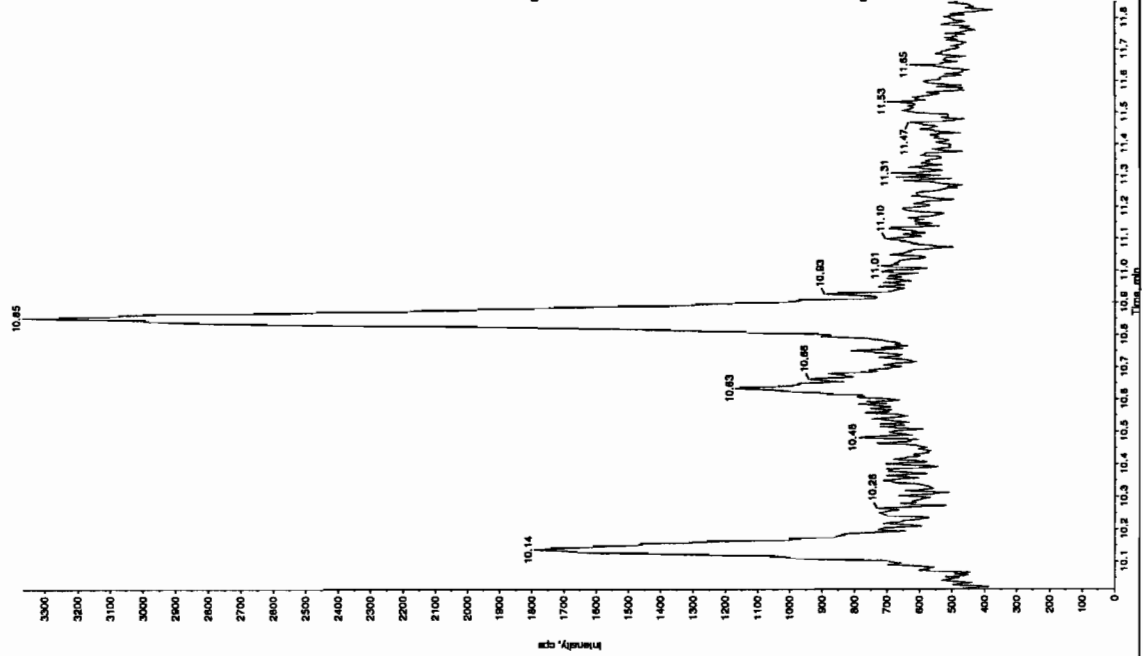
Amc 03/09/10





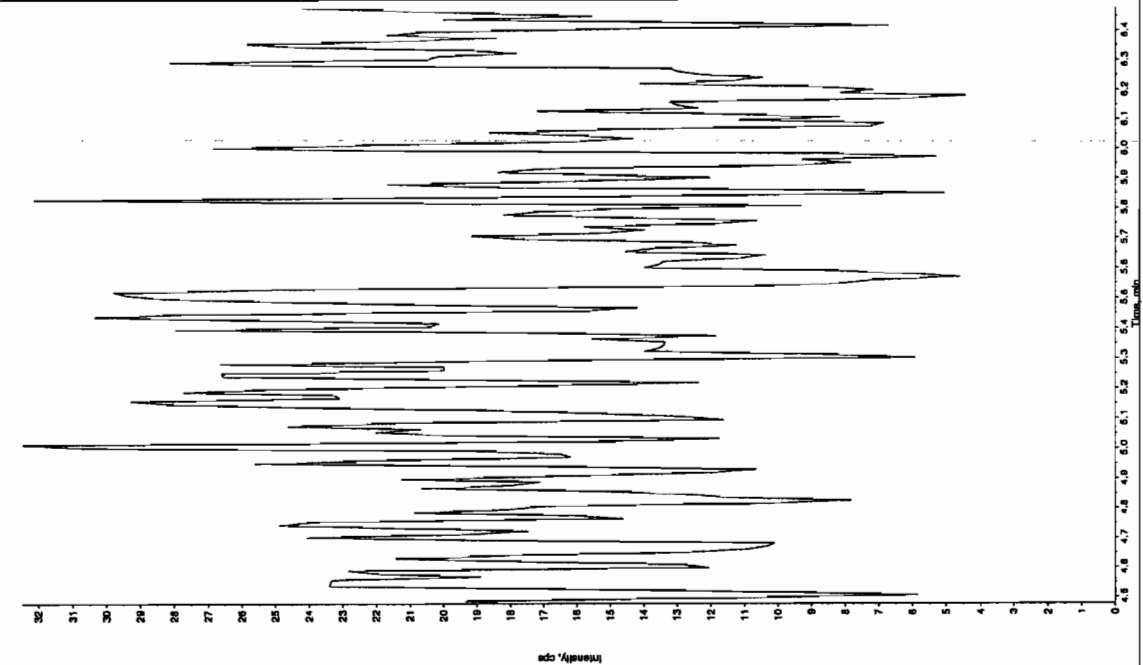
Sample Name: "247358001" Sample ID: "955055(2)LEP" File: "EXS00050114.wif"  
 Peak Name: "bis(o-craay) phosphate" Mass(es): "359.1/91.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 10:41:56 PM  
 Modified: No



Sample Name: "247358001" Sample ID: "955055(2)LEP" File: "EXS00050114.wif"  
 Peak Name: "24-Diamino-6-nitrobenzyl" Mass(es): "186.0/46.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 10:41:56 PM  
 Modified: No



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7423

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358002

Sample Amount 2

Moisture: 51.1

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319019a

Date Analyzed: 20-MAR-10 01:45

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

|                  |   |                                    |   |                 |
|------------------|---|------------------------------------|---|-----------------|
| Instrument Value | X | <u>Concentrated Extract Volume</u> | X | Dilution Factor |
|                  |   | <u>Sample Amount</u>               |   |                 |

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Mar 20 11:06:08 2010, Page 37 of 73

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0319019a

Date: 20-Mar-2010

Time: 01:45:00

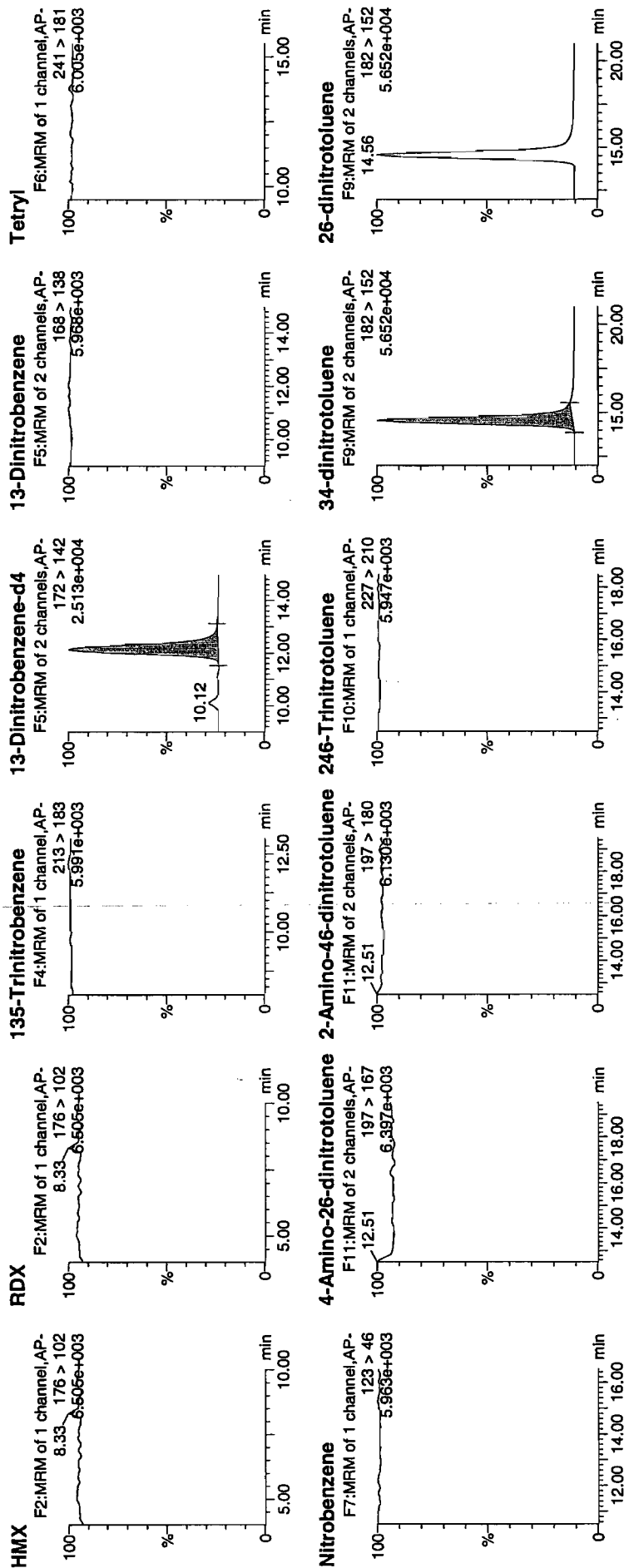
ID: 247358002

Vial: 1:6,A

not  
3/20/10

LAU 955065 / 8022 / 21

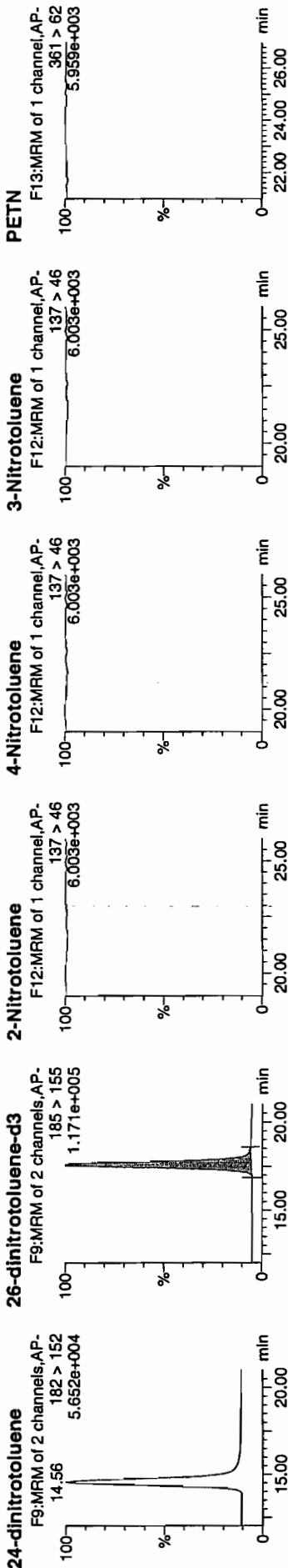
Page 684 of 942



time  
3/20/10

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

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| ID        | Name                      | Area      | Height    | Response  | Area | Height | Area | Height | Area | Height | Area | Height |
|-----------|---------------------------|-----------|-----------|-----------|------|--------|------|--------|------|--------|------|--------|
| 247358002 | HMX                       | 176 > 102 | 7901.556  |           |      |        |      |        |      |        |      |        |
| 247358002 | RDX                       | 176 > 102 | 7901.556  |           |      |        |      |        |      |        |      |        |
| 247358002 | 135-Trinitrobenzene       | 213 > 183 | 7901.556  |           |      |        |      |        |      |        |      |        |
| 247358002 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.14     | 7901.556  |      |        |      |        |      |        |      |        |
| 247358002 | 13-Dinitrobenzene         | 168 > 138 | 7901.556  |           |      |        |      |        |      |        |      |        |
| 247358002 | Tetryl                    | 241 > 181 | 7901.556  |           |      |        |      |        |      |        |      |        |
| 247358002 | Nitrobenzene              | 123 > 46  | 45425.035 |           |      |        |      |        |      |        |      |        |
| 247358002 | 4-Amino-26-dinitrotoluene | 197 > 167 | 45425.035 |           |      |        |      |        |      |        |      |        |
| 247358002 | 2-Amino-46-dinitrotoluene | 197 > 180 | 45425.035 |           |      |        |      |        |      |        |      |        |
| 247358002 | 246-Trinitrotoluene       | 227 > 210 | 45425.035 |           |      |        |      |        |      |        |      |        |
| 247358002 | 34-dinitrotoluene         | 182 > 152 | 14.56     | 23827.104 |      |        |      |        |      |        |      |        |
| 247358002 | 26-dinitrotoluene         | 182 > 152 | 182 > 152 | 45425.035 |      |        |      |        |      |        |      |        |
| 247358002 | 24-dinitrotoluene         | 182 > 152 | 182 > 152 | 45425.035 |      |        |      |        |      |        |      |        |
| 247358002 | 26-dinitrotoluene-d3      | 185 > 155 | 17.60     | 45425.035 |      |        |      |        |      |        |      |        |
| 247358002 | 2-Nitrotoluene            | 137 > 46  | 45425.035 |           |      |        |      |        |      |        |      |        |
| 247358002 | 4-Nitrotoluene            | 137 > 46  | 45425.035 |           |      |        |      |        |      |        |      |        |
| 247358002 | 3-Nitrotoluene            | 137 > 46  | 45425.035 |           |      |        |      |        |      |        |      |        |
| 247358002 | PETN                      | 361 > 62  | 45425.035 |           |      |        |      |        |      |        |      |        |

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7423

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358002

Sample Amount 2

Moisture: 51.1

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050115.wiff

Date Analyzed: 06-MAR-10 22:57

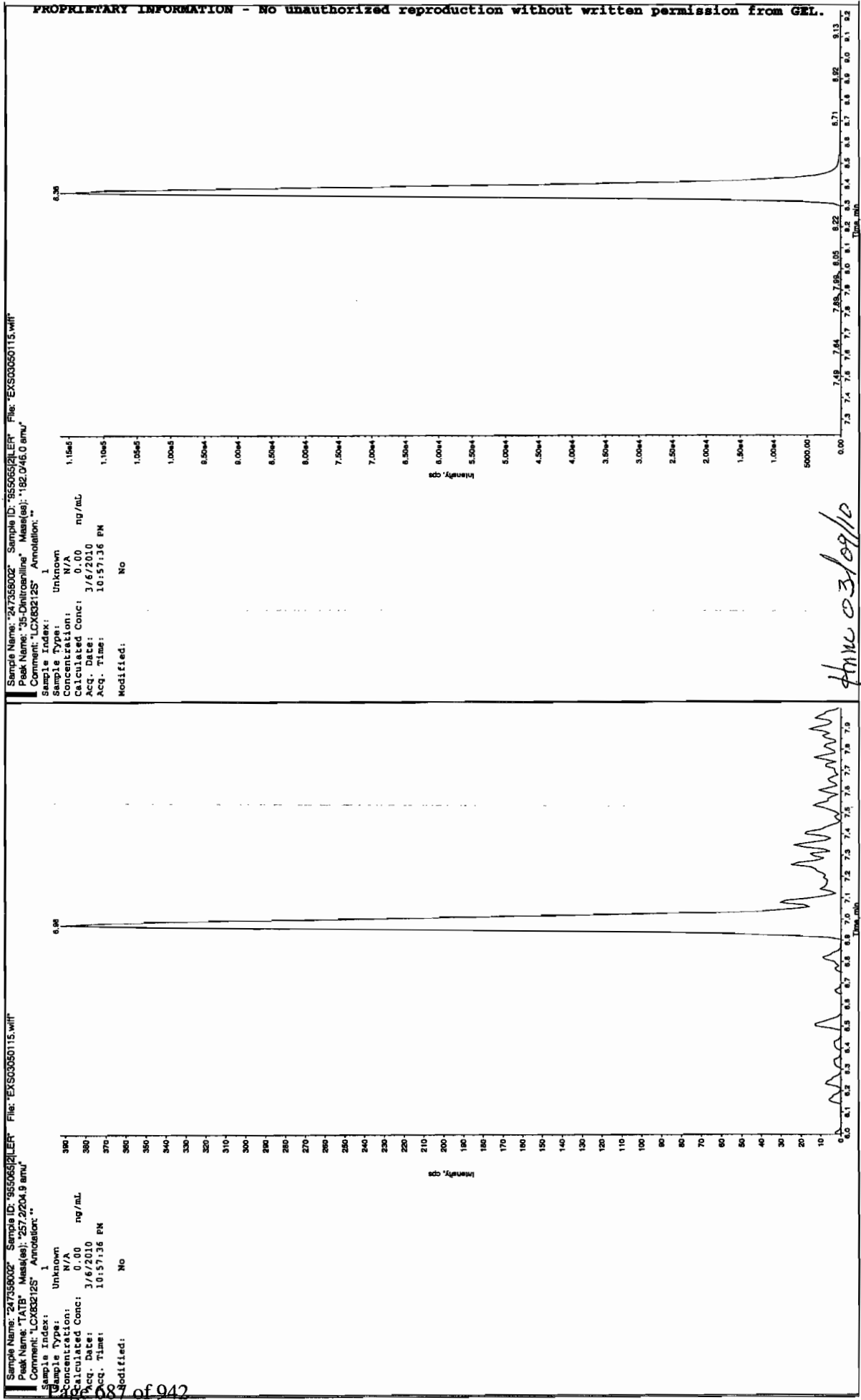
Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

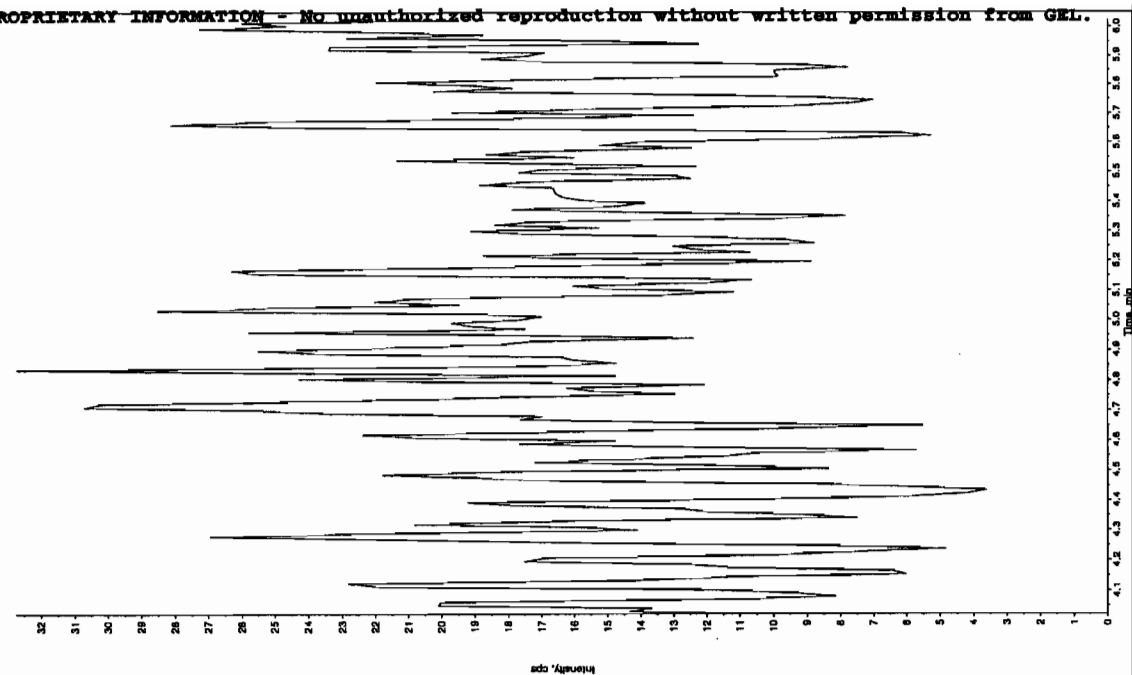
Jan 31/010



Jan 03/09/10

Sample Name: 247358022 Sample ID: 555050115.wif  
 Peak Name: 26-Diethyl-4-nitrobenzyl Mass(es): 166.0450 amu  
 Comment: LCX8212S Annotation: "

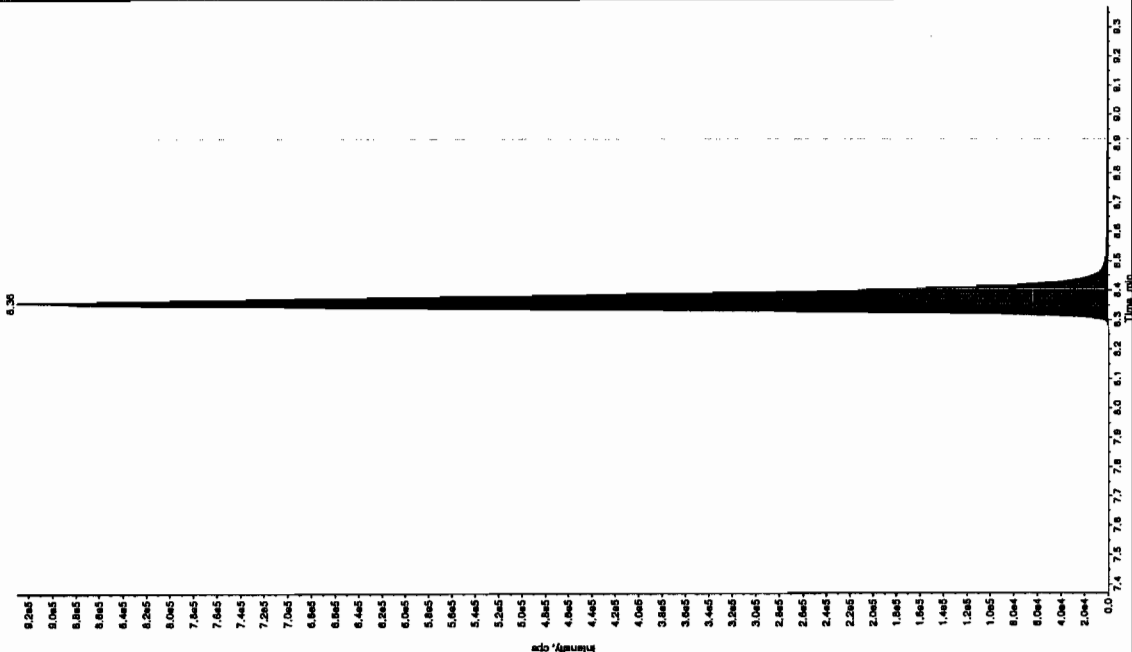
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 3/6/2010  
 Acq. Date: 10:57:36 PM  
 Acq. Time: Modified: No



Sample Name: 247358022 Sample ID: 555050115.wif  
 Peak Name: 26-Diethyl-4-nitrobenzyl Mass(es): 166.0450 amu  
 Comment: LCX8212S Annotation: "

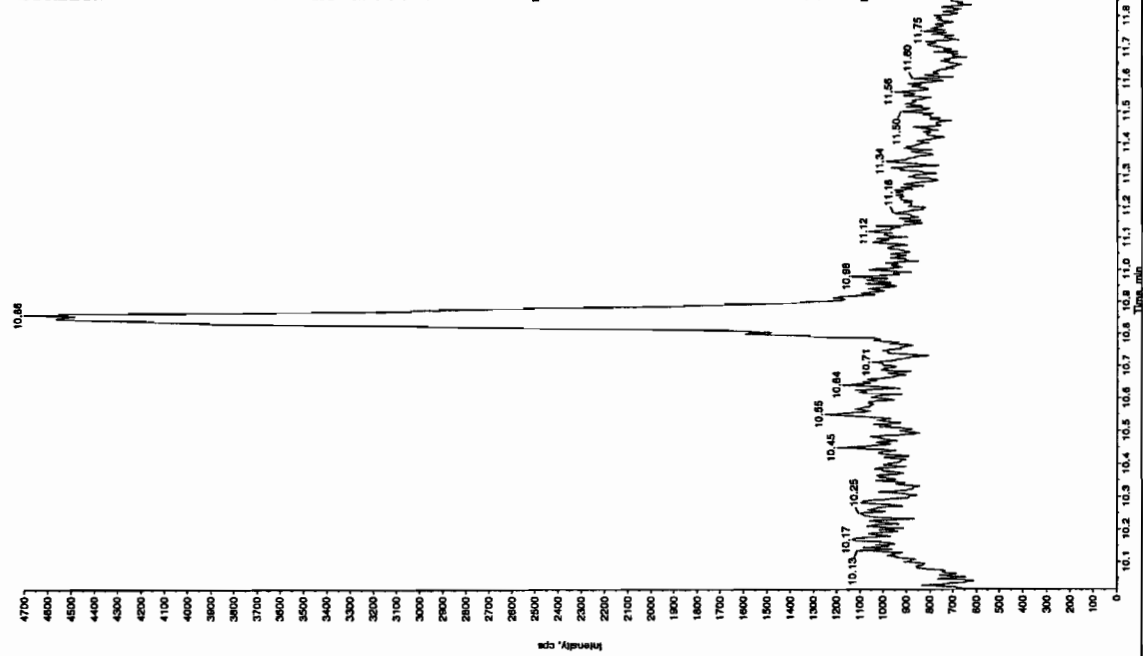
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 255.  
 Acq. Date: 3/6/2010  
 Acq. Time: 10:57:36 PM  
 Modified: No

Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Ser. Window: 30.0 sec  
 Expected RT: 8.37 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.36 min  
 Area: 3.18e+006 counts  
 Height: 323712.341 cps  
 Start Time: 8.27 min  
 End Time: 8.71 min



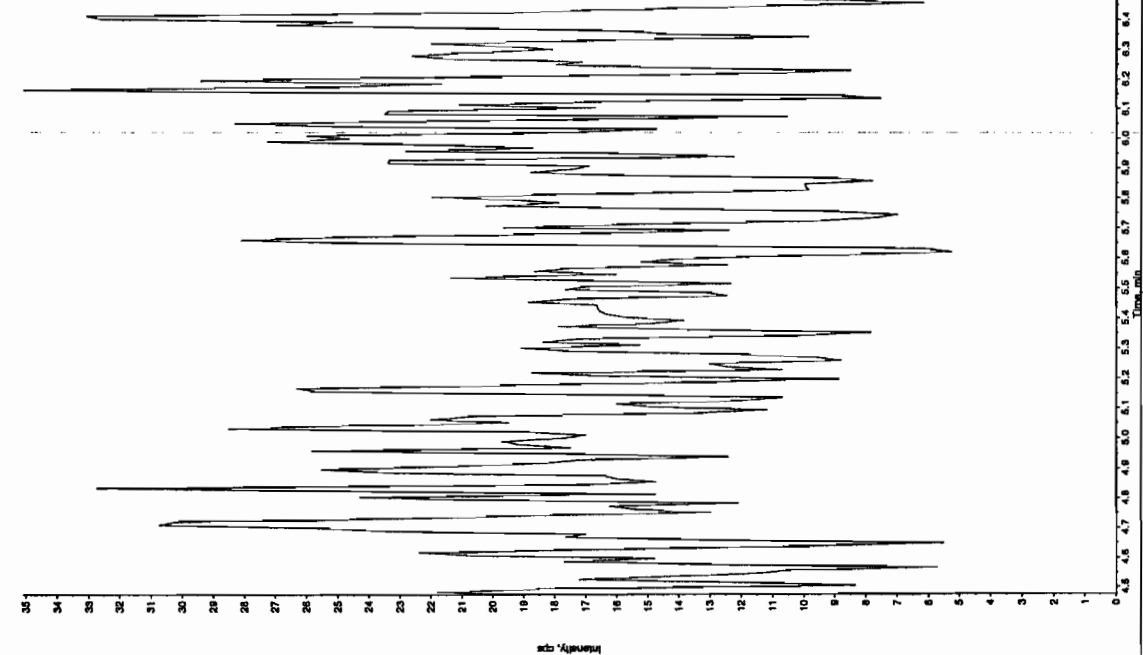
Sample Name: "24755802" Sample ID: "955055115.wif" File: "EX50050115.wif"  
 Peak Name: "195(ox-tran) phosphatid" Mass(es): "353.191.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 10:57:36 PM  
 Modified: No



Sample Name: "24755802" Sample ID: "955055115.wif" File: "EX50050115.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 10:57:36 PM  
 Modified: No





1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7428

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358003

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319020a

Date Analyzed: 20-MAR-10 02:14

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

|                  |   |                                    |   |                 |
|------------------|---|------------------------------------|---|-----------------|
| Instrument Value | X | <u>Concentrated Extract Volume</u> | X | Dilution Factor |
|                  |   | <u>Sample Amount</u>               |   |                 |

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Name: C:\MASSLYN\NEW\_EXP.PRO\Data\EXP0319020a

Date: 20-Mar-2010

Time: 02:14:31

ID: 247358003

Vial: 1:6,B

**XMH**

F2:MIRM of 1 channel, AP-  
100 176 > 102  
6.028e+003

**RDX**

F2:MRM of 1 channel, AP-  
176 > 102  
6.028e+003

## 135-Trinitrobenzene

F4:MRM of 1 channel, AP-  
213 > 183  
5.782e+003

13-Dinitrobenzene-d4

F5:MRM of 2 channels,AP-  
172 > 142  
2.286e+004

### 1,3-Dinitrobenzene

F5:MRM of 2 channels,AP-  
168 > 138  
5.781e+003

Tetracycline

F6:MRM of 1 channel, AP-  
241 > 181  
5.753e+003

## Nitrobenzene

F7:MRM of 1 channel,AP-  
123 > 46  
5.737e+003

## 4-Amino-2,6-dinitrotoluene

F11:MRM of 2 channels,AP-  
197 > 167  
5.816e+003

## 2-Amino-4,6-dinitrotoluene

F11:MRM of 2 channels,AP-  
197 > 180  
5.855e+003

## 246-Trinitrotoluene

F10:MRM of 1 channel,AP-  
227 > 210  
5.754e+003

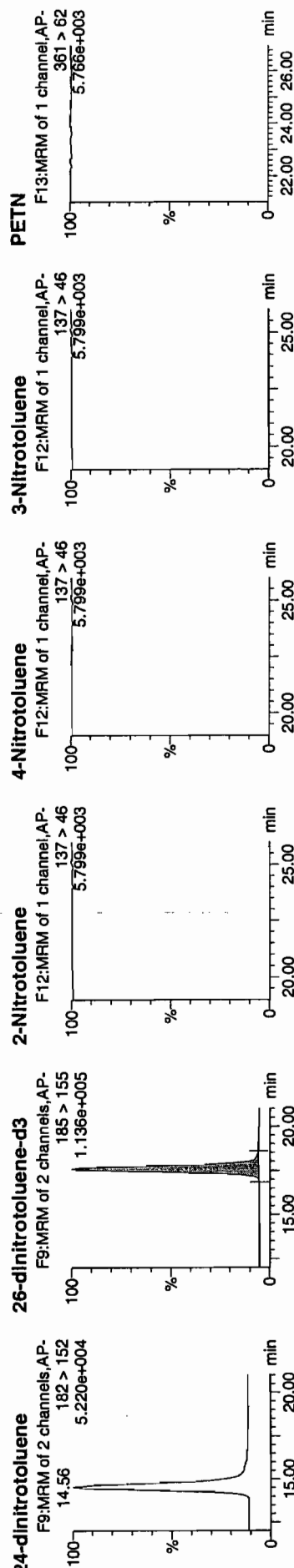
### 3,4-dinitrotoluene

F9:MRM of 2 channels,AP-  
182 > 152  
5.220e+004

## 26-dinitrotoluene

F9:MRM of 2 channels, AP-  
182 > 152  
14.56  
5.220e+004

03/22/10



| Name                      | Trace     | RT    | Area      | SArea     | Abs Resp  | Response  | Flags | Mol Weight | Norm     | % Rec | % Dev | SN     |
|---------------------------|-----------|-------|-----------|-----------|-----------|-----------|-------|------------|----------|-------|-------|--------|
| HMX                       | 176 > 102 |       |           | 7062.797  |           |           |       |            |          |       |       |        |
| RDX                       | 176 > 102 |       |           | 7062.797  |           |           |       |            |          |       |       |        |
| 135-Trinitrobenzene       | 213 > 183 |       |           | 7062.797  |           |           |       |            |          |       |       |        |
| 13-Dinitrobenzene-d4      | 172 > 142 | 12.14 | 7062.797  |           | 7062.797  | 7062.797  | bb    |            | 430.2302 | 86.0  | -14.0 | 398.4  |
| 13-Dinitrobenzene         | 168 > 138 |       |           | 7062.797  |           |           |       |            |          |       |       |        |
| Tetryl                    | 241 > 181 |       |           | 7062.797  |           |           |       |            |          |       |       |        |
| Nitrobenzene              | 123 > 46  |       |           | 7062.797  |           |           |       |            |          |       |       |        |
| 4-Amino-26-dinitrotoluene | 197 > 167 |       |           | 43814.844 |           |           |       |            |          |       |       |        |
| 2-Amino-46-dinitrotoluene | 197 > 180 |       |           | 43814.844 |           |           |       |            |          |       |       |        |
| 246-Trinitrotoluene       | 227 > 210 |       |           | 43814.844 |           |           |       |            |          |       |       |        |
| 34-dinitrotoluene         | 182 > 152 | 14.56 | 22200.473 | 43814.844 | 22200.473 | 253.344   | bb    |            | 227.0238 | 90.8  | -9.2  | 1278.8 |
| 26-dinitrotoluene         | 182 > 152 |       |           | 43814.844 |           |           | MM-   | 20-Mar-10  |          |       |       |        |
| 24-dinitrotoluene         | 182 > 152 |       |           | 43814.844 |           |           |       |            |          |       |       |        |
| 26-dinitrotoluene-d3      | 185 > 155 | 17.60 | 43814.844 |           | 43814.844 | 43814.844 | bb    |            | 470.4572 | 94.1  | -5.9  | 5923.5 |
| 2-Nitrotoluene            | 137 > 46  |       |           | 43814.844 |           |           |       |            |          |       |       |        |
| 4-Nitrotoluene            | 137 > 46  |       |           | 43814.844 |           |           |       |            |          |       |       |        |
| 3-Nitrotoluene            | 137 > 46  |       |           | 43814.844 |           |           |       |            |          |       |       |        |
| PETN                      | 361 > 62  |       |           | 43814.844 |           |           |       |            |          |       |       |        |

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7428

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358003

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050116.wiff

Date Analyzed: 06-MAR-10 23:13

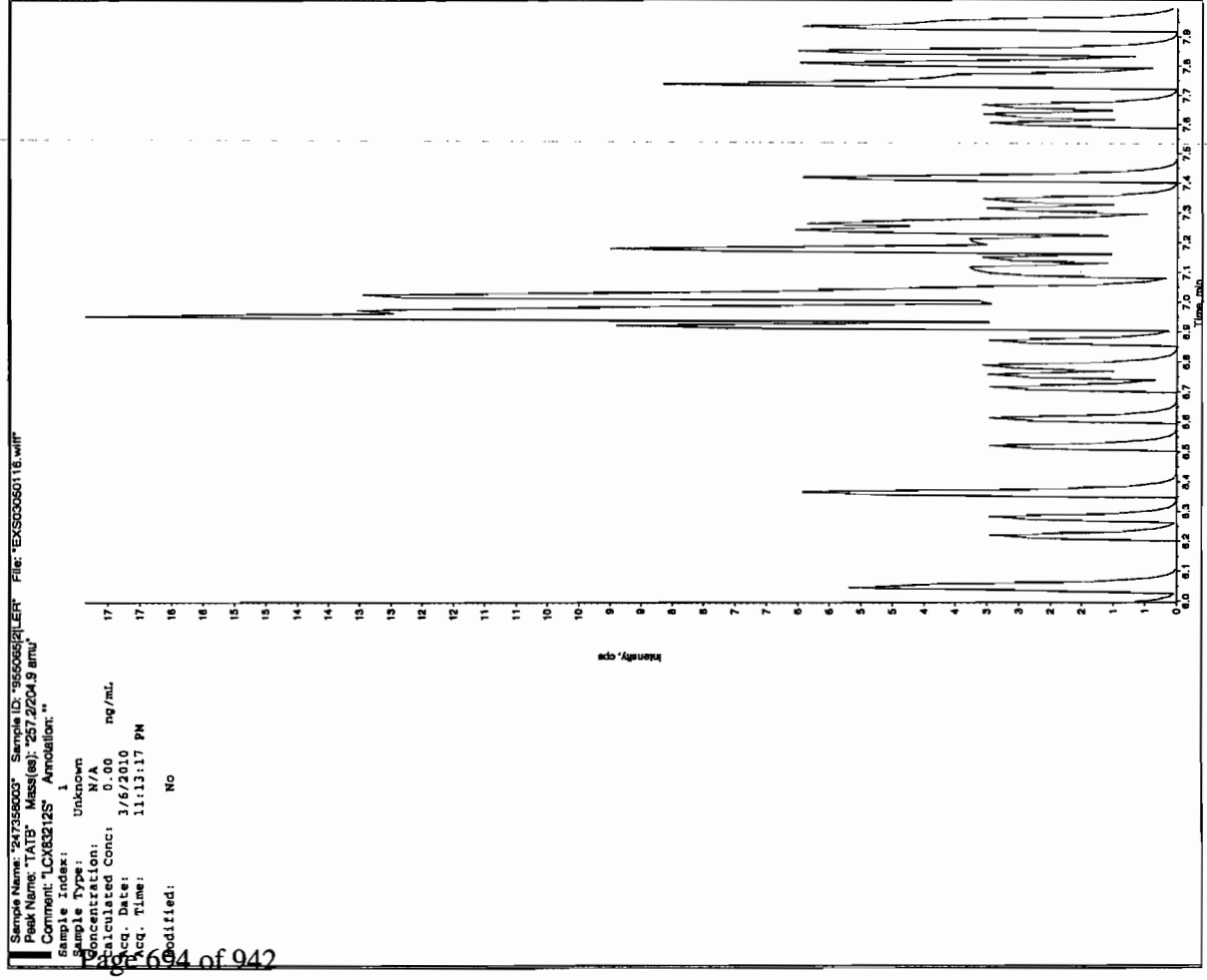
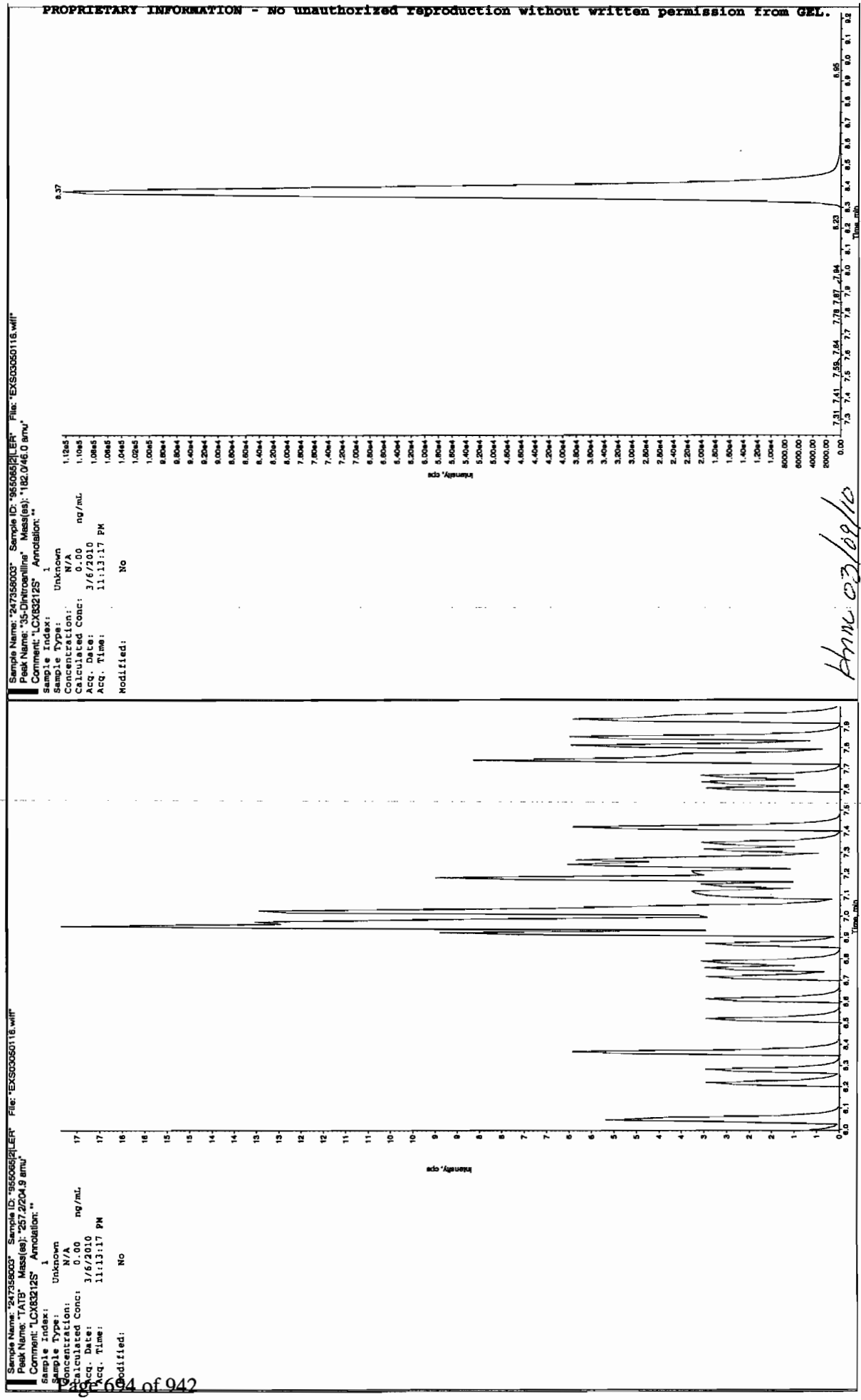
Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

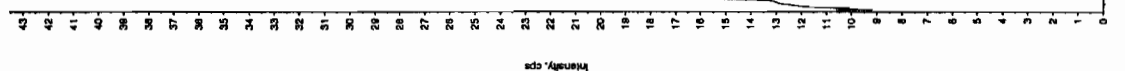
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 31/10



Sample Name: "247358003" Sample ID: "955065121ER" File: "EXS03060116.wiff"  
Peak Name: "26-Diantho-4-nitrotoluene" Mass(es): "165.0/46.0 amu"

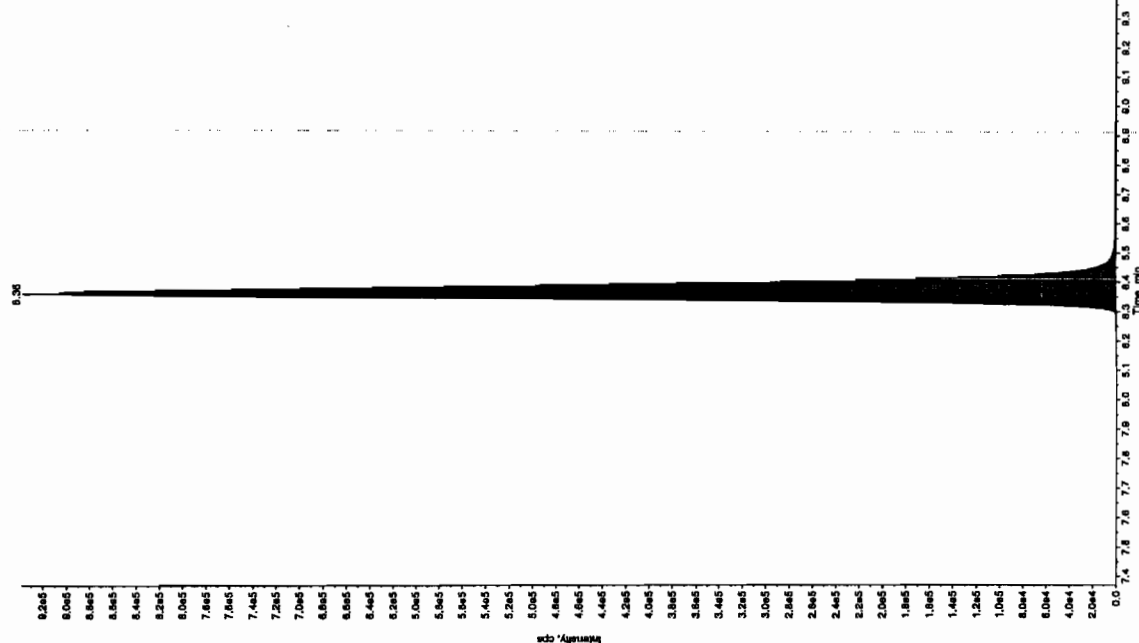
|                  |             |         |  |
|------------------|-------------|---------|--|
| Sample Index:    | 1           | Unknown |  |
| Sample Type:     |             | N/A     |  |
| Concentration:   |             |         |  |
| Calculated Conc: | 0.00        | ng/mL   |  |
| Acq. Date:       | 3/6/2010    |         |  |
| Acq. Time:       | 11:13:17 PM |         |  |
| Modified:        | No          |         |  |

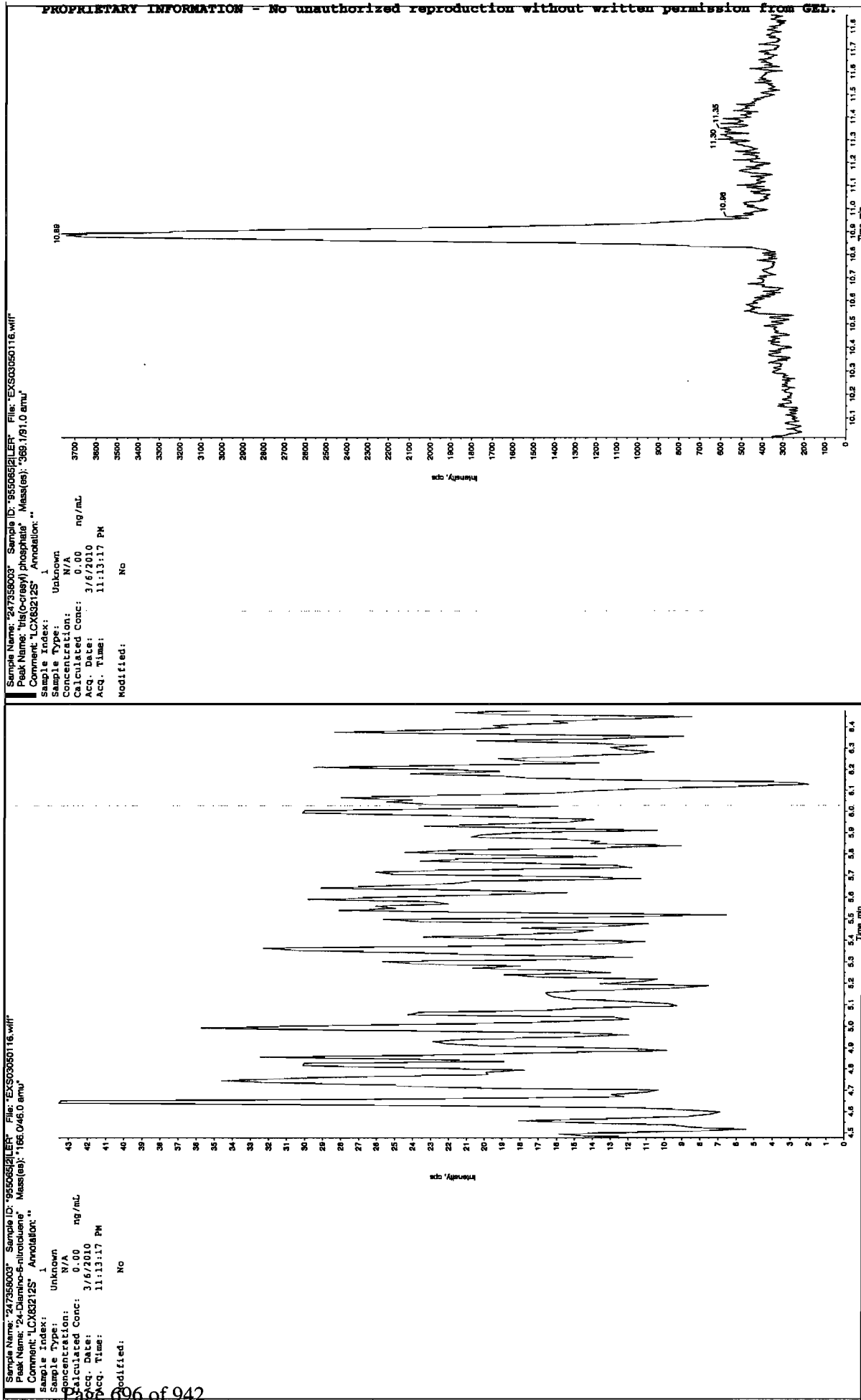


Sample Name: "247358003" Sample ID: "9550652JLER" File: "EXS03050116.wiff"  
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"

|                  |             |
|------------------|-------------|
| Sample ID:       | 1           |
| Sample Type:     | Unknown     |
| Concentration:   | N/A         |
| Calculated Conc: | 250         |
| Acq. Date:       | 3/6/2010    |
| Acq. Time:       | 11:13:17 PM |
| Modified:        | No          |

|                 |           |
|-----------------|-----------|
| Int. Type:      | Valley    |
| Retention Time: | 8.36      |
| Area:           | 3.24e+006 |
| Height:         | 937537.17 |
| Start Time:     | 8.24      |
| End Time:       | 8.68      |





\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7424

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358004

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0319021a

Date Analyzed: 20-MAR-10 02:44

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0319021a

Date: 20-Mar-2010

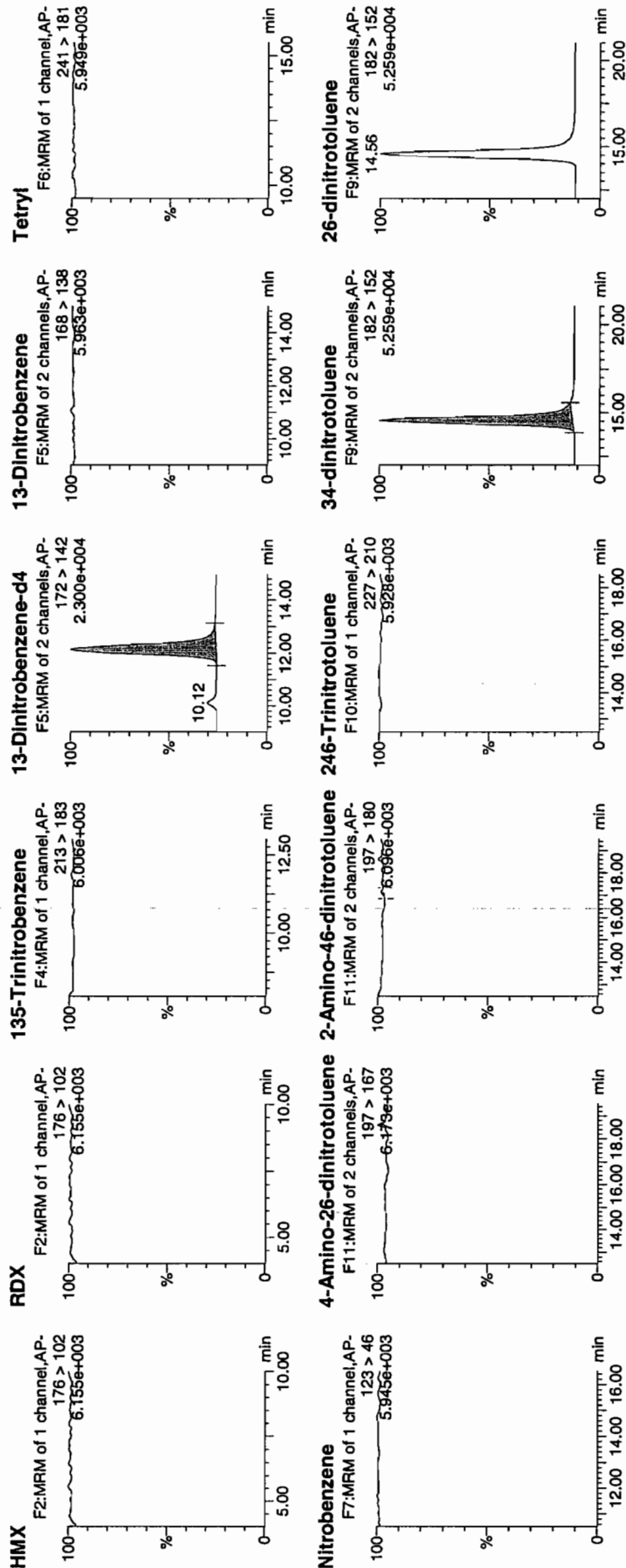
Time: 02:44:01

ID: 247358004

Vial: 1-6,C

not  
7/2/10

WAVE/955065/21



Ham  
03/22/10

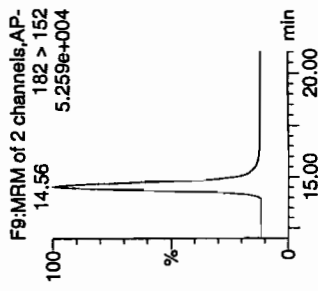
# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

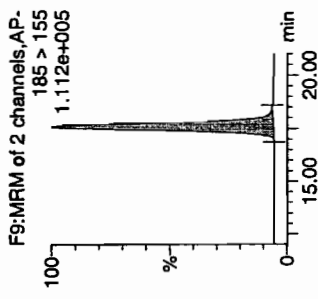
Printed: Sat Mar 20 11:06:08 2010, Page 42 of 73

Dataset: C:\MASSLYN\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

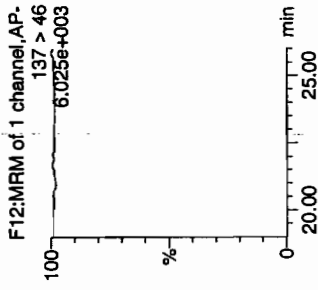
## 24-dinitrotoluene



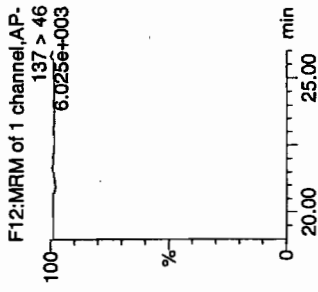
## 26-dinitrotoluene-d3



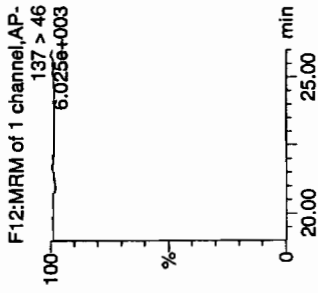
## 2-Nitrotoluene



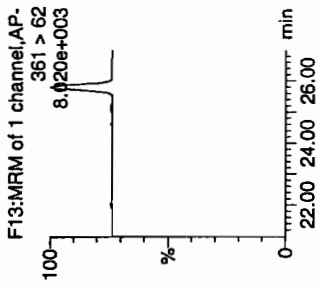
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



| ID        | Name                      | Ret       | Area  | Area%     | Response  | Peak | ModDate | Volume    | Height   | %Area | %Det | SN     |
|-----------|---------------------------|-----------|-------|-----------|-----------|------|---------|-----------|----------|-------|------|--------|
| 247358004 | HMX                       | 176 > 102 |       | 7074.213  |           |      |         |           |          |       |      |        |
| 247358004 | RDX                       | 176 > 102 |       | 7074.213  |           |      |         |           |          |       |      |        |
| 247358004 | 135-Trinitrobenzene       | 213 > 183 |       | 7074.213  |           |      |         |           |          |       |      |        |
| 247358004 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.14 | 7074.213  |           |      |         |           |          |       |      |        |
| 247358004 | 13-Dinitrobenzene         | 168 > 138 |       | 7074.213  |           |      |         |           |          |       |      |        |
| 247358004 | Tetryl                    | 241 > 181 |       | 7074.213  |           |      |         |           |          |       |      |        |
| 247358004 | Nitrobenzene              | 123 > 46  |       | 7074.213  |           |      |         |           |          |       |      |        |
| 247358004 | 4-Amino-26-dinitrotoluene | 197 > 167 |       | 42624.160 |           |      |         |           |          |       |      |        |
| 247358004 | 2-Amino-46-dinitrotoluene | 197 > 180 |       | 42624.160 |           |      |         |           |          |       |      |        |
| 247358004 | 246-Trinitrotoluene       | 227 > 210 |       | 42624.160 |           |      |         |           |          |       |      |        |
| 247358004 | 34-dinitrotoluene         | 182 > 152 | 14.56 | 22112.334 | 259.387   | bb   | MM-     | 20-Mar-10 | 10:55:44 | 93.0  | -7.0 | 1115.5 |
| 247358004 | 26-dinitrotoluene         | 182 > 152 |       | 42624.160 |           |      |         |           |          |       |      |        |
| 247358004 | 24-dinitrotoluene         | 182 > 152 |       | 42624.160 |           |      |         |           |          |       |      |        |
| 247358004 | 26-dinitrotoluene-d3      | 185 > 155 | 17.60 | 42624.160 | 42624.160 | bb   |         |           |          | 91.5  | -8.5 | 2283.9 |
| 247358004 | 2-Nitrotoluene            | 137 > 46  |       | 42624.160 |           |      |         |           |          |       |      |        |
| 247358004 | 4-Nitrotoluene            | 137 > 46  |       | 42624.160 |           |      |         |           |          |       |      |        |
| 247358004 | 3-Nitrotoluene            | 137 > 46  |       | 42624.160 |           |      |         |           |          |       |      |        |
| 247358004 | PETN                      | 361 > 62  |       | 42624.160 |           |      |         |           |          |       |      |        |

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7424

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 247358004

Sample Amount 2

Moisture: 8.6

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050117.wiff

Date Analyzed: 06-MAR-10 23:29

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Sample Name: "247358004" Sample ID: "955065121.ER" File: "EX503050117.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCX83212S" Annotation: ""

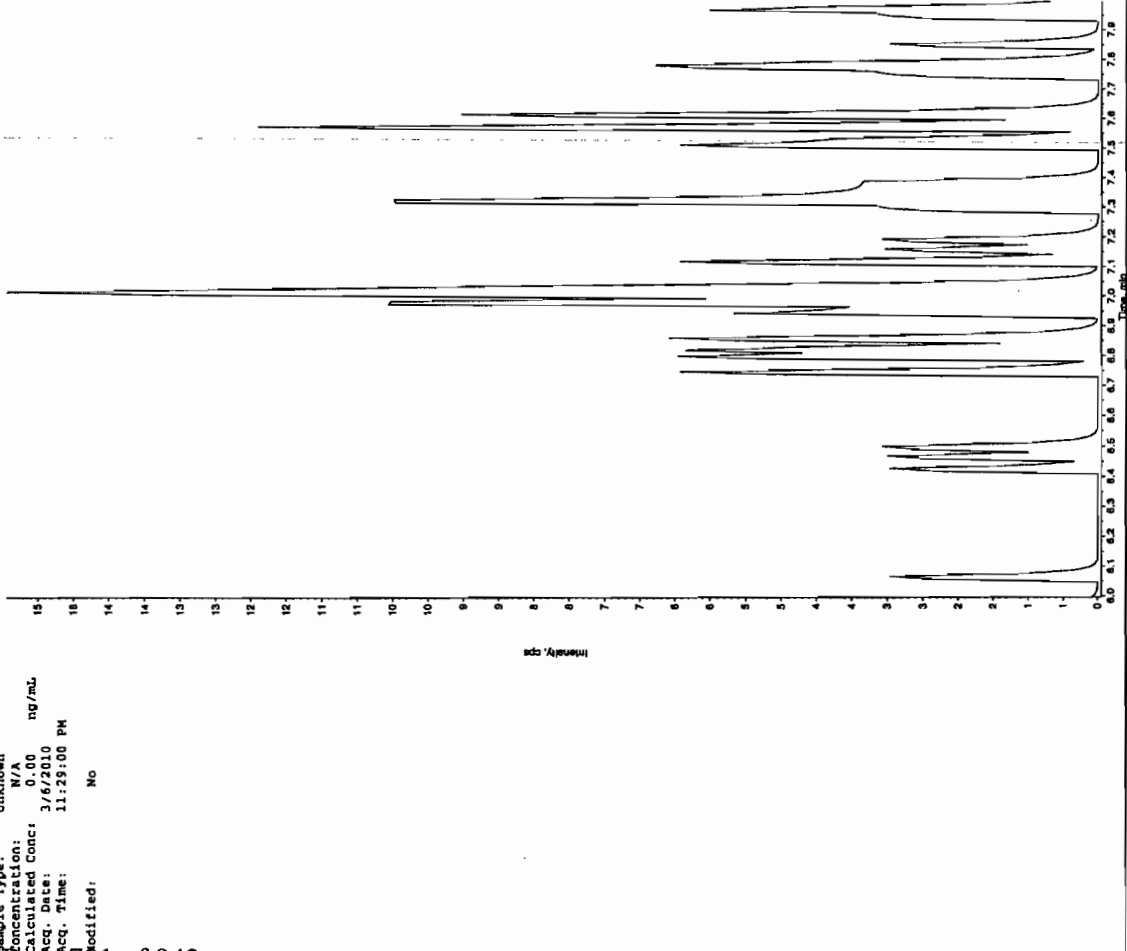
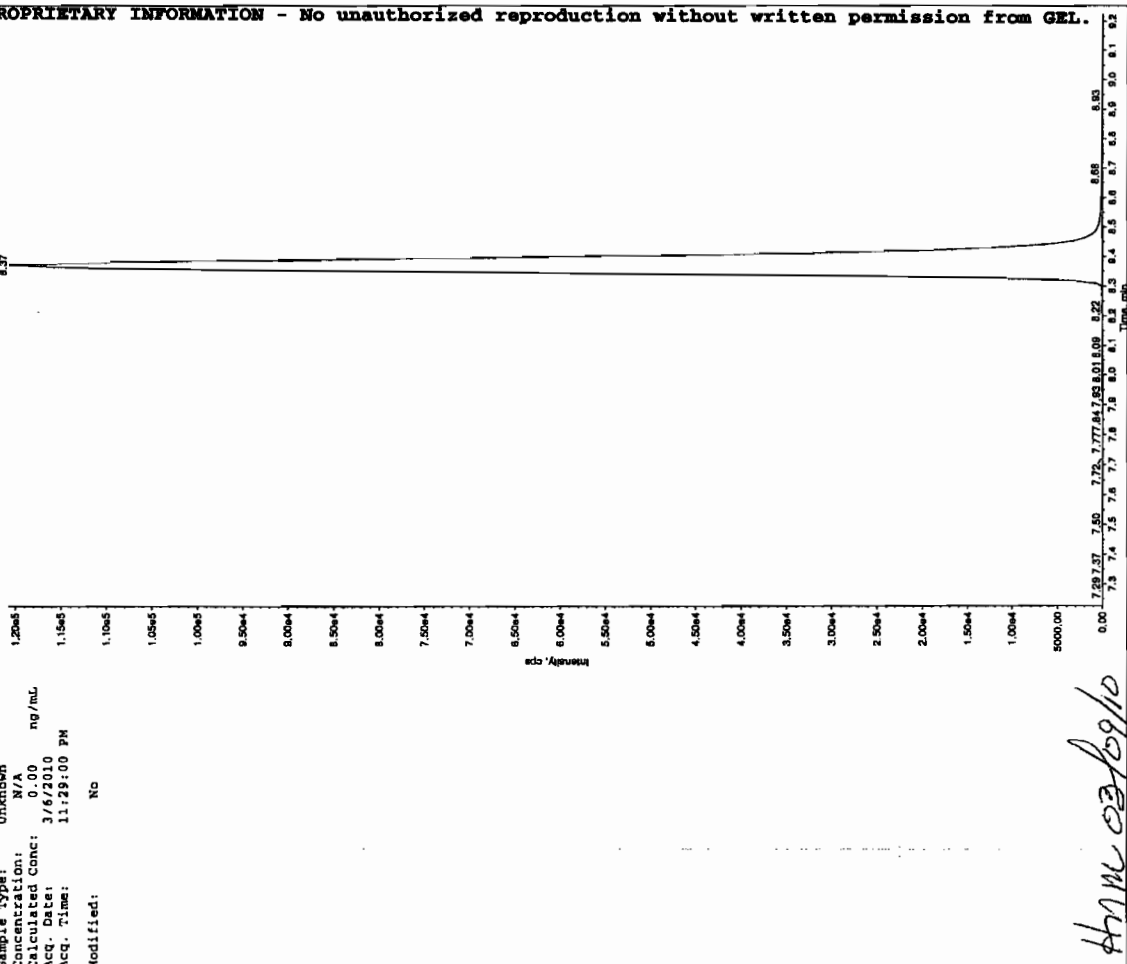
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 11:29:00 PM  
 Modified: No

Sample Name: "247358004" Sample ID: "955065121.ER" File: "EX503050117.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX83212S" Annotation: ""

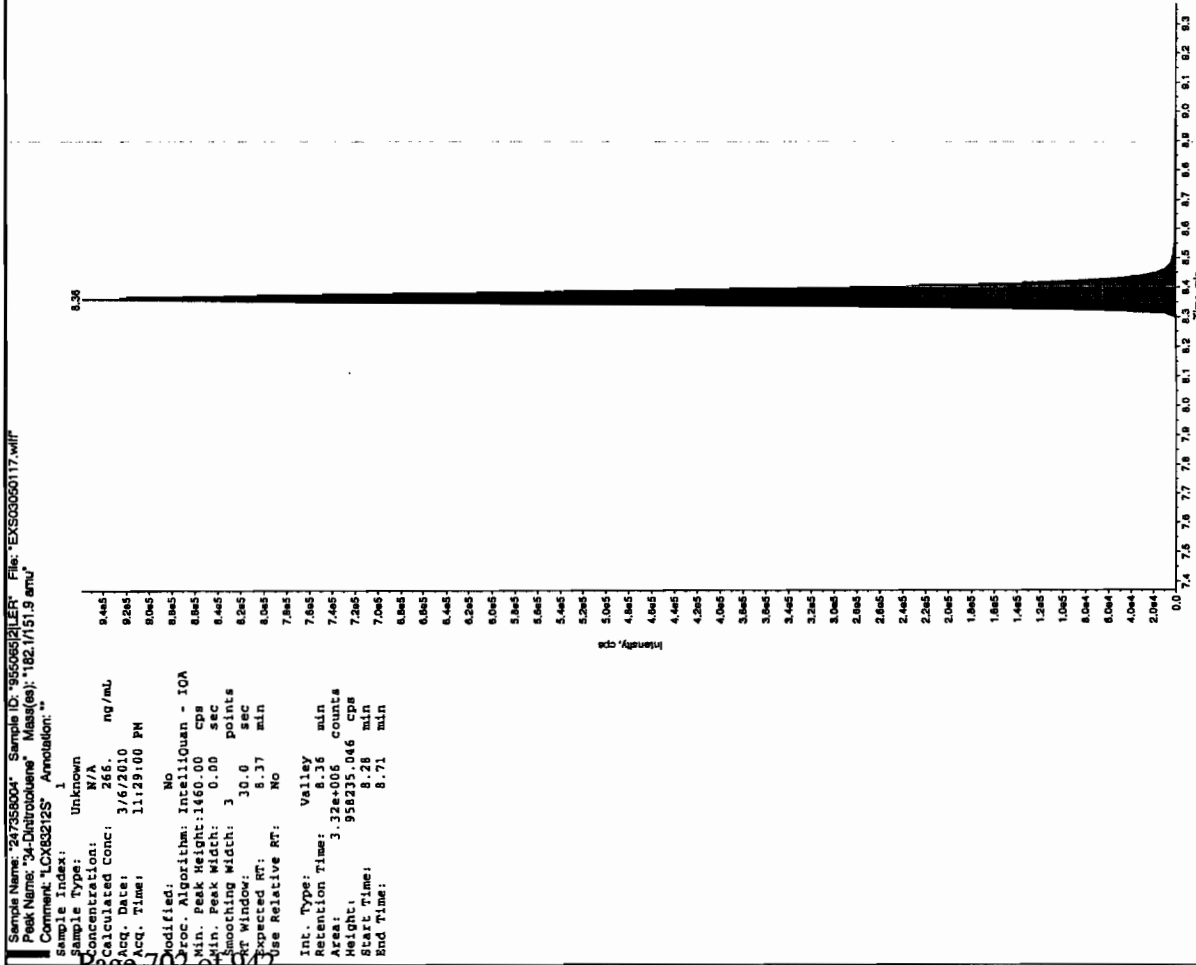
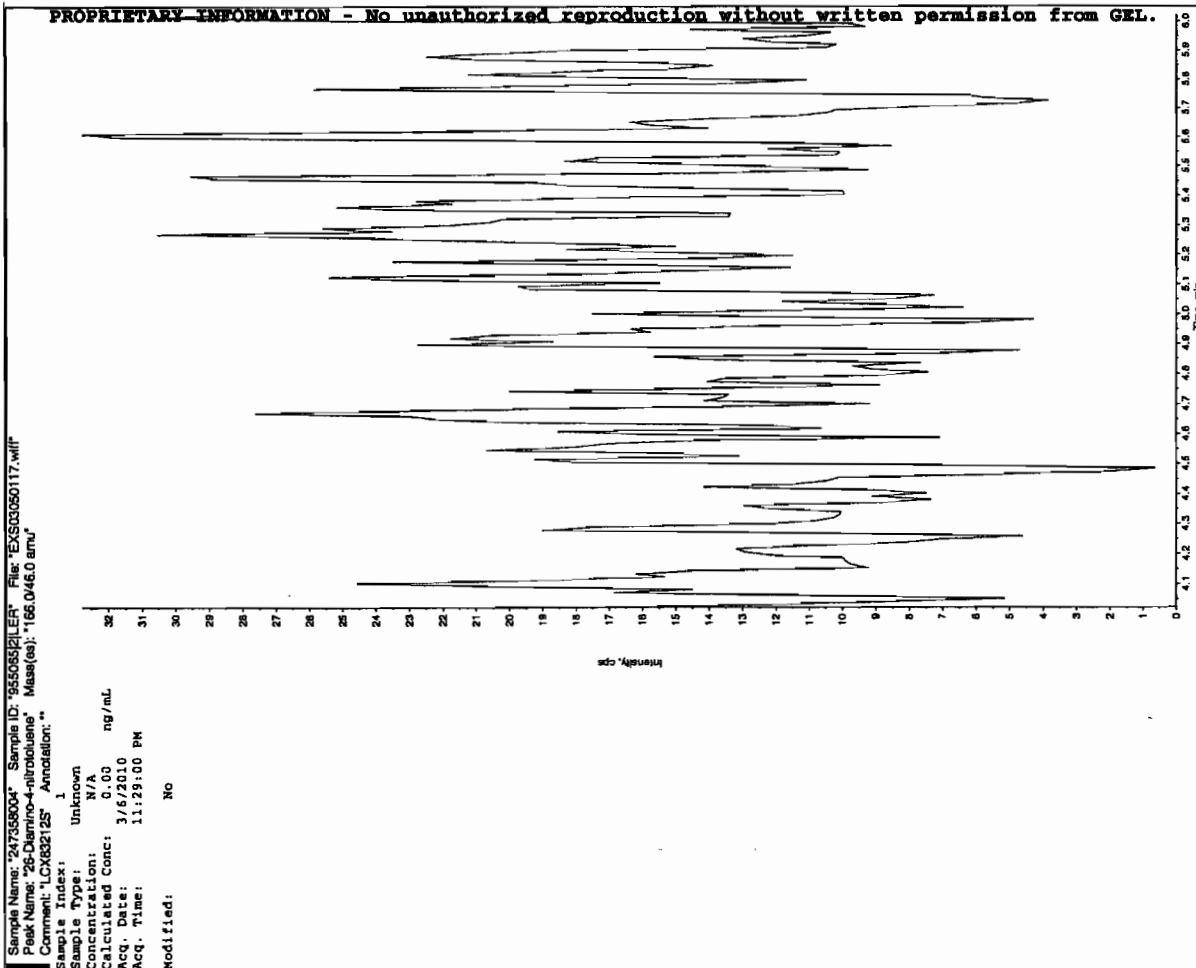
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 11:29:00 PM  
 Modified: No



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Scan 3/9/10

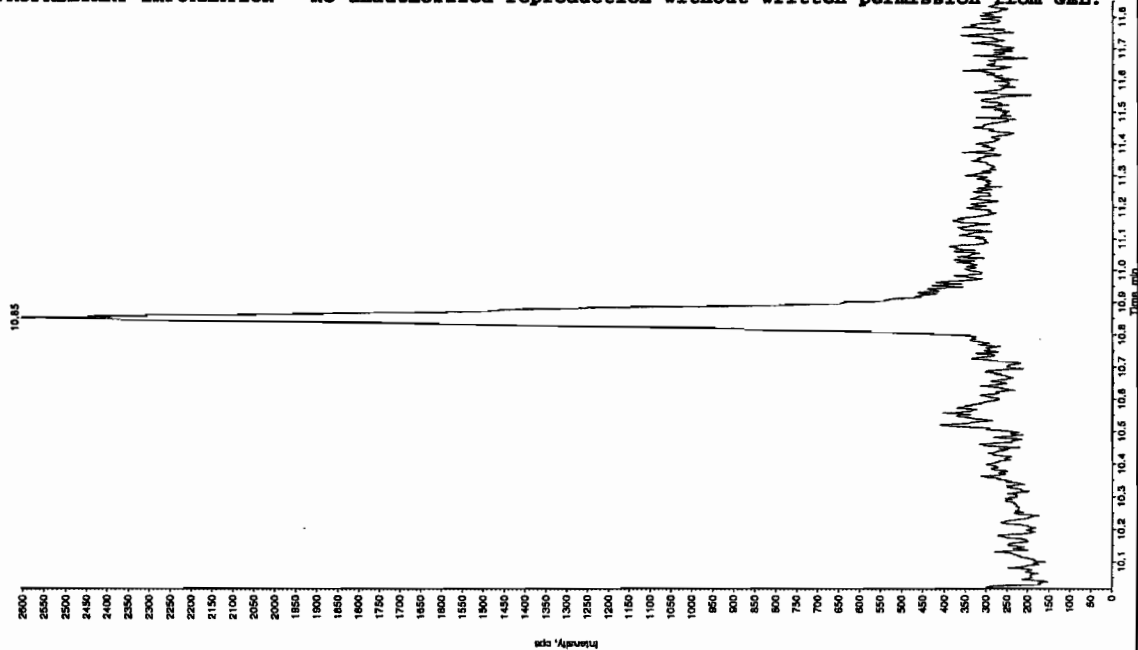
8.37



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

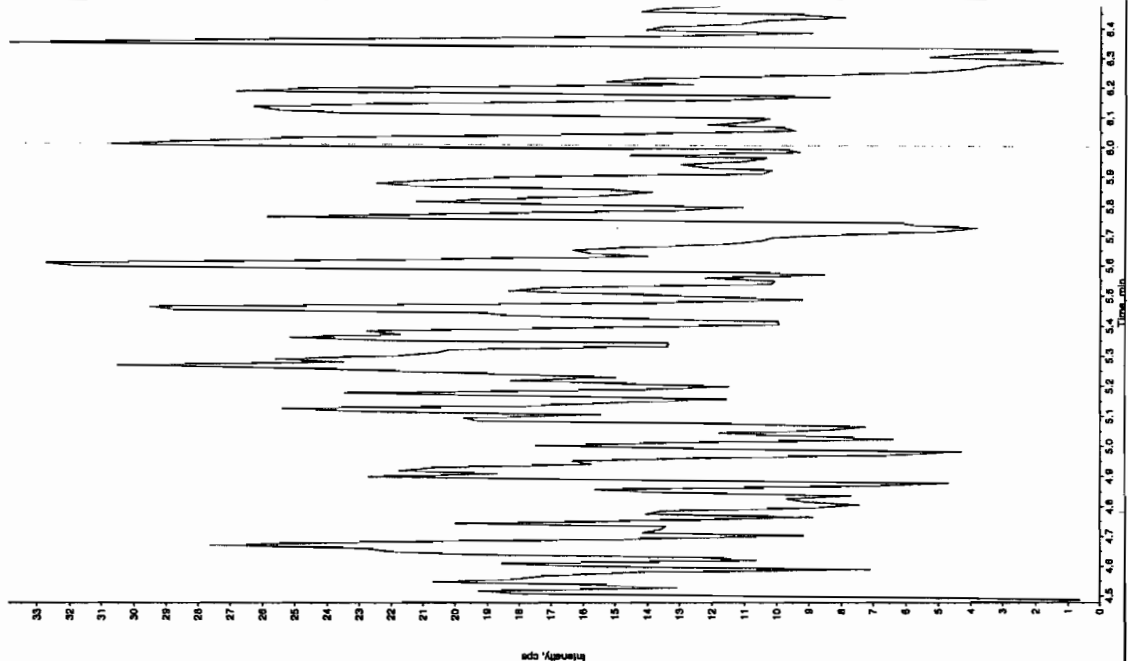
Sample Name: "247358004" Sample ID: "95505521.ER" File: "EX503050117.wif"  
 Peak Name: "tris-(o-cresyl) phosphate" Mass(es): "369.19/1.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 11:29:00 PM  
 Modified: NO



Sample Name: "247358004" Sample ID: "95505521.ER" File: "EX503050117.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 11:29:00 PM  
 Modified: NO



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

# STANDARDS DATA

**SW846 8321A Modified-Explosives  
Calibration Standard Concentration Levels**

|                                | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 | Level 7 | CCV  |
|--------------------------------|---------|---------|---------|---------|---------|---------|---------|------|
| 3,4-Dinitrotoluene (Surrogate) | 12.5    | 25      | 100     | 200     | 400     | 500     |         | 300  |
| <b>Primary Analytes</b>        |         |         |         |         |         |         |         |      |
| HMX                            | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| RDX                            | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| DNX                            | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| MXN                            | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| TNX                            | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| 1,3,5-Trinitrobenzene          | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| 1,3-Dinitrobenzene             | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| Nitrobenzene                   | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| Tetryl                         | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| Nitroglycerin                  | 50      | 100     | 200     | 400     | 800     | 1000    | na      | 600  |
| 2,4,6-Trinitrotoluene          | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| 2-Amino-4,6-dinitrotoluene     | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| 4-Amino-2,6-dinitrotoluene     | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| 2,4-Dinitrotoluene             | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| 2,6-Dinitrotoluene             | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| 2-Nitrotoluene                 | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| 4-Nitrotoluene                 | 25      | 50      | 200     | 400     | 800     | 1000    | an      | 600  |
| 3-Nitrotoluene                 | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| PETN                           | 25      | 50      | 200     | 400     | 800     | 1000    | na      | 600  |
| Picric Acid                    | 200     | 400     | 1600    | 3200    | 6400    | 8000    | na      | 4800 |
| 3,4-Dinitrotoluene (Surrogate) | 25      | 50      | 125     | 250     | 375     | 500     | 1000    | 250  |
| <b>Secondary Analytes</b>      |         |         |         |         |         |         |         |      |
| 2,4-Diamino-6-nitrotoluene     | 50      | 100     | 250     | 500     | 750     | 1000    | 2000    | 500  |
| 2,6-Diamino-4-nitrotoluene     | 50      | 100     | 250     | 500     | 750     | 1000    | 2000    | 500  |
| 3,5-Dinitroaniline             | 50      | 100     | 250     | 500     | 750     | 1000    | 2000    | 500  |
| TATB                           | 50      | 100     | 250     | 500     | 750     | 1000    | 2000    | 500  |
| tris(o-Cresyl)phosphate        | 50      | 100     | 250     | 500     | 750     | 1000    | 2000    | 500  |

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)



# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1914

Lab Code: GEL

Run Date: 05-MAR-10.14-MAR-10.19-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

| Parname                    | 1           | 2           | 3           | 4           | 5           | 6           | Ave RF | RSD    | Q |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------|--------|---|
| Calibration Level:         | EXP0314003a | EXP0314004a | EXP0314005a | EXP0314006a | EXP0314007a | EXP0314008a |        |        |   |
| Data File:                 |             |             |             |             |             |             |        |        |   |
| 1,3,5-Trinitrobenzene      | 4.451       | 3.979       | 3.11        | 3.373       | 3.491       | 3.675       | 3.680  | 12.966 |   |
| 1,3-Dinitrobenzene-d4      | 7.232       | 6.43        | 7.14        | 5.899       | 6.486       | 7.186       | 6.729  | 8.056  |   |
| 2,4,6-Trinitrotoluene      | .44         | .296        | .315        | .313        | .354        | .328        | 0.341  | 15.306 |   |
| 2,4-Dinitrotoluene         | .252        | .223        | .234        | .242        | .252        | .234        | 0.240  | 4.731  |   |
| 2,6-Dinitrotoluene         | 1.195       | 1.162       | 1.095       | 1.086       | 1.097       | 1.116       | 1.125  | 3.879  |   |
| 2,6-Dinitrotoluene-d3      | 35.525      | 38.022      | 42.425      | 35.013      | 41.029      | 36.654      | 38.111 | 7.919  |   |
| 2-Amino-4,6-dinitrotoluene | .392        | .37         | .428        | .384        | .501        | .391        | 0.411  | 11.712 |   |
| 3,4-Dinitrotoluene         | 1.071       | .886        | .91         | .922        | .978        | 1.019       | 0.964  | 7.42   |   |
| 4-Amino-2,6-dinitrotoluene | .402        | .261        | .295        | .271        | .346        | .292        | 0.311  | 17.091 |   |
| HMX                        | 3.919       | 3.14        | 3.408       | 3.215       | 4.964       | 3.288       | 3.656  | 19.093 |   |
| Nitrobenzene               | .752        | .822        | .825        | .859        | .954        | .71         | 0.820  | 10.362 |   |
| RDX                        | 2.726       | 2.425       | 2.36        | 2.61        | 3.317       | 2.517       | 2.659  | 13.073 |   |
| Tetryl                     | .976        | 1.142       | 1.014       | .809        | .966        | .777        | 0.947  | 14.288 |   |
| m-Dinitrobenzene           | 1.722       | 1.421       | 1.218       | 1.133       | 1.277       | 1.2         | 1.329  | 16.246 |   |
| m-Nitrotoluene             | .106        | .087        | .093        | .088        | .093        | .081        | 0.091  | 9.224  |   |
| o-Nitrotoluene             | .164        | .147        | .158        | .15         | .158        | .134        | 0.152  | 7.077  |   |
| p-Nitrotoluene             | .083        | .077        | .081        | .072        | .078        | .067        | 0.076  | 7.669  |   |

Q column used to flag RSD values outside of Limit (>20%)

\* Values outside of QC Limit

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1914

Lab Code: GEL

Run Date: 05-MAR-10.14-MAR-10.19-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

| Calibration Level: | 1           | 2           | 3           | 4           | 5           | 6           | X     | X^2       | Intercept | COD   | Q |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|-----------|-----------|-------|---|
| Data File:         | EXP0314003a | EXP0314004a | EXP0314005a | EXP0314006a | EXP0314007a | EXP0314008a |       |           |           |       |   |
| Parname:           |             |             |             |             |             |             |       |           |           |       |   |
| PETN               | 1696.46     | 2772.34     | 8585.36     | 17112.5     | 31106.9     | 36853.7     | 1.094 | -.0001328 | 18.561    | .9909 |   |

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

\* Values outside of QC Limit

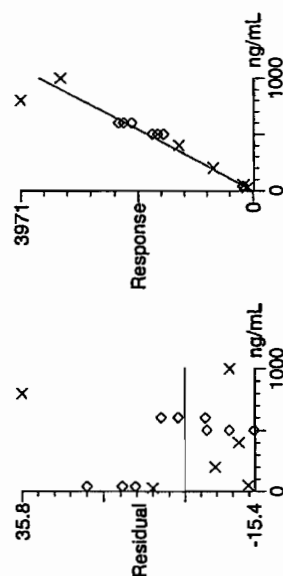
# Quantify Calibration Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

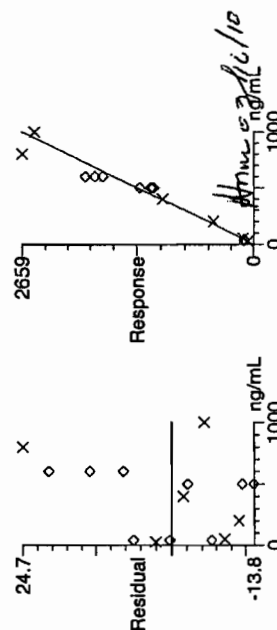
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Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\031410expa.mdb, Time: Mon Mar 15 09:25:32 2010  
Calibration: Untitled, Time: Mon Mar 15 10:15:48 2010

Compound name: HMX  
Response Factor: 3.65571  
RRF SD: 0.697998, % Relative SD: 19.0934  
Response type: Internal Std (Ref 4), Area \* (IS Conc. / IS Area)  
Curve type: RF



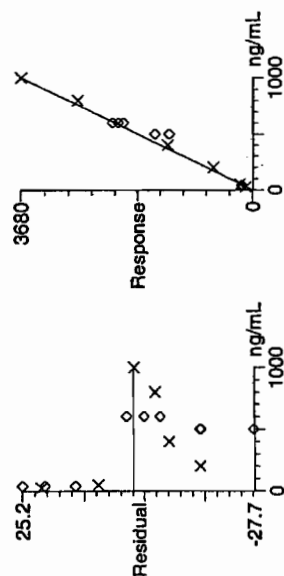
Compound name: RDX  
Response Factor: 2.65919  
RRF SD: 0.347639, % Relative SD: 13.0731  
Response type: Internal Std (Ref 4), Area \* (IS Conc. / IS Area)  
Curve type: RF



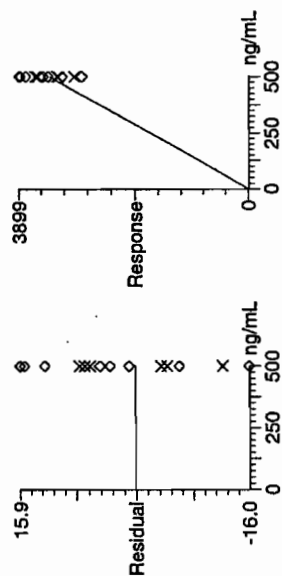
Quantify Calibration Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 135-Trinitrobenzene  
Response Factor: 3.67993  
RRF SD: 0.477131, % Relative SD: 12.9658  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



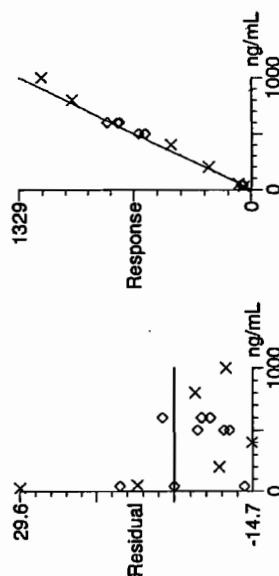
Compound name: 13-Dinitrobenzene-d4  
Response Factor: 6.72888  
RRF SD: 0.54206, % Relative SD: 8.05572  
Response type: External Std, Area  
Curve type: RF



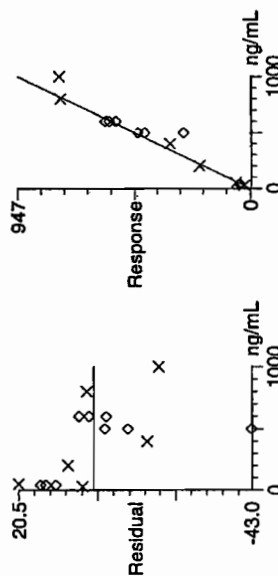
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 13-Dinitrobenzene  
Response Factor: 1.32854  
RRF SD: 0.215838, % Relative SD: 16.2463  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

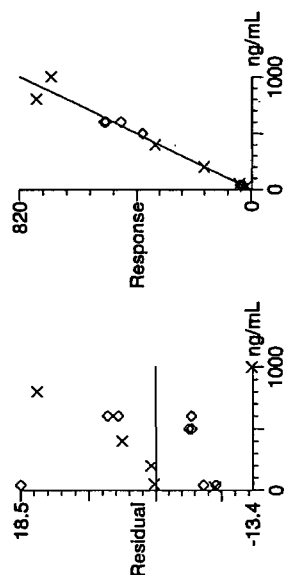


Compound name: Tetra  
Response Factor: 0.947232  
RRF SD: 0.135343, % Relative SD: 14.2882  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

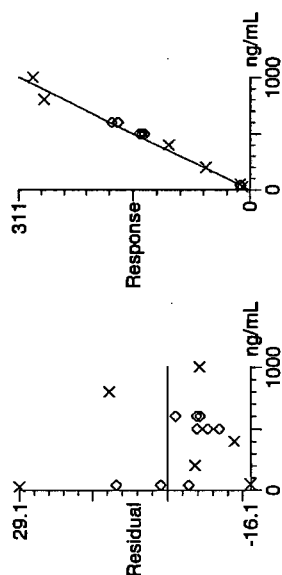


Dataset: C:\MASSLYNX\New\_Exp\PRO1031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: Nitrobenzene  
Response Factor: 0.820337  
RRF SD: 0.0850068, % Relative SD: 10.3624  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



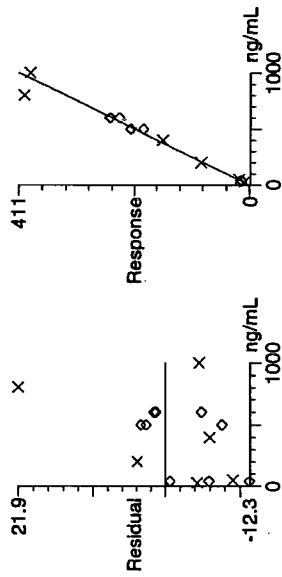
Compound name: 4-Amino-26-dinitrotoluene  
Response Factor: 0.311252  
RRF SD: 0.053196, % Relative SD: 17.091  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



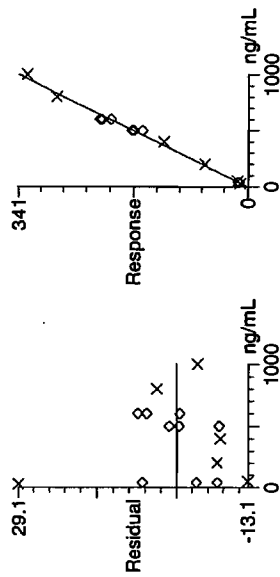
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 2-Amino-46-dinitrotoluene  
Response Factor: 0.410915  
RRF SD: 0.0481257, % Relative SD: 11.7118  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



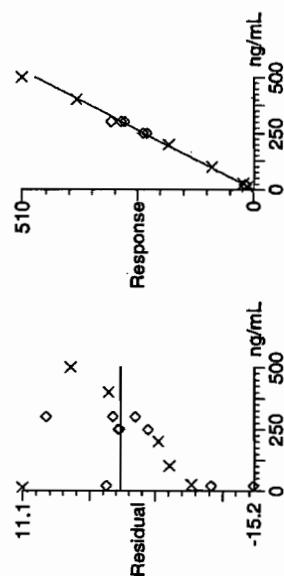
Compound name: 246-Trinitrotoluene  
Response Factor: 0.341077  
RRF SD: 0.0522035, % Relative SD: 15.3055  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



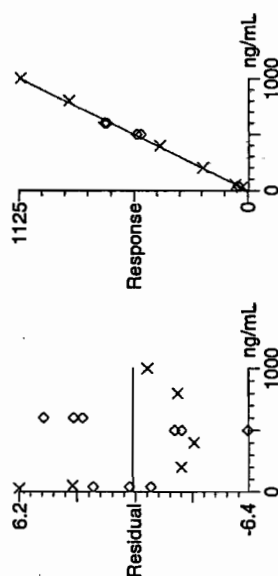
Quantify Calibration Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 34-dinitrotoluene  
Response Factor: 0.964254  
RRF SD: 0.0715434, % Relative SD: 7.41956  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: 26-dinitrotoluene  
Response Factor: 1.12508  
RRF SD: 0.0436387, % Relative SD: 3.87872  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

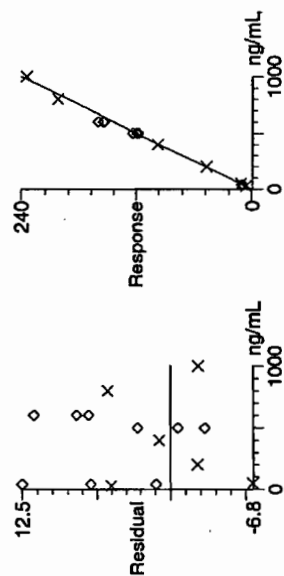




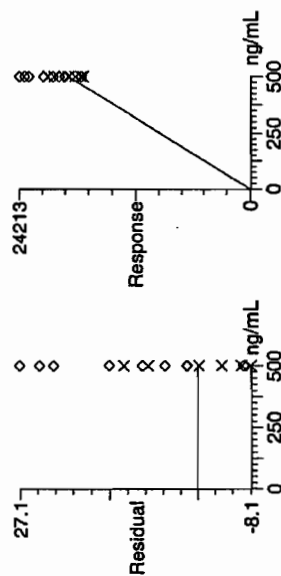
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp\PRO\031410expA.qid, Time: Mon Mar 15 10:15:48 2010

Compound name: 24-dinitrotoluene  
Response Factor: 0.239516  
RRF SD: 0.0113317, % Relative SD: 4.73111  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



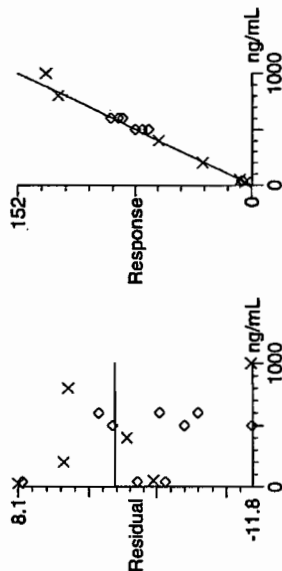
Compound name: 26-dinitrotoluene-d3  
Response Factor: 38.1113  
RRF SD: 3.01799, % Relative SD: 7.91889  
Response type: External Std, Area  
Curve type: RF



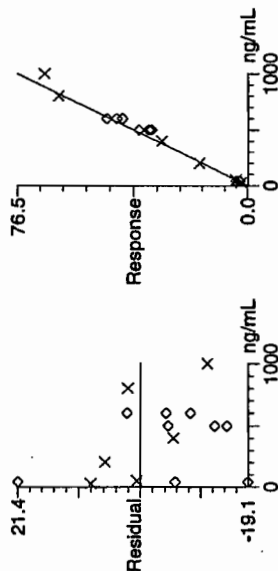
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 2-Nitrotoluene  
Response Factor: 0.151748  
RRF SD: 0.0107392, % Relative SD: 7.07703  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



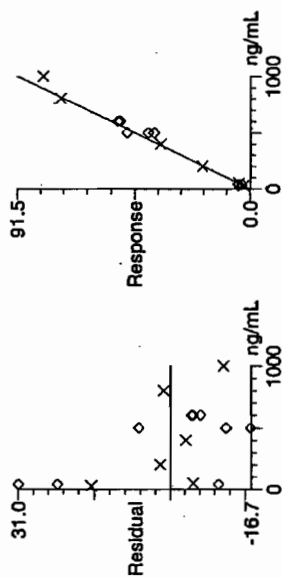
Compound name: 4-Nitrotoluene  
Response Factor: 0.0764562  
RRF SD: 0.00586344, % Relative SD: 7.66902  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



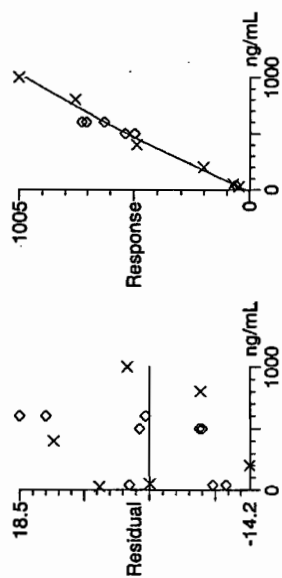
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 3-Nitrotoluene  
Response Factor: 0.091452  
RRF SD: 0.00843596, % Relative SD: 9.22446  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: PETN  
Coefficient of Determination: 0.990878  
Calibration curve:  $-0.000132821 \cdot x^2 + 1.09448 \cdot x + 18.5607$   
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



# Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0314010a

Analysis Date: 14-MAR-10 19:24

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| RDX                        | 600  | 646.997 | 108      |   |
| Tetryl                     | 600  | 608.116 | 101      |   |
| m-Dinitrobenzene           | 600  | 613.453 | 102      |   |
| m-Nitrotoluene             | 600  | 573.227 | 96       |   |
| o-Nitrotoluene             | 600  | 608.034 | 101      |   |
| p-Nitrotoluene             | 600  | 614.277 | 102      |   |
| 1,3,5-Trinitrobenzene      | 600  | 584.915 | 97       |   |
| 1,3-Dinitrobenzene-d4      | 500  | 419.791 | 84       |   |
| 2,4,6-Trinitrotoluene      | 600  | 596.891 | 99       |   |
| 2,4-Dinitrotoluene         | 600  | 647.933 | 108      |   |
| 2,6-Dinitrotoluene         | 600  | 619.219 | 103      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 464.57  | 93       |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 568.004 | 95       |   |
| 3,4-Dinitrotoluene         | 300  | 294.779 | 98       |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 566.927 | 94       |   |
| HMX                        | 600  | 573.087 | 96       |   |
| Nitrobenzene               | 600  | 640.134 | 107      |   |
| PETN                       | 600  | 711.078 | 119      |   |

## Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

OtherTarget Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314010a

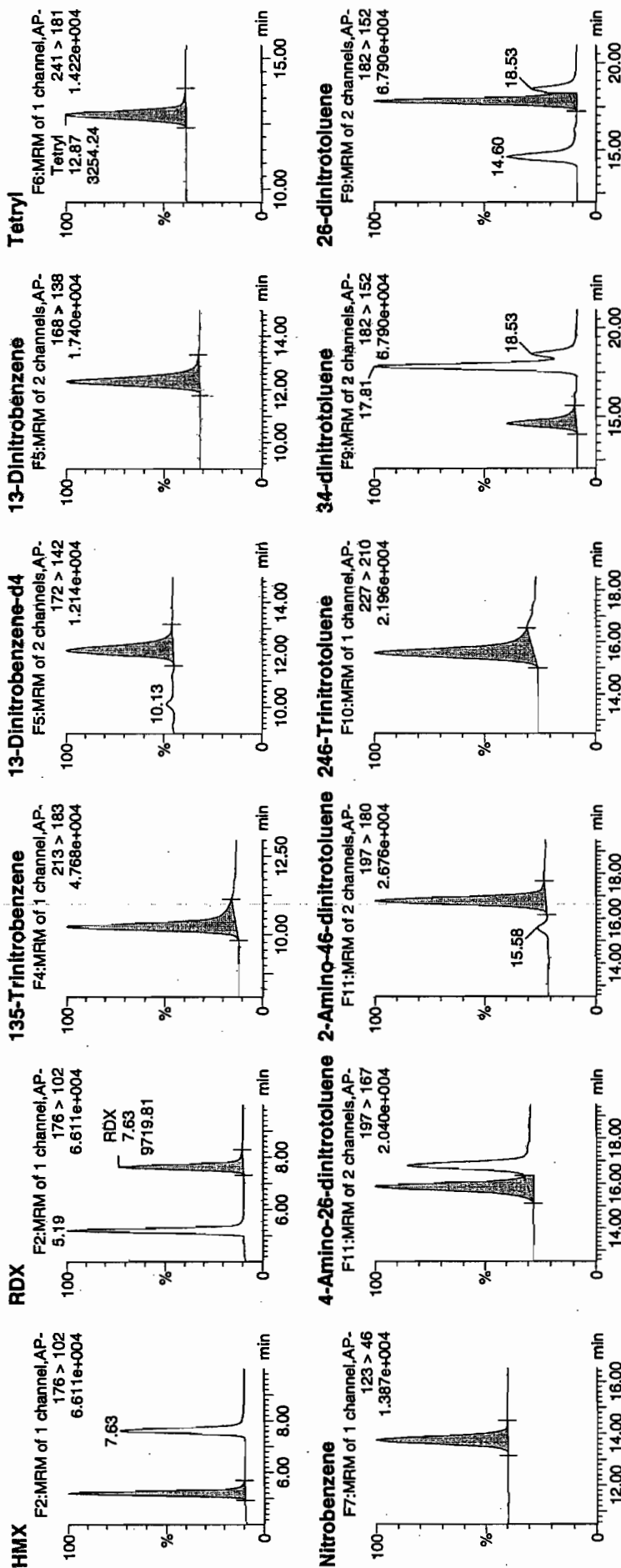
Date: 14-Mar-2010

Time: 19:24:18

ID: WXX100314-07ICV

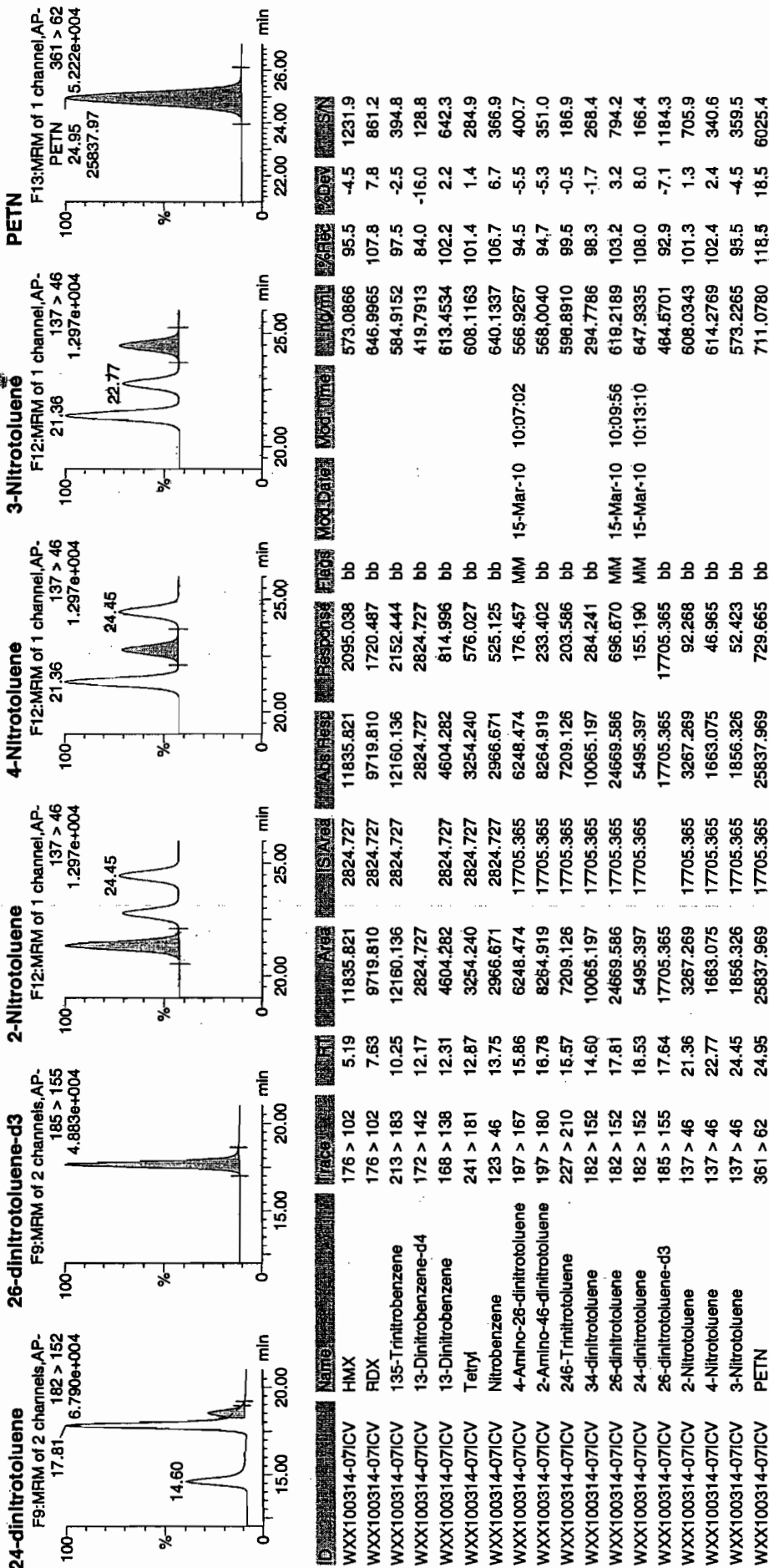
Vial: 1:1,B

3/15/10



Handwritten signature/initials.

Dataset: C:\MASSLYNX\New\_Exp\PRO1031410expA.qid, Time: Mon Mar 15 10:15:48 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/14/10  
 Time of Injection: 1924  
 Standard Number: WXX100314-07ICV  
 Data File: EXP0314010a

|              |       |
|--------------|-------|
| HMX          | 95.5  |
| RDX          | 107.8 |
| 135-TNB      | 97.5  |
| 13-DNB       | 102.2 |
| Tetryl       | 101.4 |
| Nitrobenzene | 106.7 |
| 4A-26-DNT    | 94.5  |
| 2A-46-DNT    | 94.7  |
| 246-TNT      | 99.5  |
| 34-DNT(surr) | 98.3  |
| 26-DNT       | 103.2 |
| 24-DNT       | 108.0 |
| 2-NT         | 101.3 |
| 4-NT         | 102.4 |
| 3-NT         | 95.5  |
| PETN         | 118.5 |

MTA  
3/15/10

Total 1627.0

Average 101.7

HMK 03/16/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1914

Lab Code: GEL

Run Date: 05-MAR-10.14-MAR-10.19-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HP/LC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

| Parname                    | 1           | 2           | 3           | 4           | 5           | 6           | Ave RF | RSD    | Q |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------|--------|---|
| Calibration Level:         | EXP0319003a | EXP0319004a | EXP0319005a | EXP0319006a | EXP0319007a | EXP0319008a |        |        |   |
| Data File:                 |             |             |             |             |             |             |        |        |   |
| 1,3,5-Trinitrobenzene      | 4.934       | 4.658       | 4.052       | 4.308       | 4.896       | 5.867       | 4.786  | 13.17  |   |
| 1,3-Dinitrobenzene-d4      | 17.078      | 17.454      | 16.592      | 19.338      | 13.899      | 14.139      | 16.417 | 12.663 |   |
| 2,4,6-Trinitrotoluene      | .451        | .404        | .409        | .331        | .44         | .542        | 0.430  | 16.164 |   |
| 2,4-Dinitrotoluene         | .239        | .248        | .246        | .211        | .249        | .254        | 0.241  | 6.373  |   |
| 2,6-Dinitrotoluene         | 1.106       | 1.153       | 1.116       | 1.085       | 1.162       | 1.147       | 1.128  | 2.683  |   |
| 2,6-Dinitrotoluene-d3      | 97.958      | 93.948      | 90.487      | 115.944     | 84.041      | 76.417      | 93.133 | 14.513 |   |
| 2-Amino-4,6-dinitrotoluene | .66         | .538        | .502        | .526        | .574        | .766        | 0.594  | 16.922 |   |
| 3,4-Dinitrotoluene         | 1.135       | 1.095       | 1.033       | 1.099       | 1.056       | 1.277       | 1.116  | 7.756  |   |
| 4-Amino-2,6-dinitrotoluene | .406        | .346        | .352        | .296        | .362        | .452        | 0.369  | 14.572 |   |
| HMX                        | 4.054       | 4.355       | 4.659       | 3.304       | 5.158       | 3.924       | 4.242  | 15.066 |   |
| Nitrobenzene               | .709        | .661        | .63         | .684        | .718        | .766        | 0.695  | 6.827  |   |
| RDX                        | 2.618       | 2.614       | 2.626       | 2.301       | 3.123       | 3.67        | 2.825  | 17.381 |   |
| Tetryl                     | 1.115       | 1.134       | 1.207       | 1.016       | 1.261       | 1.326       | 1.177  | 9.47   |   |
| m-Dinitrobenzene           | 1.316       | 1.413       | 1.265       | 1.336       | 1.333       | 1.473       | 1.356  | 5.494  |   |
| m-Nitrotoluene             | .061        | .068        | .05         | .043        | .056        | .059        | 0.056  | 15.483 |   |
| o-Nitrotoluene             | .106        | .11         | .083        | .075        | .093        | .093        | 0.093  | 14.248 |   |
| p-Nitrotoluene             | .051        | .052        | .043        | .037        | .047        | .047        | 0.046  | 11.401 |   |

Q column used to flag RSD values outside of Limit (>20%)

\* Values outside of QC Limit



# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1914

Lab Code: GEL

Run Date: 05-MAR-10 14-MAR-10 19-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

| Calibration Level: | 1           | 2           | 3           | 4           | 5           | 6           | Slope | Intercept | COD   | Q |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|-----------|-------|---|
| Data File:         | EXP0319003a | EXP0319004a | EXP0319005a | EXP0319006a | EXP0319007a | EXP0319008a |       |           |       |   |
| Parname            |             |             |             |             |             |             |       |           |       |   |
| PETN               | 3571.23     | 7118.35     | 24758.3     | 44512.9     | 76075.7     | 84107.2     | 1.086 | 14.643    | .9933 |   |

Linear fit :  $Y=mx +b$   
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)

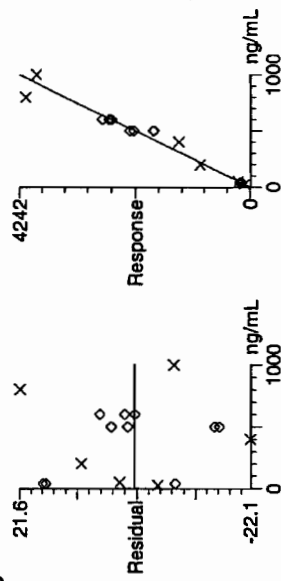
\* Values outside of QC Limit

# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

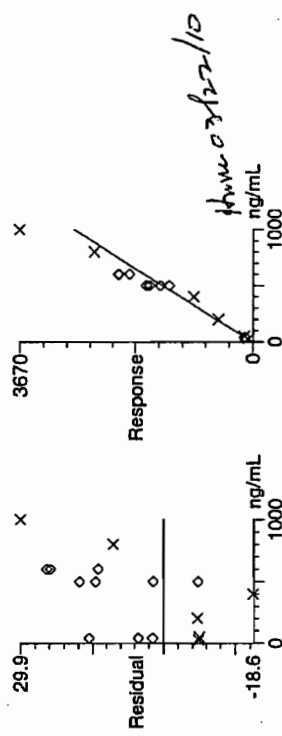
Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\031910expa.mdb, Time: Sat Mar 20 10:50:15 2010  
Calibration: Untitled, Time: Sat Mar 20 11:05:24 2010

Compound name: HMX  
Response Factor: 4.24242  
RRF SD: 0.639182, % Relative SD: 15.0664  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



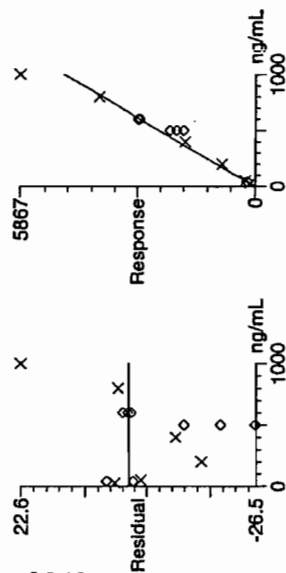
Compound name: RDX  
Response Factor: 2.82542  
RRF SD: 0.491092, % Relative SD: 17.3812  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



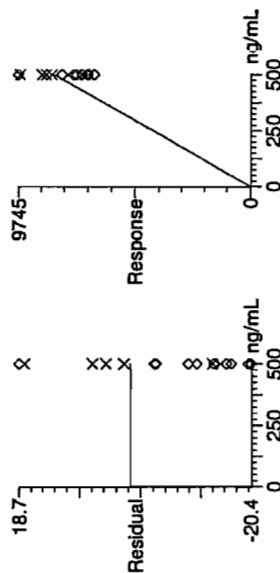
# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Compound name: 135-Trinitrobenzene  
Response Factor: 4.78565  
RRF SD: 0.630251, % Relative SD: 13.1696  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



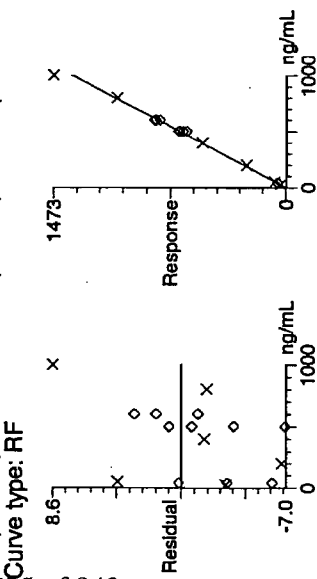
Compound name: 13-Dinitrobenzene-d4  
Response Factor: 16.4163  
RRF SD: 2.0788, % Relative SD: 12.663  
Response type: External Std, Area  
Curve type: RF



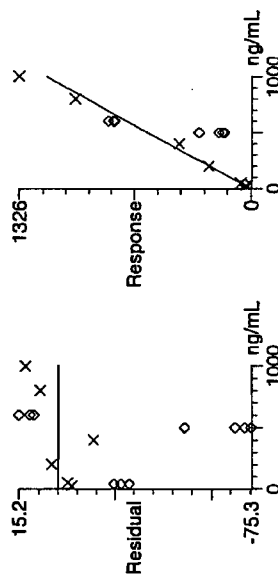
Quantify Calibration Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Compound name: 13-Dinitrobenzene  
Response Factor: 1.35599  
RRF SD: 0.0744962, % Relative SD: 5.49386  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



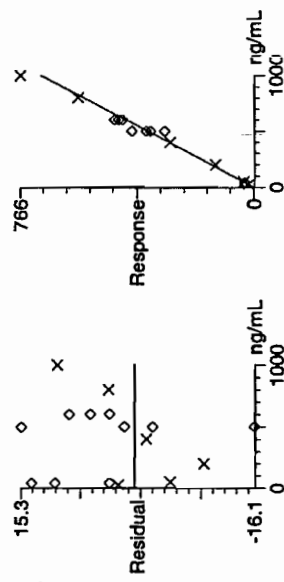
Compound name: Tetra  
Response Factor: 1.17668  
RRF SD: 0.111431, % Relative SD: 9.46995  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



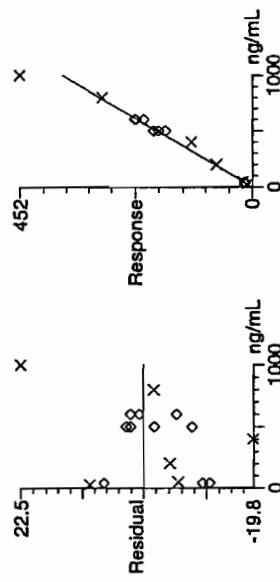
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Compound name: Nitrobenzene  
 Response Factor: 0.69451  
 RRF SD: 0.0474118, % Relative SD: 6.82665  
 Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: 4-Amino-26-dinitrotoluene  
 Response Factor: 0.36909  
 RRF SD: 0.0537838, % Relative SD: 14.572  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

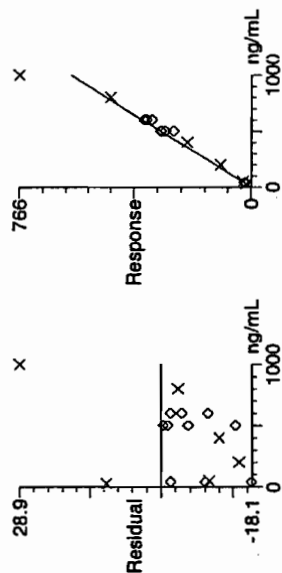


**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

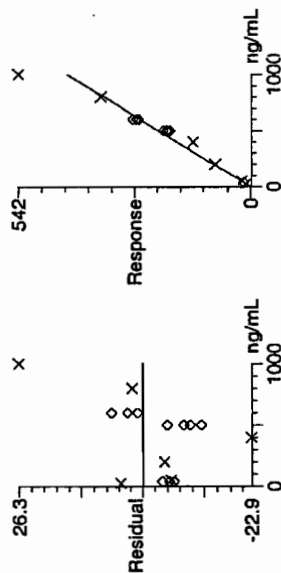
Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Compound name: 2-Amino-46-dinitrotoluene  
Response Factor: 0.594147  
RRF SD: 0.100543, % Relative SD: 16.9222  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF

Page 727 of 942



Compound name: 246-Trinitrotoluene  
Response Factor: 0.4294  
RRF SD: 0.0694084, % Relative SD: 16.164  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



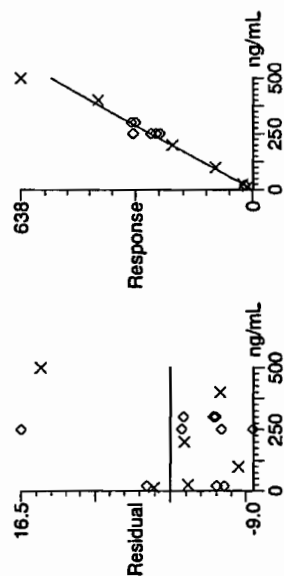
Printed: Sat Mar 20 11:06:08 2010, Page 6 of 9

Quantify Calibration Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

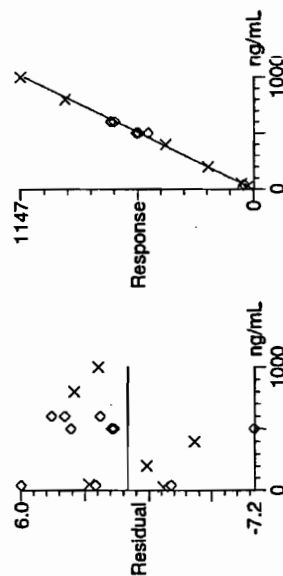
Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Page 728 of 942

Compound name: 34-dinitrotoluene  
Response Factor: 1.11594  
RRF SD: 0.0865532, % Relative SD: 7.75611  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



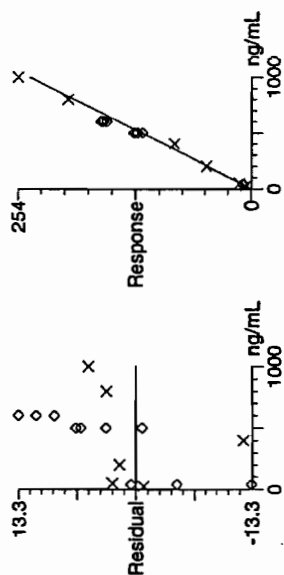
Compound name: 26-dinitrotoluene  
Response Factor: 1.12816  
RRF SD: 0.0302691, % Relative SD: 2.68306  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



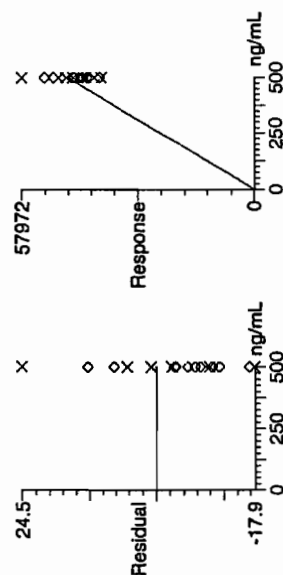
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Compound name: 24-dinitrotoluene  
Response Factor: 0.241092  
RRF SD: 0.0153653, % Relative SD: 6.3732  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: 26-dinitrotoluene-d3  
Response Factor: 93.1325  
RRF SD: 13.516, % Relative SD: 14.5127  
Response type: External Std, Area  
Curve type: RF

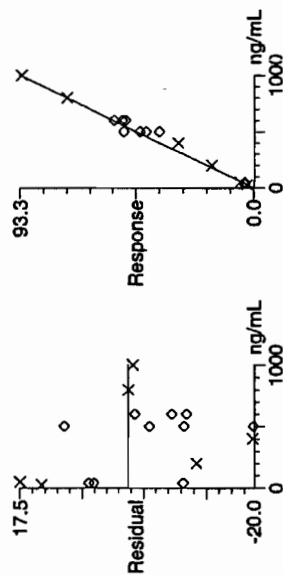




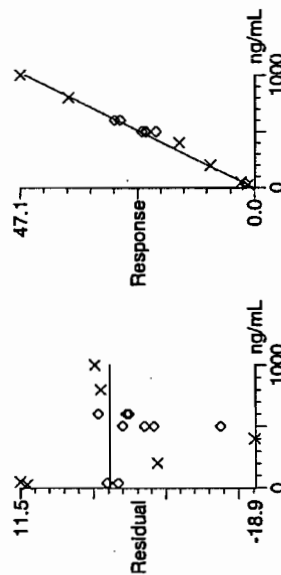
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Compound name: 2-Nitrotoluene  
Response Factor: 0.0933197  
RRF SD: 0.0132962, % Relative SD: 14.2481  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



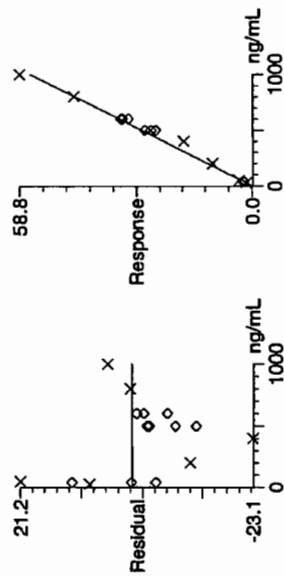
Compound name: 4-Nitrotoluene  
Response Factor: 0.0461933  
RRF SD: 0.00526639, % Relative SD: 11.4008  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



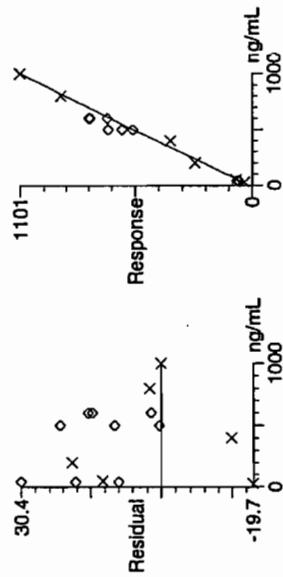
**Quantify Calibration Report**  
 GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Compound name: 3-Nitrotoluene  
 Response Factor: 0.0562003  
 RRF SD: 0.00870123, % Relative SD: 15.4825  
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF



Compound name: PETN  
 Correlation coefficient:  $r = 0.996647$ ,  $r^2 = 0.993305$   
 Calibration curve:  $1.08596 * x + 14.643$   
 Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
 Curve type: Linear, Origin: Exclude, Weighting: Null, Axis trans: None



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0319010a

Analysis Date: 19-MAR-10 21:19

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 1,3,5-Trinitrobenzene      | 600  | 601.679 | 100      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 400.213 | 80       |   |
| 2,4,6-Trinitrotoluene      | 600  | 607.061 | 101      |   |
| 2,4-Dinitrotoluene         | 600  | 679.677 | 113      |   |
| 2,6-Dinitrotoluene         | 600  | 621.301 | 104      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 448.99  | 90       |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 545.067 | 91       |   |
| 3,4-Dinitrotoluene         | 300  | 285.258 | 95       |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 565.303 | 94       |   |
| HMX                        | 600  | 599.565 | 100      |   |
| Nitrobenzene               | 600  | 651.909 | 109      |   |
| PETN                       | 600  | 613.34  | 102      |   |
| RDX                        | 600  | 746.638 | 124      | * |
| Tetryl                     | 600  | 666.124 | 111      |   |
| m-Dinitrobenzene           | 600  | 618.738 | 103      |   |
| m-Nitrotoluene             | 600  | 586.775 | 98       |   |
| o-Nitrotoluene             | 600  | 558.066 | 93       |   |
| p-Nitrotoluene             | 600  | 584.772 | 97       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Printed: Sat Mar 20 11:06:08 2010, Page 19 of 73

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNXNew\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Name: C:\MASSLYNXNEW\_EXP.PRO\Data\EXP0319010a

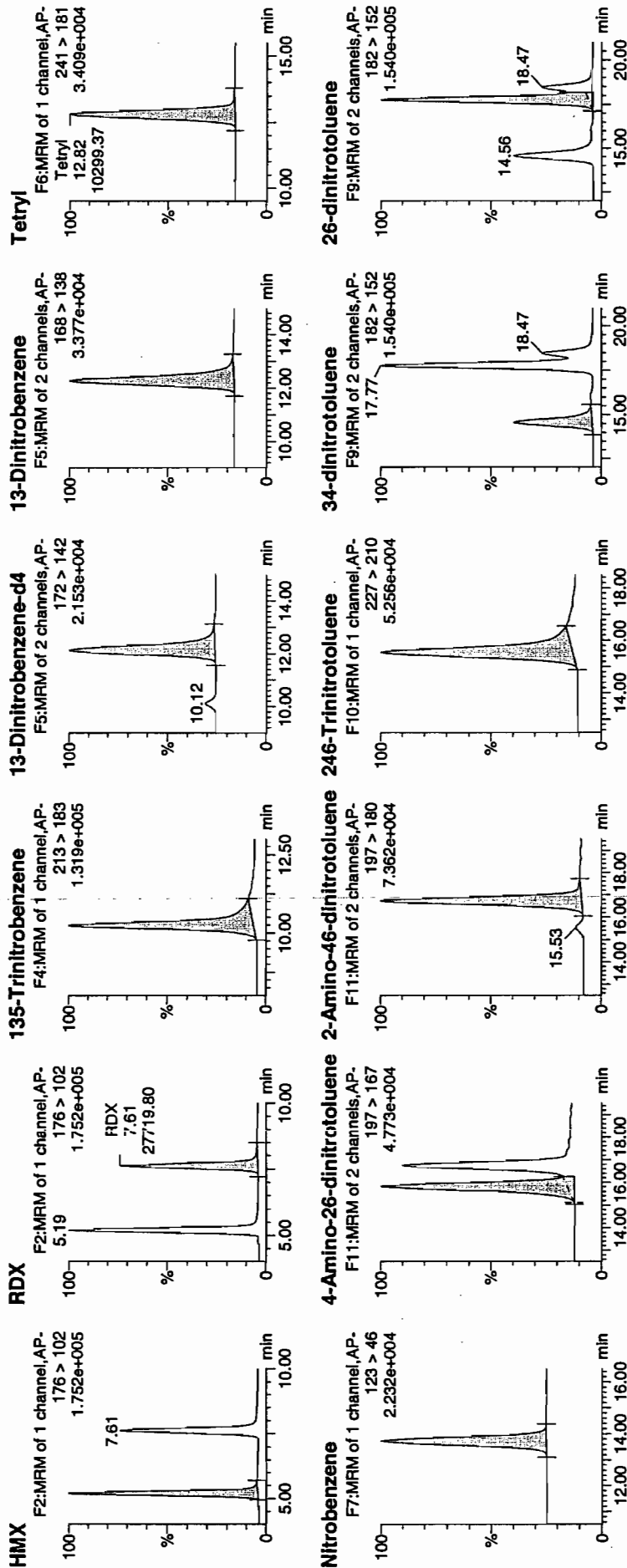
Date: 19-Mar-2010

Time: 21:19:38

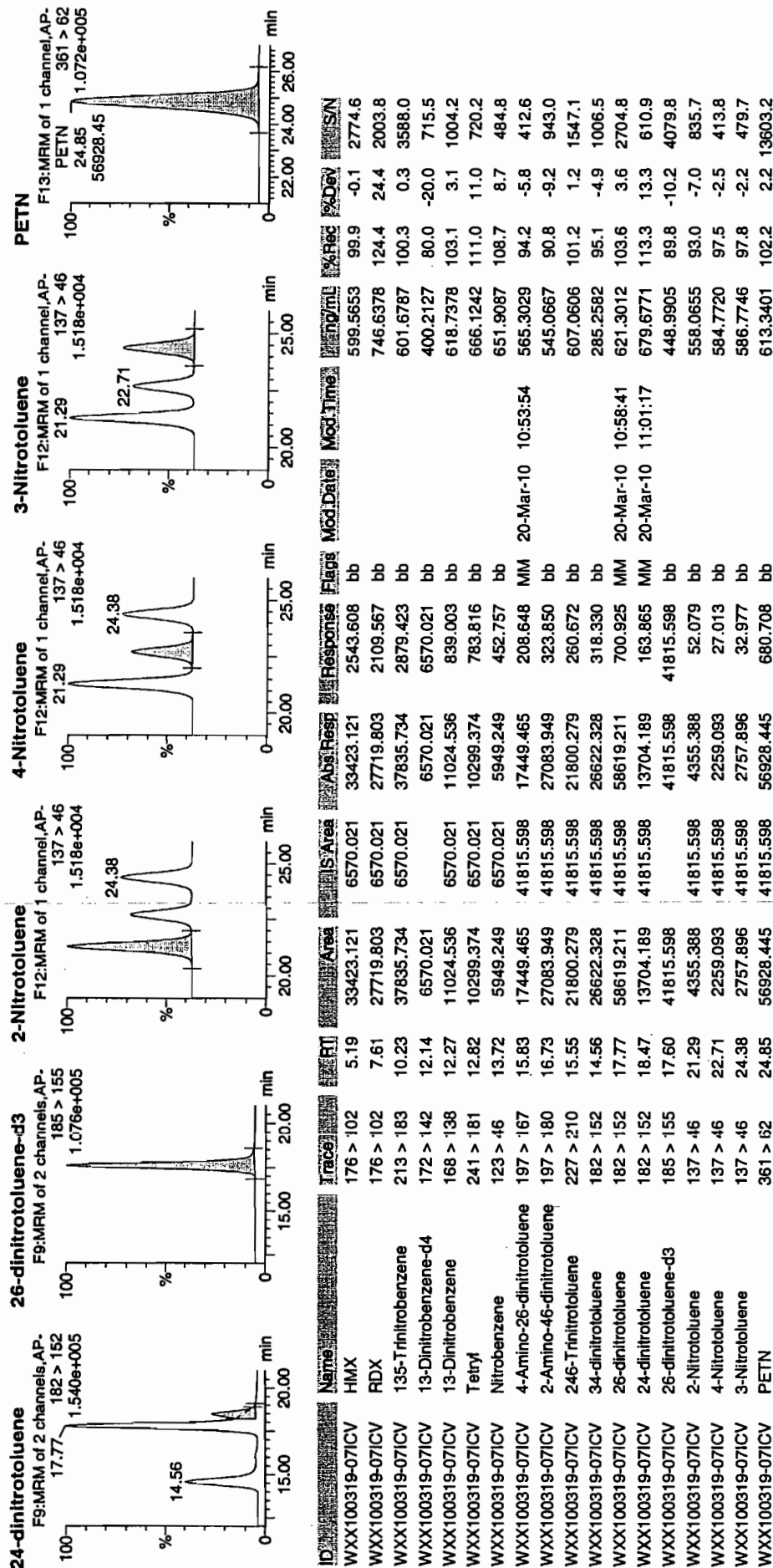
ID: WXX100319-07ICV

Vial: 1:1,B

MRM  
3/20/10



Handwritten signature/initials



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/19/10  
 Time of Injection: 2119  
 Standard Number: WXX100319-07ICV  
 Data File: EXP0319010a

|              |       |
|--------------|-------|
| HMX          | 99.9  |
| RDX          | 124.4 |
| 135-TNB      | 100.3 |
| 13-DNB       | 103.1 |
| Tetryl       | 111.0 |
| Nitrobenzene | 108.7 |
| 4A-26-DNT    | 94.2  |
| 2A-46-DNT    | 90.8  |
| 246-TNT      | 101.2 |
| 34-DNT(surr) | 95.1  |
| 26-DNT       | 103.6 |
| 24-DNT       | 113.3 |
| 2-NT         | 93.0  |
| 4-NT         | 97.5  |
| 3-NT         | 97.8  |
| PETN         | 102.2 |

*not  
3/22/10*

Total 1636.1

Average 102.3

*HW 03/22/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1914

Lab Code: GEL

Run Date: 05-MAR-10.14-MAR-10.19-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC.J-Sphere ODS-H8O

Calibration Type: 2nd Order

| Calibration Level:         | 19              | 20              | 21              | 22              | 23              | 24              | 25              | X      | X^2   | Intercept | COD   | Q |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|-------|-----------|-------|---|
| Data File:                 | EXS03050003.wif | EXS03050004.wif | EXS03050005.wif | EXS03050006.wif | EXS03050007.wif | EXS03050008.wif | EXS03050009.wif |        |       |           |       |   |
| Parname:                   |                 |                 |                 |                 |                 |                 |                 |        |       |           |       |   |
| 2,4-Diamino-6-nitrotoluene | 85600           | 188000          | 436000          | 918000          | 1500000         | 1790000         | 3780000         | -5040  | 1860  | .016      | .9992 |   |
| 2,6-Diamino-4-nitrotoluene | 126000          | 257000          | 638000          | 1300000         | 2090000         | 2570000         | 5220000         | -13200 | 2690  | -.037     | .9996 |   |
| 3,4-Dinitrotoluene         | 307000          | 593000          | 1470000         | 2930000         | 4500000         | 5680000         | 10400000        | -66800 | 13500 | -3.11     | .9976 |   |
| 3,5-Dinitroaniline         | 462000          | 868000          | 2040000         | 4020000         | 6030000         | 7500000         | 12600000        | -18600 | 8840  | -1.27     | .9999 |   |
| TATB                       | 63200           | 132000          | 333000          | 729000          | 1100000         | 1480000         | 3120000         | -13200 | 1430  | .069      | 1     |   |
| tris(o-cresyl) phosphate   | 950000          | 1920000         | 4370000         | 8500000         | 12200000        | 15100000        | 25100000        | 123000 | 17900 | -2.71     | .9999 |   |

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

\* Values outside of QC Limit

030510ICAL

Peak Name: TATB  
No Internal Standard  
Q1/Q3 Masses: 257.20/204.90 amu

Fit Quadratic  
a0 -1.32e+004  
a1 1.43e+003  
a2 0.0686  
Correlation coefficient 1.0000  
Use Area

None Iterate No

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit Quadratic  
a0 -1.86e+004  
a1 8.84e+003  
a2 -1.27  
Correlation coefficient 0.9999  
Use Area

None Iterate No

Peak Name: 34-Dinitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 182.08/151.90 amu

Fit Quadratic  
a0 -6.68e+004  
a1 1.35e+004  
a2 -3.11  
Correlation coefficient 0.9976  
Use Area

None Iterate No

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit Quadratic  
a0 -1.32e+004  
a1 2.69e+003  
a2 -0.0366  
Correlation coefficient 0.9996  
Use Area

None Iterate No

4mm/10/10  
831/10

Den 3/19/10



030510ICAL

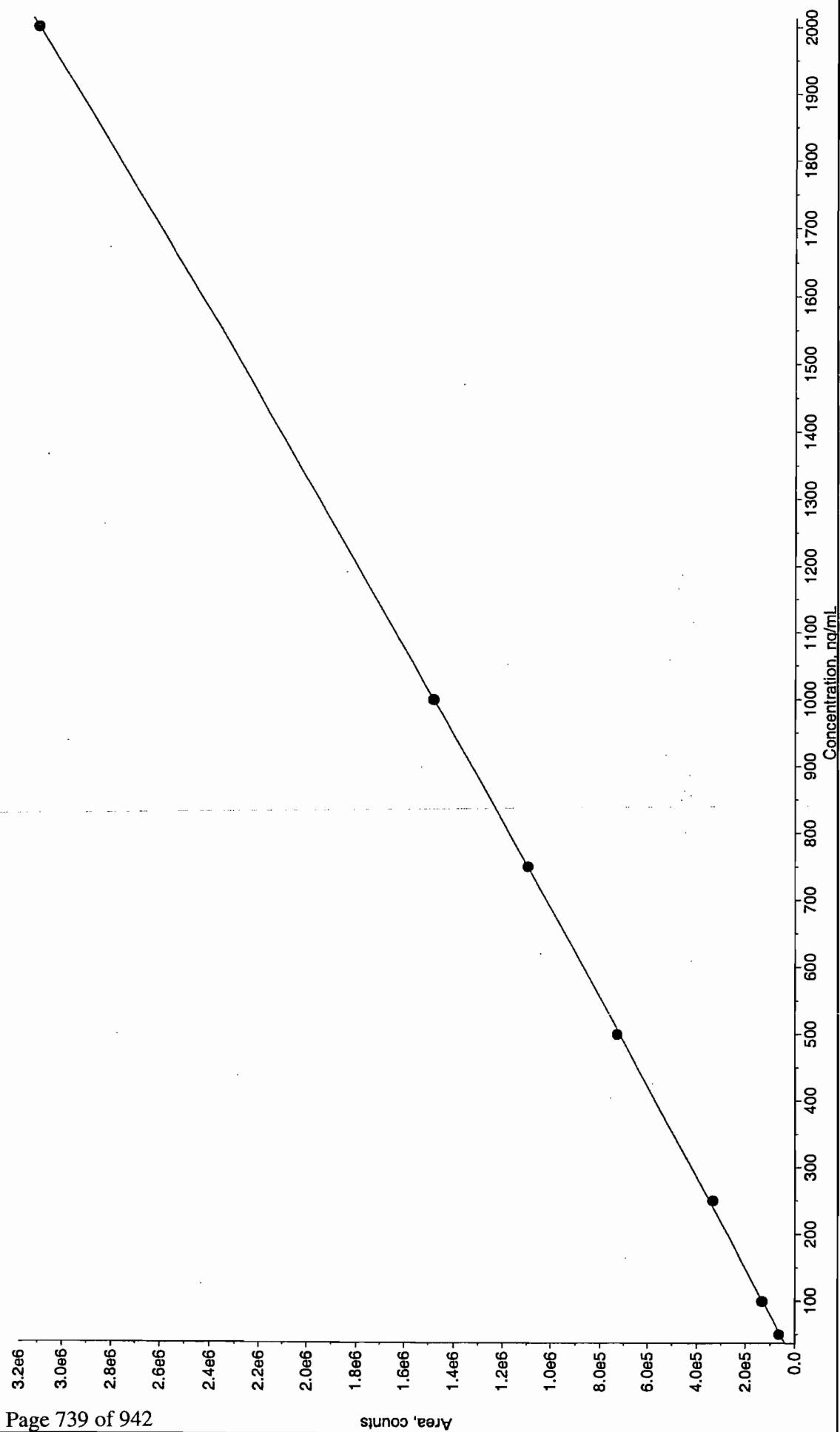
Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

| Fit                            | Quadratic  | Weighting | None | Iterate No |
|--------------------------------|------------|-----------|------|------------|
| a0                             | -5.04e+003 |           |      |            |
| a1                             | 1.86e+003  |           |      |            |
| a2                             | 0.0157     |           |      |            |
| Correlation coefficient 0.9992 |            |           |      |            |
| Use Area                       |            |           |      |            |

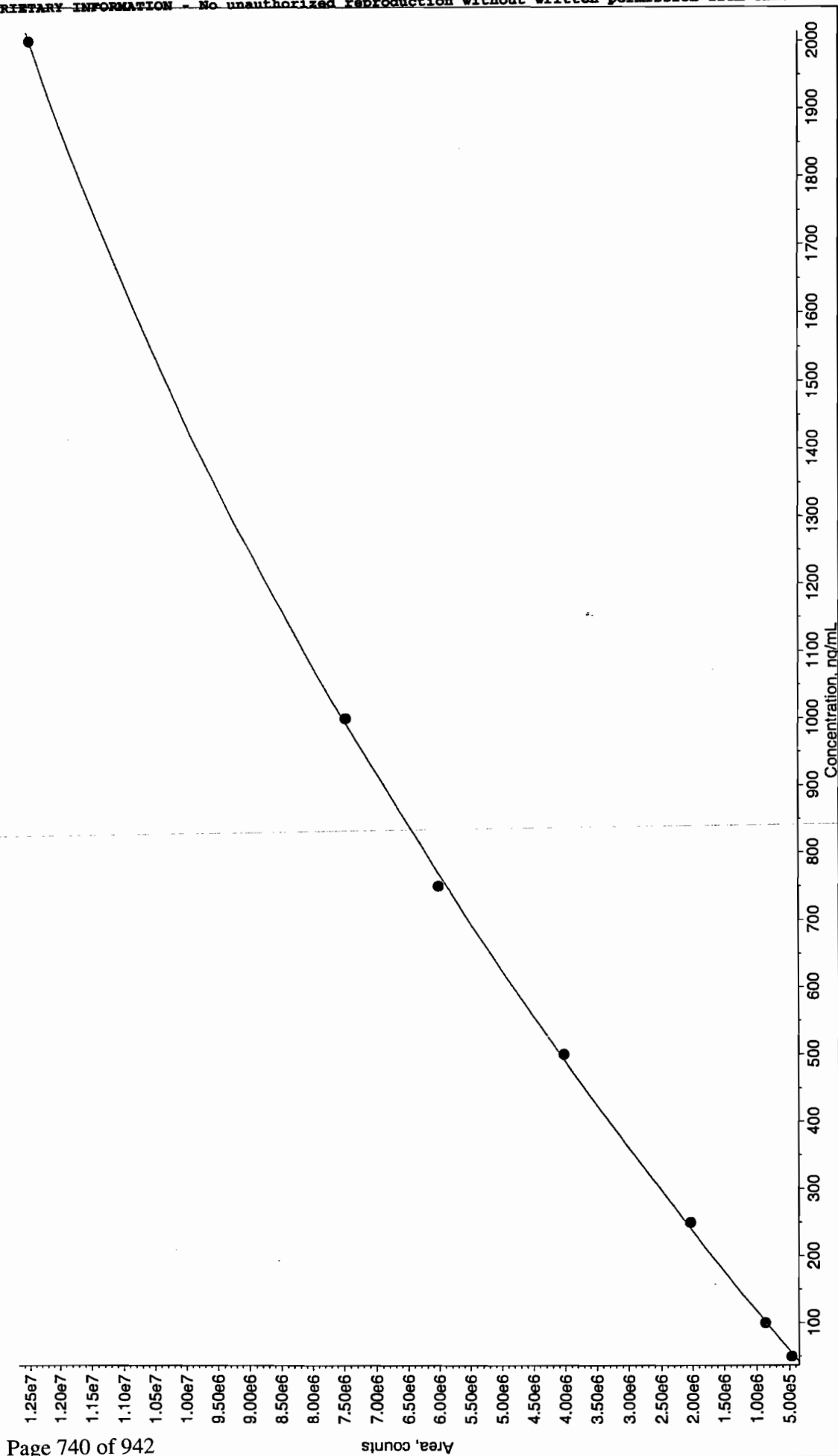
Peak Name: tris(o-cresyl) phosphate  
No Internal Standard  
Q1/Q3 Masses: 369.15/91.00 amu

| Fit                            | Quadratic | Weighting | None | Iterate No |
|--------------------------------|-----------|-----------|------|------------|
| a0                             | 1.23e+005 |           |      |            |
| a1                             | 1.79e+004 |           |      |            |
| a2                             | -2.71     |           |      |            |
| Correlation coefficient 0.9999 |           |           |      |            |
| Use Area                       |           |           |      |            |

030510.rdb (TATB): "Quadratic" Regression ("No" weighting):  $y = 0.0686 x^2 + 1.43e+003 x + -1.32e+004$  ( $r = 1.0000$ )

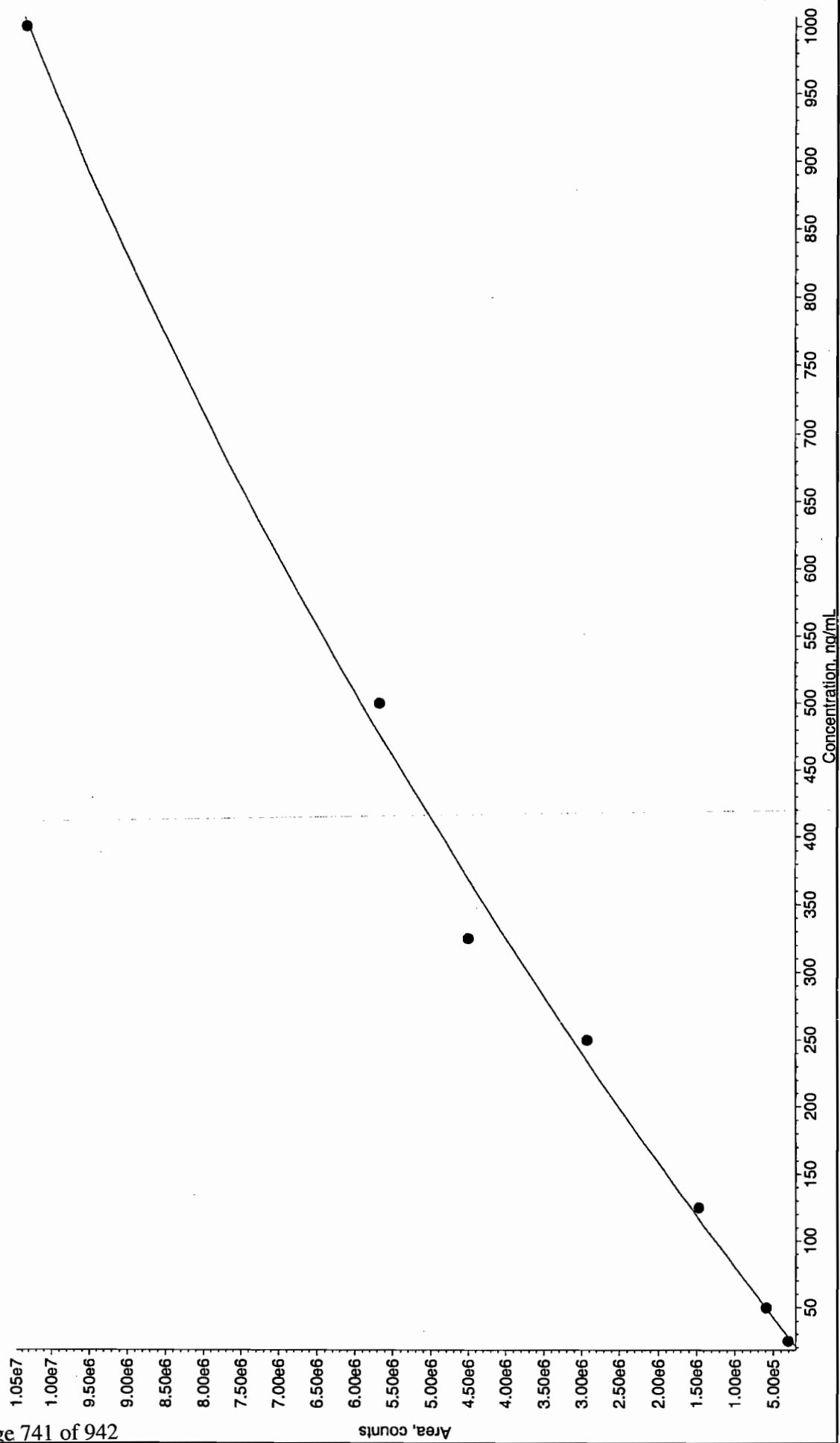


030510.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -1.27 x^2 + 8.84e+003 x + -1.86e+004$  ( $r = 0.9999$ )



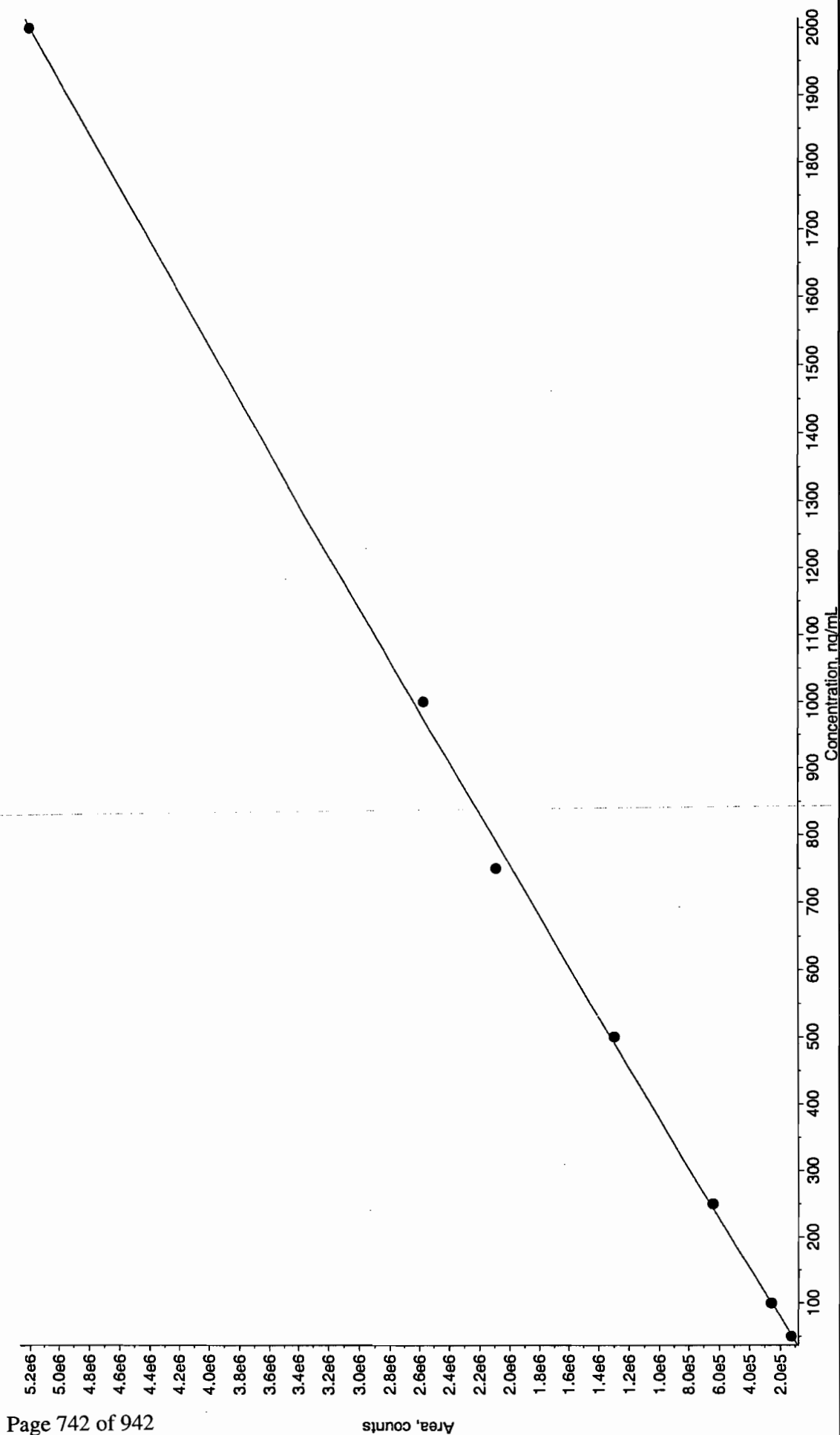
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

030510.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -3.11 x^2 + 1.35e+004 x + -6.68e+004$  ( $r = 0.9976$ )

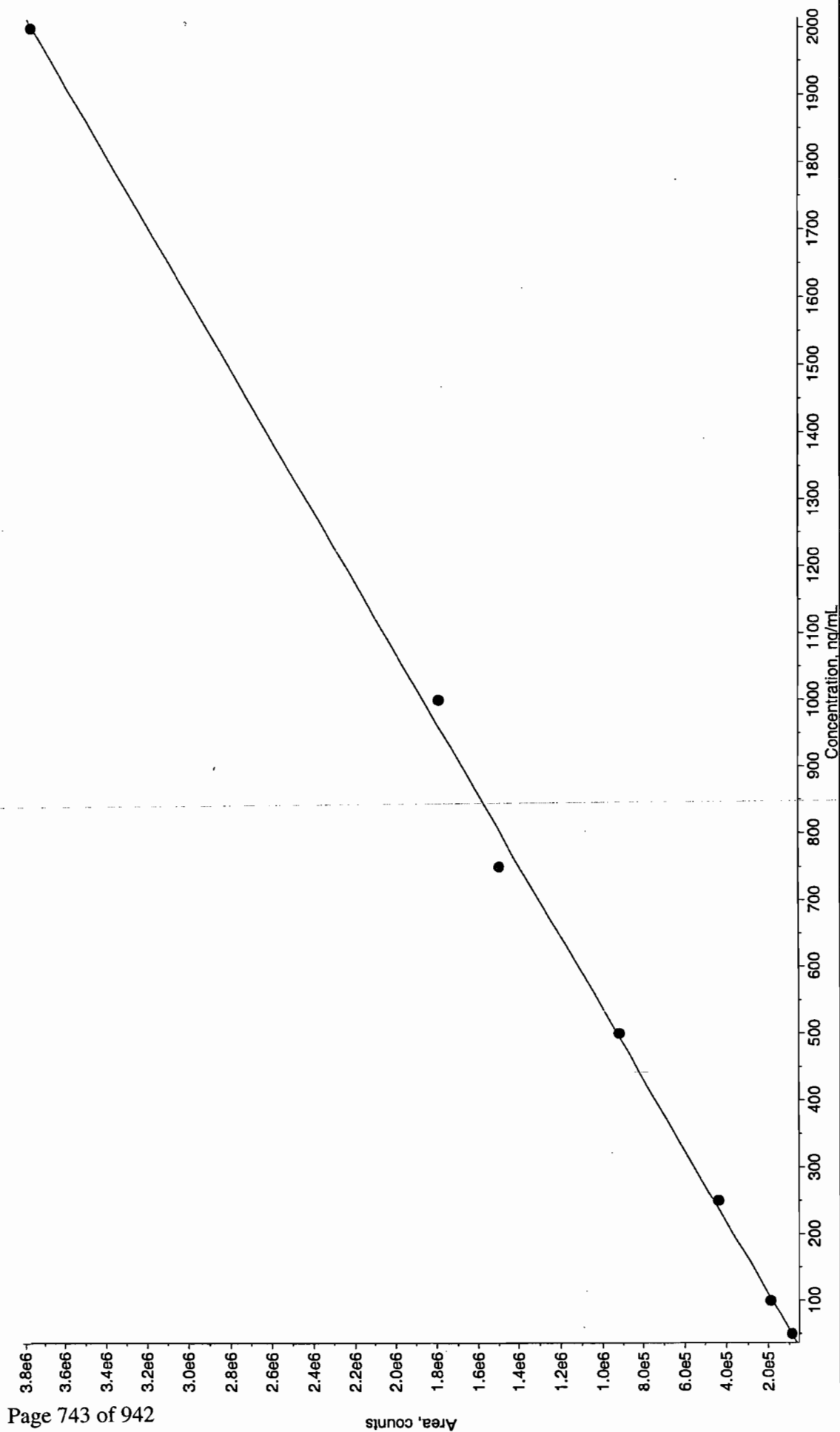


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

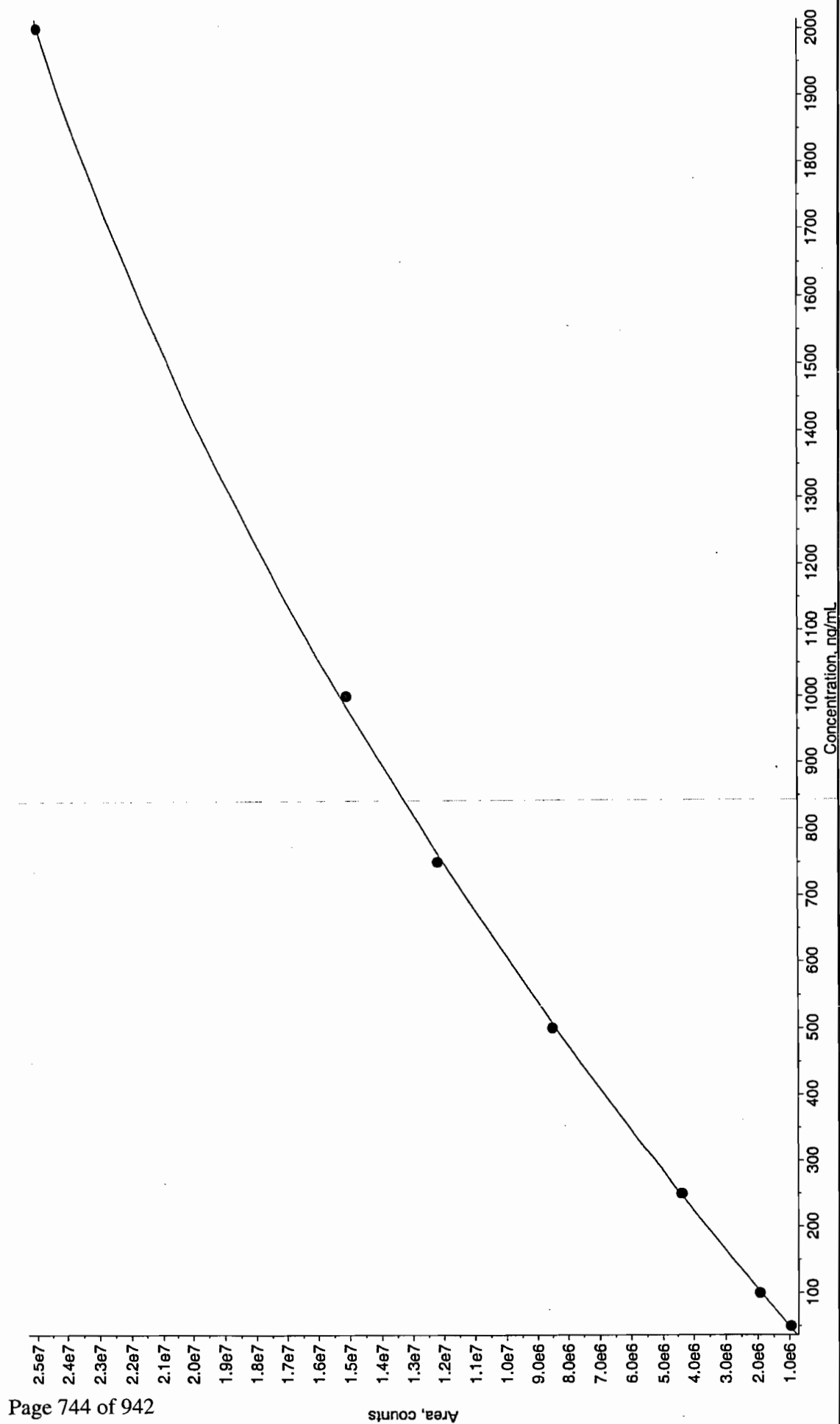
030510.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.0366 x^2 + 2.69e+003 x + -1.32e+004$  ( $r = 0.9996$ )



030510.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = 0.0157 x^2 + 1.86e+003 x + -5.04e+003$  ( $r = 0.9992$ )



030510.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting):  $y = -2.71 x^2 + 1.79e+004 x + 1.23e+005$  ( $r = 0.9999$ )



Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS03050011.wiff

Analysis Date: 05-MAR-10 19:44

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 484   | 97       |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 507   | 101      |   |
| 3,4-Dinitrotoluene         | 250  | 230   | 92       |   |
| 3,5-Dinitroaniline         | 500  | 502   | 100      |   |
| TATB                       | 500  | 503   | 101      |   |
| tris(o-cresyl) phosphate   | 500  | 506   | 101      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

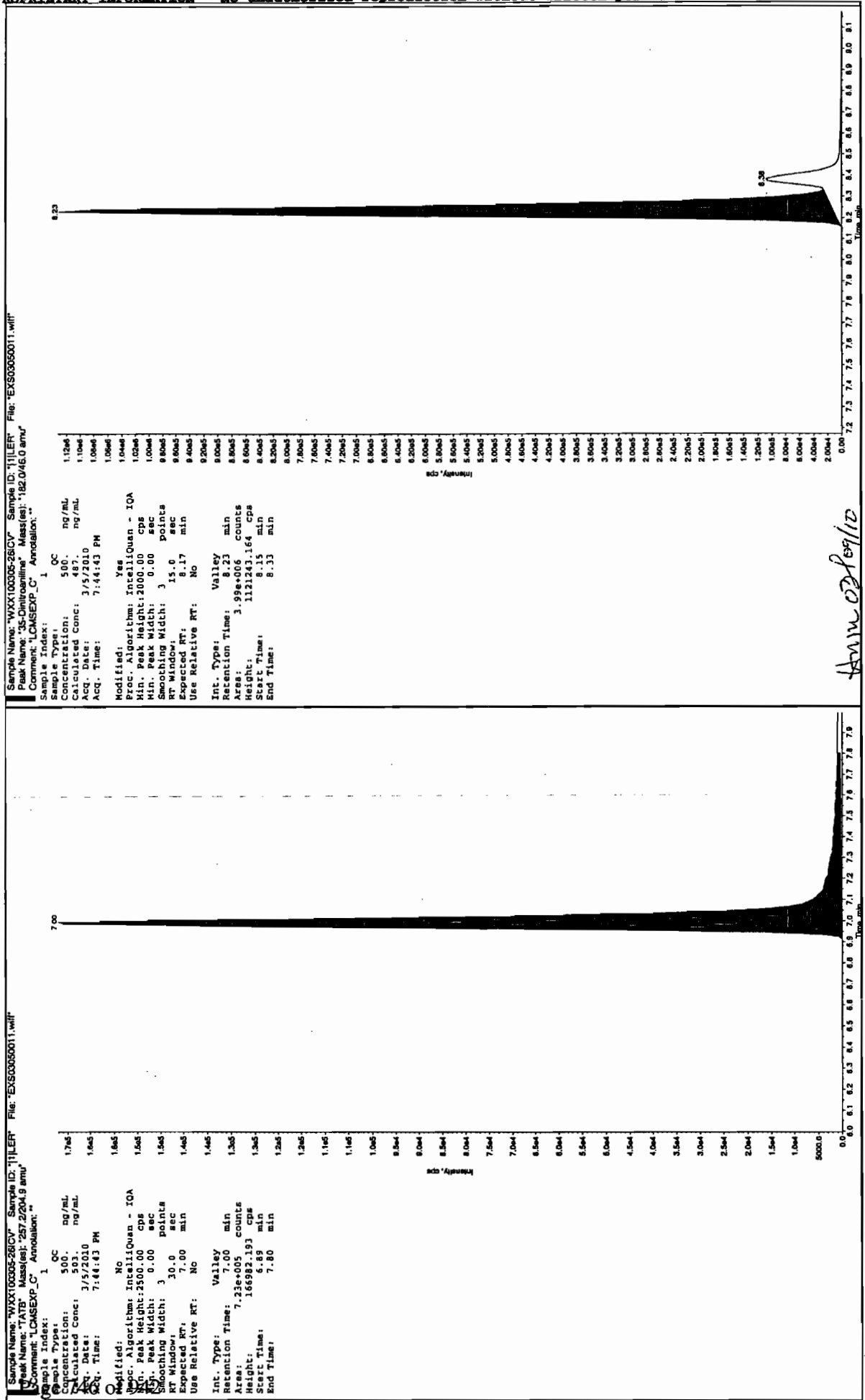
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits



Before Jan 3/9/10

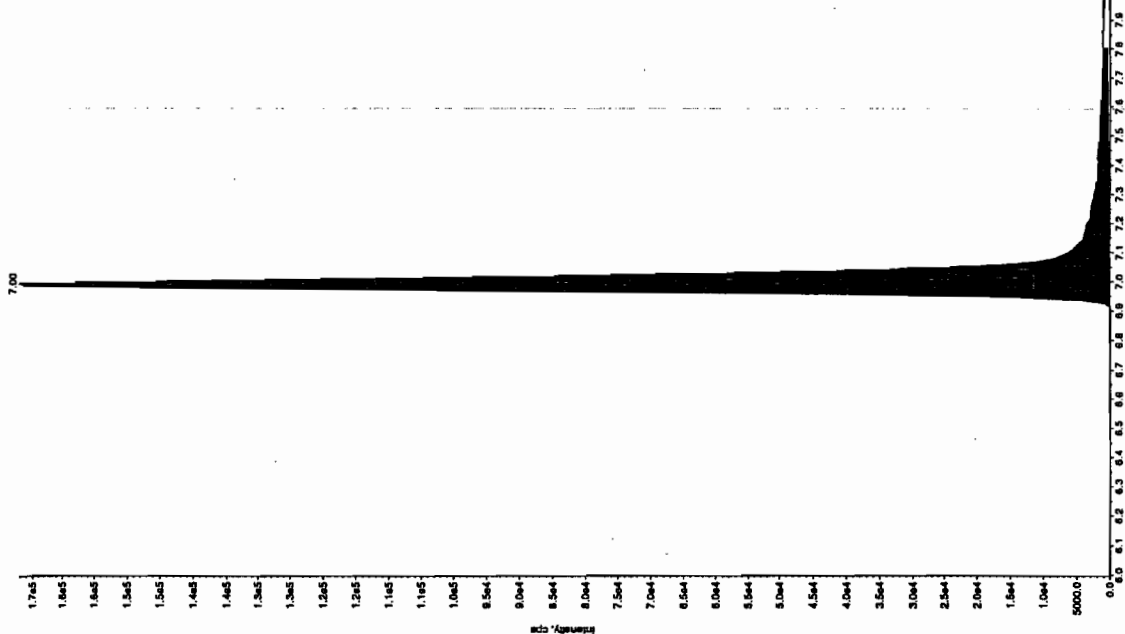


Ann 02/09/10

after Jan 31/90

Sample Name: "WXX100305-281CV" Sample ID: "1111ER" File: "EXS03050011.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

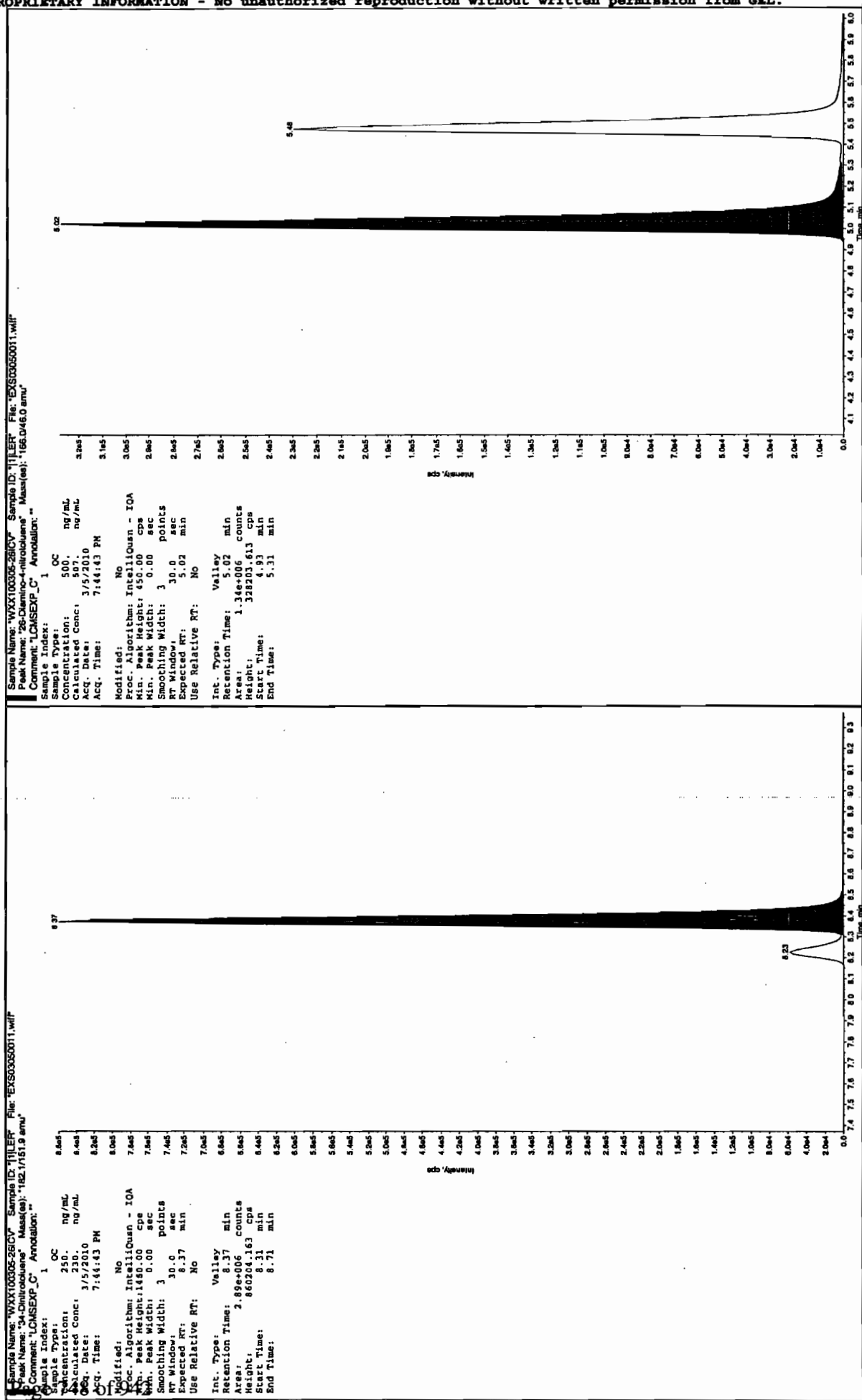
Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Acquisition Date: 3/5/2010  
 Acquisition Time: 7:44:43 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Ch. Peak Height: 2500.00 cps  
 Wn. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 7.00 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 7.23 min  
 Area: 166982.193 counts  
 Height: 6.89 min  
 Start Time: 7.80 min  
 End Time: 7.80 min

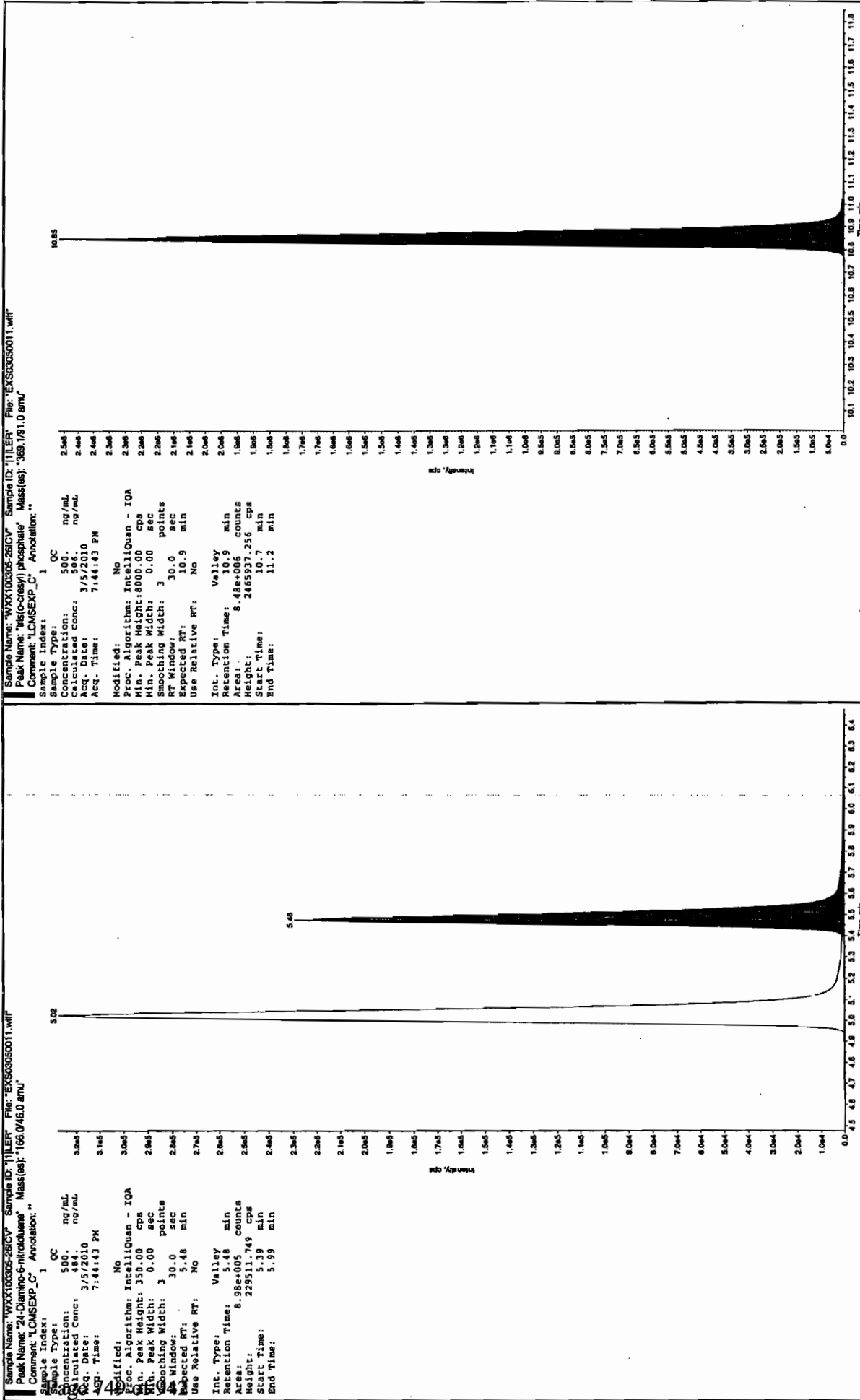


Sample Name: "WXX100305-281CV" Sample ID: "1111ER" File: "EXS03050011.wif"  
 Peak Name: "3,5-Dinitroaniline" Mass(es): "182.04610 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Acquisition Date: 3/5/2010  
 Acquisition Time: 7:44:43 PM  
 Modified: Yes  
 RT Window: 15.0 sec  
 Expected RT: 8.17 min  
 Use Relative RT: No  
 Int. Type: Manual  
 Retention Time: 8.23 min  
 Area: 1140995.391 counts  
 Height: 8.15 min  
 Start Time: 8.33 min  
 End Time: 8.33 min







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314012a

Analysis Date: 14-MAR-10 20:23

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| HMX                        | 40   | 45.554  | 114      |   |
| Nitrobenzene               | 40   | 47.411  | 119      |   |
| PETN                       | 40   | 41.119  | 103      |   |
| RDX                        | 40   | 37.369  | 93       |   |
| Tetryl                     | 40   | 45.238  | 113      |   |
| m-Dinitrobenzene           | 40   | 34.726  | 87       |   |
| m-Nitrotoluene             | 40   | 52.416  | 131      | * |
| o-Nitrotoluene             | 40   | 43.094  | 108      |   |
| p-Nitrotoluene             | 40   | 37.564  | 94       |   |
| 1,3,5-Trinitrobenzene      | 40   | 45.353  | 113      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 469.423 | 94       |   |
| 2,4,6-Trinitrotoluene      | 40   | 36.944  | 92       |   |
| 2,4-Dinitrotoluene         | 40   | 44.992  | 112      |   |
| 2,6-Dinitrotoluene         | 40   | 39.604  | 99       |   |
| 2,6-Dinitrotoluene-d3      | 500  | 507.766 | 102      |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 35.068  | 88       |   |
| 3,4-Dinitrotoluene         | 20   | 17.939  | 90       |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 40.541  | 101      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNXNew\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNXNEW\_EXP.PRO\Data\EXP0314012a

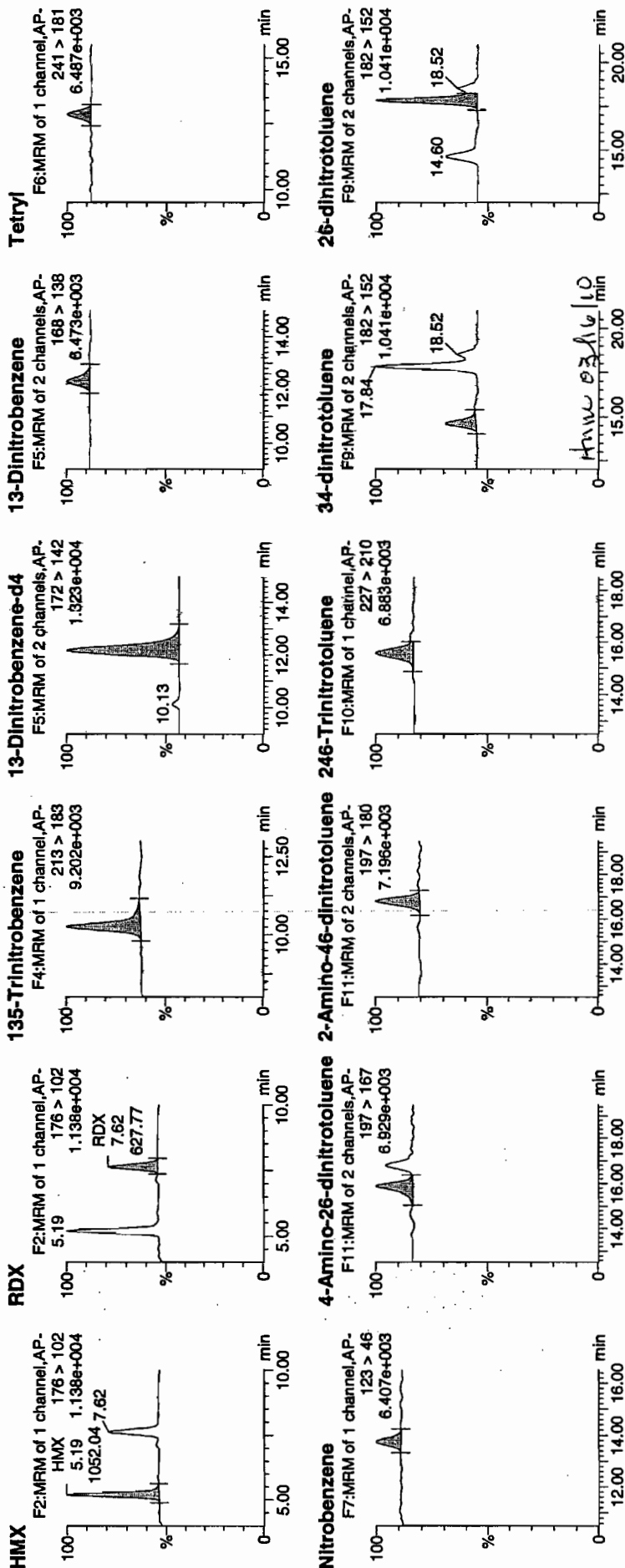
Date: 14-Mar-2010

Time: 20:23:15

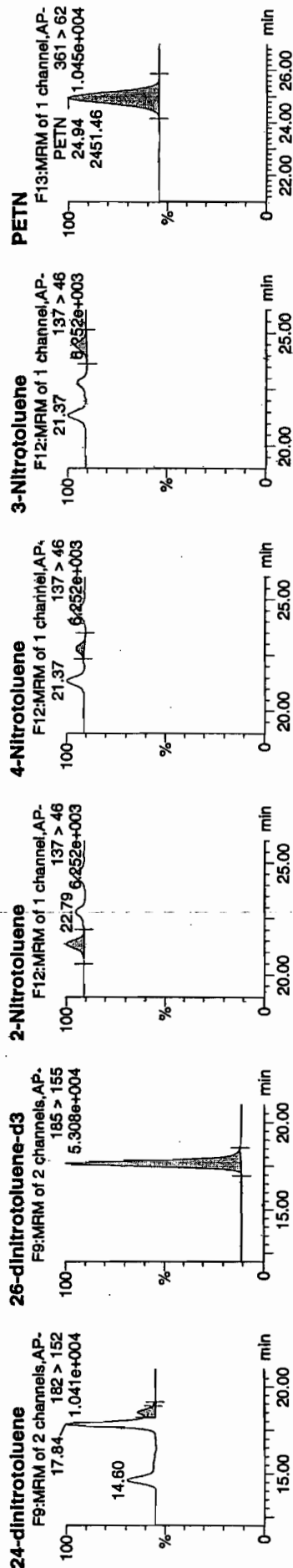
ID: WXX100314-08CRI

Vial: 1:1,C

WAT  
3/15/10



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| ID              | Name                      | Trace     | RT    | Ave       | State     | Address   | Response  | Flags | Mod.Date  | Mod.Time | DDMM     | YYHH  | Day   | USA    |
|-----------------|---------------------------|-----------|-------|-----------|-----------|-----------|-----------|-------|-----------|----------|----------|-------|-------|--------|
| WXX100314-08CRI | HMx                       | 176 > 102 | 5.19  | 1052.037  | 3158.691  | 1052.037  | 166.531   | bb    |           |          | 45.5535  | 113.9 | 13.9  | 86.2   |
| WXX100314-08CRI | RDX                       | 176 > 102 | 7.62  | 627.766   | 3158.691  | 627.766   | 99.371    | bb    |           |          | 37.3690  | 93.4  | -6.6  | 46.0   |
| WXX100314-08CRI | 135-Trinitrobenzene       | 213 > 183 | 10.27 | 1054.332  | 3158.691  | 1054.332  | 166.894   | bb    |           |          | 45.3525  | 113.4 | 13.4  | 111.1  |
| WXX100314-08CRI | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17 | 3158.691  |           | 3158.691  | 3158.691  | bb    |           |          | 469.4227 | 93.9  | -6.1  | 347.5  |
| WXX100314-08CRI | 13-Dinitrobenzene         | 168 > 138 | 12.31 | 291.450   | 3158.691  | 291.450   | 46.135    | bb    |           |          | 34.7259  | 86.8  | -13.2 | 32.0   |
| WXX100314-08CRI | Tetryl                    | 241 > 181 | 12.87 | 270.707   | 3158.691  | 270.707   | 42.851    | bb    |           |          | 45.2383  | 113.1 | 13.1  | 47.0   |
| WXX100314-08CRI | Nitrobenzene              | 123 > 46  | 13.76 | 245.701   | 3158.691  | 245.701   | 38.893    | bb    |           |          | 47.4108  | 118.5 | 18.5  | 19.6   |
| WXX100314-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.89 | 486.379   | 19351.625 | 488.379   | 12.619    | MM    | 15-Mar-10 | 10:07:09 | 40.5413  | 101.4 | 1.4   | 26.9   |
| WXX100314-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79 | 557.705   | 19351.625 | 557.705   | 14.410    | bb    |           |          | 35.0675  | 87.7  | -12.3 | 31.2   |
| WXX100314-08CRI | 246-Trinitrotoluene       | 227 > 210 | 15.58 | 487.691   | 19351.625 | 487.691   | 12.601    | dd    |           |          | 36.9441  | 92.4  | -7.6  | 27.3   |
| WXX100314-08CRI | 34-dinitrotoluene         | 182 > 152 | 14.60 | 669.473   | 19351.625 | 669.473   | 17.298    | bb    |           |          | 17.9388  | 89.7  | -10.3 | 77.1   |
| WXX100314-08CRI | 26-dinitrotoluene         | 182 > 152 | 17.84 | 1724.533  | 19351.625 | 1724.533  | 44.558    | MM    | 15-Mar-10 | 10:10:06 | 39.6042  | 99.0  | -1.0  | 249.5  |
| WXX100314-08CRI | 24-dinitrotoluene         | 182 > 152 | 18.52 | 417.081   | 19351.625 | 417.081   | 10.776    | MM    | 15-Mar-10 | 10:13:19 | 44.9924  | 112.5 | 12.5  | 50.3   |
| WXX100314-08CRI | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 19351.625 |           | 19351.625 | 19351.625 | bb    |           |          | 507.7662 | 101.6 | 1.6   | 1621.3 |
| WXX100314-08CRI | 2-Nitrotoluene            | 137 > 46  | 21.37 | 263.096   | 19351.625 | 253.096   | 6.539     | bb    |           |          | 43.0939  | 107.7 | 7.7   | 32.0   |
| WXX100314-08CRI | 4-Nitrotoluene            | 137 > 46  | 22.79 | 111.157   | 19351.625 | 111.157   | 2.872     | bb    |           |          | 37.5644  | 93.9  | -6.1  | 14.6   |
| WXX100314-08CRI | 3-Nitrotoluene            | 137 > 46  | 24.46 | 185.527   | 19351.625 | 185.527   | 4.794     | bb    |           |          | 62.4163  | 131.0 | 31.0  | 20.5   |
| WXX100314-08CRI | PETN                      | 361 > 62  | 24.94 | 2451.459  | 19351.625 | 2451.459  | 63.340    | bb    |           |          | 41.1187  | 102.8 | 2.8   | 502.2  |

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/14/10  
 Time of Injection 2023  
 Standard Number WXX100314-08CRI  
 Data File EXP0314012a

|              |       |
|--------------|-------|
| HMX          | 113.9 |
| RDX          | 93.4  |
| 135-TNB      | 113.4 |
| 13-DNB       | 86.8  |
| Tetryl       | 113.1 |
| Nitrobenzene | 118.5 |
| 4A-26-DNT    | 101.4 |
| 2A-46-DNT    | 87.7  |
| 246-TNT      | 92.4  |
| 34-DNT(surr) | 89.7  |
| 26-DNT       | 99.0  |
| 24-DNT       | 112.5 |
| 2-NT         | 107.7 |
| 4-NT         | 93.9  |
| 3-NT         | 131.0 |
| PETN         | 102.8 |

WTP  
3/15/10

Total 1657.2

Average 103.6

WTP-03/16/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314023a

Analysis Date: 15-MAR-10 01:47

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 3,4-Dinitrotoluene         | 300  | 302.639 | 101      |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 562.733 | 94       |   |
| HMX                        | 600  | 609.823 | 102      |   |
| Nitrobenzene               | 600  | 631.179 | 105      |   |
| PETN                       | 600  | 603.16  | 101      |   |
| RDX                        | 600  | 680.646 | 113      |   |
| Tetryl                     | 600  | 623.98  | 104      |   |
| m-Dinitrobenzene           | 600  | 569.786 | 95       |   |
| m-Nitrotoluene             | 600  | 571.208 | 95       |   |
| o-Nitrotoluene             | 600  | 576.388 | 96       |   |
| p-Nitrotoluene             | 600  | 572.801 | 95       |   |
| 1,3,5-Trinitrobenzene      | 600  | 562.341 | 94       |   |
| 1,3-Dinitrobenzene-d4      | 500  | 504.22  | 101      |   |
| 2,4,6-Trinitrotoluene      | 600  | 632.951 | 105      |   |
| 2,4-Dinitrotoluene         | 600  | 641.749 | 107      |   |
| 2,6-Dinitrotoluene         | 600  | 629.098 | 105      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 542.493 | 108      |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 610.437 | 102      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314023a

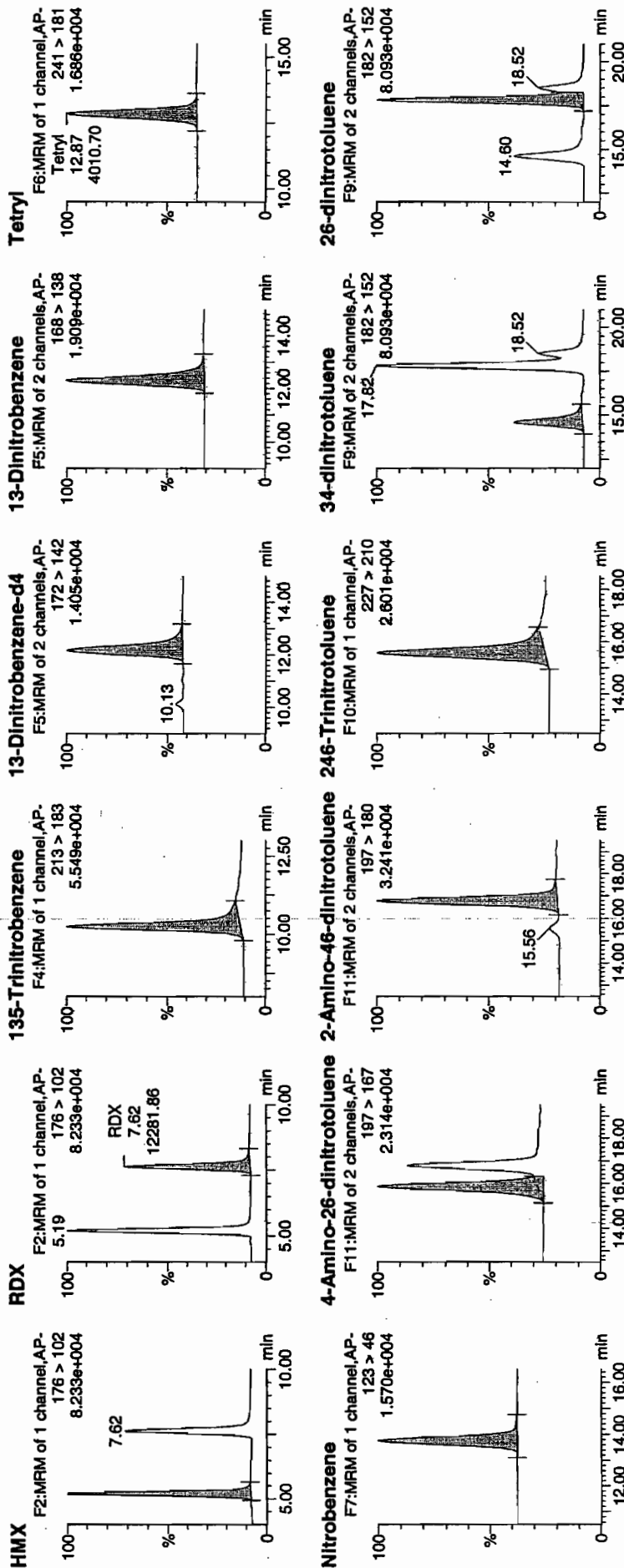
Date: 15-Mar-2010

Time: 01:47:26

ID: WXX100314-07CCV

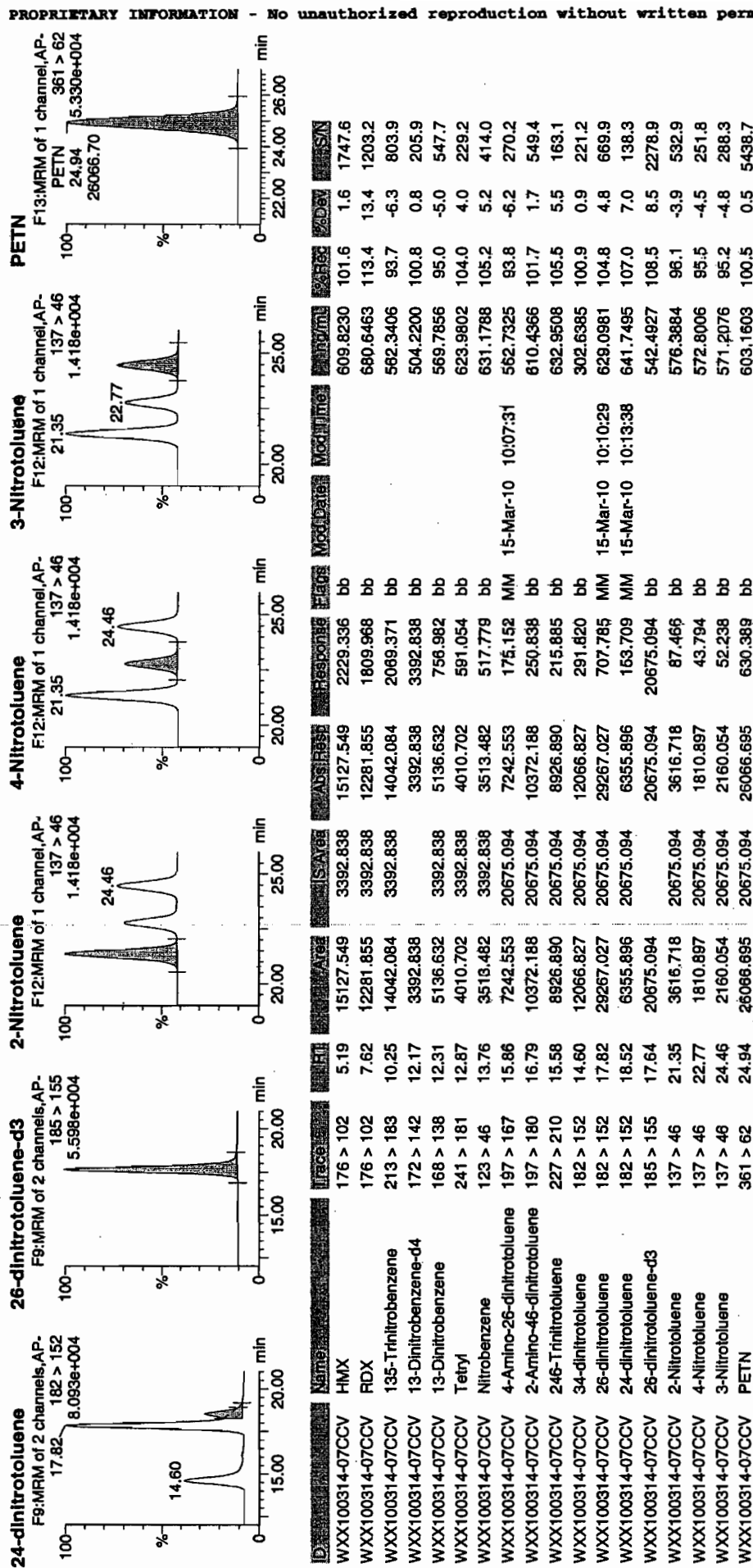
Vial: 1:1,B

*MP*  
*2/10/10*



*thru 2/16/10*

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/15/10  
 Time of Injection: 0147  
 Standard Number: WXX100314-07CCV  
 Data File: EXP0314023a

|              |       |
|--------------|-------|
| HMX          | 101.6 |
| RDX          | 113.4 |
| 135-TNB      | 93.7  |
| 13-DNB       | 95.0  |
| Tetryl       | 104.0 |
| Nitrobenzene | 105.2 |
| 4A-26-DNT    | 93.8  |
| 2A-46-DNT    | 101.7 |
| 246-TNT      | 105.5 |
| 34-DNT(surr) | 100.9 |
| 26-DNT       | 104.8 |
| 24-DNT       | 107.0 |
| 2-NT         | 96.1  |
| 4-NT         | 95.5  |
| 3-NT         | 95.2  |
| PETN         | 100.5 |

*2017  
3/15/10*

Total 1613.9

Average 100.9

*4mm 03/16/10*

|                    |
|--------------------|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314025a

Analysis Date: 15-MAR-10 02:46

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 1,3,5-Trinitrobenzene      | 40   | 50.069  | 125      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 524.134 | 105      |   |
| 2,4,6-Trinitrotoluene      | 40   | 38.531  | 96       |   |
| 2,4-Dinitrotoluene         | 40   | 40.483  | 101      |   |
| 2,6-Dinitrotoluene         | 40   | 40.862  | 102      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 567.612 | 114      |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 37.43   | 94       |   |
| 3,4-Dinitrotoluene         | 20   | 16.97   | 85       |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 43.966  | 110      |   |
| HMX                        | 40   | 44.421  | 111      |   |
| Nitrobenzene               | 40   | 36.612  | 92       |   |
| PETN                       | 40   | 36.431  | 91       |   |
| RDX                        | 40   | 40.127  | 100      |   |
| Tetryl                     | 40   | 45.808  | 115      |   |
| m-Dinitrobenzene           | 40   | 44.086  | 110      |   |
| m-Nitrotoluene             | 40   | 49.167  | 123      |   |
| o-Nitrotoluene             | 40   | 38.212  | 96       |   |
| p-Nitrotoluene             | 40   | 48.579  | 121      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314025a

Date: 15-Mar-2010

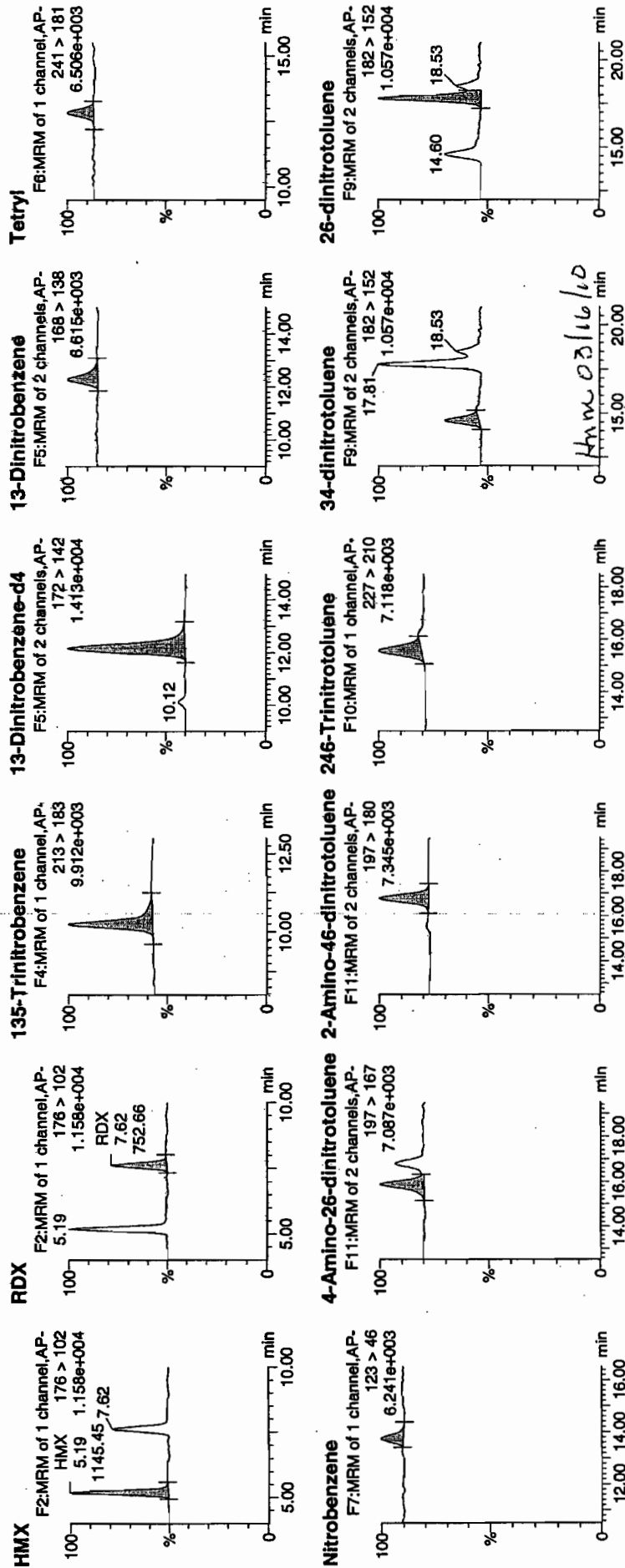
Time: 02:46:30

ID: WXX100314-08CRI

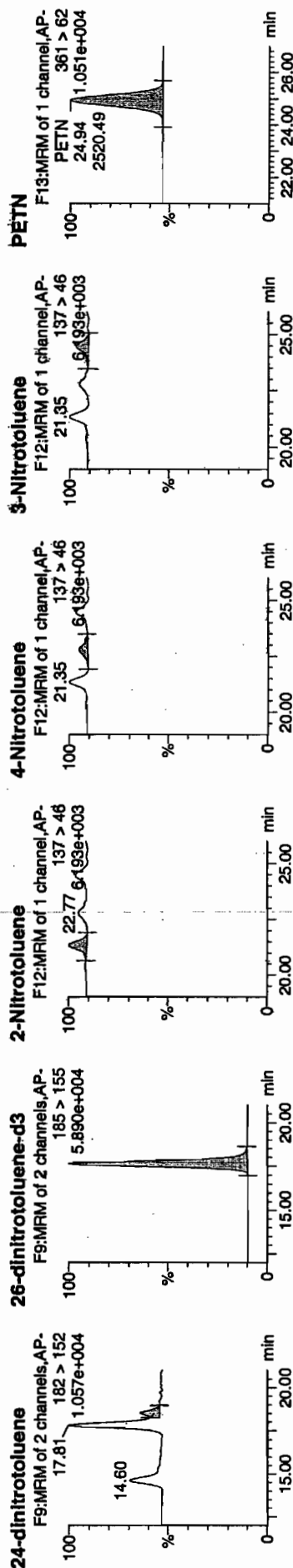
Vial: 1:1,C

WAF  
3/15/10

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Dataset: C:\MASSL\YXXNew\_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010



| ID              | Name                      | Trace     | Area  | IS Area   | Abundance | Response  | Flag      | Mod Date | Mod Time | Mod User | Mod Dev | Mod SN |
|-----------------|---------------------------|-----------|-------|-----------|-----------|-----------|-----------|----------|----------|----------|---------|--------|
| WXX100314-08CRI | HMX                       | 176 > 102 | 5.19  | 1145.450  | 3526.837  | 1145.450  | 162.391   | bb       | 44.4211  | 111.1    | 11.1    | 171.9  |
| WXX100314-08CRI | RDX                       | 176 > 102 | 7.62  | 752.662   | 3526.837  | 752.662   | 106.705   | bb       | 40.1269  | 100.3    | 0.3     | 97.9   |
| WXX100314-08CRI | 135-Trinitrobenzene       | 213 > 183 | 10.25 | 1299.630  | 3526.837  | 1299.630  | 184.249   | bb       | 50.0686  | 125.2    | 25.2    | 240.0  |
| WXX100314-08CRI | 13-Dinitrobenzene         | 172 > 142 | 12.17 | 3526.837  | 3526.837  | 3526.837  | 3526.837  | bb       | 524.1340 | 104.8    | 4.8     | 185.8  |
| WXX100314-08CRI | 13-Dinitrobenzene         | 168 > 138 | 12.31 | 413.131   | 3526.837  | 413.131   | 58.570    | bb       | 44.0858  | 110.2    | 10.2    | 49.6   |
| WXX100314-08CRI | Tetryl                    | 241 > 181 | 12.82 | 306.066   | 3526.837  | 306.066   | 43.391    | bb       | 45.8082  | 114.5    | 14.5    | 23.8   |
| WXX100314-08CRI | Nitrobenzene              | 123 > 46  | 13.76 | 211.853   | 3526.837  | 211.853   | 30.034    | bb       | 36.6123  | 91.5     | -8.5    | 14.8   |
| WXX100314-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 592.052   | 21632.408 | 592.052   | 13.684    | MM       | 43.9656  | 109.9    | 9.9     | 60.7   |
| WXX100314-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.78 | 665.430   | 21632.408 | 665.430   | 15.380    | bb       | 37.4296  | 83.6     | -6.4    | 51.8   |
| WXX100314-08CRI | 246-Trinitrotoluene       | 227 > 210 | 15.58 | 568.581   | 21632.408 | 568.581   | 13.142    | bb       | 38.5305  | 96.3     | -3.7    | 105.8  |
| WXX100314-08CRI | 34-dinitrotoluene         | 182 > 152 | 14.60 | 707.952   | 21632.408 | 707.952   | 16.363    | bb       | 16.9698  | 84.8     | -15.2   | 30.2   |
| WXX100314-08CRI | 26-dinitrotoluene         | 182 > 152 | 17.81 | 1989.013  | 21632.408 | 1989.013  | 45.973    | MM       | 40.8620  | 102.2    | 2.2     | 91.1   |
| WXX100314-08CRI | 24-dinitrotoluene         | 182 > 152 | 18.53 | 419.512   | 21632.408 | 419.512   | 9.696     | MM       | 40.4833  | 101.2    | 1.2     | 19.8   |
| WXX100314-08CRI | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 21632.408 | 21632.408 | 21632.408 | 21632.408 | bb       | 567.6116 | 113.5    | 13.5    | 1412.3 |
| WXX100314-08CRI | 2-Nitrotoluene            | 137 > 46  | 21.35 | 250.877   | 21632.408 | 250.877   | 5.799     | bb       | 38.2124  | 95.5     | -4.5    | 59.9   |
| WXX100314-08CRI | 4-Nitrotoluene            | 137 > 46  | 22.77 | 160.691   | 21632.408 | 160.691   | 3.714     | bb       | 48.5785  | 121.4    | 21.4    | 28.4   |
| WXX100314-08CRI | 3-Nitrotoluene            | 137 > 46  | 24.45 | 194.536   | 21632.408 | 194.536   | 4.496     | bb       | 49.1668  | 122.9    | 22.9    | 38.2   |
| WXX100314-08CRI | PETN                      | 361 > 62  | 24.94 | 2520.485  | 21632.408 | 2520.485  | 58.257    | bb       | 36.4306  | 91.1     | -8.9    | 1426.6 |

GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/15/10  
 Time of Injection 0246  
 Standard Number WXX100314-08CRI  
 Data File EXP0314025a

|              |       |
|--------------|-------|
| HMX          | 111.1 |
| RDX          | 100.3 |
| 135-TNB      | 125.2 |
| 13-DNB       | 110.2 |
| Tetryl       | 114.5 |
| Nitrobenzene | 91.5  |
| 4A-26-DNT    | 109.9 |
| 2A-46-DNT    | 93.6  |
| 246-TNT      | 96.3  |
| 34-DNT(surr) | 84.8  |
| 26-DNT       | 102.2 |
| 24-DNT       | 101.2 |
| 2-NT         | 95.5  |
| 4-NT         | 121.4 |
| 3-NT         | 122.9 |
| PETN         | 91.1  |

*Handwritten:* 1247  
3/15/10

Total 1671.7

Average 104.5

*Handwritten:* HMX 03/16/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314036a

Analysis Date: 15-MAR-10 08:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| p-Nitrotoluene             | 600  | 547.013 | 91       |   |
| 1,3,5-Trinitrobenzene      | 600  | 609.929 | 102      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 517.182 | 103      |   |
| 2,4,6-Trinitrotoluene      | 600  | 642.971 | 107      |   |
| 2,4-Dinitrotoluene         | 600  | 669.08  | 112      |   |
| 2,6-Dinitrotoluene         | 600  | 616.33  | 103      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 508.481 | 102      |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 608.331 | 101      |   |
| 3,4-Dinitrotoluene         | 300  | 325.574 | 109      |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 590.851 | 98       |   |
| HMX                        | 600  | 632.345 | 105      |   |
| Nitrobenzene               | 600  | 569.416 | 95       |   |
| PETN                       | 600  | 689.279 | 115      |   |
| RDX                        | 600  | 722.585 | 120      | * |
| Tetryl                     | 600  | 579.696 | 97       |   |
| m-Dinitrobenzene           | 600  | 560.181 | 93       |   |
| m-Nitrotoluene             | 600  | 561.892 | 94       |   |
| o-Nitrotoluene             | 600  | 556.526 | 93       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314036a

Date: 15-Mar-2010

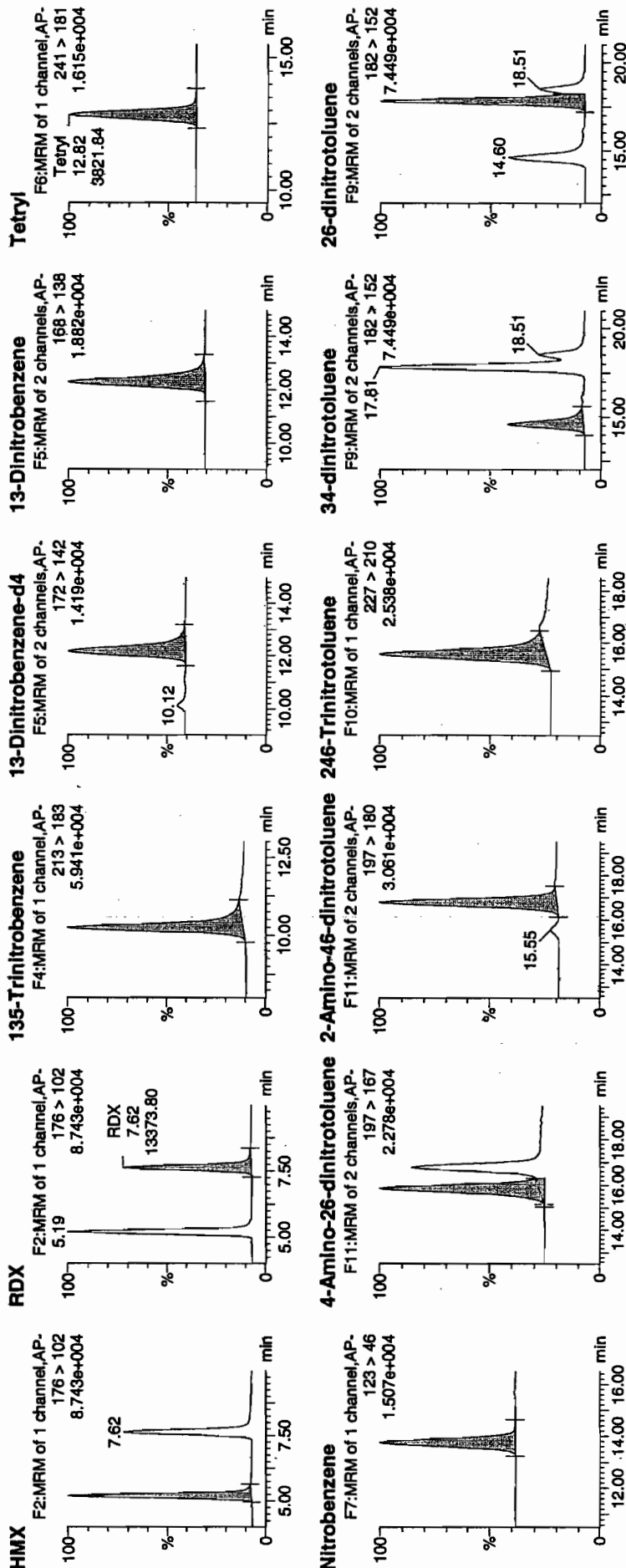
Time: 08:10:45

ID: WXX100314-07CCV

Vial: 1:1,B

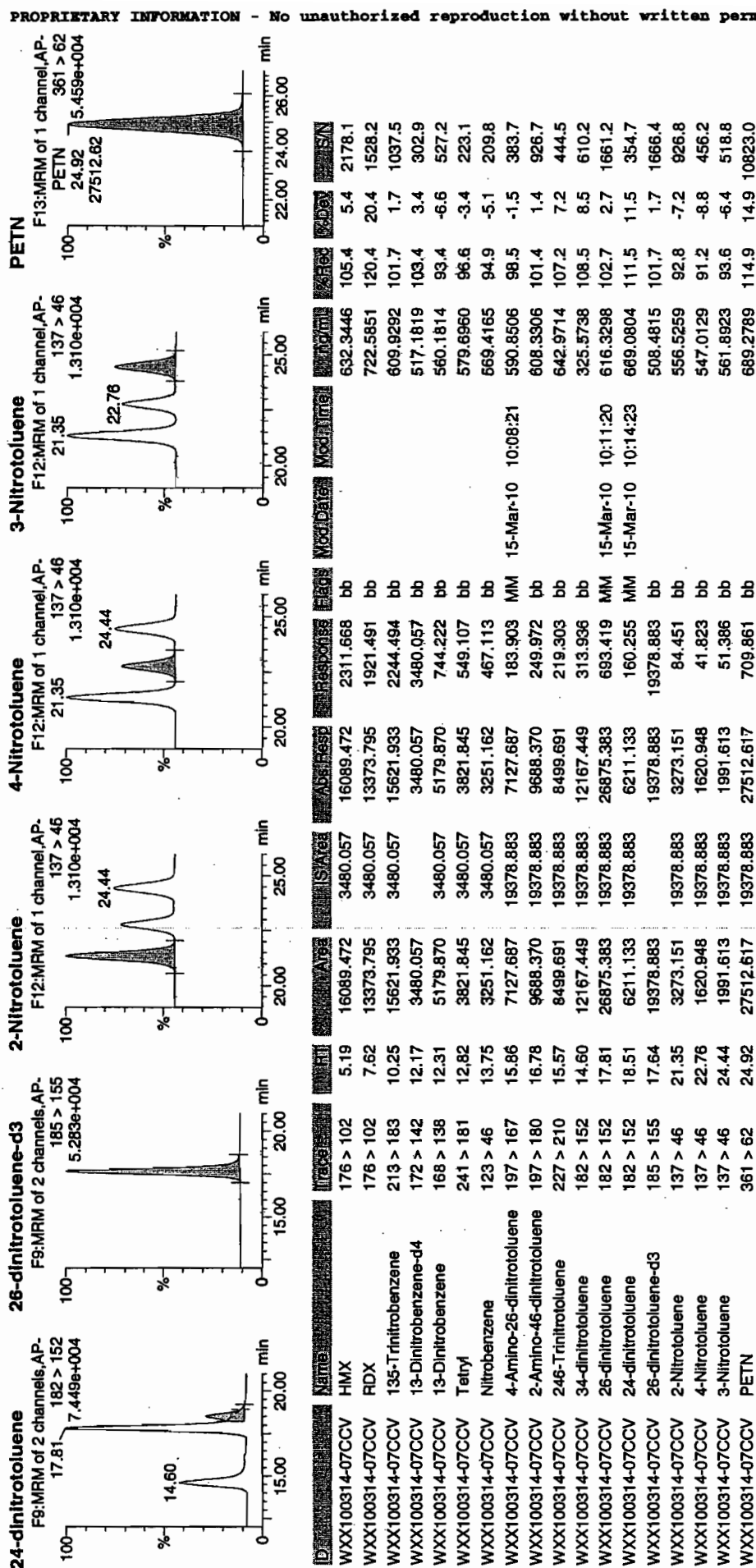
WAT  
3/15/10

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01/16/10  
WAT

Dataset: C:\MASSLYNX\New\_Exp\PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/15/10  
 Time of Injection: 0810  
 Standard Number: WXX100314-07CCV  
 Data File: EXP0314036a

|              |       |
|--------------|-------|
| HMX          | 105.4 |
| RDX          | 120.4 |
| 135-TNB      | 101.7 |
| 13-DNB       | 93.4  |
| Tetryl       | 96.6  |
| Nitrobenzene | 94.9  |
| 4A-26-DNT    | 98.5  |
| 2A-46-DNT    | 101.4 |
| 246-TNT      | 107.2 |
| 34-DNT(surr) | 108.5 |
| 26-DNT       | 102.7 |
| 24-DNT       | 111.5 |
| 2-NT         | 92.8  |
| 4-NT         | 91.2  |
| 3-NT         | 93.6  |
| PETN         | 114.9 |

*MTT  
3/15/10*

Total 1634.7

*HMM 03/16/10*

Average 102.2

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314038a

Analysis Date: 15-MAR-10 09:09

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 2,4,6-Trinitrotoluene      | 40   | 42.509  | 106      |   |
| 2,4-Dinitrotoluene         | 40   | 42.725  | 107      |   |
| 2,6-Dinitrotoluene         | 40   | 40.07   | 100      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 609.223 | 122      |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 39.73   | 99       |   |
| 3,4-Dinitrotoluene         | 20   | 20.324  | 102      |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 38.401  | 96       |   |
| HMX                        | 40   | 48.581  | 121      |   |
| Nitrobenzene               | 40   | 37.305  | 93       |   |
| PETN                       | 40   | 35.681  | 89       |   |
| RDX                        | 40   | 42.458  | 106      |   |
| Tetryl                     | 40   | 44.148  | 110      |   |
| m-Dinitrobenzene           | 40   | 40.014  | 100      |   |
| m-Nitrotoluene             | 40   | 35.958  | 90       |   |
| o-Nitrotoluene             | 40   | 39.196  | 98       |   |
| p-Nitrotoluene             | 40   | 32.343  | 81       |   |
| 1,3,5-Trinitrobenzene      | 40   | 48.08   | 120      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 561.739 | 112      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

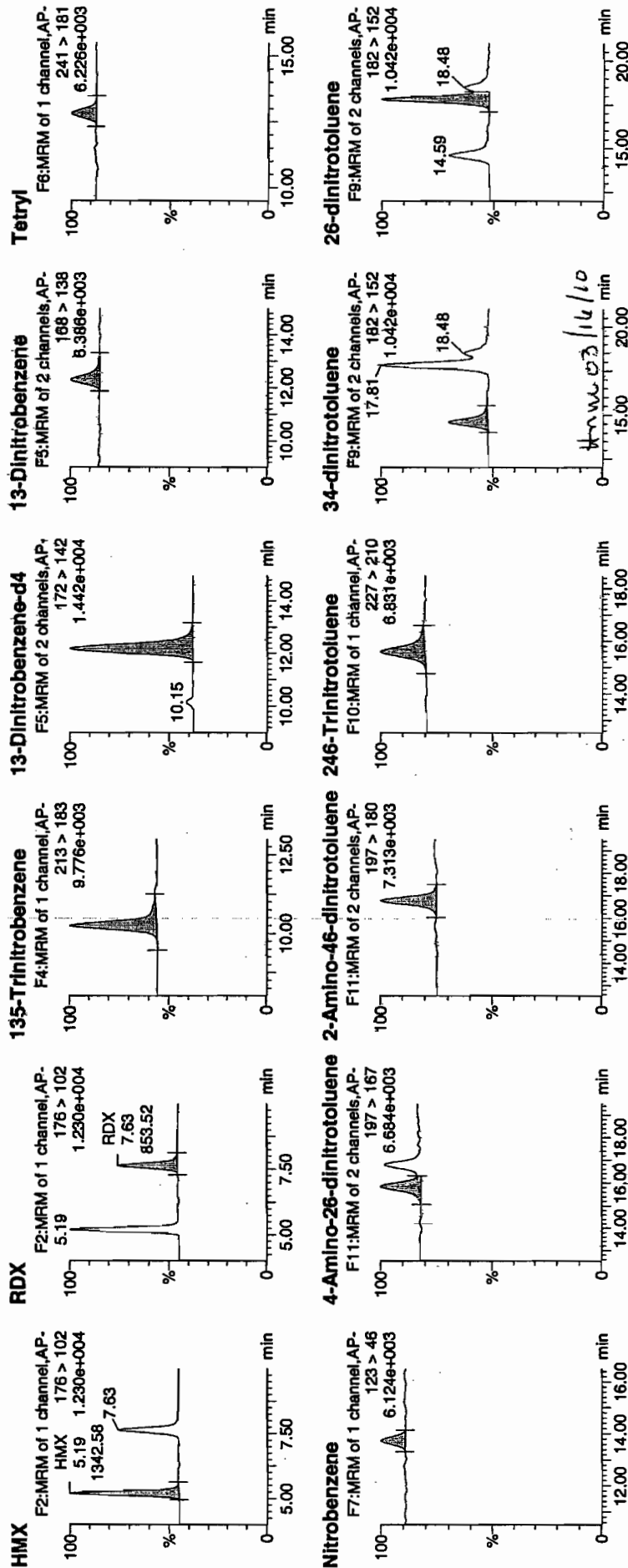
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

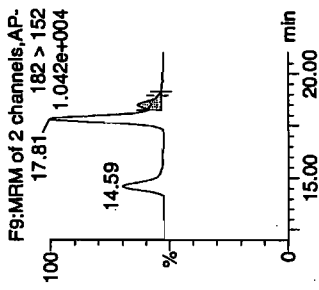
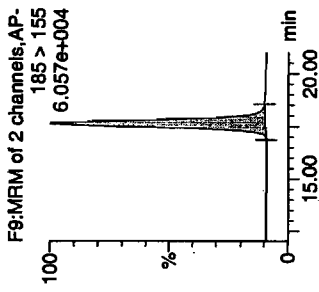
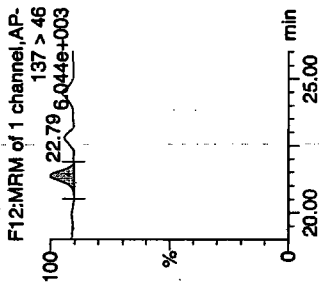
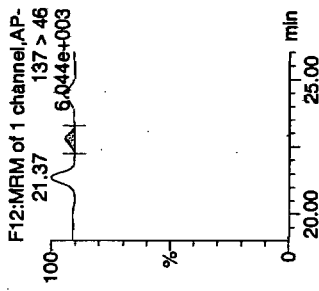
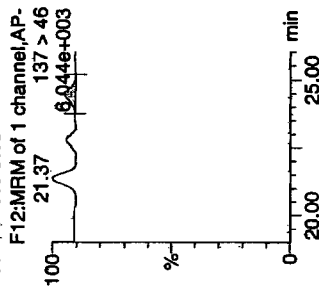
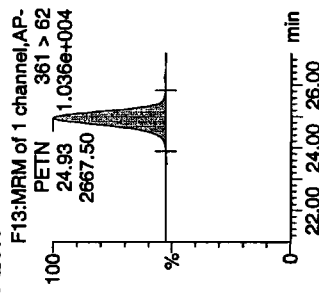
\* Value outside of Recovery Limits

WAP  
3/15/10

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Dataset: C:\MASSLYNX\New\_Exp\_PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

**24-dinitrotoluene****26-dinitrotoluene-d3****2-Nitrotoluene****4-Nitrotoluene****3-Nitrotoluene****PETN**

| ID              | Name                      | Trace     | BU    | Area      | ISAVE     | ASR       | Response  | Flag | ModDate   | ModTime  | ModUser  | SN    |       |        |
|-----------------|---------------------------|-----------|-------|-----------|-----------|-----------|-----------|------|-----------|----------|----------|-------|-------|--------|
| WXX100314-08CRI | HMX                       | 176 > 102 | 5.19  | 1342.582  | 3779.876  | 1342.582  | 177.596   | bb   |           |          | 48.5805  | 121.5 | 21.5  | 188.3  |
| WXX100314-08CRI | RDX                       | 176 > 102 | 7.63  | 853.523   | 3779.876  | 853.523   | 112.904   | bb   |           |          | 42.4579  | 106.1 | 6.1   | 101.1  |
| WXX100314-08CRI | 135-Trinitrobenzene       | 213 > 183 | 10.25 | 1337.563  | 3779.876  | 1337.563  | 176.932   | bb   |           |          | 48.0804  | 120.2 | 20.2  | 120.4  |
| WXX100314-08CRI | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17 | 3779.876  |           | 3779.876  | 3779.876  | bb   |           |          | 561.7389 | 112.3 | 12.3  | 473.1  |
| WXX100314-08CRI | 13-Dinitrobenzene         | 168 > 138 | 12.31 | 401.876   | 3779.876  | 401.876   | 53.160    | bb   |           |          | 40.0139  | 100.0 | 0.0   | 33.0   |
| WXX100314-08CRI | Tetryl                    | 241 > 181 | 12.80 | 316.139   | 3779.876  | 316.139   | 41.819    | bb   |           |          | 44.1483  | 110.4 | 10.4  | 36.0   |
| WXX100314-08CRI | Nitrobenzene              | 123 > 46  | 13.74 | 231.349   | 3779.876  | 231.349   | 30.603    | bb   |           |          | 87.3051  | 93.3  | -6.7  | 28.4   |
| WXX100314-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.85 | 555.029   | 23218.264 | 555.029   | 11.952    | MM   | 15-Mar-10 | 10:08:29 | 38.4011  | 96.0  | -4.0  | 38.2   |
| WXX100314-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.77 | 758.110   | 23218.264 | 758.110   | 16.326    | bb   |           |          | 39.7301  | 99.3  | -0.7  | 102.8  |
| WXX100314-08CRI | 246-Trinitrotoluene       | 227 > 210 | 15.60 | 673.281   | 23218.264 | 673.281   | 14.499    | bb   |           |          | 48.5093  | 106.3 | 6.3   | 55.1   |
| WXX100314-08CRI | 34-dinitrotoluene         | 182 > 152 | 14.59 | 910.031   | 23218.264 | 910.031   | 19.597    | bb   |           |          | 20.3238  | 101.6 | 1.6   | 37.1   |
| WXX100314-08CRI | 26-dinitrotoluene         | 182 > 152 | 17.81 | 2093.447  | 23218.264 | 2093.447  | 45.082    | MM   | 15-Mar-10 | 10:11:34 | 40.0700  | 100.2 | 0.2   | 100.8  |
| WXX100314-08CRI | 24-dinitrotoluene         | 182 > 152 | 18.48 | 475.195   | 23218.264 | 475.195   | 10.233    | MM   | 15-Mar-10 | 10:14:32 | 42.7246  | 106.8 | 6.8   | 21.6   |
| WXX100314-08CRI | 26-dinitrotoluene-d3      | 185 > 155 | 17.65 | 23218.264 |           | 23218.264 | 23218.264 | bb   |           |          | 809.2228 | 121.8 | 21.8  | 1540.7 |
| WXX100314-08CRI | 2-Nitrotoluene            | 137 > 46  | 21.37 | 276.198   | 23218.264 | 276.198   | 5.948     | bb   |           |          | 39.1957  | 98.0  | -2.0  | 66.6   |
| WXX100314-08CRI | 4-Nitrotoluene            | 137 > 46  | 22.79 | 114.830   | 23218.264 | 114.830   | 2.473     | bb   |           |          | 32.3432  | 80.9  | -19.1 | 26.5   |
| WXX100314-08CRI | 3-Nitrotoluene            | 137 > 46  | 24.48 | 152.702   | 23218.264 | 152.702   | 3.288     | bb   |           |          | 35.9577  | 89.9  | -10.1 | 31.9   |
| WXX100314-08CRI | PETN                      | 361 > 62  | 24.93 | 2667.504  | 23218.264 | 2667.504  | 57.444    | bb   |           |          | 35.6812  | 89.2  | -10.8 | 1068.4 |

GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/15/10  
 Time of Injection 0909  
 Standard Number WXX100314-08CRI  
 Data File EXP0314038a

|              |       |
|--------------|-------|
| HMX          | 121.5 |
| RDX          | 106.1 |
| 135-TNB      | 120.2 |
| 13-DNB       | 100.0 |
| Tetryl       | 110.4 |
| Nitrobenzene | 93.3  |
| 4A-26-DNT    | 96.0  |
| 2A-46-DNT    | 99.3  |
| 246-TNT      | 106.3 |
| 34-DNT(surr) | 101.6 |
| 26-DNT       | 100.2 |
| 24-DNT       | 106.8 |
| 2-NT         | 98.0  |
| 4-NT         | 80.9  |
| 3-NT         | 89.9  |
| PETN         | 89.2  |

*MTD  
3/15/10*

Total 1619.7

Average 101.2

*Ampl 03/16/10*

ICV Limits 85-115%  
 CRI Limits 70-130%  
 CCV Limits 85-115%

No single analyte > +/- 60%



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314049a

Analysis Date: 15-MAR-10 14:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| HMX                        | 600  | 851.427 | 142      | * |
| Nitrobenzene               | 600  | 638.469 | 106      |   |
| PETN                       | 600  | 665.533 | 111      |   |
| RDX                        | 600  | 855.282 | 143      | * |
| Tetryl                     | 600  | 679.537 | 113      |   |
| m-Dinitrobenzene           | 600  | 592.924 | 99       |   |
| m-Nitrotoluene             | 600  | 566.82  | 94       |   |
| o-Nitrotoluene             | 600  | 587.568 | 98       |   |
| p-Nitrotoluene             | 600  | 596.13  | 99       |   |
| 1,3,5-Trinitrobenzene      | 600  | 620.69  | 103      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 475.67  | 95       |   |
| 2,4,6-Trinitrotoluene      | 600  | 706.598 | 118      |   |
| 2,4-Dinitrotoluene         | 600  | 593.774 | 99       |   |
| 2,6-Dinitrotoluene         | 600  | 605.222 | 101      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 510.525 | 102      |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 769.978 | 128      | * |
| 3,4-Dinitrotoluene         | 300  | 335.398 | 112      |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 669.047 | 112      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Mar 16 09:29:05 2010, Page 21 of 79

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314049a

Date: 15-Mar-2010

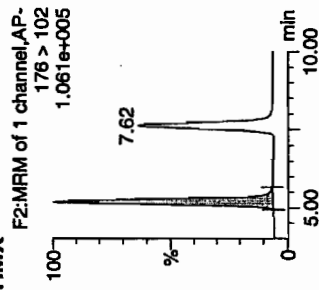
Time: 14:34:29

ID: WXX100314-07CCV

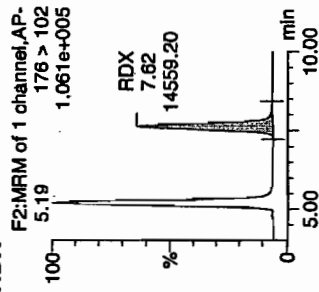
Vial: 1:1,B

10/10  
3/16/10

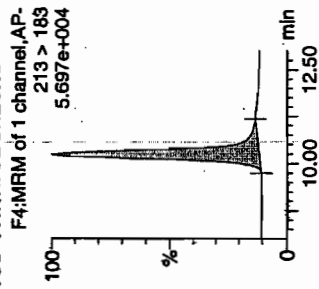
## HMX



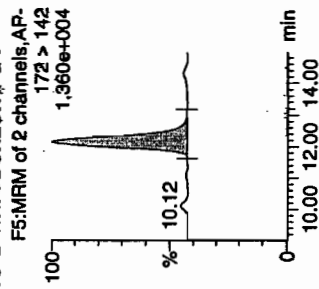
## RDX



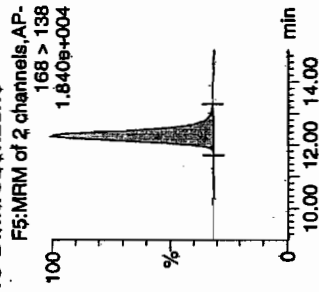
## 135-Trinitrobenzene



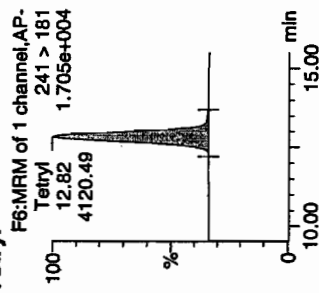
## 13-Dinitrobenzene-d4



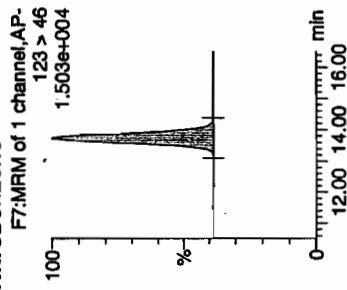
## 13-Dinitrobenzene



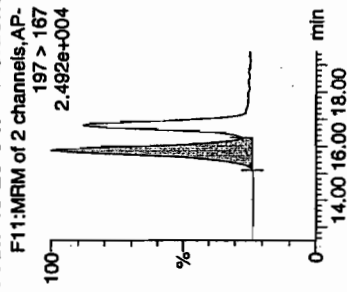
## Tetryl



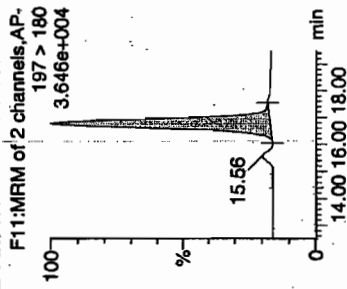
## Nitrobenzene



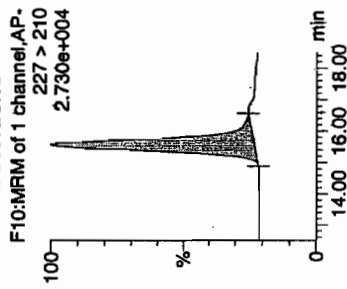
## 4-Amino-26-dinitrotoluene



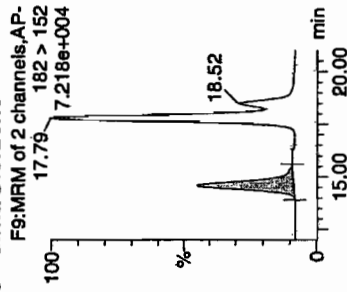
## 2-Amino-46-dinitrotoluene



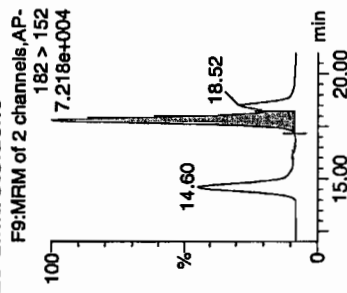
## 246-Trinitrotoluene



## 34-dinitrotoluene



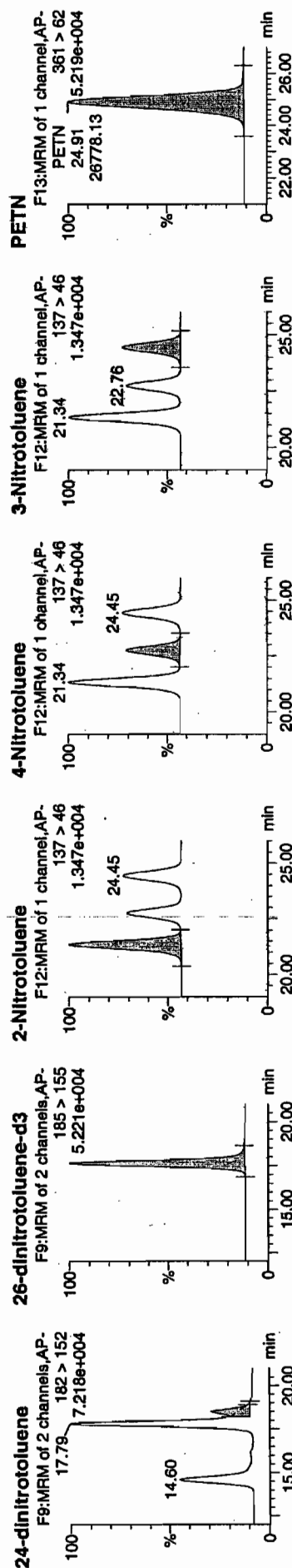
## 26-dinitrotoluene



4/11/10  
DE

Dataset: C:\MASSLYNX\New Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

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| ID              | Name                      | Ingr      | PI    | Avr       | Isat      | Abs Res   | Response  | Flags | Mod Date  | Mod Time | Mod      | 388   | 389  | 390    |
|-----------------|---------------------------|-----------|-------|-----------|-----------|-----------|-----------|-------|-----------|----------|----------|-------|------|--------|
| WXX100314-07CCV | HMX                       | 176 > 102 | 5.19  | 19924.982 | 3200.728  | 19924.982 | 3112.570  | bb    |           |          | 851.4272 | 141.9 | 41.9 | 1671.5 |
| WXX100314-07CCV | RDX                       | 176 > 102 | 7.62  | 14559.197 | 3200.728  | 14559.197 | 2274.357  | bb    |           |          | 855.2820 | 142.5 | 42.5 | 1032.5 |
| WXX100314-07CCV | 135-Trinitrobenzene       | 213 > 183 | 10.25 | 14621.527 | 3200.728  | 14621.527 | 2284.094  | bb    |           |          | 620.6903 | 103.4 | 3.4  | 1427.2 |
| WXX100314-07CCV | 13-Dinitrobenzene-d4      | 172 > 142 | 12.14 | 3200.728  |           | 3200.728  | 3200.728  | bb    |           |          | 475.6700 | 95.1  | -4.9 | 135.0  |
| WXX100314-07CCV | 13-Dinitrobenzene         | 168 > 138 | 12.27 | 5042.569  | 3200.728  | 5042.569  | 787.722   | bb    |           |          | 592.9243 | 98.8  | -1.2 | 230.4  |
| WXX100314-07CCV | Tetryl                    | 241 > 181 | 12.82 | 4120.487  | 3200.728  | 4120.487  | 643.680   | bb    |           |          | 679.5374 | 113.3 | 13.3 | 544.6  |
| WXX100314-07CCV | Nitrobenzene              | 123 > 46  | 13.72 | 3352.825  | 3200.728  | 3352.825  | 523.760   | bb    |           |          | 638.4691 | 106.4 | 6.4  | 296.1  |
| WXX100314-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 8103.439  | 19456.768 | 8103.439  | 208.242   | MM    | 18-Mar-10 | 09:21:07 | 669.0468 | 111.5 | 11.5 | 750.6  |
| WXX100314-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 12312.083 | 19456.768 | 12312.083 | 316.396   | bb    |           |          | 769.9784 | 128.3 | 28.3 | 1048.8 |
| WXX100314-07CCV | 246-Trinitrotoluene       | 182 > 210 | 15.58 | 9378.340  | 19456.768 | 9378.340  | 241.005   | bb    |           |          | 706.5983 | 117.8 | 17.8 | 270.4  |
| WXX100314-07CCV | 34-dinitrotoluene         | 187 > 152 | 14.60 | 12584.990 | 19456.768 | 12584.990 | 323.409   | bb    |           |          | 355.3983 | 111.8 | 11.8 | 196.4  |
| WXX100314-07CCV | 26-dinitrotoluene         | 182 > 152 | 17.79 | 26497.094 | 19456.768 | 26497.094 | 680.922   | MM    | 16-Mar-10 | 09:23:07 | 605.2221 | 100.9 | 0.9  | 493.7  |
| WXX100314-07CCV | 24-dinitrotoluene         | 182 > 152 | 18.52 | 5534.206  | 19456.768 | 5534.206  | 142.218   | MM    | 16-Mar-10 | 09:26:39 | 593.7736 | 99.0  | -1.0 | 105.1  |
| WXX100314-07CCV | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 19456.768 |           | 19456.768 | 19456.768 | bb    |           |          | 510.8251 | 102.1 | 2.1  | 2476.3 |
| WXX100314-07CCV | 2-Nitrotoluene            | 137 > 46  | 21.34 | 3469.613  | 19456.768 | 3469.613  | 89.162    | bb    |           |          | 587.5684 | 97.9  | -2.1 | 231.3  |
| WXX100314-07CCV | 4-Nitrotoluene            | 137 > 46  | 22.76 | 1773.594  | 19456.768 | 1773.594  | 45.578    | bb    |           |          | 596.1297 | 98.4  | -0.6 | 112.6  |
| WXX100314-07CCV | 3-Nitrotoluene            | 137 > 46  | 24.45 | 2017.155  | 19456.768 | 2017.155  | 51.837    | bb    |           |          | 566.8204 | 94.5  | -5.5 | 121.2  |
| WXX100314-07CCV | PETN                      | 361 > 62  | 24.91 | 26778.125 | 19456.768 | 26778.125 | 688.144   | bb    |           |          | 665.5329 | 110.9 | 10.9 | 6273.3 |

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/15/10  
 Time of Injection: 1434  
 Standard Number: WXX100314-07CCV  
 Data File: EXP0314049a

|              |       |
|--------------|-------|
| HMX          | 141.9 |
| RDX          | 142.5 |
| 135-TNB      | 103.4 |
| 13-DNB       | 98.8  |
| Tetryl       | 113.3 |
| Nitrobenzene | 106.4 |
| 4A-26-DNT    | 111.5 |
| 2A-46-DNT    | 128.3 |
| 246-TNT      | 117.8 |
| 34-DNT(surr) | 111.8 |
| 26-DNT       | 100.9 |
| 24-DNT       | 99.0  |
| 2-NT         | 97.9  |
| 4-NT         | 99.4  |
| 3-NT         | 94.5  |
| PETN         | 110.9 |

*Handwritten:*  
 3/16/10

Total 1778.3

Average 111.1

*Handwritten:* HMM 03/16/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314051a

Analysis Date: 15-MAR-10 15:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| RDX                        | 40   | 43.799  | 109      |   |
| Tetryl                     | 40   | 53.694  | 134      | * |
| m-Dinitrobenzene           | 40   | 39.539  | 99       |   |
| m-Nitrotoluene             | 40   | 39.643  | 99       |   |
| o-Nitrotoluene             | 40   | 38.496  | 96       |   |
| p-Nitrotoluene             | 40   | 45.625  | 114      |   |
| 1,3,5-Trinitrobenzene      | 40   | 41.397  | 103      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 464.716 | 93       |   |
| 2,4,6-Trinitrotoluene      | 40   | 51.218  | 128      |   |
| 2,4-Dinitrotoluene         | 40   | 34.919  | 87       |   |
| 2,6-Dinitrotoluene         | 40   | 41.463  | 104      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 555.566 | 111      |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 30.239  | 76       |   |
| 3,4-Dinitrotoluene         | 20   | 22.214  | 111      |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 40.225  | 101      |   |
| HMX                        | 40   | 47.565  | 119      |   |
| Nitrobenzene               | 40   | 44.5    | 111      |   |
| PETN                       | 40   | 42.63   | 107      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314051a

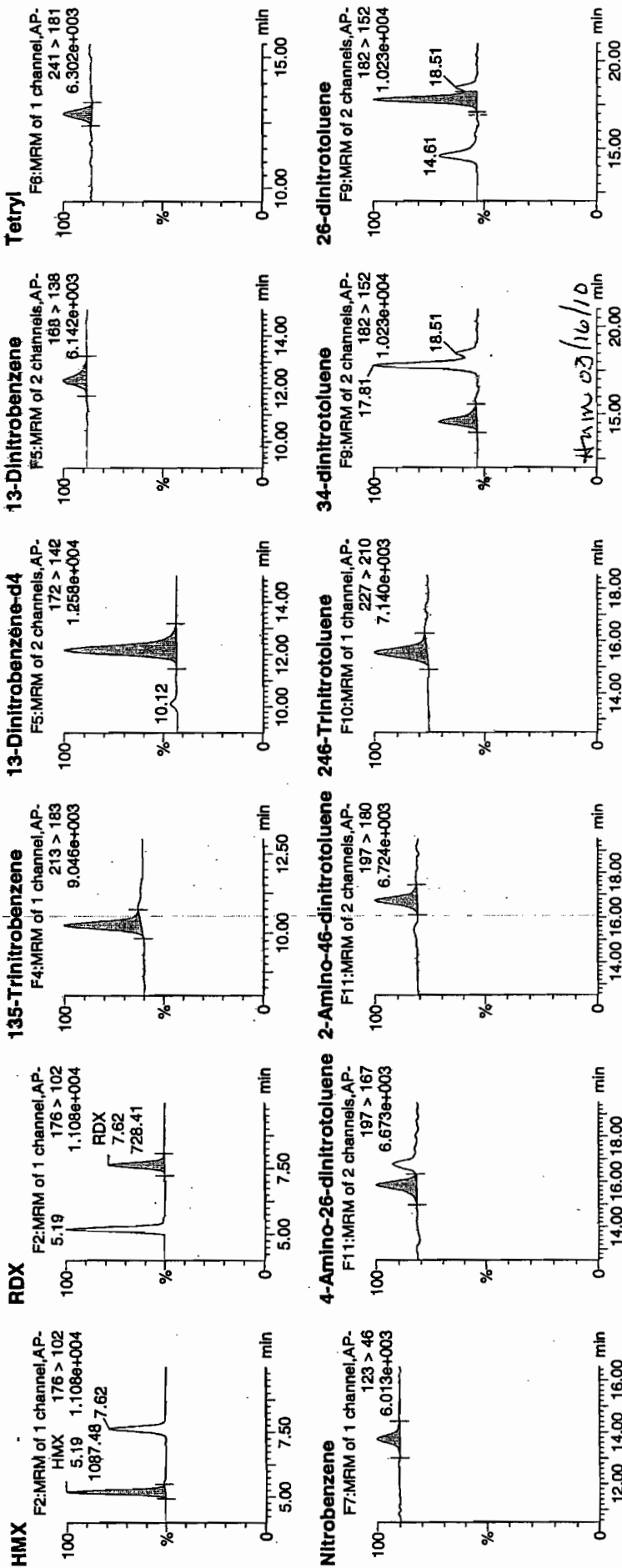
Date: 15-Mar-2010

Time: 15:33:33

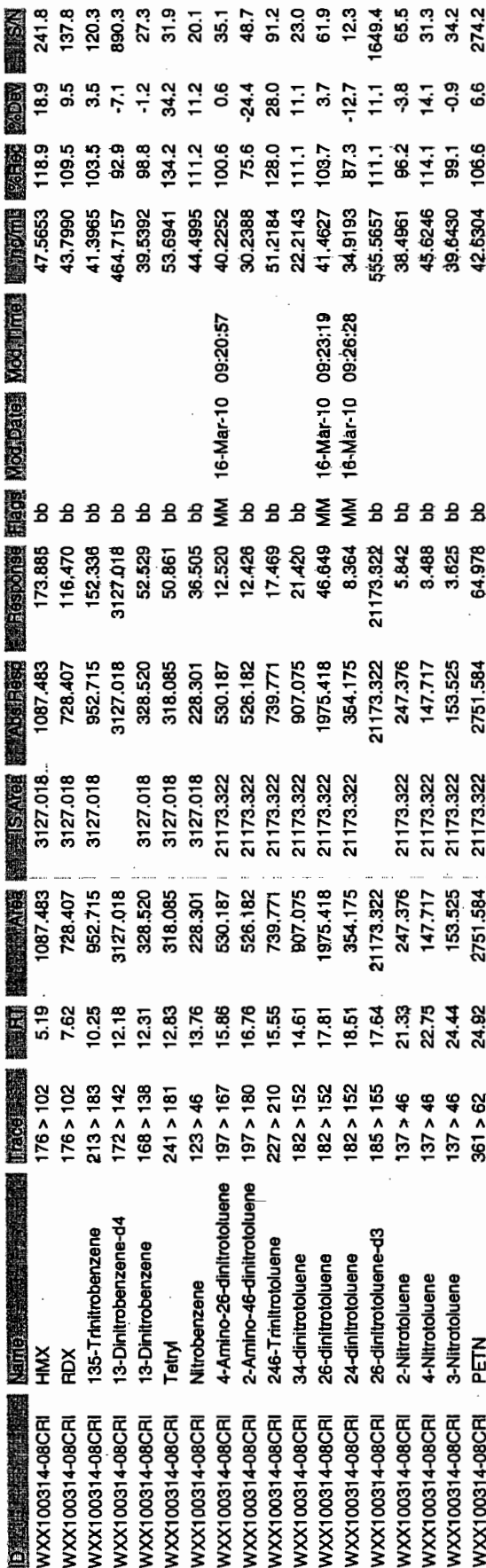
ID: WXX100314-08CRI

Vial: 1:1,C

10/10/10  
3/16/10



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GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/15/10  
 Time of Injection 1533  
 Standard Number WXX100314-08CRI  
 Data File EXP0314051a

|              |       |
|--------------|-------|
| HMX          | 118.9 |
| RDX          | 109.5 |
| 135-TNB      | 103.5 |
| 13-DNB       | 98.8  |
| Tetryl       | 134.2 |
| Nitrobenzene | 111.2 |
| 4A-26-DNT    | 100.6 |
| 2A-46-DNT    | 75.6  |
| 246-TNT      | 128.0 |
| 34-DNT(surr) | 111.1 |
| 26-DNT       | 103.7 |
| 24-DNT       | 87.3  |
| 2-NT         | 96.2  |
| 4-NT         | 114.1 |
| 3-NT         | 99.1  |
| PETN         | 106.6 |

*WTF  
3/16/10*

Total 1698.4

Average 106.2

*Hmx 03/16/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314062a

Analysis Date: 15-MAR-10 20:58

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 1,3,5-Trinitrobenzene      | 600  | 608.865 | 101      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 462.899 | 93       |   |
| 2,4,6-Trinitrotoluene      | 600  | 558.522 | 93       |   |
| 2,4-Dinitrotoluene         | 600  | 603.291 | 101      |   |
| 2,6-Dinitrotoluene         | 600  | 619.778 | 103      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 557.336 | 111      |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 671.295 | 112      |   |
| 3,4-Dinitrotoluene         | 300  | 275.546 | 92       |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 514.089 | 86       |   |
| HMX                        | 600  | 728     | 121      | * |
| Nitrobenzene               | 600  | 640.349 | 107      |   |
| PETN                       | 600  | 601.907 | 100      |   |
| RDX                        | 600  | 702.374 | 117      |   |
| Tetryl                     | 600  | 601.516 | 100      |   |
| m-Dinitrobenzene           | 600  | 570.456 | 95       |   |
| m-Nitrotoluene             | 600  | 585.575 | 98       |   |
| o-Nitrotoluene             | 600  | 558.255 | 93       |   |
| p-Nitrotoluene             | 600  | 574.305 | 96       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Mar 16 09:29:05 2010, Page 47 of 79

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314062a

Date: 15-Mar-2010

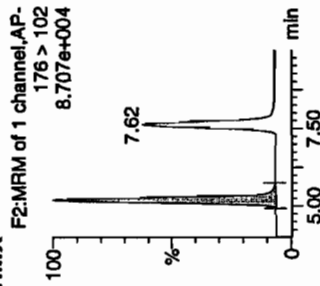
Time: 20:58:04

ID: WXX100314-07CCV

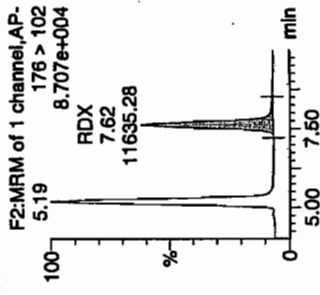
Vial: 1:1,B

WXX  
3/16/10

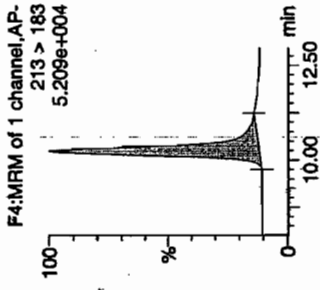
## HMX



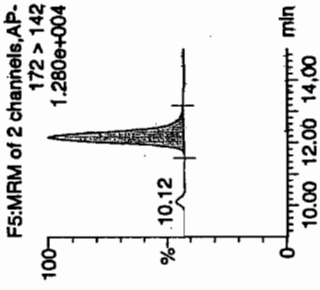
## RDX



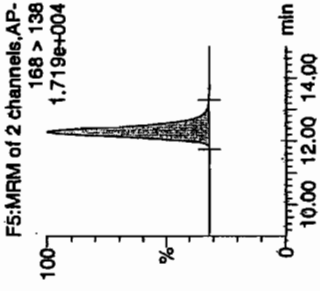
## 135-Trinitrobenzene



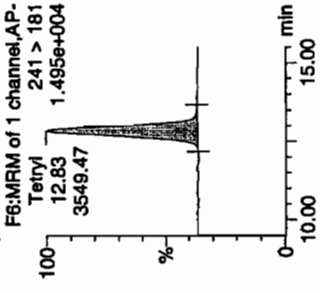
## 13-Dinitrobenzene-d4



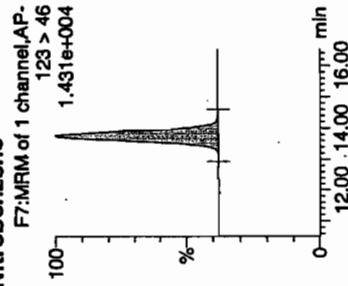
## 13-Dinitrobenzene



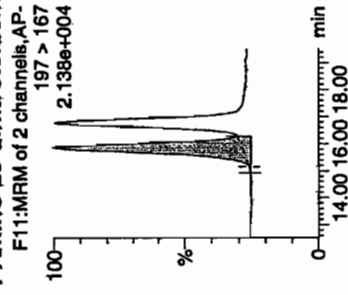
## Tetryl



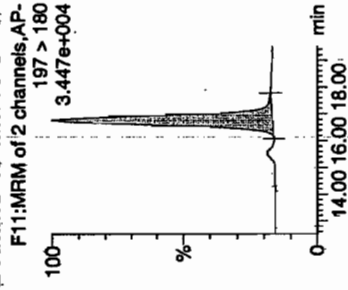
## Nitrobenzene



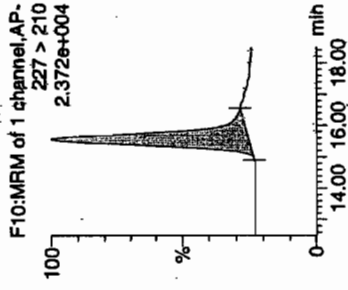
## 4-Amino-26-dinitrotoluene



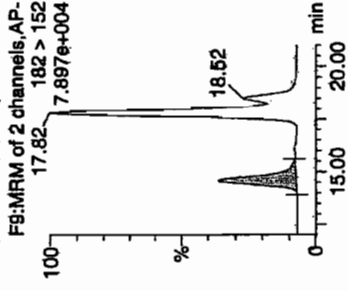
## 2-Amino-46-dinitrotoluene



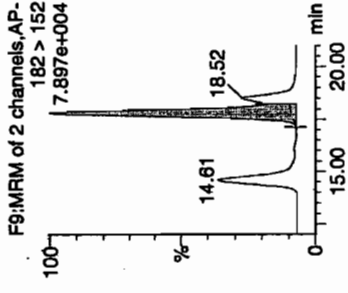
## 246-Trinitrotoluene



## 34-dinitrotoluene



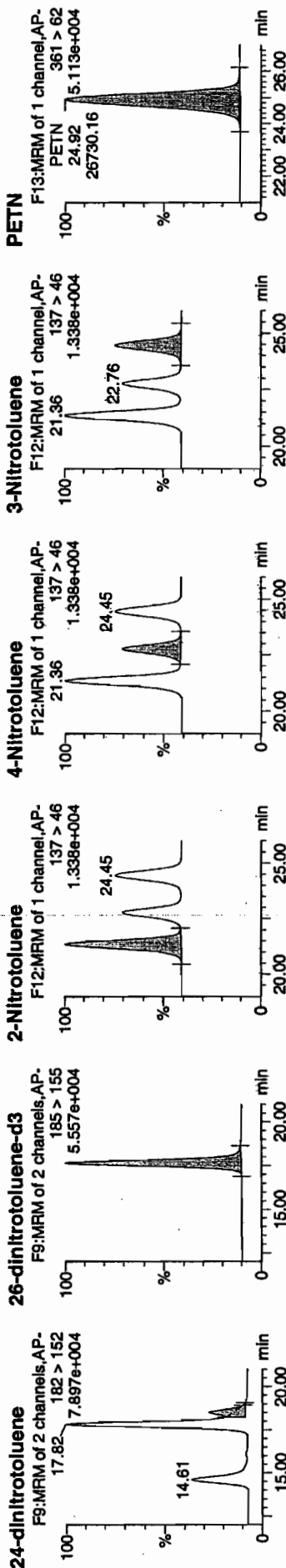
## 26-dinitrotoluene



THW 03/16/10

Dataset: C:\MASSLYN\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

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| ID              | Name                      | Trace     | FW    | Area      | ISArea    | Abundance | Response  | Height | ModTime            | ModDate | ModBy | SN     |
|-----------------|---------------------------|-----------|-------|-----------|-----------|-----------|-----------|--------|--------------------|---------|-------|--------|
| WXX100314-07CCV | HMX                       | 176 > 102 | 5.19  | 16579.156 | 3114.794  | 16579.156 | 2661.357  | dd     |                    |         |       | 1773.0 |
| WXX100314-07CCV | RDX                       | 176 > 102 | 7.62  | 11635.279 | 3114.794  | 11635.279 | 1867.745  | bb     |                    |         |       | 1055.6 |
| WXX100314-07CCV | 135-Trinitrobenzene       | 213 > 183 | 10.25 | 13957.884 | 3114.794  | 13957.884 | 2240.579  | bb     |                    |         |       | 898.8  |
| WXX100314-07CCV | 13-Dinitrobenzene-d4      | 172 > 142 | 12.18 | 3114.794  |           | 3114.794  | 3114.794  | bb     |                    |         |       | 98.3   |
| WXX100314-07CCV | 13-Dinitrobenzene         | 168 > 138 | 12.28 | 4721.235  | 3114.794  | 4721.235  | 757.873   | bb     |                    |         |       | 447.9  |
| WXX100314-07CCV | Tetryl                    | 241 > 181 | 12.83 | 3549.465  | 3114.794  | 3549.465  | 569.775   | bb     |                    |         |       | 597.7  |
| WXX100314-07CCV | Nitrobenzene              | 123 > 46  | 13.76 | 3272.412  | 3114.794  | 3272.412  | 525.302   | bb     |                    |         |       | 279.2  |
| WXX100314-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 6797.534  | 21240.793 | 6797.534  | 180.011   | MM     | 16-Mar-10 09:20:38 |         |       | 224.0  |
| WXX100314-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79 | 11718.349 | 21240.793 | 11718.349 | 275.845   | bb     |                    |         |       | 1153.2 |
| WXX100314-07CCV | 246-Trinitrotoluene       | 227 > 210 | 15.58 | 8092.708  | 21240.793 | 8092.708  | 190.499   | bb     |                    |         |       | 479.5  |
| WXX100314-07CCV | 34-dinitrotoluene         | 182 > 152 | 14.61 | 11287.207 | 21240.793 | 11287.207 | 265.696   | bb     |                    |         |       | 359.5  |
| WXX100314-07CCV | 26-dinitrotoluene         | 182 > 152 | 17.82 | 29622.371 | 21240.793 | 29622.371 | 697.299   | MM     | 16-Mar-10 09:23:33 |         |       | 33     |
| WXX100314-07CCV | 24-dinitrotoluene         | 182 > 152 | 18.52 | 6138.487  | 21240.793 | 6138.487  | 144.498   | MM     | 16-Mar-10 09:26:08 |         |       | 233.9  |
| WXX100314-07CCV | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 21240.793 |           | 21240.793 | 21240.793 | bb     |                    |         |       | 1335.2 |
| WXX100314-07CCV | 2-Nitrotoluene            | 137 > 46  | 21.36 | 3598.778  | 21240.793 | 3598.778  | 84.714    | bb     |                    |         |       | 224.9  |
| WXX100314-07CCV | 4-Nitrotoluene            | 137 > 46  | 22.76 | 1865.332  | 21240.793 | 1865.332  | 43.909    | bb     |                    |         |       | 111.3  |
| WXX100314-07CCV | 3-Nitrotoluene            | 137 > 46  | 24.45 | 2274.975  | 21240.793 | 2274.975  | 53.552    | bb     |                    |         |       | 126.2  |
| WXX100314-07CCV | PETN                      | 361 > 62  | 24.92 | 26730.164 | 21240.793 | 26730.164 | 629.218   | bb     |                    |         |       | 9654.7 |

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/15/10  
 Time of Injection: 2058  
 Standard Number: WXX100314-07CCV  
 Data File: EXP0314062a

|              |       |
|--------------|-------|
| HMX          | 121.3 |
| RDX          | 117.1 |
| 135-TNB      | 101.5 |
| 13-DNB       | 95.1  |
| Tetryl       | 100.3 |
| Nitrobenzene | 106.7 |
| 4A-26-DNT    | 85.7  |
| 2A-46-DNT    | 111.9 |
| 246-TNT      | 93.1  |
| 34-DNT(surr) | 91.8  |
| 26-DNT       | 103.3 |
| 24-DNT       | 100.5 |
| 2-NT         | 93.0  |
| 4-NT         | 95.7  |
| 3-NT         | 97.6  |
| PETN         | 100.3 |

*MTF  
3/16/10*

Total 1614.9

Average 100.9

*from 03/16/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314064a

Analysis Date: 15-MAR-10 21:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 1,3,5-Trinitrobenzene      | 40   | 47.82   | 120      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 492.228 | 98       |   |
| 2,4,6-Trinitrotoluene      | 40   | 35.914  | 90       |   |
| 2,4-Dinitrotoluene         | 40   | 36.557  | 91       |   |
| 2,6-Dinitrotoluene         | 40   | 41.448  | 104      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 520.408 | 104      |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 41.797  | 104      |   |
| 3,4-Dinitrotoluene         | 20   | 20.089  | 100      |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 36.875  | 92       |   |
| HMX                        | 40   | 48.11   | 120      |   |
| Nitrobenzene               | 40   | 49.493  | 124      |   |
| PETN                       | 40   | 45.842  | 115      |   |
| RDX                        | 40   | 46.467  | 116      |   |
| Tetryl                     | 40   | 40.921  | 102      |   |
| m-Dinitrobenzene           | 40   | 36.925  | 92       |   |
| m-Nitrotoluene             | 40   | 38.328  | 96       |   |
| o-Nitrotoluene             | 40   | 44.595  | 111      |   |
| p-Nitrotoluene             | 40   | 52.453  | 131      | * |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp\_PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0314064a

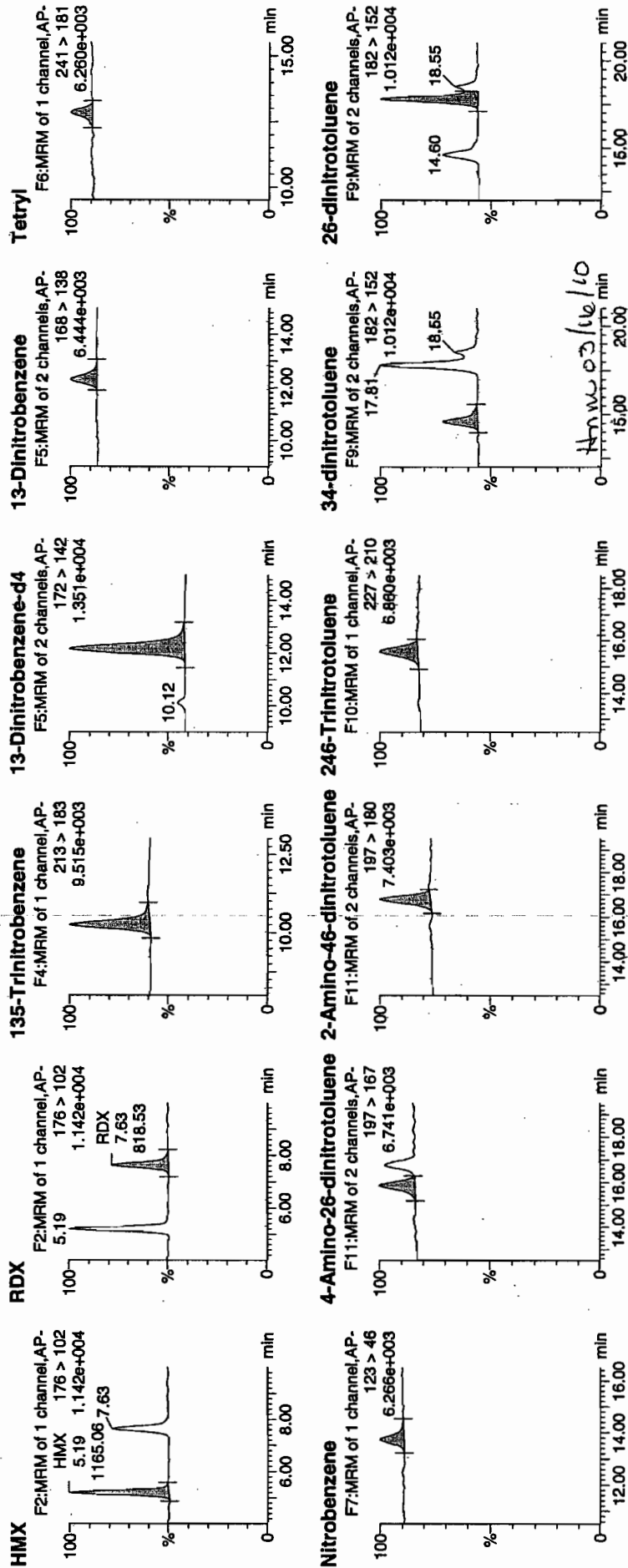
Date: 15-Mar-2010

Time: 21:57:07

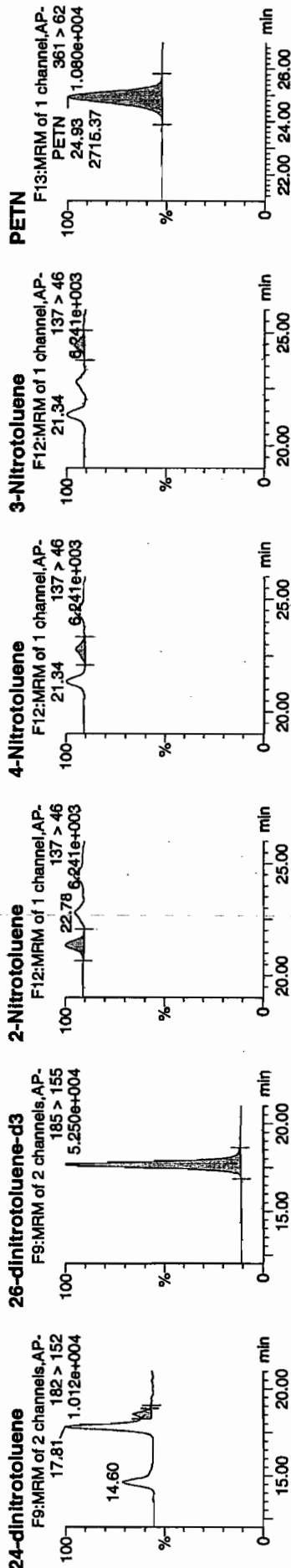
ID: WXX100314-08CRI

Vial: 1:1,C

3/16/10



Dataset: C:\MASSLYN\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010



| ID              | Name                      | Trace     | RT    | Area      | ISATes    | Abundance | Response  | Flags | Mod.Date  | Mod.Time | 17.ML    | 20.3  | 20.3  | 20.3   | 20.3   | 20.3   |
|-----------------|---------------------------|-----------|-------|-----------|-----------|-----------|-----------|-------|-----------|----------|----------|-------|-------|--------|--------|--------|
| WXX100314-08CRI | HMX                       | 176 > 102 | 5.19  | 1165.064  | 3312.145  | 1165.064  | 175.878   | bb    |           |          | 48.1104  | 120.3 | 20.3  | 20.3   | 20.3   | 203.7  |
| WXX100314-08CRI | RDX                       | 176 > 102 | 7.63  | 818.527   | 3312.145  | 818.527   | 123.664   | bb    |           |          | 46.4670  | 116.2 | 18.2  | 18.2   | 117.0  | 117.0  |
| WXX100314-08CRI | 135-Trinitrobenzene       | 213 > 183 | 10.25 | 1165.702  | 3312.145  | 1165.702  | 175.974   | bb    |           |          | 47.8200  | 119.5 | 19.5  | 19.5   | 188.5  | 188.5  |
| WXX100314-08CRI | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17 | 3312.145  |           | 3312.145  | 3312.145  | bb    |           |          | 492.2280 | 98.4  | -1.6  | 269.3  | 269.3  | 269.3  |
| WXX100314-08CRI | 13-Dinitrobenzene         | 188 > 138 | 12.31 | 324.965   | 3312.145  | 324.965   | 49.057    | bb    |           |          | 36.9252  | 92.3  | -7.7  | 32.7   | 32.7   | 32.7   |
| WXX100314-08CRI | Tetryl                    | 241 > 181 | 12.82 | 256.766   | 3312.145  | 256.766   | 38.761    | bb    |           |          | 40.9206  | 102.3 | 2.3   | 25.2   | 25.2   | 25.2   |
| WXX100314-08CRI | Nitrobenzene              | 123 > 46  | 13.71 | 268.950   | 3312.145  | 268.950   | 40.601    | bb    |           |          | 49.4926  | 123.7 | 23.7  | 24.4   | 24.4   | 24.4   |
| WXX100314-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 455.269   | 19833.418 | 455.269   | 11.477    | MM    | 16-Mar-10 | 09:20:17 | 36.8747  | 92.2  | -7.8  | 36.0   | 36.0   | 36.0   |
| WXX100314-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.78 | 681.276   | 19833.418 | 681.276   | 17.175    | bb    |           |          | 41.7968  | 104.5 | 4.5   | 51.1   | 51.1   | 51.1   |
| WXX100314-08CRI | 246-Trinitrotoluene       | 227 > 210 | 15.57 | 485.900   | 19833.418 | 485.900   | 12.250    | bb    |           |          | 35.9142  | 89.8  | -10.2 | 116.0  | 116.0  | 116.0  |
| WXX100314-08CRI | 34-dinitrotoluene         | 182 > 152 | 14.80 | 768.393   | 19833.418 | 768.393   | 19.371    | bb    |           |          | 20.0893  | 100.4 | 0.4   | 39.3   | 39.3   | 39.3   |
| WXX100314-08CRI | 26-dinitrotoluene         | 182 > 152 | 17.81 | 1849.751  | 19833.418 | 1849.751  | 46.632    | MM    | 16-Mar-10 | 09:23:42 | 41.4479  | 103.6 | 3.6   | 111.4  | 111.4  | 111.4  |
| WXX100314-08CRI | 24-dinitrotoluene         | 182 > 152 | 18.55 | 347.323   | 19833.418 | 347.323   | 8.756     | MM    | 16-Mar-10 | 09:25:58 | 36.5571  | 91.4  | -8.6  | 23.8   | 23.8   | 23.8   |
| WXX100314-08CRI | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 19833.418 |           | 19833.418 | 19833.418 | bb    |           |          | 520.4080 | 104.1 | 4.1   | 1627.4 | 1627.4 | 1627.4 |
| WXX100314-08CRI | 2-Nitrotoluene            | 137 > 46  | 21.34 | 268.432   | 19833.418 | 268.432   | 6.767     | bb    |           |          | 44.5949  | 111.5 | 11.5  | 74.6   | 74.6   | 74.6   |
| WXX100314-08CRI | 4-Nitrotoluene            | 137 > 46  | 22.78 | 159.077   | 19833.418 | 159.077   | 4.010     | bb    |           |          | 52.4526  | 131.1 | 31.1  | 36.0   | 36.0   | 36.0   |
| WXX100314-08CRI | 3-Nitrotoluene            | 137 > 46  | 24.45 | 139.040   | 19833.418 | 139.040   | 3.505     | bb    |           |          | 38.3283  | 95.8  | -4.2  | 36.3   | 36.3   | 36.3   |
| WXX100314-08CRI | PETN                      | 361 > 62  | 24.93 | 2715.366  | 19833.418 | 2715.366  | 68.454    | bb    |           |          | 45.8415  | 114.6 | 14.6  | 257.6  | 257.6  | 257.6  |

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/15/10  
 Time of Injection 2157  
 Standard Number WXX100314-08CRI  
 Data File EXP0314064a

|              |       |
|--------------|-------|
| HMX          | 120.3 |
| RDX          | 116.2 |
| 135-TNB      | 119.5 |
| 13-DNB       | 92.3  |
| Tetryl       | 102.3 |
| Nitrobenzene | 123.7 |
| 4A-26-DNT    | 92.2  |
| 2A-46-DNT    | 104.5 |
| 246-TNT      | 89.8  |
| 34-DNT(surr) | 100.4 |
| 26-DNT       | 103.6 |
| 24-DNT       | 91.4  |
| 2-NT         | 111.5 |
| 4-NT         | 131.1 |
| 3-NT         | 95.8  |
| PETN         | 114.6 |

*Met  
3/16/10*

Total 1709.2

Average 106.8

*done 03/16/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314075a

Analysis Date: 16-MAR-10 03:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 1,3,5-Trinitrobenzene      | 600  | 628.112 | 105      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 461.984 | 92       |   |
| 2,4,6-Trinitrotoluene      | 600  | 636.549 | 106      |   |
| 2,4-Dinitrotoluene         | 600  | 623.131 | 104      |   |
| 2,6-Dinitrotoluene         | 600  | 618.162 | 103      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 500.393 | 100      |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 677.621 | 113      |   |
| 3,4-Dinitrotoluene         | 300  | 312.409 | 104      |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 608.141 | 101      |   |
| HMX                        | 600  | 707.796 | 118      |   |
| Nitrobenzene               | 600  | 631.627 | 105      |   |
| PETN                       | 600  | 672.61  | 112      |   |
| RDX                        | 600  | 713.824 | 119      |   |
| Tetryl                     | 600  | 479.72  | 80       | * |
| m-Dinitrobenzene           | 600  | 623.19  | 104      |   |
| m-Nitrotoluene             | 600  | 551.301 | 92       |   |
| o-Nitrotoluene             | 600  | 573.856 | 96       |   |
| p-Nitrotoluene             | 600  | 584.945 | 97       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Mar 16 09:29:05 2010, Page 73 of 79

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314075a

Date: 16-Mar-2010

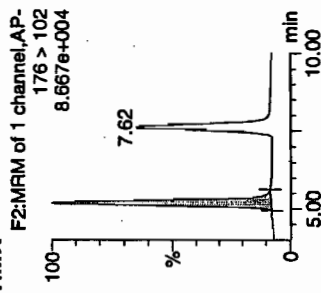
Time: 03:21:47

ID: WXX100314-07CCV

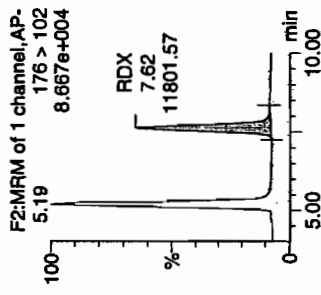
Vial: 1:1,B

WXX  
3/16/10

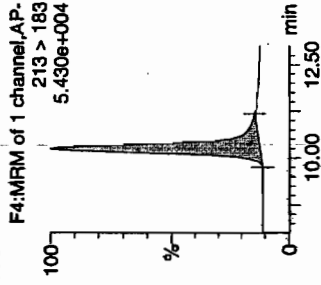
## HMX



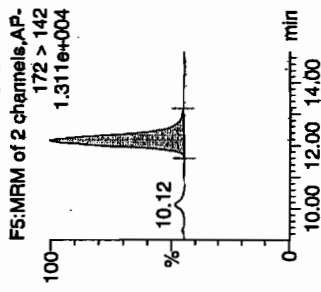
## RDX



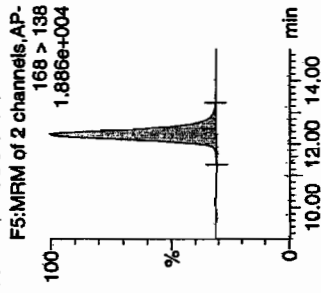
## 135-Trinitrobenzene



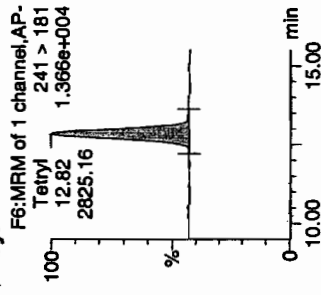
## 13-Dinitrobenzene-d4



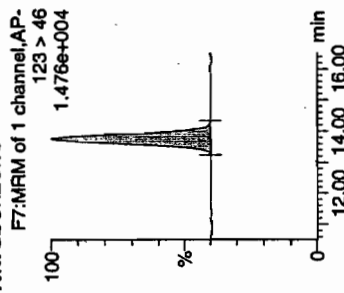
## 13-Dinitrobenzene



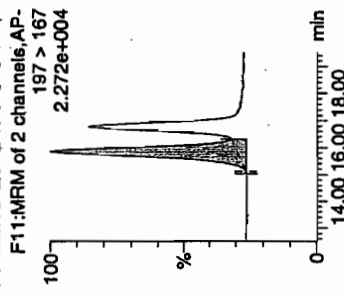
## Tetryl



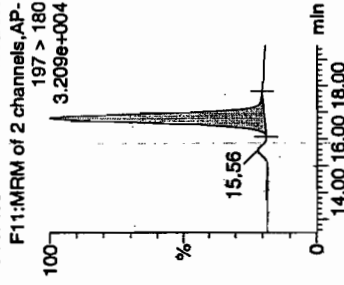
## Nitrobenzene



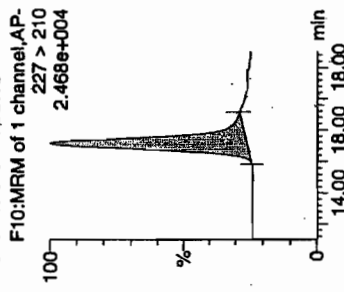
## 4-Amino-26-dinitrotoluene



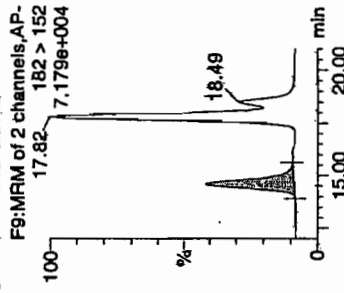
## 2-Amino-46-dinitrotoluene



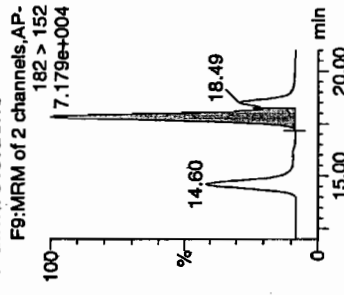
## 246-Trinitrotoluene



## 34-dinitrotoluene



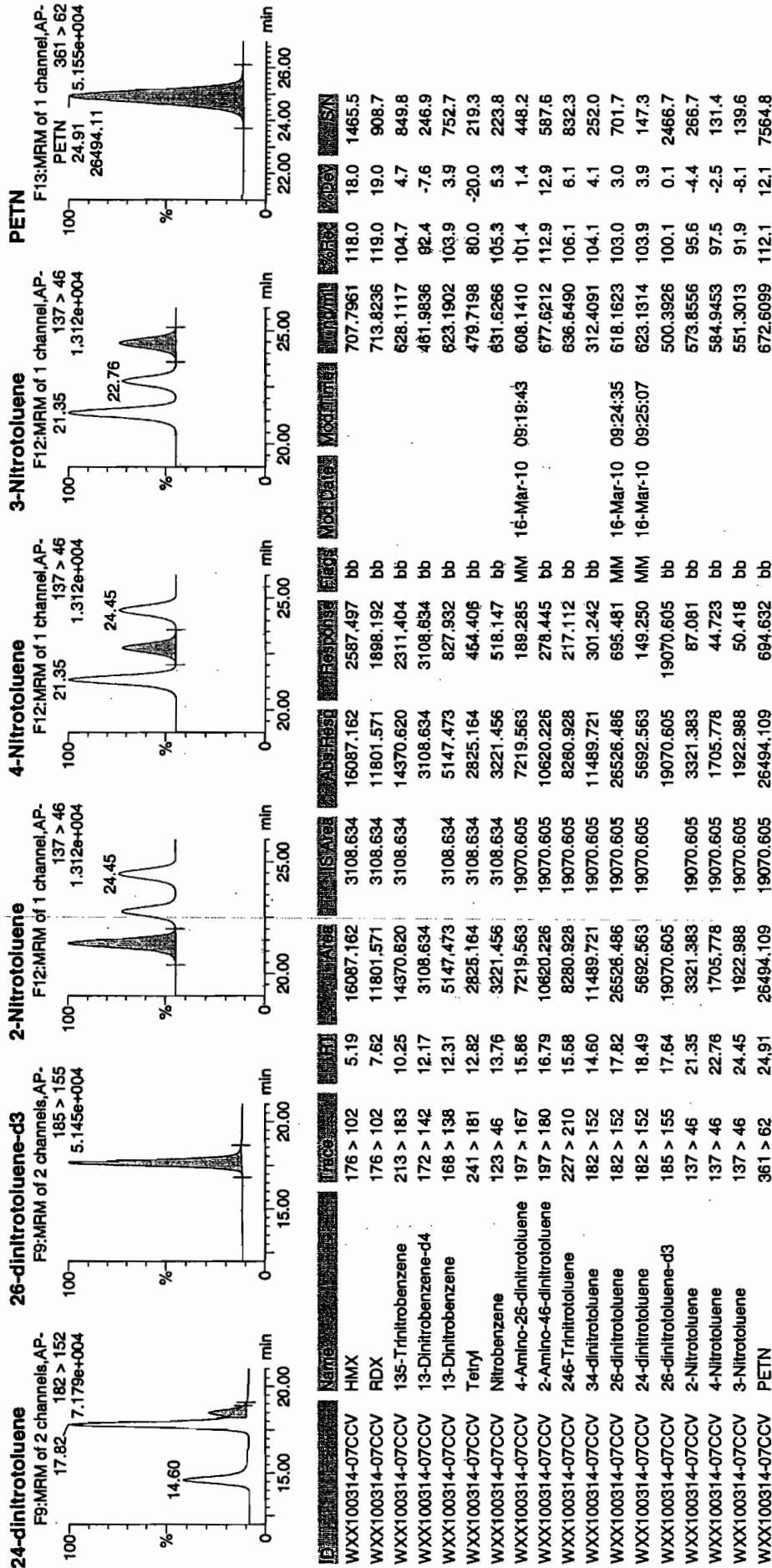
## 26-dinitrotoluene



WXX  
3/16/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

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GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/16/10  
 Time of Injection: 0321  
 Standard Number: WXX100314-07CCV  
 Data File: EXP0314075a

|              |       |
|--------------|-------|
| HMX          | 118.0 |
| RDX          | 119.0 |
| 135-TNB      | 104.7 |
| 13-DNB       | 103.9 |
| Tetryl       | 80.0  |
| Nitrobenzene | 105.3 |
| 4A-26-DNT    | 101.4 |
| 2A-46-DNT    | 112.9 |
| 246-TNT      | 106.1 |
| 34-DNT(surr) | 104.1 |
| 26-DNT       | 103.0 |
| 24-DNT       | 103.9 |
| 2-NT         | 95.6  |
| 4-NT         | 97.5  |
| 3-NT         | 91.9  |
| PETN         | 112.1 |

*MAP  
3/16/10*

Total 1659.4

Average 103.7

*Handwritten: 03/16/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314077a

Analysis Date: 16-MAR-10 04:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 2,6-Dinitrotoluene         | 40   | 40.984  | 102      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 520.8   | 104      |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 41.749  | 104      |   |
| 3,4-Dinitrotoluene         | 20   | 18.777  | 94       |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 41.325  | 103      |   |
| HMX                        | 40   | 47.264  | 118      |   |
| Nitrobenzene               | 40   | 41.044  | 103      |   |
| PETN                       | 40   | 44.312  | 111      |   |
| RDX                        | 40   | 48.392  | 121      |   |
| Tetryl                     | 40   | 36.455  | 91       |   |
| m-Dinitrobenzene           | 40   | 34.836  | 87       |   |
| m-Nitrotoluene             | 40   | 43.511  | 109      |   |
| o-Nitrotoluene             | 40   | 46.465  | 116      |   |
| p-Nitrotoluene             | 40   | 42.934  | 107      |   |
| 1,3,5-Trinitrobenzene      | 40   | 48.663  | 122      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 509.718 | 102      |   |
| 2,4,6-Trinitrotoluene      | 40   | 38.082  | 95       |   |
| 2,4-Dinitrotoluene         | 40   | 41.132  | 103      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314077a

Date: 16-Mar-2010

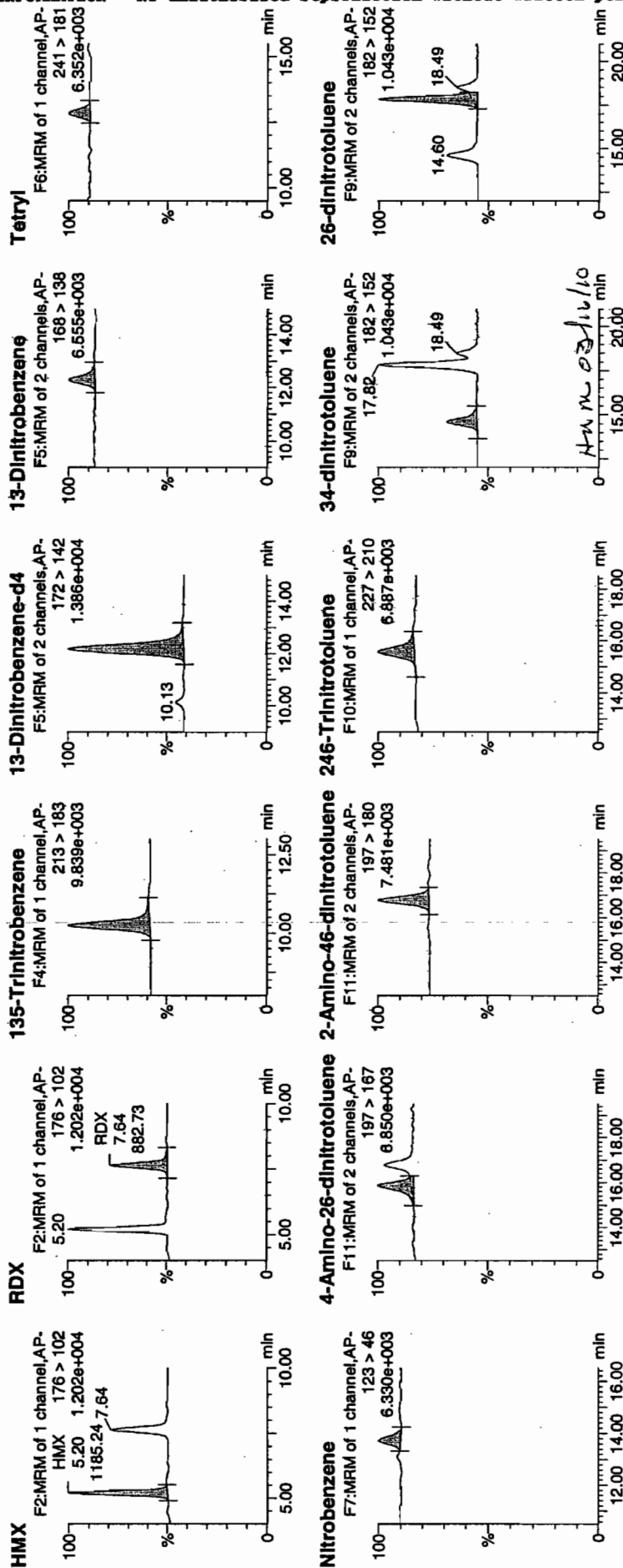
Time: 04:20:44

ID: WXX100314-08CRI

Vial: 1:1,C

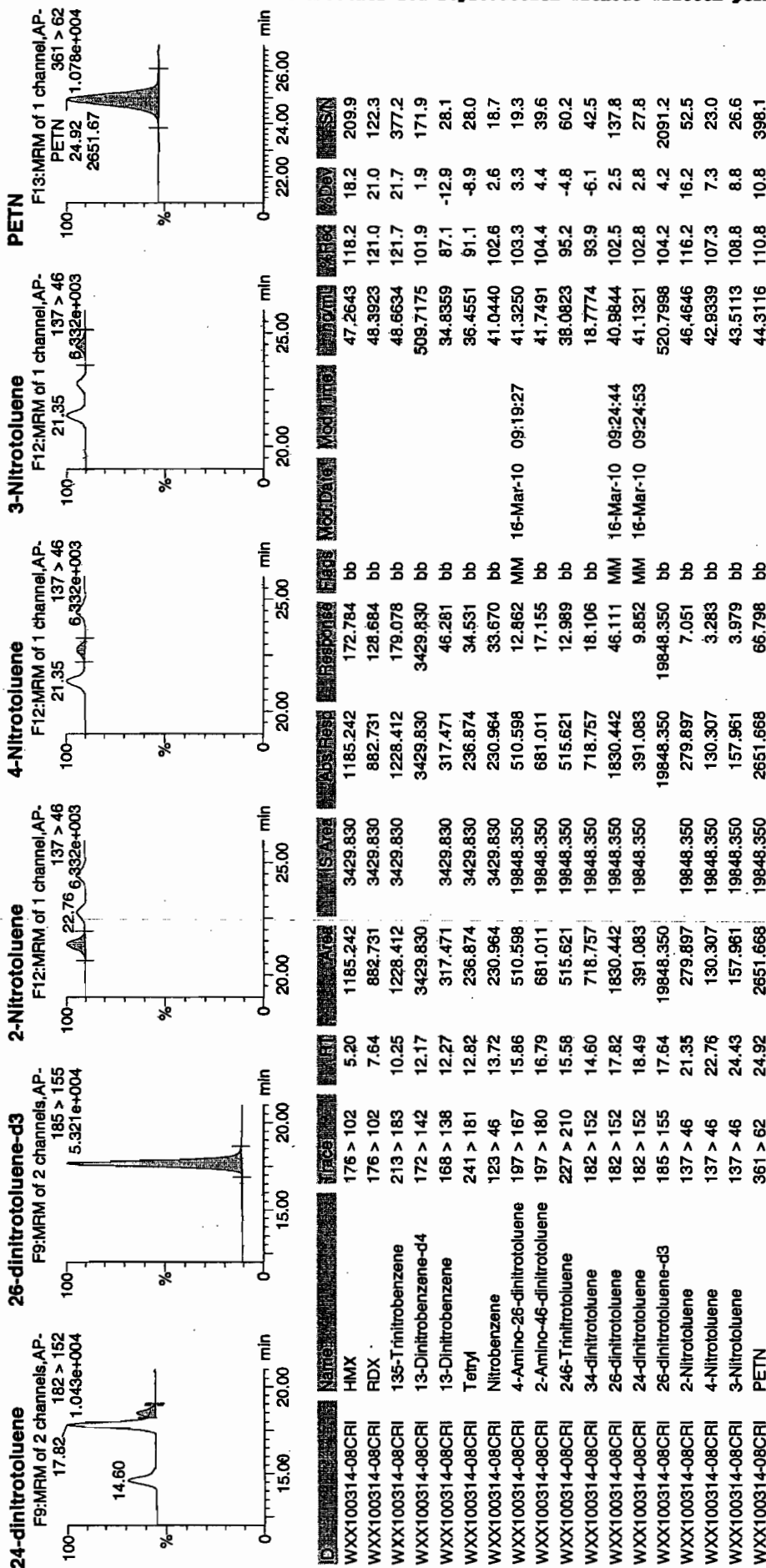
MP  
3/16/10

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Dataset: C:\MASSLYNX\New\_Exp\_PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/16/10  
 Time of Injection 0420  
 Standard Number WXX100314-08CRI  
 Data File EXP0314077a

|              |       |
|--------------|-------|
| HMX          | 118.2 |
| RDX          | 121.0 |
| 135-TNB      | 121.7 |
| 13-DNB       | 87.1  |
| Tetryl       | 91.1  |
| Nitrobenzene | 102.6 |
| 4A-26-DNT    | 103.3 |
| 2A-46-DNT    | 104.4 |
| 246-TNT      | 95.2  |
| 34-DNT(surr) | 93.9  |
| 26-DNT       | 102.5 |
| 24-DNT       | 102.8 |
| 2-NT         | 116.2 |
| 4-NT         | 107.3 |
| 3-NT         | 108.8 |
| PETN         | 110.8 |

*sum  
3/16/10*

Total 1686.9

*sum 03/16/10*

Average 105.4

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314088a

Analysis Date: 16-MAR-10 09:45

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 1,3,5-Trinitrobenzene      | 600  | 554.76  | 92       |   |
| 1,3-Dinitrobenzene-d4      | 500  | 516.17  | 103      |   |
| 2,4,6-Trinitrotoluene      | 600  | 620.772 | 103      |   |
| 2,4-Dinitrotoluene         | 600  | 650.935 | 108      |   |
| 2,6-Dinitrotoluene         | 600  | 607.981 | 101      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 515.033 | 103      |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 611.361 | 102      |   |
| 3,4-Dinitrotoluene         | 300  | 319.204 | 106      |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 547.323 | 91       |   |
| HMX                        | 600  | 755.976 | 126      | * |
| Nitrobenzene               | 600  | 527.304 | 88       |   |
| PETN                       | 600  | 680.381 | 113      |   |
| RDX                        | 600  | 789.54  | 132      | * |
| Tetryl                     | 600  | 477.715 | 80       | * |
| m-Dinitrobenzene           | 600  | 558.603 | 93       |   |
| m-Nitrotoluene             | 600  | 532.943 | 89       |   |
| o-Nitrotoluene             | 600  | 507.554 | 85       |   |
| p-Nitrotoluene             | 600  | 525.665 | 88       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\data\EXP0314088a

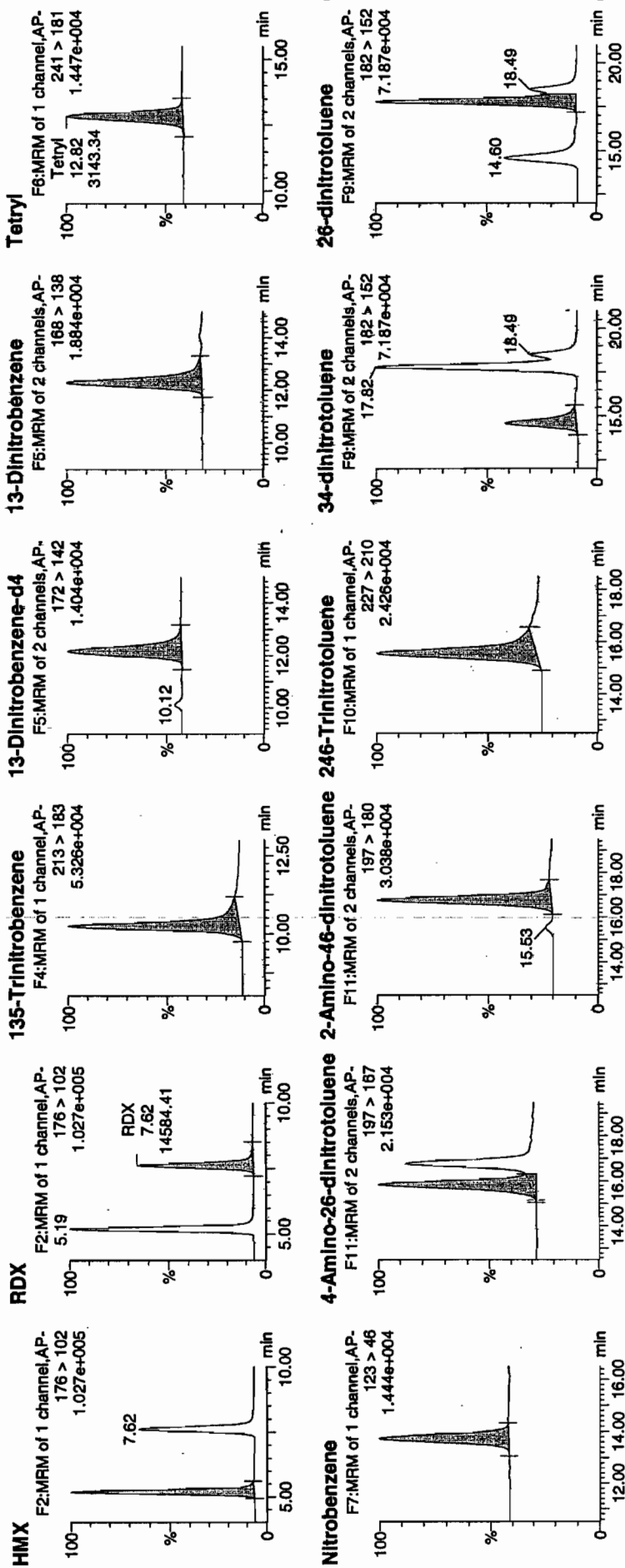
Date: 16-Mar-2010

Time: 09:45:11

ID: WXX100314-07CCV

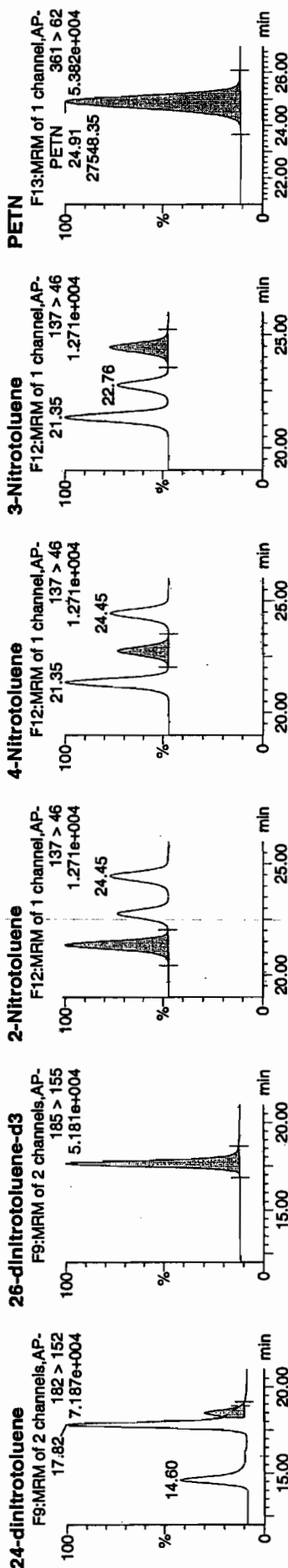
Vial: 1:1,B

WXX  
3/17/10



Handwritten signature/initials

Dataset: C:\MASSLYN\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010



| ID              | Name                      | Trace     | FW    | Age       | IS Avg    | Abs Resp  | Response  | Flags | Mod Date  | Mod Time | Dom      | CS    | Dev   | ASN    |
|-----------------|---------------------------|-----------|-------|-----------|-----------|-----------|-----------|-------|-----------|----------|----------|-------|-------|--------|
| WXX100314-07CCV | HMx                       | 176 > 102 | 5.19  | 19187.541 | 3473.247  | 19187.541 | 2763.630  | bb    |           |          | 755.9765 | 126.0 | 26.0  | 867.1  |
| WXX100314-07CCV | RDX                       | 176 > 102 | 7.62  | 14584.411 | 3473.247  | 14584.411 | 2099.536  | bb    |           |          | 789.5396 | 131.6 | 31.6  | 547.7  |
| WXX100314-07CCV | 135-Trinitrobenzene       | 213 > 183 | 10.25 | 14181.096 | 3473.247  | 14181.096 | 2041.475  | bb    |           |          | 554.7600 | 92.5  | -7.5  | 3988.7 |
| WXX100314-07CCV | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17 | 3473.247  |           | 3473.247  | 3473.247  | bb    |           |          | 516.1698 | 103.2 | 3.2   | 238.0  |
| WXX100314-07CCV | 13-Dinitrobenzene         | 168 > 138 | 12.27 | 5155.163  | 3473.247  | 5155.163  | 742.124   | bb    |           |          | 558.6025 | 83.1  | -8.8  | 285.4  |
| WXX100314-07CCV | Tetryl                    | 241 > 181 | 12.82 | 3143.336  | 3473.247  | 3143.336  | 452.507   | bb    |           |          | 477.7148 | 79.6  | -20.4 | 836.4  |
| WXX100314-07CCV | Nitrobenzene              | 123 > 46  | 13.76 | 3004.821  | 3473.247  | 3004.821  | 432.567   | bb    |           |          | 527.3036 | 87.9  | -12.1 | 351.6  |
| WXX100314-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 6687.664  | 19628.580 | 6687.664  | 170.355   | MM    | 17-Mar-10 | 12:31:52 | 547.3226 | 91.2  | -8.8  | 187.3  |
| WXX100314-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 9862.086  | 19628.580 | 9862.086  | 251.218   | bb    |           |          | 611.3608 | 101.9 | 1.9   | 974.7  |
| WXX100314-07CCV | 246-Trinitrotoluene       | 227 > 210 | 15.58 | 8311.970  | 19628.580 | 8311.970  | 211.731   | bb    |           |          | 620.7724 | 103.5 | 3.5   | 651.0  |
| WXX100314-07CCV | 34-dinitrotoluene         | 182 > 152 | 14.60 | 12083.106 | 19628.580 | 12083.106 | 307.794   | bb    |           |          | 319.2040 | 108.4 | 6.4   | 251.0  |
| WXX100314-07CCV | 26-dinitrotoluene         | 182 > 152 | 17.82 | 26852.918 | 19628.580 | 26852.918 | 684.026   | MM    | 17-Mar-10 | 12:33:25 | 607.9808 | 101.3 | 1.3   | 695.0  |
| WXX100314-07CCV | 24-dinitrotoluene         | 182 > 152 | 18.49 | 6120.548  | 19628.580 | 6120.548  | 155.909   | MM    | 17-Mar-10 | 12:34:38 | 650.9351 | 108.5 | 8.5   | 153.4  |
| WXX100314-07CCV | 26-dinitrotoluene-c3      | 185 > 155 | 17.64 | 19628.580 |           | 19628.580 | 19628.580 | bb    |           |          | 515.0333 | 103.0 | 3.0   | 2121.0 |
| WXX100314-07CCV | 2-Nitrotoluene            | 137 > 46  | 21.35 | 3023.588  | 19628.580 | 3023.588  | 77.020    | bb    |           |          | 507.5535 | 84.6  | -15.4 | 733.2  |
| WXX100314-07CCV | 4-Nitrotoluene            | 137 > 46  | 22.76 | 1577.758  | 19628.580 | 1577.758  | 40.190    | bb    |           |          | 525.6646 | 87.6  | -12.4 | 362.1  |
| WXX100314-07CCV | 3-Nitrotoluene            | 137 > 46  | 24.45 | 1913.342  | 19628.580 | 1913.342  | 48.739    | bb    |           |          | 532.8428 | 88.8  | -11.2 | 415.1  |
| WXX100314-07CCV | PETN                      | 361 > 62  | 24.91 | 27548.346 | 19628.580 | 27548.346 | 701.741   | bb    |           |          | 680.3808 | 113.4 | 13.4  | 6657.0 |

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/16/10  
 Time of Injection: 0945  
 Standard Number: WXX100314-07CCV  
 Data File: EXP0314088a

|              |       |
|--------------|-------|
| HMX          | 126.0 |
| RDX          | 131.6 |
| 135-TNB      | 92.5  |
| 13-DNB       | 93.1  |
| Tetryl       | 79.6  |
| Nitrobenzene | 87.9  |
| 4A-26-DNT    | 91.2  |
| 2A-46-DNT    | 101.9 |
| 246-TNT      | 103.5 |
| 34-DNT(surr) | 106.4 |
| 26-DNT       | 101.3 |
| 24-DNT       | 108.5 |
| 2-NT         | 94.6  |
| 4-NT         | 97.6  |
| 3-NT         | 88.8  |
| PETN         | 113.4 |

*WFT*  
*3/17/10*

Total 1617.9

Average 101.1

*HMM 03/17/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314090a

Analysis Date: 16-MAR-10 10:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| m-Nitrotoluene             | 40   | 32.494  | 81       |   |
| o-Nitrotoluene             | 40   | 33.622  | 84       |   |
| p-Nitrotoluene             | 40   | 31.085  | 78       |   |
| 1,3,5-Trinitrobenzene      | 40   | 53.321  | 133      | * |
| 1,3-Dinitrobenzene-d4      | 500  | 498.557 | 100      |   |
| 2,4,6-Trinitrotoluene      | 40   | 42.928  | 107      |   |
| 2,4-Dinitrotoluene         | 40   | 38.67   | 97       |   |
| 2,6-Dinitrotoluene         | 40   | 39.806  | 100      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 591.45  | 118      |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 44.647  | 112      |   |
| 3,4-Dinitrotoluene         | 20   | 16.385  | 82       |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 39.318  | 98       |   |
| HMX                        | 40   | 50.858  | 127      |   |
| Nitrobenzene               | 40   | 45.207  | 113      |   |
| PETN                       | 40   | 39.826  | 100      |   |
| RDX                        | 40   | 49.187  | 123      |   |
| Tetryl                     | 40   | 42.113  | 105      |   |
| m-Dinitrobenzene           | 40   | 36.399  | 91       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0314090a

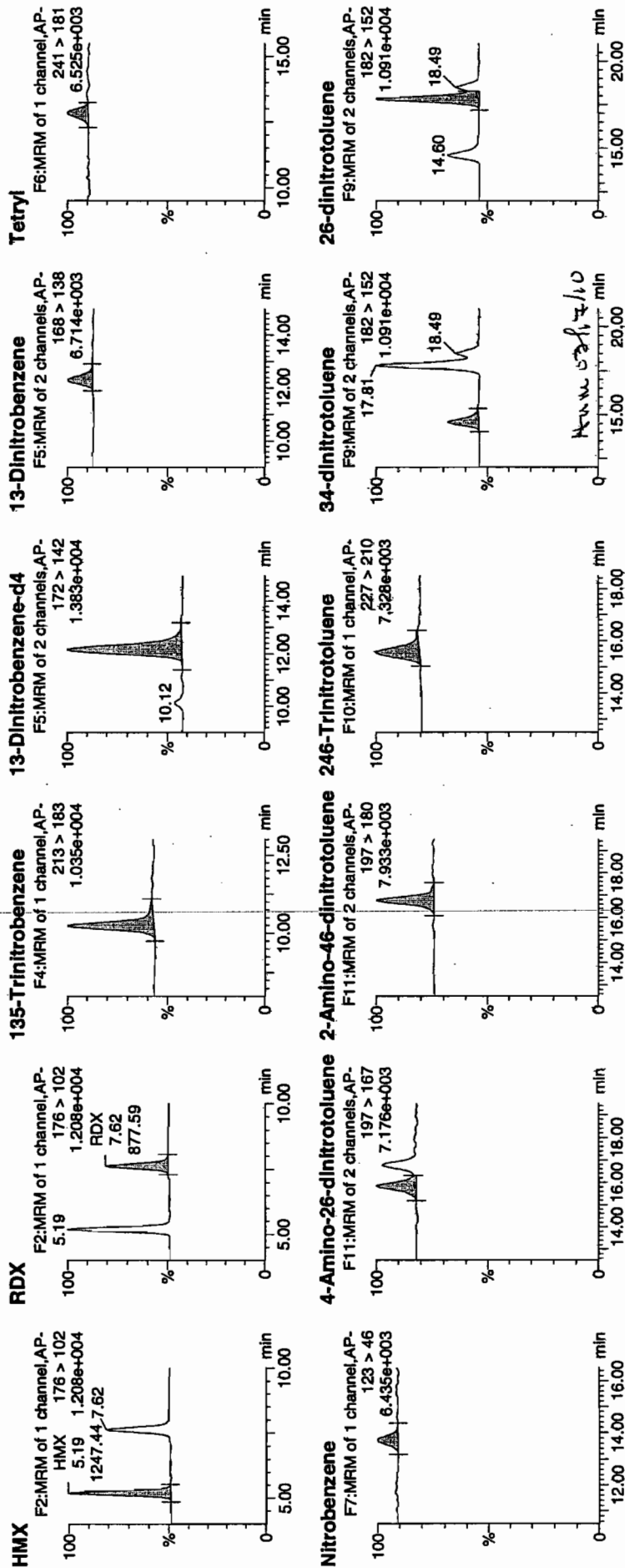
Date: 16-Mar-2010

Time: 10:44:12

ID: WXX100314-08CRI

Vial: 1:1,C

WXX  
3/17/10



Dataset: C:\MASSLYNX\New\_Exp\_PRO031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

## 24-dinitrotoluene

F9:MRM of 2 channels,AP-

182 &gt; 152

1.091e+004

17.81

14.60

min

20.00

%

0

min

20.00

min

20.00

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

## 26-dinitrotoluene-d3

F9:MRM of 2 channels,AP-

185 &gt; 155

5.813e+004

22.79

22.79

min

25.00

%

0

min

25.00

min

25.00

min

## 2-Nitrotoluene

F12:MRM of 1 channel,AP-

137 &gt; 46

6.348e+003

21.33

21.33

min

25.00

%

0

min

25.00

min

25.00

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

## 4-Nitrotoluene

F12:MRM of 1 channel,AP-

137 &gt; 46

6.348e+003

21.33

21.33

min

25.00

%

0

min

25.00

min

25.00

min

## 3-Nitrotoluene

F12:MRM of 1 channel,AP-

137 &gt; 46

6.348e+003

21.33

21.33

min

25.00

%

0

min

25.00

min

25.00

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

## PETN

F13:MRM of 1 channel,AP-

361 &gt; 62

1.106e+004

24.89

2782.33

min

25.00

%

0

min

25.00

min

25.00

min

## Name

HMX

RDX

135-Trinitrobenzene

13-Dinitrobenzene-d4

13-Dinitrobenzene

Tetryl

Nitrobenzene

4-Amino-26-dinitrotoluene

2-Amino-46-dinitrotoluene

246-Trinitrotoluene

34-dinitrotoluene

26-dinitrotoluene

24-dinitrotoluene

26-dinitrotoluene-d3

2-Nitrotoluene

4-Nitrotoluene

3-Nitrotoluene

PETN

176 &gt; 102

176 &gt; 102

213 &gt; 183

172 &gt; 142

168 &gt; 138

241 &gt; 181

123 &gt; 46

197 &gt; 167

197 &gt; 180

227 &gt; 210

182 &gt; 152

182 &gt; 152

182 &gt; 152

185 &gt; 155

137 &gt; 46

## 24-dinitrotoluene

F9:MRM of 2 channels,AP-

182 &gt; 152

1.091e+004

17.81

14.60

min

20.00

%

0

min

20.00

min

20.00

min

## 26-dinitrotoluene-d3

F9:MRM of 2 channels,AP-

185 &gt; 155

5.813e+004

22.79

22.79

min

25.00

%

0

min

25.00

min

25.00

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

## 2-Nitrotoluene

F12:MRM of 1 channel,AP-

137 &gt; 46

6.348e+003

21.33

21.33

min

25.00

%

0

min

25.00

min

25.00

min

## 4-Nitrotoluene

F12:MRM of 1 channel,AP-

137 &gt; 46

6.348e+003

21.33

21.33

min

25.00

%

0

min

25.00

min

25.00

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

min

## PETN

F13:MRM of 1 channel,AP-

361 &gt; 62

1.106e+004

24.89

2782.33

min

25.00

%

0

min

25.00

min

25.00

min

## Name

HMX

RDX

135-Trinitrobenzene

13-Dinitrobenzene-d4

13-Dinitrobenzene

Tetryl

Nitrobenzene

4-Amino-26-dinitrotoluene

2-Amino-46-dinitrotoluene

246-Trinitrotoluene

34-dinitrotoluene

26-dinitrotoluene

24-dinitrotoluene

26-dinitrotoluene-d3

2-Nitrotoluene

4-Nitrotoluene

3-Nitrotoluene

PETN

176 &gt; 102

176 &gt; 102

213 &gt; 183

172 &gt; 142

168 &gt; 138

241 &gt; 181

123 &gt; 46

197 &gt; 167

197 &gt; 180

227 &gt; 210

182 &gt; 152

182 &gt; 152

182 &gt; 152

185 &gt; 155

137 &gt; 46

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/16/10  
 Time of Injection 1044  
 Standard Number WXX100314-08CRI  
 Data File EXP0314090a

|              |       |
|--------------|-------|
| HMX          | 127.1 |
| RDX          | 123.0 |
| 135-TNB      | 133.3 |
| 13-DNB       | 91.0  |
| Tetryl       | 105.3 |
| Nitrobenzene | 113.0 |
| 4A-26-DNT    | 98.3  |
| 2A-46-DNT    | 111.6 |
| 246-TNT      | 107.3 |
| 34-DNT(surr) | 81.9  |
| 26-DNT       | 99.5  |
| 24-DNT       | 96.7  |
| 2-NT         | 84.1  |
| 4-NT         | 77.7  |
| 3-NT         | 81.2  |
| PETN         | 99.6  |

*mt  
3/17/10*

Total 1630.6

Average 101.9

*from 02/17/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0319012a

Analysis Date: 19-MAR-10 22:18

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 1,3,5-Trinitrobenzene      | 40   | 39.627  | 99       |   |
| 1,3-Dinitrobenzene-d4      | 500  | 444.248 | 89       |   |
| 2,4,6-Trinitrotoluene      | 40   | 37.741  | 94       |   |
| 2,4-Dinitrotoluene         | 40   | 34.69   | 87       |   |
| 2,6-Dinitrotoluene         | 40   | 42.395  | 106      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 471.684 | 94       |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 32.751  | 82       |   |
| 3,4-Dinitrotoluene         | 20   | 18.832  | 94       |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 35.27   | 88       |   |
| HMX                        | 40   | 36.922  | 92       |   |
| Nitrobenzene               | 40   | 45.522  | 114      |   |
| PETN                       | 40   | 43.663  | 109      |   |
| RDX                        | 40   | 40.907  | 102      |   |
| Tetryl                     | 40   | 30.076  | 75       |   |
| m-Dinitrobenzene           | 40   | 38.78   | 97       |   |
| m-Nitrotoluene             | 40   | 44.56   | 111      |   |
| o-Nitrotoluene             | 40   | 42.241  | 106      |   |
| p-Nitrotoluene             | 40   | 39.554  | 99       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0319012a

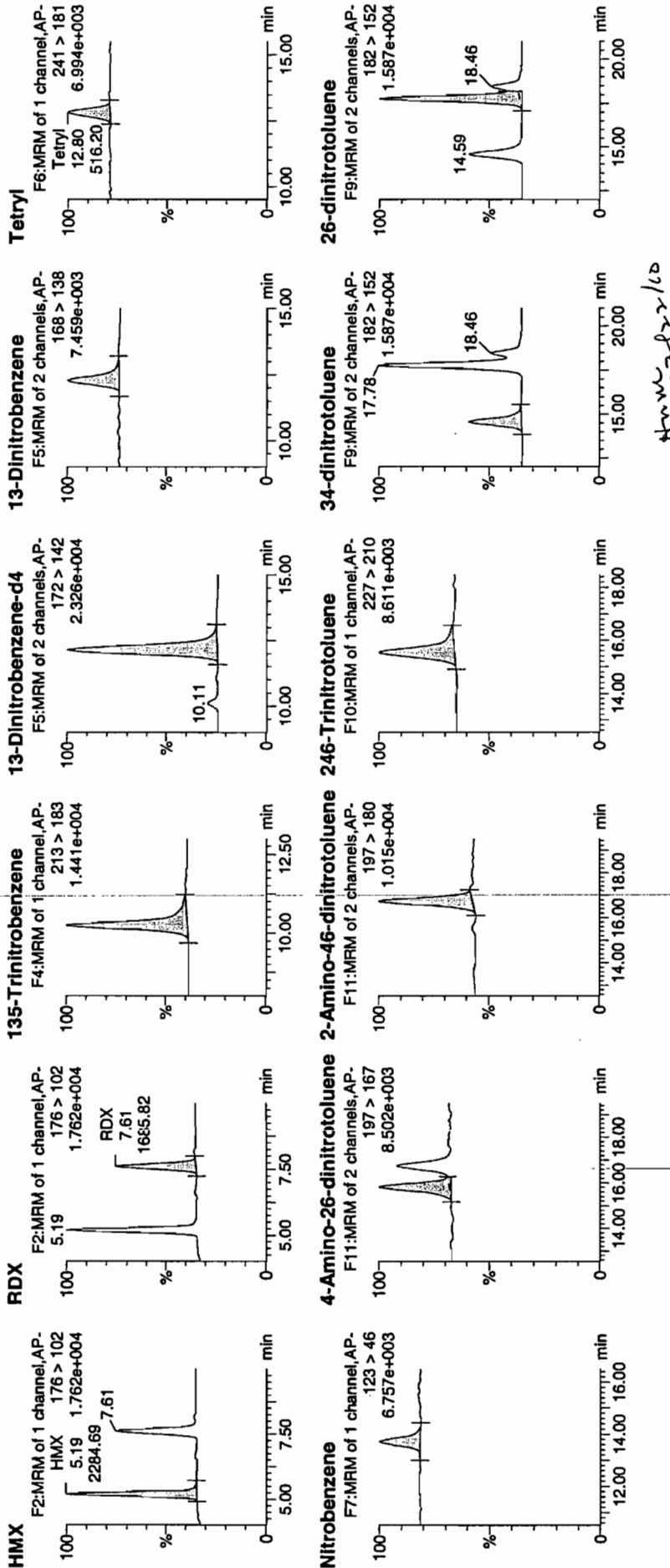
Date: 19-Mar-2010

Time: 22:18:36

ID: WXX100319-08CRI

Vial: 1:1,C

3/12/10  
MJP

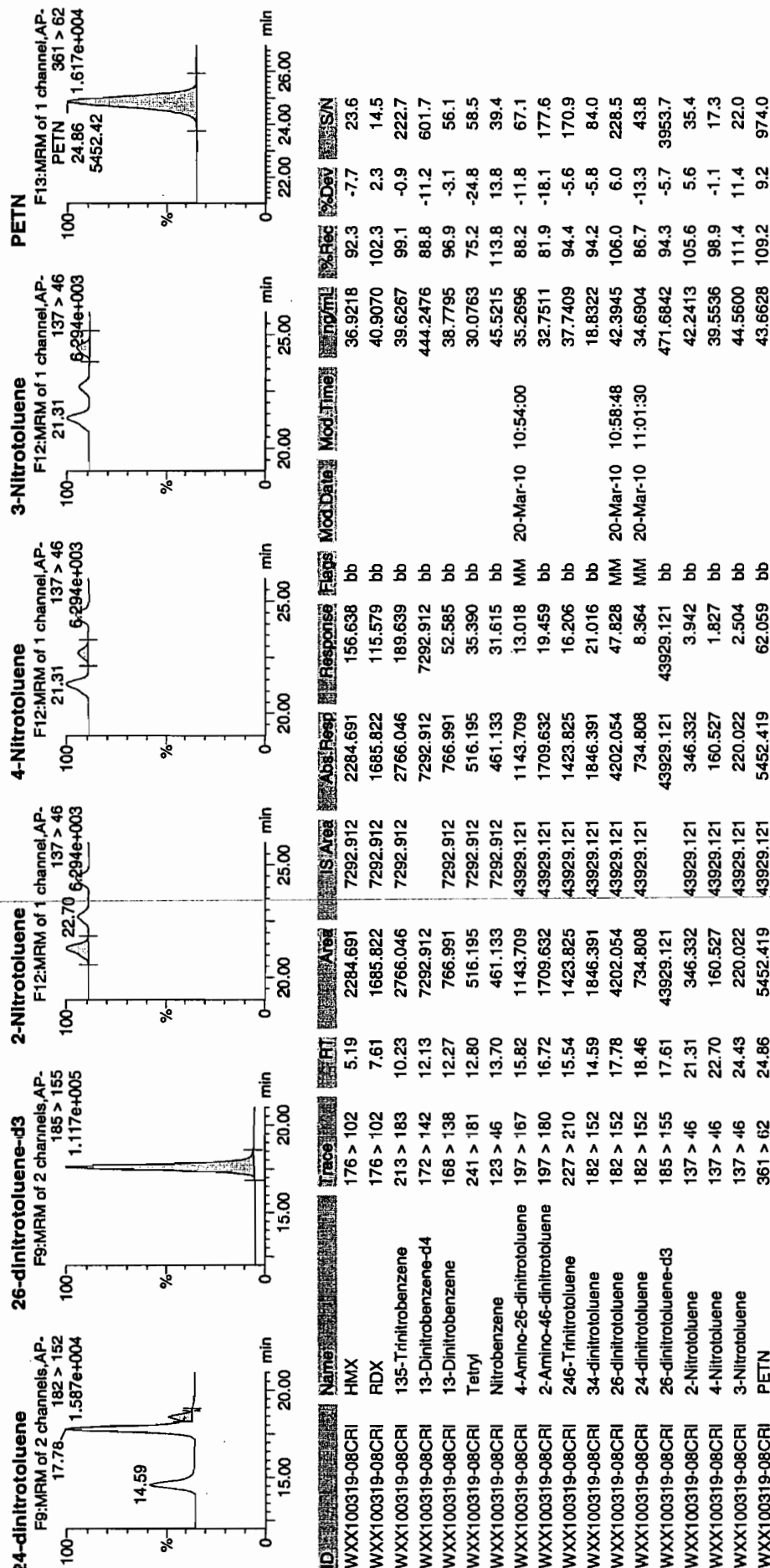


Handwritten signature/initials.

Printed: Sat Mar 20 11:06:08 2010, Page 24 of 73

**Quantify Sample Report**  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010



GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/19/10  
 Time of Injection 2218  
 Standard Number WXX100319-08CRI  
 Data File EXP0319012a

|              |       |
|--------------|-------|
| HMX          | 92.3  |
| RDX          | 102.3 |
| 135-TNB      | 99.1  |
| 13-DNB       | 96.9  |
| Tetryl       | 75.2  |
| Nitrobenzene | 113.8 |
| 4A-26-DNT    | 88.2  |
| 2A-46-DNT    | 81.9  |
| 246-TNT      | 94.4  |
| 34-DNT(surr) | 94.2  |
| 26-DNT       | 106.0 |
| 24-DNT       | 86.7  |
| 2-NT         | 105.6 |
| 4-NT         | 98.9  |
| 3-NT         | 111.4 |
| PETN         | 109.2 |

*11/17  
3/22/10*

Total 1556.1

Average 97.3

*Hum 03/22/10*

|                             |
|-----------------------------|
| ICV Limits 85-115%          |
| CRI Limits 70-130%          |
| CCV Limits 85-115%          |
| No single analyte > +/- 60% |

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0319022a

Analysis Date: 20-MAR-10 03:13

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 1,3-Dinitrobenzene-d4      | 500  | 398.076 | 80       | * |
| 2,4,6-Trinitrotoluene      | 600  | 620.636 | 103      |   |
| 2,4-Dinitrotoluene         | 600  | 654.89  | 109      |   |
| 2,6-Dinitrotoluene         | 600  | 625.73  | 104      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 415.339 | 83       |   |
| 2-Amino-4,6-dinitrotoluene | 600  | 575.512 | 96       |   |
| 3,4-Dinitrotoluene         | 300  | 286.078 | 95       |   |
| 4-Amino-2,6-dinitrotoluene | 600  | 604.613 | 101      |   |
| HMX                        | 600  | 610.321 | 102      |   |
| Nitrobenzene               | 600  | 619.1   | 103      |   |
| PETN                       | 600  | 694.771 | 116      |   |
| RDX                        | 600  | 682.896 | 114      |   |
| Tetryl                     | 600  | 657.931 | 110      |   |
| m-Dinitrobenzene           | 600  | 593.531 | 99       |   |
| m-Nitrotoluene             | 600  | 594.961 | 99       |   |
| o-Nitrotoluene             | 600  | 593.465 | 99       |   |
| p-Nitrotoluene             | 600  | 608.706 | 101      |   |
| 1,3,5-Trinitrobenzene      | 600  | 596.766 | 99       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Printed: Sat Mar 20 11:06:08 2010, Page 43 of 73

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0319022a

Date: 20-Mar-2010

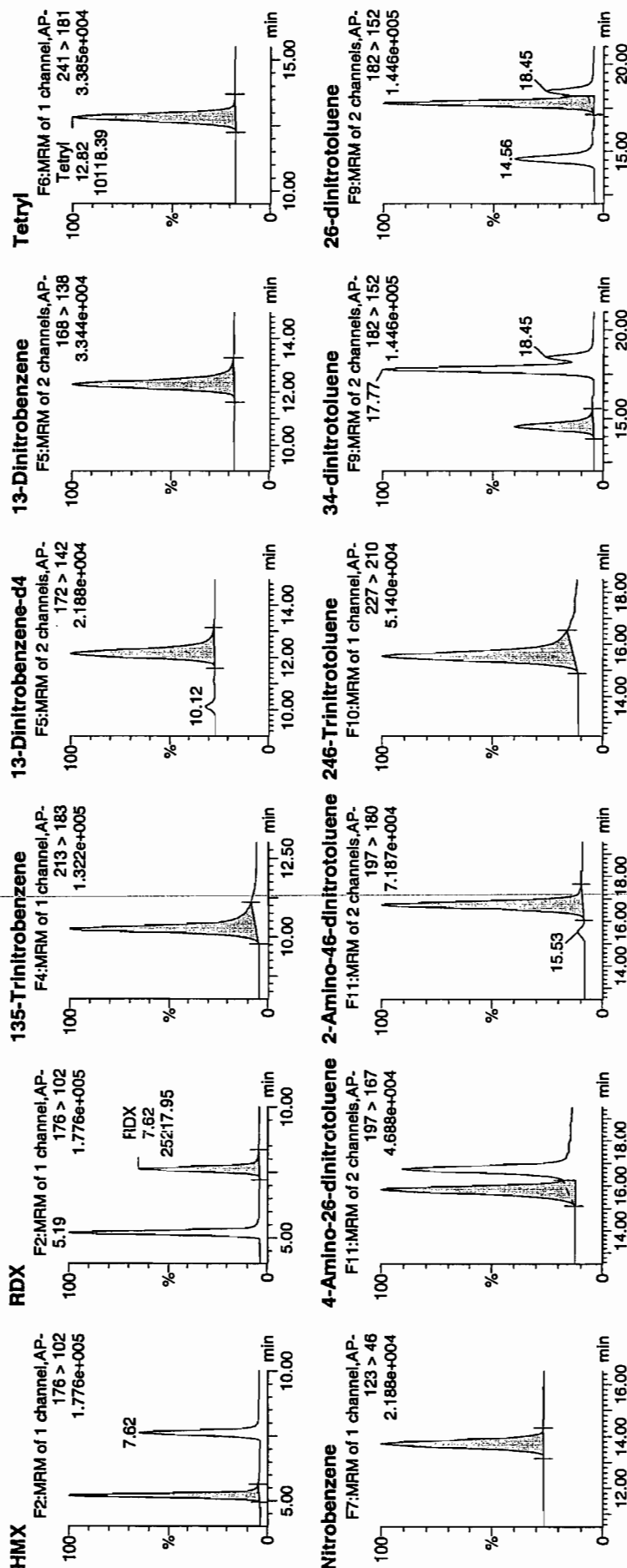
Time: 03:13:32

ID: WXX100319-07CCV

Vial: 1:1,B

MT  
3/20/10

Page 807 of 942

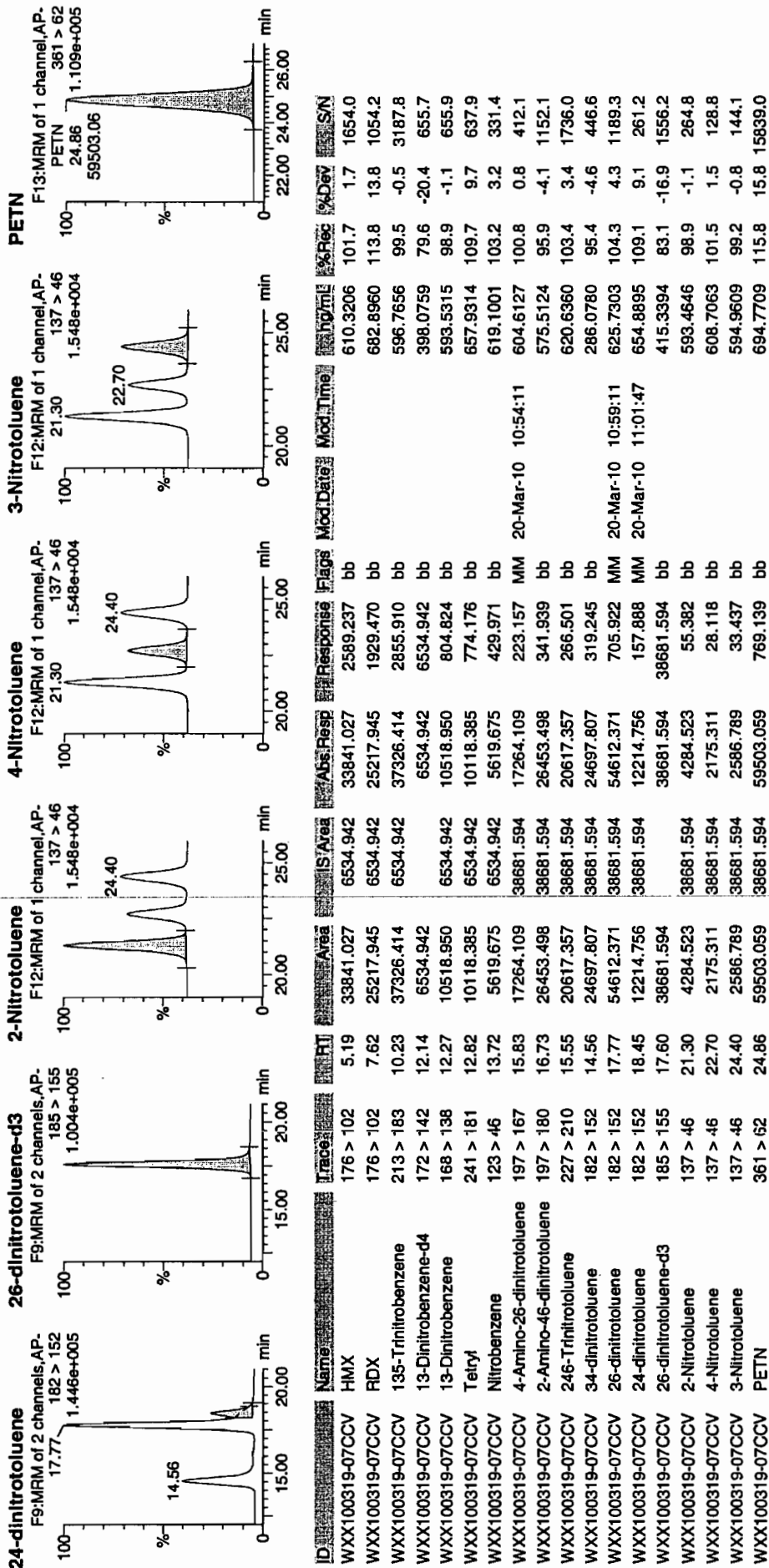


HW 3/22/10

Printed: Sat Mar 20 11:06:08 2010, Page 44 of 73

Quantify Sample Report  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSL\YXXNew\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 03/20/10  
 Time of Injection: 0313  
 Standard Number: WXX100319-07CCV  
 Data File: EXP0319022a

|              |       |
|--------------|-------|
| HMX          | 101.7 |
| RDX          | 113.8 |
| 135-TNB      | 99.5  |
| 13-DNB       | 98.9  |
| Tetryl       | 109.7 |
| Nitrobenzene | 103.2 |
| 4A-26-DNT    | 100.8 |
| 2A-46-DNT    | 95.9  |
| 246-TNT      | 103.4 |
| 34-DNT(surr) | 95.4  |
| 26-DNT       | 104.3 |
| 24-DNT       | 109.1 |
| 2-NT         | 98.9  |
| 4-NT         | 101.5 |
| 3-NT         | 99.2  |
| PETN         | 115.8 |

*um  
3/20/10*

Total 1651.1

*um 03/22/10*

Average 103.2

|                             |
|-----------------------------|
| ICV Limits 85-115%          |
| CRI Limits 70-130%          |
| CCV Limits 85-115%          |
| No single analyte > +/- 60% |



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0319024a

Analysis Date: 20-MAR-10 04:12

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound                   | True | Found   | Recovery | Q |
|----------------------------|------|---------|----------|---|
| 3,4-Dinitrotoluene         | 20   | 19.003  | 95       |   |
| 4-Amino-2,6-dinitrotoluene | 40   | 42.896  | 107      |   |
| HMX                        | 40   | 46.851  | 117      |   |
| Nitrobenzene               | 40   | 44.233  | 111      |   |
| PETN                       | 40   | 47.421  | 119      |   |
| RDX                        | 40   | 42.067  | 105      |   |
| Tetryl                     | 40   | 31.143  | 78       |   |
| m-Dinitrobenzene           | 40   | 37.549  | 94       |   |
| m-Nitrotoluene             | 40   | 38.238  | 96       |   |
| o-Nitrotoluene             | 40   | 36.515  | 91       |   |
| p-Nitrotoluene             | 40   | 40.115  | 100      |   |
| 1,3,5-Trinitrobenzene      | 40   | 41.981  | 105      |   |
| 1,3-Dinitrobenzene-d4      | 500  | 414.198 | 83       |   |
| 2,4,6-Trinitrotoluene      | 40   | 37.34   | 93       |   |
| 2,4-Dinitrotoluene         | 40   | 40.233  | 101      |   |
| 2,6-Dinitrotoluene         | 40   | 40.727  | 102      |   |
| 2,6-Dinitrotoluene-d3      | 500  | 442.71  | 89       |   |
| 2-Amino-4,6-dinitrotoluene | 40   | 36.537  | 91       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Printed: Sat Mar 20 11:06:08 2010, Page 47 of 73

Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010

Page Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0319024a

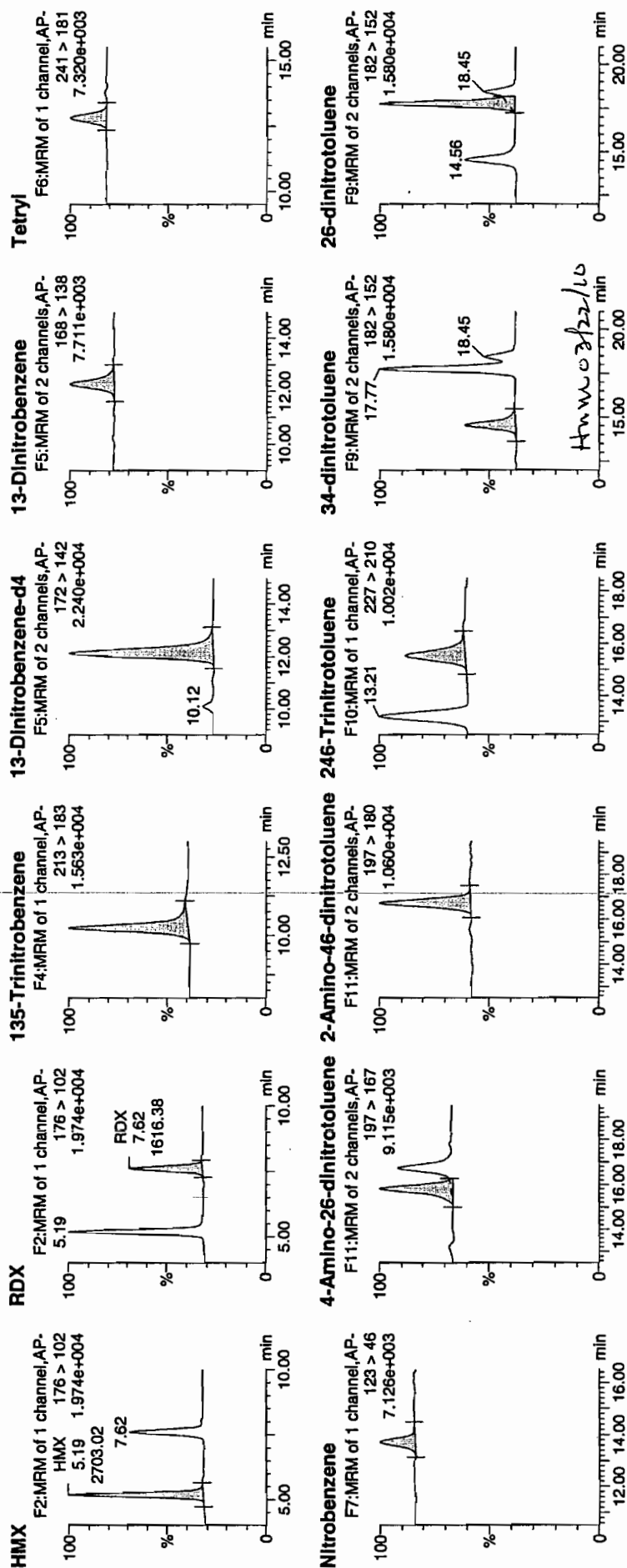
Date: 20-Mar-2010

Time: 04:12:29

ID: WXX100319-08CRI

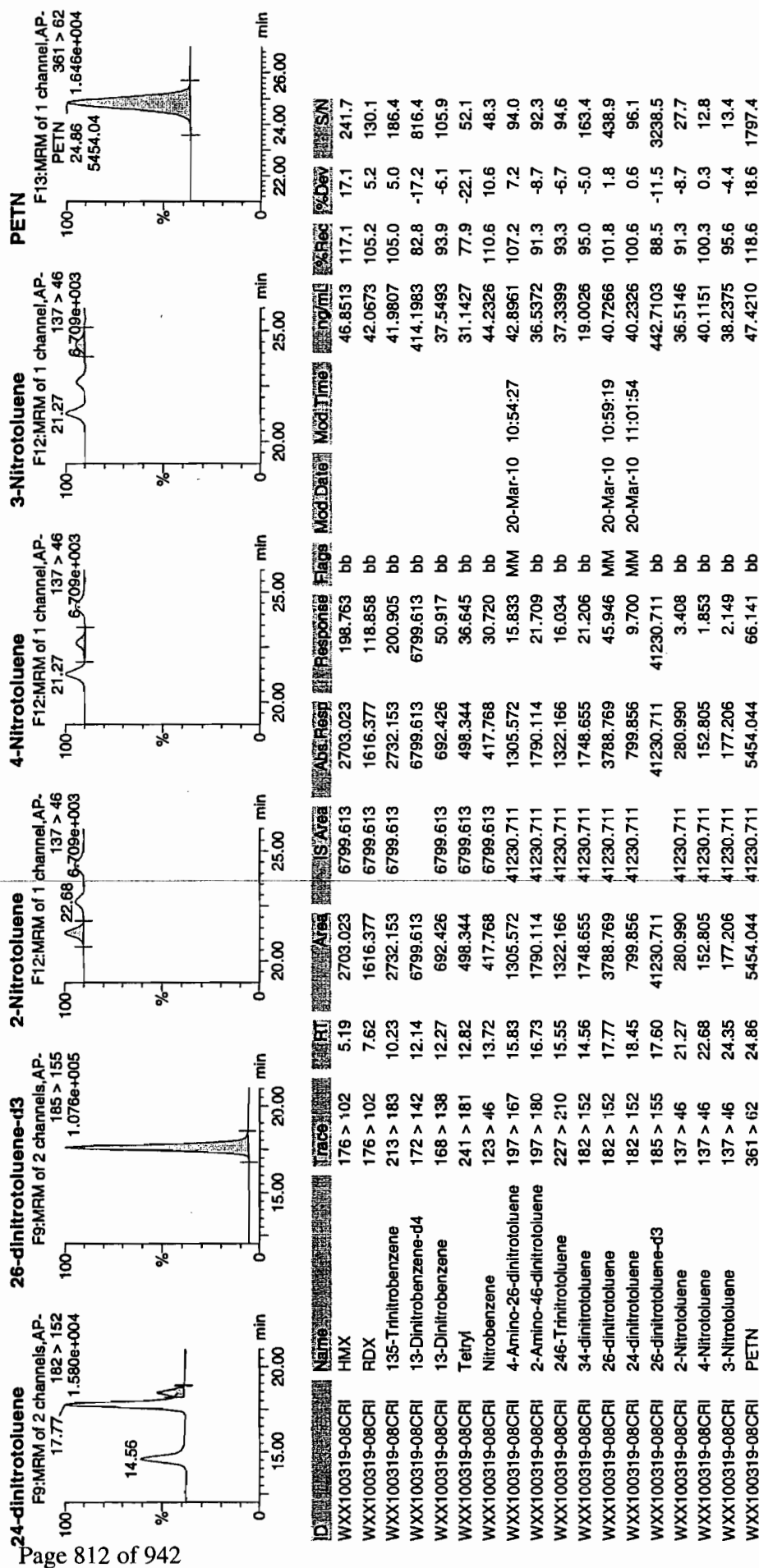
Vial: 1:1,C

3/20/10



Quantify Sample Report  
GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO\031910expA.qld, Time: Sat Mar 20 11:05:24 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 03/20/10  
 Time of Injection 0412  
 Standard Number WXX100319-08CRI  
 Data File EXP0319024a

|              |       |
|--------------|-------|
| HMX          | 117.1 |
| RDX          | 105.2 |
| 135-TNB      | 105.0 |
| 13-DNB       | 93.9  |
| Tetryl       | 77.9  |
| Nitrobenzene | 110.6 |
| 4A-26-DNT    | 107.2 |
| 2A-46-DNT    | 91.3  |
| 246-TNT      | 93.3  |
| 34-DNT(surr) | 95.0  |
| 26-DNT       | 101.8 |
| 24-DNT       | 100.6 |
| 2-NT         | 91.3  |
| 4-NT         | 100.3 |
| 3-NT         | 95.6  |
| PETN         | 118.6 |

*MTT  
3/22/10*

Total 1604.7

Average 100.3

*4/11/10 03/22/10*

|                    |
|--------------------|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050013.wiff

Analysis Date: 05-MAR-10 20:16

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 102   | 102      |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 104   | 104      |   |
| 3,4-Dinitrotoluene         | 50   | 52    | 104      |   |
| 3,5-Dinitroaniline         | 100  | 104   | 104      |   |
| TATB                       | 100  | 108   | 108      |   |
| tris(o-cresyl) phosphate   | 100  | 100   | 100      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

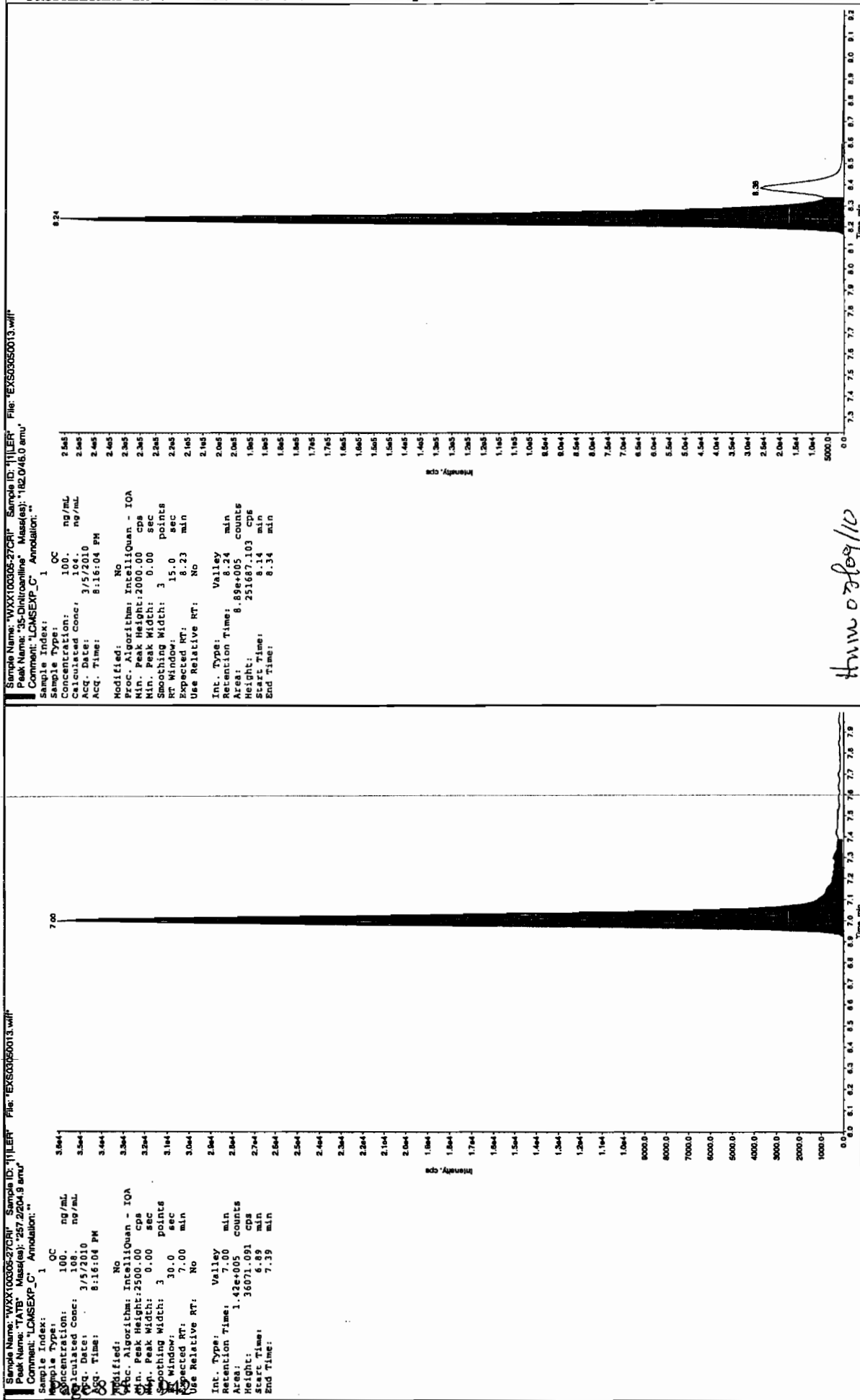
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

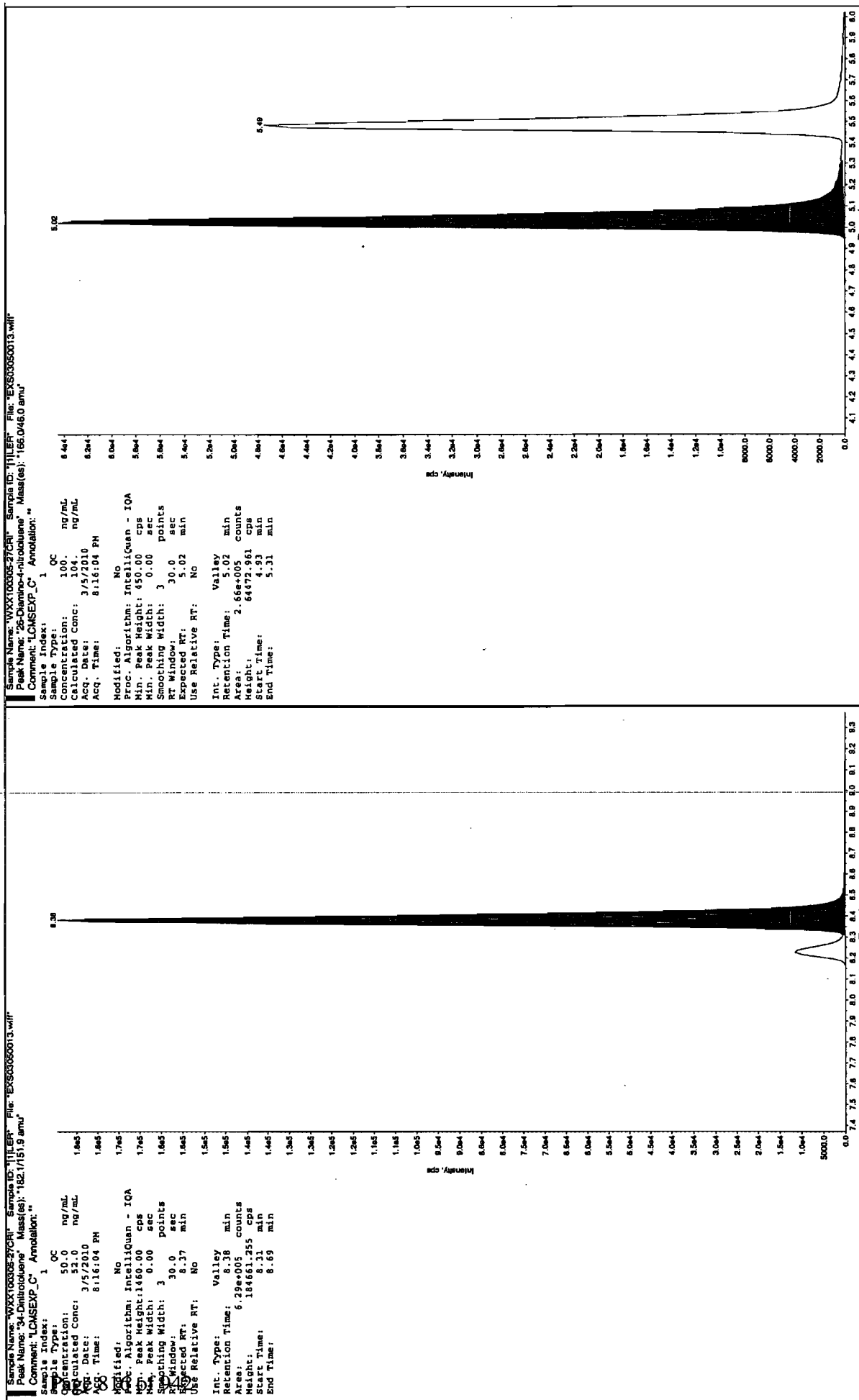
# Column used to flag Recovery outside of Limits

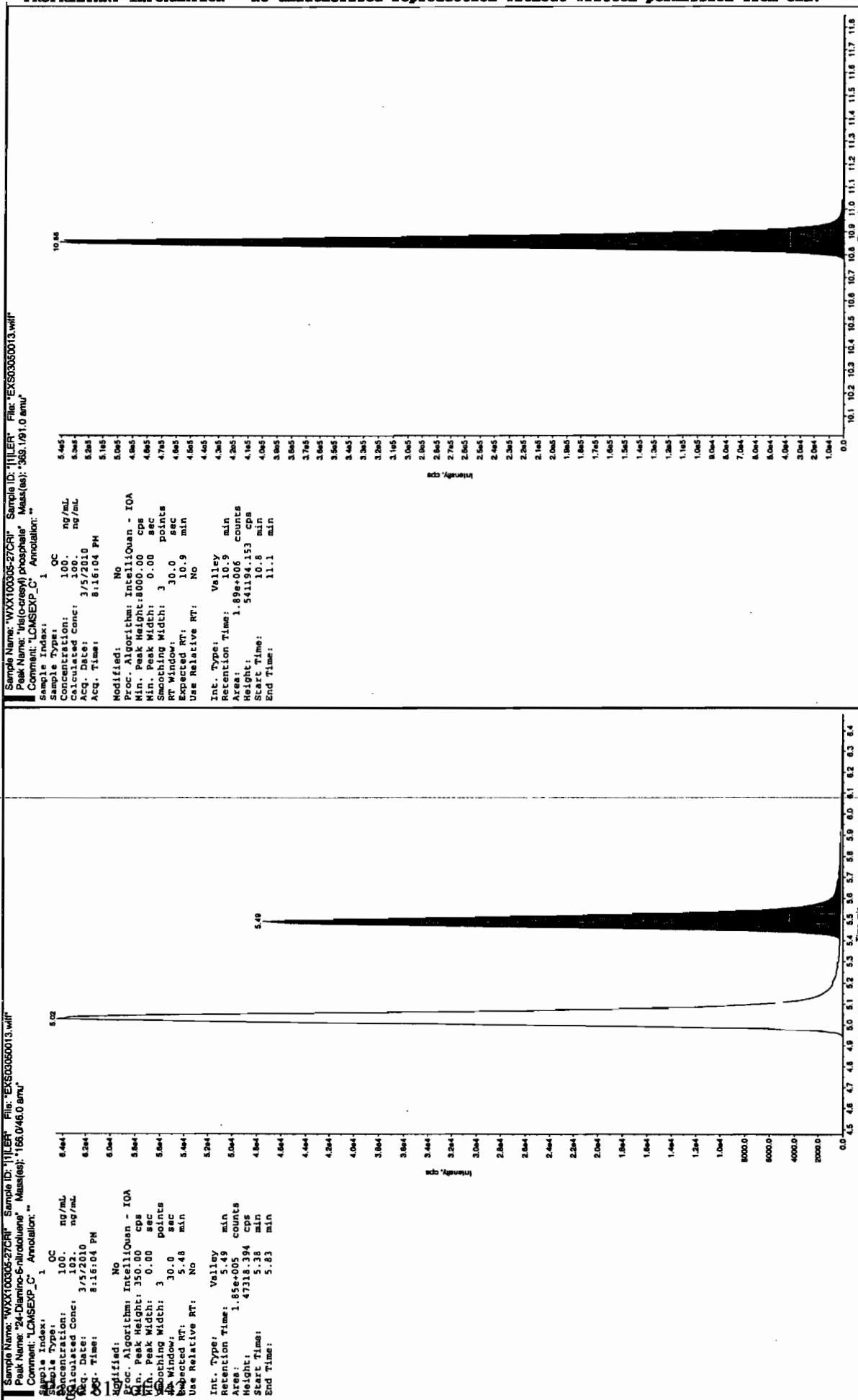
\* Value outside of Recovery Limits

Dec 3/9/10



thw 03/09/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050024.wiff

Analysis Date: 05-MAR-10 23:08

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 507   | 101      |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 520   | 104      |   |
| 3,4-Dinitrotoluene         | 250  | 237   | 95       |   |
| 3,5-Dinitroaniline         | 500  | 509   | 102      |   |
| TATB                       | 500  | 506   | 101      |   |
| tris(o-cresyl) phosphate   | 500  | 505   | 101      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

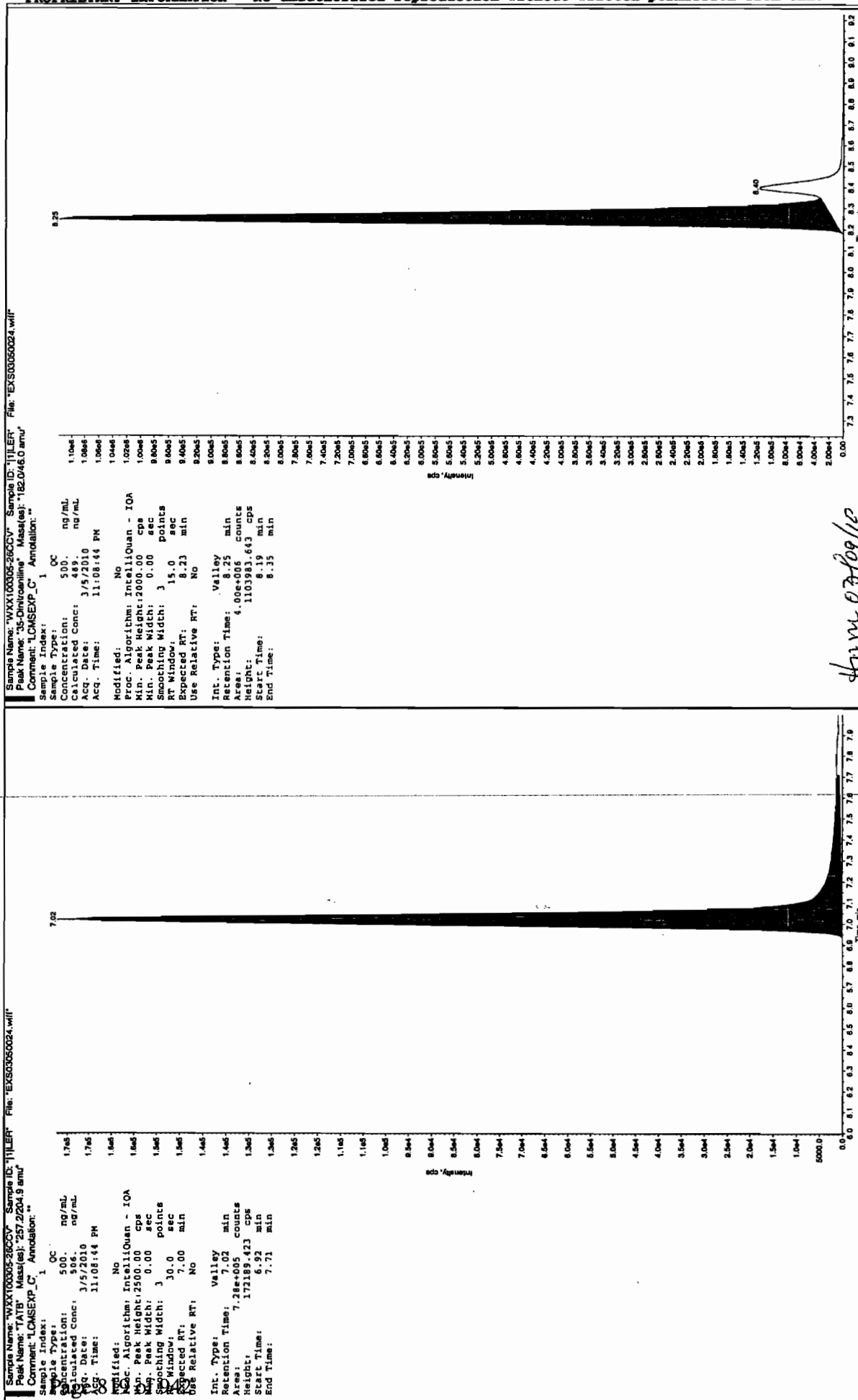
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

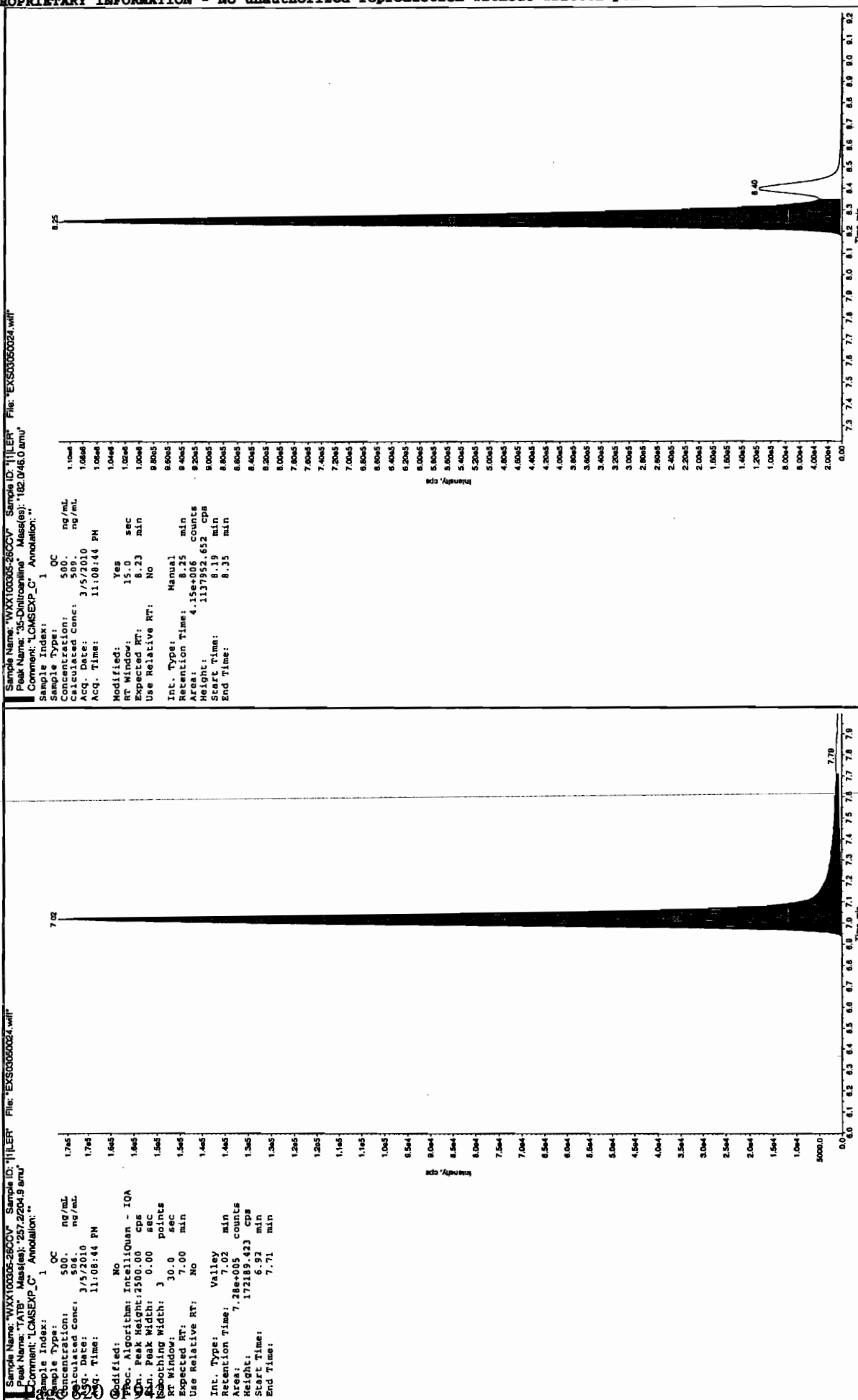
\* Value outside of Recovery Limits

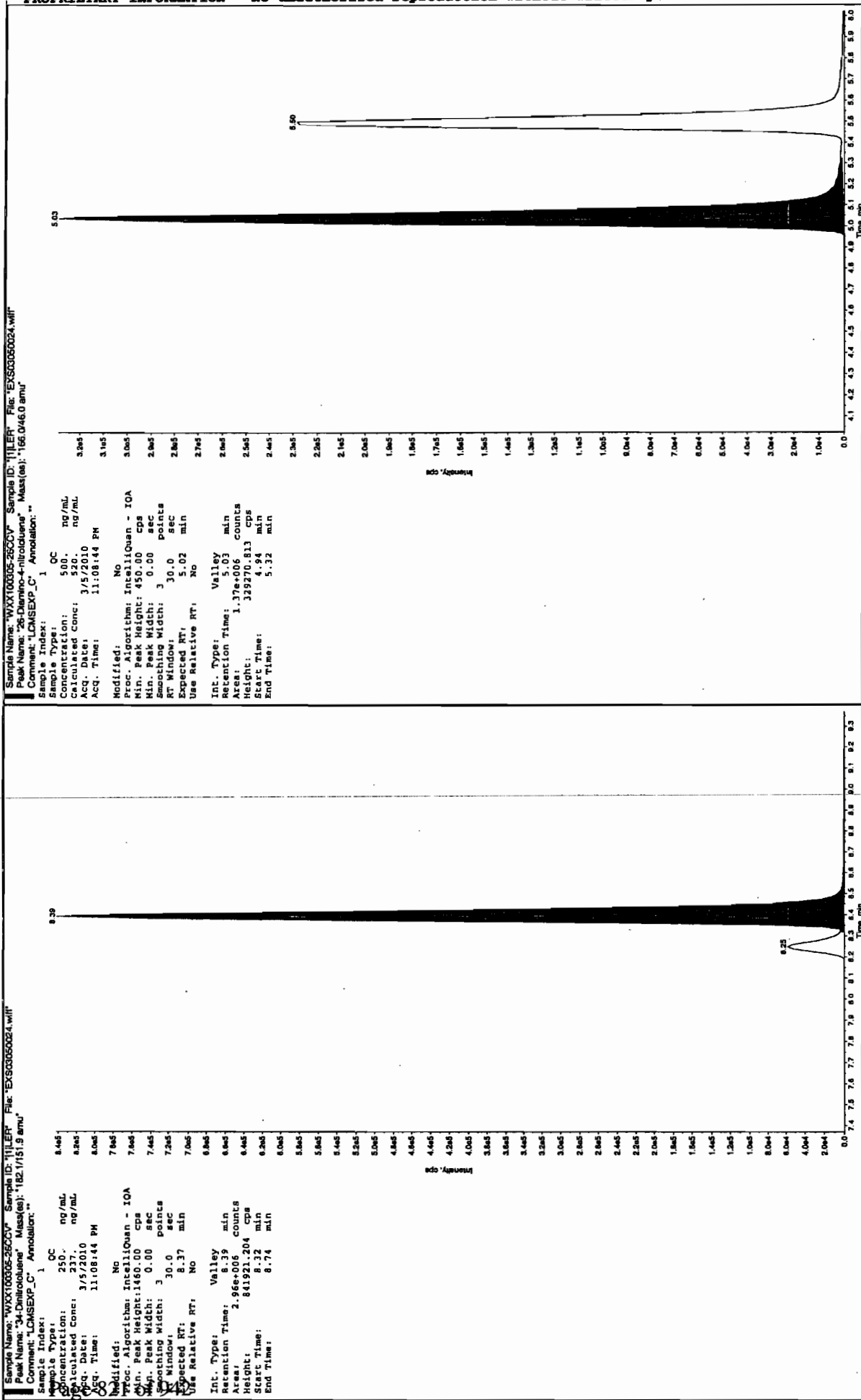
Before Jan 31/10

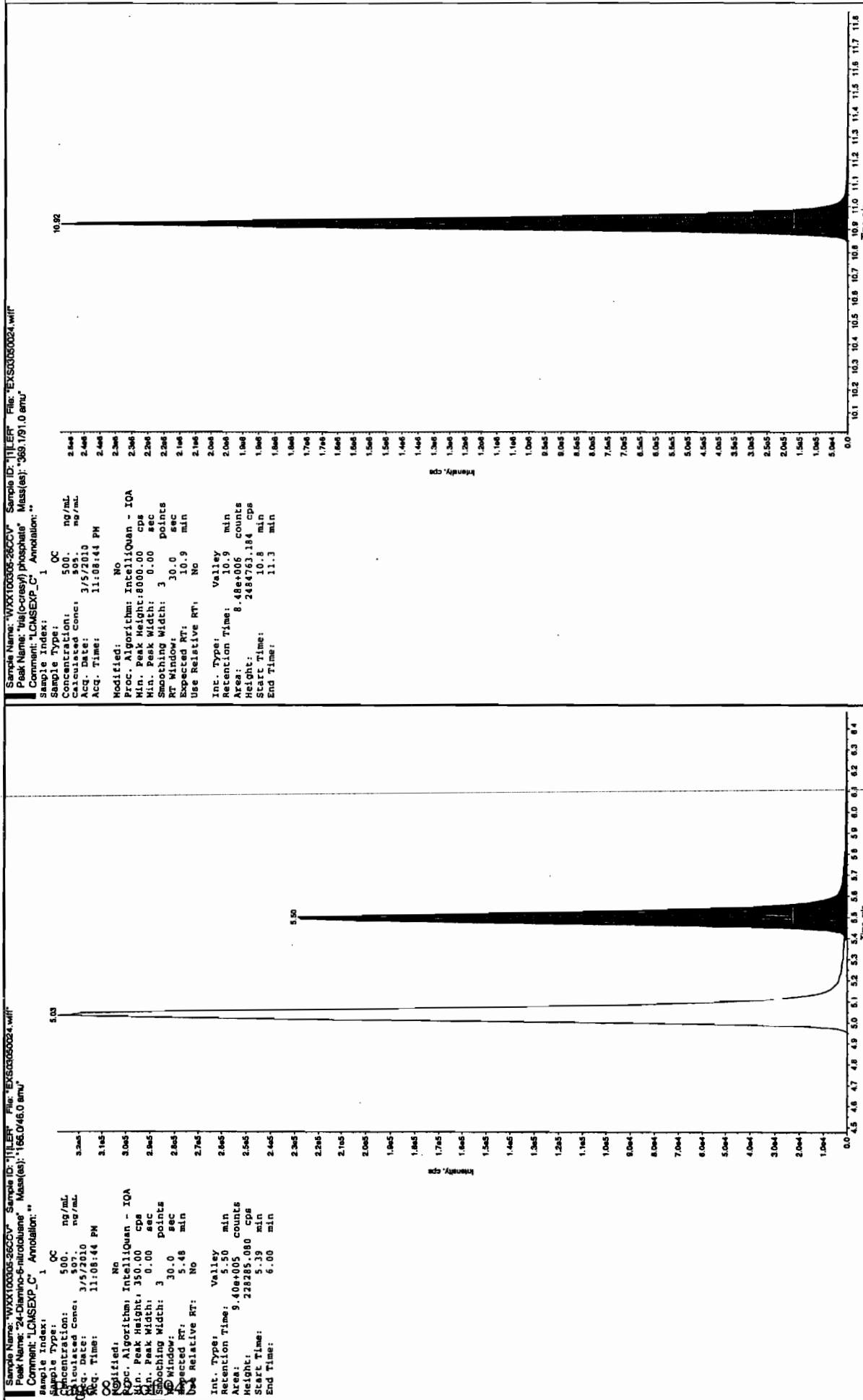


After 03/09/10

after Jan 3/9/10







\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050026.wiff

Analysis Date: 05-MAR-10 23:40

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 102   | 102      |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 109   | 109      |   |
| 3,4-Dinitrotoluene         | 50   | 51.8  | 104      |   |
| 3,5-Dinitroaniline         | 100  | 105   | 105      |   |
| TATB                       | 100  | 112   | 112      |   |
| tris(o-cresyl) phosphate   | 100  | 103   | 103      |   |

Recovery Limits:

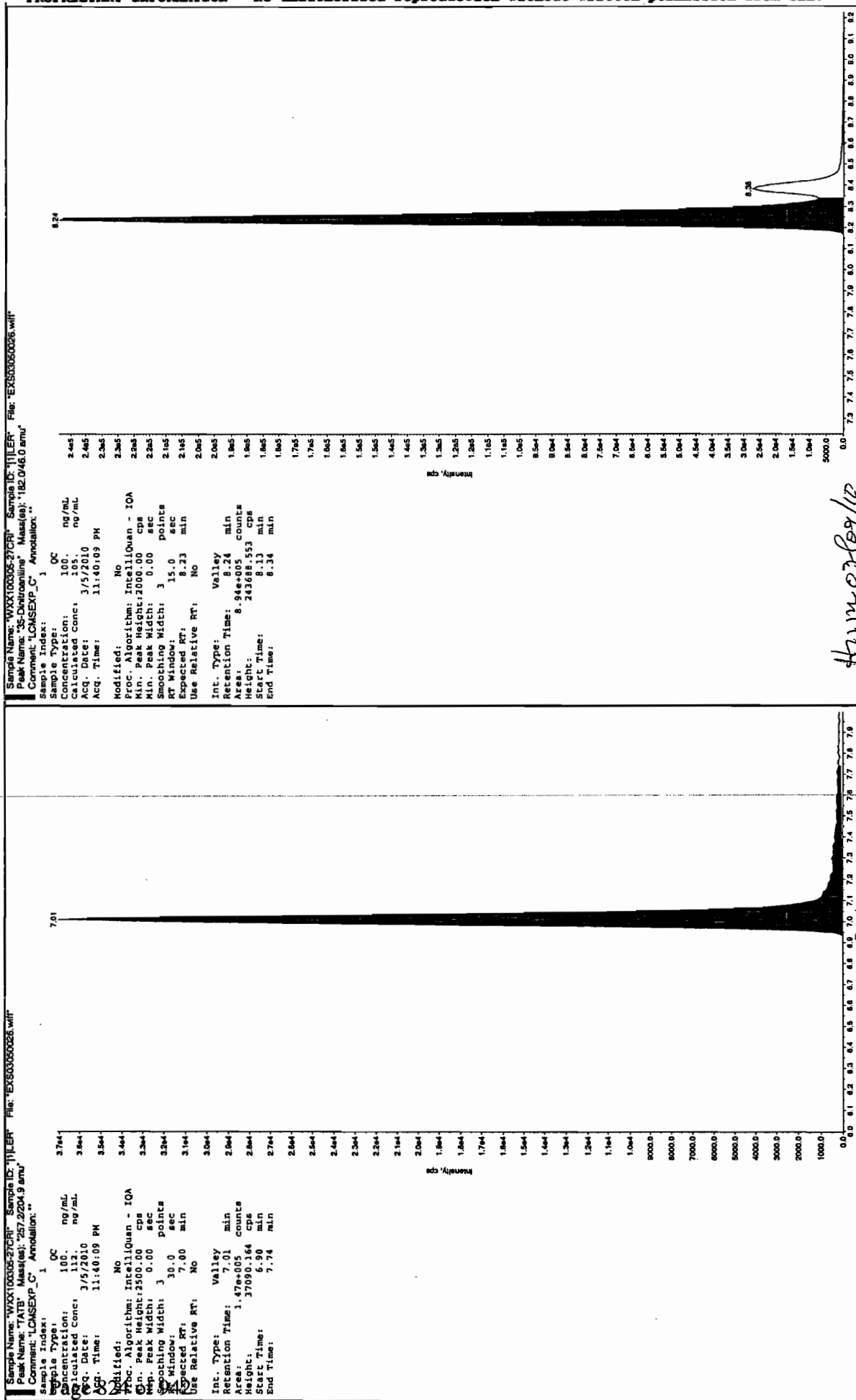
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

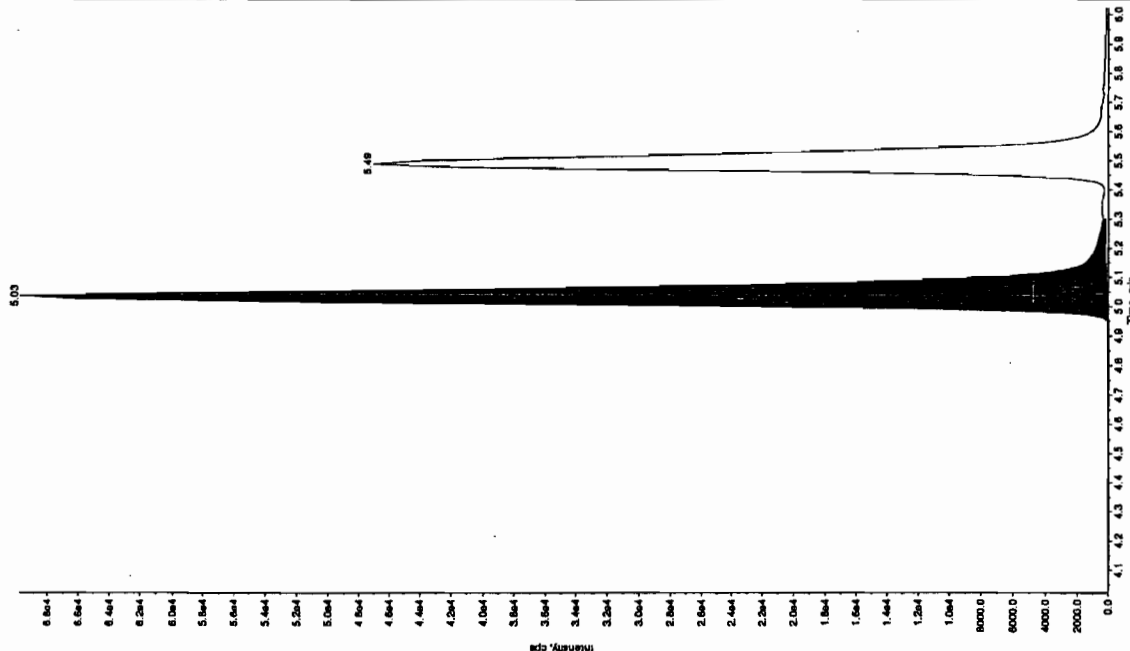
\* Value outside of Recovery Limits

Run 3/9/10



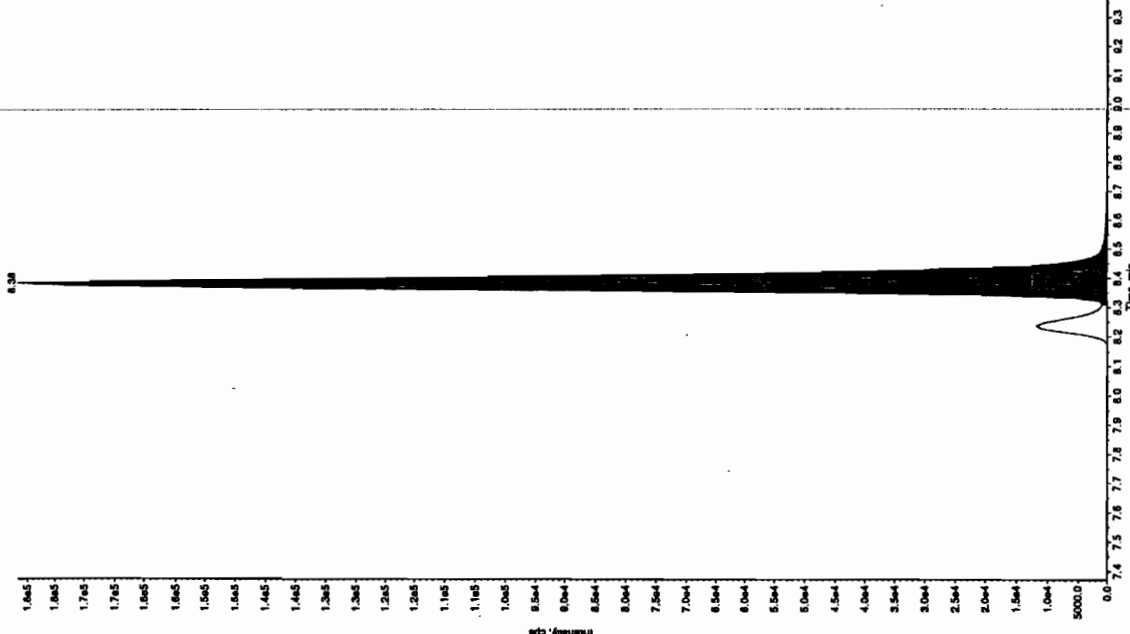
Sample Name: "WXX100305-27CRI" Sample ID: "11LER" File: "EX50305028.wif"  
 Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: OC  
 Concentration: 100 ng/mL  
 Calculated Conc: 3/5/2010 ng/mL  
 Acq. Date: 11:40:09 PM  
 Acq. Time: 11:40:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.02 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.03 min  
 Area: 2.80e+005 counts  
 Height: 69851.128 cps  
 Start Time: 4.94 min  
 End Time: 5.30 min

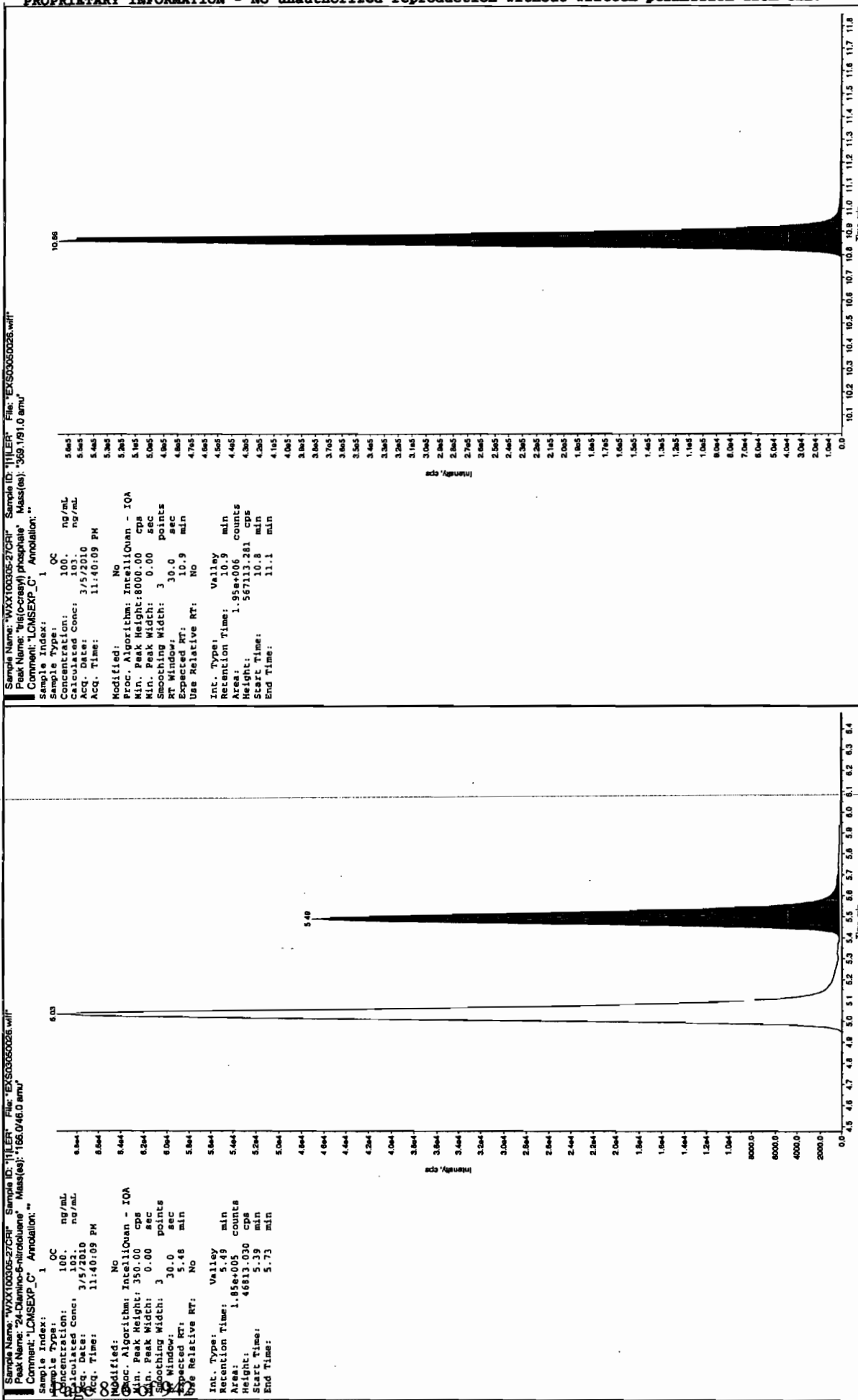


Sample Name: "WXX100305-27CRI" Sample ID: "11LER" File: "EX50305028.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: OC  
 Concentration: 50.0 ng/mL  
 Calculated Conc: 3/5/2010 ng/mL  
 Acq. Date: 11:40:09 PM  
 Acq. Time: 11:40:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.37 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.38 min  
 Area: 6.26e+005 counts  
 Height: 18124.170 cps  
 Start Time: 8.11 min  
 End Time: 8.73 min







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050035.wiff

Analysis Date: 06-MAR-10 02:01

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 509   | 102      |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 531   | 106      |   |
| 3,4-Dinitrotoluene         | 250  | 246   | 98       |   |
| 3,5-Dinitroaniline         | 500  | 529   | 106      |   |
| TATB                       | 500  | 534   | 107      |   |
| tris(o-cresyl) phosphate   | 500  | 503   | 101      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

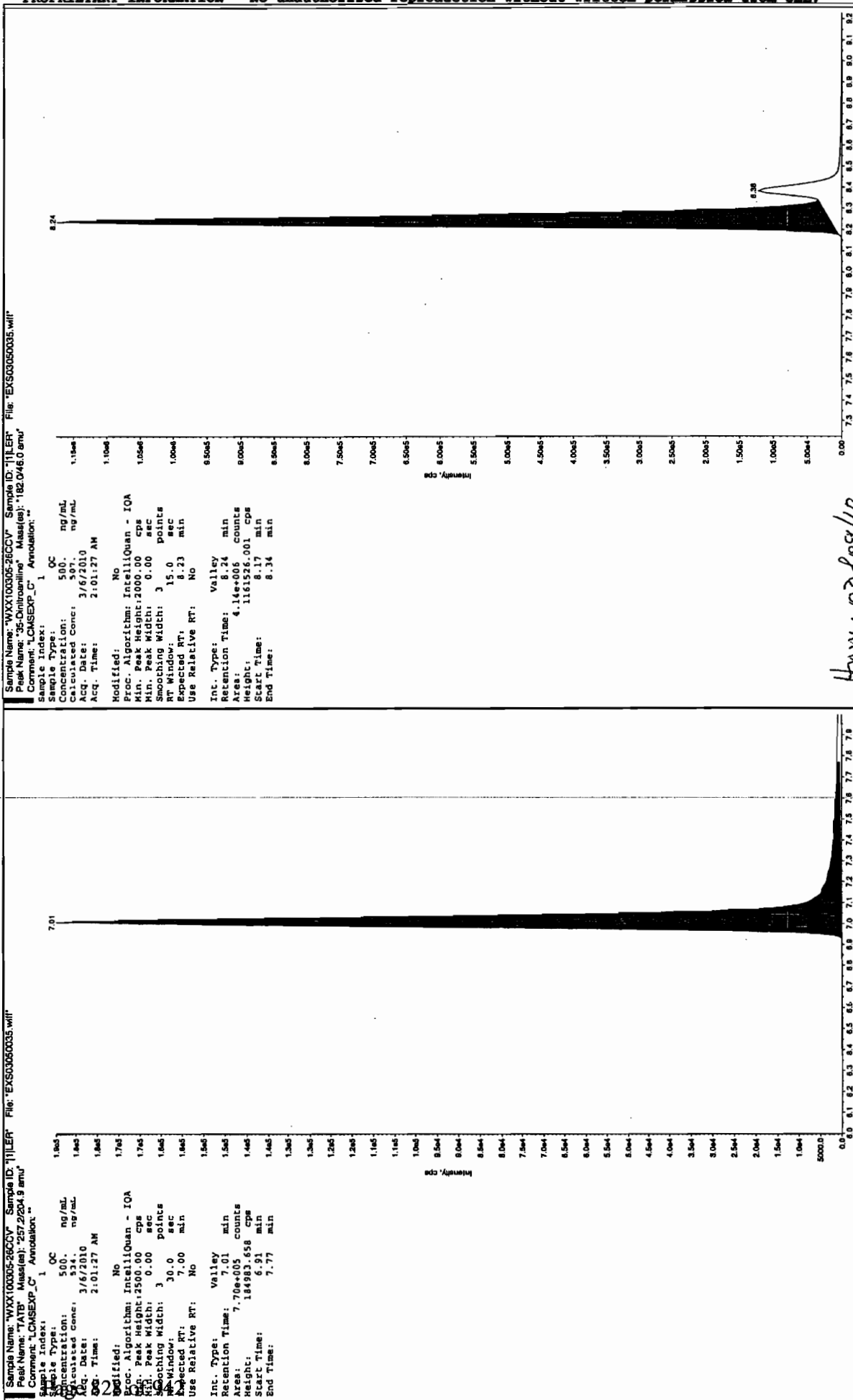
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

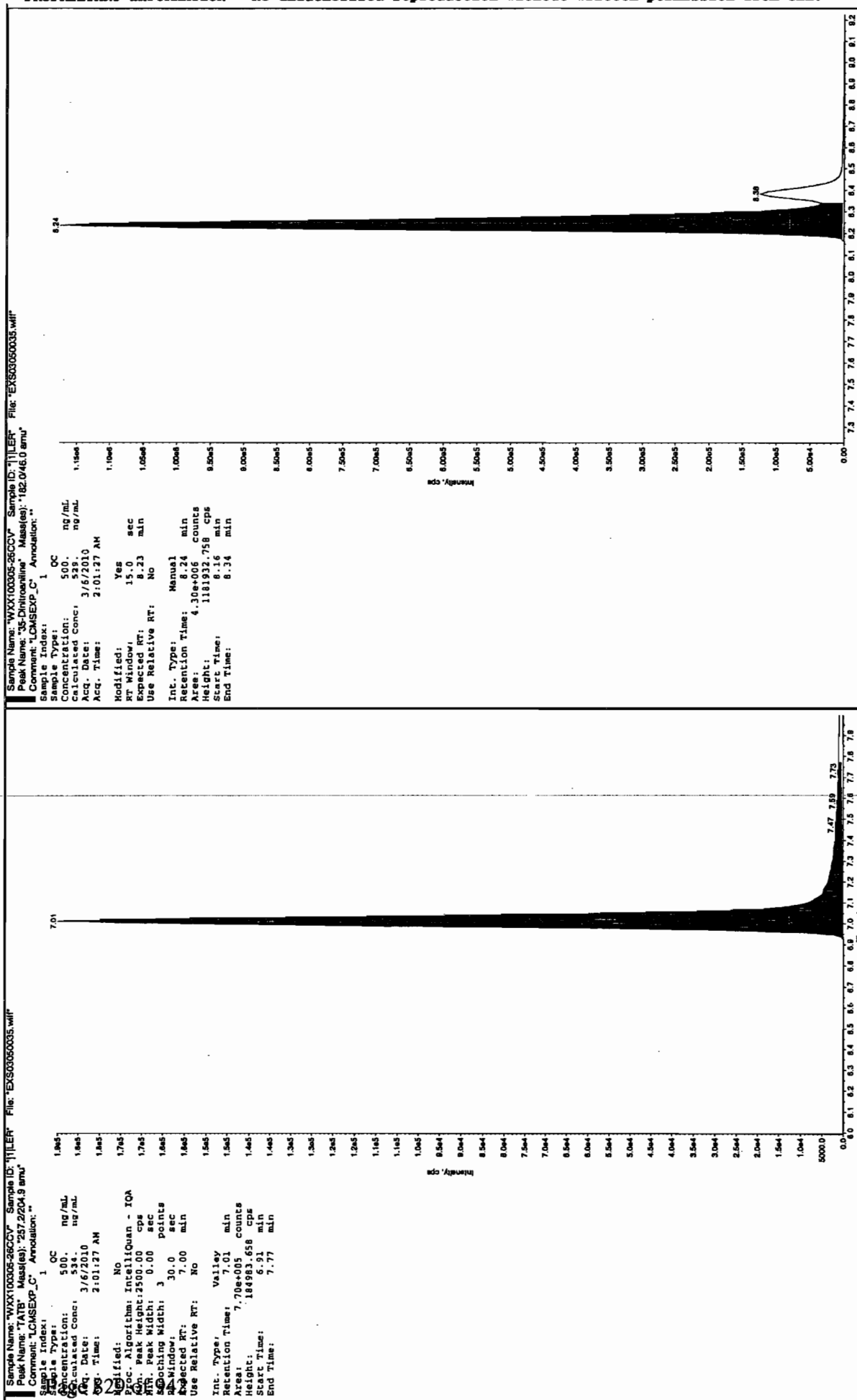
\* Value outside of Recovery Limits

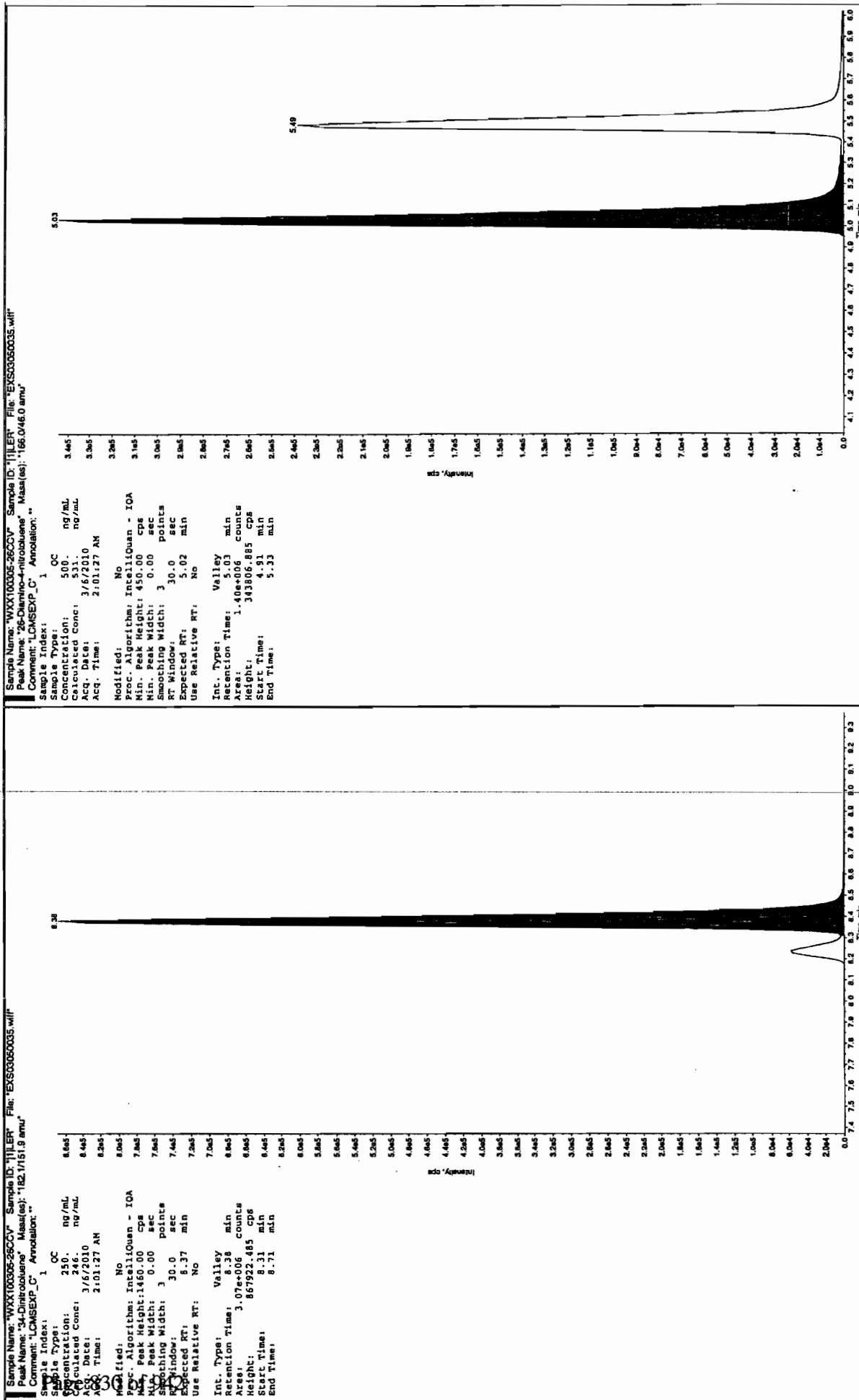
Before Jan 31/10

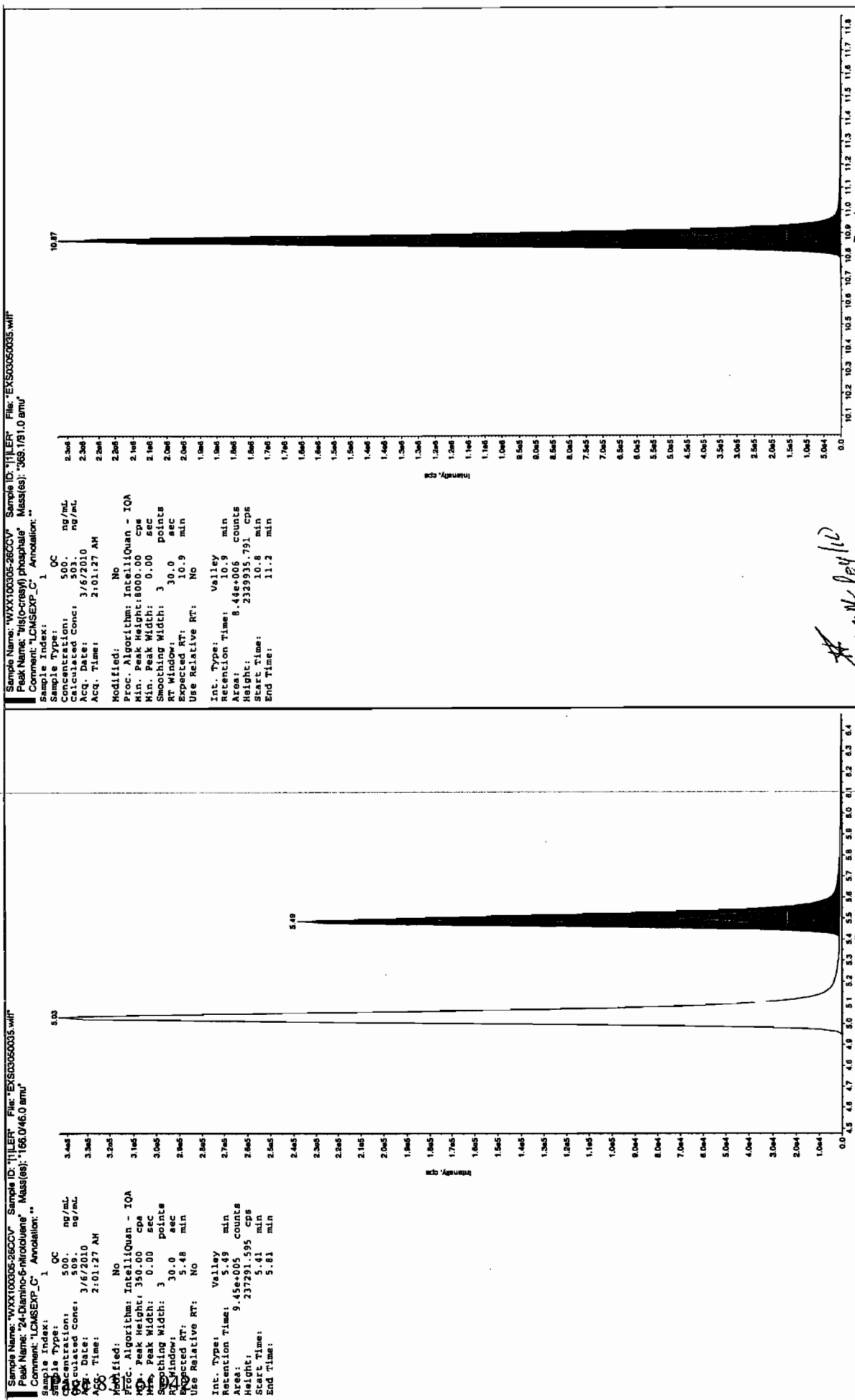


After 03/09/10

after Jan 3/2/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050037.wiff

Analysis Date: 06-MAR-10 02:32

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 3,4-Dinitrotoluene         | 50   | 52.5  | 105      |   |
| 3,5-Dinitroaniline         | 100  | 110   | 110      |   |
| TATB                       | 100  | 112   | 112      |   |
| tris(o-cresyl) phosphate   | 100  | 97.2  | 97       |   |
| 2,4-Diamino-6-nitrotoluene | 100  | 110   | 110      |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 113   | 113      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

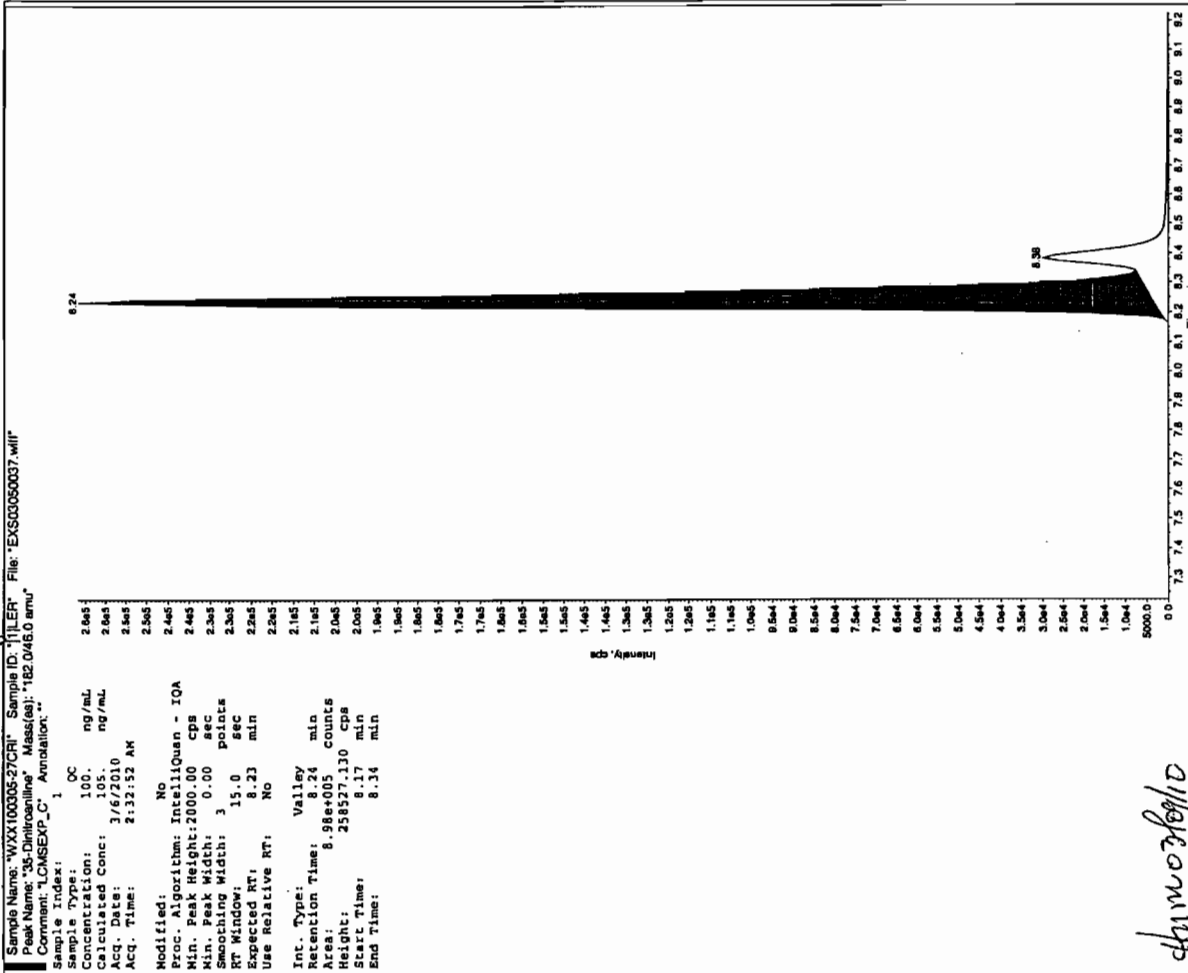
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

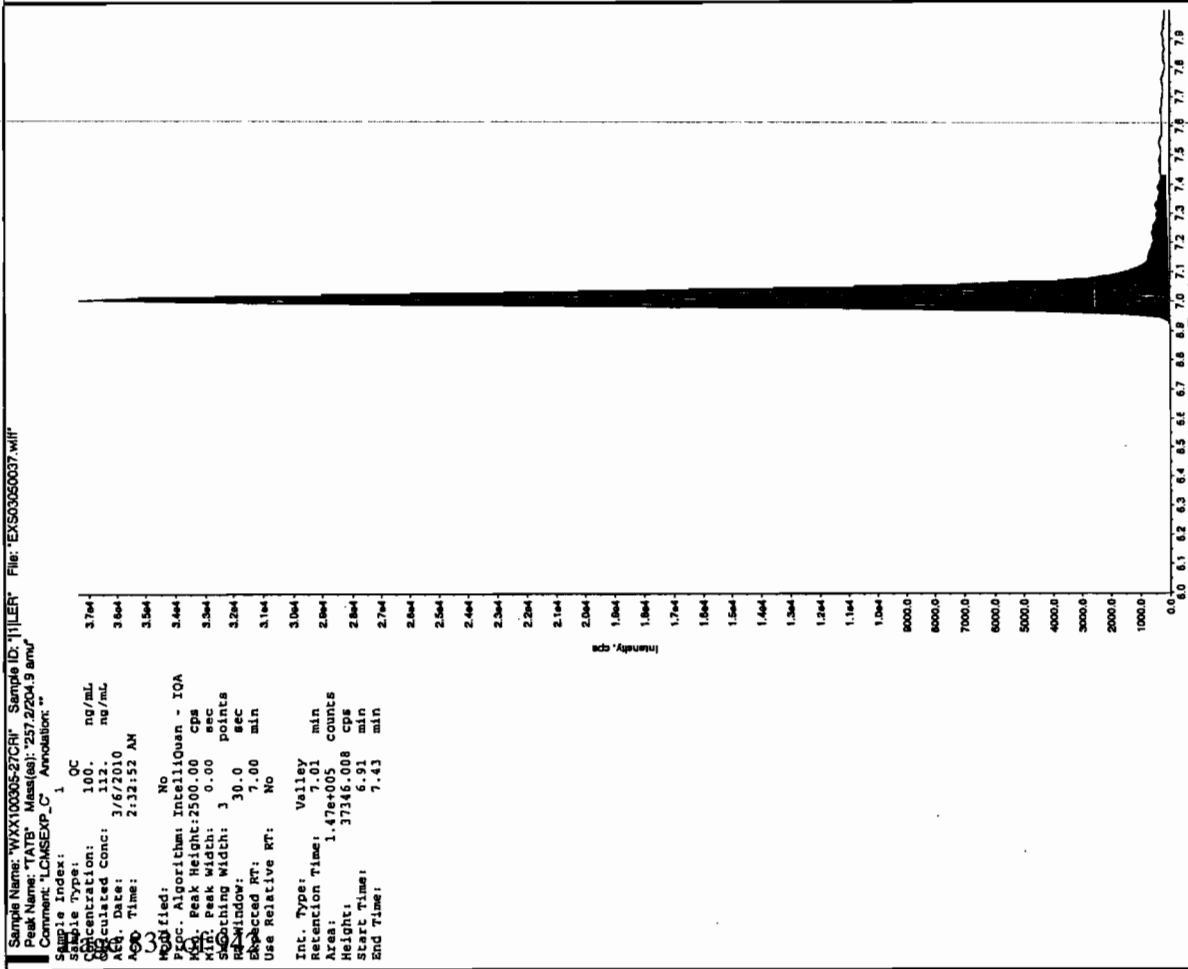
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Before Jan 31/10

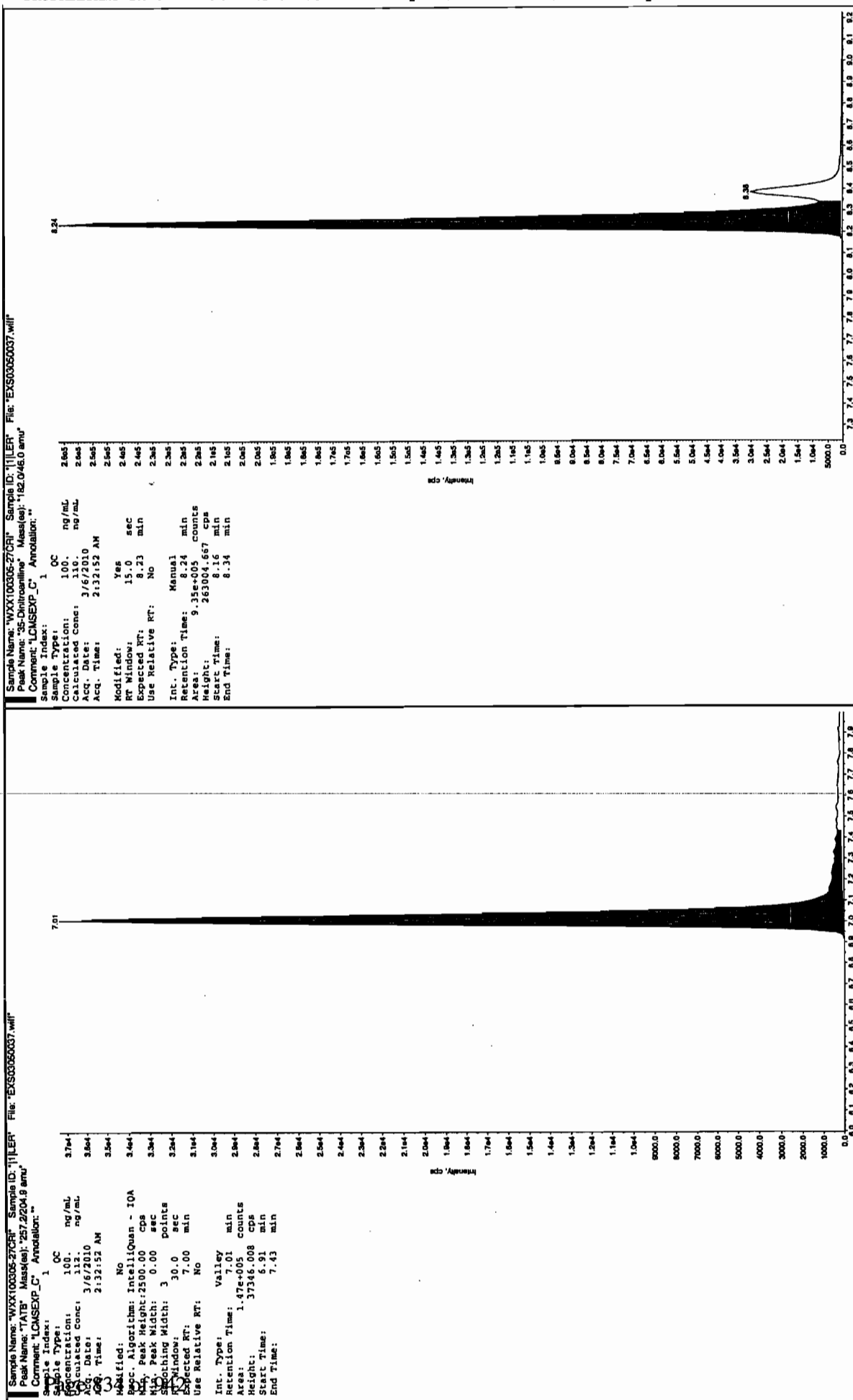


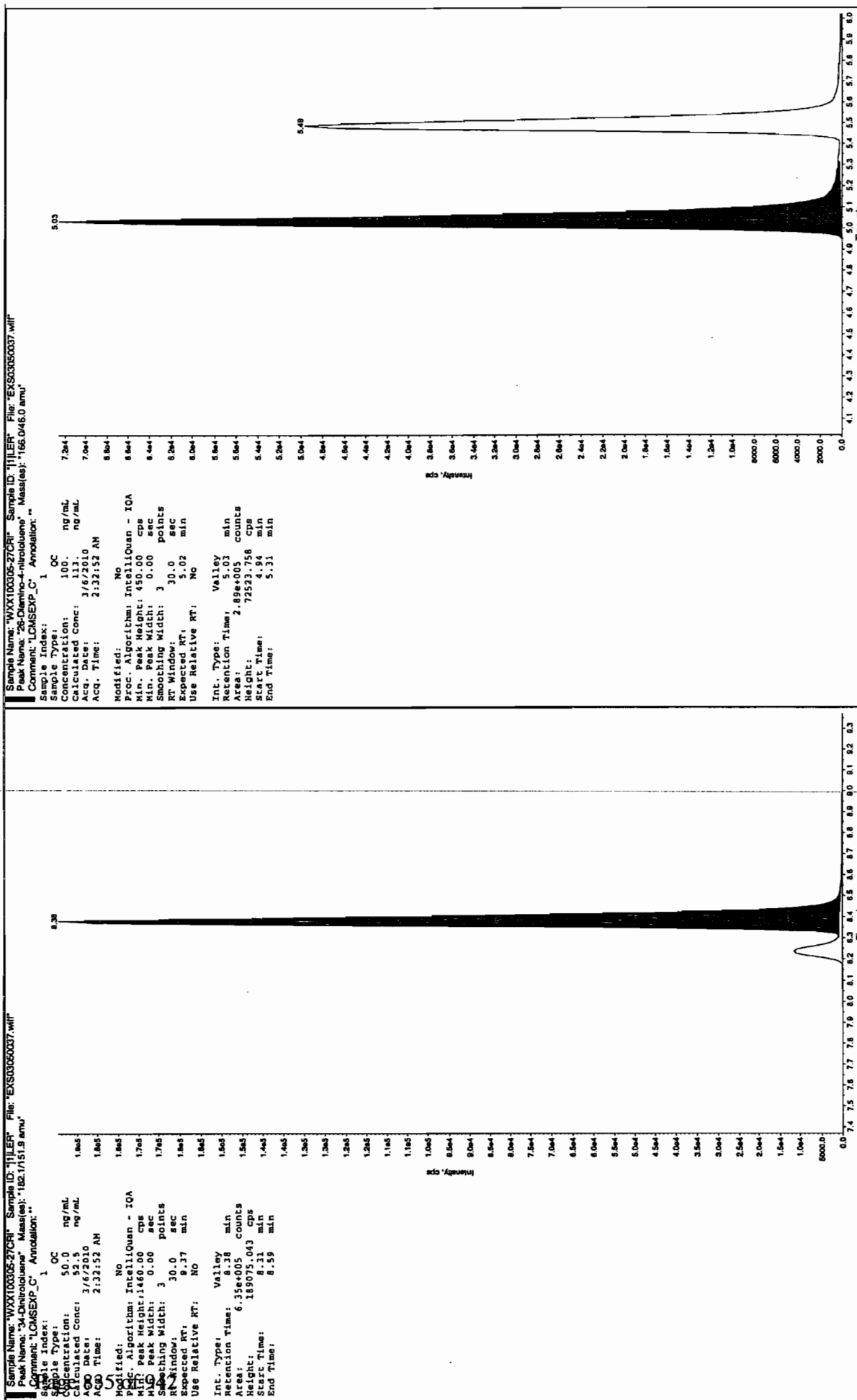
4/10/2010

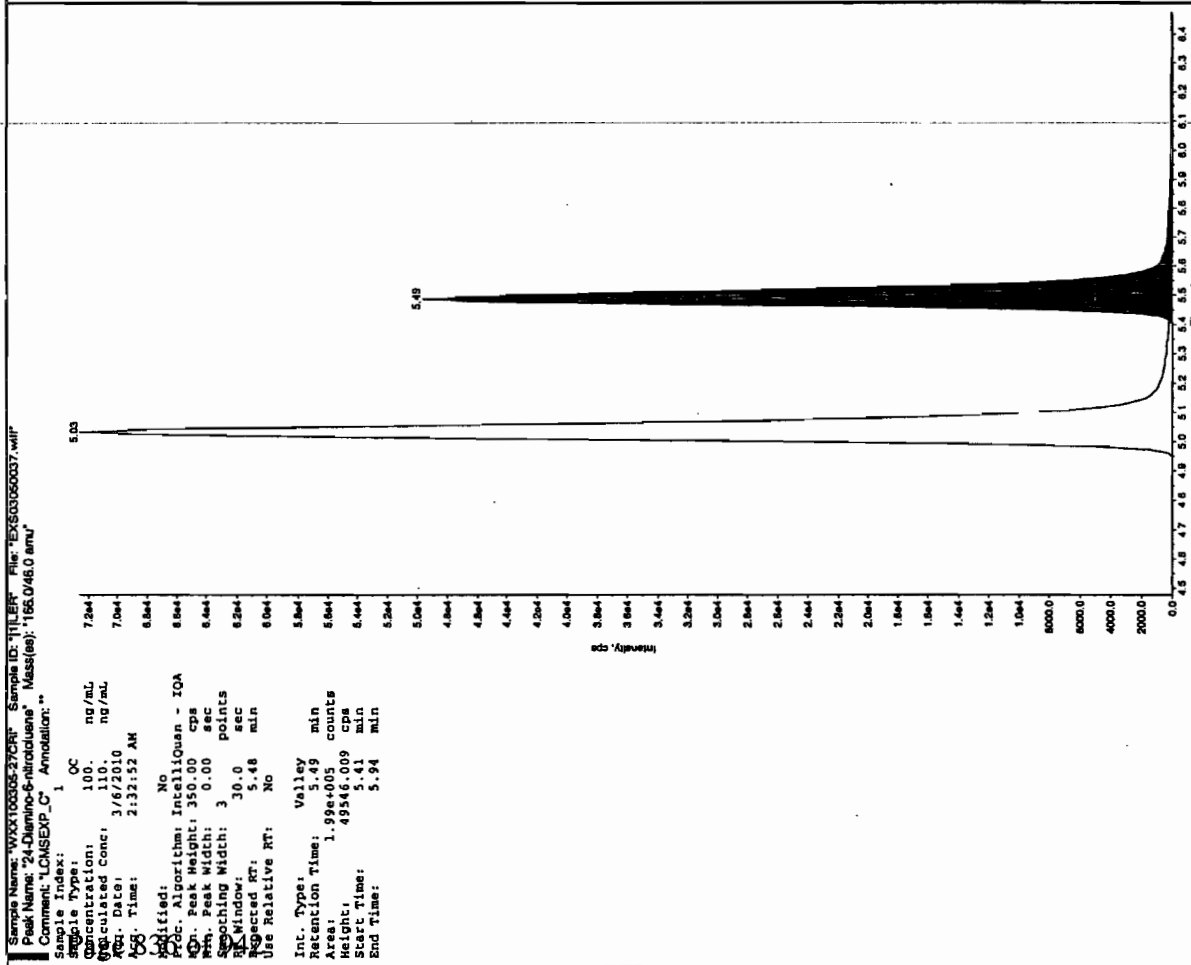
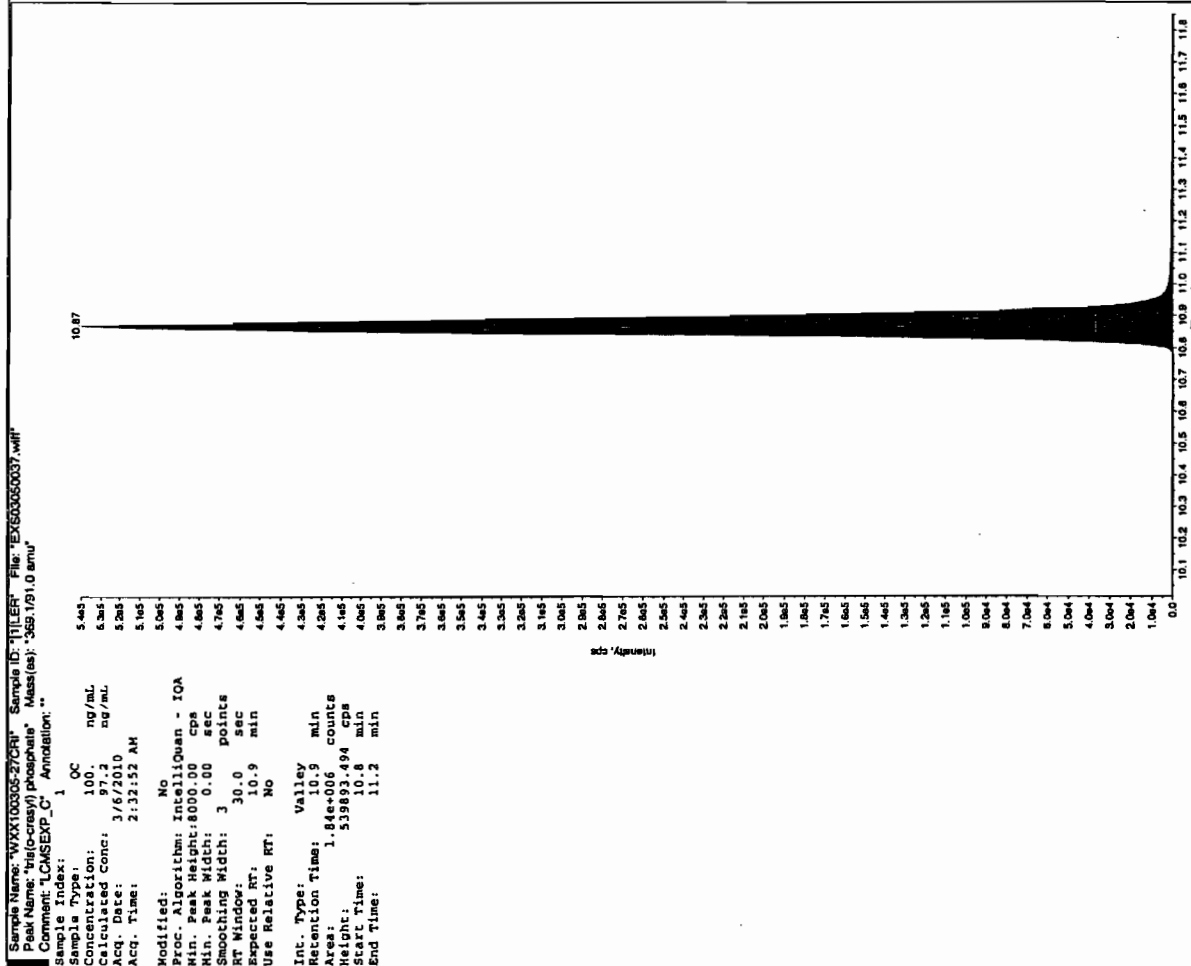




after Dec 3/9/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050048.wiff

Analysis Date: 06-MAR-10 05:25

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 541   | 108      |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 545   | 109      |   |
| 3,4-Dinitrotoluene         | 250  | 237   | 95       |   |
| 3,5-Dinitroaniline         | 500  | 507   | 101      |   |
| TATB                       | 500  | 532   | 106      |   |
| tris(o-cresyl) phosphate   | 500  | 501   | 100      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

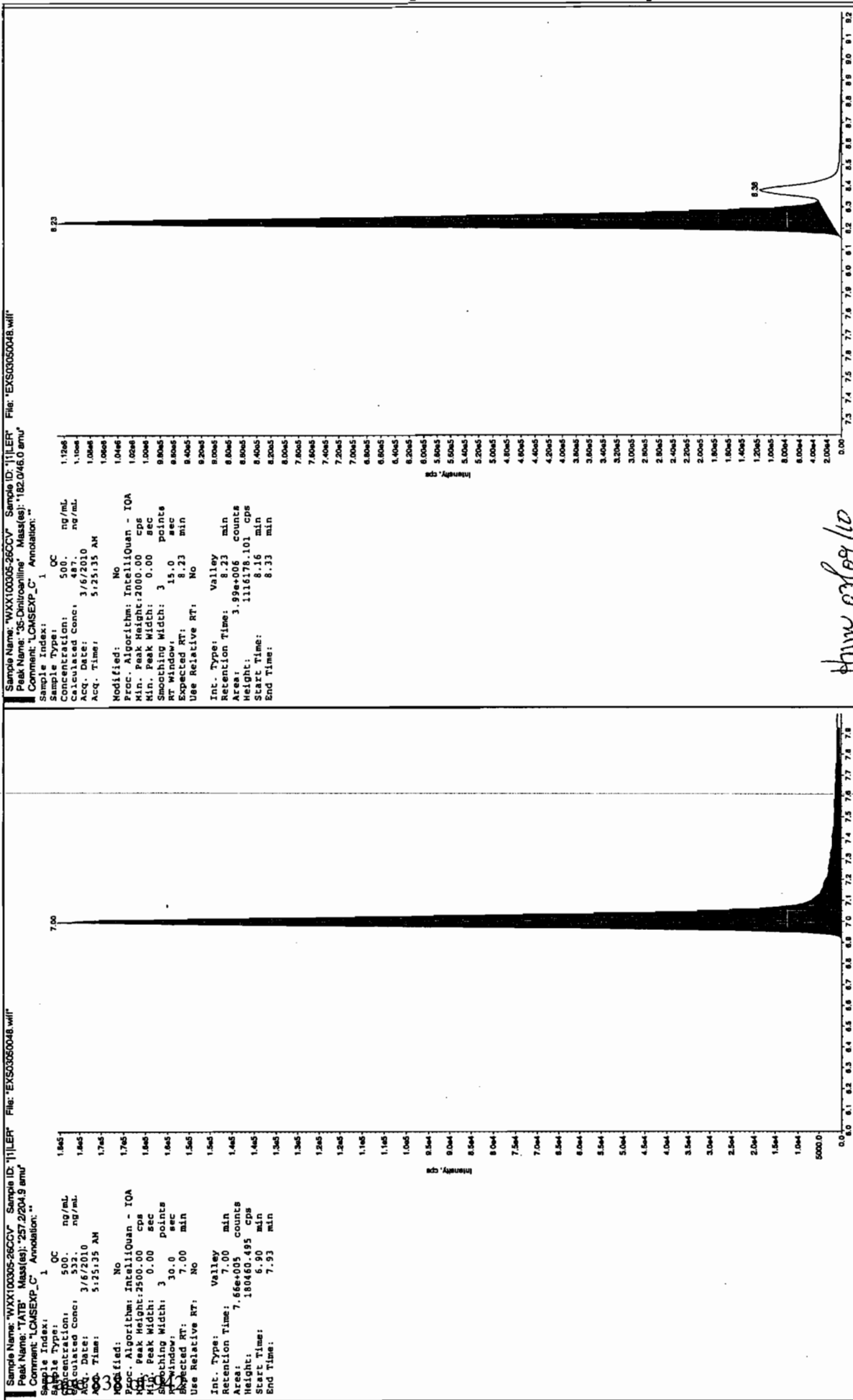
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

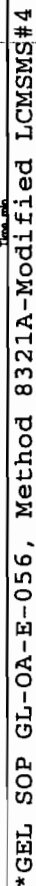
# Column used to flag Recovery outside of Limits

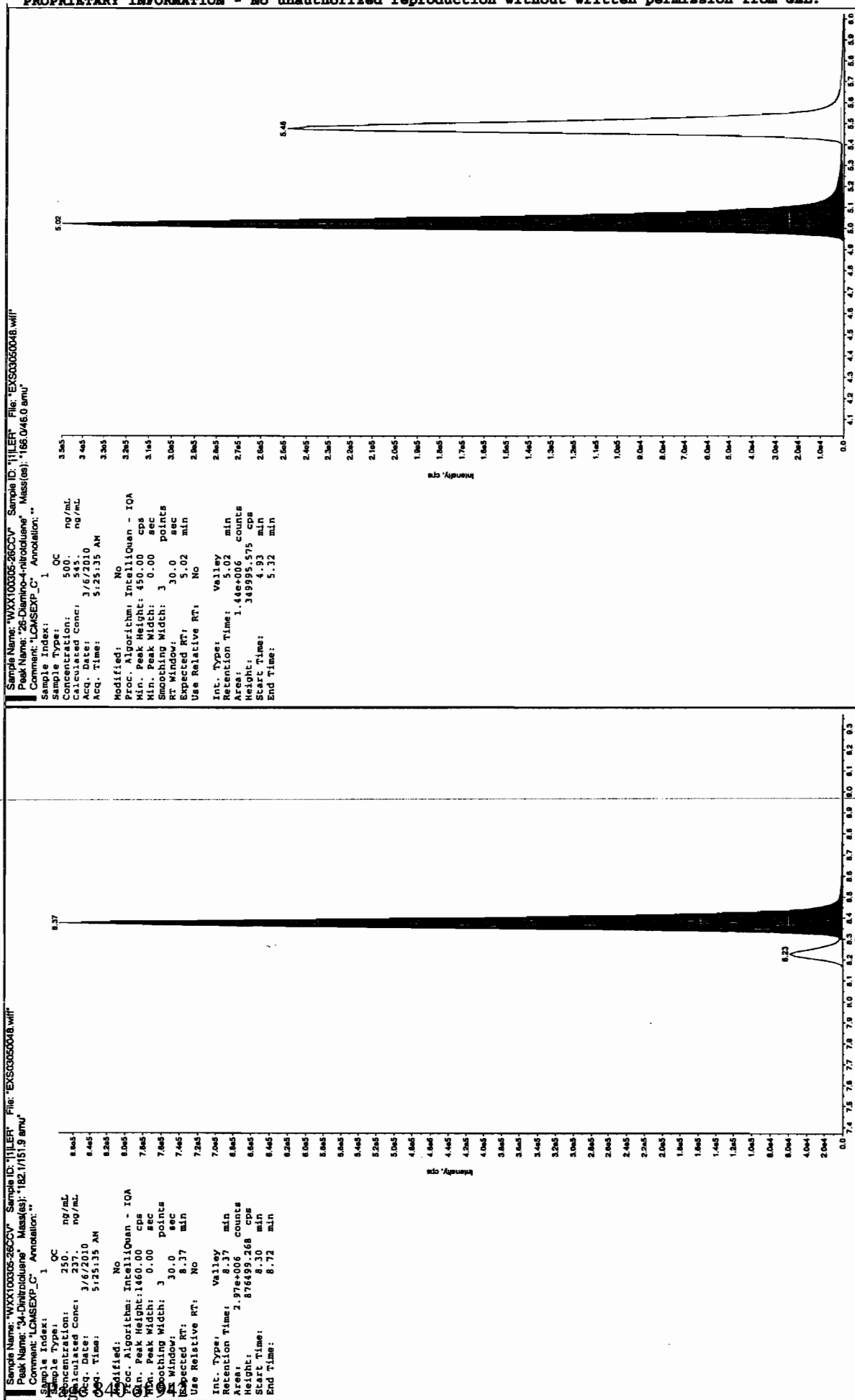
\* Value outside of Recovery Limits

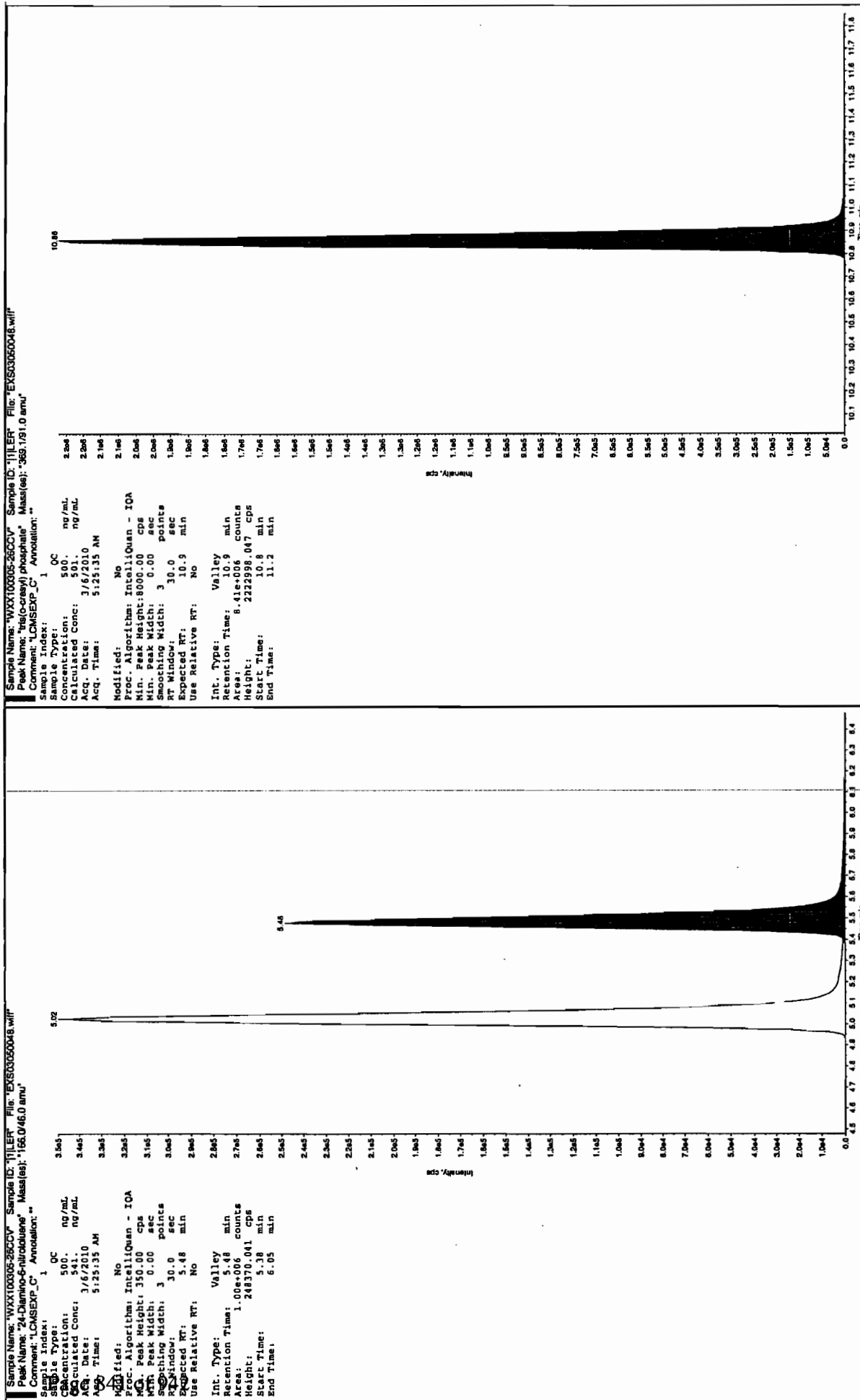
Before Jan 31/10



After 03/09/10









7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050050.wiff

Analysis Date: 06-MAR-10 05:56

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 105   | 105      |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 111   | 111      |   |
| 3,4-Dinitrotoluene         | 50   | 51.4  | 103      |   |
| 3,5-Dinitroaniline         | 100  | 108   | 108      |   |
| TATB                       | 100  | 110   | 110      |   |
| tris(o-cresyl) phosphate   | 100  | 101   | 101      |   |

Recovery Limits:

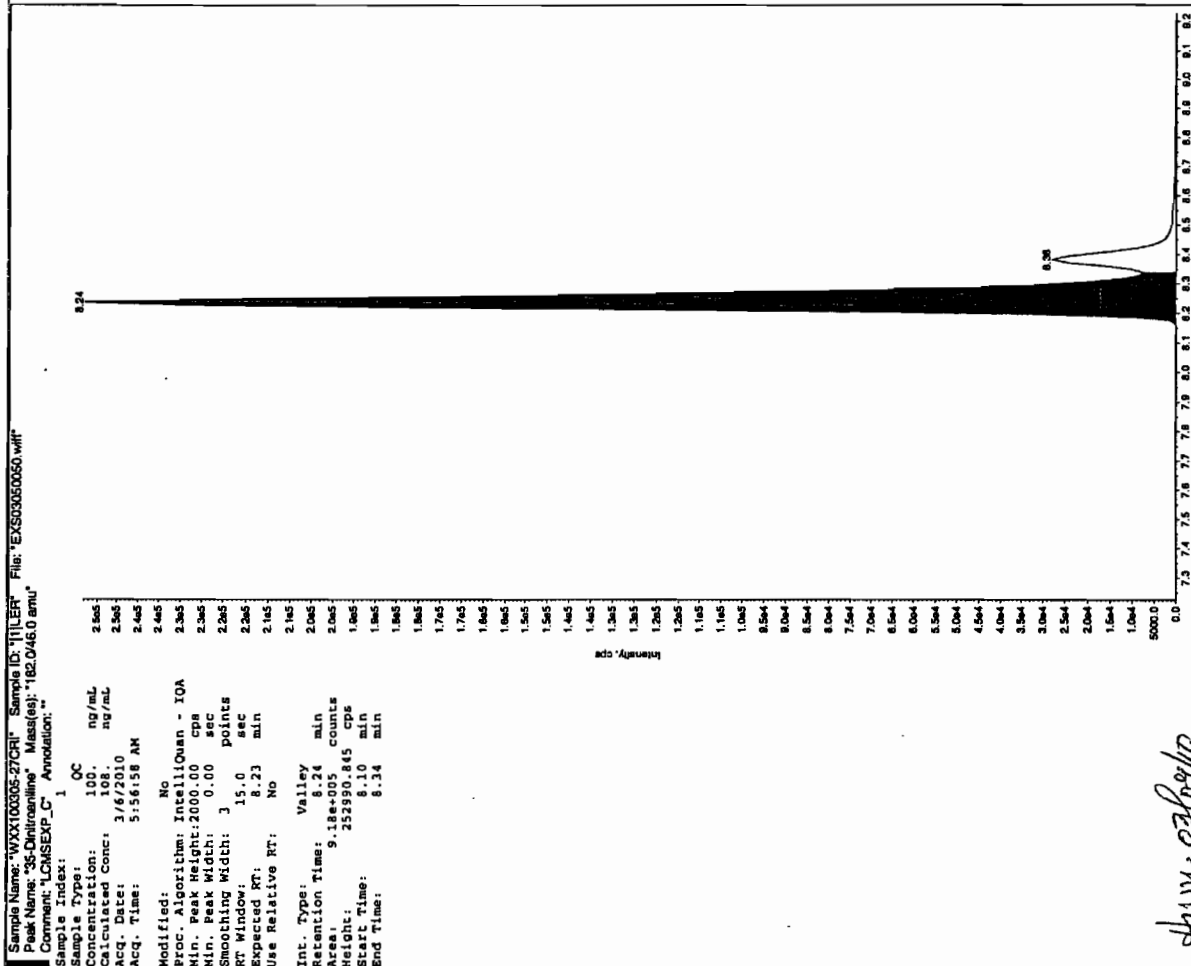
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

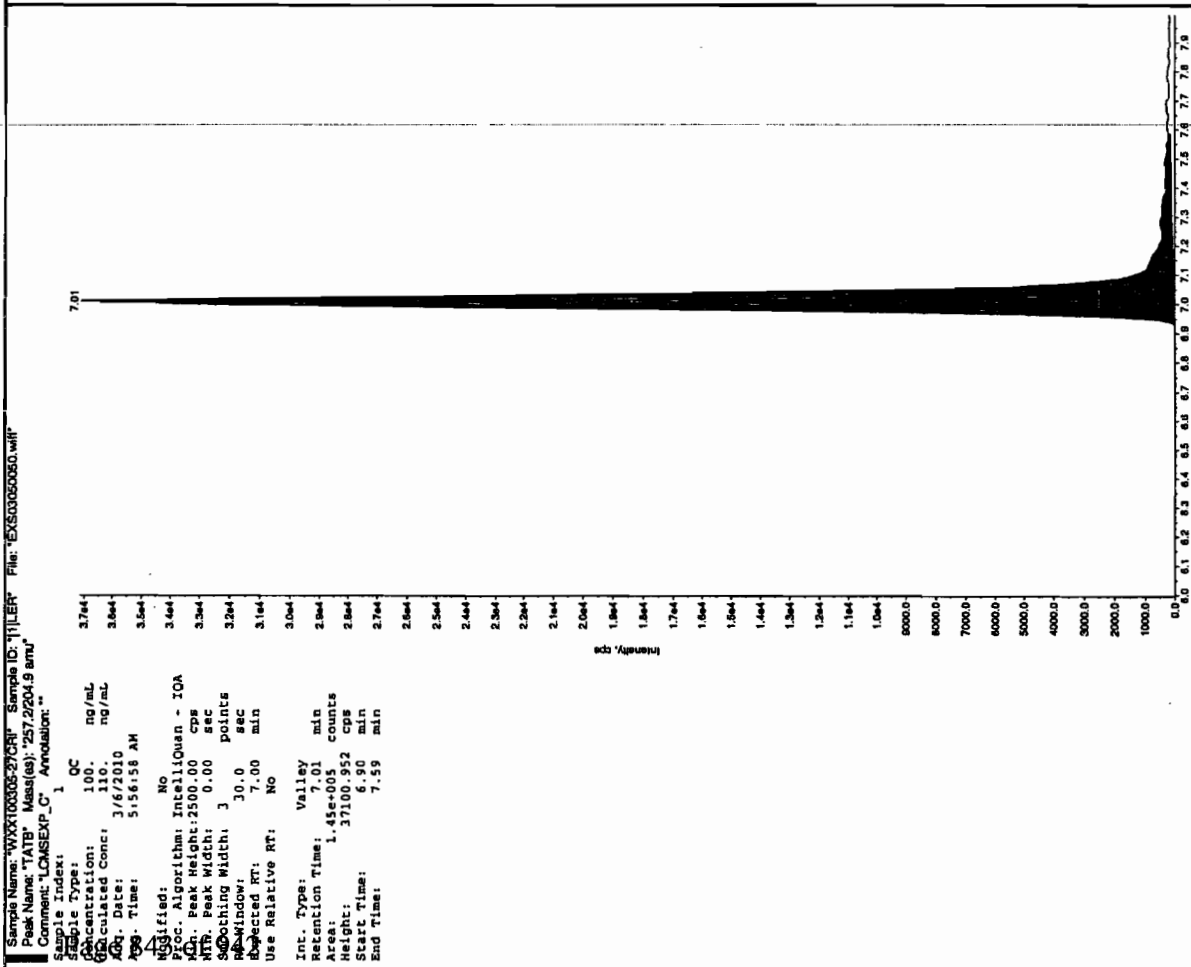
# Column used to flag Recovery outside of Limits

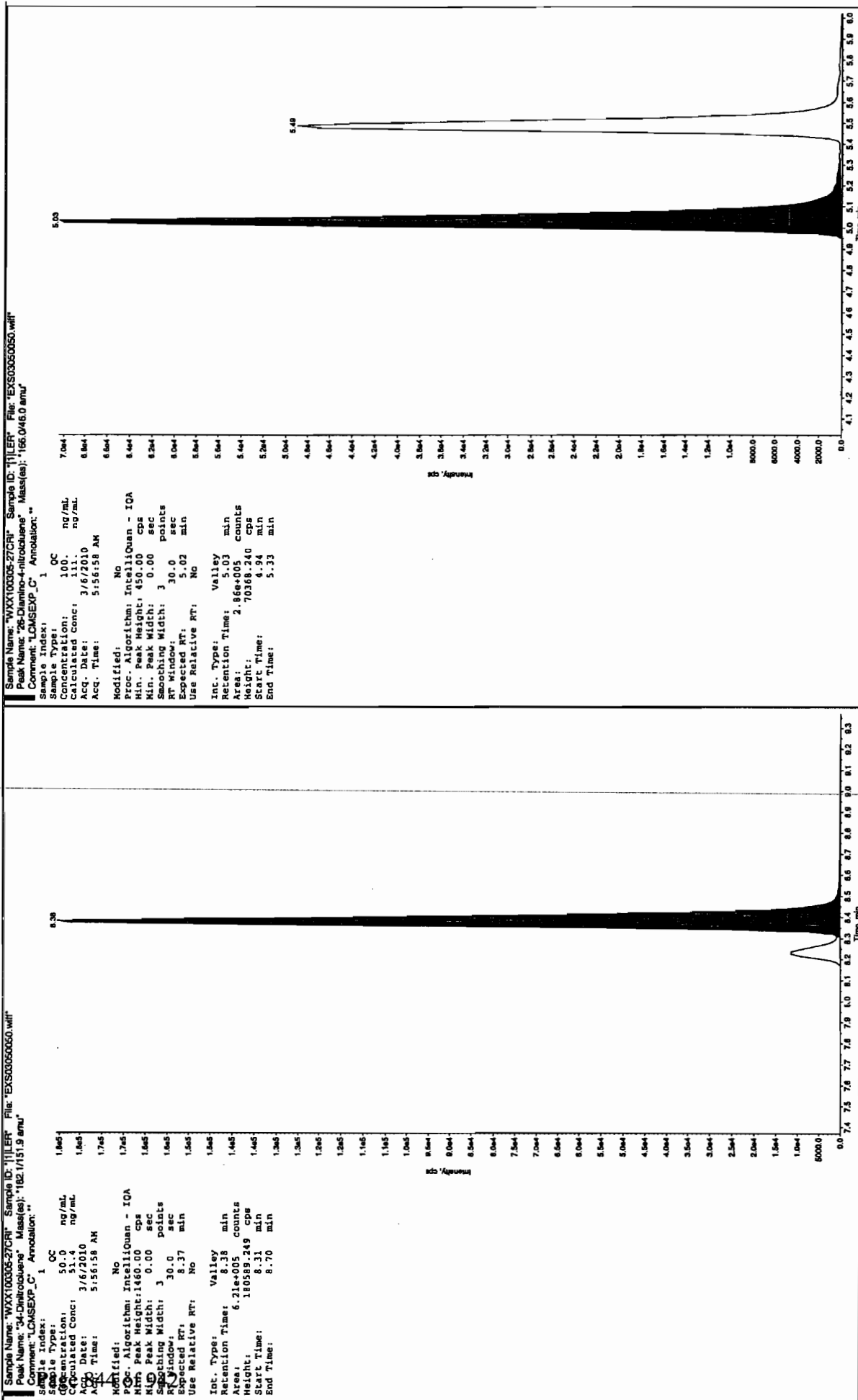
\* Value outside of Recovery Limits

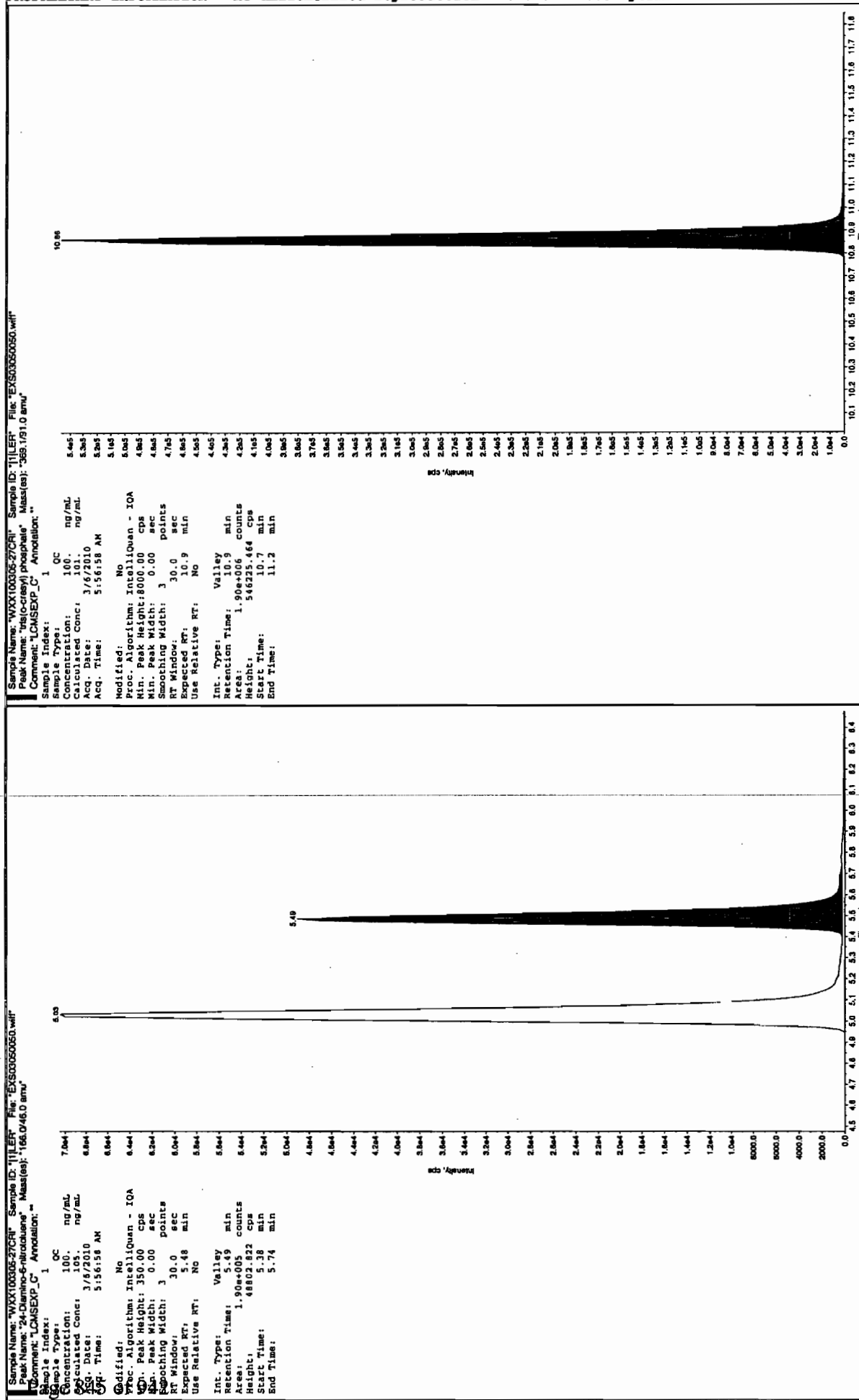
Sen 3/9/10



Sen 3/9/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050060.wiff

Analysis Date: 06-MAR-10 08:34

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 492   | 99       |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 499   | 100      |   |
| 3,4-Dinitrotoluene         | 250  | 247   | 99       |   |
| 3,5-Dinitroaniline         | 500  | 554   | 111      |   |
| TATB                       | 500  | 557   | 111      |   |
| tris(o-cresyl) phosphate   | 500  | 498   | 100      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

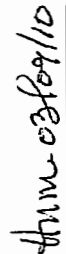
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

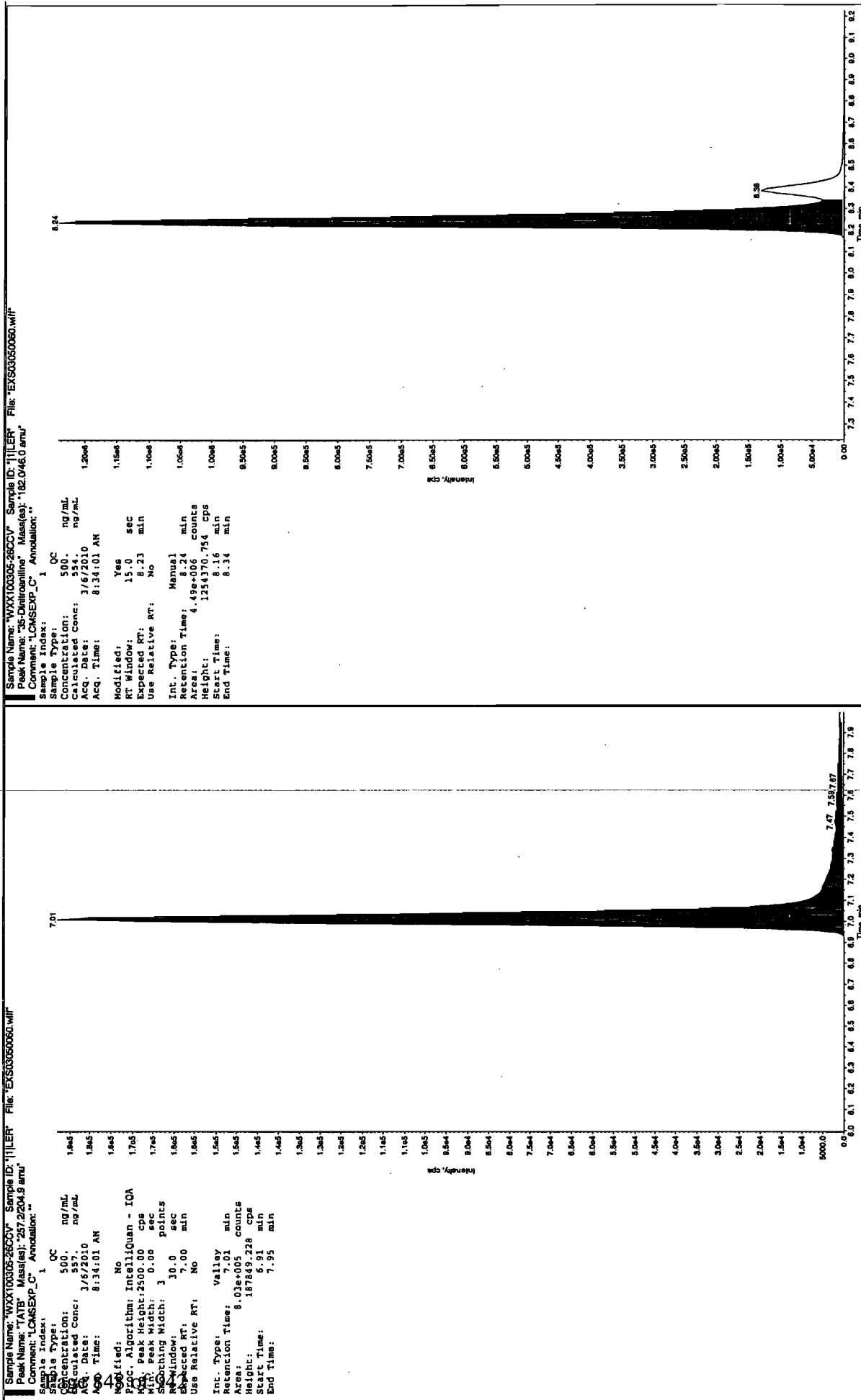
\* Value outside of Recovery Limits

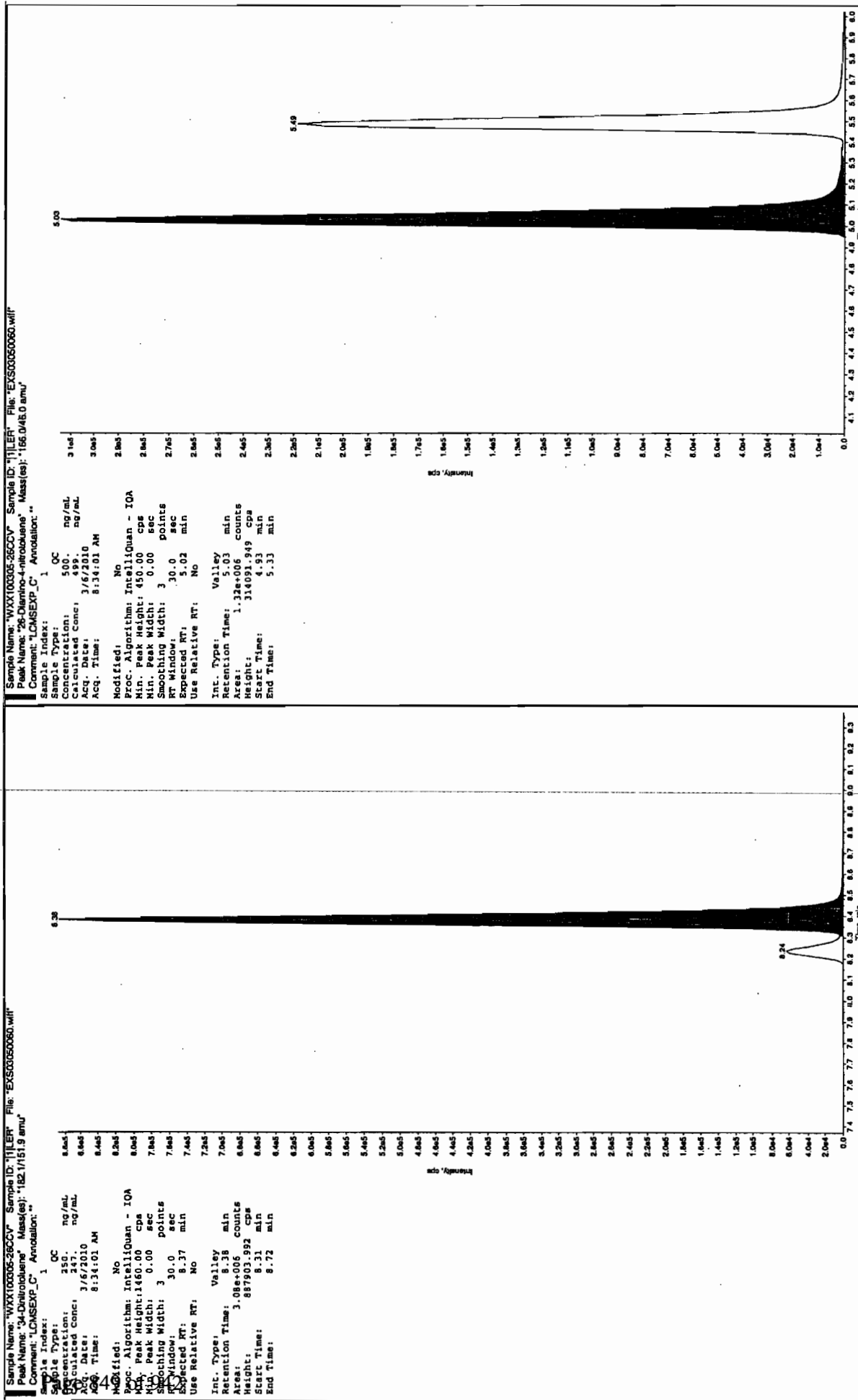
Before Jan 3/9/10



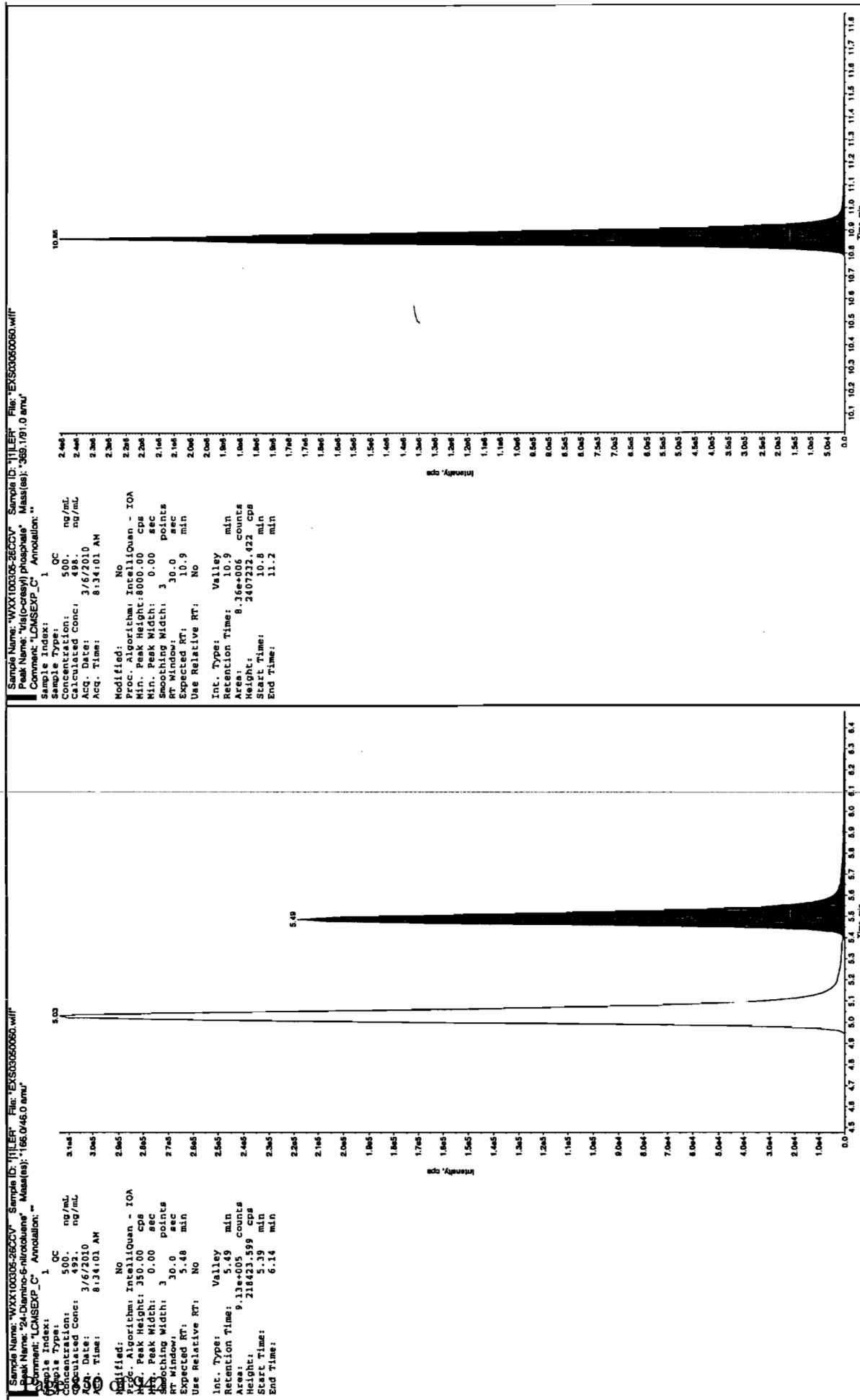
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Scan 3/9/10









7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050062.wiff

Analysis Date: 06-MAR-10 09:05

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 101   | 101      |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 103   | 103      |   |
| 3,4-Dinitrotoluene         | 50   | 51.1  | 102      |   |
| 3,5-Dinitroaniline         | 100  | 111   | 111      |   |
| TATB                       | 100  | 116   | 116      |   |
| tris(o-cresyl) phosphate   | 100  | 100   | 100      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

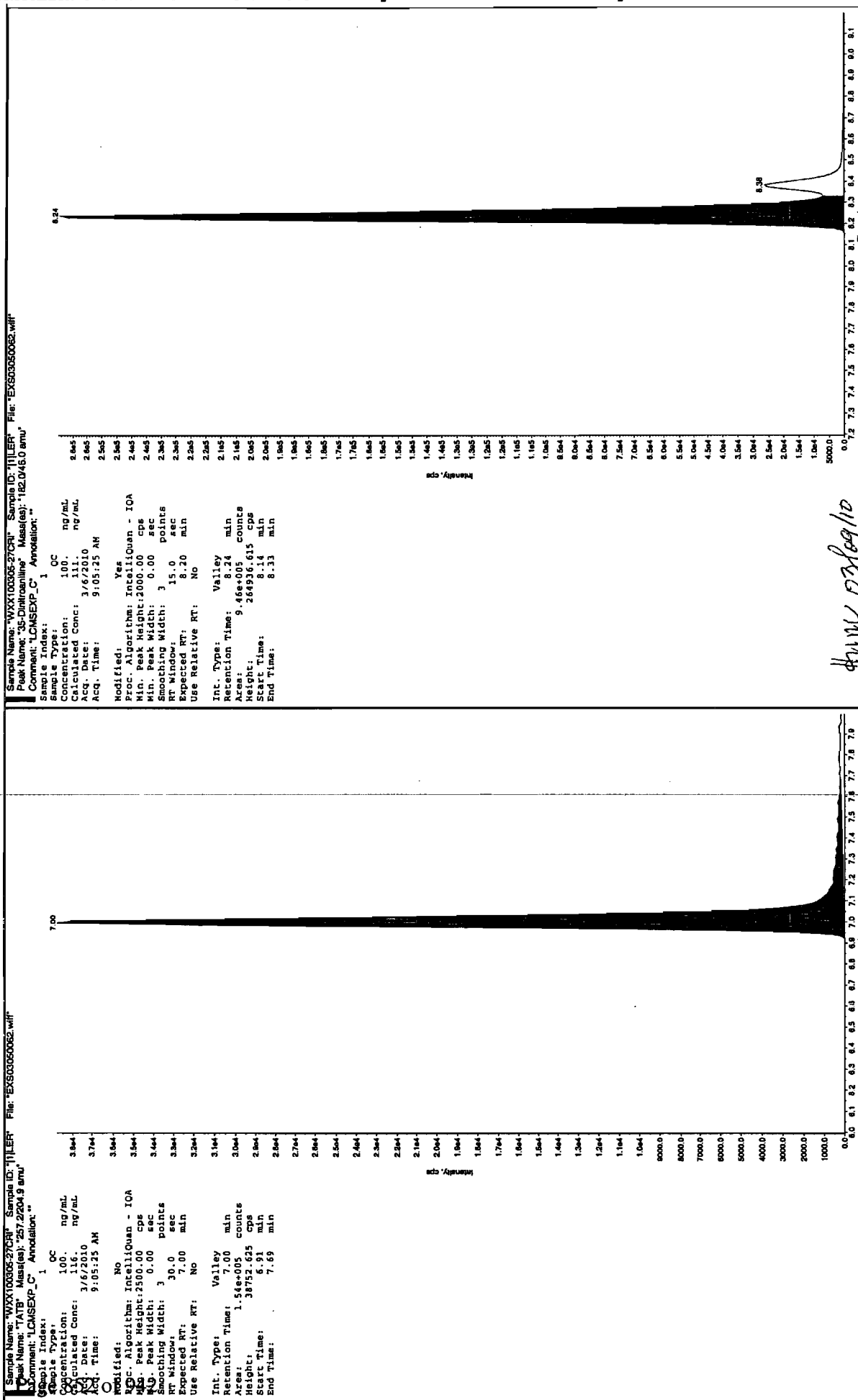
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

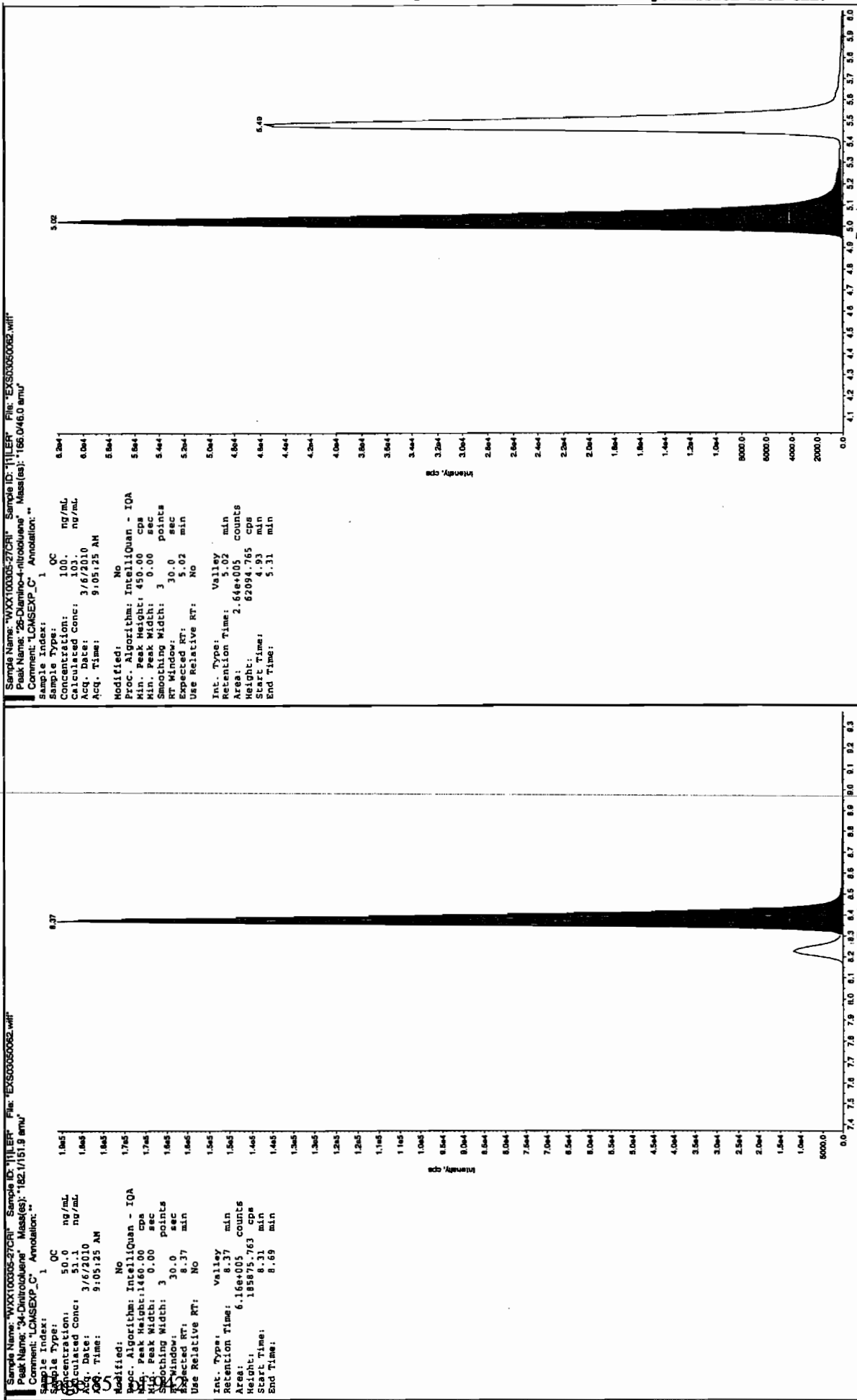
# Column used to flag Recovery outside of Limits

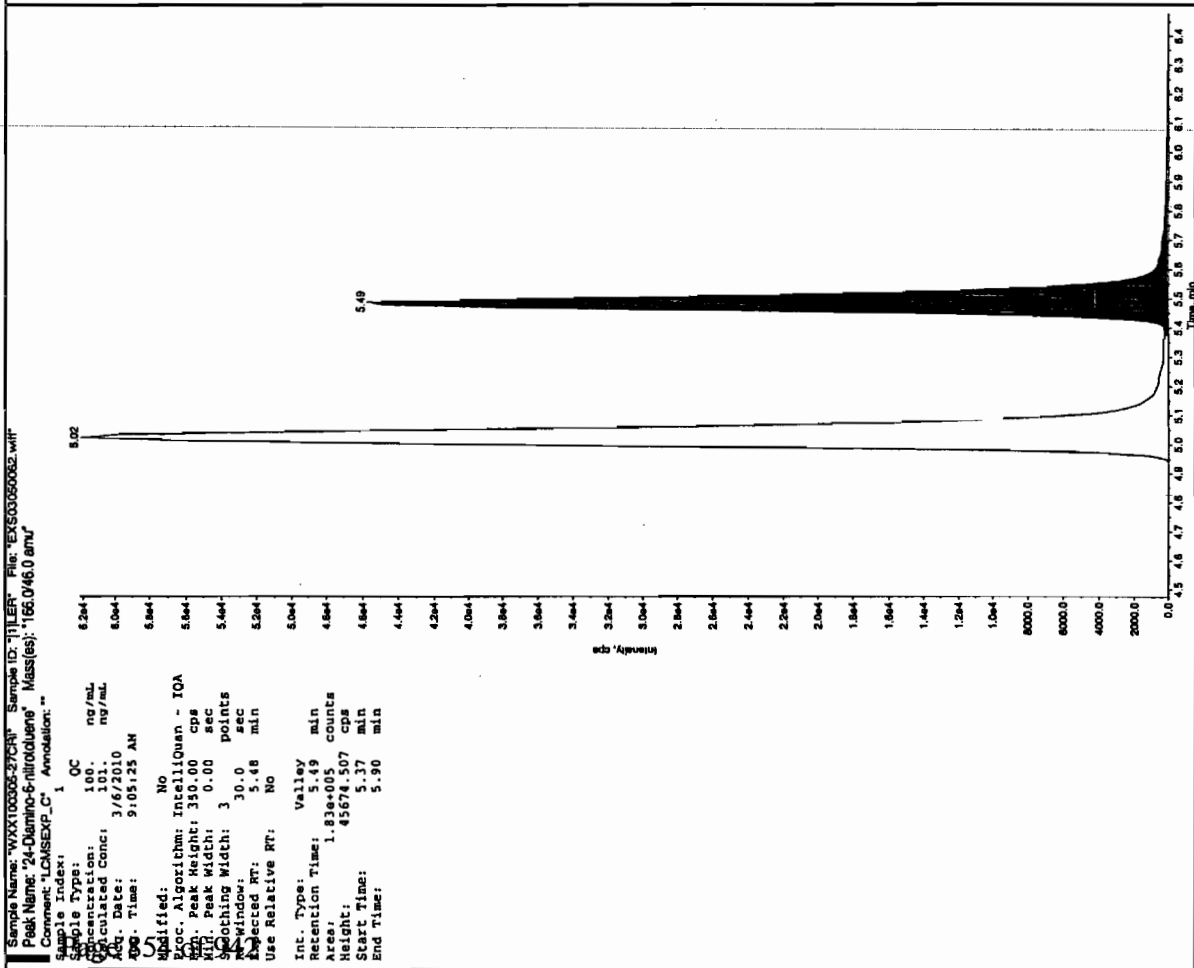
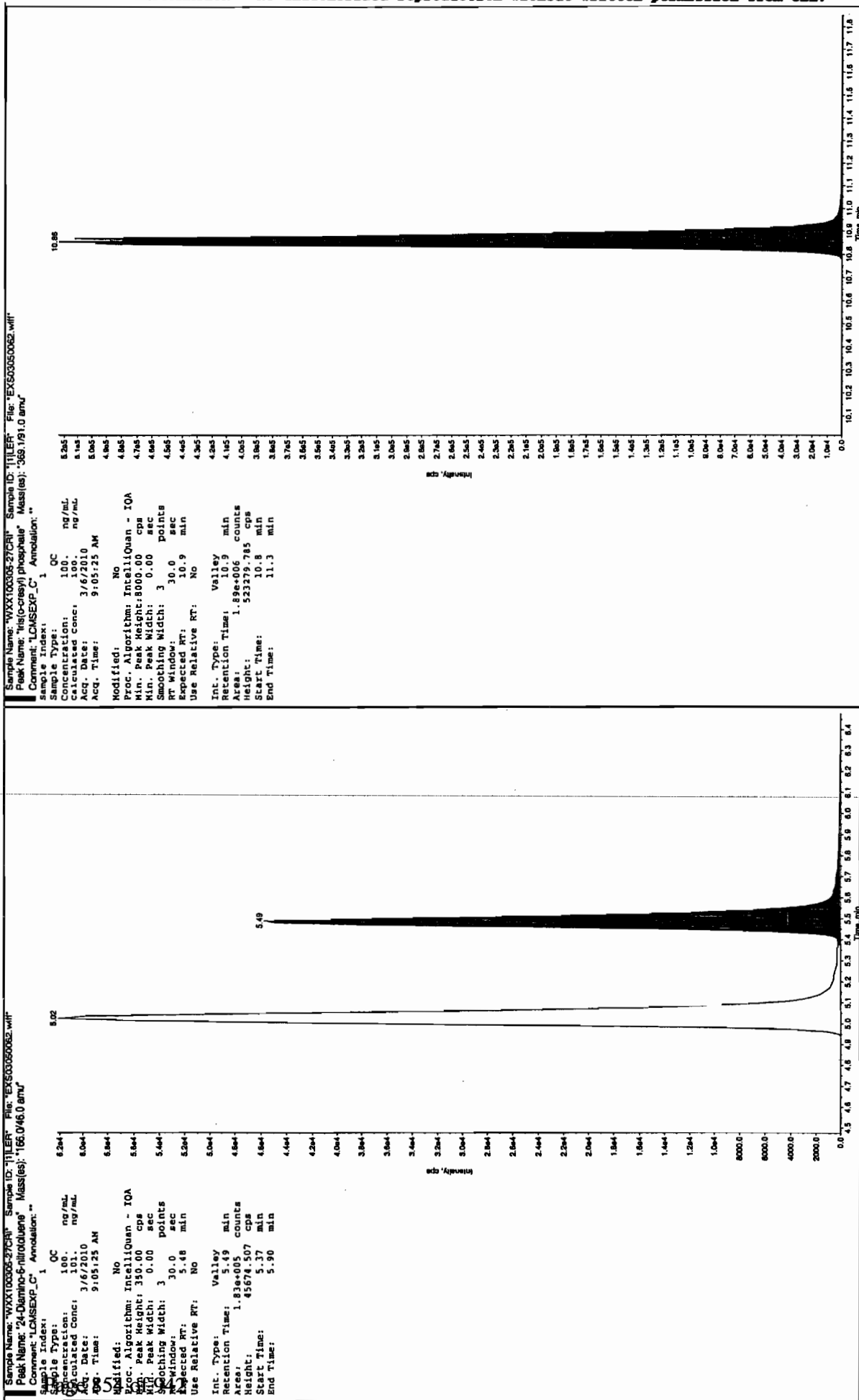
\* Value outside of Recovery Limits

Gen 3/9/10



dwu 03/09/10





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050066.wiff

Analysis Date: 06-MAR-10 10:08

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 456   | 91       |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 476   | 95       |   |
| 3,4-Dinitrotoluene         | 250  | 247   | 99       |   |
| 3,5-Dinitroaniline         | 500  | 535   | 107      |   |
| TATB                       | 500  | 549   | 110      |   |
| tris(o-cresyl) phosphate   | 500  | 507   | 101      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

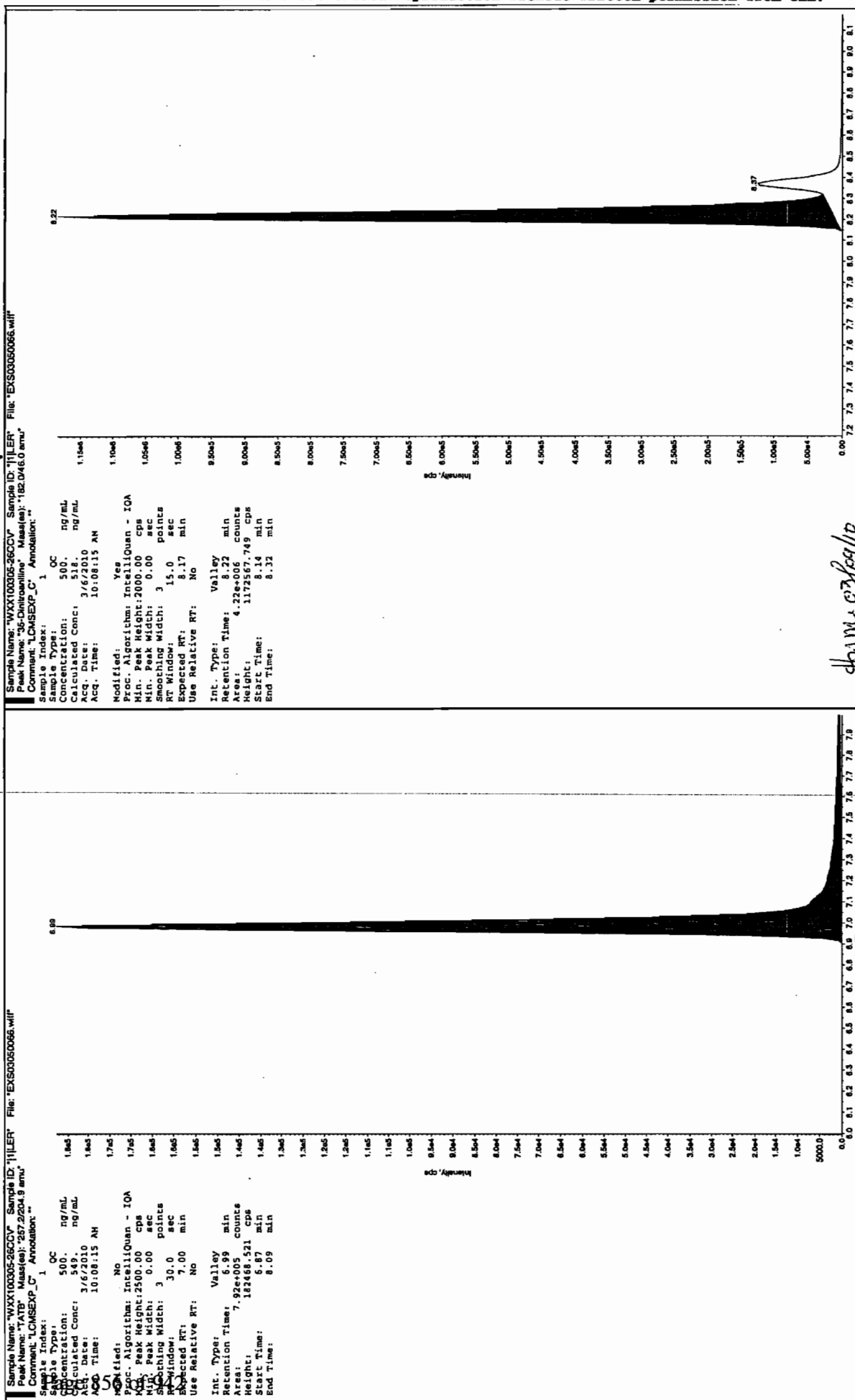
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

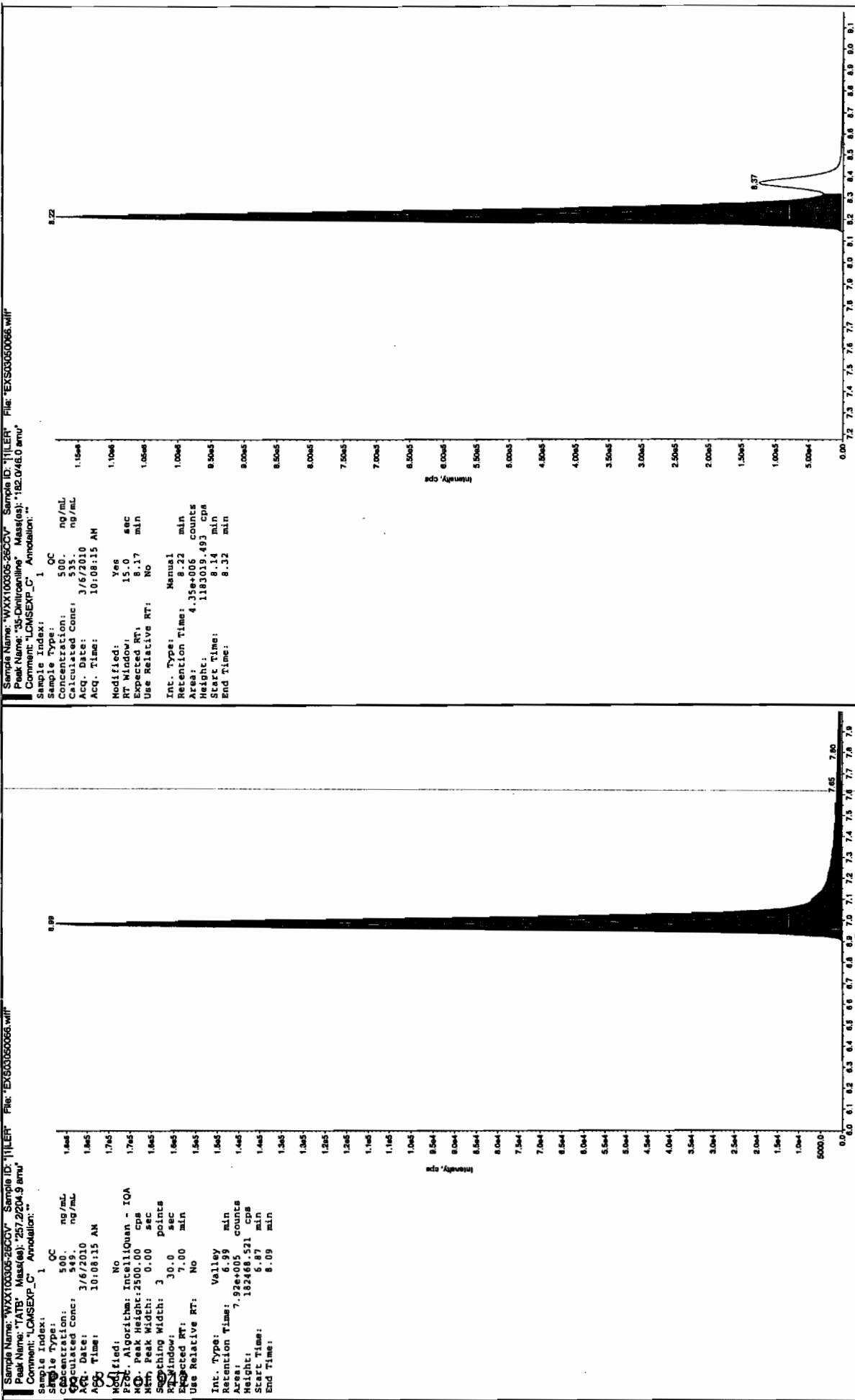
\* Value outside of Recovery Limits

Before Jan 31/10



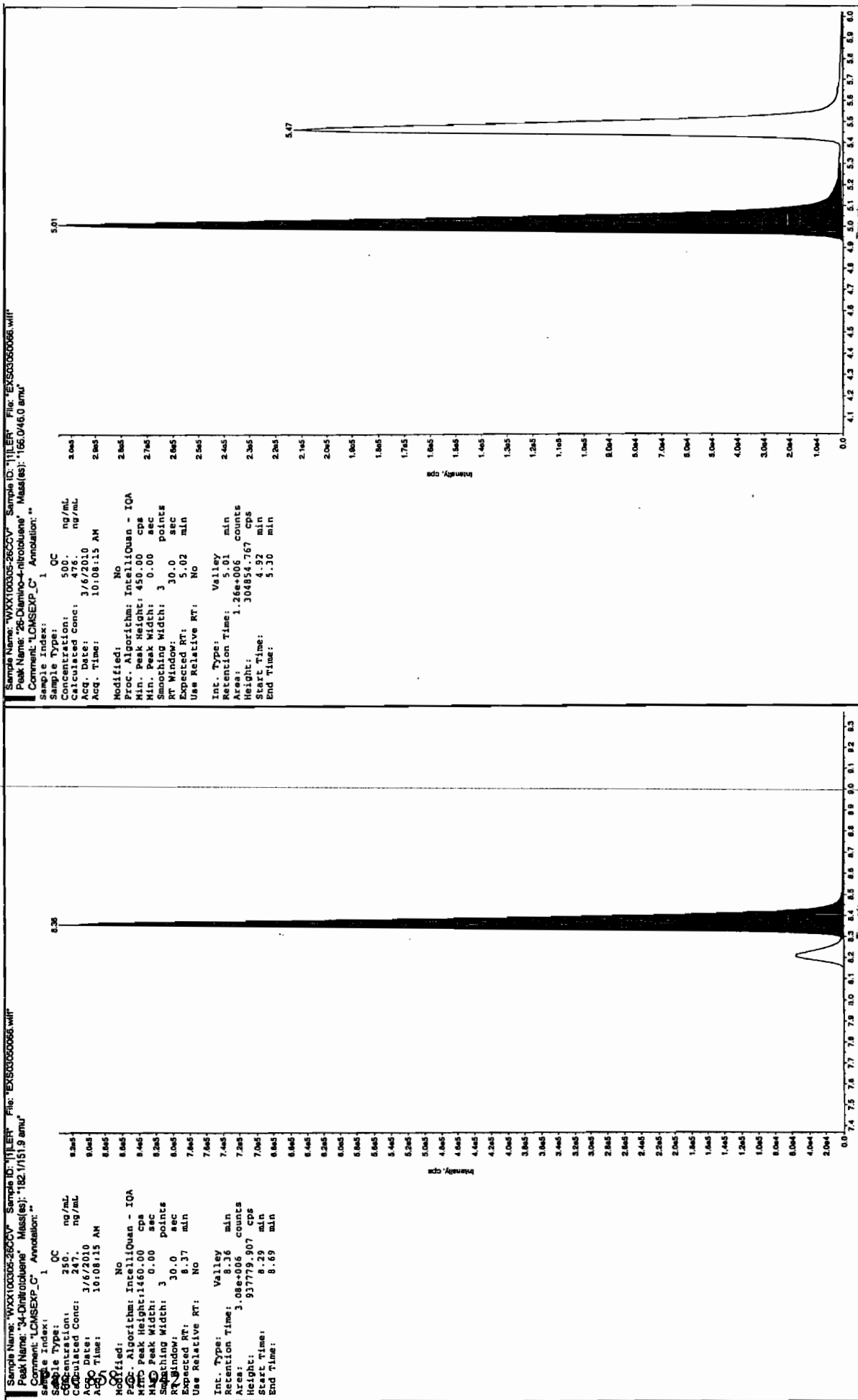
After 03/09/10

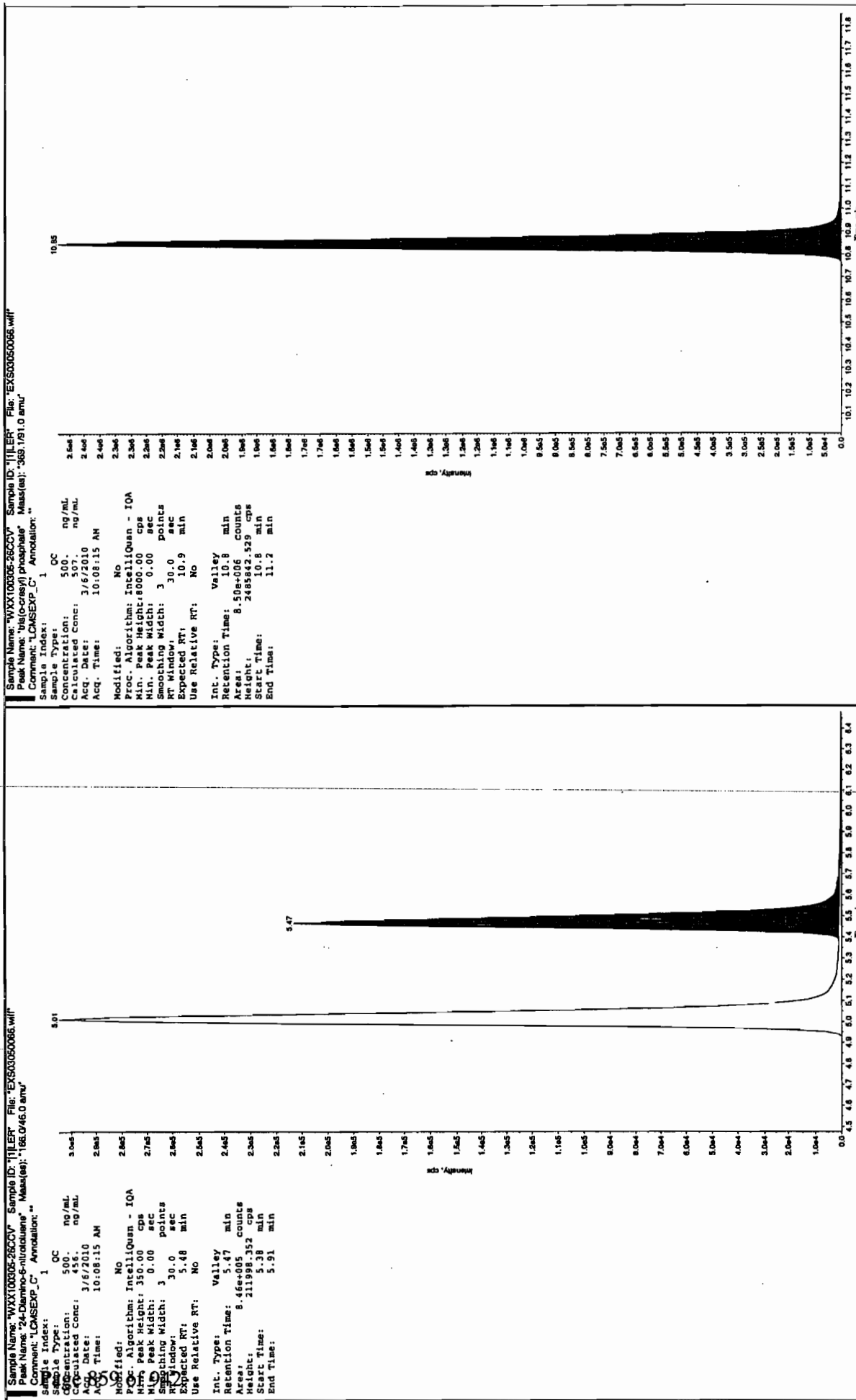
after Jan 3/9/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050068.wiff

Analysis Date: 06-MAR-10 10:39

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 94.8  | 95       |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 101   | 101      |   |
| 3,4-Dinitrotoluene         | 50   | 51.1  | 102      |   |
| 3,5-Dinitroaniline         | 100  | 105   | 105      |   |
| TATB                       | 100  | 111   | 111      |   |
| tris(o-cresyl) phosphate   | 100  | 99    | 99       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

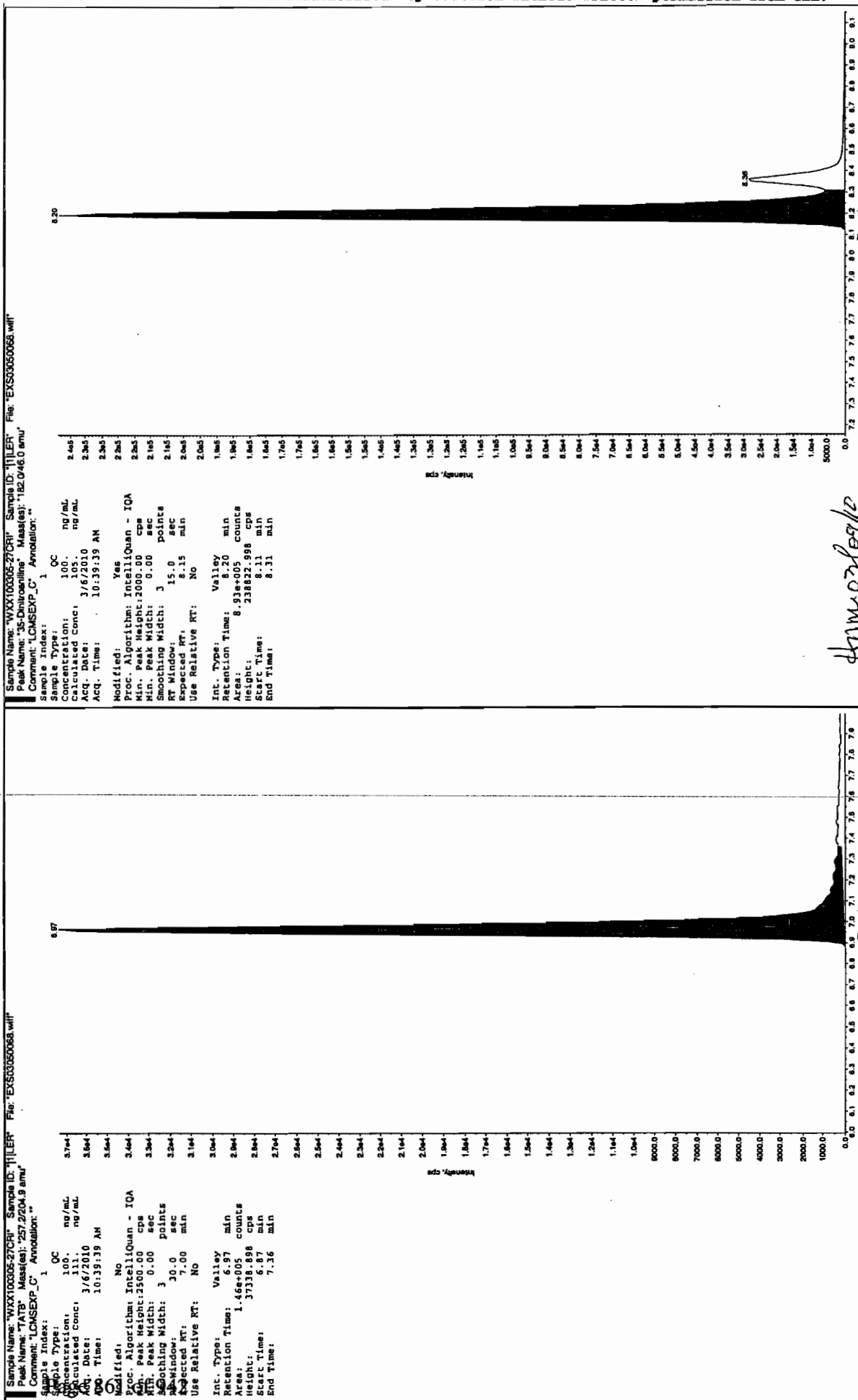
2,4-Diamino-6-nitrotoluene 50-150%

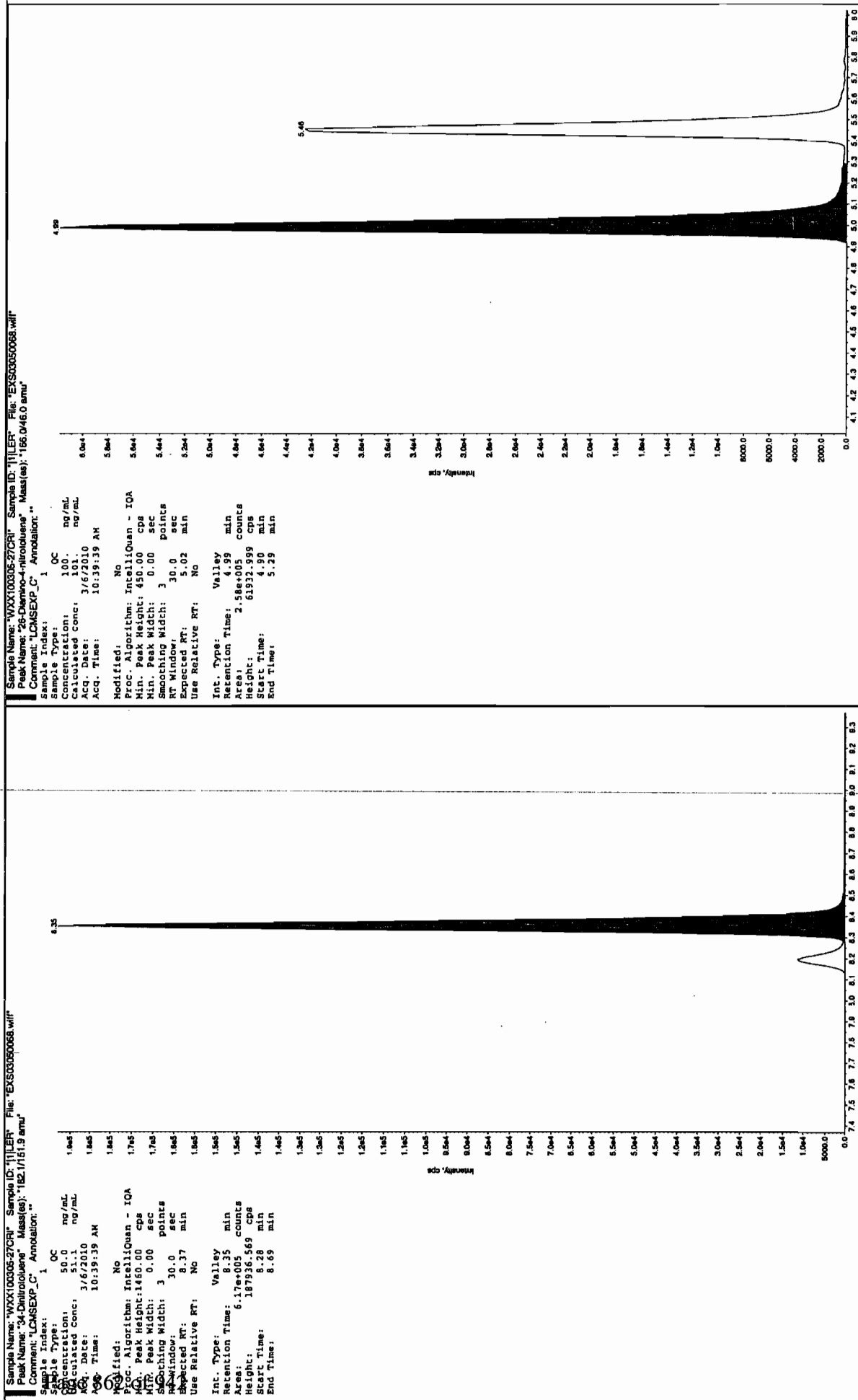
Other Target Analytes 70-130%

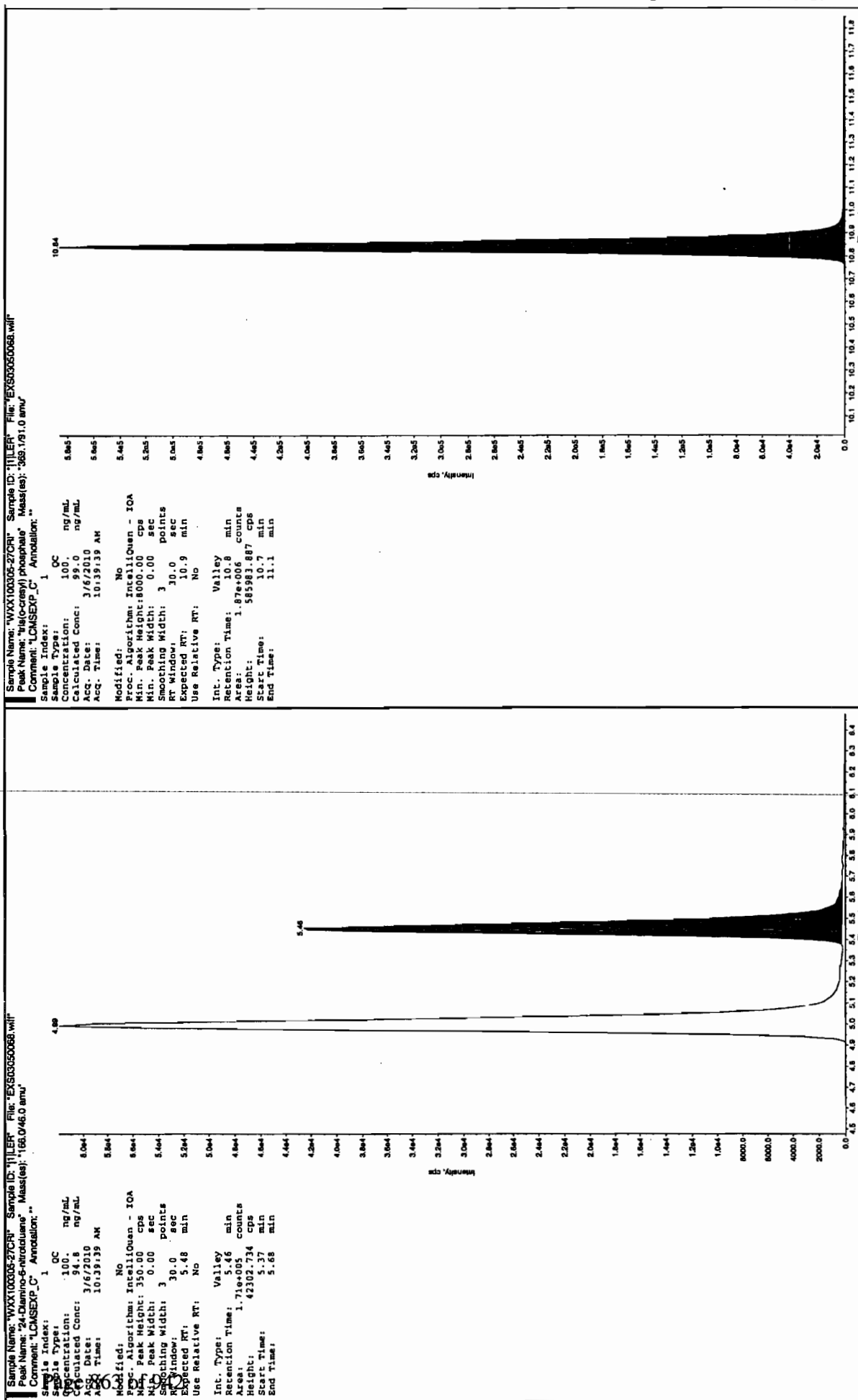
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

San 3/2/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050079.wiff

Analysis Date: 06-MAR-10 13:32

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 443   | 89       |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 460   | 92       |   |
| 3,4-Dinitrotoluene         | 250  | 235   | 94       |   |
| 3,5-Dinitroaniline         | 500  | 506   | 101      |   |
| TATB                       | 500  | 522   | 104      |   |
| tris(o-cresyl) phosphate   | 500  | 475   | 95       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

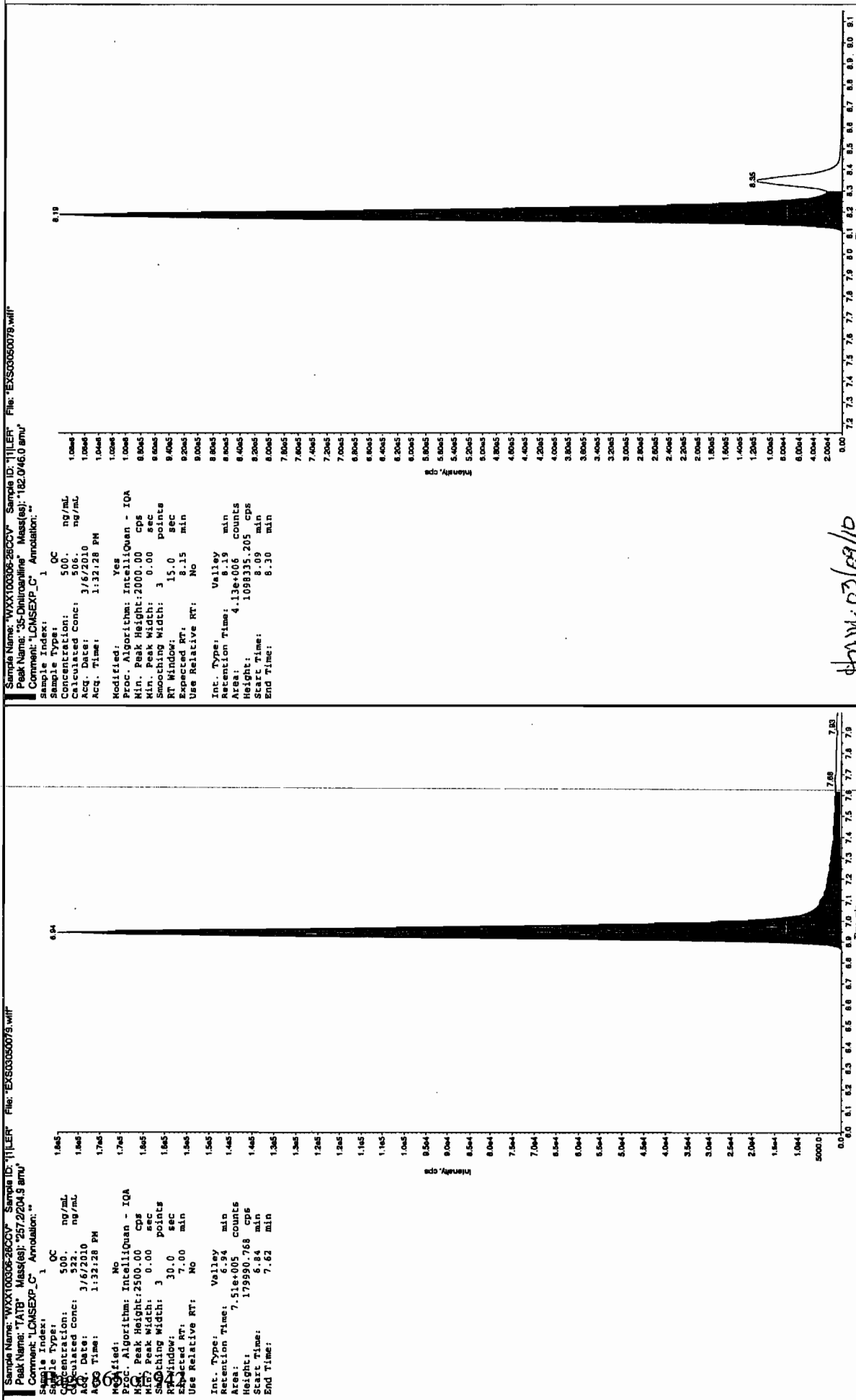
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

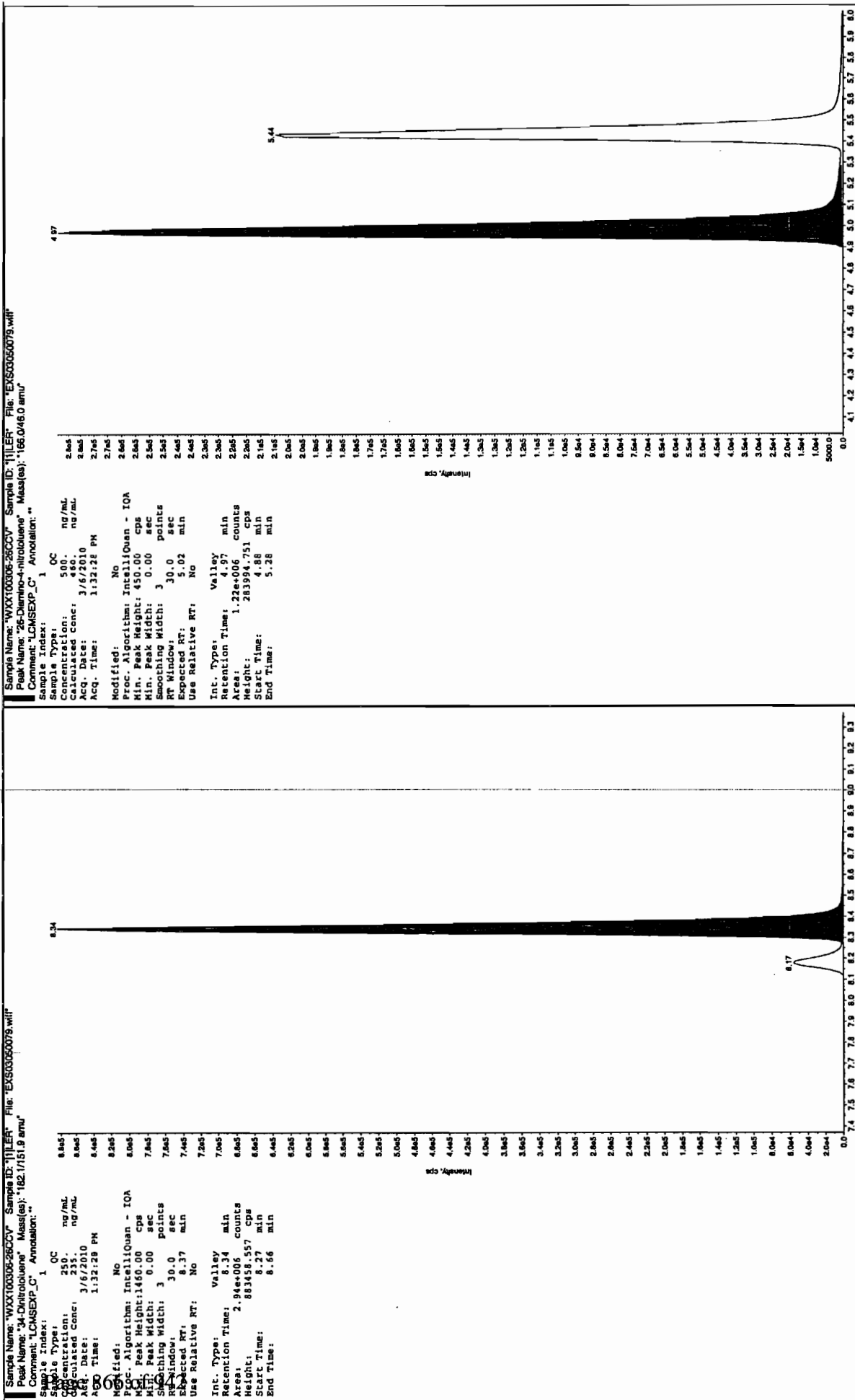
\* Value outside of Recovery Limits

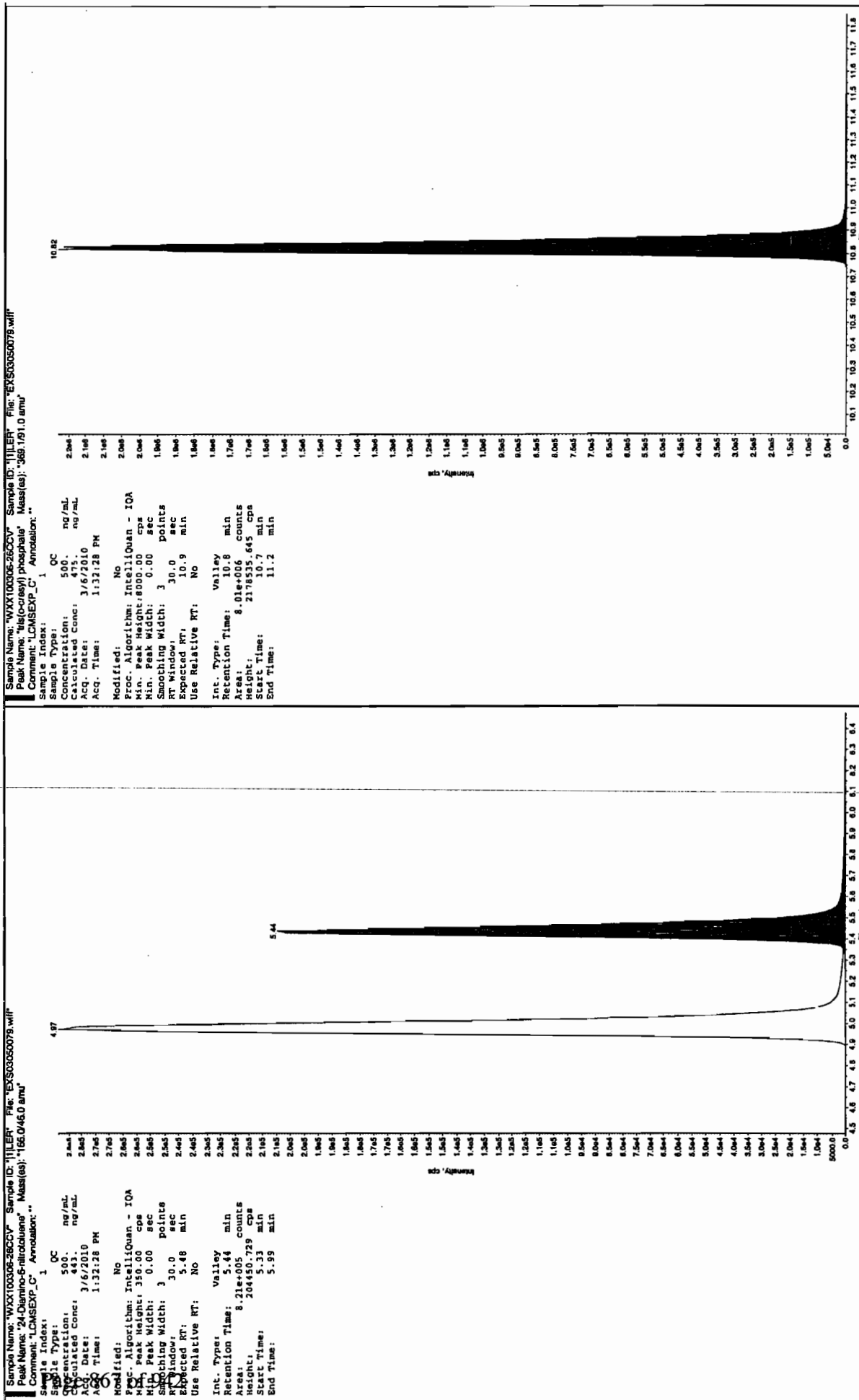
See 3/9/10



See 03/09/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050081.wiff

Analysis Date: 06-MAR-10 14:03

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 96.5  | 97       |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 99.1  | 99       |   |
| 3,4-Dinitrotoluene         | 50   | 50.4  | 101      |   |
| 3,5-Dinitroaniline         | 100  | 109   | 109      |   |
| TATB                       | 100  | 114   | 114      |   |
| tris(o-cresyl) phosphate   | 100  | 95.1  | 95       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

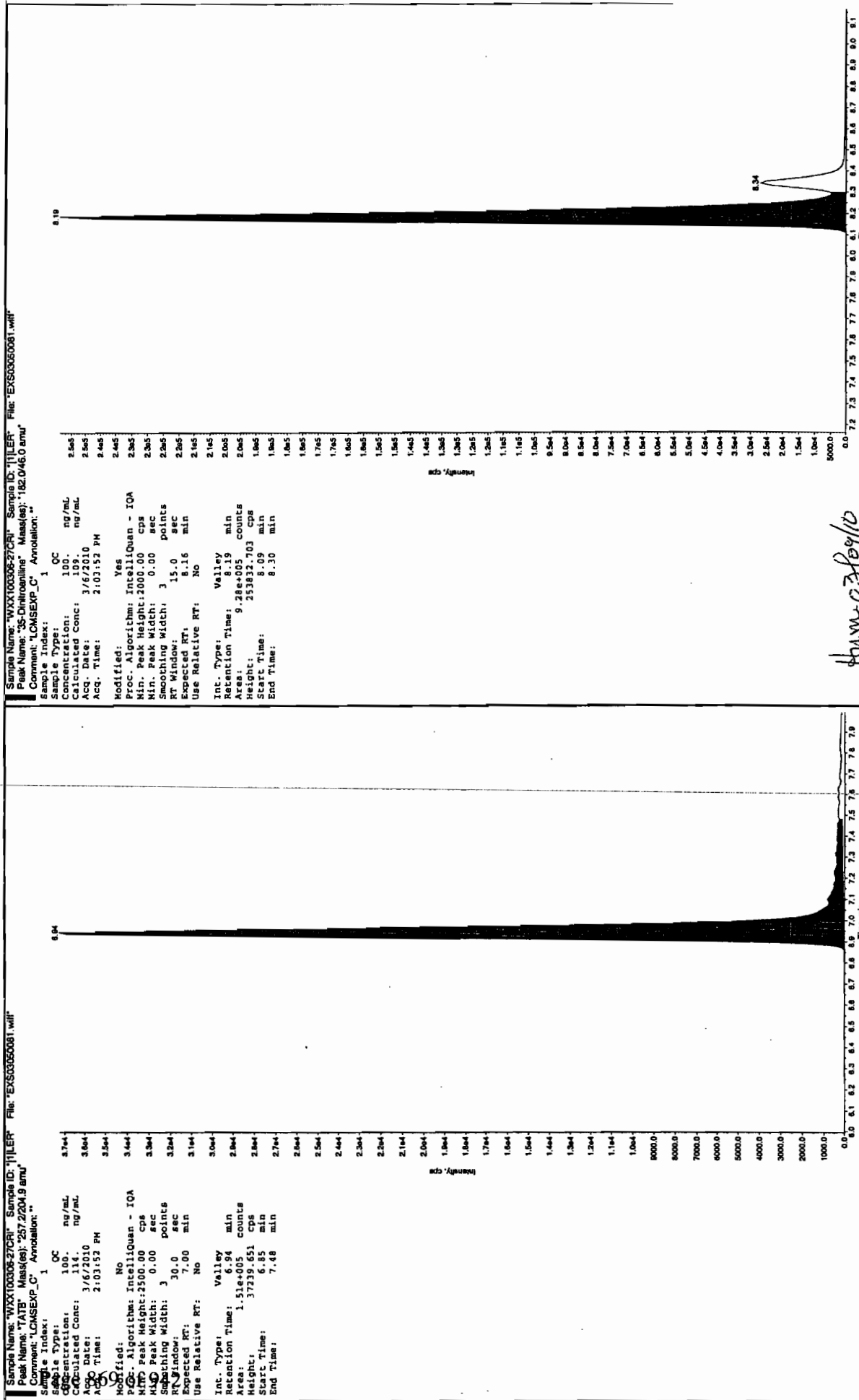
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

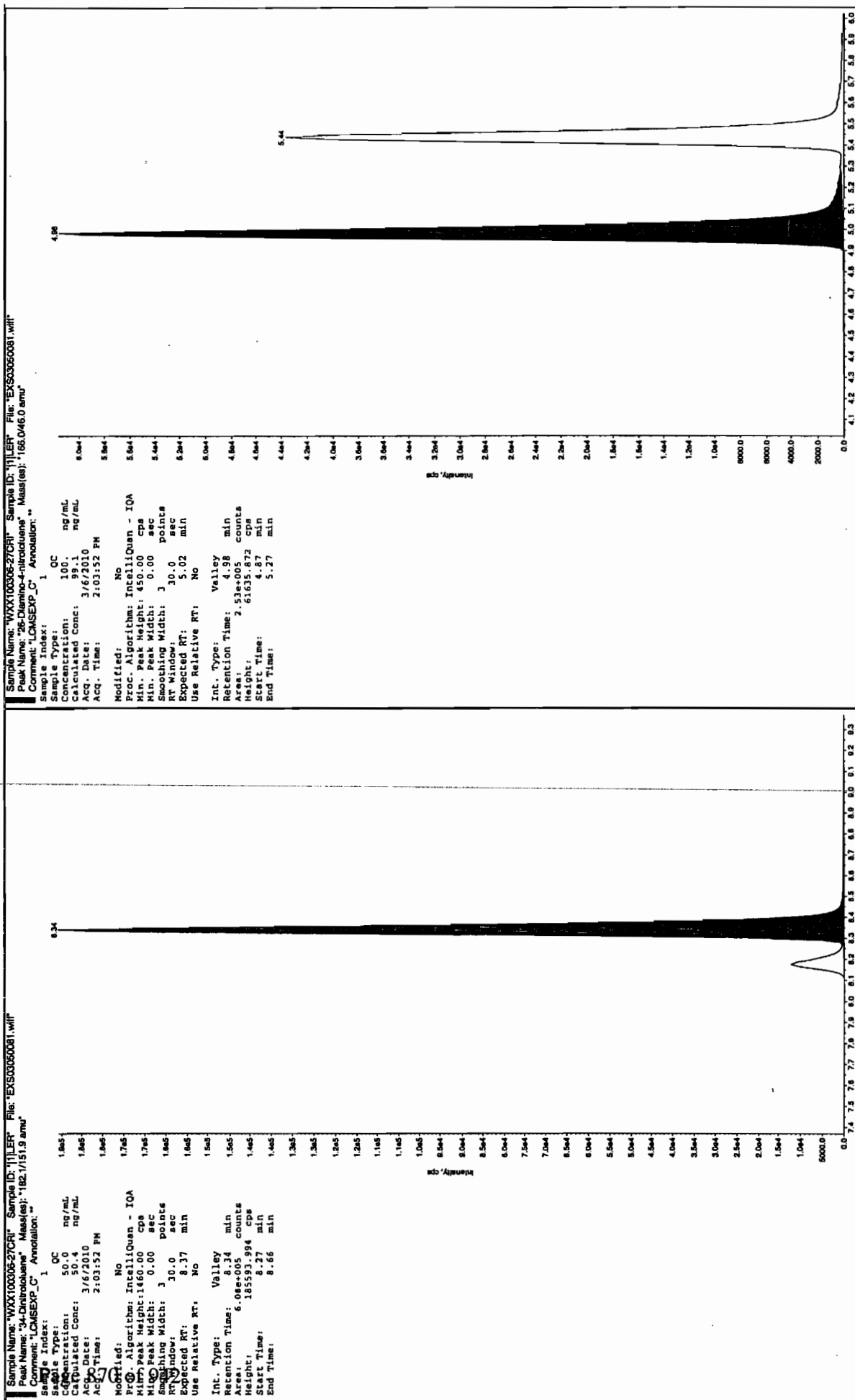
# Column used to flag Recovery outside of Limits

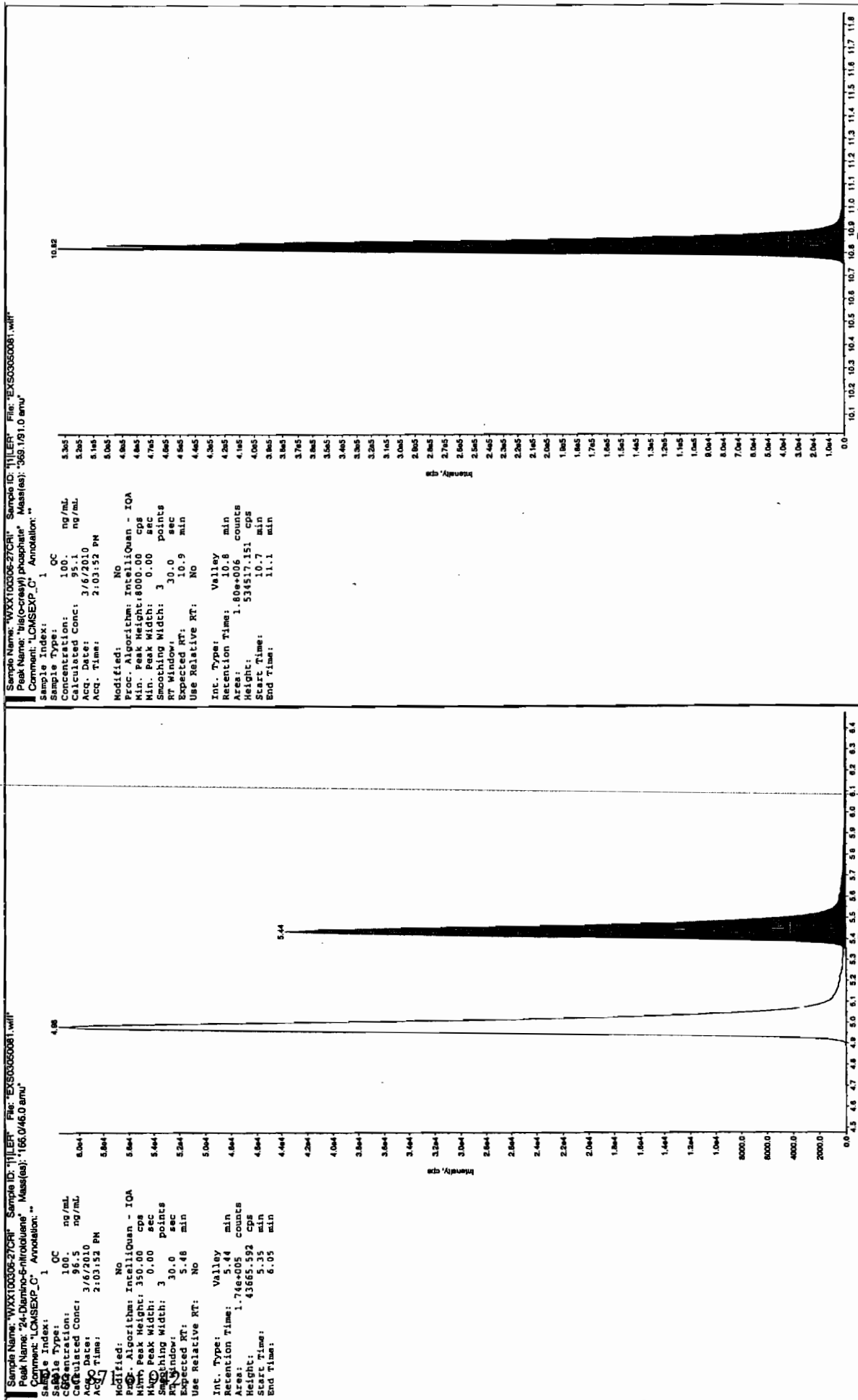
\* Value outside of Recovery Limits

Jan 3/9/10



Jan 3/9/10





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050084.wiff

Analysis Date: 06-MAR-10 14:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 464   | 93       |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 505   | 101      |   |
| 3,4-Dinitrotoluene         | 250  | 235   | 94       |   |
| 3,5-Dinitroaniline         | 500  | 499   | 100      |   |
| TATB                       | 500  | 535   | 107      |   |
| tris(o-cresyl) phosphate   | 500  | 486   | 97       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

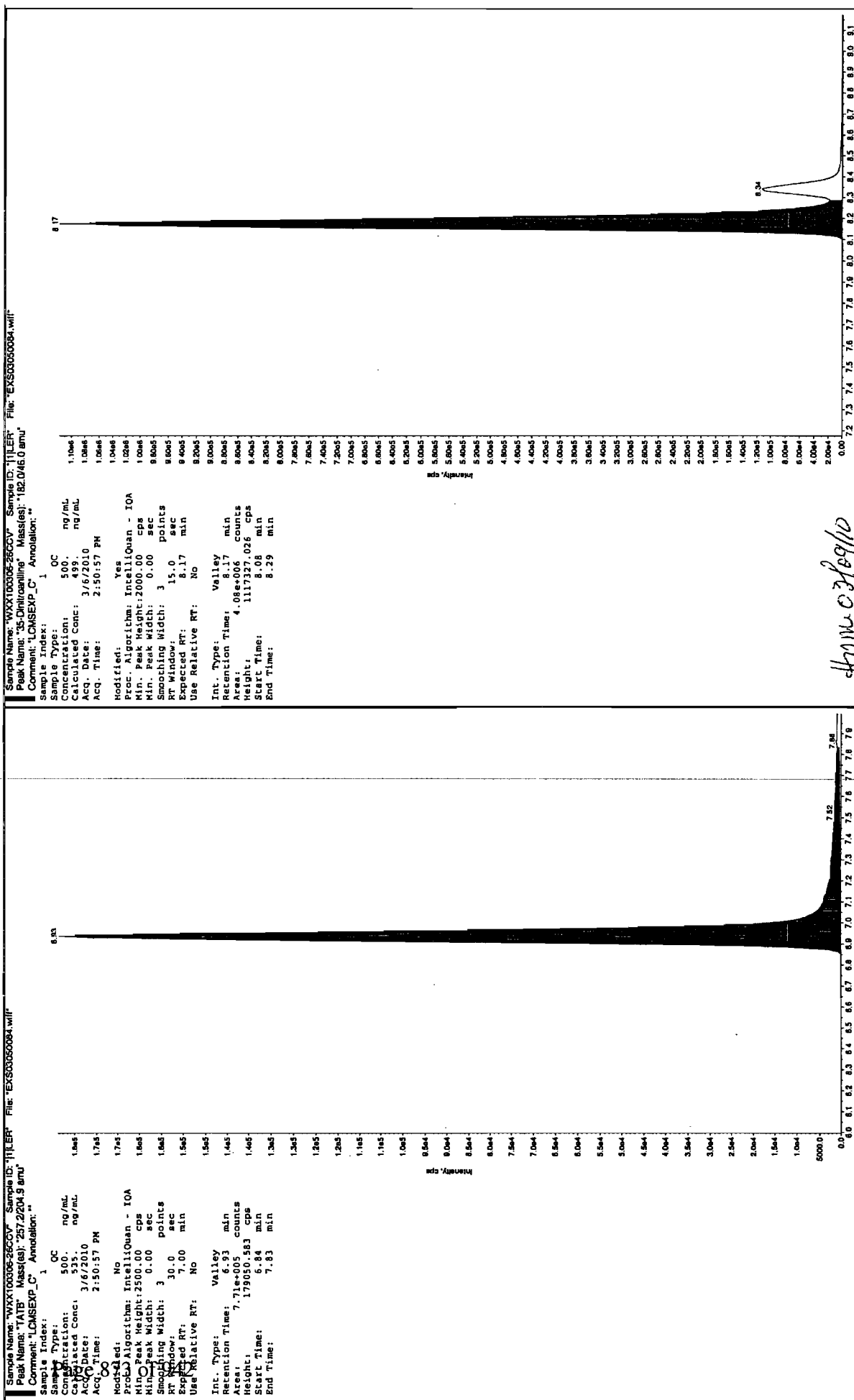
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

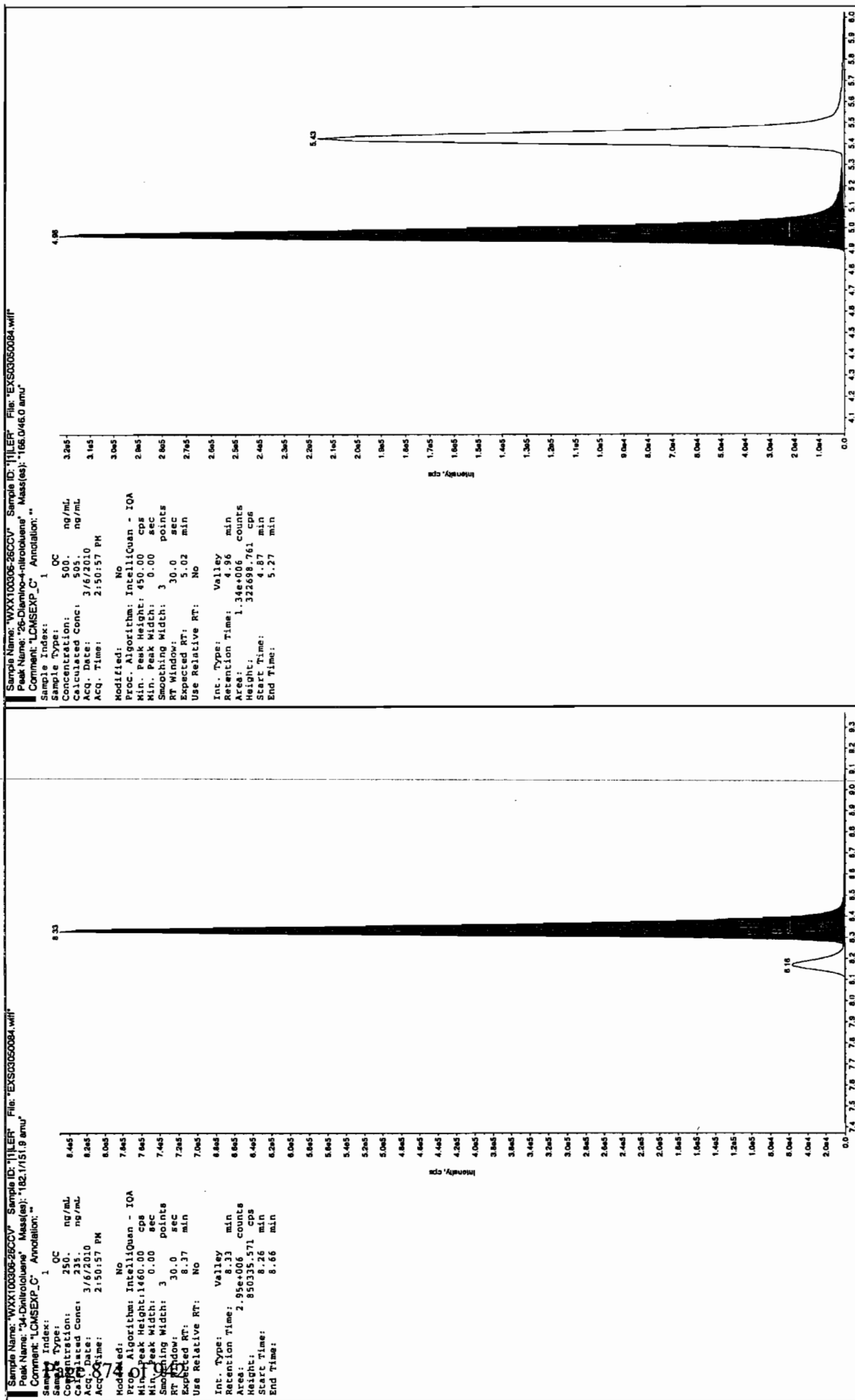
\* Value outside of Recovery Limits

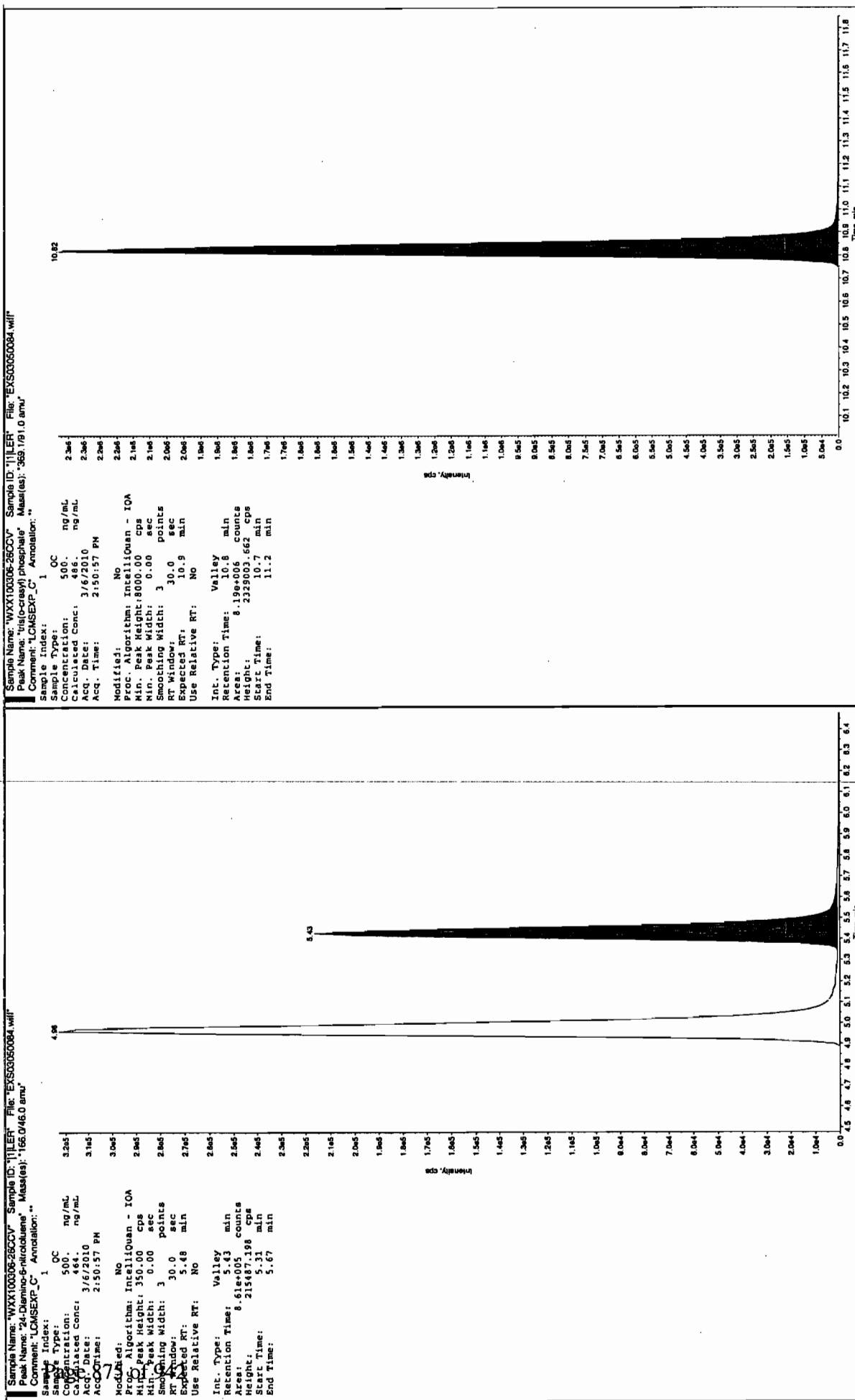
LCen 3/9/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050086.wiff

Analysis Date: 06-MAR-10 15:22

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 3,5-Dinitroaniline         | 100  | 107   | 107      |   |
| TATB                       | 100  | 112   | 112      |   |
| tris(o-cresyl) phosphate   | 100  | 93.5  | 94       |   |
| 2,4-Diamino-6-nitrotoluene | 100  | 99.7  | 100      |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 96.4  | 96       |   |
| 3,4-Dinitrotoluene         | 50   | 50    | 100      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

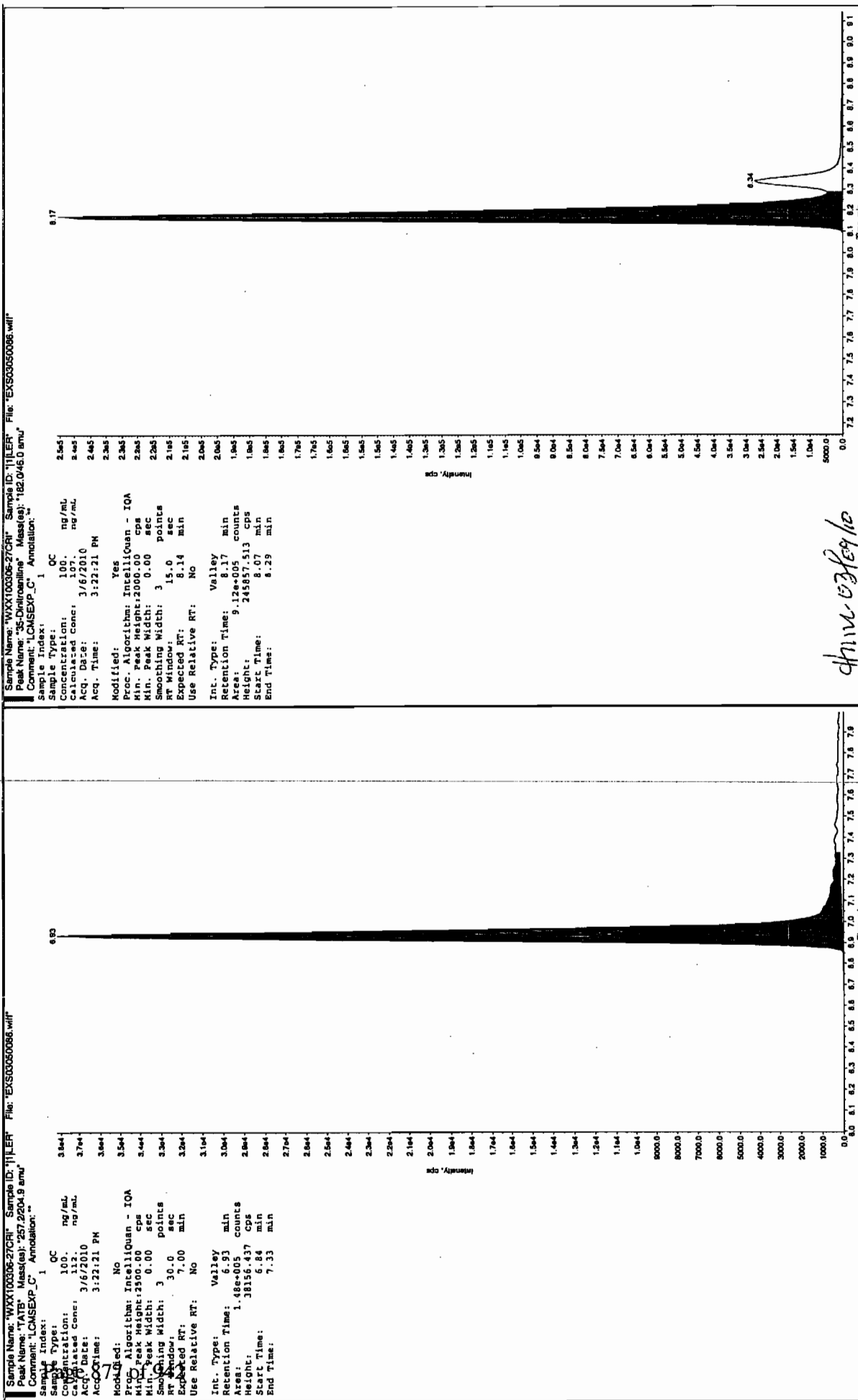
2,4-Diamino-6-nitrotoluene 50-150%

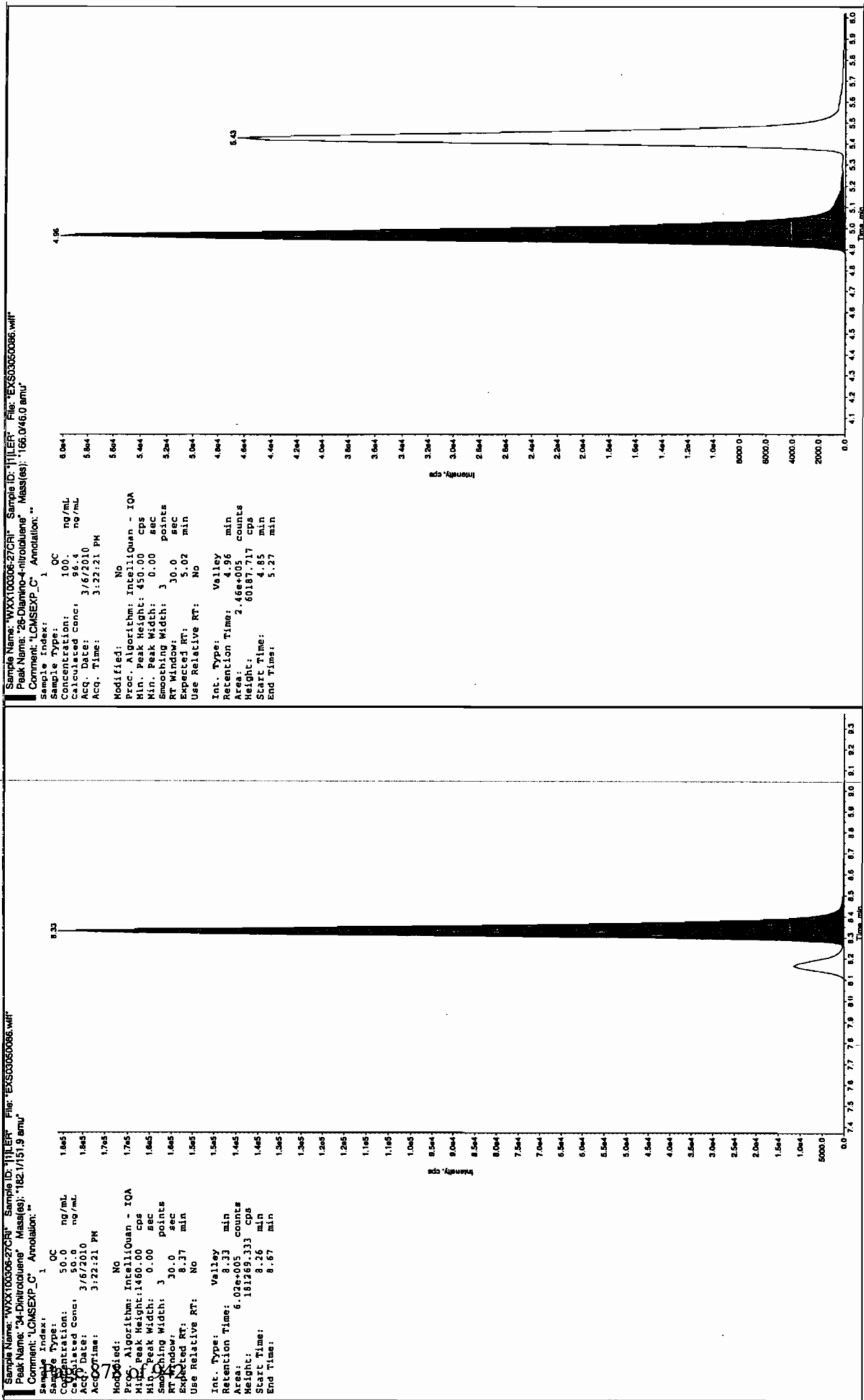
Other Target Analytes 70-130%

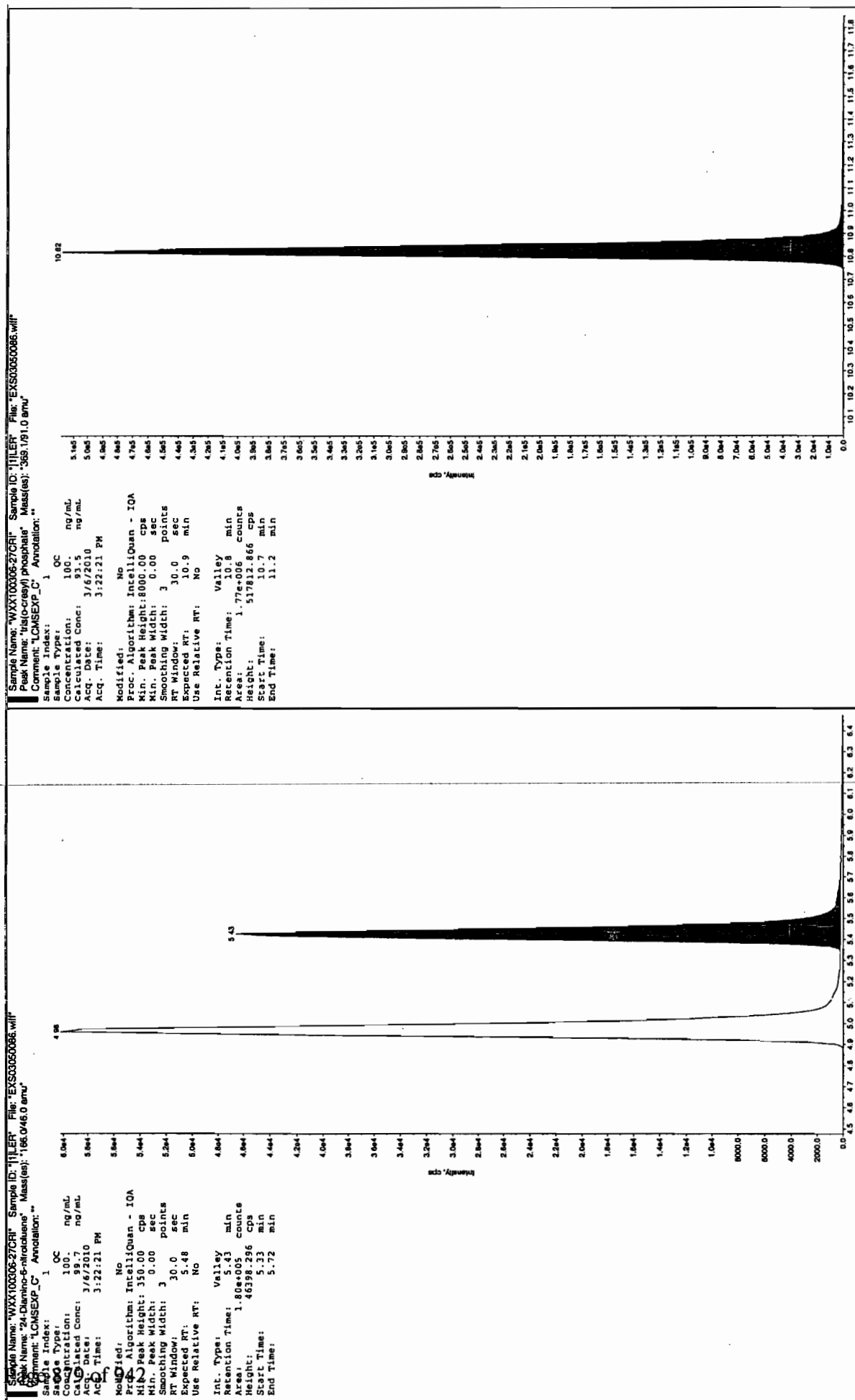
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Raw 3/9/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050093.wiff

Analysis Date: 06-MAR-10 17:12

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,6-Diamino-4-nitrotoluene | 500  | 492   | 99       |   |
| 3,4-Dinitrotoluene         | 250  | 233   | 93       |   |
| 3,5-Dinitroaniline         | 500  | 521   | 104      |   |
| TATB                       | 500  | 535   | 107      |   |
| tris(o-cresyl) phosphate   | 500  | 515   | 103      |   |
| 2,4-Diamino-6-nitrotoluene | 500  | 472   | 95       |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

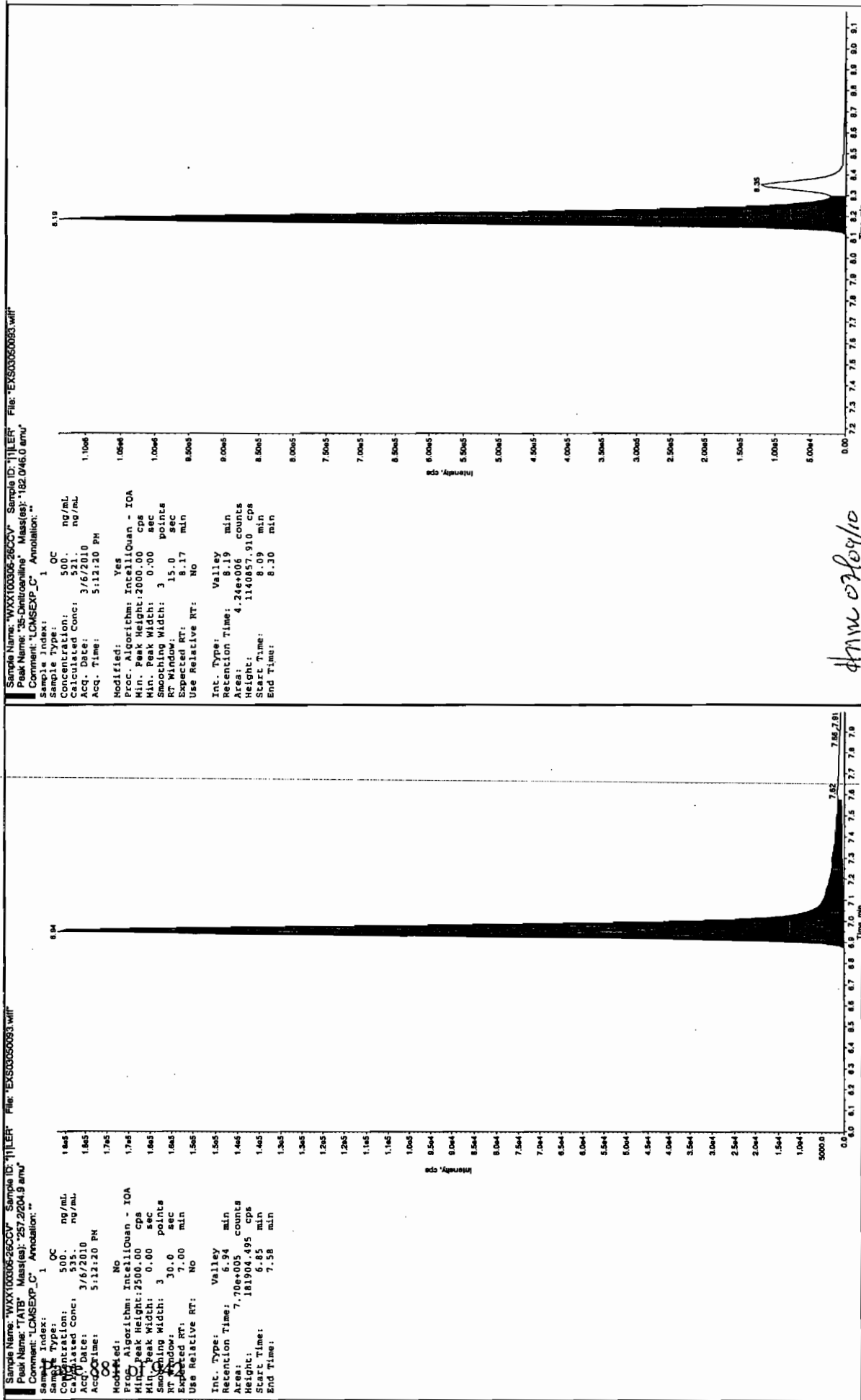
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

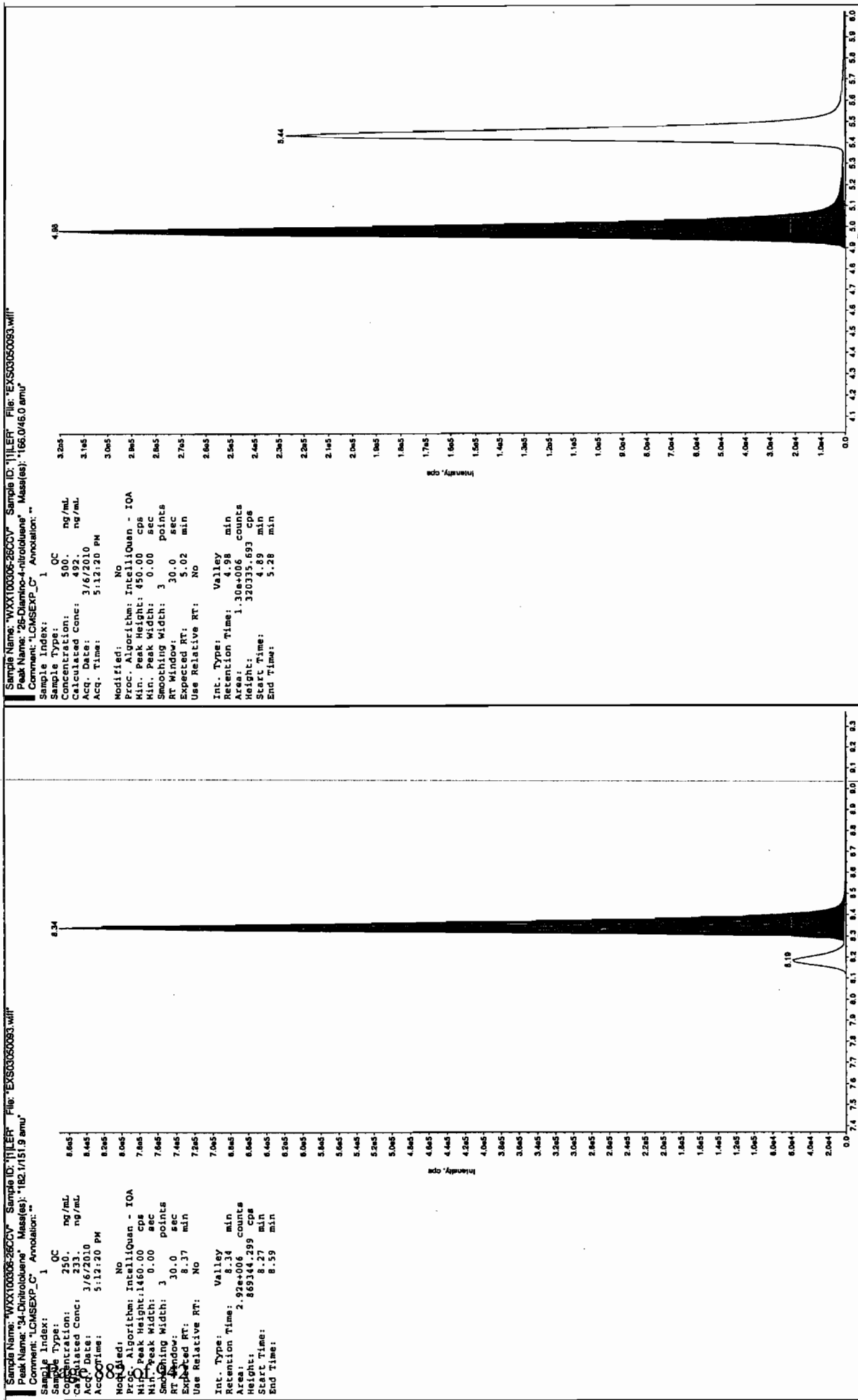
\* Value outside of Recovery Limits

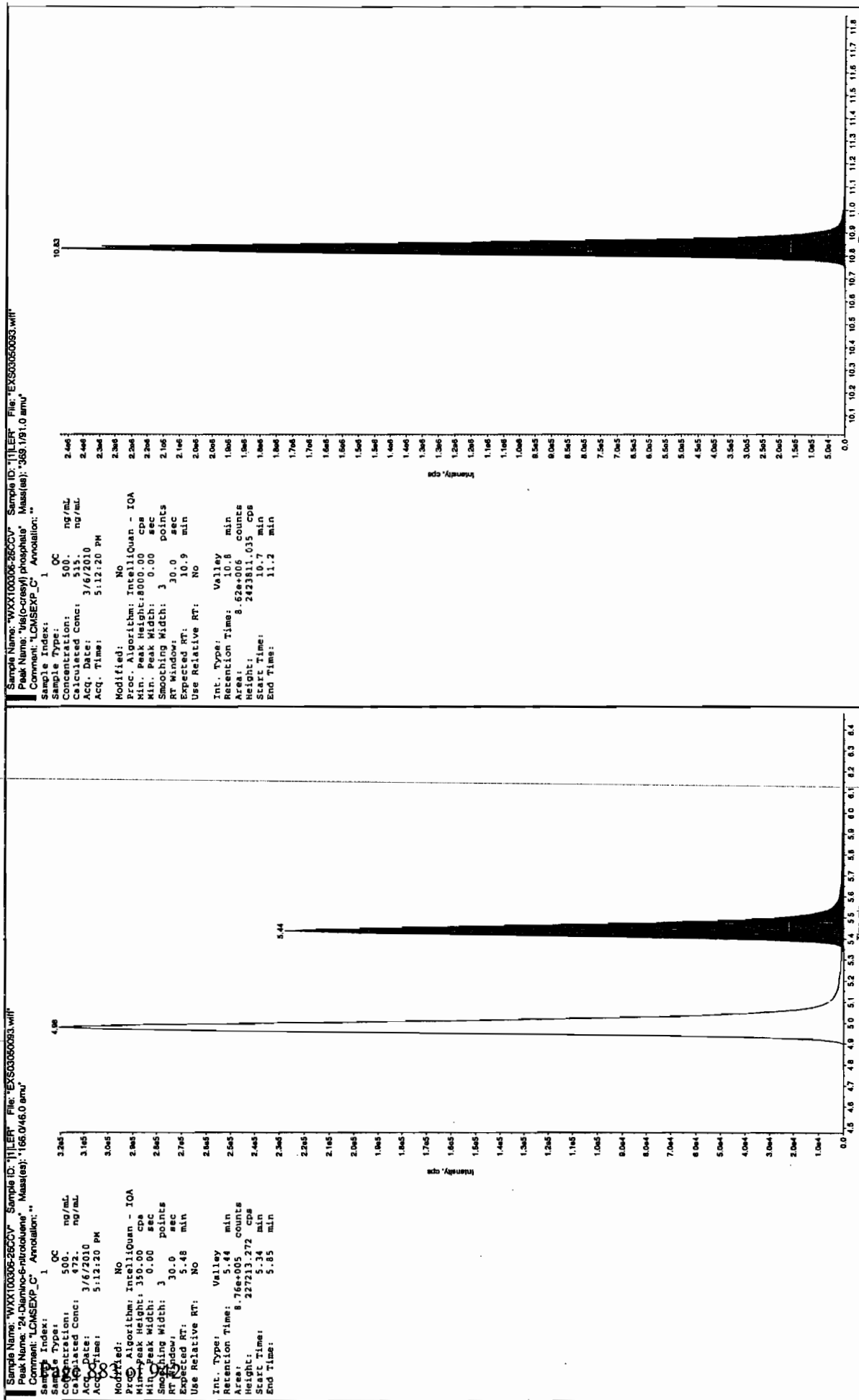
Scan 3/9/10



dmw 07/09/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050095.wiff

Analysis Date: 06-MAR-10 17:43

LCMSMS ID: 1358

Column ID: Sphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 101   | 101      |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 106   | 106      |   |
| 3,4-Dinitrotoluene         | 50   | 50.4  | 101      |   |
| 3,5-Dinitroaniline         | 100  | 107   | 107      |   |
| TATB                       | 100  | 110   | 110      |   |
| tris(o-cresyl) phosphate   | 100  | 103   | 103      |   |

Recovery Limits:

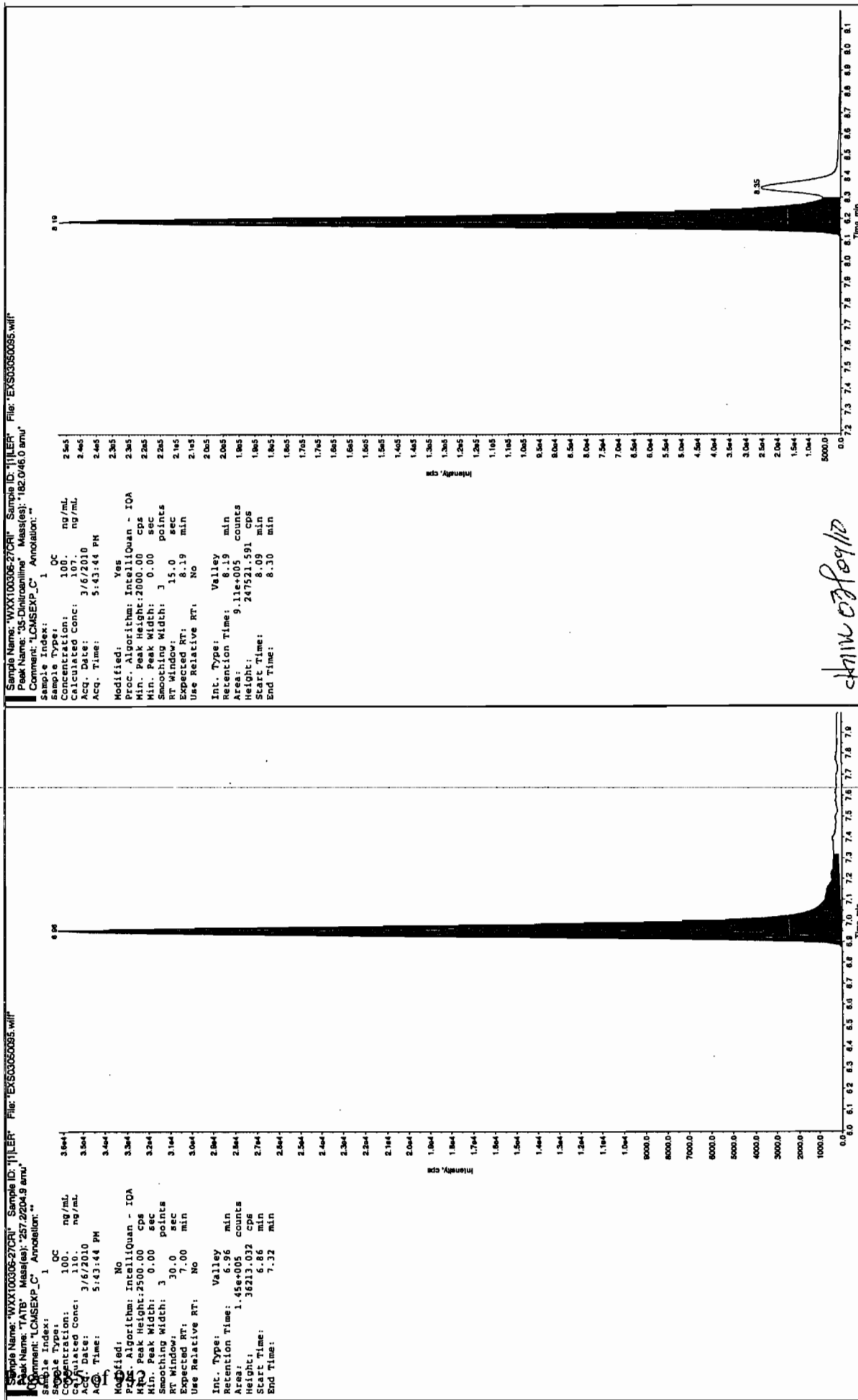
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

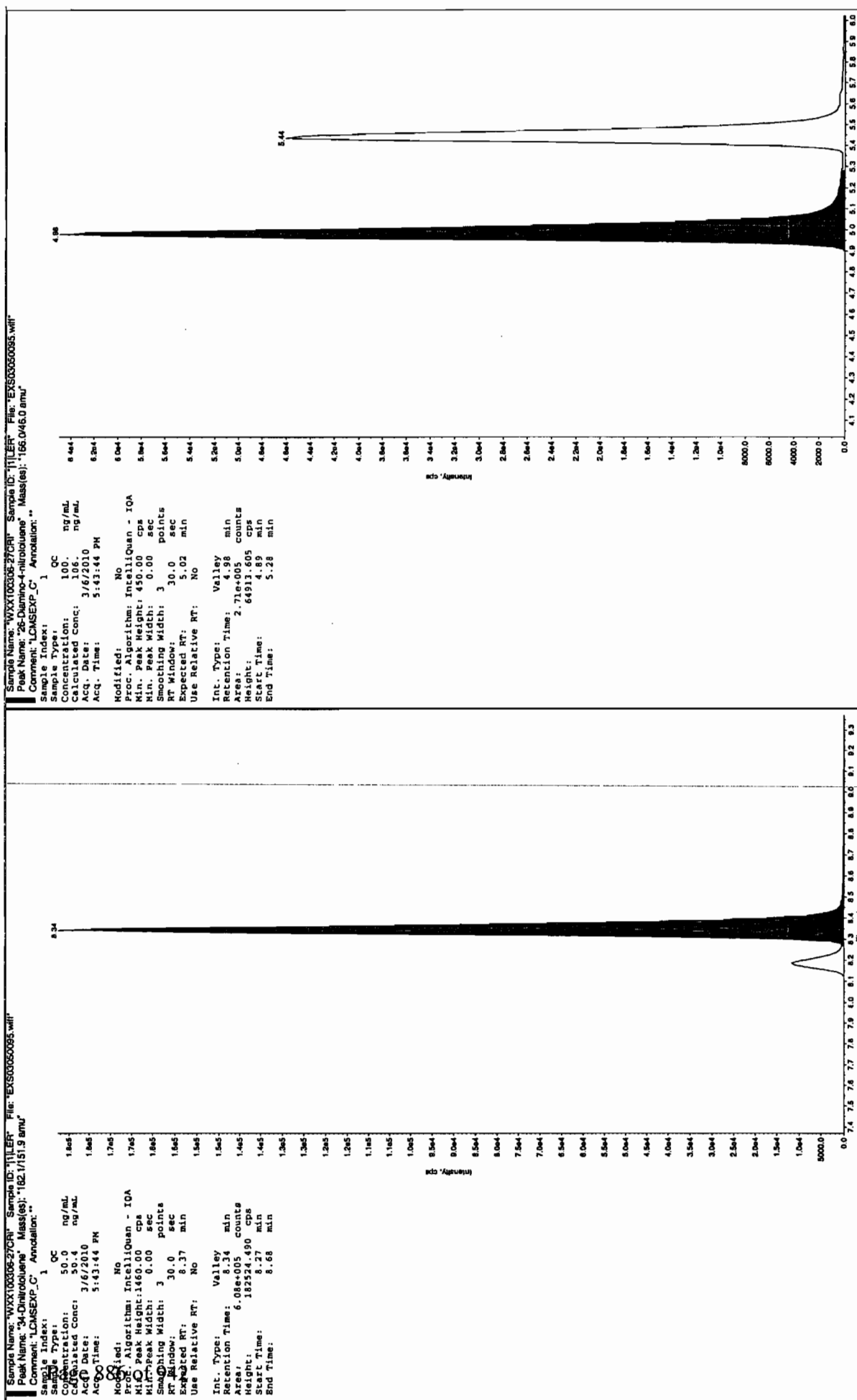
Other Target Analytes 70-130%

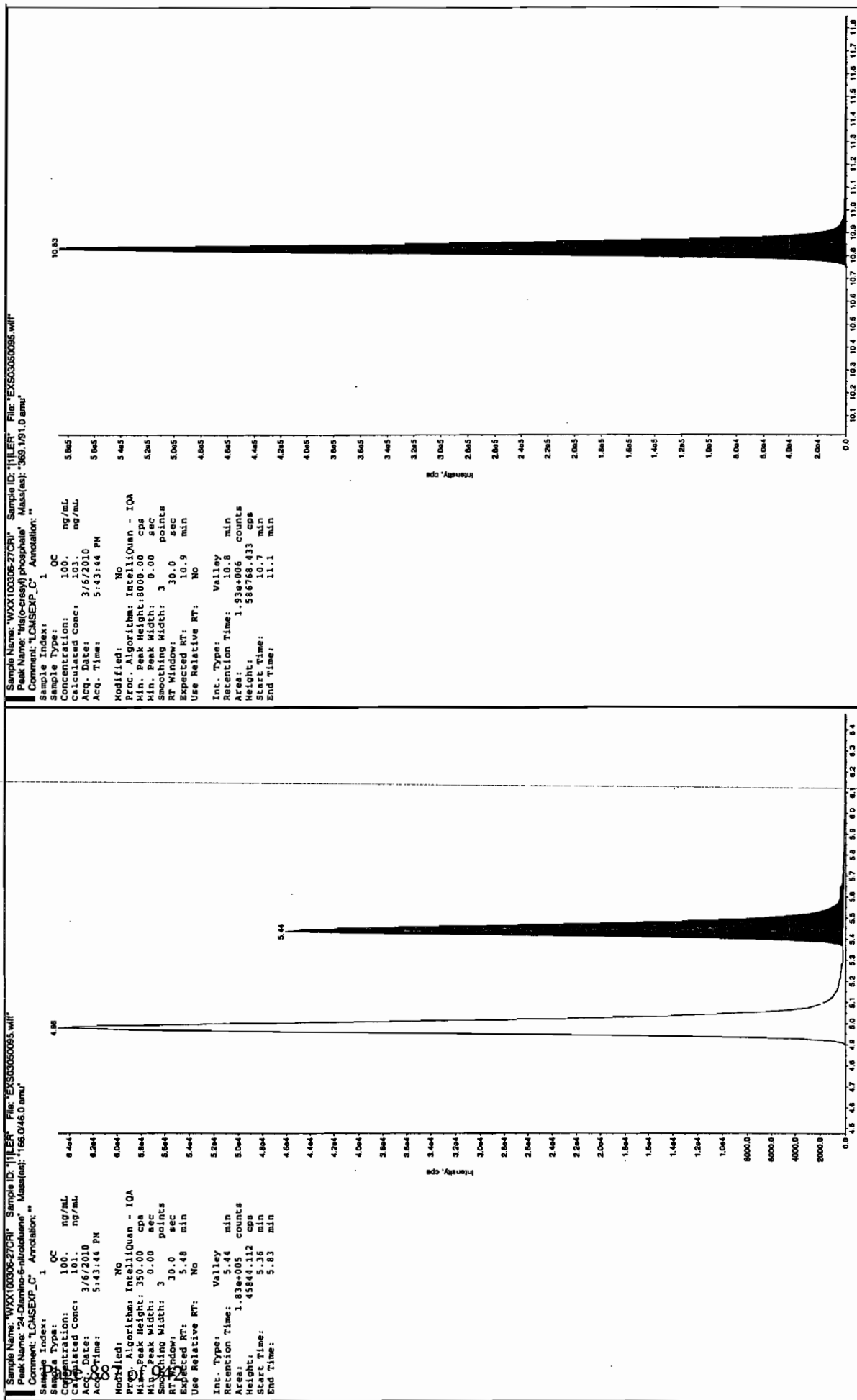
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Jan 3/9/10







7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050106.wiff

Analysis Date: 06-MAR-10 20:36

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 477   | 95       |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 464   | 93       |   |
| 3,4-Dinitrotoluene         | 250  | 236   | 94       |   |
| 3,5-Dinitroaniline         | 500  | 513   | 103      |   |
| TATB                       | 500  | 582   | 116      |   |
| tris(o-cresyl) phosphate   | 500  | 520   | 104      |   |

Recovery Limits:

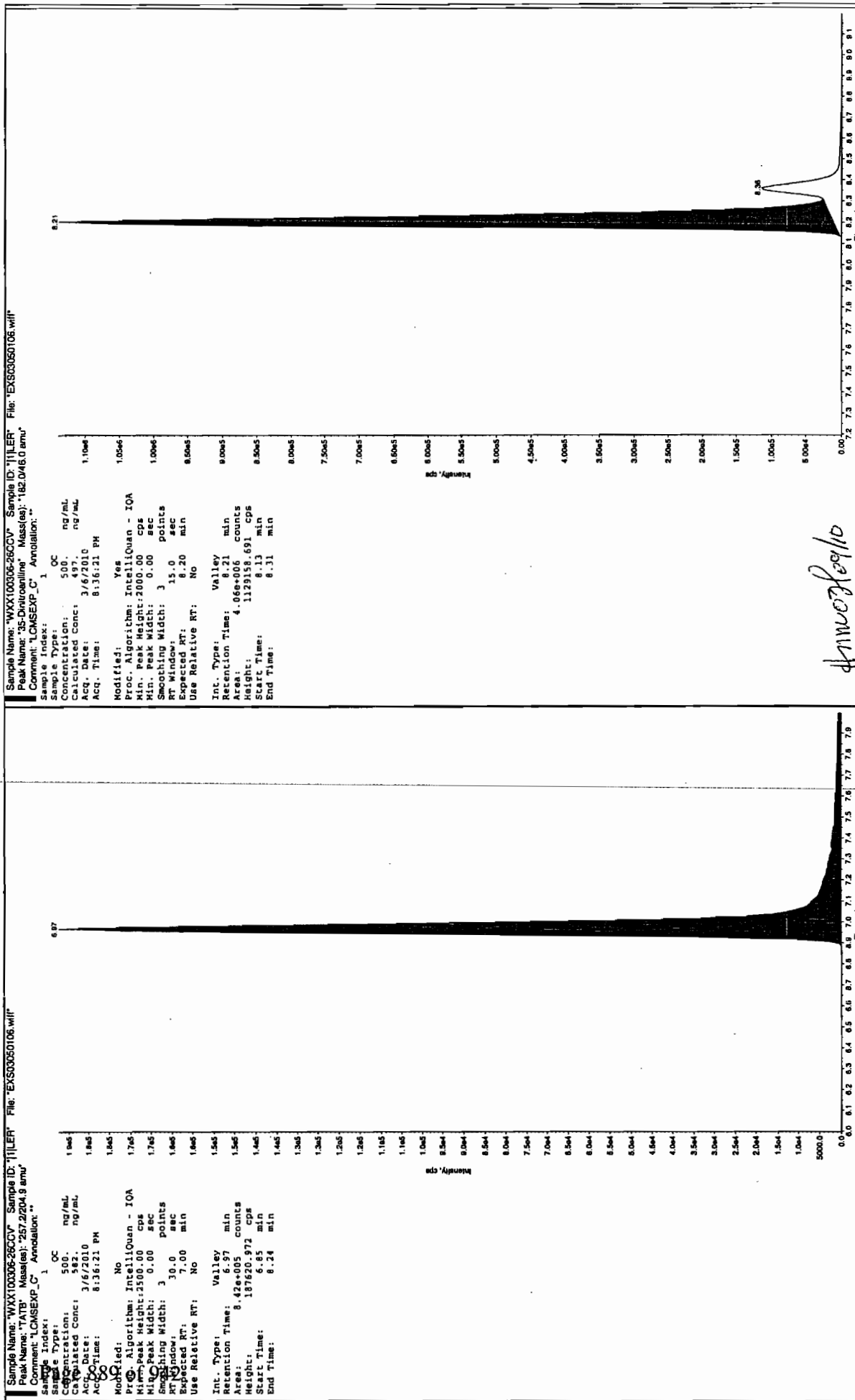
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

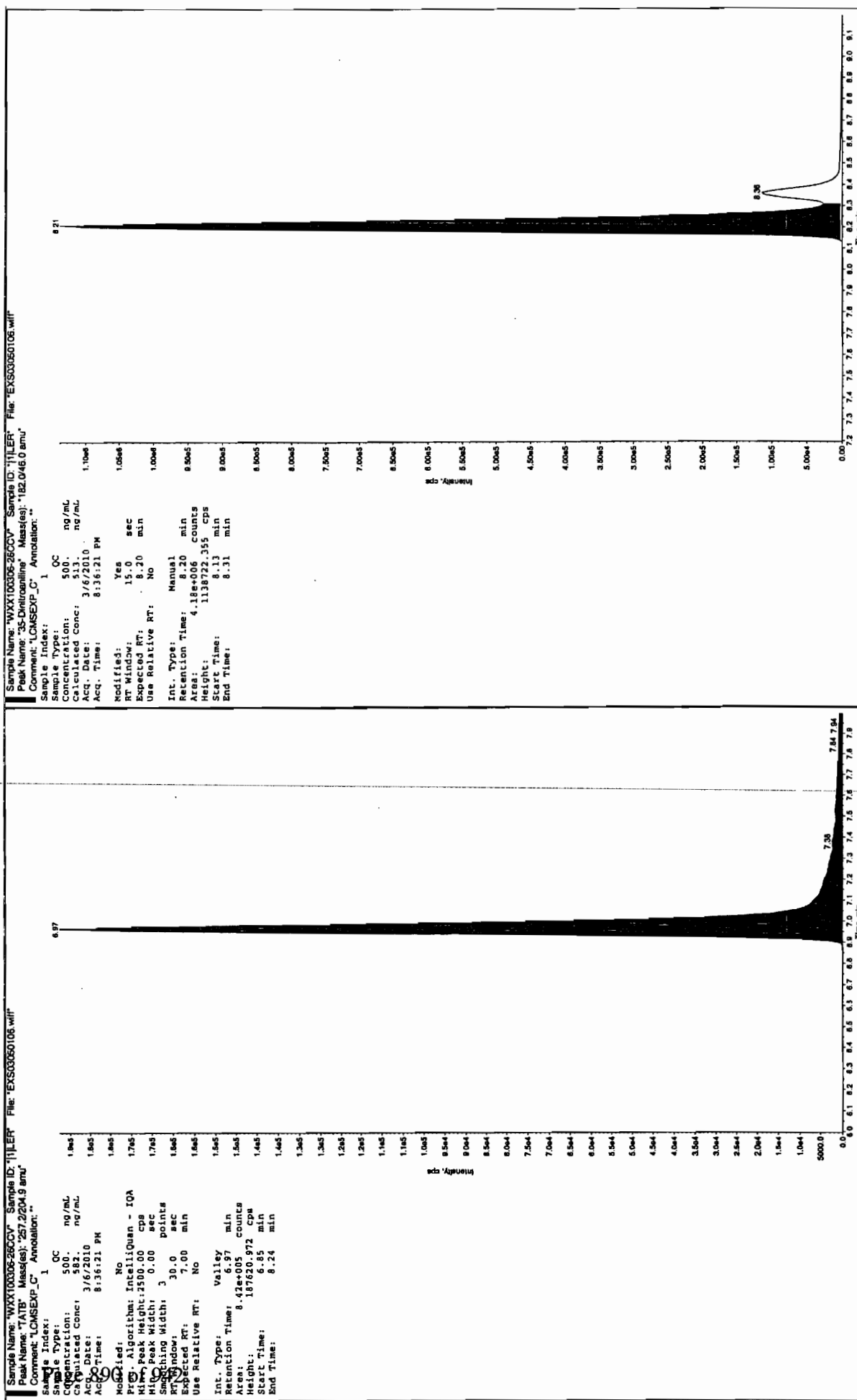
\* Value outside of Recovery Limits

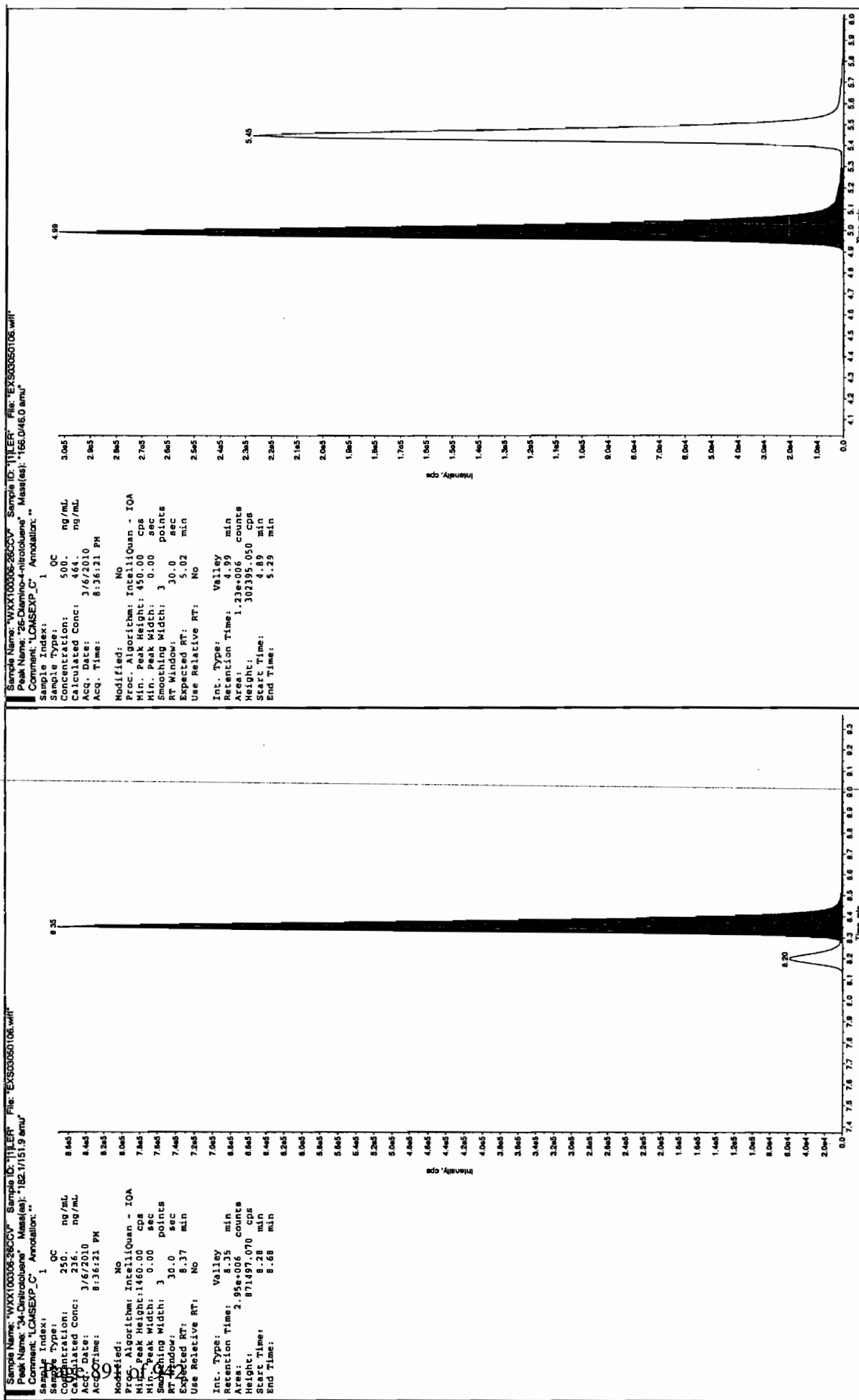
Before Jan 31/10

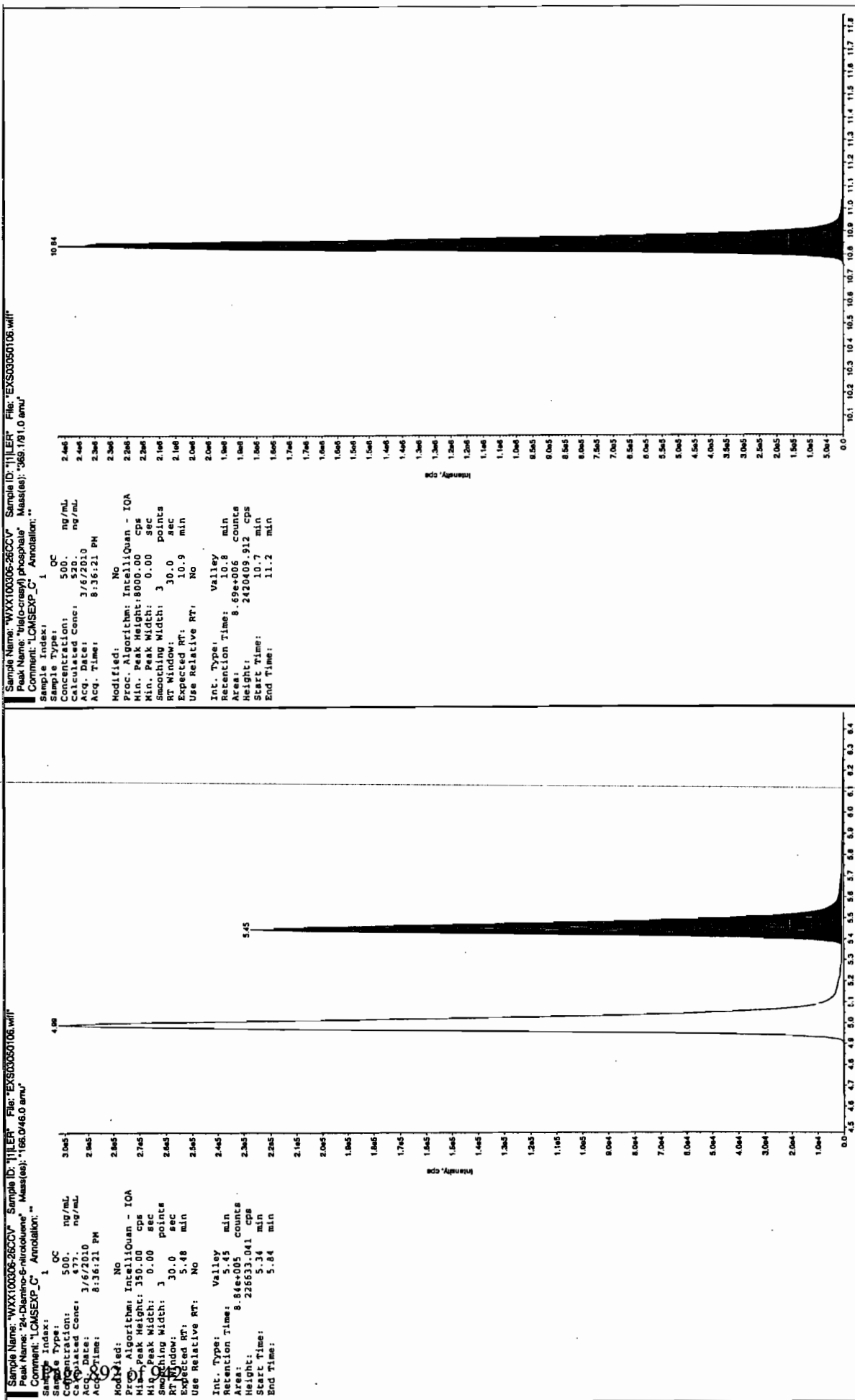




after Jan 31/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050108.wiff

Analysis Date: 06-MAR-10 21:07

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 98.3  | 98       |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 105   | 105      |   |
| 3,4-Dinitrotoluene         | 50   | 49.8  | 100      |   |
| 3,5-Dinitroaniline         | 100  | 104   | 104      |   |
| TATB                       | 100  | 120   | 120      |   |
| tris(o-cresyl) phosphate   | 100  | 106   | 106      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

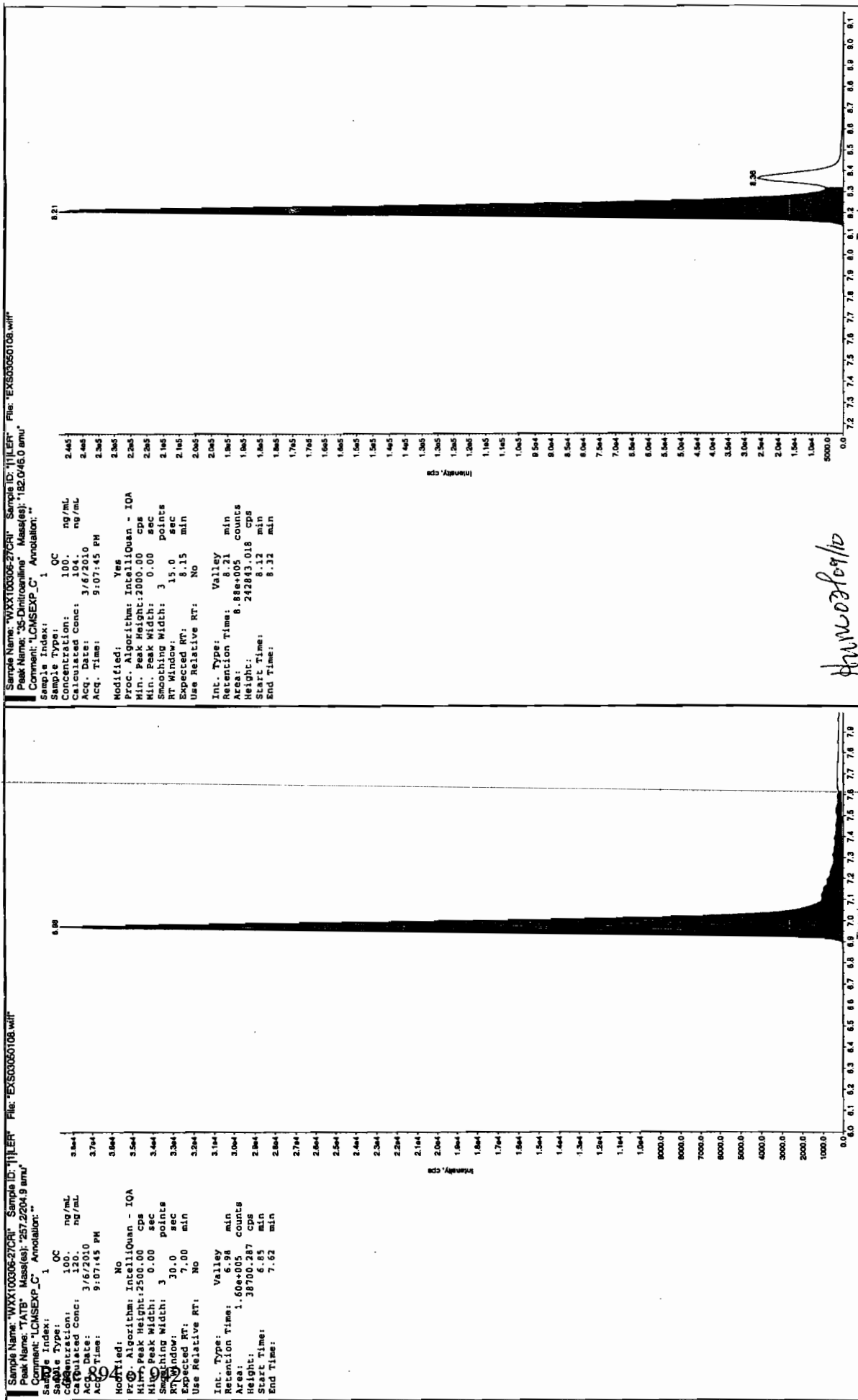
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

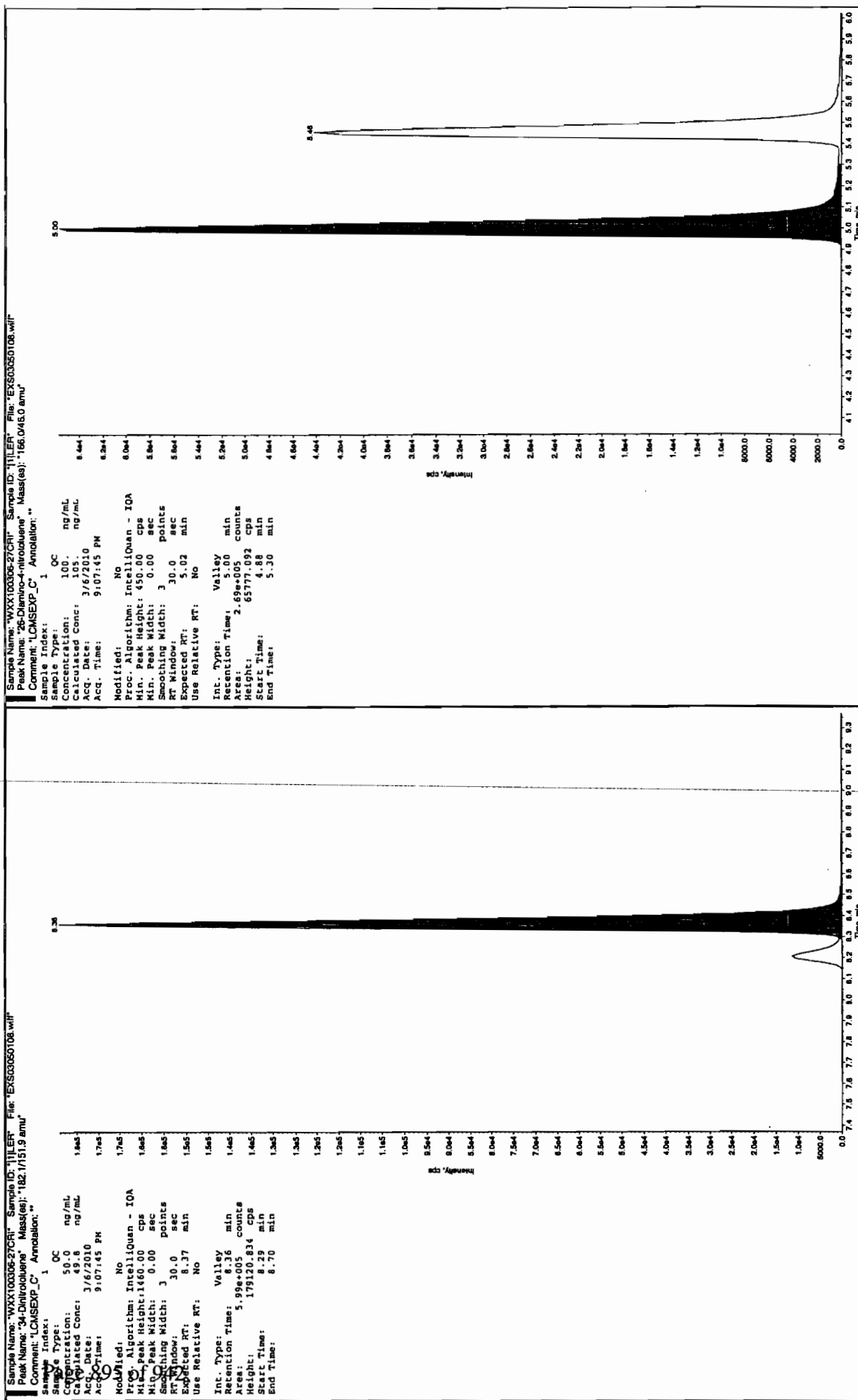
# Column used to flag Recovery outside of Limits

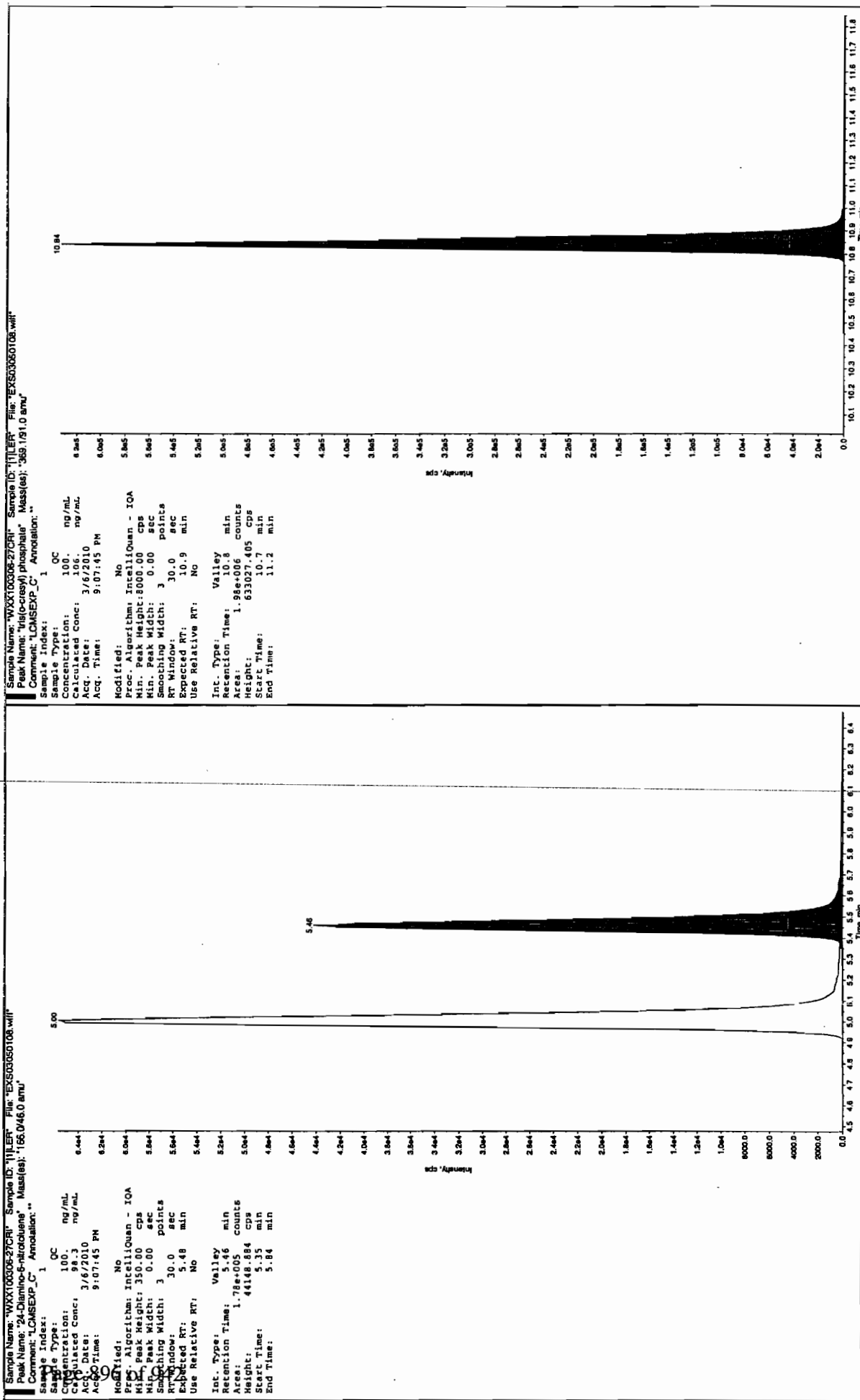
\* Value outside of Recovery Limits

See 3/9/10



See 3/9/10





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050118.wiff

Analysis Date: 06-MAR-10 23:44

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 500  | 511   | 102      |   |
| 2,6-Diamino-4-nitrotoluene | 500  | 500   | 100      |   |
| 3,4-Dinitrotoluene         | 250  | 242   | 97       |   |
| 3,5-Dinitroaniline         | 500  | 538   | 108      |   |
| TATB                       | 500  | 599   | 120      |   |
| tris(o-cresyl) phosphate   | 500  | 517   | 103      |   |

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

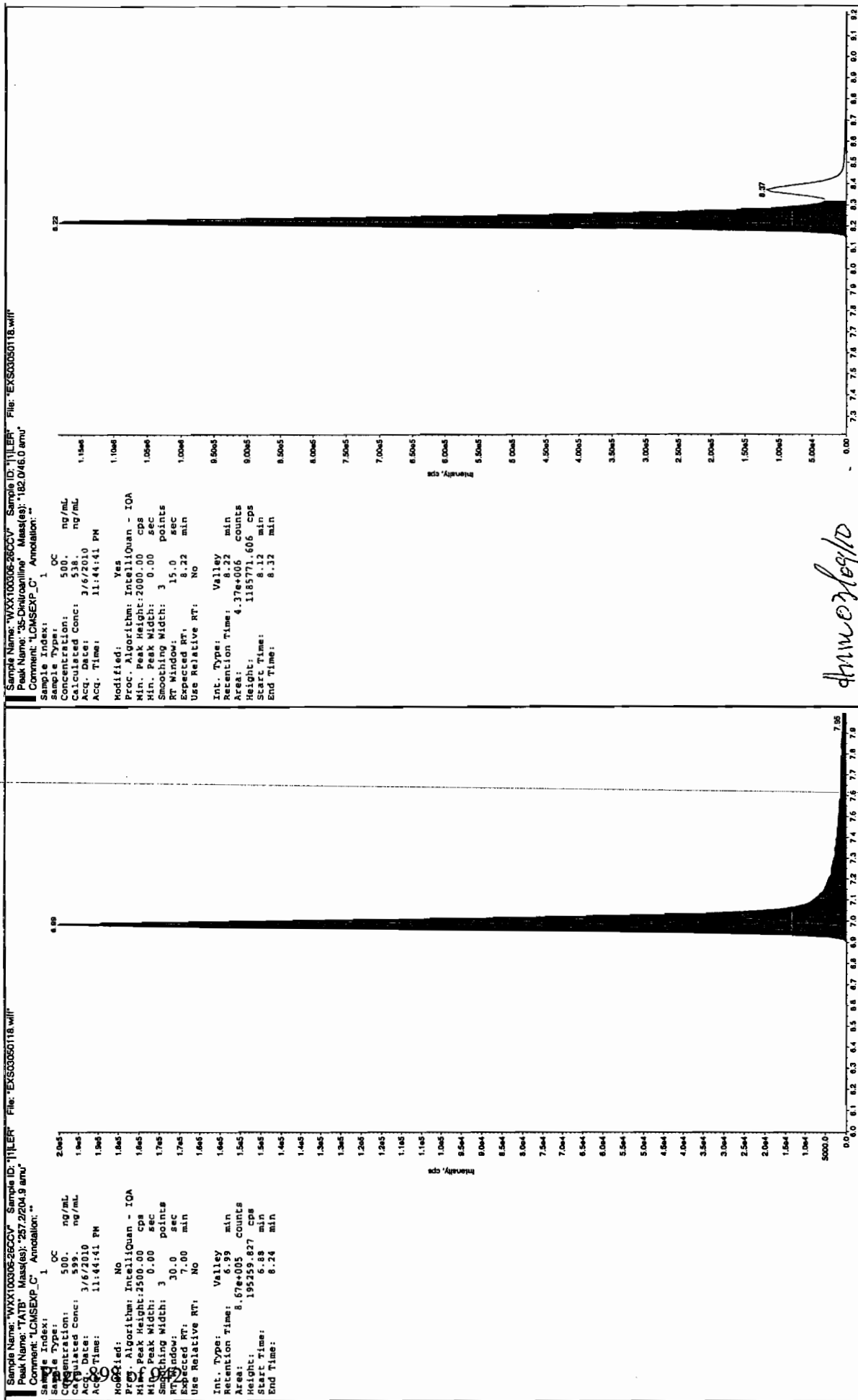
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

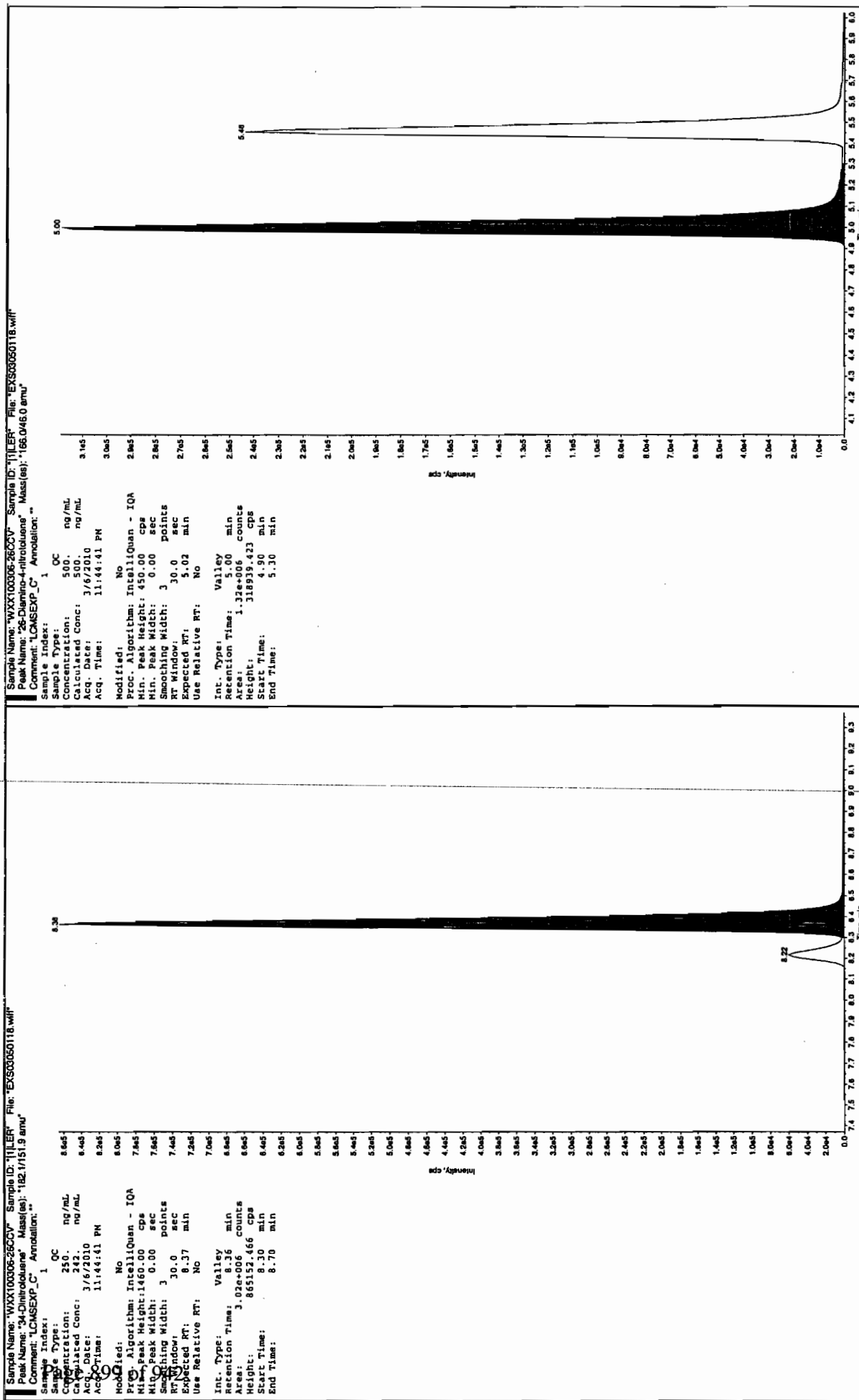
\* Value outside of Recovery Limits

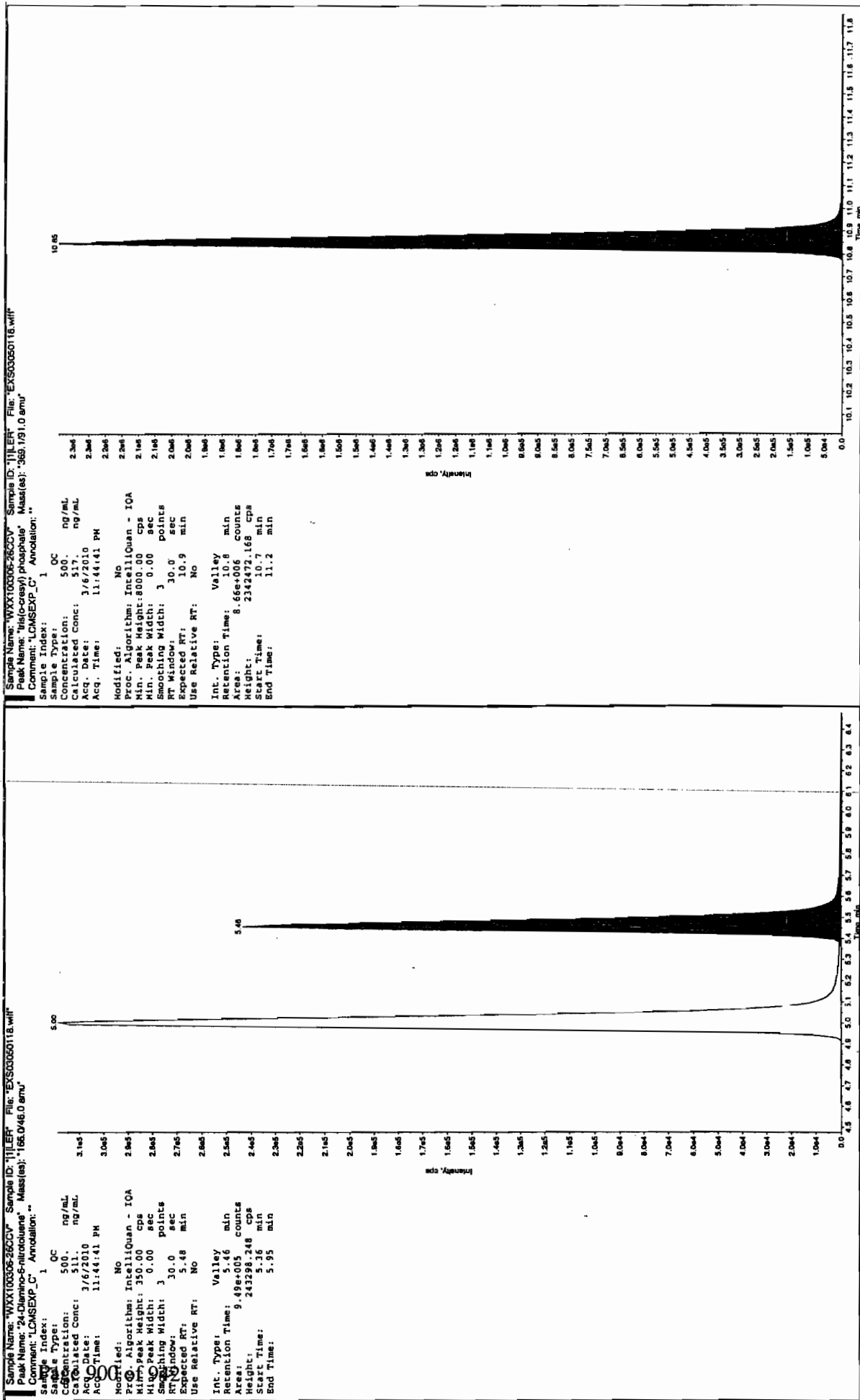


Jan 3/9/10



dmw 03/09/10





7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1914

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050120.wiff

Analysis Date: 07-MAR-10 00:16

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

| Compound                   | True | Found | Recovery | Q |
|----------------------------|------|-------|----------|---|
| 2,4-Diamino-6-nitrotoluene | 100  | 99.5  | 100      |   |
| 2,6-Diamino-4-nitrotoluene | 100  | 103   | 103      |   |
| 3,4-Dinitrotoluene         | 50   | 50.6  | 101      |   |
| 3,5-Dinitroaniline         | 100  | 109   | 109      |   |
| TATB                       | 100  | 115   | 115      |   |
| tris(o-cresyl) phosphate   | 100  | 104   | 104      |   |

Recovery Limits:

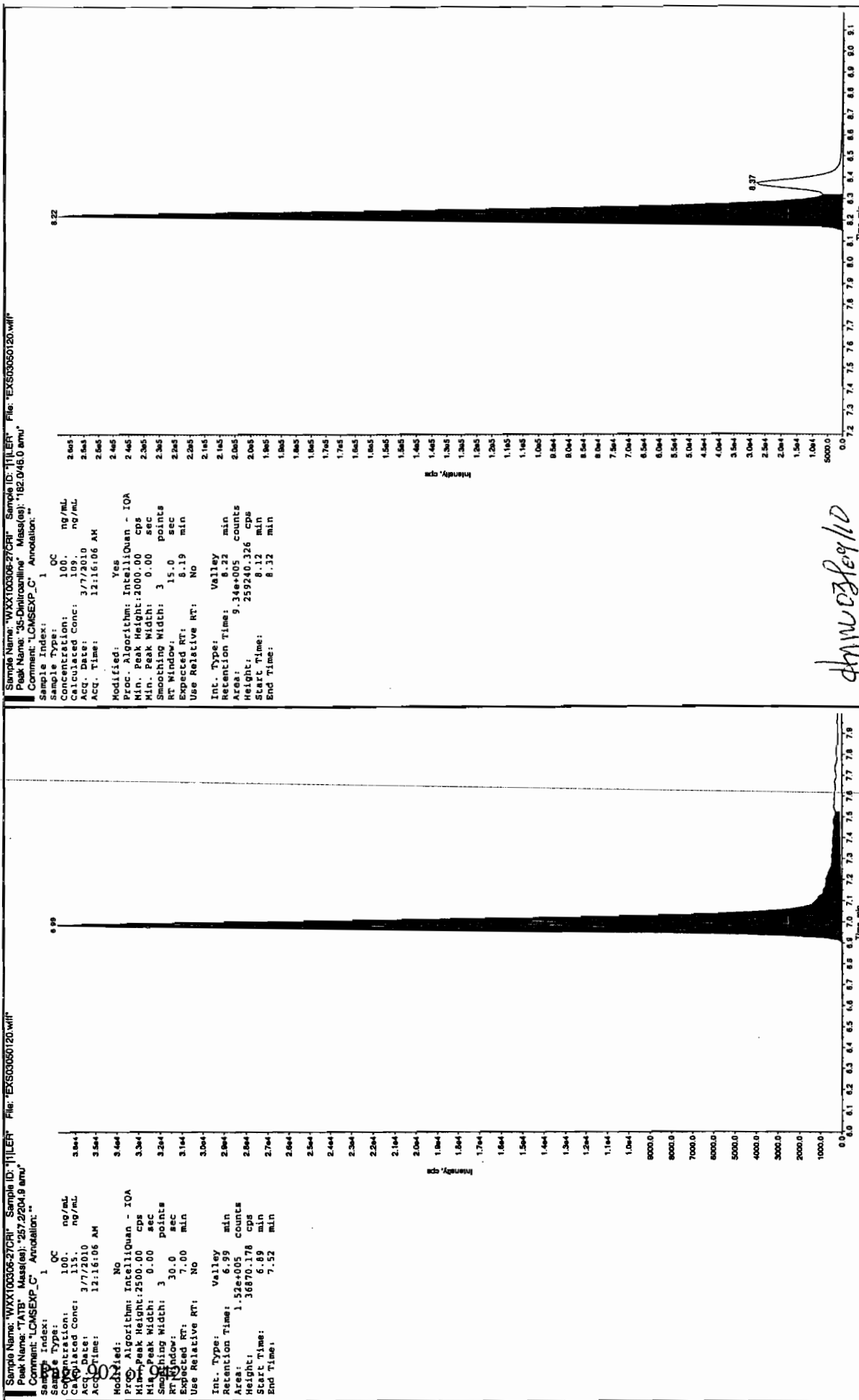
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

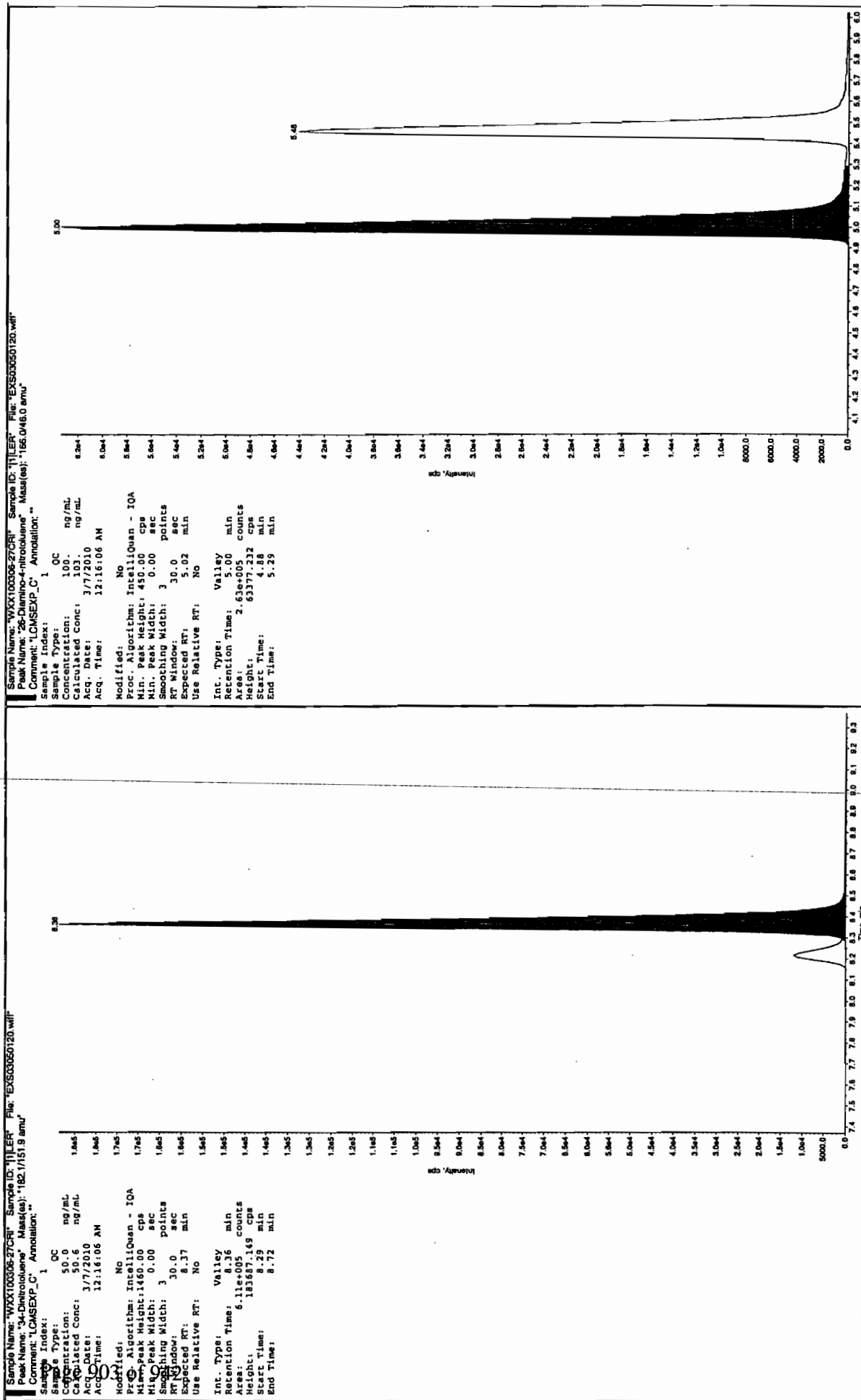
Other Target Analytes 70-130%

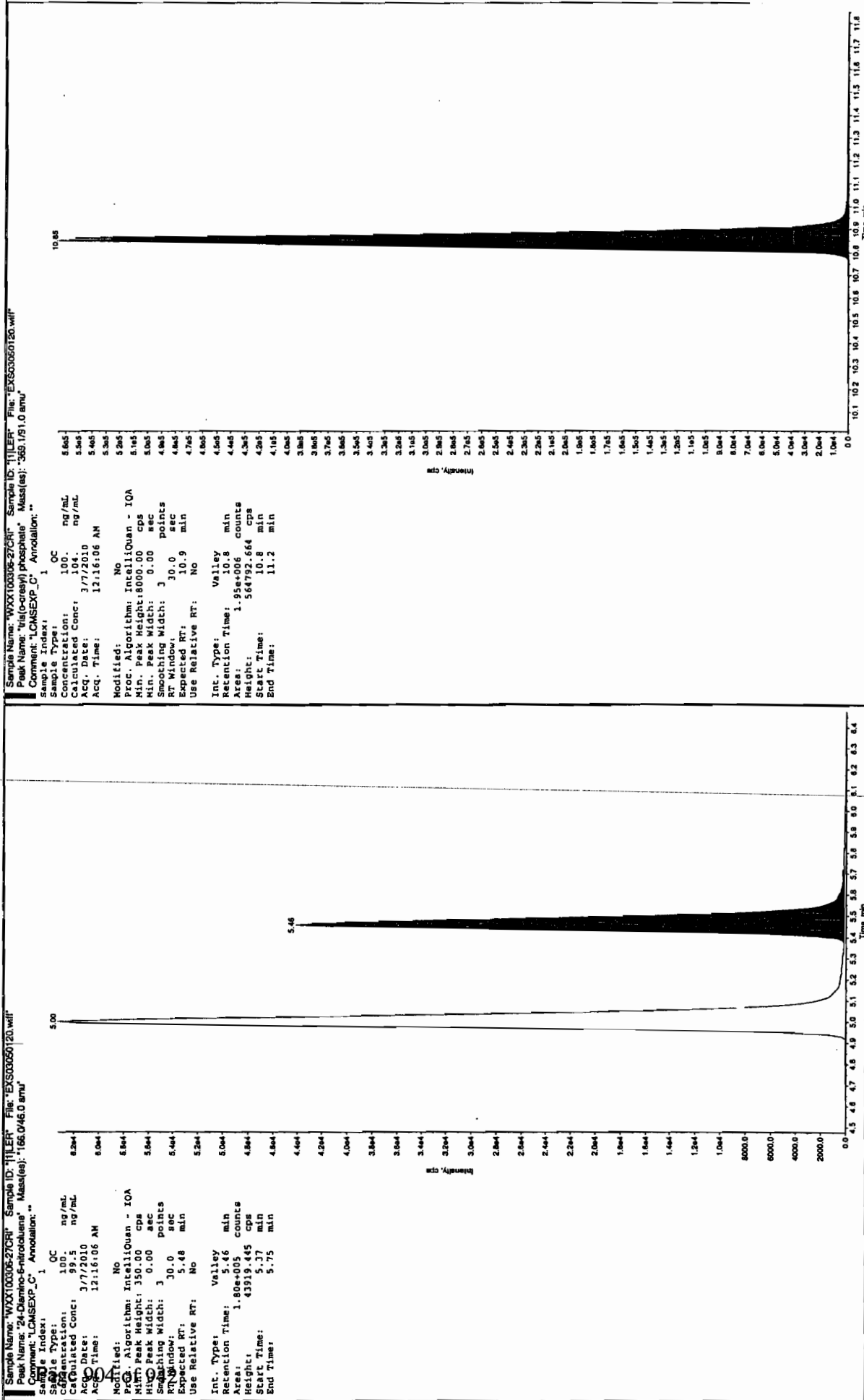
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

dan 3/9/10







# QUALITY CONTROL DATA



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 955064

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 1202047529

Sample Amount 2

Moisture:

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314078a

Date Analyzed: 16-MAR-10 04:50

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 500            | U |
| 121-14-2   | 2,4-Dinitrotoluene         | 500            | U |
| 121-82-4   | RDX                        | 500            | U |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500            | U |
| 2691-41-0  | HMX                        | 500            | U |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 500            | U |
| 479-45-8   | Tetryl                     | 500            | U |
| 606-20-2   | 2,6-Dinitrotoluene         | 500            | U |
| 78-11-5    | PETN                       | 1000           | U |
| 88-72-2    | o-Nitrotoluene             | 500            | U |
| 98-95-3    | Nitrobenzene               | 500            | U |
| 99-08-1    | m-Nitrotoluene             | 500            | U |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 500            | U |
| 99-65-0    | m-Dinitrobenzene           | 500            | U |
| 99-99-0    | p-Nitrotoluene             | 500            | U |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Method: C:\MASSLYNX\NEW\_EXP.PRO\MethDB\031410expa.mdb, Time: Mon Mar 15 09:25:32 2010  
 Calibration: C:\MASSLYNX\NEW\_EXP.PRO\CurveDB\031410expa.cdb, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314078a

Date: 16-Mar-2010

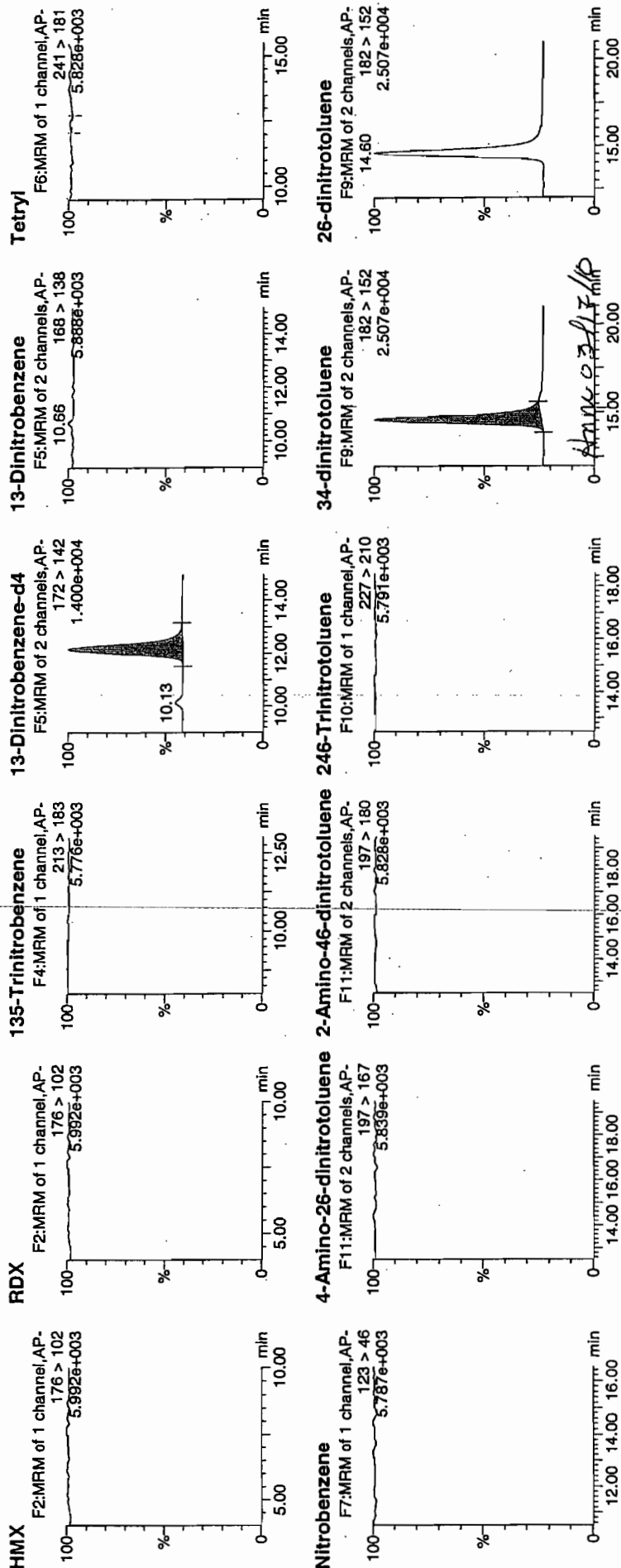
Time: 04:50:12

ID: 1202047529

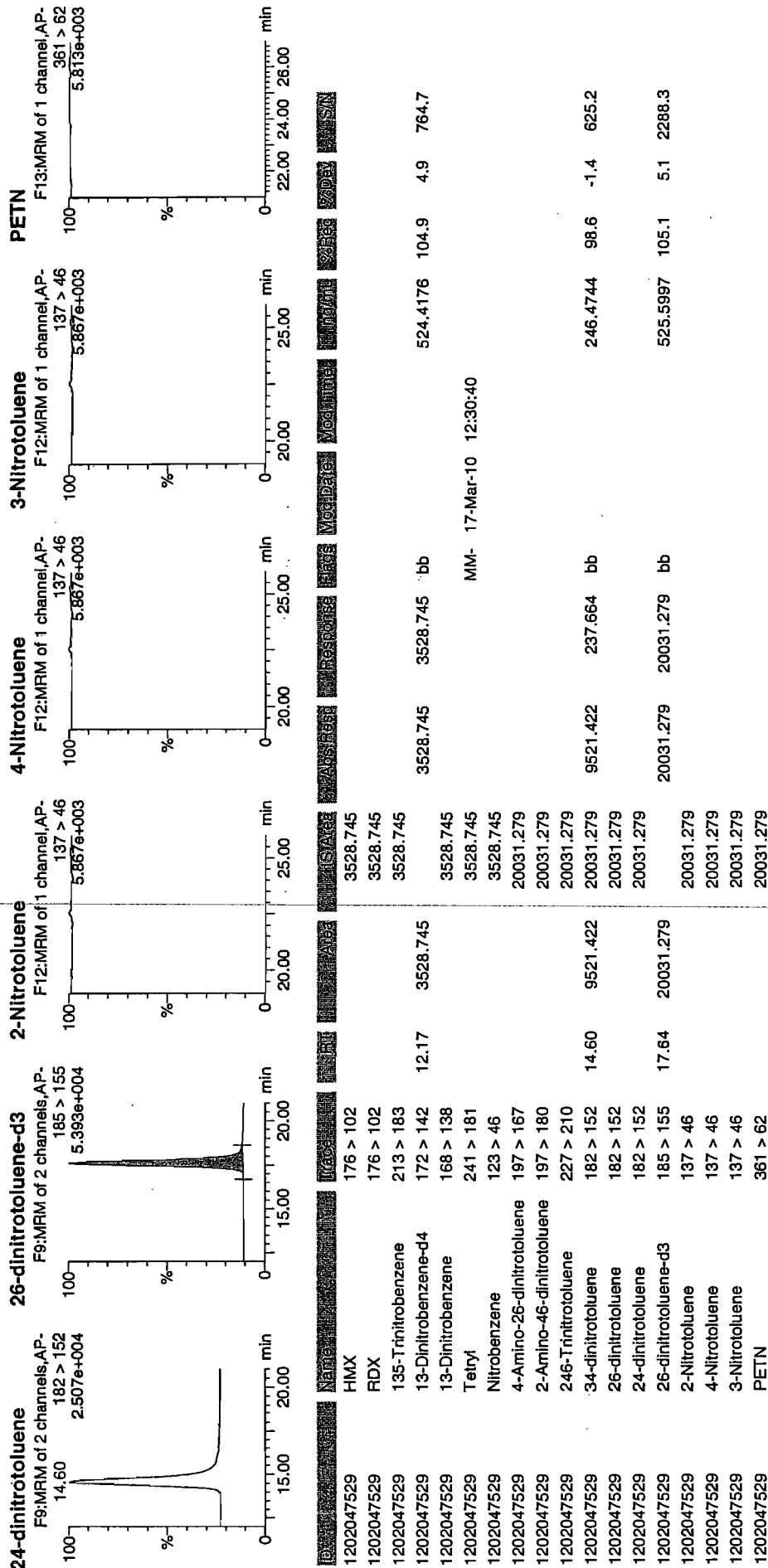
Vial: 3:1,A

4477  
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LANU 955065 / 8032 / NIB / 21



Dataset: C:\MASSLYNX\New\_Exp\PROV031410expA2.qld, Time: Wed Mar 17 12:35:29 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 955064

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 1202047529

Sample Amount 2

Moisture:

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050098.wiff

Date Analyzed: 06-MAR-10 18:30

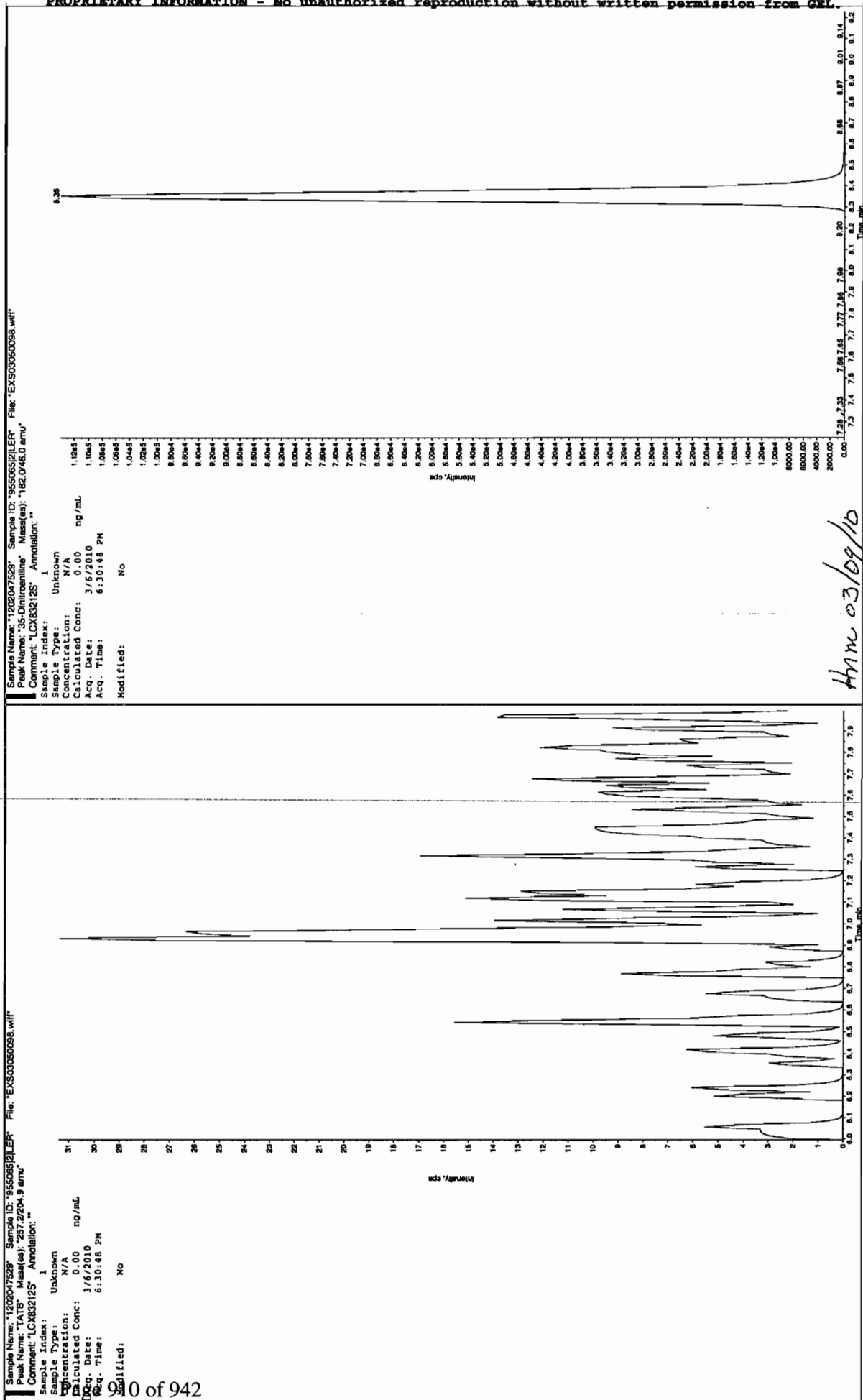
Units: ug/kg

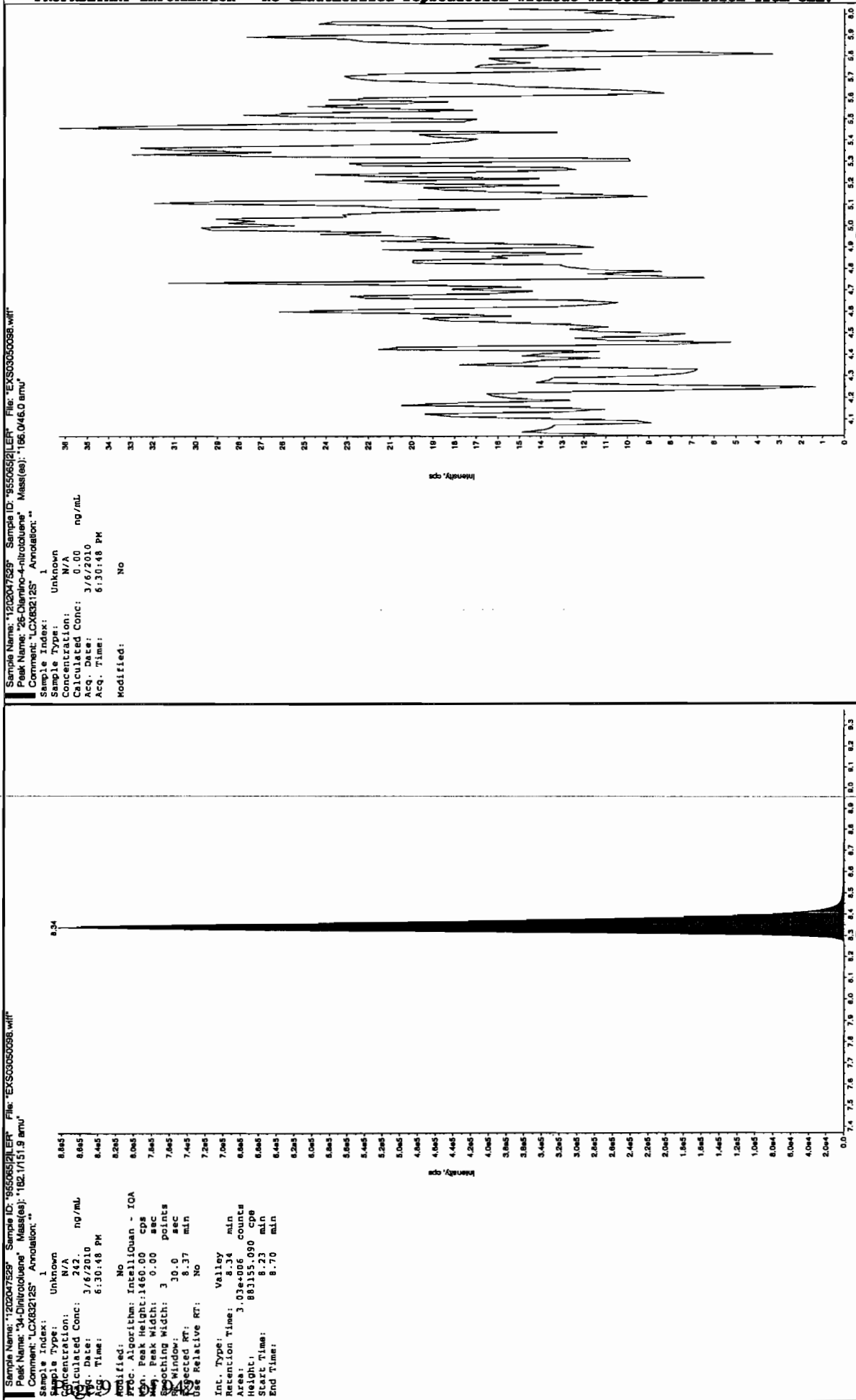
| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 1000           | U |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 2000           | U |
| 618-87-1   | 3,5-Dinitroaniline         | 1000           | U |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 2000           | U |
| 78-30-8    | tris(o-cresyl) phosphate   | 1000           | U |

\*Concentration =

|            |   |                                    |   |          |
|------------|---|------------------------------------|---|----------|
| Instrument |   |                                    |   |          |
| Value      | X | <u>Concentrated Extract Volume</u> | X | Dilution |
|            |   | Sample Amount                      |   | Factor   |

Ken 3/9/10

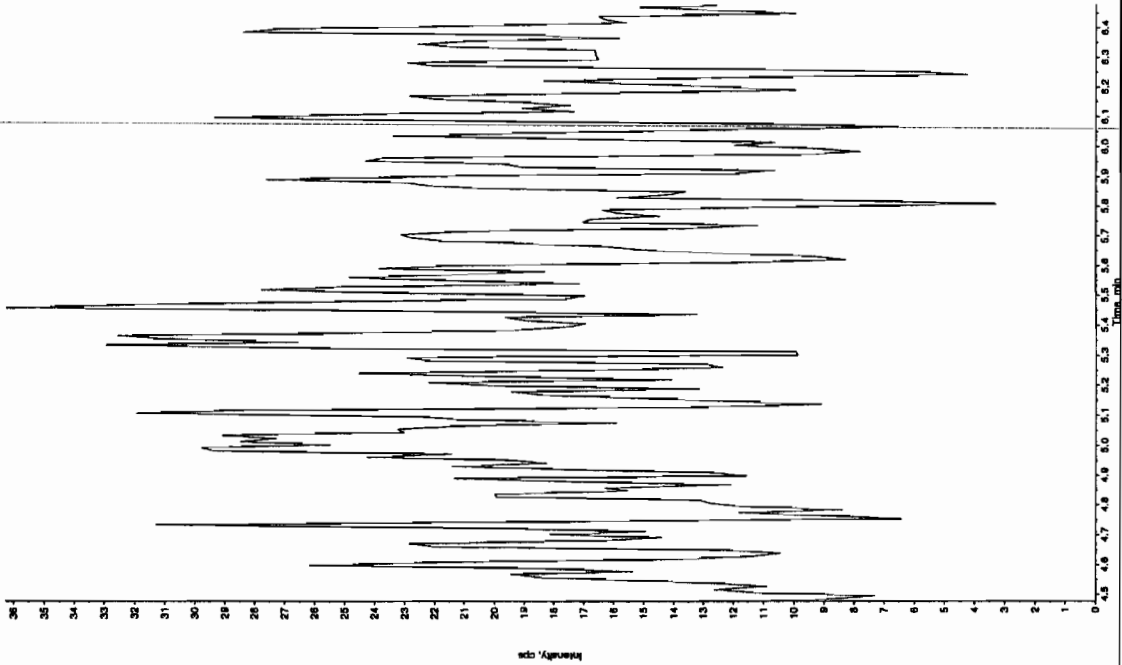




\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

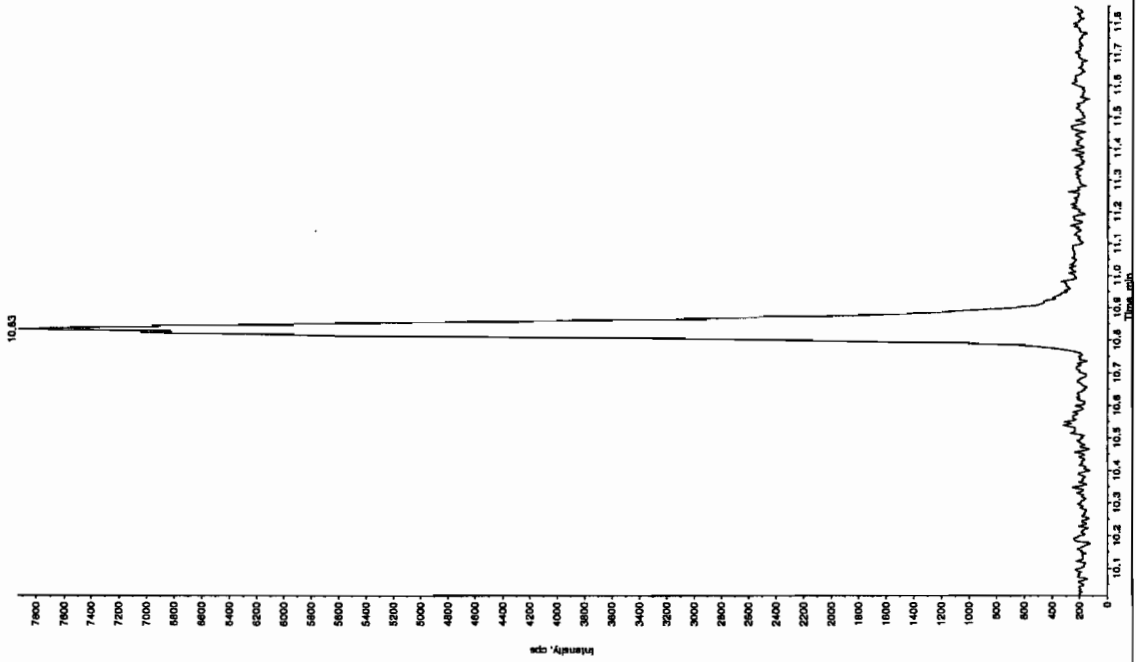
Sample Name: "1202047529" Sample ID: "955065121ER" File: "EX503050098.wif"  
 Peak Name: "24-Diamino-6-nitroloquing" Mass(es): "166.0465.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 6:30:48 PM  
 Modified: No



Sample Name: "1202047529" Sample ID: "955065121ER" File: "EX503050098.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1791.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 6:30:48 PM  
 Modified: No



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 955064

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 1202047530

Sample Amount 2

Moisture:

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314079a

Date Analyzed: 16-MAR-10 05:19

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 118-96-7   | 2,4,6-Trinitrotoluene      | 4760           |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 5540           |   |
| 121-82-4   | RDX                        | 4870           |   |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 4850           |   |
| 2691-41-0  | HMX                        | 4520           |   |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 5160           |   |
| 479-45-8   | Tetryl                     | 2450           |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 4980           |   |
| 78-11-5    | PETN                       | 5360           |   |
| 88-72-2    | o-Nitrotoluene             | 4860           |   |
| 98-95-3    | Nitrobenzene               | 4500           |   |
| 99-08-1    | m-Nitrotoluene             | 5040           |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 3920           |   |
| 99-65-0    | m-Dinitrobenzene           | 4500           |   |
| 99-99-0    | p-Nitrotoluene             | 4970           |   |

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314079a

Date: 16-Mar-2010

Time: 05:19:45

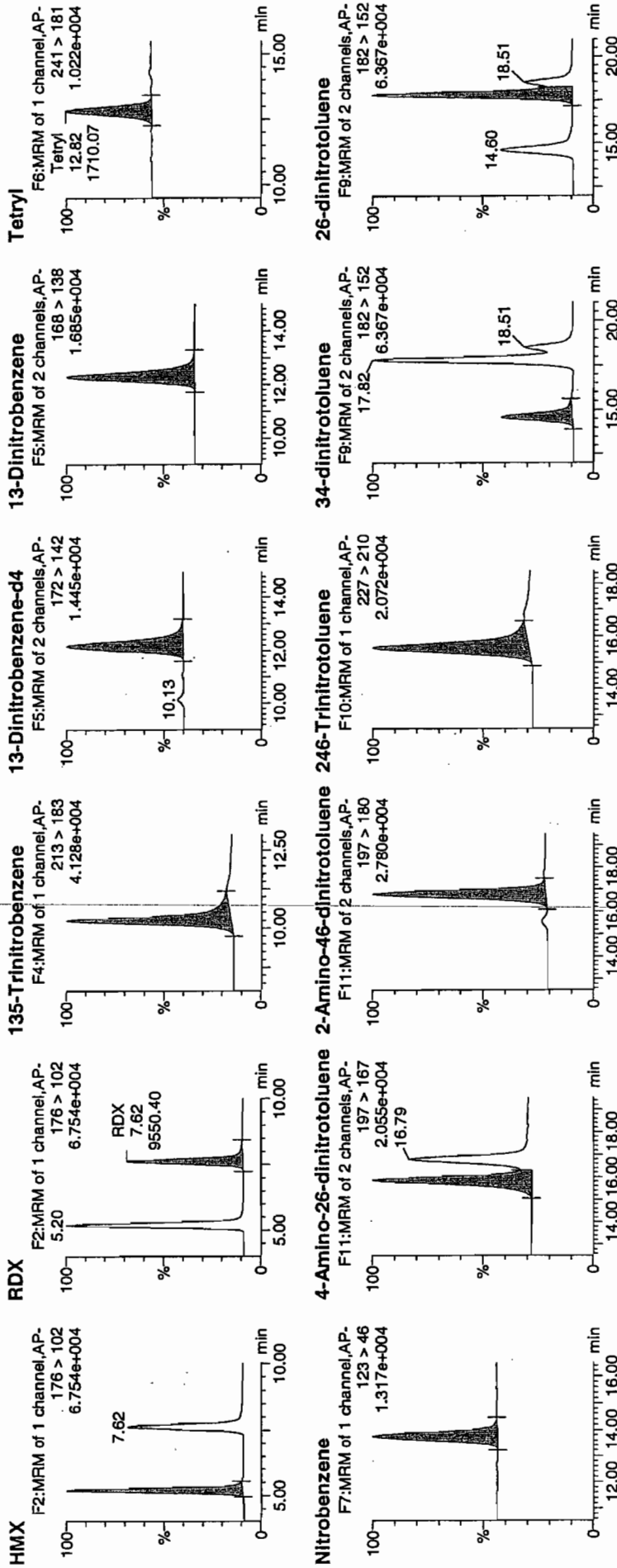
ID: 1202047530

Vial: 3:1,B

1477  
3/17/10

1477  
3/17/10  
1477  
3/17/10

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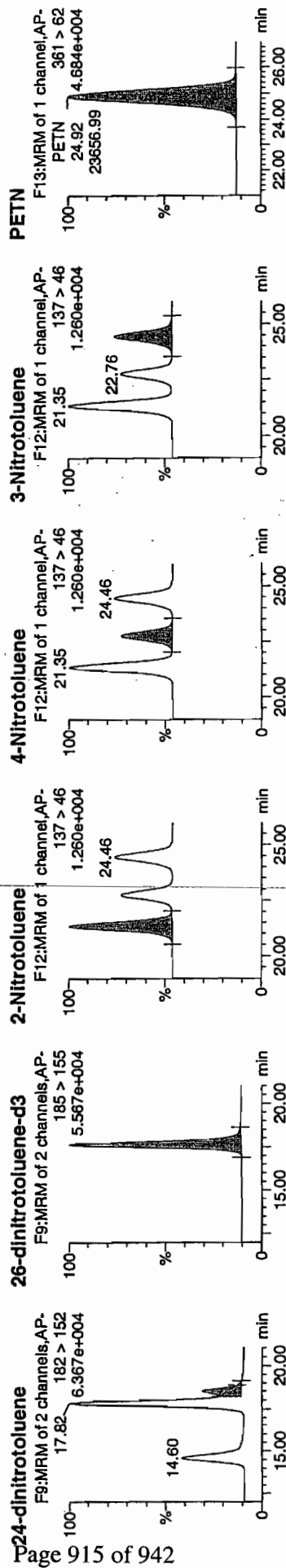
4777  
03/17/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Mar 17 12:37:22 2010, Page 4 of 99

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010



| Time       | Area                      | Response  | Mass      | Mod       | Ref       | DAV | SN                 |
|------------|---------------------------|-----------|-----------|-----------|-----------|-----|--------------------|
| 1202047530 | 176 > 102                 | 5.20      | 12187.499 | 3687.472  | 1652.555  | bb  |                    |
| 1202047530 | 176 > 102                 | 7.62      | 9550.399  | 3687.472  | 1294.979  | bb  |                    |
| 1202047530 | 135-Trinitrobenzene       | 213 > 183 | 10.25     | 10641.755 | 1442.961  | bb  |                    |
| 1202047530 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17     | 3687.472  | 3687.472  | bb  |                    |
| 1202047530 | 13-Dinitrobenzene         | 168 > 138 | 12.31     | 4411.222  | 598.136   | bb  |                    |
| 1202047530 | Tetryl                    | 241 > 181 | 12.82     | 1710.074  | 231.876   | bb  |                    |
| 1202047530 | Nitrobenzene              | 123 > 46  | 13.76     | 2722.260  | 369.123   | bb  |                    |
| 1202047530 | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86     | 6291.666  | 150.928   | MM  | 17-Mar-10 12:31:22 |
| 1202047530 | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79     | 8838.615  | 212.025   | bb  |                    |
| 1202047530 | 246-Trinitrotoluene       | 227 > 210 | 15.58     | 6765.909  | 162.304   | bb  |                    |
| 1202047530 | 34-dinitrotoluene         | 182 > 152 | 14.60     | 10104.914 | 242.402   | bb  |                    |
| 1202047530 | 26-dinitrotoluene         | 182 > 152 | 17.82     | 23350.789 | 560.151   | MM  | 17-Mar-10 12:33:02 |
| 1202047530 | 24-dinitrotoluene         | 182 > 152 | 18.51     | 5534.894  | 132.774   | MM  | 17-Mar-10 12:35:15 |
| 1202047530 | 26-dinitrotoluene-d3      | 185 > 155 | 17.64     | 20843.297 | 20843.297 | bb  |                    |
| 1202047530 | 2-Nitrotoluene            | 137 > 46  | 21.35     | 3074.156  | 73.744    | bb  |                    |
| 1202047530 | 4-Nitrotoluene            | 137 > 46  | 22.76     | 1583.318  | 37.981    | bb  |                    |
| 1202047530 | 3-Nitrotoluene            | 137 > 46  | 24.46     | 1920.018  | 46.058    | bb  |                    |
| 1202047530 | PETN                      | 361 > 62  | 24.92     | 23656.992 | 567.496   | bb  |                    |

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 955064

Lab Code: GEL

GEL Job No (SDG) 10-1914

Matrix: SOIL

GEL Sample ID: 1202047530

Sample Amount 2

Moisture:

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050099.wiff

Date Analyzed: 06-MAR-10 18:46

Units: ug/kg

| Cas No.    | Compound                   | Concentration* | Q |
|------------|----------------------------|----------------|---|
| 3058-38-6  | TATB                       | 5220           |   |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 4810           |   |
| 618-87-1   | 3,5-Dinitroaniline         | 5060           |   |
| 6629-29-4  | 2,4-Diamino-6-nitrotoluene | 4450           |   |
| 78-30-8    | tris(o-cresyl) phosphate   | 5210           |   |

\*Concentration =

|            |   |                             |   |          |
|------------|---|-----------------------------|---|----------|
| Instrument | X | Concentrated Extract Volume | X | Dilution |
| Value      |   | Sample Amount               |   | Factor   |

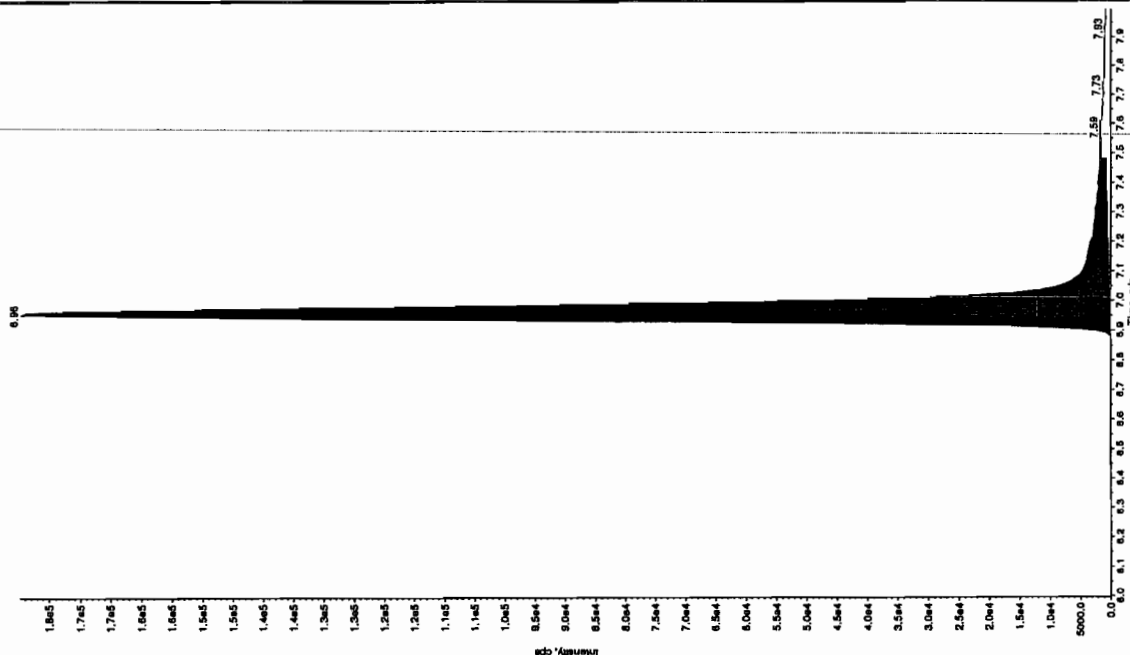
See 3/9/10

Sample Name: "1202047530" Sample ID: "95506521LER" File: "EXS03050099.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 506. ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 6:46:29 PM  
 Modified: Yes  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.20 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.20 min  
 Area: 4.13e+006 counts  
 Height: 1142142.407 cps  
 Start Time: 8.13 min  
 End Time: 8.31 min

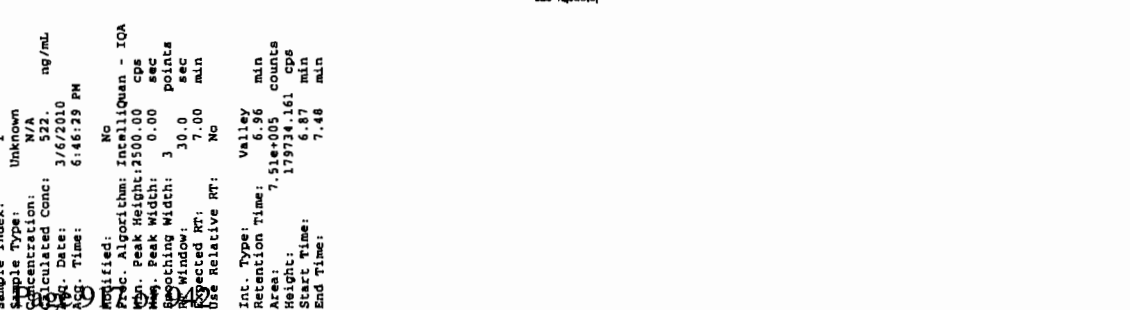


Sample Name: "1202047530" Sample ID: "95506521LER" File: "EXS03050099.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX83212S" Annotation: ""

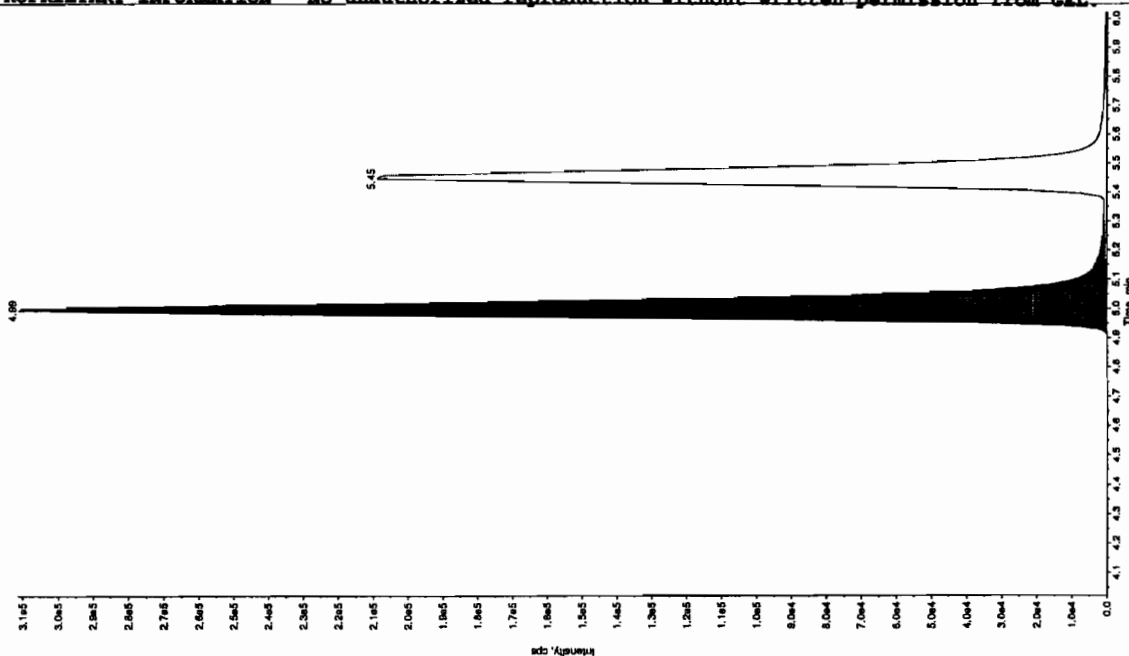
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 522. ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 6:46:29 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 7.00 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.96 min  
 Area: 7.51e+005 counts  
 Height: 179734.161 cps  
 Start Time: 6.87 min  
 End Time: 7.48 min



See 03/09/10

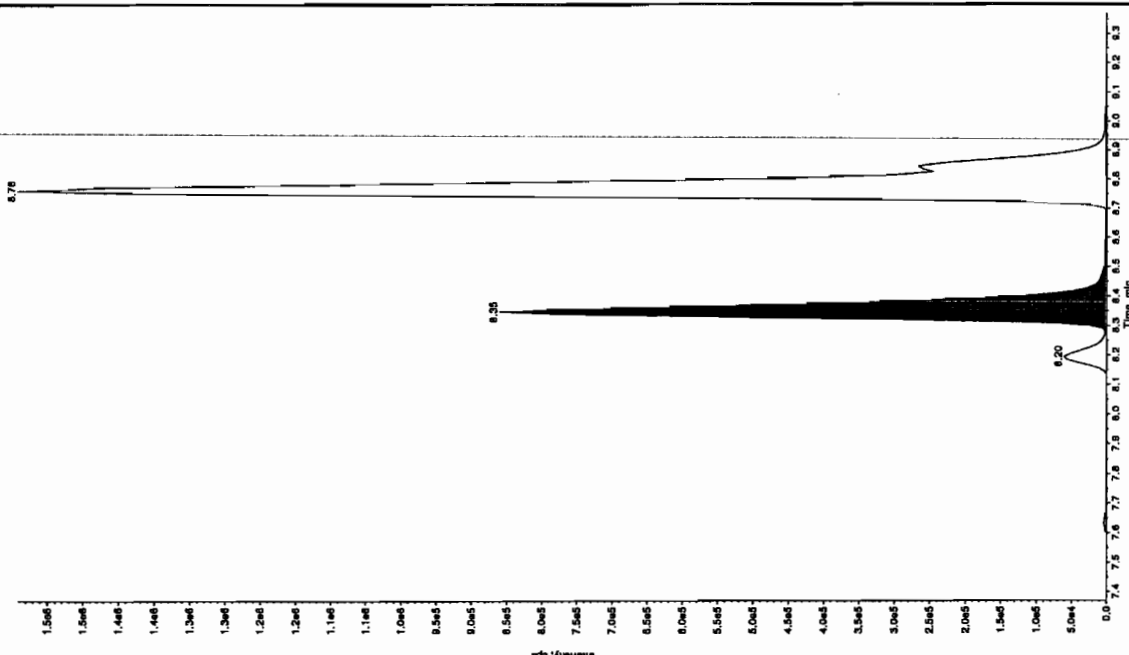
Sample Name: "1202047530" Sample ID: "95506521LER" File: "EXS03050099.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "186.046.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 481.  
 Acq. Date: 3/6/2010  
 Acq. Time: 6:46:29 PM  
 Modified: No  
 Proc Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.02 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.99 min  
 Area: 1.27e+006 counts  
 Height: 311119.019 cps  
 Start Time: 4.90 min  
 End Time: 5.30 min



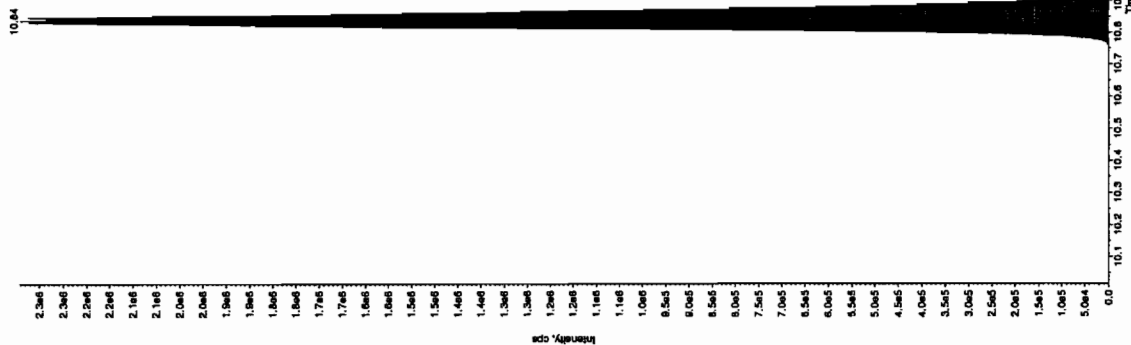
Sample Name: "1202047530" Sample ID: "95506521LER" File: "EXS03050099.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1751.9 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 236.  
 Acq. Date: 3/6/2010  
 Acq. Time: 6:46:29 PM  
 Modified: No  
 Proc Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.37 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.35 min  
 Area: 2.95e+006 counts  
 Height: 557274.048 cps  
 Start Time: 8.28 min  
 End Time: 8.54 min



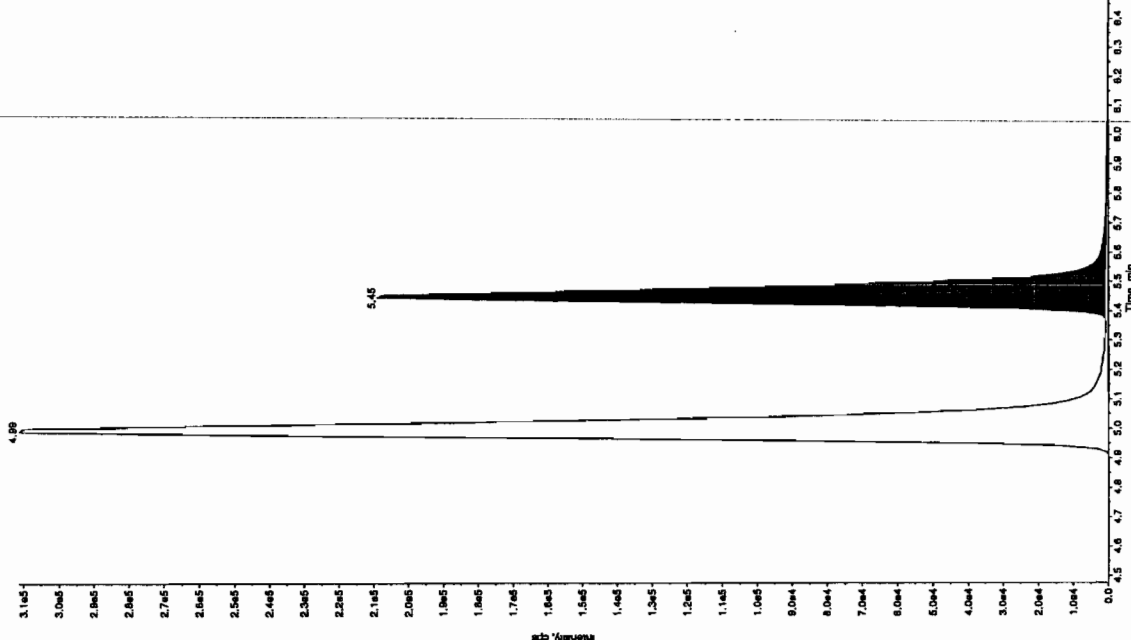
Sample Name: "1202047530" Sample ID: "9550659JLIER" File: "EX505050099.wif"  
 Peak Name: "bis(O-cresyl) phosphate" Mass(es): "389.1/91.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 3/6/2010  
 Acq. Date: 6:46:29 PM  
 Acq. Time: 6:46:29 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.72e+006 counts  
 Height: 2342339.600 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "1202047530" Sample ID: "9550659JLIER" File: "EX505050099.wif"  
 Peak Name: "24-Dienino-5-nitrodiene" Mass(es): "166.0/46.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 3/6/2010  
 Acq. Date: 6:46:29 PM  
 Acq. Time: 6:46:29 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.48 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.45 min  
 Area: 8.25e+005 counts  
 Height: 208144.028 cps  
 Start Time: 5.37 min  
 End Time: 5.65 min



# MISCELLANEOUS DATA

# Prep Logbook Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 955064      Verified by: \_\_\_\_\_

Analyst: Sirena White      Lab SOP: GL-OA-E-033 REV# 17

Method: SW846 8330 PREP      Instrument: Semi-Volatiles Manual

| Sample ID                  | Run Date             | Aliquot (g) | Prepped Aliquot (mL) | Prepped Factor (mL/g) |
|----------------------------|----------------------|-------------|----------------------|-----------------------|
| 1202047529 MB              | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 1202047530 LCS             | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247327002                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 1202047531 MS (247327002)  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 1202047532 MSD (247327002) | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247346001                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247346002                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247346003                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247346004                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247346005                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247346006                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247346007                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247346008                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247358001                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247358002                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247358003                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |
| 247358004                  | 24-FEB-2010 15:24:00 | 2           | 10                   | 5                     |

Comments:

| Type | Sample Id  | Description                           | Serial Number  | Spike Amt | Units | Comments           |
|------|------------|---------------------------------------|----------------|-----------|-------|--------------------|
| LCS  | 1202047530 | 8321 Explosives LCS                   | DXC100208-03   | .1        | mL    | Final Solvent: ACN |
| LCS  | 1202047530 | 8321 LANL Explosives Mix 10mg/L       | UXC100210-02.4 | 1         | mL    |                    |
| MS   | 1202047531 | 8321 Explosives LCS                   | DXC100208-03   | .1        | mL    |                    |
| MS   | 1202047531 | 8321 LANL Explosives Mix 10mg/L       | UXC100210-02.4 | 1         | mL    |                    |
| MSD  | 1202047532 | 8321 Explosives LCS                   | DXC100208-03   | .1        | mL    |                    |
| MSD  | 1202047532 | 8321 LANL Explosives Mix 10mg/L       | UXC100210-02.4 | 1         | mL    |                    |
| SURR | All        | 3,4-Dinitrotoluene (8330 Sur.) 100ppm | DXP100223-02   | .05       | mL    |                    |



GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 03/14/10  
 Extr. Injection Volume: 50uL  
 Sequence Number: 031410expA  
 Initial Calibration Date: 03/14/10  
 Method: SW846 8321A-Modified  
 Int. Std.: UXX100220-02.2  
 Mobile Phase Lot#: 1283854, 1281642  
 Standard-Samp Reagent Lot#: 1283379, 1271949  
 Reviewed BY: *shu*  
 Date: *03/17/10*  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100314-07

| DataFile    | Sample     | Analyst | Injection Date | Batch  | SDG     | Dilution | Client | Comments | QC_Flag |
|-------------|------------|---------|----------------|--------|---------|----------|--------|----------|---------|
| EXP0314001a | XIBLK01    | MAP     | 3/14/10 14:59  |        |         | 1        |        | USE      | B       |
| EXP0314002a | XIBLK01    | MAP     | 3/14/10 15:28  |        |         | 1        |        | USE      | B       |
| EXP0314003a | WXXICAL-01 | MAP     | 3/14/10 15:57  |        |         | 1        |        | USE      | I       |
| EXP0314004a | WXXICAL-02 | MAP     | 3/14/10 16:27  |        |         | 1        |        | USE      | I       |
| EXP0314005a | WXXICAL-03 | MAP     | 3/14/10 16:56  |        |         | 1        |        | USE      | I       |
| EXP0314006a | WXXICAL-04 | MAP     | 3/14/10 17:26  |        |         | 1        |        | USE      | I       |
| EXP0314007a | WXXICAL-05 | MAP     | 3/14/10 17:55  |        |         | 1        |        | USE      | I       |
| EXP0314008a | WXXICAL-06 | MAP     | 3/14/10 18:25  |        |         | 1        |        | USE      | I       |
| EXP0314009a | XIBLK02    | MAP     | 3/14/10 18:54  |        |         | 1        |        | USE      | B       |
| EXP0314010a | WXXICV     | MAP     | 3/14/10 19:24  |        |         | 1        |        | USE      | C       |
| EXP0314011a | XIBLK03    | MAP     | 3/14/10 19:53  |        |         | 1        |        | USE      | B       |
| EXP0314012a | WXXCRI     | MAP     | 3/14/10 20:23  |        |         | 1        |        | USE      | C       |
| EXP0314013a | 1202052406 | MAP     | 3/14/10 20:52  | 957200 | Various | 2        | LANL   | USE      | S       |
| EXP0314014a | 1202052407 | MAP     | 3/14/10 21:22  | 957200 | Various | 2        | LANL   | USE      | S       |
| EXP0314015a | 247784002  | MAP     | 3/14/10 21:51  | 957200 | 10-1979 | 2        | LANL   | USE      | S       |
| EXP0314016a | 247790002  | MAP     | 3/14/10 22:21  | 957200 | 10-1981 | 2        | LANL   | USE      | S       |
| EXP0314017a | 247790003  | MAP     | 3/14/10 22:50  | 957200 | 10-1981 | 2        | LANL   | USE      | S       |
| EXP0314018a | 247791002  | MAP     | 3/14/10 23:20  | 957200 | 10-1982 | 2        | LANL   | USE      | S       |
| EXP0314019a | 247791003  | MAP     | 3/14/10 23:49  | 957200 | 10-1982 | 2        | LANL   | USE      | S       |
| EXP0314020a | 247791004  | MAP     | 3/15/10 0:19   | 957200 | 10-1982 | 2        | LANL   | USE      | S       |
| EXP0314021a | 247791005  | MAP     | 3/15/10 0:48   | 957200 | 10-1982 | 2        | LANL   | USE      | S       |
| EXP0314022a | 247791006  | MAP     | 3/15/10 1:17   | 957200 | 10-1982 | 2        | LANL   | USE      | S       |
| EXP0314023a | WXXCCV     | MAP     | 3/15/10 1:47   |        |         | 1        |        | USE      | C       |
| EXP0314024a | XIBLK04    | MAP     | 3/15/10 2:17   |        |         | 1        |        | USE      | B       |
| EXP0314025a | WXXCRI     | MAP     | 3/15/10 2:46   |        |         | 1        |        | USE      | C       |
| EXP0314026a | 247799001  | MAP     | 3/15/10 3:15   | 957200 | 10-1990 | 2        | LANL   | USE      | S       |
| EXP0314027a | 1202052408 | MAP     | 3/15/10 3:45   | 957200 | 10-1990 | 2        | LANL   | USE      | S       |
| EXP0314028a | 1202052409 | MAP     | 3/15/10 4:14   | 957200 | 10-1990 | 2        | LANL   | USE      | S       |
| EXP0314029a | 247799002  | MAP     | 3/15/10 4:44   | 957200 | 10-1990 | 2        | LANL   | USE      | S       |

|             |            |     |               |        |         |   |      |     |   |
|-------------|------------|-----|---------------|--------|---------|---|------|-----|---|
| EXP0314030a | 247799003  | MAP | 3/15/10 5:13  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXP0314031a | 247799004  | MAP | 3/15/10 5:43  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXP0314032a | 247799005  | MAP | 3/15/10 6:12  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXP0314033a | 247799006  | MAP | 3/15/10 6:42  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXP0314034a | 247799007  | MAP | 3/15/10 7:11  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXP0314035a | 247799008  | MAP | 3/15/10 7:41  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXP0314036a | WXXCCV     | MAP | 3/15/10 8:10  |        |         | 1 |      | USE | C |
| EXP0314037a | XIBLK05    | MAP | 3/15/10 8:40  |        |         | 1 |      | USE | B |
| EXP0314038a | WXXCRI     | MAP | 3/15/10 9:09  |        |         | 1 |      | USE | C |
| EXP0314039a | 247799009  | MAP | 3/15/10 9:39  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXP0314040a | 247799010  | MAP | 3/15/10 10:08 | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXP0314041a | XIBLK06    | MAP | 3/15/10 10:38 |        |         | 1 | LANL | USE | B |
| EXP0314042a | 1202045802 | MAP | 3/15/10 11:07 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314043a | 1202045803 | MAP | 3/15/10 11:37 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314044a | 247116002  | MAP | 3/15/10 12:07 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314045a | 1202045804 | MAP | 3/15/10 12:36 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314046a | 1202045805 | MAP | 3/15/10 13:06 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314047a | 247116003  | MAP | 3/15/10 13:35 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314048a | 247116004  | MAP | 3/15/10 14:04 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314049a | WXXCCV     | MAP | 3/15/10 14:34 |        |         | 1 |      | USE | C |
| EXP0314050a | XIBLK07    | MAP | 3/15/10 15:04 |        |         | 1 |      | USE | B |
| EXP0314051a | WXXCRI     | MAP | 3/15/10 15:33 |        |         | 1 |      | USE | C |
| EXP0314052a | 247116006  | MAP | 3/15/10 16:03 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314053a | 247116007  | MAP | 3/15/10 16:32 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314054a | 247116008  | MAP | 3/15/10 17:02 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314055a | 247116009  | MAP | 3/15/10 17:31 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314056a | 247116010  | MAP | 3/15/10 18:01 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314057a | 247116011  | MAP | 3/15/10 18:30 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314058a | 247116012  | MAP | 3/15/10 19:00 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314059a | 247116013  | MAP | 3/15/10 19:29 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314060a | 247116014  | MAP | 3/15/10 19:59 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314061a | 247116015  | MAP | 3/15/10 20:28 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314062a | WXXCCV     | MAP | 3/15/10 20:58 |        |         | 1 |      | USE | C |
| EXP0314063a | XIBLK08    | MAP | 3/15/10 21:27 |        |         | 1 |      | USE | B |
| EXP0314064a | WXXCRI     | MAP | 3/15/10 21:57 |        |         | 1 |      | USE | C |
| EXP0314065a | 247116016  | MAP | 3/15/10 22:26 | 954361 | 10-1839 | 2 | LANL | USE | S |
| EXP0314066a | 247116017  | MAP | 3/15/10 22:56 | 954361 | 10-1839 | 2 | LANL | USE | S |

|             |            |     |               |        |         |     |      |         |   |
|-------------|------------|-----|---------------|--------|---------|-----|------|---------|---|
| EXP0314067a | 1202041915 | MAP | 3/15/10 23:25 | 952684 | Various | 2   | LANL | DUSE    | S |
| EXP0314068a | XIBLK09    | MAP | 3/15/10 23:55 |        |         | 1   |      | USE     | B |
| EXP0314069a | 1202055082 | MAP | 3/16/10 0:24  | 958286 | Various | 2   | LANL | USE     | S |
| EXP0314070a | 1202055083 | MAP | 3/16/10 0:54  | 958286 | Various | 2   | LANL | USE     | S |
| EXP0314071a | 248040007  | MAP | 3/16/10 1:23  | 958286 | 10-2051 | 2   | LANL | USE     | S |
| EXP0314072a | 1202055084 | MAP | 3/16/10 1:53  | 958286 | 10-2051 | 2   | LANL | USE     | S |
| EXP0314073a | 1202055085 | MAP | 3/16/10 2:22  | 958286 | 10-2051 | 2   | LANL | DUSE-RA | S |
| EXP0314074a | 248259006  | MAP | 3/16/10 2:52  | 958286 | 10-2148 | 2   | LANL | USE-DL  | S |
| EXP0314075a | WXXCVC     | MAP | 3/16/10 3:21  |        |         | 1   |      | USE     | C |
| EXP0314076a | XIBLK10    | MAP | 3/16/10 3:51  |        |         | 1   |      | USE     | B |
| EXP0314077a | WXXCRI     | MAP | 3/16/10 4:20  |        |         | 1   |      | USE     | C |
| EXP0314078a | 1202047529 | MAP | 3/16/10 4:50  | 955065 | Various | 2   | LANL | USE     | S |
| EXP0314079a | 1202047530 | MAP | 3/16/10 5:19  | 955065 | Various | 2   | LANL | USE     | S |
| EXP0314080a | 247327002  | MAP | 3/16/10 5:49  | 955065 | 10-1898 | 100 | LANL | DUSE    | S |
| EXP0314081a | 247327002  | MAP | 3/16/10 6:18  | 955065 | 10-1898 | 2   | LANL | USE     | S |
| EXP0314082a | 1202047531 | MAP | 3/16/10 6:48  | 955065 | 10-1898 | 2   | LANL | USE     | S |
| EXP0314083a | 1202047532 | MAP | 3/16/10 7:17  | 955065 | 10-1898 | 2   | LANL | USE     | S |
| EXP0314084a | XIBLK15    | MAP | 3/16/10 7:47  |        |         | 1   |      | USE     | B |
| EXP0314085a | 247346001  | MAP | 3/16/10 8:16  | 955065 | 10-1911 | 2   | LANL | USE     | S |
| EXP0314086a | 247346002  | MAP | 3/16/10 8:46  | 955065 | 10-1911 | 2   | LANL | USE     | S |
| EXP0314087a | 247346003  | MAP | 3/16/10 9:15  | 955065 | 10-1911 | 2   | LANL | USE     | S |
| EXP0314088a | WXXCVC     | MAP | 3/16/10 9:45  |        |         | 1   |      | USE     | C |
| EXP0314089a | XIBLK11    | MAP | 3/16/10 10:14 |        |         | 1   |      | USE     | B |
| EXP0314090a | WXXCRI     | MAP | 3/16/10 10:44 |        |         | 1   |      | USE     | C |
| EXP0314091a | 247346004  | MAP | 3/16/10 13:13 | 955065 | 10-1911 | 2   | LANL | DUSE    | S |
| EXP0314092a | 247346005  | MAP | 3/16/10 13:42 | 955065 | 10-1911 | 2   | LANL | DUSE    | S |
| EXP0314093a | 247346006  | MAP | 3/16/10 14:11 | 955065 | 10-1911 | 2   | LANL | DUSE    | S |
| EXP0314094a | 247346007  | MAP | 3/16/10 14:41 | 955065 | 10-1911 | 2   | LANL | DUSE    | S |
| EXP0314095a | 247346008  | MAP | 3/16/10 15:10 | 955065 | 10-1911 | 2   | LANL | DUSE    | S |
| EXP0314096a | 247358001  | MAP | 3/16/10 15:40 | 955065 | 10-1914 | 2   | LANL | DUSE    | S |
| EXP0314097a | 247358002  | MAP | 3/16/10 16:10 | 955065 | 10-1914 | 2   | LANL | DUSE    | S |
| EXP0314098a | 247358003  | MAP | 3/16/10 16:39 | 955065 | 10-1914 | 2   | LANL | DUSE    | S |
| EXP0314099a | 247358004  | MAP | 3/16/10 17:08 | 955065 | 10-1914 | 2   | LANL | DUSE    | S |
| EXP0314100a | 247358004  | MAP | 3/16/10 17:41 | 955065 | 10-1914 | 2   | LANL | DUSE    | S |
| EXP0314101a | WXXCVC     | MAP | 3/16/10 18:11 |        |         | 1   |      | DUSE    | C |
| EXP0314102a | XIBLK12    | MAP | 3/16/10 18:40 |        |         | 1   |      | DUSE    | B |
| EXP0314103a | WXXCRI     | MAP | 3/16/10 19:10 |        |         | 1   |      | DUSE    | C |

|             |            |     |               |        |         |    |      |      |   |
|-------------|------------|-----|---------------|--------|---------|----|------|------|---|
| EXP0314104a | 248259006  | MAP | 3/16/10 19:39 | 958286 | 10-2148 | 10 | LANL | DUSE | S |
| EXP0314105a | 1202055085 | MAP | 3/16/10 20:09 | 958286 | 10-2051 | 2  | LANL | DUSE | S |
| EXP0314106a | XIBLK13    | MAP | 3/16/10 20:38 |        |         | 1  |      | DUSE | B |
| EXP0314107a | 1202049901 | MAP | 3/16/10 21:08 | 956045 | Various | 2  | LANL | DUSE | S |
| EXP0314108a | 1202049902 | MAP | 3/16/10 21:37 | 956045 | Various | 2  | LANL | DUSE | S |
| EXP0314109a | 247421002  | MAP | 3/16/10 22:07 | 956045 | 10-1920 | 2  | LANL | DUSE | S |
| EXP0314110a | 1202049903 | MAP | 3/16/10 22:36 | 956045 | 10-1920 | 2  | LANL | DUSE | S |
| EXP0314111a | 1202049904 | MAP | 3/16/10 23:06 | 956045 | 10-1920 | 2  | LANL | DUSE | S |
| EXP0314112a | 247421003  | MAP | 3/16/10 23:35 | 956045 | 10-1920 | 2  | LANL | DUSE | S |
| EXP0314113a | 247421004  | MAP | 3/17/10 0:05  | 956045 | 10-1920 | 2  | LANL | DUSE | S |
| EXP0314114a | WXCCV      | MAP | 3/17/10 0:34  |        |         | 1  |      | DUSE | C |
| EXP0314115a | XIBLK14    | MAP | 3/17/10 1:04  |        |         | 1  |      | DUSE | B |
| EXP0314116a | WXXCRI     | MAP | 3/17/10 1:33  |        |         | 1  |      | DUSE | C |
| EXP0314117a | 247421005  | MAP | 3/17/10 2:03  | 956045 | 10-1920 | 2  | LANL | DUSE | S |
| EXP0314118a | 247421006  | MAP | 3/17/10 2:32  | 956045 | 10-1920 | 2  | LANL | DUSE | S |
| EXP0314119a | 247421007  | MAP | 3/17/10 3:02  | 956045 | 10-1920 | 2  | LANL | DUSE | S |
| EXP0314120a | 247450002  | MAP | 3/17/10 3:31  | 956045 | 10-1937 | 2  | LANL | DUSE | S |
| EXP0314121a | 247450003  | MAP | 3/17/10 4:01  | 956045 | 10-1937 | 2  | LANL | DUSE | S |
| EXP0314122a | 247450004  | MAP | 3/17/10 4:30  | 956045 | 10-1937 | 2  | LANL | DUSE | S |
| EXP0314123a | 247450005  | MAP | 3/17/10 5:00  | 956045 | 10-1937 | 2  | LANL | DUSE | S |
| EXP0314124a | 247450006  | MAP | 3/17/10 5:29  | 956045 | 10-1937 | 2  | LANL | DUSE | S |
| EXP0314125a | 247450007  | MAP | 3/17/10 5:59  | 956045 | 10-1937 | 2  | LANL | DUSE | S |
| EXP0314126a | 247562002  | MAP | 3/17/10 6:28  | 956045 | 10-1950 | 2  | LANL | DUSE | S |

10-1950  
4720W  
03/17/10

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 03/19/10  
 Extr. Injection Volume: 50uL  
 Sequence Number: 031910expA  
 Initial Calibration Date: 03/19/10  
 Method: SW846 8321A-Modified  
 Int. Std.: UXX100309-01.1  
 Mobile Phase Lot#: 1285274, 1281642  
 Standard-Samp Reagent Lot#: 1283379, 1284736  
 Reviewed BY: *hmc*  
 Date: *03/22/10*  
 SOP: GL-OA-E-056 Rev.12  
 Alt Check Std. ID: WXX100319-07

| DataFile    | Sample     | Analyst | Injection Date | Batch  | SDG     | Dilution | Client | Comments | QC_Flag |
|-------------|------------|---------|----------------|--------|---------|----------|--------|----------|---------|
| EXP0319001a | XIBLK01    | MAP     | 3/19/10 16:54  |        |         | 1        |        | USE      | B       |
| EXP0319002a | XIBLK01    | MAP     | 3/19/10 17:23  |        |         | 1        |        | USE      | B       |
| EXP0319003a | WXXICAL-01 | MAP     | 3/19/10 17:53  |        |         | 1        |        | USE      | I       |
| EXP0319004a | WXXICAL-02 | MAP     | 3/19/10 18:22  |        |         | 1        |        | USE      | I       |
| EXP0319005a | WXXICAL-03 | MAP     | 3/19/10 18:52  |        |         | 1        |        | USE      | I       |
| EXP0319006a | WXXICAL-04 | MAP     | 3/19/10 19:21  |        |         | 1        |        | USE      | I       |
| EXP0319007a | WXXICAL-05 | MAP     | 3/19/10 19:51  |        |         | 1        |        | USE      | I       |
| EXP0319008a | WXXICAL-06 | MAP     | 3/19/10 20:20  |        |         | 1        |        | USE      | I       |
| EXP0319009a | XIBLK02    | MAP     | 3/19/10 20:50  |        |         | 1        |        | USE      | B       |
| EXP0319010a | WXXICV     | MAP     | 3/19/10 21:19  |        |         | 1        |        | USE      | C       |
| EXP0319011a | XIBLK03    | MAP     | 3/19/10 21:49  |        |         | 1        |        | USE      | B       |
| EXP0319012a | WXXCRI     | MAP     | 3/19/10 22:18  |        |         | 1        |        | USE      | C       |
| EXP0319013a | 247346004  | MAP     | 3/19/10 22:48  | 955065 | 10-1911 | 2        | LANL   | USE      | S       |
| EXP0319014a | 247346005  | MAP     | 3/19/10 23:17  | 955065 | 10-1911 | 2        | LANL   | USE      | S       |
| EXP0319015a | 247346006  | MAP     | 3/19/10 23:47  | 955065 | 10-1911 | 2        | LANL   | USE      | S       |
| EXP0319016a | 247346007  | MAP     | 3/20/10 0:16   | 955065 | 10-1911 | 2        | LANL   | USE      | S       |
| EXP0319017a | 247346008  | MAP     | 3/20/10 0:46   | 955065 | 10-1911 | 2        | LANL   | USE      | S       |
| EXP0319018a | 247358001  | MAP     | 3/20/10 1:15   | 955065 | 10-1914 | 2        | LANL   | USE      | S       |
| EXP0319019a | 247358002  | MAP     | 3/20/10 1:45   | 955065 | 10-1914 | 2        | LANL   | USE      | S       |
| EXP0319020a | 247358003  | MAP     | 3/20/10 2:14   | 955065 | 10-1914 | 2        | LANL   | USE      | S       |
| EXP0319021a | 247358004  | MAP     | 3/20/10 2:44   | 955065 | 10-1914 | 2        | LANL   | USE      | S       |
| EXP0319022a | WXXCCV     | MAP     | 3/20/10 3:13   |        |         | 1        |        | USE      | C       |
| EXP0319023a | XIBLK04    | MAP     | 3/20/10 3:43   |        |         | 1        |        | USE      | B       |
| EXP0319024a | WXXCRI     | MAP     | 3/20/10 4:12   |        |         | 1        |        | USE      | C       |
| EXP0319025a | 248259006  | MAP     | 3/20/10 4:41   | 958286 | 10-2148 | 10       | LANL   | USE      | S       |
| EXP0319026a | 1202055085 | MAP     | 3/20/10 5:11   | 958286 | 10-2051 | 2        | LANL   | USE      | S       |
| EXP0319027a | XIBLK05    | MAP     | 3/20/10 5:41   |        |         | 1        |        | USE      | B       |
| EXP0319028a | 1202049901 | MAP     | 3/20/10 6:10   | 956045 | Various | 2        | LANL   | USE      | S       |
| EXP0319029a | 1202049902 | MAP     | 3/20/10 6:40   | 956045 | Various | 2        | LANL   | USE      | S       |

|             |            |     |               |        |         |   |      |     |   |
|-------------|------------|-----|---------------|--------|---------|---|------|-----|---|
| EXP0319030a | 247421002  | MAP | 3/20/10 7:09  | 956045 | 10-1920 | 2 | LANL | USE | S |
| EXP0319031a | 1202049903 | MAP | 3/20/10 7:38  | 956045 | 10-1920 | 2 | LANL | USE | S |
| EXP0319032a | 1202049904 | MAP | 3/20/10 8:08  | 956045 | 10-1920 | 2 | LANL | USE | S |
| EXP0319033a | 247421003  | MAP | 3/20/10 8:37  | 956045 | 10-1920 | 2 | LANL | USE | S |
| EXP0319034a | WXCCV      | MAP | 3/20/10 9:07  |        |         | 1 |      | USE | C |
| EXP0319035a | XIBLK06    | MAP | 3/20/10 9:36  |        |         | 1 |      | USE | B |
| EXP0319036a | WXXCRI     | MAP | 3/20/10 10:06 |        |         | 1 |      | USE | C |

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMMS4

Date: 03/05/10

Extr. Injection Volume: 10uL

Sequence Number: 030510exs

Initial Calibration Date: 030510 Standard-Samp Reagent Lot#: 1274562, 1261217

Method: 8321A-Modified

Int. Std.: N/A

Mobile Phase Lot#: 1268566, 1268568

Reviewed By: *thny*

Date: *03/09/10*

SOP: GL-OA-E-066 Rev. 12

Alt Check Std. ID: WXX100305-26

| DataFile         | Sample     | Analyst | Injection Date | Batch  | SDG     | Dilution | Client | Comments | QC Flag |
|------------------|------------|---------|----------------|--------|---------|----------|--------|----------|---------|
| EXS03050001.wiff | XIBLK01    | LER     | 3/5/2010 17:07 |        |         | 1        |        | USE      | B       |
| EXS03050002.wiff | XIBLK01    | LER     | 3/5/2010 17:23 |        |         | 1        |        | USE      | B       |
| EXS03050003.wiff | WXXICAL-19 | LER     | 3/5/2010 17:39 |        |         | 1        |        | USE      | I       |
| EXS03050004.wiff | WXXICAL-20 | LER     | 3/5/2010 17:54 |        |         | 1        |        | USE      | I       |
| EXS03050005.wiff | WXXICAL-21 | LER     | 3/5/2010 18:10 |        |         | 1        |        | USE      | I       |
| EXS03050006.wiff | WXXICAL-22 | LER     | 3/5/2010 18:26 |        |         | 1        |        | USE      | I       |
| EXS03050007.wiff | WXXICAL-23 | LER     | 3/5/2010 18:41 |        |         | 1        |        | USE      | I       |
| EXS03050008.wiff | WXXICAL-24 | LER     | 3/5/2010 18:57 |        |         | 1        |        | USE      | I       |
| EXS03050009.wiff | WXXICAL-25 | LER     | 3/5/2010 19:13 |        |         | 1        |        | USE      | I       |
| EXS03050010.wiff | XIBLK02    | LER     | 3/5/2010 19:29 |        |         | 1        |        | USE      | B       |
| EXS03050011.wiff | WXXICV     | LER     | 3/5/2010 19:44 |        |         | 1        |        | USE      | C       |
| EXS03050012.wiff | XIBLK03    | LER     | 3/5/2010 20:00 |        |         | 1        |        | USE      | B       |
| EXS03050013.wiff | WXXCRI     | LER     | 3/5/2010 20:16 |        |         | 1        |        | USE      | C       |
| EXS03050014.wiff | 1202045735 | LER     | 3/5/2010 20:31 | 954321 | VARIOUS | 2        | LANL   | USE      | S       |
| EXS03050015.wiff | 1202045736 | LER     | 3/5/2010 20:47 | 954321 | VARIOUS | 2        | LANL   | USE      | S       |
| EXS03050016.wiff | 247126001  | LER     | 3/5/2010 21:03 | 954321 | 10-1849 | 2        | LANL   | USE      | S       |
| EXS03050017.wiff | 1202045737 | LER     | 3/5/2010 21:18 | 954321 | 10-1849 | 2        | LANL   | USE      | S       |
| EXS03050018.wiff | 1202045738 | LER     | 3/5/2010 21:34 | 954321 | 10-1849 | 2        | LANL   | USE      | S       |
| EXS03050019.wiff | 247126002  | LER     | 3/5/2010 21:50 | 954321 | 10-1849 | 2        | LANL   | USE      | S       |
| EXS03050020.wiff | 247126003  | LER     | 3/5/2010 22:05 | 954321 | 10-1849 | 2        | LANL   | USE      | S       |
| EXS03050021.wiff | 247178001  | LER     | 3/5/2010 22:21 | 954321 | 10-1861 | 2        | LANL   | USE      | S       |
| EXS03050022.wiff | 247178002  | LER     | 3/5/2010 22:37 | 954321 | 10-1861 | 2        | LANL   | USE      | S       |
| EXS03050023.wiff | 247178003  | LER     | 3/5/2010 22:53 | 954321 | 10-1861 | 2        | LANL   | USE      | S       |
| EXS03050024.wiff | WXXCCV     | LER     | 3/5/2010 23:08 |        |         | 1        |        | USE      | C       |
| EXS03050025.wiff | XIBLK04    | LER     | 3/5/2010 23:24 |        |         | 1        |        | USE      | B       |
| EXS03050026.wiff | WXXCRI     | LER     | 3/5/2010 23:40 |        |         | 1        |        | USE      | C       |
| EXS03050027.wiff | 247178004  | LER     | 3/5/2010 23:55 | 954321 | 10-1861 | 2        | LANL   | USE      | S       |
| EXS03050028.wiff | 247178005  | LER     | 3/6/2010 0:11  | 954321 | 10-1861 | 2        | LANL   | USE      | S       |
| EXS03050029.wiff | 247178006  | LER     | 3/6/2010 0:27  | 954321 | 10-1861 | 2        | LANL   | USE      | S       |
| EXS03050030.wiff | 247178007  | LER     | 3/6/2010 0:42  | 954321 | 10-1861 | 2        | LANL   | USE      | S       |

|                  |            |     |                |        |         |   |      |     |   |
|------------------|------------|-----|----------------|--------|---------|---|------|-----|---|
| EXS03050031.wiff | 247178008  | LER | 3/6/2010 0:58  | 954321 | 10-1861 | 2 | LANL | USE | S |
| EXS03050032.wiff | 247178009  | LER | 3/6/2010 1:14  | 954321 | 10-1861 | 2 | LANL | USE | S |
| EXS03050033.wiff | 247178010  | LER | 3/6/2010 1:30  | 954321 | 10-1861 | 2 | LANL | USE | S |
| EXS03050034.wiff | 247178011  | LER | 3/6/2010 1:45  | 954321 | 10-1861 | 2 | LANL | USE | S |
| EXS03050035.wiff | WXXCCV     | LER | 3/6/2010 2:01  |        |         | 1 |      | USE | C |
| EXS03050036.wiff | XIBLK05    | LER | 3/6/2010 2:17  |        |         | 1 |      | USE | B |
| EXS03050037.wiff | WXXCRI     | LER | 3/6/2010 2:32  |        |         | 1 |      | USE | C |
| EXS03050038.wiff | 1202052406 | LER | 3/6/2010 2:48  | 957200 | VARIOUS | 2 | LANL | USE | S |
| EXS03050039.wiff | 1202052407 | LER | 3/6/2010 3:04  | 957200 | VARIOUS | 2 | LANL | USE | S |
| EXS03050040.wiff | 247784002  | LER | 3/6/2010 3:19  | 957200 | 10-1979 | 2 | LANL | USE | S |
| EXS03050041.wiff | 247790002  | LER | 3/6/2010 3:35  | 957200 | 10-1981 | 2 | LANL | USE | S |
| EXS03050042.wiff | 247790003  | LER | 3/6/2010 3:51  | 957200 | 10-1981 | 2 | LANL | USE | S |
| EXS03050043.wiff | 247791002  | LER | 3/6/2010 4:07  | 957200 | 10-1982 | 2 | LANL | USE | S |
| EXS03050044.wiff | 247791003  | LER | 3/6/2010 4:22  | 957200 | 10-1982 | 2 | LANL | USE | S |
| EXS03050045.wiff | 247791004  | LER | 3/6/2010 4:38  | 957200 | 10-1982 | 2 | LANL | USE | S |
| EXS03050046.wiff | 247791005  | LER | 3/6/2010 4:54  | 957200 | 10-1982 | 2 | LANL | USE | S |
| EXS03050047.wiff | 247791006  | LER | 3/6/2010 5:09  | 957200 | 10-1982 | 2 | LANL | USE | S |
| EXS03050048.wiff | WXXCCV     | LER | 3/6/2010 5:25  |        |         | 1 |      | USE | C |
| EXS03050049.wiff | XIBLK06    | LER | 3/6/2010 5:41  |        |         | 1 |      | USE | B |
| EXS03050050.wiff | WXXCRI     | LER | 3/6/2010 5:56  |        |         | 1 |      | USE | C |
| EXS03050051.wiff | 247799001  | LER | 3/6/2010 6:12  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050052.wiff | 1202052408 | LER | 3/6/2010 6:28  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050053.wiff | 1202052409 | LER | 3/6/2010 6:44  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050054.wiff | 247799002  | LER | 3/6/2010 6:59  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050055.wiff | 247799003  | LER | 3/6/2010 7:15  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050056.wiff | 247799004  | LER | 3/6/2010 7:31  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050057.wiff | 247799005  | LER | 3/6/2010 7:46  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050058.wiff | 247799006  | LER | 3/6/2010 8:02  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050059.wiff | 247799007  | LER | 3/6/2010 8:18  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050060.wiff | WXXCCV     | LER | 3/6/2010 8:34  |        |         | 1 |      | USE | C |
| EXS03050061.wiff | XIBLK07    | LER | 3/6/2010 8:49  |        |         | 1 |      | USE | B |
| EXS03050062.wiff | WXXCRI     | LER | 3/6/2010 9:05  |        |         | 1 |      | USE | C |
| EXS03050063.wiff | 247799008  | LER | 3/6/2010 9:21  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050064.wiff | 247799009  | LER | 3/6/2010 9:36  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050065.wiff | 247799010  | LER | 3/6/2010 9:52  | 957200 | 10-1990 | 2 | LANL | USE | S |
| EXS03050066.wiff | WXXCCV     | LER | 3/6/2010 10:08 |        |         | 1 |      | USE | C |
| EXS03050067.wiff | XIBLK08    | LER | 3/6/2010 10:23 |        |         | 1 |      | USE | B |





|                  |           |     |                |        |         |   |      |     |   |
|------------------|-----------|-----|----------------|--------|---------|---|------|-----|---|
| EXS03050105.wiff | 247346003 | LER | 3/6/2010 20:20 | 955065 | 10-1911 | 2 | LANL | USE | S |
| EXS03050106.wiff | WXXCCV    | LER | 3/6/2010 20:36 |        |         | 1 |      | USE | C |
| EXS03050107.wiff | XIBLK13   | LER | 3/6/2010 20:52 |        |         | 1 |      | USE | B |
| EXS03050108.wiff | WXXCRI    | LER | 3/6/2010 21:07 |        |         | 1 |      | USE | C |
| EXS03050109.wiff | 247346004 | LER | 3/6/2010 21:23 | 955065 | 10-1911 | 2 | LANL | USE | S |
| EXS03050110.wiff | 247346005 | LER | 3/6/2010 21:39 | 955065 | 10-1911 | 2 | LANL | USE | S |
| EXS03050111.wiff | 247346006 | LER | 3/6/2010 21:54 | 955065 | 10-1911 | 2 | LANL | USE | S |
| EXS03050112.wiff | 247346007 | LER | 3/6/2010 22:10 | 955065 | 10-1911 | 2 | LANL | USE | S |
| EXS03050113.wiff | 247346008 | LER | 3/6/2010 22:26 | 955065 | 10-1911 | 2 | LANL | USE | S |
| EXS03050114.wiff | 247358001 | LER | 3/6/2010 22:41 | 955065 | 10-1914 | 2 | LANL | USE | S |
| EXS03050115.wiff | 247358002 | LER | 3/6/2010 22:57 | 955065 | 10-1914 | 2 | LANL | USE | S |
| EXS03050116.wiff | 247358003 | LER | 3/6/2010 23:13 | 955065 | 10-1914 | 2 | LANL | USE | S |
| EXS03050117.wiff | 247358004 | LER | 3/6/2010 23:29 | 955065 | 10-1914 | 2 | LANL | USE | S |
| EXS03050118.wiff | WXXCCV    | LER | 3/6/2010 23:44 |        |         | 1 |      | USE | C |
| EXS03050119.wiff | XIBLK14   | LER | 3/7/2010 0:00  |        |         | 1 |      | USE | B |
| EXS03050120.wiff | WXXCRI    | LER | 3/7/2010 0:16  |        |         | 1 |      | USE | C |

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314082a

Date: 16-Mar-2010

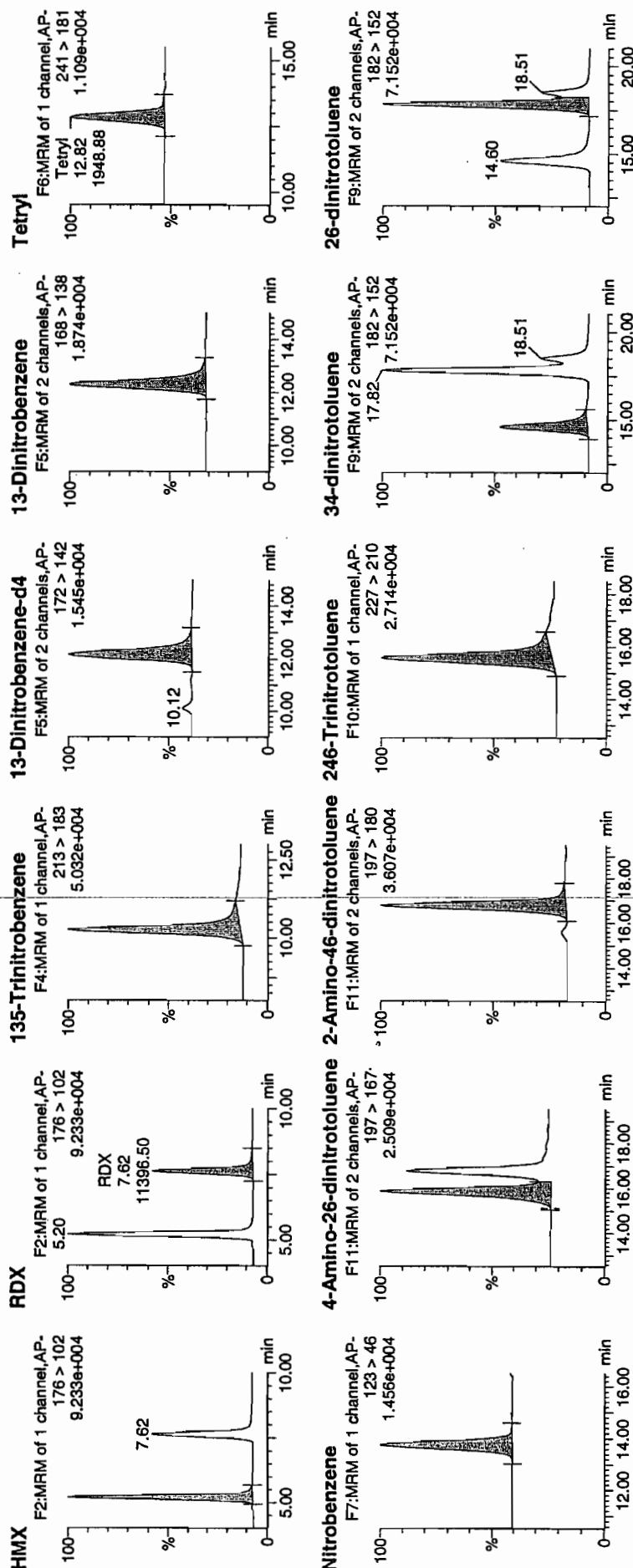
Time: 06:48:09

ID: 1202047531

Vial: 3:1,E

247327022us / 21  
955065 / 80222

4077  
3/17/10



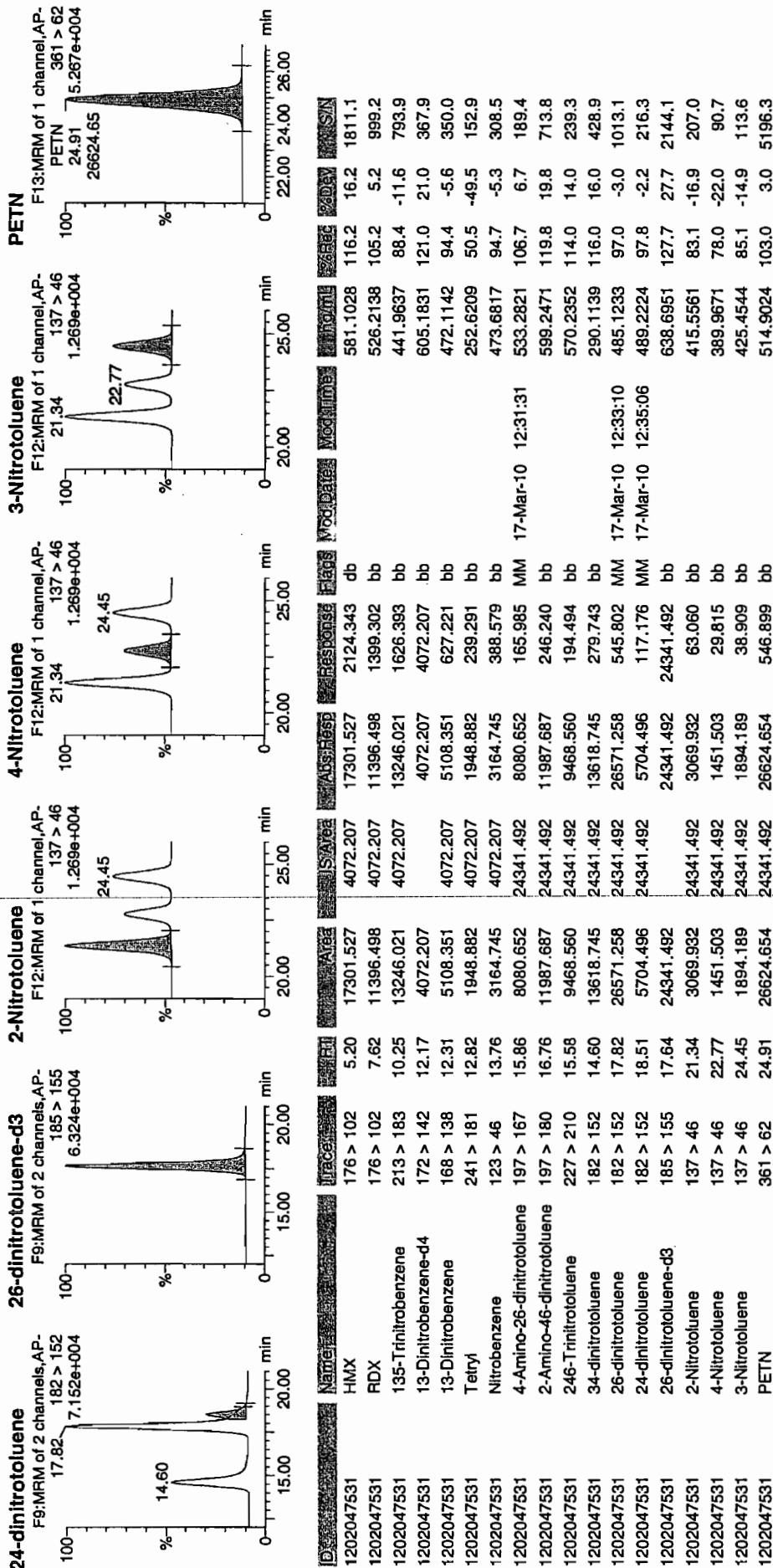
Handwritten: 03/17/10

# Quantity Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

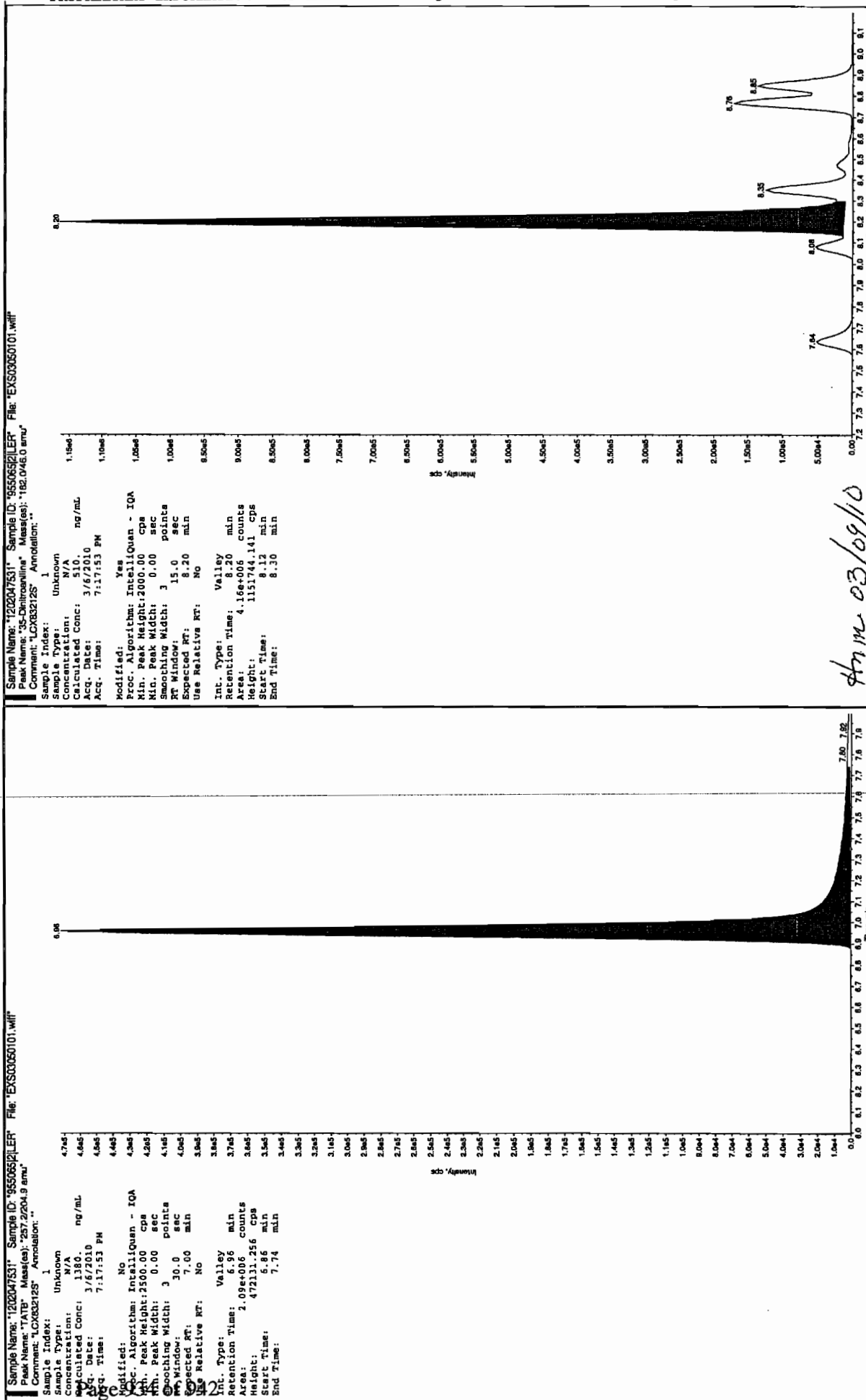
Printed: Wed Mar 17 12:37:22 2010, Page 10 of 99

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010



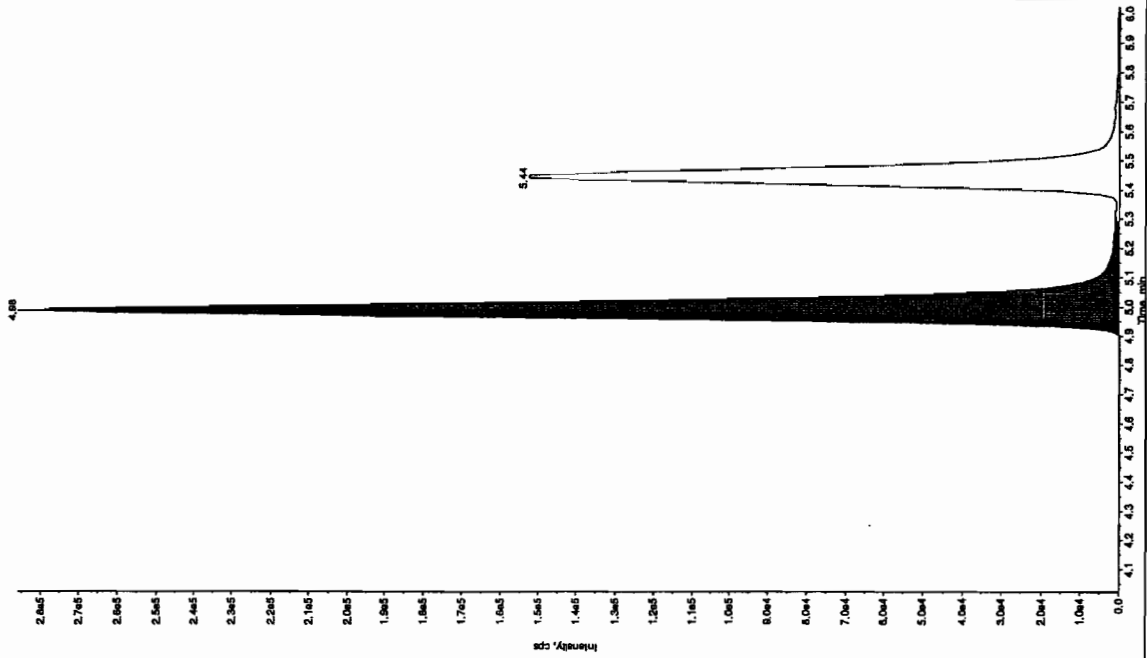
See 3/9/10

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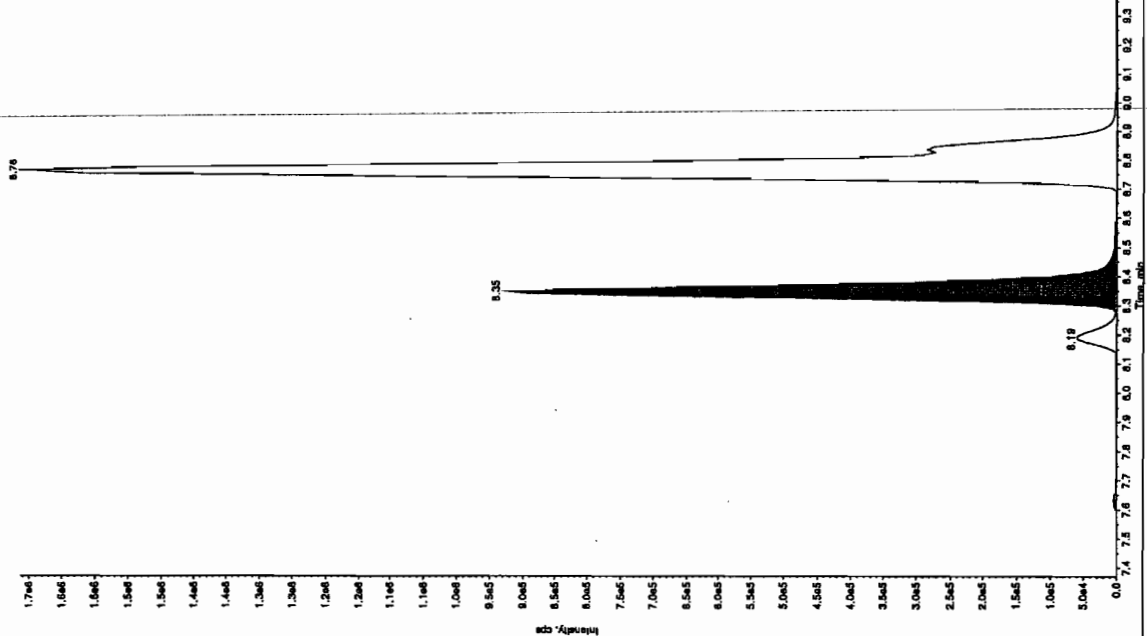
Sample Name: '1202047531' Sample ID: '95506521ER' File: 'EXS03050101.wif'  
 Peak Name: '26-Diamino-4-nitrobenzoate' Mass(es): '166.046.0 amu'  
 Comment: 'LCX83212S' Annotation: ''

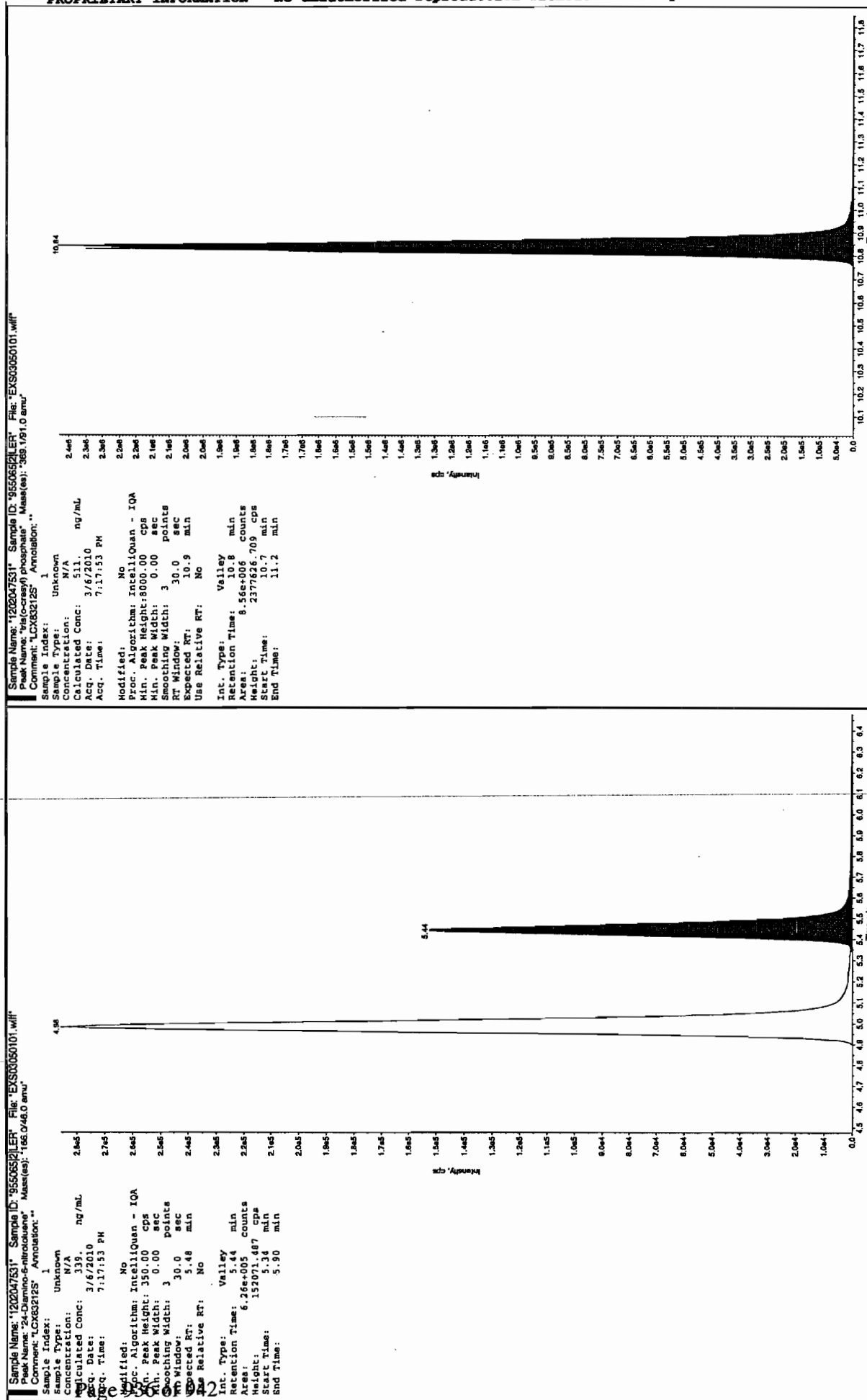
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 443. ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 7:17:53 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.02 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.98 min  
 Area: 1.17e+006 counts  
 Height: 285788.666 cps  
 Start Time: 4.88 min  
 End Time: 5.29 min



Sample Name: '1202047531' Sample ID: '95506521ER' File: 'EXS03050101.wif'  
 Peak Name: '34-Diaminobenzoate' Mass(es): '182.1151.9 amu'  
 Comment: 'LCX83212S' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 248. ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 7:17:53 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.37 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.35 min  
 Area: 3.10e+005 counts  
 Height: 927102.722 cps  
 Start Time: 8.28 min  
 End Time: 8.59 min





# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Mar 17 12:37:22 2010, Page 11 of 99

Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0314083a

Date: 16-Mar-2010

Time: 07:17:36

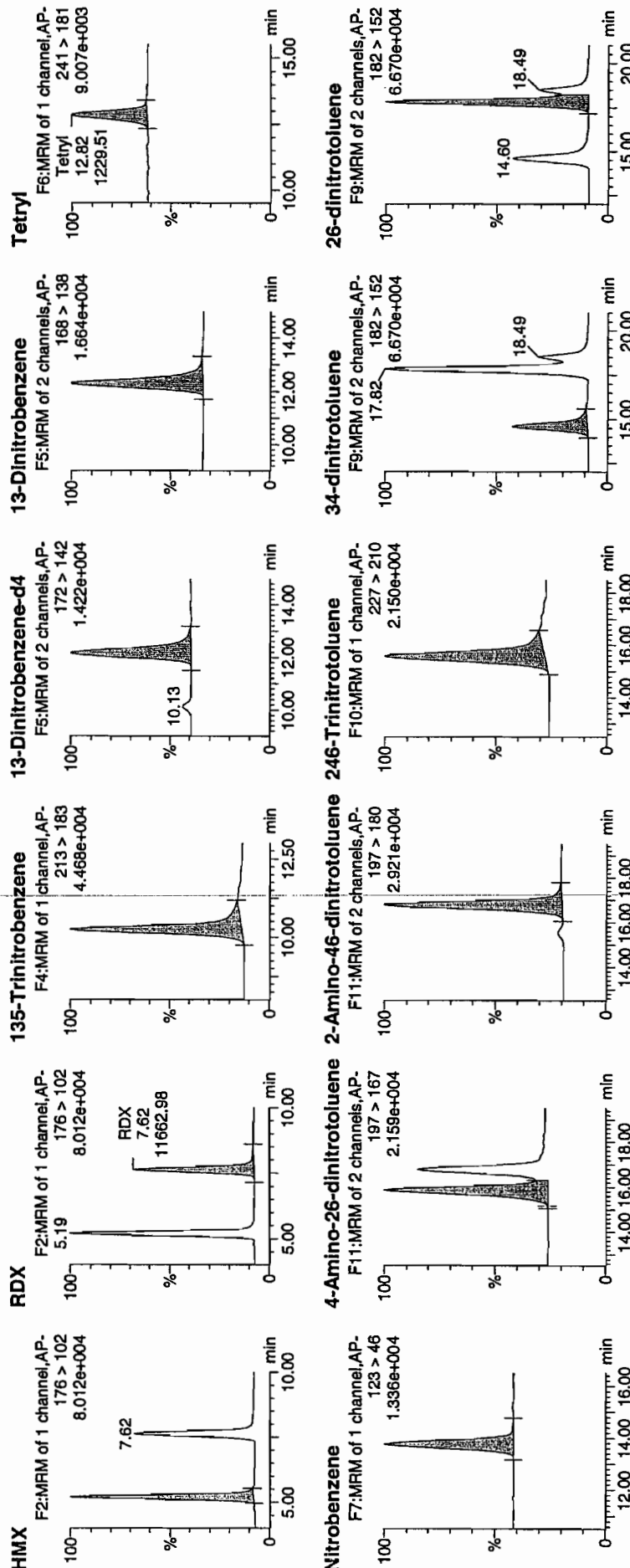
ID: 1202047532

Vial: 3:1,F

1447  
3/17/10

247327-002MSD | 21

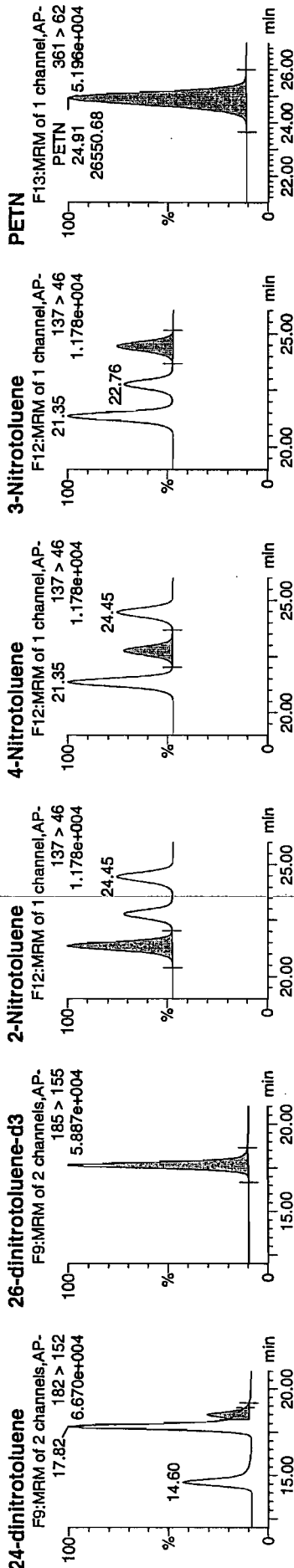
Page 937 of 942



Handwritten: 03/17/10



Dataset: C:\MASSLYNX\New\_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

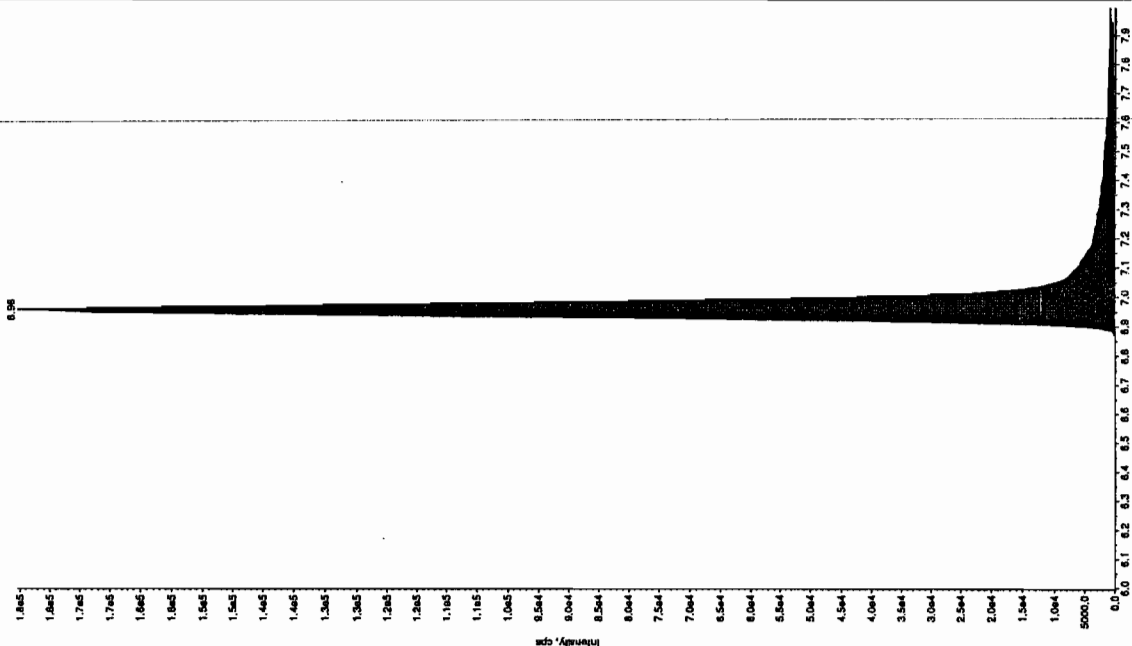


| ID         | Name                      | Trace     | Area  | Abundance | Response  | Flags | ModTime   | ModDate  | Area     | Ratio | Ratio |
|------------|---------------------------|-----------|-------|-----------|-----------|-------|-----------|----------|----------|-------|-------|
| 1202047532 | HMZ                       | 176 > 102 | 5.19  | 14689.142 | 3659.986  |       |           |          | 548.9280 | 109.8 | 9.8   |
| 1202047532 | RDX                       | 176 > 102 | 7.62  | 11662.979 | 3659.986  |       |           |          | 599.1709 | 119.8 | 19.8  |
| 1202047532 | 135-Trinitrobenzene       | 213 > 183 | 10.25 | 11894.454 | 3659.986  |       |           |          | 441.5664 | 88.3  | -11.7 |
| 1202047532 | 13-Dinitrobenzene-d4      | 172 > 142 | 12.17 | 3659.986  |           |       |           |          | 543.9217 | 108.8 | 8.8   |
| 1202047532 | 13-Dinitrobenzene         | 168 > 138 | 12.31 | 4382.230  | 3659.986  |       |           |          | 450.6215 | 90.1  | -9.9  |
| 1202047532 | Tetyl                     | 241 > 181 | 12.82 | 1229.506  | 3659.986  |       |           |          | 177.3229 | 35.5  | -64.5 |
| 1202047532 | Nitrobenzene              | 123 > 46  | 13.76 | 2863.558  | 3659.986  |       |           |          | 476.8748 | 95.4  | -4.6  |
| 1202047532 | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 6770.716  | 22509.689 |       | 17-Mar-10 | 12:31:44 | 483.1955 | 96.6  | -3.4  |
| 1202047532 | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 9626.565  | 22509.689 |       |           |          | 520.3788 | 104.1 | 4.1   |
| 1202047532 | 246-Trinitrotoluene       | 227 > 210 | 15.58 | 7192.255  | 22509.689 |       |           |          | 468.3957 | 93.7  | -6.3  |
| 1202047532 | 34-dinitrotoluene         | 182 > 152 | 14.60 | 10997.940 | 22509.689 |       |           |          | 253.3497 | 101.3 | 1.3   |
| 1202047532 | 26-dinitrotoluene         | 182 > 152 | 17.82 | 24485.668 | 22509.689 |       |           |          | 483.4257 | 96.7  | -3.3  |
| 1202047532 | 24-dinitrotoluene         | 182 > 152 | 18.49 | 5734.189  | 22509.689 |       | 17-Mar-10 | 12:34:54 | 531.7883 | 106.4 | 6.4   |
| 1202047532 | 26-dinitrotoluene-d3      | 185 > 155 | 17.64 | 22509.689 |           |       |           |          | 590.6305 | 118.1 | 18.1  |
| 1202047532 | 2-Nitrotoluene            | 137 > 46  | 21.35 | 2774.511  | 22509.689 |       |           |          | 406.1300 | 81.2  | -18.8 |
| 1202047532 | 4-Nitrotoluene            | 137 > 46  | 22.76 | 1371.803  | 22509.689 |       |           |          | 398.5470 | 79.7  | -20.3 |
| 1202047532 | 3-Nitrotoluene            | 137 > 46  | 24.45 | 1651.699  | 22509.689 |       |           |          | 401.1791 | 80.2  | -19.8 |
| 1202047532 | PETN                      | 361 > 62  | 24.91 | 26550.684 | 22509.689 |       |           |          | 559.9394 | 112.0 | 12.0  |

See 3/9/10

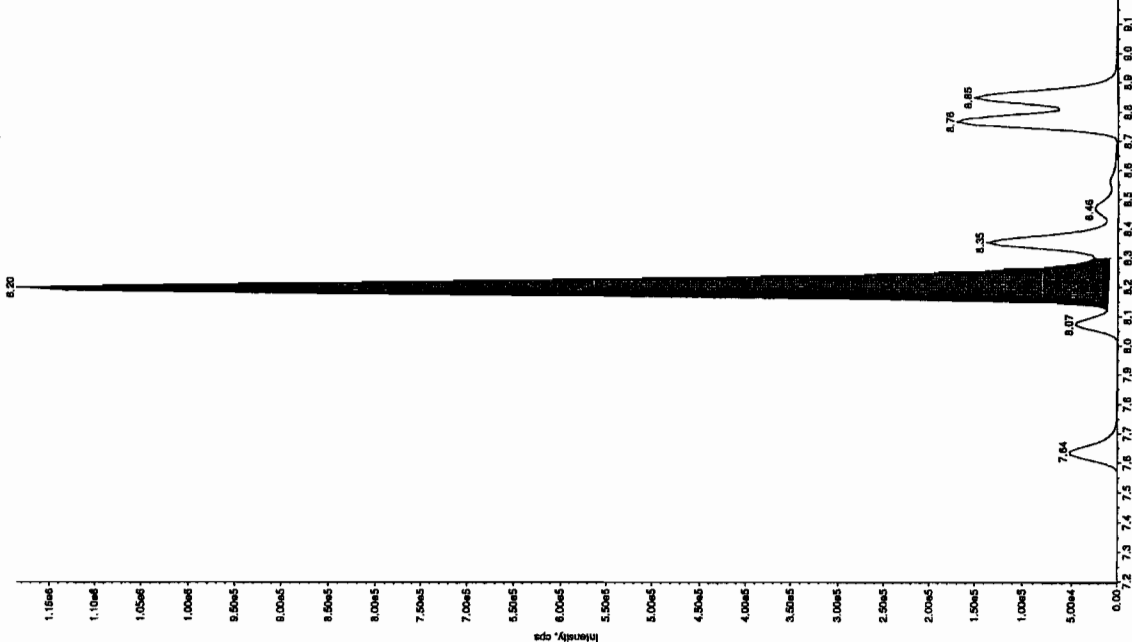
Sample Name: "1202047532" Sample ID: "955065121ER" File: "EX0303050102.wif"  
 Peak Name: "TATB" Mass(es): "257.2504.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: S/A  
 Calculated Conc: 3/6/2010 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 7:33:14 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 7.00 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.96 min  
 Area: 7.97e+005 counts  
 Height: 180423.386 cps  
 Start Time: 6.85 min  
 End Time: 7.95 min



Sample Name: "1202047532" Sample ID: "955065121ER" File: "EX0303050102.wif"  
 Peak Name: "3S-Centrodamine" Mass(es): "182.0480.0 amu"  
 Comment: "LCX832125" Annotation: "

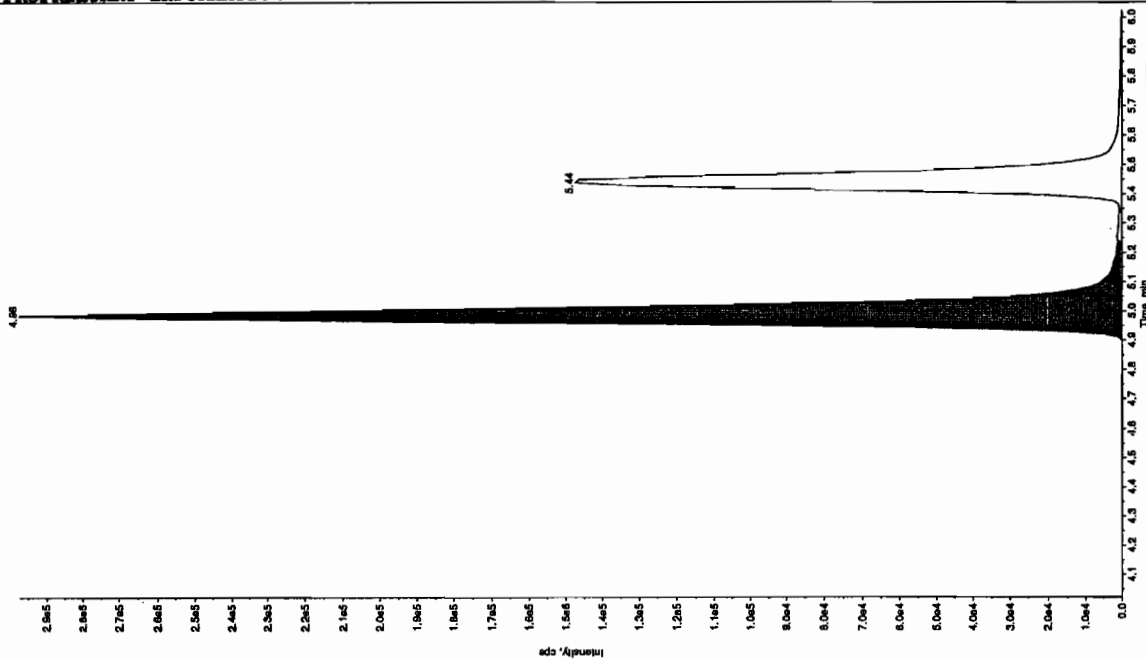
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: S/A  
 Calculated Conc: 3/6/2010 ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 7:33:14 PM  
 Modified: Yes  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.20 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.20 min  
 Area: 4.41e+006 counts  
 Height: 1176424.927 cps  
 Start Time: 8.12 min  
 End Time: 8.30 min



Amc 03/09/10

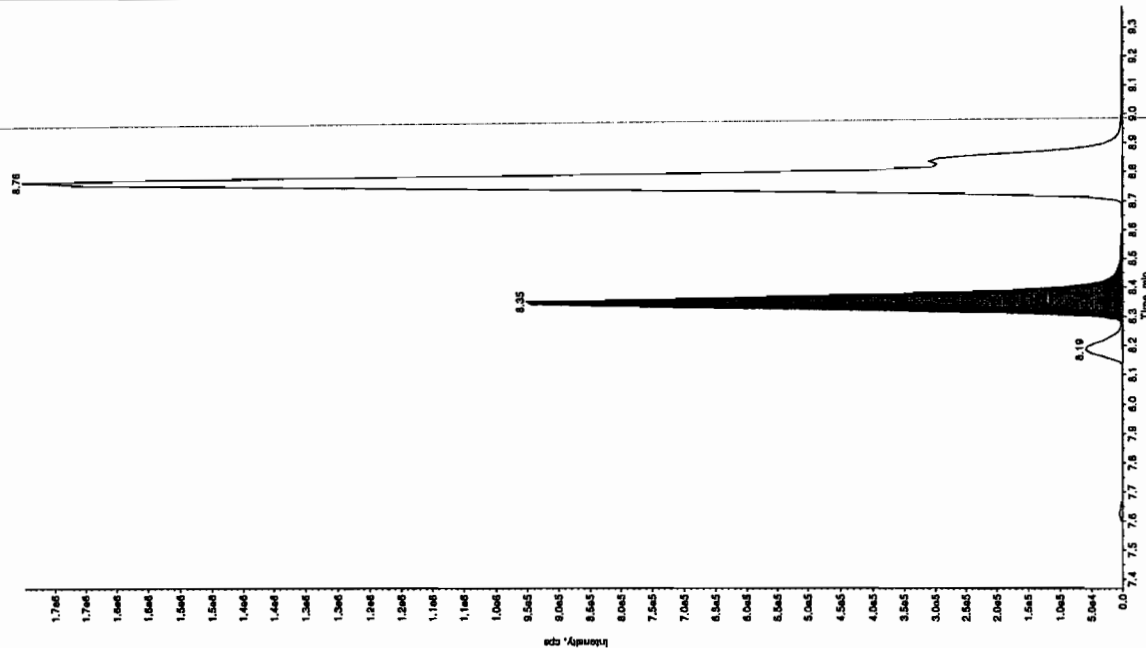
Sample Name: "1202047532" Sample ID: "96506512" File: "EX503050102.wif"  
 Peak Name: "26-Dinitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 3/6/2010  
 Acq. Date: 7:33:34 PM  
 Acq. Time: 7:33:34 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.02 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.98 min  
 Area: 1.17e+006 counts  
 Height: 297219.208 cps  
 Start Time: 4.88 min  
 End Time: 5.24 min



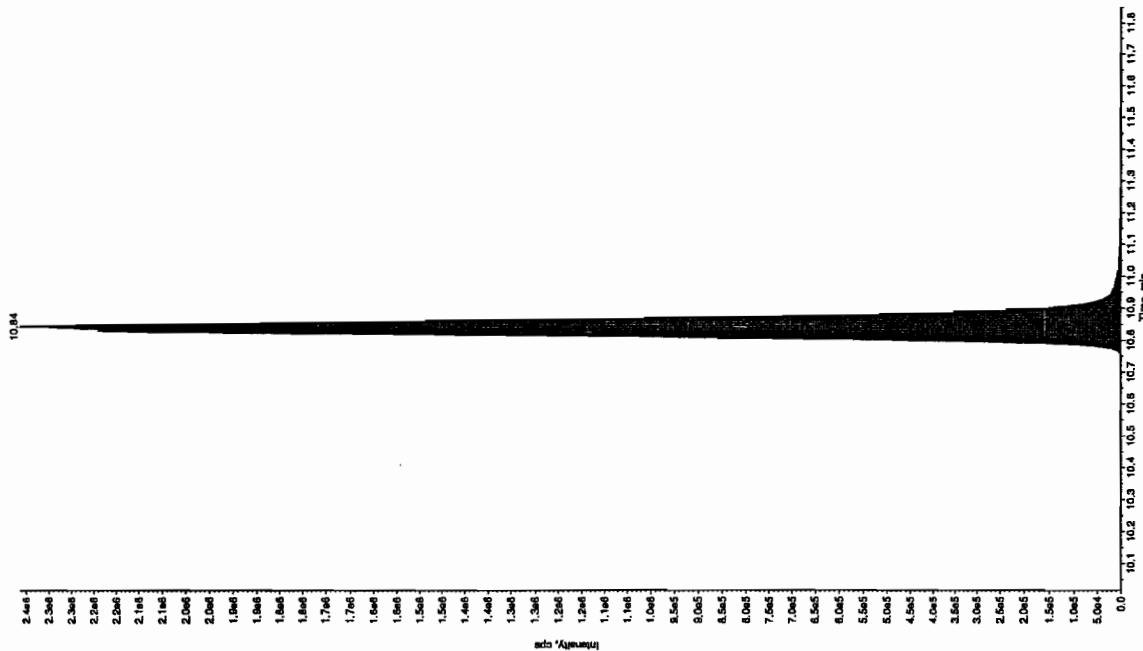
Sample Name: "1202047532" Sample ID: "96506512" File: "EX503050102.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.151.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 261. ng/mL  
 Acq. Date: 3/6/2010  
 Acq. Time: 7:33:34 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.37 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.35 min  
 Area: 3.25e+005 counts  
 Height: 947753.967 cps  
 Start Time: 8.28 min  
 End Time: 8.59 min



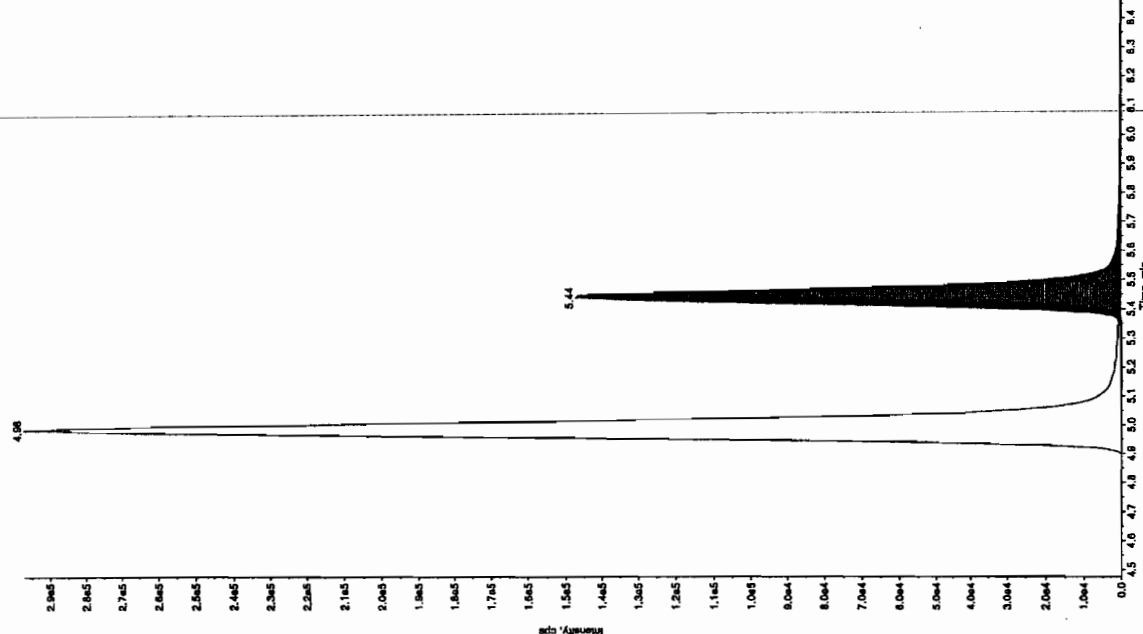
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 Peak Name: "tris(2-oxo-5-oxo-1,2,3,4-tetrahydro-2H-pyridin-2-ylidene) phosphine" Mass(es): "395.1791.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 3/6/2010  
 Acq. Date: 7/31/14 PM  
 Acq. Time: 7:33:34 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.9 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.64e+006 counts  
 Height: 236320.752 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "1202047532" Sample ID: "955065121" File: "EXS03050102.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 3/6/2010  
 Acq. Date: 7/31/14 PM  
 Acq. Time: 7:33:34 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.48 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.44 min  
 Area: 6.12e+005 counts  
 Height: 147129.059 cps  
 Start Time: 5.34 min  
 End Time: 6.00 min



GEL Laboratories LLC  
Form GEL-DER

DER Report No.: 807209

Revision No.:

### DATA EXCEPTION REPORT

|   |   |  |                             |
|---|---|--|-----------------------------|
| <b>Mo.Day Yr.</b><br>20-MAR-10  | <b>Division:</b><br>Industrial                | <b>Quality Criteria:</b><br>Specifications   | <b>Type:</b><br>Process     |
| <b>Instrument Type:</b><br>LC-MS/MS   | <b>Test / Method:</b><br>SW846 8321A Modified | <b>Matrix Type:</b><br>Solid   | <b>Client Code:</b><br>LANL |
| <b>Batch ID:</b><br>955065  | <b>Sample Numbers:</b><br>See Below           |  |                             |
| <b>Potentially affected work order(s)(SDG):</b> 247327(10-1898),247346(10-1911),247358(10-1914)<br><b>Application Issues:</b><br>Failed Recovery for MSD/PSD<br>Failed Recovery for LCS/LCSD<br>Failed Recovery for MS/PS<br>Failed RPD for MS/MSD, or PS/PSD   |   |  |                             |
| <b>Specification and Requirements</b><br><b>Exception Description:</b>  |   | <b>DER Disposition:</b>  |                             |
| 1. The Laboratory Control Sample (1202047530) did not meet spike recovery limits for Tetryl at 49.0%. The recovery limits are 51-112%.<br><br>2. The Matrix Spike (1202047531) did not meet spike recovery limits for TATB at 276%. The recovery limits are 29-155%.<br><br>3. The Matrix Spike Duplicate (1202047532) did not meet spike recovery limits for Tetryl at 35.5%. The recovery limits are 36-124%.<br><br>4. The MS/MSD pair (1202047531/2) did not meet RPD acceptance limits for Tetryl at 35.0% and TATB at 85.6%. The acceptance limits are 0-30%. |   | 1. Since the Matrix Spike met acceptance limits for Tetryl, method control was achieved. The samples have exceeded twice their hold time; therefore, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative.<br><br>2. Since the Laboratory Control Sample met acceptance limits for TATB, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative.<br><br>3. Since the Matrix Spike met acceptance limits for Tetryl, method control was achieved. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.<br><br>4. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative. |                             |

**Originator's Name:**

Michael Penny

20-MAR-10

**Data Validator/Group Leader:**

Herbert Maier

22-MAR-10