Monday, February 01, 2010

REQUEST NUMBER: 10-1512

# 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: 10-1512

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

**SHIP DATE: 2/1/2010**

**TURNAROUND/REPORT DUE: 3/3/2010**

**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-846:6020 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:6020 | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:6850 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:7470A | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:7471A | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:7471A | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | SW-846:8082 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | SW-846:8321A_MOD | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:8321A_MOD | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | SW-846:9012A | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |

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Monday, February 01, 2010

# LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C

**REQUEST NUMBER: 10-1512**

## LOS ALAMOS

**NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

| SAMPLE ID | CTNR | CTNR DESC | ORDER | PRESERV | MATRIX |
|---|---|---|---|---|---|
| RE15-10-7880 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7880 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7891 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7891 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7892 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7892 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7967 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7967 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7976 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7976 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7968 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7968 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7965 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7965 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7975 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7975 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7978 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7978 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7970 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7970 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7964 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7964 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7973 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7973 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7962 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7962 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7963 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7963 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7977 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7977 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-8084 | 1 | POLY | METALS+U-GEL | Nitric Acid | W |
| RE15-10-8084 | 1 | POLY | SW-846:6850 | Ice | W |

Monday, February 01, 2010

**LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C**

| SAMPLE ID | CTNR | CTNR DESC | ORDER | PRESERV | MATRIX |
|---|---|---|---|---|---|
| RE15-10-8084 | 1 | POLY | TCN | Sodium Hydroxide | W |

| **Relinquished By:** | **Date** | **Time** | **Received By:** | **Date** | **Time** |
|---|---|---|---|---|---|
| [signature] | 2/1/10 | 3:00 | | | |

| 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:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID:** RE15-10-7892 **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | OBT3 | OK |
| TIME COLLECTED (HH:MM) | | 0923 | SUB-MEDIA: | TUFF 1 | ↓ |
| PRS ID: | 15-008(b) | OK | SAMPLE TECH CODE: | HA | OK |
| LOCATION ID: | 15-610715 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 3.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 4.0 | SCREEN/PORT DESC: | NA | |
| FIELD MATRIX: | R | OK | EXCAVATED: YES / (NO) / NA | | |

**COMPOSITE TYPE:** NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

**BOREHOLE:** YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | normal | 8082+NMED-HEXP | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | ~~1 GAL~~ POLY 1L RS 01-11-10 | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** Light grey tuff

**SAMPLE COMMENTS:**
NA

**LOCATION DESC:** 8b-68 mesa top

**FIELD SCREENING/MEASUREMENT RESULTS:**

**Alpha** ≤ 49 **dpm**
**Beta/Gamma** ≤ 2430 **dpm**

**PID** Ambient 0.4 / Reading 1.2 **ppm**

**COLLECTED BY (PRINT)** R Saunders

**REVIEWED BY (PRINT)** T L McFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) | 1/28/10 |
| (Signature) | 7:54AM | (Signature) | 754 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7880** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | QBT3 | ok |
| TIME COLLECTED (HH:MM) | | 1412 | SUB-MEDIA: | TUFF 1 | ↓ |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610709 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 2.8 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 3.6 | SCREEN/PORT DESC: | | NA |
| FIELD MATRIX: | R | R | EXCAVATED: YES / NO / NA | | |

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | 8082+NMED-HEXP | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | | H3 | 500 ML POLY | Ice | Y | |
| 1 | | Met+U+CLO4+CN | ~~1 GAL~~ POLY 1L RS 01-11-10 | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** whitish Gray tuff

**SAMPLE COMMENTS:** 2nd depth

**LOCATION DESC:** 8b-50, mesa top

**FIELD SCREENING/MEASUREMENT RESULTS:**

Alpha ≤ 44 dpm
Beta/Gamma ≤ 2120 dpm

PID Ambient 0.0 / Reading 0.0 ppm

**COLLECTED BY (PRINT)** TLMcFarland

**REVIEWED BY (PRINT)** R Saunders

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Estevan Lujan | 1/28/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) | 7:52 AM | (Signature) Sherri Sherwood | 752 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7965** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | OBT3 | Allh |
| TIME COLLECTED (HH:MM) | | 1005 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610752 | ↓ | 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 **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 RC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** Brown silty clay, some rocks and wood chips

**SAMPLE COMMENTS:** NA

**LOCATION DESC:** 8b-70 mesatop

**FIELD SCREENING/MEASUREMENT RESULTS:** HE NEG

**Alpha** ≤ 55 dpm
**Beta/Gamma** ≤ 2350 dpm

**PID** Ambient 0.1 / Reading 0.2 ppm

**COLLECTED BY (PRINT)** R Saunders **REVIEWED BY (PRINT)** TLMcFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Estevan Lujan | 1/28/10 | (Printed Name) [illegible] | 1/28/10 |
| (Signature) [signature] | 0807 AM | (Signature) [signature] | 8:07 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7963** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | OBT3 | Alih |
| TIME COLLECTED (HH:MM) | | 1015 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610751 | ↓ | 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 **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Regular | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 KC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** Brown silty sand, some rocks

FR RE15-10-8083

**SAMPLE COMMENTS:** NA

**LOCATION DESC:** 8b - ~~70~~ 77 12m 1/27/10 mesa Top

**FIELD SCREENING/MEASUREMENT RESULTS:** HE negative

**Alpha** ≤ 55 **dpm**
**Beta/Gamma** ≤ 1962 **dpm**

**PID** Ambient 0.2 / Reading 0.2 = **ppm**

**COLLECTED BY (PRINT)** TLMcFarland

**REVIEWED BY (PRINT)** R Saunders

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) Melissa Montoya | 1/28/10 |
| (Signature) | 0806 AM | (Signature) | 806 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7977** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | OBT3 | Air |
| TIME COLLECTED (HH:MM) | | 1501 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610758 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 0.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 0.6 | 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 **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 Le | Ice | | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | | |

**SAMPLE DESC:** Dark brown silty sand, numerous rocks, frozen

**SAMPLE COMMENTS:** NA

**LOCATION DESC:** 8b-51 mesa top

**FIELD SCREENING/MEASUREMENT RESULTS:** HE neg

**Alpha** ≤ 27 **dpm**
**Beta/Gamma** ≤ 1886 **dpm**

**PID** Ambient 0.0 / Reading 0.0 **ppm**

**COLLECTED BY (PRINT)** TL McFarland

**REVIEWED BY (PRINT)** R Saunders

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) | 0813 Am | (Signature) Sherri Sherwood | 0813 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7891** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | OBT3 | Alih |
| TIME COLLECTED (HH:MM) | | 0910 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | OK | SAMPLE TECH CODE: | HA | OK |
| LOCATION ID: | 15-610715 | ↓ | 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 **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | normal | 8082+NMED-HEXP | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | ~~1 GAL~~ POLY 1L RS 01-11-10 | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** Brown silty sand, few wood chips

**SAMPLE COMMENTS:** NA

**LOCATION DESC:** 8b-68 mesa top

**FIELD SCREENING/MEASUREMENT RESULTS:**

HE NEG

Alpha ≤ 33 dpm
Beta/Gamma ≤ 4490 dpm

PID Ambient 0.2 / Reading 0.8 ppm

**COLLECTED BY (PRINT)** R Saunders

**REVIEWED BY (PRINT)** TLMcFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/27/10 | (Printed Name) | 1/27/10 |
| (Signature) | 7:53 AM | (Signature) | 753 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7975** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | OBT3 | ALLH |
| TIME COLLECTED (HH:MM) | | 1500 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610757 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 0.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 0.3 | 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 **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 SC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** dark brown silty sand numerous rocks, pine needles

**SAMPLE COMMENTS:** NA

**LOCATION DESC:** 8b-30 mesa top edge

**FIELD SCREENING/MEASUREMENT RESULTS:** HE NEG

**Alpha** ≤ 44 **dpm**
**Beta/Gamma** ≤ 2150 **dpm**

**PID** Ambient 0.0 / Reading 0.4 **ppm**

**COLLECTED BY (PRINT)** R Saunders

**REVIEWED BY (PRINT)** TLMcFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) | 0812 Am | (Signature) Sherri Sherwood | 0812 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7976** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | QBT3 | OK |
| TIME COLLECTED (HH:MM) | | 1510 | SUB-MEDIA: | TUFF 1 | ↓ |
| PRS ID: | 15-008(b) | OK | SAMPLE TECH CODE: | HA | OK |
| LOCATION ID: | 15-610757 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 3.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 3.6 | SCREEN/PORT DESC: | NA | |
| FIELD MATRIX: | R | OK | EXCAVATED: YES / (NO) / NA | | |

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY liter 1/11/10 LC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** pinkish grey tuff

**SAMPLE COMMENTS:**

NA

**LOCATION DESC:** 8b - 30 mesa top edge

**FIELD SCREENING/MEASUREMENT RESULTS:**

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2666 dpm

PID Ambient 0.0 / Reading 0.3 ppm

**COLLECTED BY (PRINT)** R Saunders

**REVIEWED BY (PRINT)** TLMcFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) | 0812 Am | (Signature) Sherri Sherwood | 0812 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7962** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | QBT3 | OK |
| TIME COLLECTED (HH:MM) | | 937 | SUB-MEDIA: | TUFF 1 | ↓ |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610750 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 3.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 4.0 | SCREEN/PORT DESC: | | NA |
| FIELD MATRIX: | R | R | EXCAVATED: YES / NO / NA | | |

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 RC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** grey tuff

**SAMPLE COMMENTS:** Tuff at 23 ft

**LOCATION DESC:** 8b-61 mesa top next to pine tree

**FIELD SCREENING/MEASUREMENT RESULTS:**

**Alpha =** 38 **dpm**
**Beta/Gamma =** 2010 **dpm**

**PID** Ambient Reading 0.0 / 1.7 **ppm**

**COLLECTED BY (PRINT)** R Saunders **REVIEWED BY (PRINT)** TLMcFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Estevan Lujan | 1/28/10 | (Printed Name) | 1/28/10 |
| (Signature) | 0806 AM | (Signature) | 806 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-8084** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | NA | ok |
| TIME COLLECTED (HH:MM) | | 1417 | SUB-MEDIA: | OTHER | |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | DC | |
| LOCATION ID: | UNK | 15-610756 | FIELD QC TYPE: | FR | |
| LOCATION TYPE: | GENERIC | ok | FIELD PREP: | UF | |
| TOP DEPTH: | 0 | | SAMPLE USAGE: | QC | |
| BOTTOM DEPTH: | 0 | | SCREEN/PORT DESC: | | NA |
| FIELD MATRIX: | W | | EXCAVATED: YES / NO / NA | | |

**COMPOSITE TYPE:** NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

**BOREHOLE:** YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Regular | METALS+U-GEL | 1 LITER POLY | Nitric Acid | Y | |
| 1 | | SW-846:6850 | 250 ML POLY | Ice | Y | |
| 1 | | TCN | 500 ML POLY | Sodium Hydroxide | Y | |

**SAMPLE DESC: QC Sample of** RE15-10-7974

**SAMPLE COMMENTS:**

Rinsate

**LOCATION DESC:**

NA

**FIELD SCREENING/MEASUREMENT RESULTS:**

~~Alpha = ____ dpm~~ 12m 1/27/10
~~Beta/Gamma = ____ dpm~~

~~PID Ambient Reading = ppm~~ 12m 1/27/10

**COLLECTED BY (PRINT)** TL McFarlane **REVIEWED BY (PRINT)** R Saunders

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) Melissa Salazar | 1/28/10 |
| (Signature) | 0813 Am | (Signature) | 813 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7968** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | OBT3 | TLM 1/27/10 ~~AHH~~ ok |
| TIME COLLECTED (HH:MM) | | 1136 | SUB-MEDIA: | TUFF 1 | ok |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610753 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 3.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 3.5 | SCREEN/PORT DESC: | | NA |
| FIELD MATRIX: | R | R | EXCAVATED: YES / (NO) / NA | | |

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 LC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** Gray tuff

**SAMPLE COMMENTS:** hit tuff at 2ft

**LOCATION DESC:** 8b-69 mesatop

**FIELD SCREENING/MEASUREMENT RESULTS:**

Alpha ≤ 38 dpm
Beta/Gamma ≤ 2710 dpm

PID Ambient Reading ~~0.2~~ 0.4 ppm RS 01.27.10 RS 01.27.10 0.0 / 0.5

**COLLECTED BY (PRINT)** R Saunders **REVIEWED BY (PRINT)** TLMcFarlane

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) | 1/28/10 |
| (Signature) | 0809 AM | (Signature) | 809 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7978** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | OBT3 | ALL/T |
| TIME COLLECTED (HH:MM) | | 1528 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610758 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 1.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 2.0 | 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 BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 RC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** brown silty clay, some sand, and rocks

**SAMPLE COMMENTS:** NA

**LOCATION DESC:** 8b-51 mesa top

**FIELD SCREENING/MEASUREMENT RESULTS:**

Alpha ≤ 49 dpm
Beta/Gamma ≤ 1984 dpm

PID Ambient Reading 0.0 0.9 ppm

**COLLECTED BY (PRINT)** TLMcFarland

**REVIEWED BY (PRINT)** R Saunders

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Estevan Lujan | 1/27/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) E L | 07:51 AM | (Signature) Sherri Sherwood | 0751 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7967** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | QBT3 | ALLH |
| TIME COLLECTED (HH:MM) | | 1054 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610753 | ↓ | 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 BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 LC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** brown sand some clay and few rocks

**SAMPLE COMMENTS:** NA

**LOCATION DESC:** 8b-69 mesa top

**FIELD SCREENING/MEASUREMENT RESULTS:** HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 6140 dpm

PID Ambient 0.0 / Reading 0.0 ppm

**COLLECTED BY (PRINT)** R Saunders

**REVIEWED BY (PRINT)** TL McFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) | 0808 AM | (Signature) | 0808 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7970** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | QBT3 | ALLH |
| TIME COLLECTED (HH:MM) | | 1310 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610754 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 3.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 3.3 | 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 BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** brown silty sand

**SAMPLE COMMENTS:**
NA

**LOCATION DESC:** 8b-74 mesatop

**FIELD SCREENING/MEASUREMENT RESULTS:**

Alpha = 44 dpm
Beta/Gamma = 1900 dpm

PID Ambient 0.0 / Reading 0.1 ppm

**COLLECTED BY (PRINT)** R Saunders **REVIEWED BY (PRINT)** TLMcFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Estevan Lujan | 1/28/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) [signature] | 0810 Am | (Signature) Sherri Sherwood | 0810 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7964** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | QBT3 | OK |
| TIME COLLECTED (HH:MM) | | 1120 | SUB-MEDIA: | TUFF 1 | ↓ |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610751 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 3.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 4.0 | SCREEN/PORT DESC: | | NA |
| FIELD MATRIX: | R | R | EXCAVATED: YES / (NO) / NA | | |

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Regular | AM241+GS+ISOPU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+CN | 1 ~~GAL~~ POLY 1 liter 1/11/10 LC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** pinkish grey and orange tuff

**SAMPLE COMMENTS:** NA

**LOCATION DESC:** 8b - ~~70~~ 77 mesa Top 72m 1/27/10

**FIELD SCREENING/MEASUREMENT RESULTS:**

Alpha ≤ 55 dpm
Beta/Gamma ≤ 2070 dpm

PID Ambient 0.2 / Reading 0.4 ppm

**COLLECTED BY (PRINT)** R Saunders **REVIEWED BY (PRINT)** TLMcFarland

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) | 0807 AM | (Signature) Sherri Sherwood | 0807 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

**EVENT ID:** 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

**SAMPLE ID: RE15-10-7973** **WORK ORDER:**

| | AS PLANNED | AS COLLECTED | | AS PLANNED | AS COLLECTED |
|---|---|---|---|---|---|
| DATE COLLECTED(MM/DD/YYYY): | | 01/27/2010 | MEDIA: | QBT3 | Alth |
| TIME COLLECTED (HH:MM) | | 1351 | SUB-MEDIA: | TUFF 1 | NA |
| PRS ID: | 15-008(b) | ok | SAMPLE TECH CODE: | HA | ok |
| LOCATION ID: | 15-610756 | ↓ | FIELD QC TYPE: | NA | ↓ |
| LOCATION TYPE: | GENERIC | ↓ | FIELD PREP: | NA | ↓ |
| TOP DEPTH: | 0 | 0.0 | SAMPLE USAGE: | INV | ↓ |
| BOTTOM DEPTH: | 0 | 0.7 | 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 **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

| # | PRIORITY | ORDER | CNTNR | PRESERVATIVE | COLLECTED Y/N | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| 1 | Normal | AM241+GS+ISO PU+ISOU | 1 LITER POLY | None | Y | |
| 1 | ↓ | H3 | 500 ML POLY | Ice | Y | |
| 1 | ↓ | Met+U+CLO4+C N | 1 ~~GAL~~ POLY liter 1/11/10 AC | Ice | Y | |
| 1 | ↓ | NMED Explosives list | 250 ML AMBER GLASS | Ice | Y | |
| 1 | ↓ | RADVANA+B+G | 1 EA 8 IN RESEALABLE POLY BAG | None | Y | |

**SAMPLE DESC:** Dark brown silty sand, moist, tuff fragments, minor clay

FD: RE15-10-8063

**SAMPLE COMMENTS:**

NA

**LOCATION DESC:** 8b - 56 mesatop

**FIELD SCREENING/MEASUREMENT RESULTS:** HE NEG

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2120 dpm

PID Ambient 0.0 / Reading 0.0 ppm

**COLLECTED BY (PRINT)** TLMcFarland **REVIEWED BY (PRINT)** R Saunders

| RELINQUISHED BY | Date/Time | RECEIVED BY | Date/Time |
|---|---|---|---|
| (Printed Name) Esteban Lujan | 1/28/10 | (Printed Name) Sherri Sherwood | 1/28/10 |
| (Signature) | 0812 Am | (Signature) | 0812 |
| **RELINQUISHED BY** | **Date/Time** | **RECEIVED BY** | **Date/Time** |
| (Printed Name) | | (Printed Name) | |
| (Signature) | | (Signature) | |

# DATA VALIDATION COVER SHEET

**5121-1**

**Data Validation Cover Sheet**

Records Use only

Los Alamos NATIONAL LABORATORY

**Section I.**

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

**Section II. Completeness Check**

| YES | NO | N/A | (CHECK ONE) | YES | NO | N/A | (CHECK ONE) |
|---|---|---|---|---|---|---|---|
| ☒ | ☐ | ☐ | 1. CHAIN-OF-CUSTODY FORM(S) | ☒ | ☐ | ☐ | 6. RAW/BSS DATA |
| ☒ | ☐ | ☐ | 2. CASE NARRATIVE | ☒ | ☐ | ☐ | 7. QUALITY CONTROL FORMS |
| ☒ | ☐ | ☐ | 3. SAMPLE RESULT FORMS | ☒ | ☐ | ☐ | 8. QUANTITATION REPORTS |
| ☒ | ☐ | ☐ | 4. SAMPLE CHROMATOGRAMS | ☐ | ☐ | ☒ | 9. TICS FORMS |
| ☐ | ☐ | ☒ | 5. STANDARD CHROMATOGRAMS | ☐ | ☐ | ☒ | 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 soil MS/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. No sample results were qualified as a result.
2. It should be noted that the aqueous MS and MSD parent sample was from another LANL RN and the raw data for the parent sample was not included in the package. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: DATE: 3/16/10

# LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

| 5121-2<br>LC/MS/MS Perchlorate Analytical Data Validation Checklist | Records Use only<br>Los Alamos NATIONAL LABORATORY EST. 1952 |
|---|---|

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds. | R, PERC0 | J, PERC0 |
| ☐ | ☒ | ☐ | 2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, PERC0b | R, PERC0b |
| ☐ | ☐ | ☒ | 3. The IS are count is <25% of the expected value. | UJ, PERC1a | J, PERC1a |
| ☐ | ☐ | ☒ | 4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards. | UJ, PERC1b | J, PERC1b |
| ☐ | ☐ | ☒ | 5. The IS area count is >130% of the average of that obtained from the calibration standards. | UJ, PERC1c | J, PERC1c |
| ☐ | ☐ | ☒ | 6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, PREC1d | R, PERC1d |
| ☐ | ☒ | ☐ | 7. The sample result is ≤ 5X the concentration of the related analyte in the method blank. | U, PERC4 | N/A |
| ☐ | ☒ | ☐ | 8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X. | N/A | J+, PERC4a |
| ☐ | ☒ | ☐ | 9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank. | U, PERC4d | N/A |
| ☐ | ☒ | ☐ | 10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, PERC4e | R, PERC4e |
| ☐ | ☒ | ☐ | 11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit. | UJ, PERC7 | J, PERC7 |
| ☐ | ☒ | ☐ | 12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99. | UJ, R, PERC7a | J, PERC7a |

| LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST | |
|---|---|
| **5121-2**<br>**LC/MS/MS Perchlorate Analytical Data Validation Checklist** | Records Use only<br>Los Alamos NATIONAL LABORATORY EST 1943 |

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 13. The ICV and/or CCV were recovered outside the method limits. | UJ, R, PERC7c | J, PERC7c |
| ☐ | ☒ | ☐ | 14. The ICV and/or CCV were not analyzed at the appropriate method frequency. | UJ, R, PERC7d | J, PERC7d |
| ☐ | ☒ | ☐ | 15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information. | R, PERC7f | R. PERC7f |
| ☐ | ☒ | ☐ | 16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications. | N/A | R, PERC8 |
| ☐ | ☒ | ☐ | 17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | N/A | R, PERC8a |
| ☐ | ☒ | ☐ | 18. The holding time was >1 and ≤2 times the applicable holding time requirement. | UJ PERC9 | J-, PERC9 |
| ☐ | ☒ | ☐ | 19. The holding time was > 2 times the applicable holding time requirement. | R, PERC9a | J-, PERC9a |
| ☐ | ☒ | ☐ | 20. The LCS percent recovery was <10%. Follow the external laboratory limits. | R, PERC12 | J-, PERC12 |
| ☐ | ☒ | ☐ | 21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits. | UJ, PERC12a | J-, PERC12a |
| ☐ | ☒ | ☐ | 22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits. | N/A | J+, PERC12b |
| ☐ | ☒ | ☐ | 23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, PERC12c | R, PERC12c |
| ☐ | ☒ | ☐ | 24. The MS/MSD percent recovery was <10% | R, PERC12d | R, PERC12d |
| ☐ | ☒ | ☐ | 25. The MS/MSD percent recovery was >10% but <75% | UJ, PERC12e | J, PERC12e |
| ☐ | ☒ | ☐ | 26. The MS/MSD percent recovery was >125%. | N/A | J+, PERC12f |

| LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST | |
|---|---|
| **5121-2**<br>**LC/MS/MS Perchlorate Analytical Data Validation Checklist** | Records Use only<br>Los Alamos NATIONAL LABORATORY |

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 27. The MS/MSD relative percent difference was >20%. | UJ, PERC12g | J, PERC12g |
| ☐ | ☐ | ☒ | 28. 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, PERC15 | N/A |
| ☐ | ☐ | ☒ | 29. The sample was diluted because target analytes were > the initial verification calibration. | UJ, PERC15a | J, PERC15a |
| ☐ | ☐ | ☒ | 30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits. | UJ, R, PERC16 | J, PERC16 |
| ☐ | ☐ | ☒ | 31. The Interference Check Sample was not within ±20% of the known value. | UJ, PERC16a | J, PERC16a |
| ☐ | ☐ | ☒ | 32. The required CRI sample information is missing. Contact the SMO or external laboratory for information. | R, PERC16c | R, PERC16c |
| ☐ | ☒ | ☐ | 33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist. | UJ, R, PERC19 | J, R, PERC19 |
| ☐ | ☒ | ☐ | 34. Duplicate, dilution, or reanalysis. | UJ, PERC88 | J, PERC88 |

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** WATER

**Extraction Batch ID:** 950027

**Extraction Type:** Filter/DAI

**Sample Volume/Weight:** 10.0 mL

**Concentrated Extract Volume:** 10.0

**Client Sample No.**
RE15-10-8084

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512-1

**GEL Sample ID:** 245975001

**Date Filtered:** 07-FEB-10

**Injection Volume (uL):** 20

**%Solids:**

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .05 | .2 | 0.050 | ug/L | U | 1 | 08-FEB-10 21:00 | per0208066a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 08-FEB-10 21:00 | per0208066a |
| 14797-73-0 | Perchlorate-101 | .05 | .2 | 0.050 | ug/L | U | 1 | 08-FEB-10 21:00 | per0208066a |
| | Perchlorate-O(18) | | | 0.480 | ug/L | | 1 | 08-FEB-10 21:00 | per0208066a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
3/16/10

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7880

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969001

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 92.5

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .541 | 2.16 | 0.541 | ug/kg | U | 1 | 22-FEB-10 05:22 | per0221107a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 05:22 | per0221107a |
| 14797-73-0 | Perchlorate-101 | .541 | 2.16 | 0.541 | ug/kg | U | 1 | 22-FEB-10 05:22 | per0221107a |
| | Perchlorate-O(18) | | | 5.08 | ug/kg | | 1 | 22-FEB-10 05:22 | per0221107a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7891

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969002

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 74

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .676 | 2.7 | 0.676 | ug/kg | U | 1 | 22-FEB-10 05:49 | per0221110a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 05:49 | per0221110a |
| 14797-73-0 | Perchlorate-101 | .676 | 2.7 | 0.676 | ug/kg | U | 1 | 22-FEB-10 05:49 | per0221110a |
| | Perchlorate-O(18) | | | 6.51 | ug/kg | | 1 | 22-FEB-10 05:49 | per0221110a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7892

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969003

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 93

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .537 | 2.15 | 0.571 | ug/kg | J | 1 | 22-FEB-10 05:58 | per0221111a |
| | Perchlorate Isotope Ratio | | | 3.1 | | | 1 | 22-FEB-10 05:58 | per0221111a |
| 14797-73-0 | Perchlorate-101 | .537 | 2.15 | 0.588 | ug/kg | J | 1 | 22-FEB-10 05:58 | per0221111a |
| | Perchlorate-O(18) | | | 5.50 | ug/kg | | 1 | 22-FEB-10 05:58 | per0221111a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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3/16/10

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7967

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969004

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 76

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .659 | 2.64 | 0.659 | ug/kg | U | 1 | 22-FEB-10 06:07 | per0221112a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:07 | per0221112a |
| 14797-73-0 | Perchlorate-101 | .659 | 2.64 | 0.659 | ug/kg | U | 1 | 22-FEB-10 06:07 | per0221112a |
| | Perchlorate-O(18) | | | 6.43 | ug/kg | | 1 | 22-FEB-10 06:07 | per0221112a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
3/16/10

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7976

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969005

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 96.3

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .519 | 2.08 | 0.519 | ug/kg | U | 1 | 22-FEB-10 06:16 | per0221113a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:16 | per0221113a |
| 14797-73-0 | Perchlorate-101 | .519 | 2.08 | 0.519 | ug/kg | U | 1 | 22-FEB-10 06:16 | per0221113a |
| | Perchlorate-O(18) | | | 4.92 | ug/kg | | 1 | 22-FEB-10 06:16 | per0221113a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
3/16/10

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7968

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969006

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 89

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 06:52 | per0221117a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:52 | per0221117a |
| 14797-73-0 | Perchlorate-101 | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 06:52 | per0221117a |
| | Perchlorate-O(18) | | | 5.70 | ug/kg | | 1 | 22-FEB-10 06:52 | per0221117a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
3/16/10

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7965

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969007

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 78

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .643 | 2.57 | 0.643 | ug/kg | U | 1 | 22-FEB-10 07:02 | per0221118a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:02 | per0221118a |
| 14797-73-0 | Perchlorate-101 | .643 | 2.57 | 0.643 | ug/kg | U | 1 | 22-FEB-10 07:02 | per0221118a |
| | Perchlorate-O(18) | | | 6.51 | ug/kg | | 1 | 22-FEB-10 07:02 | per0221118a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7975

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969008

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 74

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .671 | 2.68 | 0.671 | ug/kg | U | 1 | 22-FEB-10 07:11 | per0221119a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:11 | per0221119a |
| 14797-73-0 | Perchlorate-101 | .671 | 2.68 | 0.671 | ug/kg | U | 1 | 22-FEB-10 07:11 | per0221119a |
| | Perchlorate-O(18) | | | 6.84 | ug/kg | | 1 | 22-FEB-10 07:11 | per0221119a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7978

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969009

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 83

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .602 | 2.41 | 0.602 | ug/kg | U | 1 | 22-FEB-10 07:20 | per0221120a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:20 | per0221120a |
| 14797-73-0 | Perchlorate-101 | .602 | 2.41 | 0.602 | ug/kg | U | 1 | 22-FEB-10 07:20 | per0221120a |
| | Perchlorate-O(18) | | | 6.62 | ug/kg | | 1 | 22-FEB-10 07:20 | per0221120a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7970

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969010

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 91.8

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .545 | 2.18 | 0.545 | ug/kg | U | 1 | 22-FEB-10 07:29 | per0221121a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:29 | per0221121a |
| 14797-73-0 | Perchlorate-101 | .545 | 2.18 | 0.545 | ug/kg | U | 1 | 22-FEB-10 07:29 | per0221121a |
| | Perchlorate-O(18) | | | 5.53 | ug/kg | | 1 | 22-FEB-10 07:29 | per0221121a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7964

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969011

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 89

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 07:38 | per0221122a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:38 | per0221122a |
| 14797-73-0 | Perchlorate-101 | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 07:38 | per0221122a |
| | Perchlorate-O(18) | | | 6.01 | ug/kg | | 1 | 22-FEB-10 07:38 | per0221122a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7973

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969012

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 82

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .613 | 2.45 | 0.613 | ug/kg | U | 1 | 22-FEB-10 07:47 | per0221123a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:47 | per0221123a |
| 14797-73-0 | Perchlorate-101 | .613 | 2.45 | 0.613 | ug/kg | U | 1 | 22-FEB-10 07:47 | per0221123a |
| | Perchlorate-O(18) | | | 6.20 | ug/kg | | 1 | 22-FEB-10 07:47 | per0221123a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7962

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969013

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 94.7

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .528 | 2.11 | 0.689 | ug/kg | J | 1 | 22-FEB-10 07:56 | per0221124a |
| | Perchlorate Isotope Ratio | | | 3.38 | | | 1 | 22-FEB-10 07:56 | per0221124a |
| 14797-73-0 | Perchlorate-101 | .528 | 2.11 | 0.650 | ug/kg | J | 1 | 22-FEB-10 07:56 | per0221124a |
| | Perchlorate-O(18) | | | 5.51 | ug/kg | | 1 | 22-FEB-10 07:56 | per0221124a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7963

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969014

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 79

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .631 | 2.52 | 0.631 | ug/kg | U | 1 | 22-FEB-10 08:05 | per0221125a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 08:05 | per0221125a |
| 14797-73-0 | Perchlorate-101 | .631 | 2.52 | 0.631 | ug/kg | U | 1 | 22-FEB-10 08:05 | per0221125a |
| | Perchlorate-O(18) | | | 6.33 | ug/kg | | 1 | 22-FEB-10 08:05 | per0221125a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7977

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969015

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 64

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .784 | 3.14 | 0.784 | ug/kg | U | 1 | 22-FEB-10 08:14 | per0221126a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 08:14 | per0221126a |
| 14797-73-0 | Perchlorate-101 | .784 | 3.14 | 0.784 | ug/kg | U | 1 | 22-FEB-10 08:14 | per0221126a |
| | Perchlorate-O(18) | | | 8.10 | ug/kg | | 1 | 22-FEB-10 08:14 | per0221126a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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3/16/10

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# DATA VALIDATION COVER SHEET

**5122-1**

**Data Validation Cover Sheet**

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

**Section I.**

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

**Section II. Completeness Check**

| YES | NO | N/A | (CHECK ONE) | YES | NO | N/A | (CHECK ONE) |
|---|---|---|---|---|---|---|---|
| ☒ | ☐ | ☐ | 1. CHAIN-OF-CUSTODY FORM(S) | ☒ | ☐ | ☐ | 6. RAW/BSS DATA |
| ☒ | ☐ | ☐ | 2. CASE NARRATIVE | ☒ | ☐ | ☐ | 7. QUALITY CONTROL FORMS |
| ☒ | ☐ | ☐ | 3. SAMPLE RESULT FORMS | ☒ | ☐ | ☐ | 8. QUANTITATION REPORTS |
| ☒ | ☐ | ☐ | 4. SAMPLE CHROMATOGRAMS | ☐ | ☐ | ☒ | 9. TICS FORMS |
| ☐ | ☐ | ☒ | 5. STANDARD CHROMATOGRAMS | ☐ | ☐ | ☒ | 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. In the ICV and CCVs associated with all samples except RE15-10-7964 and -7970, the %Ds were >20% with a positive bias for HMX. The associated results in samples -7965 and -7967 were detects and, thus, were qualified J,HE7c. All other associated sample results were NDs and, thus, were not qualified.
2. The LCS %Rs were > the laboratory's UAL for 2,4-diamino-6-nitrotoluene and 2,6-diamino-4-nitrotoluene. The associated sample results were NDs and, thus, were not qualified.
3. The MS %R was > the laboratory's UAL for 2,6-diamino-4-nitrotoluene. The associated sample results were NDs and, thus, were not qualified.
4. The sample result of HMX in sample -7965 exceeded the calibration range in the original analysis. The original HMX analysis was not reported but was reported by itself at a higher dilution. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: DATE: 3/16/10

| DATA VALIDATION COVER SHEET | |
|---|---|
| **5122-1**<br>**Data Validation Cover Sheet** | Records Use only<br>Los Alamos NATIONAL LABORATORY EST 1943 |
| Form 5122-1, Revision 0.0 | LOS ALAMOS<br>Environmental Restoration Project |

# LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

**5122-2**

**LC/MS/MS High Explosive Analytical Data Validation Checklist**

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 1. The IS retention time has shifted by more than 30 seconds. | R, UJ, HE0 | J, HE0 |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☐ | ☒ | 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 |
| ☐ | ☐ | ☒ | 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 |
| ☐ | ☐ | ☒ | 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 |
| ☐ | ☐ | ☒ | 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 |
| ☐ | ☒ | ☐ | 7. The surrogate is <10%R. Follow the external laboratory limits. | R, HE3 | J-, HE3 |
| ☐ | ☒ | ☐ | 8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits. | UJ, HE3a | J-, HE3a |
| ☐ | ☒ | ☐ | 9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits. | N/A | J+, HE3b |
| ☐ | ☐ | ☒ | 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 | |
|---|---|
| **5122-2**<br>**LC/MS/MS High Explosive Analytical Data Validation Checklist** | Records Use only<br>Los Alamos NATIONAL LABORATORY EST. 1943 |

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☒ | ☐ | 12. The sample result is ≤5 times the concentration of the related analyte in the method blank. | U, HE4 | N/A |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☐ | ☒ | 14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank. | U, HE4d | N/A |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☒ | ☐ | 16. The absence of sample carry-over must be determined and verified. | N/A | R, N, HE4f |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☒ | ☐ | 19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV. | UJ, R, HE7b | J, HE7b |
| ☒ | ☐ | ☐ | 20. The ICV and/or CCV were recovered outside the method limits. | UJ, R, HE7c | J, HE7c |
| ☐ | ☒ | ☐ | 21. The ICV and/or CCV were not analyzed at the appropriate method frequency. | UJ, R, HE7d | J, HE7d |
| ☐ | ☒ | ☐ | 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 | |
|---|---|
| **5122-2**<br>**LC/MS/MS High Explosive Analytical Data Validation Checklist** | Records Use only<br>Los Alamos NATIONAL LABORATORY EST 1943 |

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☒ | ☐ | 24. The holding time was >1 and ≤2 times the applicable holding time requirement. | UJ, HE9 | J-, HE9 |
| ☐ | ☒ | ☐ | 25. The holding time was >2 times the applicable holding time requirement. | R, HE9a | J-, HE9a |
| ☐ | ☒ | ☐ | 26. The LCS percent recovery was <10%. Follow the external laboratory limits. | R, HE12 | J-, HE12 |
| ☐ | ☒ | ☐ | 27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits. | UJ, HE12a | J-, HE12a |
| ☒ | ☐ | ☐ | 28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits. | N/A | J+, HE12b |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☒ | ☐ | 30. The MS/MSD percent recovery was <10%. | R, HE12d | R, HE12d |
| ☐ | ☒ | ☐ | 31. The MS/MSD percent recovery was >10% but <70%. | UJ, HE12e | J, HE12e |
| ☒ | ☐ | ☐ | 32. The MS/MSD percent recover was >70%. | N/A | J+, HE12f |
| ☐ | ☒ | ☐ | 33. The MS/MSD relative percent difference was >30%. | UJ, HE12g | J, HE12g |
| ☐ | ☐ | ☒ | 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 |
| ☒ | ☐ | ☐ | 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 | |
|---|---|
| **5122-2**<br>**LC/MS/MS High Explosive Analytical Data Validation Checklist** | Records Use only<br>Los Alamos NATIONAL LABORATORY |

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☐ | ☒ | 36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria. | UJ, R, HE16 | J, HE16 |
| ☐ | ☐ | ☒ | 37. The required CRI sample information is missing. Contact the SMO or external laboratory for information. | R, HE16c | R, HE16c |
| ☐ | ☒ | ☐ | 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 |
| ☐ | ☒ | ☐ | 39. Duplicate, dilution, or reanalysis. | UJ, HE88 | J, HE88 |

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969001

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301022a

**Date Analyzed:** 02-MAR-10 01:52

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969001

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220020.wiff

**Date Analyzed:** 22-FEB-10 22:00

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7891

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969002

**Sample Amount** 2

**Moisture:** 26.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301025a

**Date Analyzed:** 02-MAR-10 03:20

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7891

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969002

**Sample Amount** 2

**Moisture:** 26.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220023.wiff

**Date Analyzed:** 22-FEB-10 22:47

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7892

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969003

**Sample Amount** 2

**Moisture:** 7.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301026a

**Date Analyzed:** 02-MAR-10 03:50

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7892

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969003

**Sample Amount** 2

**Moisture:** 7.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220027.wiff

**Date Analyzed:** 22-FEB-10 23:50

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7967

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969004

**Sample Amount** 2

**Moisture:** 24.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301027a

**Date Analyzed:** 02-MAR-10 04:19

**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 J,HE7c | 205 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7967

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969004

**Sample Amount** 2

**Moisture:** 24.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220028.wiff

**Date Analyzed:** 23-FEB-10 00:06

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 3770 | |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7976

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969005

**Sample Amount** 2

**Moisture:** 3.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301028a

**Date Analyzed:** 02-MAR-10 04:49

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7976

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969005

**Sample Amount** 2

**Moisture:** 3.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220029.wiff

**Date Analyzed:** 23-FEB-10 00:22

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7968

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969006

**Sample Amount** 2

**Moisture:** 10.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301029a

**Date Analyzed:** 02-MAR-10 05:18

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7968

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969006

**Sample Amount** 2

**Moisture:** 10.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220030.wiff

**Date Analyzed:** 23-FEB-10 00:37

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301033a

**Date Analyzed:** 02-MAR-10 07:16

**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 | 423 | J |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 10

**Injection Volume (uL):** 50

**GEL data file:** EXP0301042a

**Date Analyzed:** 02-MAR-10 11:42

**Units:** ug/kg

| Cas No. | Compound | | Concentration* | Q |
|---|---|---|---|---|
| 2691-41-0 | HMX | J,HE7c | 35300 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220031.wiff

**Date Analyzed:** 23-FEB-10 00:53

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 5310 | |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7975

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969008

**Sample Amount** 2

**Moisture:** 25.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301034a

**Date Analyzed:** 02-MAR-10 07:46

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7975

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969008

**Sample Amount** 2

**Moisture:** 25.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220032.wiff

**Date Analyzed:** 23-FEB-10 01:09

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7978

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969009

**Sample Amount** 2

**Moisture:** 16.9

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301035a

**Date Analyzed:** 02-MAR-10 08:15

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7978

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969009

**Sample Amount** 2

**Moisture:** 16.9

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220033.wiff

**Date Analyzed:** 23-FEB-10 01:24

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7970

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969010

**Sample Amount** 2

**Moisture:** 8.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301071a

**Date Analyzed:** 03-MAR-10 02:05

**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 | 559 | |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500 | U |
| 2691-41-0 | HMX | 158 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7970

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969010

**Sample Amount** 2

**Moisture:** 8.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220034.wiff

**Date Analyzed:** 23-FEB-10 01:40

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 812 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7964

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969011

**Sample Amount** 2

**Moisture:** 10.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301072a

**Date Analyzed:** 03-MAR-10 02:34

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7964

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969011

**Sample Amount** 2

**Moisture:** 10.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220035.wiff

**Date Analyzed:** 23-FEB-10 01:56

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7973

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969012

**Sample Amount** 2

**Moisture:** 18.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301038a

**Date Analyzed:** 02-MAR-10 09:44

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7973

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969012

**Sample Amount** 2

**Moisture:** 18.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220036.wiff

**Date Analyzed:** 23-FEB-10 02:11

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7962

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969013

**Sample Amount** 2

**Moisture:** 5.3

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301039a

**Date Analyzed:** 02-MAR-10 10:13

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7962

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969013

**Sample Amount** 2

**Moisture:** 5.3

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220040.wiff

**Date Analyzed:** 23-FEB-10 03:14

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7963

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969014

**Sample Amount** 2

**Moisture:** 20.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301040a

**Date Analyzed:** 02-MAR-10 10:42

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7963

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969014

**Sample Amount** 2

**Moisture:** 20.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220041.wiff

**Date Analyzed:** 23-FEB-10 03:30

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7977

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969015

**Sample Amount** 2

**Moisture:** 36.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301041a

**Date Analyzed:** 02-MAR-10 11:12

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7977

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969015

**Sample Amount** 2

**Moisture:** 36.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220042.wiff

**Date Analyzed:** 23-FEB-10 03:46

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# DATA VALIDATION COVER SHEET

**5116-1**

## Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

**Section I.**

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

**Section II. Completeness Check**

| YES | NO | N/A | (CHECK ONE) | YES | NO | N/A | (CHECK ONE) |
|---|---|---|---|---|---|---|---|
| ☒ | ☐ | ☐ | 1. CHAIN-OF-CUSTODY FORM(S) | ☒ | ☐ | ☐ | 6. RAW/BSS DATA |
| ☒ | ☐ | ☐ | 2. CASE NARRATIVE | ☒ | ☐ | ☐ | 7. QUALITY CONTROL FORMS |
| ☒ | ☐ | ☐ | 3. SAMPLE RESULT FORMS | ☒ | ☐ | ☐ | 8. QUANTITATION REPORTS |
| ☒ | ☐ | ☐ | 4. SAMPLE CHROMATOGRAMS | ☐ | ☐ | ☒ | 9. TICS FORMS |
| ☐ | ☐ | ☒ | 5. STANDARD CHROMATOGRAMS | ☐ | ☐ | ☒ | 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):

None.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: DATE: 3/16/10

# ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

**5116-2**

**Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 1. The holding time was >1 and ≤2 times the applicable holding time requirement. | UJ, P9 | J-, P9 |
| ☐ | ☒ | ☐ | 2. The holding time was >2 times the applicable holding time requirement. | R, P9 | J-, P9a |
| ☐ | ☒ | ☐ | 3. The affected analytes are regarded as rejected because the analytical holding time was exceeded. | R, P9b | R, P9b |
| ☐ | ☒ | ☐ | 4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit. | UJ, R, P7 | J, P7 |
| ☐ | ☒ | ☐ | 5. 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, P7a | J, P7a |
| ☐ | ☒ | ☐ | 6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits. | UJ, P7c | J, P7c |
| ☐ | ☒ | ☐ | 7. The ICV and/or CCV were not analyzed at the appropriate method frequency. | UJ, P7d | J, P7d |
| ☐ | ☒ | ☐ | 8. The multicomponent standard was not analyzed within 72 hours of the initial analysis. | R, P7e | J, P7e |
| ☐ | ☒ | ☐ | 9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information. | R, P7f | R, P7f |
| ☐ | ☐ | ☒ | 10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin). | UJ, R, P13 | J-, P13 |

# ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

| 5116-2<br><br>Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist | Records Use only<br><br>Los Alamos NATIONAL LABORATORY |
|---|---|

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☐ | ☒ | 11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE. | UJ, P13a | J+, P13a |
| ☐ | ☐ | ☒ | 12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, P13b | R, P13b |
| ☐ | ☒ | ☐ | 13. The sample result is ≤5X the concentration of the related analyte in the method blank. | U, P4 | N/A |
| ☐ | ☒ | ☐ | 14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X. | N/A | J, P4a |
| ☐ | ☐ | ☒ | 15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank. | UJ, P4b | N/A |
| ☐ | ☐ | ☒ | 16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank. | UJ, P4d | N/A |
| ☐ | ☒ | ☐ | 17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, P4e | R, P4e |
| ☐ | ☒ | ☐ | 18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration. | R, P0 | J, P0 |
| ☐ | ☒ | ☐ | 19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, P0b | R, P0b |
| ☐ | ☒ | ☐ | 20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package. | R, P3 | J-, P3 |

# ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

**5116-2**

**Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. | UJ, P3a | J-, P3a |
| ☐ | ☒ | ☐ | 22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package. | N/A | J+, P3b |
| ☐ | ☒ | ☐ | 23. 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, P3c | J, P3c |
| ☐ | ☒ | ☐ | 24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, P3d | R, P3d |
| ☐ | ☒ | ☐ | 25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package. | R, P12 | J-, P12 |
| ☐ | ☒ | ☐ | 26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package. | UJ, P12a | J-, P12a |
| ☐ | ☒ | ☐ | 27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package. | N/A | J+, P12b |
| ☐ | ☒ | ☐ | 28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, P12c | R, P12c |
| ☐ | ☒ | ☐ | 29. The analyte was not confirmed on a second dissimilar column. | N/A | R, P8 |
| ☐ | ☒ | ☐ | 30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, P8a | R, P8a |
| ☐ | ☒ | ☐ | 31. Duplicate, Dilution, or reanalysis. | UJ, P88 | J, P88 |

# ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

| 5116-2<br><br>Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist | Records Use only<br><br>Los Alamos NATIONAL LABORATORY EST 1943 |
|---|---|

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☐ | ☒ | 32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference. | UJ, R, P15 | R, P15 |
| ☒ | ☐ | ☐ | 33. 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 |
| ☐ | ☒ | ☐ | 34. 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, P19 | J, R, P19 |

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | 10-1512 | **Date Collected:** | 01/27/2010 12:00 | **Matrix:** | R |
| **Lab Sample ID:** | 245969001 | **Date Received:** | 02/02/2010 09:10 | **%Moisture:** | 7.5 |
| | | **Client:** | LANL010 | **Project:** | LANL01004 |
| **Client ID:** | RE15-10-7880 | **Method:** | SW846 8082 | **SOP Ref:** | GL-OA-E-040 |
| **Batch ID:** | 950898 | **Inst:** | ECD1A.I | **Dilution:** | 1 |
| **Run Date:** | 02/10/2010 16:51 | **Analyst:** | YS1 | **Inj. Vol:** | 1 uL |
| **Prep Date:** | 02/09/2010 21:07 | **Aliquot:** | 30.01 g | **Final Volume:** | 1 mL |
| **Data File:** | 021f2101.d | **Column:** | 1 CLP1 | **Level:** | LOW |
| | 021b2101.d | | 2 CLP2 | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11104-28-2 | Aroclor-1221 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11141-16-5 | Aroclor-1232 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 53469-21-9 | Aroclor-1242 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 12672-29-6 | Aroclor-1248 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11097-69-1 | Aroclor-1254 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11096-82-5 | Aroclor-1260 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |

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# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | 10-1512 | **Date Collected:** | 01/27/2010 12:00 | **Matrix:** | R |
| **Lab Sample ID:** | 245969002 | **Date Received:** | 02/02/2010 09:10 | **%Moisture:** | 26 |
| | | **Client:** | LANL010 | **Project:** | LANL01004 |
| **Client ID:** | RE15-10-7891 | **Method:** | SW846 8082 | **SOP Ref:** | GL-OA-E-040 |
| **Batch ID:** | 949033 | **Inst:** | ECD1A.I | **Dilution:** | 1 |
| **Run Date:** | 02/05/2010 13:39 | **Analyst:** | YS1 | **Inj. Vol:** | 1 uL |
| **Prep Date:** | 02/04/2010 20:32 | **Aliquot:** | 30.21 g | **Final Volume:** | 1 mL |
| **Data File:** | 036f3601.d | **Column:** | 1 CLP1 | **Level:** | LOW |
| | 036b3601.d | | 2 CLP2 | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11104-28-2 | Aroclor-1221 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11141-16-5 | Aroclor-1232 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 53469-21-9 | Aroclor-1242 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 12672-29-6 | Aroclor-1248 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11097-69-1 | Aroclor-1254 | | 11.1 | ug/kg | 1.49 | 4.47 | 1 |
| 11096-82-5 | Aroclor-1260 | | 8.30 | ug/kg | 1.49 | 4.47 | 2 |
| 11100-14-4 | Aroclor-1268 | | 7.90 | ug/kg | 1.49 | 4.47 | 2 |

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3/16/10

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | **10-1512** | **Date Collected:** | **01/27/2010 12:00** | **Matrix:** | **R** |
| **Lab Sample ID:** | **245969003** | **Date Received:** | **02/02/2010 09:10** | **%Moisture:** | **7** |
| | | **Client:** | **LANL010** | **Project:** | **LANL01004** |
| **Client ID:** | **RE15-10-7892** | **Method:** | **SW846 8082** | **SOP Ref:** | **GL-OA-E-040** |
| **Batch ID:** | **949033** | **Inst:** | **ECD1A.I** | **Dilution:** | **1** |
| **Run Date:** | **02/05/2010 13:52** | **Analyst:** | **YS1** | **Inj. Vol:** | **1 uL** |
| **Prep Date:** | **02/04/2010 20:32** | **Aliquot:** | **30.11 g** | **Final Volume:** | **1 mL** |
| **Data File:** | **037f3701.d** | **Column:** | **1 CLP1** | **Level:** | **LOW** |
| | **037b3701.d** | | **2 CLP2** | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11104-28-2 | Aroclor-1221 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11141-16-5 | Aroclor-1232 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 53469-21-9 | Aroclor-1242 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 12672-29-6 | Aroclor-1248 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11097-69-1 | Aroclor-1254 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11096-82-5 | Aroclor-1260 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |

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3/16/10

# DATA VALIDATION COVER SHEET

**5118-1**

**Data Validation Cover Sheet**

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

**Section I.**

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

**Section II. Completeness Check**

| YES | NO | N/A | (CHECK ONE) | YES | NO | N/A | (CHECK ONE) |
|---|---|---|---|---|---|---|---|
| ☒ | ☐ | ☐ | 1. CHAIN-OF-CUSTODY FORM(S) | ☒ | ☐ | ☐ | 6. RAW/BSS DATA |
| ☒ | ☐ | ☐ | 2. CASE NARRATIVE | ☒ | ☐ | ☐ | 7. QUALITY CONTROL FORMS |
| ☒ | ☐ | ☐ | 3. SAMPLE RESULT FORMS | ☐ | ☐ | ☒ | 8. QUANTITATION REPORTS |
| ☐ | ☐ | ☒ | 4. SAMPLE CHROMATOGRAMS | ☐ | ☐ | ☒ | 9. TICS FORMS |
| ☐ | ☐ | ☒ | 5. STANDARD CHROMATOGRAMS | ☐ | ☐ | ☒ | 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. In the soil MBs, K, Pb, and Zn were detected. The results for Pb in samples RE15-10-7892, -7963, -7964, -7976, and -7978 were detects >5X but ≤50X the MB concentrations and, thus, were qualified J,I4a. All other associated sample results were detects >50X the MB concentrations and, thus, were not qualified based on professional judgment.
2. In the aqueous ICB and/or CCBs, Tl was detected. The associated sample result was an ND and, thus, was not qualified. In the soil ICB and/or CCBs, K and Pb were detected. The associated sample results were detects >5X the greatest blank concentrations and, thus, were not qualified.
3. In the FR blanks (sample -8084 from this RN and -8083 from RN 10-1514) associated with all field samples, K, Mn, Na, and U were detected. The results for Na in field samples -7965, -7967, -7973, -7975, and -7977 and U in field sample -7880 were detects ≤5X the FR blank concentration and, thus, were qualified U,I4d. All other associated field sample results were detects >5X the FR blank concentration and, thus, were not qualified.
4. There were >10 samples between the bracketing CCVs associated with the analysis of all soil samples except -7880, -7891, -7892, and -7967 for As, Be, Ni, Se, and Tl. The associated sample results for Se and the results for Tl in samples -7968, -7970, and -7976 were ND and, thus were qualified UJ,I7d. All other associated sample results were detects and, thus, were qualified J,I7d.
5. The soil MS %R was < the laboratory's LAL but ≥10% for Pb. The associated sample results were detects and, thus, were qualified J-,I6a. The soil MS %Rs were > the laboratory's UAL for Al, K, Na, and U. The results for Na in samples -7965, -7967, -7973, -7975, and -7977 and U in sample -7880 were qualified ND and, thus, were qualified UJ,I6b. All other associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %Rs were <10% for Fe and < the laboratory's LAL but ≥10% for Mn. However, the associated parent sample results were >4X

# DATA VALIDATION COVER SHEET

**5118-1**

**Data Validation Cover Sheet**

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the spike concentrations and, thus, no sample results were qualified, based on professional judgment.

6. The duplicate RPDs were >35% for Co and Cr, and both the duplicate and parent sample results were ≥5X the PQL. The associated sample results were detects and, thus, were qualified J,I10a.
7. It should be noted that the aqueous matrix QC parent samples were from other LANL RNs. No sample results were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: _____ DATE: 3/17/10

# METALS ANALYTICAL DATA VALIDATION CHECKLIST

**5118-2**

**Metals Analytical Data Validation Checklist**

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| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 1. The holding time was >1 and ≤2 times the applicable holding time requirement. | UJ, I9 | J-, I9 |
| ☐ | ☒ | ☐ | 2. The holding time was >2 times the applicable holding time requirement. | R, I9a | J-, I9a |
| ☐ | ☐ | ☒ | 3. The instrument performance sample did not pass method acceptance criteria. | R, I16 | R, I16 |
| ☐ | ☐ | ☒ | 4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb). | UJ, I16a | J, I16a |
| ☐ | ☐ | ☒ | 5. Samples were analyzed outside specific method tune time criteria. | N/A | J, I16b |
| ☐ | ☐ | ☒ | 6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information. | R, I16c | R, I16c |
| ☐ | ☒ | ☐ | 7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit. | UJ, R, I7 | J, I7 |
| ☐ | ☒ | ☐ | 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, I7a | J, I7a |
| ☐ | ☒ | ☐ | 9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits. | UJ, I7c | J, I7c |
| ☒ | ☐ | ☐ | 10. The ICV and/or CCV were not analyzed at the appropriate method frequency. | UJ, I7d | J, I7d |
| ☐ | ☒ | ☐ | 11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information. | R, I7f | R, I7f |
| ☐ | ☒ | ☐ | 12. Metals interference check sample percent recover value is <50%. | R, I2 | J-, I2 |

# METALS ANALYTICAL DATA VALIDATION CHECKLIST

**5118-2**

**Metals Analytical Data Validation Checklist**

Records Use only

Los Alamos NATIONAL LABORATORY

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 13. Metals interference check sample percent recovery value is ≥50% and <80% | UJ, I2a | J-, I2a |
| ☐ | ☒ | ☐ | 14. Metals interference check sample percent recovery value is >120%. | N/A | J+, I2b |
| ☐ | ☒ | ☐ | 15. Metals interference check sample was not analyzed with the samples. | R, I2c | R, I2c |
| ☐ | ☒ | ☐ | 16. The sample result is ≤5X the concentration of the related analyte in the method blank. | U, I4 | N/A |
| ☒ | ☐ | ☐ | 17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X. | N/A | J, I4a |
| ☒ | ☐ | ☐ | 18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank. | U, I4b | N/A |
| ☐ | ☒ | ☐ | 19. Continuing calibration blanks were not analyzed at the appropriate method frequency. | UJ, I4c | J, I4c |
| ☒ | ☐ | ☐ | 20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank. | U, I4d | N/A |
| ☐ | ☒ | ☐ | 21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, I4e | R, I4e |
| ☒ | ☐ | ☐ | 22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package. | R, I6 | R, I6 |
| ☒ | ☐ | ☐ | 23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package. | UJ, I6a | J+, I6a |
| ☒ | ☐ | ☐ | 24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package. | UJ, I6b | J+, I6b |

# METALS ANALYTICAL DATA VALIDATION CHECKLIST

**5118-2**

**Metals Analytical Data Validation Checklist**

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information. | R, I6c | R, I6c |
| ☒ | ☐ | ☐ | 26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples. | UJ, I10a | J, I10a |
| ☐ | ☒ | ☐ | 27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | UJ, I10d | J, I10d |
| ☐ | ☒ | ☐ | 28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package. | R, I12 | R, I12 |
| ☐ | ☒ | ☐ | 29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package. | UJ, I12a | J-, I12a |
| ☐ | ☒ | ☐ | 30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package. | N/A | J+, I12b |
| ☐ | ☒ | ☐ | 31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria. | R, I12c | R, I12c |
| ☐ | ☐ | ☒ | 32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows. | R, I1a | J, I1a |

# METALS ANALYTICAL DATA VALIDATION CHECKLIST

| 5118-2<br>Metals Analytical Data Validation Checklist | Records Use only<br>Los Alamos NATIONAL LABORATORY EST. 1943 |
|---|---|

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☐ | ☒ | 33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows. | UJ, I1b | J, I1b |
| ☐ | ☐ | ☒ | 34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows. | UJ, I1c | J, I1c |
| ☐ | ☐ | ☒ | 35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, I1d | R, I1d |
| ☐ | ☐ | ☒ | 36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution. | UJ, I18 | J, I18 |
| ☐ | ☐ | ☒ | 37. Serial dilution sample was not analyzed with the samples. | UJ, I18a | J, I18 |
| ☐ | ☐ | ☒ | 38. The sample result was reported as detected between the IDL and the EDL. | N/A | J, I1 |
| ☐ | ☒ | ☐ | 39. Duplicate, dilution, or reanalysis. | UJ, I88 | J, I88 |
| ☒ | ☐ | ☐ | 40. 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 |
| ☐ | ☒ | ☐ | 41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist. | UJ, R, I19 | J, R, I19 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245975001 **BASIS:** As Received **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-8084 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** WATER **%SOLIDS:** 0

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 200 | ug/L | U | 68 | 200 | 200 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-36-0 | Antimony | 3 | ug/L | U | 1 | 3 | 3 | 1 | MS | BAJ | 02/25/10 04:45 | 100224-2 | 948740 |
| 7440-38-2 | Arsenic | 30 | ug/L | U | 5 | 30 | 30 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-39-3 | Barium | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-41-7 | Beryllium | 0.50 | ug/L | U | 0.1 | 0.5 | 0.5 | 1 | MS | BAJ | 02/25/10 15:31 | 100225-3 | 948740 |
| 7440-43-9 | Cadmium | 1 | ug/L | U | 0.11 | 1 | 1 | 1 | MS | BAJ | 02/25/10 04:45 | 100224-2 | 948740 |
| 7440-70-2 | Calcium | 200 | ug/L | U | 50 | 200 | 200 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-47-3 | Chromium | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-48-4 | Cobalt | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-50-8 | Copper | 10 | ug/L | U | 3 | 10 | 10 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7439-89-6 | Iron | 100 | ug/L | U | 30 | 100 | 100 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7439-92-1 | Lead | 2 | ug/L | U | 0.5 | 2 | 2 | 1 | MS | BAJ | 02/25/10 15:31 | 100225-3 | 948740 |
| 7439-95-4 | Magnesium | 300 | ug/L | U | 85 | 300 | 300 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7439-96-5 | Manganese | 5 | ug/L | U | 1 | 5 | 5 | 1 | MS | BAJ | 02/25/10 15:31 | 100225-3 | 948740 |
| 7439-97-6 | Mercury | 0.20 | ug/L | U | 0.066 | 0.2 | 0.2 | 1 | AV | JXL1 | 02/05/10 10:03 | 020510W1-6 | 949020 |
| 7440-02-0 | Nickel | 5 | ug/L | U | 1.5 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-09-7 | Potassium | 195 | ug/L | | 50 | 150 | 150 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7782-49-2 | Selenium | 30 | ug/L | U | 5 | 30 | 30 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-22-4 | Silver | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-23-5 | Sodium | 117 | ug/L | J | 100 | 300 | 300 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-28-0 | Thallium | 1 | ug/L | U | 0.3 | 1 | 1 | 1 | MS | BAJ | 02/28/10 14:33 | 100228-5 | 948740 |
| 7440-61-1 | Uranium | 0.20 | ug/L | U | 0.05 | 0.2 | 0.2 | 1 | MS | BAJ | 02/25/10 16:22 | 100225-4 | 948740 |
| 7440-62-2 | Vanadium | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-66-6 | Zinc | 10 | ug/L | U | 3.3 | 10 | 10 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948737 | 948730 | SW846 3005A | 50 | mL | 50 | mL | 02/10/10 | FGA |
| 948740 | 948739 | SW846 3005A | 50 | mL | 50 | mL | 02/10/10 | FGA |
| 949020 | 949018 | SW846 7470A Prep | 20 | mL | 20 | mL | 02/04/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969001 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7880 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 92.5

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum J+,I6b | 1640000 | ug/Kg | N | 7250 | 21300 | 21300 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1070 | ug/Kg | U | 352 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 0.915 | mg/kg | J | 0.207 | 1.04 | 1.04 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 19600 | ug/Kg | | 107 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.235 | mg/kg | | 0.0207 | 0.104 | 0.104 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 533 | ug/Kg | U | 107 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 308000 | ug/Kg | | 8530 | 26700 | 26700 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-47-3 | Chromium J,I10a | 8570 | ug/Kg | * | 160 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt J,I10a | 4770 | ug/Kg | * | 160 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 3660 | ug/Kg | | 320 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 8040000 | ug/Kg | | 8530 | 26700 | 26700 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-92-1 | Lead J-,I6a | 34400 | ug/Kg | EN | 267 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 136000 | ug/Kg | | 9060 | 32000 | 32000 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 221000 | ug/Kg | | 213 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 14.4 | ug/kg | | 4 | 11.8 | 11.8 | 1 | AV | JXL1 | 02/18/10 10:11 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 3.04 | mg/kg | | 0.104 | 0.414 | 0.414 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-09-7 | Potassium J+,I6b | 616000 | ug/Kg | N | 6820 | 26700 | 26700 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.04 | mg/kg | U | 0.518 | 1.04 | 1.04 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 533 | ug/Kg | U | 107 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-23-5 | Sodium J+,I6b | 423000 | ug/Kg | N | 7460 | 26700 | 26700 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.207 | mg/kg | U | 0.0621 | 0.207 | 0.207 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-61-1 | Uranium U,I4d | 0.606 | mg/kg | *N | 0.0137 | 0.0414 | 0.0414 | 2 | MS | RMJ | 02/26/10 04:20 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 2080 | ug/Kg | | 107 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 23000 | ug/Kg | | 352 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.507 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.522 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.551 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969002 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7891 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 74

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum J+,I6b | 7040000 | ug/Kg | N | 8940 | 26300 | 26300 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1310 | ug/Kg | | 434 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 2.23 | mg/kg | | 0.261 | 1.3 | 1.3 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 78300 | ug/Kg | | 131 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 2.95 | mg/kg | | 0.0261 | 0.13 | 0.13 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 259 | ug/Kg | J | 131 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 27600000 | ug/Kg | | 10500 | 32900 | 32900 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-47-3 | Chromium J,I10a | 10600 | ug/Kg | * | 197 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt J,I10a | 7410 | ug/Kg | * | 197 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 280000 | ug/Kg | | 394 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 10400000 | ug/Kg | | 10500 | 32900 | 32900 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-92-1 | Lead J-,I6a | 117000 | ug/Kg | EN | 329 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 1660000 | ug/Kg | | 11200 | 39400 | 39400 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 200000 | ug/Kg | | 263 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 10 | ug/kg | J | 4.99 | 14.7 | 14.7 | 1 | AV | JXL1 | 02/18/10 10:21 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 7.45 | mg/kg | | 0.13 | 0.522 | 0.522 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-09-7 | Potassium J+,I6b | 1010000 | ug/Kg | N | 8410 | 32900 | 32900 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.3 | mg/kg | U | 0.652 | 1.3 | 1.3 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 159 | ug/Kg | J | 131 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-23-5 | Sodium J+,I6b | 123000 | ug/Kg | N | 9200 | 32900 | 32900 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.127 | mg/kg | J | 0.0783 | 0.261 | 0.261 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-61-1 | Uranium J+,I6b | 213 | mg/kg | *N | 0.172 | 0.522 | 0.522 | 20 | MS | RMJ | 02/26/10 04:35 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 19200 | ug/Kg | | 131 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 44000 | ug/Kg | | 434 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.514 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.518 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.553 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
-1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969003 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7892 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 93

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum J+,I6b | 4330000 | ug/Kg | N | 6620 | 19500 | 19500 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 974 | ug/Kg | U | 321 | 974 | 974 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.12 | mg/kg | | 0.197 | 0.984 | 0.984 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 43400 | ug/Kg | | 97.4 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.559 | mg/kg | | 0.0197 | 0.0984 | 0.0984 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 487 | ug/Kg | U | 97.4 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 2880000 | ug/Kg | | 7790 | 24300 | 24300 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-47-3 | Chromium J,I10a | 23800 | ug/Kg | * | 146 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt J,I10a | 3530 | ug/Kg | * | 146 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 7360 | ug/Kg | | 292 | 974 | 974 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 7650000 | ug/Kg | | 7790 | 24300 | 24300 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7439-92-1 | Lead J,I4a | 8150 | ug/Kg | EN | 243 | 974 | 974 | 1 | P | HSC | 03/01/10 13:45 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | 924000 | ug/Kg | | 8280 | 29200 | 29200 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 210000 | ug/Kg | | 195 | 974 | 974 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 27.7 | ug/kg | | 4.04 | 11.9 | 11.9 | 1 | AV | JXL1 | 02/18/10 10:23 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 5.92 | mg/kg | | 0.0984 | 0.394 | 0.394 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-09-7 | Potassium J+,I6b | 572000 | ug/Kg | N | 6230 | 24300 | 24300 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 0.984 | mg/kg | U | 0.492 | 0.984 | 0.984 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 487 | ug/Kg | U | 97.4 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-23-5 | Sodium J+,I6b | 198000 | ug/Kg | N | 6820 | 24300 | 24300 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.0756 | mg/kg | J | 0.0591 | 0.197 | 0.197 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-61-1 | Uranium J+,I6b | 6.79 | mg/kg | *N | 0.013 | 0.0394 | 0.0394 | 2 | MS | RMJ | 02/28/10 03:29 | 100227-5 | 948759 |
| 7440-62-2 | Vanadium | 7520 | ug/Kg | | 97.4 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 35400 | ug/Kg | | 321 | 974 | 974 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.552 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.546 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.543 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
-1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969004 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7967 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 76

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum J+,I6b | 4770000 | ug/Kg | N | 8830 | 26000 | 26000 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 4620 | ug/Kg | | 428 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.79 | mg/kg | | 0.242 | 1.21 | 1.21 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 101000 | ug/Kg | | 130 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 11.9 | mg/kg | | 0.0242 | 0.121 | 0.121 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 438 | ug/Kg | J | 130 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 2650000 | ug/Kg | | 10400 | 32500 | 32500 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-47-3 | Chromium J,I10a | 31700 | ug/Kg | * | 195 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt J,I10a | 5550 | ug/Kg | * | 195 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 2200000 | ug/Kg | | 389 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 9720000 | ug/Kg | | 10400 | 32500 | 32500 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-92-1 | Lead J+,I6a | 363000 | ug/Kg | EN | 325 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 1020000 | ug/Kg | | 11000 | 38900 | 38900 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 182000 | ug/Kg | | 260 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 8 | ug/kg | J | 5.28 | 15.5 | 15.5 | 1 | AV | JXL1 | 02/18/10 10:25 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 10 | mg/kg | | 0.121 | 0.485 | 0.485 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-09-7 | Potassium J+,I6b | 676000 | ug/Kg | N | 8310 | 32500 | 32500 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.21 | mg/kg | U | 0.606 | 1.21 | 1.21 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 1870 | ug/Kg | | 130 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-23-5 | Sodium U,I4d | 62200 | ug/Kg | N | 9090 | 32500 | 32500 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.242 | mg/kg | U | 0.0727 | 0.242 | 0.242 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-61-1 | Uranium J+,I6b | 295 | mg/kg | *N | 0.32 | 0.97 | 0.97 | 40 | MS | RMJ | 02/26/10 04:47 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 16100 | ug/Kg | | 130 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 75100 | ug/Kg | | 428 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.508 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.544 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.51 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969005 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7976 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 96.3

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum J+,I6b | 2760000 | ug/Kg | N | 6830 | 20100 | 20100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1000 | ug/Kg | U | 331 | 1000 | 1000 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic J,I7d | 0.955 | mg/kg | J | 0.203 | 1.02 | 1.02 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 32400 | ug/Kg | | 100 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium J,I7d | 0.394 | mg/kg | | 0.0203 | 0.102 | 0.102 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 102 | ug/Kg | J | 100 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 593000 | ug/Kg | | 8030 | 25100 | 25100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-47-3 | Chromium J,I10a | 7190 | ug/Kg | * | 151 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt J,I10a | 10100 | ug/Kg | * | 151 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 21000 | ug/Kg | | 301 | 1000 | 1000 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 9830000 | ug/Kg | | 8030 | 25100 | 25100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7439-92-1 | Lead J,I4a | 16400 | ug/Kg | EN | 251 | 1000 | 1000 | 1 | P | HSC | 03/01/10 13:52 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | 451000 | ug/Kg | | 8540 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 223000 | ug/Kg | | 201 | 1000 | 1000 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 8.03 | ug/kg | J | 4.19 | 12.3 | 12.3 | 1 | AV | JXL1 | 02/18/10 10:31 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel J,I7d | 3.65 | mg/kg | | 0.102 | 0.406 | 0.406 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-09-7 | Potassium J+,I6b | 613000 | ug/Kg | N | 6430 | 25100 | 25100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7782-49-2 | Selenium UJ,I7d | 1.02 | mg/kg | U | 0.508 | 1.02 | 1.02 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 502 | ug/Kg | U | 100 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-23-5 | Sodium J+,I6b | 244000 | ug/Kg | N | 7030 | 25100 | 25100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-28-0 | Thallium UJ,I7d | 0.203 | mg/kg | U | 0.061 | 0.203 | 0.203 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-61-1 | Uranium J+,I6b | 5.33 | mg/kg | *N | 0.0134 | 0.0406 | 0.0406 | 2 | MS | RMJ | 02/26/10 04:50 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 7450 | ug/Kg | | 100 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 31400 | ug/Kg | | 331 | 1000 | 1000 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.517 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.511 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.506 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
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# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969006 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7968 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 89

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 2880000 | ug/Kg | N | 7400 | 21800 | 21800 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 1340 | ug/Kg | | 359 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 1.22 | mg/kg | | 0.205 | 1.03 | 1.03 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 39000 | ug/Kg | | 109 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 1.23 | mg/kg | | 0.0205 | 0.103 | 0.103 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 544 | ug/Kg | U | 109 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 913000 | ug/Kg | | 8700 | 27200 | 27200 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 33900 | ug/Kg | * | 163 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 3430 | ug/Kg | * | 163 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 116000 | ug/Kg | | 326 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 6750000 | ug/Kg | | 8700 | 27200 | 27200 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J-,I6a | 25300 | ug/Kg | EN | 272 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | | 511000 | ug/Kg | | 9250 | 32600 | 32600 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 221000 | ug/Kg | | 218 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 5.16 | ug/kg | J | 3.88 | 11.4 | 11.4 | 1 | AV | JXL1 | 02/18/10 10:33 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 5.59 | mg/kg | | 0.103 | 0.41 | 0.41 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 453000 | ug/Kg | N | 6960 | 27200 | 27200 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.03 | mg/kg | U | 0.513 | 1.03 | 1.03 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 242 | ug/Kg | J | 109 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | J+,I6b | 166000 | ug/Kg | N | 7620 | 27200 | 27200 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | UJ,I7d | 0.205 | mg/kg | U | 0.0616 | 0.205 | 0.205 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 37.7 | mg/kg | *N | 0.0677 | 0.205 | 0.205 | 10 | MS | RMJ | 02/26/10 04:54 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 4530 | ug/Kg | | 109 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 27800 | ug/Kg | | 359 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.515 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.546 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.589 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969007 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7965 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 78

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum J+,I6b | 5750000 | ug/Kg | N | 8370 | 24600 | 24600 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1050 | ug/Kg | J | 406 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic J,I7d | 1.64 | mg/kg | | 0.238 | 1.19 | 1.19 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 85500 | ug/Kg | | 123 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium J,I7d | 1.51 | mg/kg | | 0.0238 | 0.119 | 0.119 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 181 | ug/Kg | J | 123 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 1740000 | ug/Kg | | 9850 | 30800 | 30800 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-47-3 | Chromium J,I10a | 17800 | ug/Kg | * | 185 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt J,I10a | 2800 | ug/Kg | * | 185 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 49200 | ug/Kg | | 369 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 8510000 | ug/Kg | | 9850 | 30800 | 30800 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-92-1 | Lead J-,I6a | 113000 | ug/Kg | EN | 308 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 968000 | ug/Kg | | 10500 | 36900 | 36900 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 210000 | ug/Kg | | 246 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 17.1 | ug/kg | | 5.07 | 14.9 | 14.9 | 1 | AV | JXL1 | 02/18/10 10:35 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel J,I7d | 5.67 | mg/kg | | 0.119 | 0.476 | 0.476 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-09-7 | Potassium J+,I6b | 801000 | ug/Kg | N | 7880 | 30800 | 30800 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7782-49-2 | Selenium UJ,I7d | 1.19 | mg/kg | U | 0.595 | 1.19 | 1.19 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 616 | ug/Kg | U | 123 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-23-5 | Sodium U,I4d | 60000 | ug/Kg | N | 8620 | 30800 | 30800 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-28-0 | Thallium J,I7d | 0.0993 | mg/kg | J | 0.0714 | 0.238 | 0.238 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-61-1 | Uranium J+,I6b | 71.2 | mg/kg | *N | 0.0786 | 0.238 | 0.238 | 10 | MS | RMJ | 02/26/10 04:57 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 13600 | ug/Kg | | 123 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 32900 | ug/Kg | | 406 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.522 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.54 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.517 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969008 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7975 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 74

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 5160000 | ug/Kg | N | 8190 | 24100 | 24100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 1210 | ug/Kg | U | 398 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 2.21 | mg/kg | | 0.263 | 1.31 | 1.31 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 63300 | ug/Kg | | 121 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 1.84 | mg/kg | | 0.0263 | 0.131 | 0.131 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 1170 | ug/Kg | | 121 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 1570000 | ug/Kg | | 9640 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 11100 | ug/Kg | * | 181 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 4130 | ug/Kg | * | 181 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 45600 | ug/Kg | | 362 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 10700000 | ug/Kg | | 9640 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J-,I6a | 46400 | ug/Kg | EN | 301 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | | 946000 | ug/Kg | | 10200 | 36200 | 36200 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 249000 | ug/Kg | | 241 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 14.8 | ug/kg | U | 5.04 | 14.8 | 14.8 | 1 | AV | JXL1 | 02/18/10 10:37 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 6.42 | mg/kg | | 0.131 | 0.525 | 0.525 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 1020000 | ug/Kg | N | 7710 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.31 | mg/kg | U | 0.657 | 1.31 | 1.31 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 603 | ug/Kg | U | 121 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | U,I4d | 56300 | ug/Kg | N | 8440 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | J,I7d | 0.132 | mg/kg | J | 0.0788 | 0.263 | 0.263 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 45.7 | mg/kg | *N | 0.0867 | 0.263 | 0.263 | 10 | MS | RMJ | 02/26/10 05:00 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 22200 | ug/Kg | | 121 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 40700 | ug/Kg | | 398 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.557 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.511 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.543 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969009 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7978 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 83

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 13300000 | ug/Kg | N | 7820 | 23000 | 23000 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 1150 | ug/Kg | U | 380 | 1150 | 1150 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 3.38 | mg/kg | | 0.211 | 1.05 | 1.05 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 138000 | ug/Kg | | 115 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 1.31 | mg/kg | | 0.0211 | 0.105 | 0.105 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 575 | ug/Kg | U | 115 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 3240000 | ug/Kg | | 9210 | 28800 | 28800 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 11500 | ug/Kg | * | 173 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 9040 | ug/Kg | * | 173 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 9910 | ug/Kg | | 345 | 1150 | 1150 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 15000000 | ug/Kg | | 9210 | 28800 | 28800 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J,I4a | 14100 | ug/Kg | EN | 288 | 1150 | 1150 | 1 | P | HSC | 03/01/10 13:59 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | | 2250000 | ug/Kg | | 9780 | 34500 | 34500 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 231000 | ug/Kg | | 230 | 1150 | 1150 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 45.7 | ug/kg | | 4.48 | 13.2 | 13.2 | 1 | AV | JXL1 | 02/18/10 10:39 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 10.4 | mg/kg | | 0.105 | 0.422 | 0.422 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 1760000 | ug/Kg | N | 7360 | 28800 | 28800 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.05 | mg/kg | U | 0.527 | 1.05 | 1.05 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 575 | ug/Kg | U | 115 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | J+,I6b | 137000 | ug/Kg | N | 8060 | 28800 | 28800 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | J,I7d | 0.191 | mg/kg | J | 0.0632 | 0.211 | 0.211 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 2.68 | mg/kg | *N | 0.0139 | 0.0422 | 0.0422 | 2 | MS | RMJ | 02/26/10 05:03 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 24300 | ug/Kg | | 115 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 34500 | ug/Kg | | 380 | 1150 | 1150 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.523 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.571 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.548 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
-1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969010 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7970 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 91.8

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 1920000 | ug/Kg | N | 7140 | 21000 | 21000 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 1050 | ug/Kg | U | 346 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 1.12 | mg/kg | | 0.211 | 1.06 | 1.06 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 51300 | ug/Kg | | 105 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 0.529 | mg/kg | | 0.0211 | 0.106 | 0.106 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 525 | ug/Kg | U | 105 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 2010000 | ug/Kg | | 8390 | 26200 | 26200 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 5680 | ug/Kg | * | 157 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 2150 | ug/Kg | * | 157 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 22100 | ug/Kg | | 315 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 5510000 | ug/Kg | | 8390 | 26200 | 26200 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J-,I6a | 33300 | ug/Kg | EN | 262 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | | 494000 | ug/Kg | | 8920 | 31500 | 31500 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 169000 | ug/Kg | | 210 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 11.4 | ug/kg | U | 3.87 | 11.4 | 11.4 | 1 | AV | JXL1 | 02/18/10 10:41 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 2.52 | mg/kg | | 0.106 | 0.422 | 0.422 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 477000 | ug/Kg | N | 6720 | 26200 | 26200 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.06 | mg/kg | U | 0.528 | 1.06 | 1.06 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 525 | ug/Kg | U | 105 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | J+,I6b | 246000 | ug/Kg | N | 7350 | 26200 | 26200 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | UJ,I7d | 0.211 | mg/kg | U | 0.0633 | 0.211 | 0.211 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 4.23 | mg/kg | *N | 0.0139 | 0.0422 | 0.0422 | 2 | MS | RMJ | 02/26/10 05:06 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 7380 | ug/Kg | | 105 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 56900 | ug/Kg | | 346 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.519 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.516 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.574 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969011 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7964 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 89

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 8080000 | ug/Kg | N | 7040 | 20700 | 20700 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 1030 | ug/Kg | U | 341 | 1030 | 1030 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 1.85 | mg/kg | | 0.21 | 1.05 | 1.05 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 78800 | ug/Kg | | 103 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 0.685 | mg/kg | | 0.021 | 0.105 | 0.105 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 517 | ug/Kg | U | 103 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 1920000 | ug/Kg | | 8280 | 25900 | 25900 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 13500 | ug/Kg | * | 155 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 5370 | ug/Kg | * | 155 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 4950 | ug/Kg | | 310 | 1030 | 1030 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 10100000 | ug/Kg | | 8280 | 25900 | 25900 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J,I4a | 9070 | ug/Kg | EN | 259 | 1030 | 1030 | 1 | P | HSC | 03/01/10 14:06 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | | 1580000 | ug/Kg | | 8800 | 31000 | 31000 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 189000 | ug/Kg | | 207 | 1030 | 1030 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 16.2 | ug/kg | | 4.42 | 13 | 13 | 1 | AV | JXL1 | 02/18/10 10:43 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 7.05 | mg/kg | | 0.105 | 0.421 | 0.421 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 967000 | ug/Kg | N | 6620 | 25900 | 25900 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.05 | mg/kg | U | 0.526 | 1.05 | 1.05 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 517 | ug/Kg | U | 103 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | J+,I6b | 275000 | ug/Kg | N | 7240 | 25900 | 25900 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | J,I7d | 0.138 | mg/kg | J | 0.0631 | 0.21 | 0.21 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 1.79 | mg/kg | *N | 0.0139 | 0.0421 | 0.0421 | 2 | MS | RMJ | 02/26/10 05:15 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 17500 | ug/Kg | | 103 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 23700 | ug/Kg | | 341 | 1030 | 1030 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.541 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.532 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.517 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969012 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7973 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 82

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 5690000 | ug/Kg | N | 7460 | 21900 | 21900 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 717 | ug/Kg | J | 362 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 2.13 | mg/kg | | 0.242 | 1.21 | 1.21 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 68800 | ug/Kg | | 110 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 1.06 | mg/kg | | 0.0242 | 0.121 | 0.121 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 549 | ug/Kg | U | 110 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 1470000 | ug/Kg | | 8780 | 27400 | 27400 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 20100 | ug/Kg | * | 165 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 4180 | ug/Kg | * | 165 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 19500 | ug/Kg | | 329 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 9990000 | ug/Kg | | 8780 | 27400 | 27400 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J-,I6a | 145000 | ug/Kg | EN | 274 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | | 1070000 | ug/Kg | | 9320 | 32900 | 32900 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 274000 | ug/Kg | | 219 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 7.18 | ug/kg | J | 4.23 | 12.5 | 12.5 | 1 | AV | JXL1 | 02/18/10 10:45 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 8.1 | mg/kg | | 0.121 | 0.484 | 0.484 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 993000 | ug/Kg | N | 7020 | 27400 | 27400 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.21 | mg/kg | U | 0.605 | 1.21 | 1.21 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 549 | ug/Kg | U | 110 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | U,I4d | 57700 | ug/Kg | N | 7680 | 27400 | 27400 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | J,I7d | 0.0767 | mg/kg | J | 0.0726 | 0.242 | 0.242 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 9.61 | mg/kg | *N | 0.016 | 0.0484 | 0.0484 | 2 | MS | RMJ | 02/26/10 05:18 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 21100 | ug/Kg | | 110 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 20900 | ug/Kg | | 362 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.559 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.507 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.591 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969013 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7962 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 94.7

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 4650000 | ug/Kg | N | 6460 | 19000 | 19000 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 950 | ug/Kg | U | 313 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 1.24 | mg/kg | | 0.203 | 1.02 | 1.02 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 47800 | ug/Kg | | 95 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 0.721 | mg/kg | | 0.0203 | 0.102 | 0.102 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 475 | ug/Kg | U | 95 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 2150000 | ug/Kg | | 7600 | 23700 | 23700 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 5690 | ug/Kg | * | 142 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 8030 | ug/Kg | * | 142 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 30000 | ug/Kg | | 285 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 7650000 | ug/Kg | | 7600 | 23700 | 23700 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J-,I6a | 32900 | ug/Kg | EN | 237 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | | 972000 | ug/Kg | | 8070 | 28500 | 28500 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 212000 | ug/Kg | | 190 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 13.6 | ug/kg | | 3.95 | 11.6 | 11.6 | 1 | AV | JXL1 | 02/18/10 10:47 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 4.43 | mg/kg | | 0.102 | 0.407 | 0.407 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 721000 | ug/Kg | N | 6080 | 23700 | 23700 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.02 | mg/kg | U | 0.509 | 1.02 | 1.02 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 475 | ug/Kg | U | 95 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | J+,I6b | 169000 | ug/Kg | N | 6650 | 23700 | 23700 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | J,I7d | 0.0926 | mg/kg | J | 0.061 | 0.203 | 0.203 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 17 | mg/kg | *N | 0.0134 | 0.0407 | 0.0407 | 2 | MS | RMJ | 02/26/10 05:21 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 6880 | ug/Kg | | 95 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 23600 | ug/Kg | | 313 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.556 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.519 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.546 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969014 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7963 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 79

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 4260000 | ug/Kg | N | 8170 | 24000 | 24000 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 1200 | ug/Kg | U | 397 | 1200 | 1200 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 1.32 | mg/kg | | 0.23 | 1.15 | 1.15 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 56100 | ug/Kg | | 120 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 0.684 | mg/kg | | 0.023 | 0.115 | 0.115 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 123 | ug/Kg | J | 120 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 1030000 | ug/Kg | | 9620 | 30100 | 30100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 12700 | ug/Kg | * | 180 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 3310 | ug/Kg | * | 180 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 29000 | ug/Kg | | 361 | 1200 | 1200 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 8490000 | ug/Kg | | 9620 | 30100 | 30100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J,I4a | 17100 | ug/Kg | EN | 301 | 1200 | 1200 | 1 | P | HSC | 03/01/10 14:13 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | | 832000 | ug/Kg | | 10200 | 36100 | 36100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 238000 | ug/Kg | | 240 | 1200 | 1200 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 9.55 | ug/kg | J | 4.72 | 13.9 | 13.9 | 1 | AV | JXL1 | 02/18/10 10:49 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 5 | mg/kg | | 0.115 | 0.459 | 0.459 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 740000 | ug/Kg | N | 7690 | 30100 | 30100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.15 | mg/kg | U | 0.574 | 1.15 | 1.15 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 601 | ug/Kg | U | 120 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | J+,I6b | 78900 | ug/Kg | N | 8420 | 30100 | 30100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | J,I7d | 0.101 | mg/kg | J | 0.0689 | 0.23 | 0.23 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 7.41 | mg/kg | *N | 0.0151 | 0.0459 | 0.0459 | 2 | MS | RMJ | 02/26/10 05:24 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 15000 | ug/Kg | | 120 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 28000 | ug/Kg | | 397 | 1200 | 1200 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.525 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.55 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.546 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969015 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7977 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 64

| CAS No. | Analyte | | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | J+,I6b | 11200000 | ug/Kg | N | 10400 | 30600 | 30600 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | | 1530 | ug/Kg | U | 504 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | J,I7d | 2.26 | mg/kg | | 0.285 | 1.42 | 1.42 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-39-3 | Barium | | 159000 | ug/Kg | | 153 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | J,I7d | 5.26 | mg/kg | | 0.0285 | 0.142 | 0.142 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | | 232 | ug/Kg | J | 153 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | | 2510000 | ug/Kg | | 12200 | 38200 | 38200 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | J,I10a | 10400 | ug/Kg | * | 229 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | J,I10a | 5430 | ug/Kg | * | 229 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-50-8 | Copper | | 11600 | ug/Kg | | 458 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-89-6 | Iron | | 11400000 | ug/Kg | | 12200 | 38200 | 38200 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-92-1 | Lead | J-,I6a | 33100 | ug/Kg | EN | 382 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | | 2020000 | ug/Kg | | 13000 | 45800 | 45800 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | | 425000 | ug/Kg | | 306 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | | 18.4 | ug/kg | | 5.87 | 17.3 | 17.3 | 1 | AV | JXL1 | 02/18/10 10:55 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | J,I7d | 9.14 | mg/kg | | 0.142 | 0.569 | 0.569 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | J+,I6b | 1890000 | ug/Kg | N | 9780 | 38200 | 38200 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | UJ,I7d | 1.42 | mg/kg | U | 0.711 | 1.42 | 1.42 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-22-4 | Silver | | 764 | ug/Kg | U | 153 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | U,I4d | 61200 | ug/Kg | N | 10700 | 38200 | 38200 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | J,I7d | 0.205 | mg/kg | J | 0.0854 | 0.285 | 0.285 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | J+,I6b | 16.6 | mg/kg | *N | 0.0188 | 0.0569 | 0.0569 | 2 | MS | RMJ | 02/26/10 05:27 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | | 22800 | ug/Kg | | 153 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | | 28500 | ug/Kg | | 504 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.513 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.551 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.545 | g | 30 | mL | 02/17/10 | TXB3 |

LMF
3/17/10

# DATA VALIDATION COVER SHEET

**5120-1**

**Data Validation Cover Sheet**

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

**Section I.**

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN

**Section II. Completeness Check**

| YES | NO | N/A | (CHECK ONE) | YES | NO | N/A | (CHECK ONE) |
|---|---|---|---|---|---|---|---|
| ☒ | ☐ | ☐ | 1. CHAIN-OF-CUSTODY FORM(S) | ☒ | ☐ | ☐ | 6. RAW/BSS DATA |
| ☒ | ☐ | ☐ | 2. CASE NARRATIVE | ☒ | ☐ | ☐ | 7. QUALITY CONTROL FORMS |
| ☒ | ☐ | ☐ | 3. SAMPLE RESULT FORMS | ☐ | ☐ | ☒ | 8. QUANTITATION REPORTS |
| ☐ | ☐ | ☒ | 4. SAMPLE CHROMATOGRAMS | ☐ | ☐ | ☒ | 9. TICS FORMS |
| ☐ | ☐ | ☒ | 5. STANDARD CHROMATOGRAMS | ☐ | ☐ | ☒ | 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. It should be noted that the aqueous and soil matrix QC analysis for total CN were performed on parent samples from other LANL RNs. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: DATE: 3/17/10

# GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

**5120-2**

**General Chemistry Analytical Data Validation Checklist**

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 1. The holding time was >1 and ≤2 times the applicable holding time requirement. | UJ, I9 | J-, I9 |
| ☐ | ☒ | ☐ | 2. The holding time was >2 times the applicable holding time requirement. | R, I9a | J-, I9a |
| ☐ | ☐ | ☒ | 3. The affected analytes are regarded as rejected because the analytical holding time was exceeded. | R, I9b | R, I9b |
| ☐ | ☒ | ☐ | 4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit. | UJ, R, I7 | J, I7 |
| ☐ | ☒ | ☐ | 5. 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, I7a | J, I7a |
| ☐ | ☒ | ☐ | 6. The ICV and/or CCV were recovered outside the method specific limits. | UJ, I7c | J, I7c |
| ☐ | ☒ | ☐ | 7. The ICV and/or CCV were not analyzed at the appropriate method frequency. | UJ, I7d | J, I7d |
| ☐ | ☒ | ☐ | 8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information. | R, I7f | R, I7f |
| ☐ | ☐ | ☒ | 9. The interference check sample percent recovery value is <50%. | R, I2 | J-, I2 |
| ☐ | ☐ | ☒ | 10. The interference check sample percent recovery value is ≥50% and <80%. | UJ, I2a | J-, I2a |
| ☐ | ☐ | ☒ | 11. The interference check sample percent recovery value is >120%. | N/A | J+, I2b |
| ☐ | ☐ | ☒ | 12. The interference check sample was not analyzed with the samples. | R, I2c | R, I2c |
| ☐ | ☒ | ☐ | 13. The sample result is ≤5X the concentration of the related analyte in the method blank. | U, I4 | N/A |

# GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

**5120-2**

**General Chemistry Analytical Data Validation Checklist**

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X. | N/A | J, I4a |
| ☐ | ☒ | ☐ | 15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank. | U, I4b | N/A |
| ☐ | ☒ | ☐ | 16. Continuing calibration blanks were not analyzed at the appropriate method frequency. | UJ, I4c | J, I4c |
| ☐ | ☒ | ☐ | 17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank. | U, I4d | N/A |
| ☐ | ☒ | ☐ | 18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | R, I4e | R, I4e |
| ☐ | ☒ | ☐ | 19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package. | R, I6 | R, I6 |
| ☐ | ☒ | ☐ | 20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package. | UJ, I6a | J-, I6a |
| ☐ | ☒ | ☐ | 21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. | UJ, I6b | J+, I6b |
| ☐ | ☒ | ☐ | 22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information. | R, I6c | R, I6c |
| ☐ | ☒ | ☐ | 23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package. | UJ, I10b | J, I10b |

# GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

**5120-2**

**General Chemistry Analytical Data Validation Checklist**

Records Use only

Los Alamos NATIONAL LABORATORY

| Yes | No | N/A | | Assign Qualifier Listed Below If Criterion = Yes | |
|---|---|---|---|---|---|
| (Check One) | | | | Non-detected Analyte | Detected Analyte |
| ☐ | ☒ | ☐ | 24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. | UJ, I10d | J, I10d |
| ☐ | ☒ | ☐ | 25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package. | R, I12 | R, I12 |
| ☐ | ☒ | ☐ | 26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package. | UJ, I12a | J-, I12a |
| ☐ | ☒ | ☐ | 27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package. | N/A | J+, I12b |
| ☐ | ☒ | ☐ | 28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria. | R, I12c | R, I12c |
| ☐ | ☒ | ☐ | 29. Duplicate, dilution, or reanalysis | UJ, I88 | J, I88 |
| ☐ | ☒ | ☐ | 30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist. | UJ, R, I19 | J, R, I19 |
| ☒ | ☐ | ☐ | 31. Qualification of data via data validation does 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<br>NQ, NQ<br>(no qualification) |

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## Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1512-1

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-8084 | Project: | LANL01004 |
| Sample ID: | 245975001 | Client ID: | LANL010 |
| Matrix: | W | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "As Received"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 1.66 | 5.00 | ug/L | 1 | AXC2 02/08/10 | 1458 | 948940 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/05/10 | 1408 | 948939 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7880 | Project: | LANL01004 |
| Sample ID: | 245969001 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 7.5% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 73.5 | 270 | ug/kg | 1 | AXC2 02/10/10 | 1457 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7891 | Project: | LANL01004 |
| Sample ID: | 245969002 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 26% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 90.1 | 331 | ug/kg | 1 | AXC2 02/10/10 | 1458 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7892 | Project: | LANL01004 |
| Sample ID: | 245969003 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 6.96% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 70.3 | 258 | ug/kg | 1 | AXC2 02/10/10 | 1459 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7967 | Project: | LANL01004 |
| Sample ID: | 245969004 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 24.2% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 80.1 | 294 | ug/kg | 1 | AXC2 02/10/10 | 1500 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7976 | Project: | LANL01004 |
| Sample ID: | 245969005 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 3.7% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 66.6 | 245 | ug/kg | 1 | AXC2 02/10/10 | 1501 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7968 | Project: | LANL01004 |
| Sample ID: | 245969006 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 10.8% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 73.3 | 269 | ug/kg | 1 | AXC2 02/10/10 | 1502 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7965 | Project: | LANL01004 |
| Sample ID: | 245969007 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 22.2% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | J | 112 | 78.0 | 287 | ug/kg | 1 | AXC2 02/10/10 | 1503 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7975 | Project: | LANL01004 |
| Sample ID: | 245969008 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 25.5% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 89.5 | 329 | ug/kg | 1 | AXC2 02/10/10 | 1504 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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3/17/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7978 | Project: | LANL01004 |
| Sample ID: | 245969009 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 16.9% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | J | 88.6 | 77.2 | 284 | ug/kg | 1 | AXC2 02/10/10 | 1504 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7970 | Project: | LANL01004 |
| Sample ID: | 245969010 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 8.19% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 69.9 | 257 | ug/kg | 1 | AXC2 02/10/10 | 1505 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7964 | Project: | LANL01004 |
| Sample ID: | 245969011 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 10.7% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 73.2 | 269 | ug/kg | 1 | AXC2 02/10/10 | 1510 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7973 | Project: | LANL01004 |
| Sample ID: | 245969012 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 18.5% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 77.2 | 284 | ug/kg | 1 | AXC2 02/10/10 | 1511 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7962 | Project: | LANL01004 |
| Sample ID: | 245969013 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 5.31% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 66.5 | 244 | ug/kg | 1 | AXC2 02/10/10 | 1512 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

LMF
3/17/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7963 | Project: | LANL01004 |
| Sample ID: | 245969014 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 20.8% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 81.0 | 298 | ug/kg | 1 | AXC2 02/10/10 | 1512 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

LMF
3/17/10

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7977 | Project: | LANL01004 |
| Sample ID: | 245969015 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 36.2% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | J | 133 | 96.9 | 356 | ug/kg | 1 | AXC2 02/10/10 | 1513 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

LMF
3/17/10

Monday, February 01, 2010

**LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C**

**REQUEST NUMBER: 10-1512**

## LOS ALAMOS
**NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245969, 245975

| SAMPLE ID | CTNR | CTNR DESC | ORDER | PRESERV | MATRIX |
|---|---|---|---|---|---|
| RE15-10-7880 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7880 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7891 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7891 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7892 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7892 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7967 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7967 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7976 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7976 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7968 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7968 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7965 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7965 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7975 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7975 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7978 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7978 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7970 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7970 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7964 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7964 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7973 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7973 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7962 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7962 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7963 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7963 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7977 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7977 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-8084 | 1 | POLY | METALS+U-GEL | Nitric Acid | W |
| RE15-10-8084 | 1 | POLY | SW-846:6850 | Ice | W |

Monday, February 01, 2010

**LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C**

| SAMPLE ID | CTNR | CTNR DESC | ORDER | PRESERV | MATRIX |
|---|---|---|---|---|---|
| RE15-10-8084 | 1 | POLY | TCN | Sodium Hydroxide | W |

| Relinquished By: | | Date | Time | Received By: | | Date | Time |
|---|---|---|---|---|---|---|---|
| | | 2/1/10 | 3100 | Dionne Francis | | 2/2/10 | 0910 |
| 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

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

**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:10-1512
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

**SHIP DATE: 2/1/2010**
**TURNAROUND/REPORT DUE: 3/3/2010**
**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-846:6020 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:6020 | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:6850 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:7470A | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:7471A | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:7471A | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | SW-846:8082 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | SW-846:8321A_MOD | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:8321A_MOD | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | SW-846:9012A | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |

**Final Page of REQUEST NUMBER 10-1512**

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

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 Orders: 245969 245975
SDG: 10-1512

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals and Perchlorates by LCMSMS. 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

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1512
Enclosures

problem solved

**Los Alamos National Laboratory (72733-001-09)**
**LANL ER Project**
**Work Order #: 245969 and 245975**
**SDG: 10-1512**

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**General Chemistry Analysis ..... 1948**
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Cyanide, Total ..... 1976

**General Chemistry Analysis ..... 1987**
Case Narrative ..... 1988
Sample Data Summary ..... 1993
Quality Control Summary ..... 1996
Instrument QC Data Summary ..... 1999
Cyanide, Total ..... 2001

# Case Narrative

**Case Narrative for**
**Los Alamos National Laboratory (72733-001-09)**
**LANL ER Project**
**Workorder #: 245969 and 245975**
**SDG # : 10-1512**

**February 04, 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 02, 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:

| Laboratory ID | Client ID |
|---|---|
| 245969001 | RE15-10-7880 |
| 245969002 | RE15-10-7891 |
| 245969003 | RE15-10-7892 |
| 245969004 | RE15-10-7967 |
| 245969005 | RE15-10-7976 |
| 245969006 | RE15-10-7968 |
| 245969007 | RE15-10-7965 |
| 245969008 | RE15-10-7975 |
| 245969009 | RE15-10-7978 |
| 245969010 | RE15-10-7970 |
| 245969011 | RE15-10-7964 |
| 245969012 | RE15-10-7973 |
| 245969013 | RE15-10-7962 |
| 245969014 | RE15-10-7963 |
| 245969015 | RE15-10-7977 |
| 245975001 | RE15-10-8084 |

**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 Semivolatile PCB, General Chemistry, Metals and Perchlorates by LCMSMS.

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

Valerie Davis

Project Manager

**List of current GEL Certifications as of 04 February 2010**

| State | Certification |
|---|---|
| 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

Monday, February 01, 2010

**LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C**

**REQUEST NUMBER: 10-1512**

# LOS ALAMOS

**NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245969, 245975

| SAMPLE ID | CTNR | CTNR DESC | ORDER | PRESERV | MATRIX |
|---|---|---|---|---|---|
| RE15-10-7880 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7880 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7891 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7891 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7892 | 1 | AMBER GLASS | 8082+NMED-HEXP | Ice | R |
| RE15-10-7892 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7967 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7967 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7976 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7976 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7968 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7968 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7965 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7965 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7975 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7975 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7978 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7978 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7970 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7970 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7964 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7964 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7973 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7973 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7962 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7962 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7963 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7963 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-7977 | 1 | POLY | Met+U+CLO4+CN | Ice | R |
| RE15-10-7977 | 1 | AMBER GLASS | NMED Explosives list | Ice | R |
| RE15-10-8084 | 1 | POLY | METALS+U-GEL | Nitric Acid | W |
| RE15-10-8084 | 1 | POLY | SW-846:6850 | Ice | W |

Monday, February 01, 2010

**LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C**

| SAMPLE ID | CTNR | CTNR DESC | ORDER | PRESERV | MATRIX |
|---|---|---|---|---|---|
| RE15-10-8084 | 1 | POLY | TCN | Sodium Hydroxide | W |

| Relinquished By: | | Date | Time | Received By: | | Date | Time |
|---|---|---|---|---|---|---|---|
| | | 2/1/10 | 3100 | Dionne Francis | | 2/2/10 | 0910 |
| 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

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

# 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:10-1512

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

**SHIP DATE: 2/1/2010**

**TURNAROUND/REPORT DUE: 3/3/2010**

**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-846:6020 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:6020 | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:6850 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:7470A | 1 | RE15-10-8084 | W | 1/27/2010 | |
| | SW-846:7471A | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:7471A | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | SW-846:8082 | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | SW-846:8321A_MOD | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

| PRIORITY | METHOD CODE | CNTNR | SAMPLE ID | SAMPLE MATRIX | DATE SAMPLED | SPECIAL INSTRUCTIONS |
|---|---|---|---|---|---|---|
| | SW-846:8321A_MOD | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | SW-846:9012A | 1 | RE15-10-7880 | R | 1/27/2010 | |
| | | 1 | RE15-10-7891 | R | 1/27/2010 | |
| | | 1 | RE15-10-7892 | R | 1/27/2010 | |
| | | 1 | RE15-10-7962 | R | 1/27/2010 | |
| | | 1 | RE15-10-7963 | R | 1/27/2010 | |
| | | 1 | RE15-10-7964 | R | 1/27/2010 | |
| | | 1 | RE15-10-7965 | R | 1/27/2010 | |
| | | 1 | RE15-10-7967 | R | 1/27/2010 | |
| | | 1 | RE15-10-7968 | R | 1/27/2010 | |
| | | 1 | RE15-10-7970 | R | 1/27/2010 | |
| | | 1 | RE15-10-7973 | R | 1/27/2010 | |
| | | 1 | RE15-10-7975 | R | 1/27/2010 | |
| | | 1 | RE15-10-7976 | R | 1/27/2010 | |
| | | 1 | RE15-10-7977 | R | 1/27/2010 | |
| | | 1 | RE15-10-7978 | R | 1/27/2010 | |
| | | 1 | RE15-10-8084 | W | 1/27/2010 | |

**Final Page of REQUEST NUMBER 10-1512**

GEL Laboratories LLC

# SAMPLE RECEIPT & REVIEW FORM

| | |
|---|---|
| **Client: LANL** | **SDG/ARCOC/Work Order: 10-1512** |
| **Received By: Dionne Francis** | **Date Received: February 2, 2010** |

| **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*: **80 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: seals broken damaged container leaking container other (describe) |
| 2 | Samples requiring cold preservation within 0 ≤ 6 deg. C? | X | | | Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C** |
| 3 | Chain of custody documents included with shipment? | X | | | |
| 4 | Sample containers intact and sealed? | X | | | Circle Applicable: 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: 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: **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 7849 7978 0C 7209 7849 7886 2C 7209 7849 7967 3C 7209 7849 7739 19C**
**7209 7849 7772 1C 7209 7849 7901 2C 7209 7849 7945 4C**
**7209 7849 7934 1C 7209 7849 7853 2C 7209 7849 7810 5C**
**7209 7849 7831 1C 7209 7849 7875 2C 7209 7849 7897 5C**
**7209 7849 7783 1C 7209 7849 7956 2C 7209 7849 7728 13C**
**7209 7849 7864 1C 7209 7849 7794 2C 7209 7849 7706 13C**
**7209 7849 7923 1C 7209 7849 7820 2C 7209 7849 7717 14C**
**7209 7849 7761 1C 7209 7849 7809 2C 7209 7849 7750 15C**
**7209 7849 7842 1C 7209 7849 7912 3C 7209 7849 7740 15C**

PM (or PMA) review: Initials P. N-W. Date 2/3/10

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CHD: 0014176/CAFE2449
BILL SENDER

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GENERAL ENGINEERING LAB
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CHS

XX CHSA

Part # 156146-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0203 7209 7849 7772
Mstr# 7209 7849 7761 0201

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

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JOYLENE VALDEZ
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
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LOS ALAMOS, NM 87545
UNITED STATES US

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
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CAD: 0014176/CAFE2449

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SC-US
CHS

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Part # 156148-434 NRIT V3.04-09

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
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UNITED STATES US

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Mstr# 7209 7849 7912 0201

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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MPS# 0263 7209 7849 7842
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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
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LOS ALAMOS, NM 87545
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ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

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MPS# 0263 7209 7849 7901
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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MPS# 0263 7209 7849 7886
Mstr# 7209 7849 7875 0201

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
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TRK# 0201 7209 7849 7853
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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ACTWGT: 55.0 LB MAN
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TUE - 02FEB A1
PRIORITY OVERNIGHT
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Part # 156148-434 NRIT V8.04.09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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ACTWGT: 48.0 LB MAN
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Part # 156148-434 NRIT V3.09.09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
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ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

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3 of 3
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Emp# 133998 01FEB10 SAFA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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1 of 2

TRK# 0201 7209 7849 7912

TUE - 02FEB A1
PRIORITY OVERNIGHT

## MASTER ##

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Part # 156148-434 NRT V3.09-05

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

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TUE - 02FEB A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 7961
Matrix 7209 7849 7956 0201

XX CHSA

29407
SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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REF: 6B010AMR1A015AGWL0

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2 of 2

TUE - 02FEB A1
PRIORITY OVERNIGHT

7209 7849 7945
Matrix 7209 7849 7934 0201

XX CHSA

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SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 3
MPS# 0263 7209 7849 7810
Matr# 7209 7849 7808 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7897
## MASTER ##

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

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SC-US
CHS

Part # 156148-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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REF: 6B010AMR2A0515BYD0

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TRK# 0201 7209 7849 7728
## MASTER ##

TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

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REF: 6B010AMR2A0515BYD0

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2 of 3
MPS# 0263 7209 7849 7706
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

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SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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3 of 3
MPS# 0263 7209 7849 7717
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 158143-434 NAIT V3.04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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REF: 6B010AMR2A0515BYDO

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2 of 2
MPS# 0263 7209 7849 7750
Matr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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SC-US
CHS

XX CHSA

Part # 158143-434 NAIT V3.04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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1 of 2
TRK# 0201 7209 7849 7740
## MASTER ##

TUE - 02FEB A1
PRIORITY OVERNIGHT

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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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2 of 2
MPS# 0263 7209 7849 7739
Matr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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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. |

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# LC/MS/MS PERCHLORATE ANALYSIS

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**Perchlorate by LC/MSMS**
**Los Alamos National Laboratory (LANL)**
**SDG 10-1512**

**Method/Analysis Information**

| | |
|---|---|
| **Procedure:** | **Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)** |
| Analytical Method: | SW846 6850 Modified |
| Prep Method: | SW846 6850 Modified |
| Analytical Batch Number: | 950060 |
| Prep Batch Number: | 950059 |

**Sample Analysis**

| Sample ID | Client ID |
|---|---|
| 245969001 | RE15-10-7880 |
| 245969002 | RE15-10-7891 |
| 245969003 | RE15-10-7892 |
| 245969004 | RE15-10-7967 |
| 245969005 | RE15-10-7976 |
| 245969006 | RE15-10-7968 |
| 245969007 | RE15-10-7965 |
| 245969008 | RE15-10-7975 |
| 245969009 | RE15-10-7978 |
| 245969010 | RE15-10-7970 |
| 245969011 | RE15-10-7964 |
| 245969012 | RE15-10-7973 |
| 245969013 | RE15-10-7962 |
| 245969014 | RE15-10-7963 |

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| | |
|---|---|
| 245969015 | RE15-10-7977 |
| 1202035645 | Interference Check Sample (ICS) |
| 1202035641 | Method Blank (MB) |
| 1202035642 | Laboratory Control Sample (LCS) |
| 1202035643 | 245969001(RE15-10-7880) Matrix Spike (MS) |
| 1202035644 | 245969001(RE15-10-7880) 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-067 REV# 6.

## Calibration Information

**Initial Calibration**
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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

**CCB Requirements**
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

**CCV Requirements**
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

**Low Level Standard (CRI) Requirements**
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

## Quality Control (QC) Information

**Method Blank (MB) Statement**
The MB(s) analyzed with this SDG met the acceptance criteria.

**Interference Check Sample (ICS)**
The interference check sample (ICS) met all recovery acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**
The LCS spike recoveries met the acceptance limits.

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**QC Sample Designation**
Sample 245969001 (RE15-10-7880) was chosen for matrix spike and matrix spike duplicate analysis.

**Matrix Spike (MS) Recovery Statement**
The MS recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**
The MSD recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**
The RPD(s) between the MS and MSD met the acceptance limits.

**Retention Time Standard Area Acceptance**
The retention time standard areas were within the required acceptance criteria for all samples and QC.

**Retention Time**
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

**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**
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 dilutions.

**Miscellaneous Information**

**Data Exception (DER) Documentation**
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

**Manual Integrations**
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

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**Method Comments**
The samples in this SDG were not originally analyzed using EPA Method 314.0.

**Additional Comments**
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

**Perchlorate Isotope Ratio**
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

**System Configuration**

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate 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 electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

**Chromatographic Columns**

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

**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:** Deborah Maier **Date:** 02/25/10

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# SAMPLE DATA SUMMARY

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7880

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969001

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 92.5

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .541 | 2.16 | 0.541 | ug/kg | U | 1 | 22-FEB-10 05:22 | per0221107a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 05:22 | per0221107a |
| 14797-73-0 | Perchlorate-101 | .541 | 2.16 | 0.541 | ug/kg | U | 1 | 22-FEB-10 05:22 | per0221107a |
| | Perchlorate-O(18) | | | 5.08 | ug/kg | | 1 | 22-FEB-10 05:22 | per0221107a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7891

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969002

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 74

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .676 | 2.7 | 0.676 | ug/kg | U | 1 | 22-FEB-10 05:49 | per0221110a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 05:49 | per0221110a |
| 14797-73-0 | Perchlorate-101 | .676 | 2.7 | 0.676 | ug/kg | U | 1 | 22-FEB-10 05:49 | per0221110a |
| | Perchlorate-O(18) | | | 6.51 | ug/kg | | 1 | 22-FEB-10 05:49 | per0221110a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7892

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969003

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 93

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .537 | 2.15 | 0.571 | ug/kg | J | 1 | 22-FEB-10 05:58 | per0221111a |
| | Perchlorate Isotope Ratio | | | 3.1 | | | 1 | 22-FEB-10 05:58 | per0221111a |
| 14797-73-0 | Perchlorate-101 | .537 | 2.15 | 0.588 | ug/kg | J | 1 | 22-FEB-10 05:58 | per0221111a |
| | Perchlorate-O(18) | | | 5.50 | ug/kg | | 1 | 22-FEB-10 05:58 | per0221111a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7967

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969004

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 76

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .659 | 2.64 | 0.659 | ug/kg | U | 1 | 22-FEB-10 06:07 | per0221112a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:07 | per0221112a |
| 14797-73-0 | Perchlorate-101 | .659 | 2.64 | 0.659 | ug/kg | U | 1 | 22-FEB-10 06:07 | per0221112a |
| | Perchlorate-O(18) | | | 6.43 | ug/kg | | 1 | 22-FEB-10 06:07 | per0221112a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7976

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969005

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 96.3

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .519 | 2.08 | 0.519 | ug/kg | U | 1 | 22-FEB-10 06:16 | per0221113a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:16 | per0221113a |
| 14797-73-0 | Perchlorate-101 | .519 | 2.08 | 0.519 | ug/kg | U | 1 | 22-FEB-10 06:16 | per0221113a |
| | Perchlorate-O(18) | | | 4.92 | ug/kg | | 1 | 22-FEB-10 06:16 | per0221113a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7968

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969006

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 89

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 06:52 | per0221117a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:52 | per0221117a |
| 14797-73-0 | Perchlorate-101 | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 06:52 | per0221117a |
| | Perchlorate-O(18) | | | 5.70 | ug/kg | | 1 | 22-FEB-10 06:52 | per0221117a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7965

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969007

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 78

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .643 | 2.57 | 0.643 | ug/kg | U | 1 | 22-FEB-10 07:02 | per0221118a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:02 | per0221118a |
| 14797-73-0 | Perchlorate-101 | .643 | 2.57 | 0.643 | ug/kg | U | 1 | 22-FEB-10 07:02 | per0221118a |
| | Perchlorate-O(18) | | | 6.51 | ug/kg | | 1 | 22-FEB-10 07:02 | per0221118a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7975

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969008

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 74

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .671 | 2.68 | 0.671 | ug/kg | U | 1 | 22-FEB-10 07:11 | per0221119a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:11 | per0221119a |
| 14797-73-0 | Perchlorate-101 | .671 | 2.68 | 0.671 | ug/kg | U | 1 | 22-FEB-10 07:11 | per0221119a |
| | Perchlorate-O(18) | | | 6.84 | ug/kg | | 1 | 22-FEB-10 07:11 | per0221119a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7978

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969009

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 83

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .602 | 2.41 | 0.602 | ug/kg | U | 1 | 22-FEB-10 07:20 | per0221120a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:20 | per0221120a |
| 14797-73-0 | Perchlorate-101 | .602 | 2.41 | 0.602 | ug/kg | U | 1 | 22-FEB-10 07:20 | per0221120a |
| | Perchlorate-O(18) | | | 6.62 | ug/kg | | 1 | 22-FEB-10 07:20 | per0221120a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form I

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7970

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969010

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 91.8

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .545 | 2.18 | 0.545 | ug/kg | U | 1 | 22-FEB-10 07:29 | per0221121a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:29 | per0221121a |
| 14797-73-0 | Perchlorate-101 | .545 | 2.18 | 0.545 | ug/kg | U | 1 | 22-FEB-10 07:29 | per0221121a |
| | Perchlorate-O(18) | | | 5.53 | ug/kg | | 1 | 22-FEB-10 07:29 | per0221121a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7964

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969011

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 89

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 07:38 | per0221122a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:38 | per0221122a |
| 14797-73-0 | Perchlorate-101 | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 07:38 | per0221122a |
| | Perchlorate-O(18) | | | 6.01 | ug/kg | | 1 | 22-FEB-10 07:38 | per0221122a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7973

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969012

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 82

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .613 | 2.45 | 0.613 | ug/kg | U | 1 | 22-FEB-10 07:47 | per0221123a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:47 | per0221123a |
| 14797-73-0 | Perchlorate-101 | .613 | 2.45 | 0.613 | ug/kg | U | 1 | 22-FEB-10 07:47 | per0221123a |
| | Perchlorate-O(18) | | | 6.20 | ug/kg | | 1 | 22-FEB-10 07:47 | per0221123a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form I

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7962

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969013

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 94.7

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .528 | 2.11 | 0.689 | ug/kg | J | 1 | 22-FEB-10 07:56 | per0221124a |
| | Perchlorate Isotope Ratio | | | 3.38 | | | 1 | 22-FEB-10 07:56 | per0221124a |
| 14797-73-0 | Perchlorate-101 | .528 | 2.11 | 0.650 | ug/kg | J | 1 | 22-FEB-10 07:56 | per0221124a |
| | Perchlorate-O(18) | | | 5.51 | ug/kg | | 1 | 22-FEB-10 07:56 | per0221124a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7963

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969014

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 79

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .631 | 2.52 | 0.631 | ug/kg | U | 1 | 22-FEB-10 08:05 | per0221125a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 08:05 | per0221125a |
| 14797-73-0 | Perchlorate-101 | .631 | 2.52 | 0.631 | ug/kg | U | 1 | 22-FEB-10 08:05 | per0221125a |
| | Perchlorate-O(18) | | | 6.33 | ug/kg | | 1 | 22-FEB-10 08:05 | per0221125a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7977

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969015

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 64

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .784 | 3.14 | 0.784 | ug/kg | U | 1 | 22-FEB-10 08:14 | per0221126a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 08:14 | per0221126a |
| 14797-73-0 | Perchlorate-101 | .784 | 3.14 | 0.784 | ug/kg | U | 1 | 22-FEB-10 08:14 | per0221126a |
| | Perchlorate-O(18) | | | 8.10 | ug/kg | | 1 | 22-FEB-10 08:14 | per0221126a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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# QUALITY CONTROL SUMMARY

Form 5

## Perchlorate Laboratory Control Sample

**Lab Name:** General Engineering Laboratories

**Lab Code:** GEL

**GEL Job No. (SDG):** 10–1512

**Extract Batch Code:** 950059

**Date Filtered:** 17–FEB–10

**Matrix:** SOIL

**Sample ID:** 1202035642

| Analyte^ | True | Found | Units | %Rec | Q | Control Limits |
|---|---|---|---|---|---|---|
| Perchlorate | 2.00 | 2.23 | ug/kg | 112 | | 70 – 130 |
| Perchlorate Isotope Ratio | | 3.31 | | | | – |
| Perchlorate–101 | 2.00 | 2.15 | ug/kg | 107 | | 70 – 130 |
| Perchlorate–O(18) | | 4.72 | ug/kg | | | – |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

## Perchlorate Interference Check Sample

**Lab Name:** General Engineering Laboratories

**Lab Code:** GEL

**GEL Job No. (SDG):** 10-1512

**Extract Batch Code:** 950059

**Date Filtered:** 17-FEB-10

**Matrix:** SOIL

**Sample ID:** 1202035645

| Analyte^ | True | Found | Units | %Rec | Q | Control Limits |
|---|---|---|---|---|---|---|
| Perchlorate | 2.00 | 2.13 | ug/kg | 107 | | 70 – 130 |
| Perchlorate Isotope Ratio | | 3.28 | | | | |
| Perchlorate-101 | 2.00 | 2.07 | ug/kg | 104 | | 70 – 130 |
| Perchlorate-O(18) | | 4.72 | ug/kg | | | |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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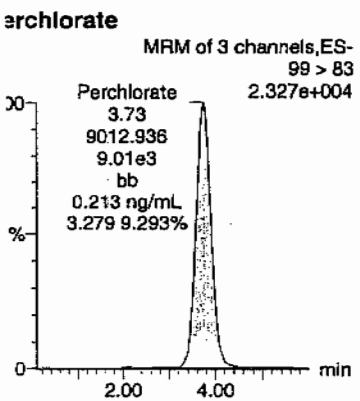
**uantify Sample Report MassLynx 4.0 SP4**
ıe GEL Group, LLC Analyst: Charlers W. Wilson

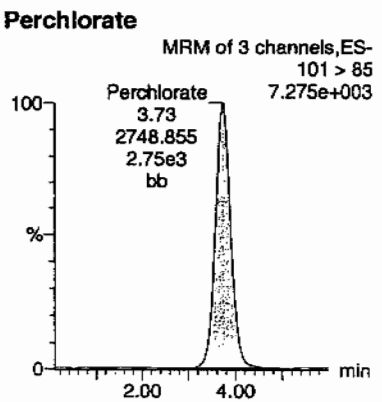
ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

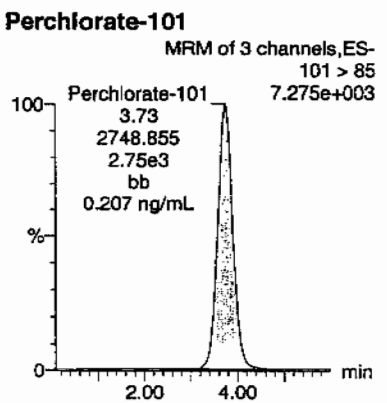
ıst Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
'inted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

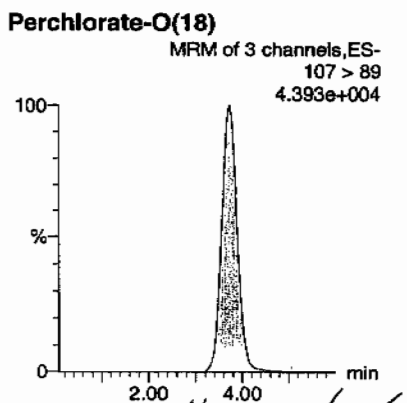
**ame: per0221106a**
**ate: 22-Feb-2010**
**ime: 05:13:20**
**ı: 1202035645** |LANL|950060|50125|ICS|1|
**ial: 3:1,C**

AW
02-22-10




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 202035645 | Perchlorate | 99 > 83 | 3.73 | 9012.936 | 9012.936 | bb | | | 0.2134 | 106.72 | 6.72 | 2114.6... | 3.28 |
| 202035645 | Perchlorate-101 | 101 > 85 | 3.73 | 2748.855 | 2748.855 | bb | | | 0.2074 | 103.71 | 3.71 | 911.143 | |
| 202035645 | Perchlorate-O(18) | 107 > 89 | 3.72 | 16885.248 | 16885.248 | bb | | | 0.4725 | 94.50 | -5.50 | 1552.4... | |

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 6

## Perchlorate Spike/Spike Duplicate Summary

**Lab Name:** General Engineering Laboratories

**Lab Code:** GEL

**GEL Job No (SDG):** 10-1512

**Extract Batch Code:** 950059

**Date Extracted:** 17-FEB-10

**GEL MS/PS ID:** 1202035643

**Client ID:** RE15-10-7880

**GEL MSD/PSD ID:** 1202035644

**QC Type:** MS

| Compound^ | Spike Added | Sample Conc | Units | MS Conc | MS Rec # | MSD Conc | MSD Rec # | RPD # | RPD Limit | Recovery Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 2.16 | 0.0297 | ug/kg | 2.33 | 106 | 2.25 | 103 | 3.32 | 30 | 75 – 125 |
| Perchlorate Isotope Ratio | 0 | 0.00 | | 3.16 | | 3.2 | | 0 | | – |
| Perchlorate-101 | 2.16 | 0.0299 | ug/kg | 2.35 | 107 | 2.24 | 102 | 4.73 | 30 | 75 – 125 |
| Perchlorate-O(18) | 0 | 5.08 | ug/kg | 5.24 | | 4.97 | | 5.23 | | – |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

**Perchlorate Initial Calibration Blank**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id | GEL Sample ID |
|---|---|---|---|---|---|---|
| Perchlorate | 0.00 | 0 | NA | 21–FEB–10 | per0221001a | IPB001 |
| Perchlorate–101 | 0.00 | 0 | NA | 21–FEB–10 | per0221001a | IPB001 |
| Perchlorate | 0.00 | 0 | NA | 21–FEB–10 | per0221002a | IPB001 |
| Perchlorate–101 | 0.00 | 0 | NA | 21–FEB–10 | per0221002a | IPB001 |



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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



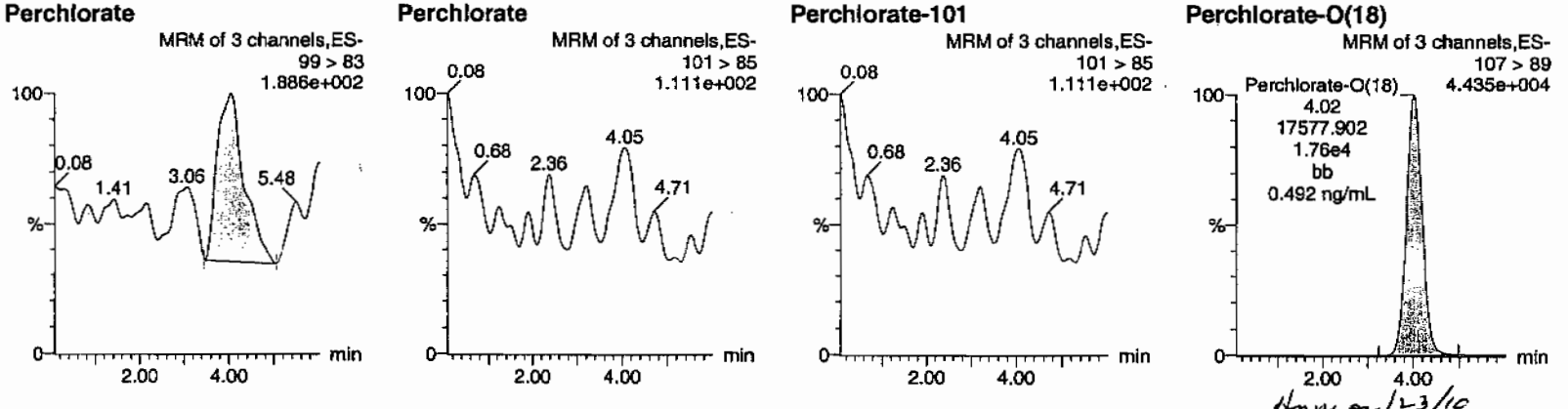
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022110a.mdb 22 Feb 2010 10:33:42**
**Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022110a.cdb 22 Feb 2010 10:34:00**

**Name: per0221001a**
**Date: 21-Feb-2010**
**Time: 13:18:28**
**ID: IPB001**
**Vial: 1:1,A**

cwl 02-22-10




Hnmon 2/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB001 | Perchlorate | 99 > 83 | 4.04 | 84.802 | 84.802 | bb | | | 0.0020 | | | 14.343 | 0.00 |
| IPB001 | Perchlorate-101 | 101 > 85 | | | | | | | | | | | |
| IPB001 | Perchlorate-O(18) | 107 > 89 | 4.02 | 17577.902 | 17577.902 | bb | | | 0.4919 | 98.37 | -1.63 | 4964.5... | |



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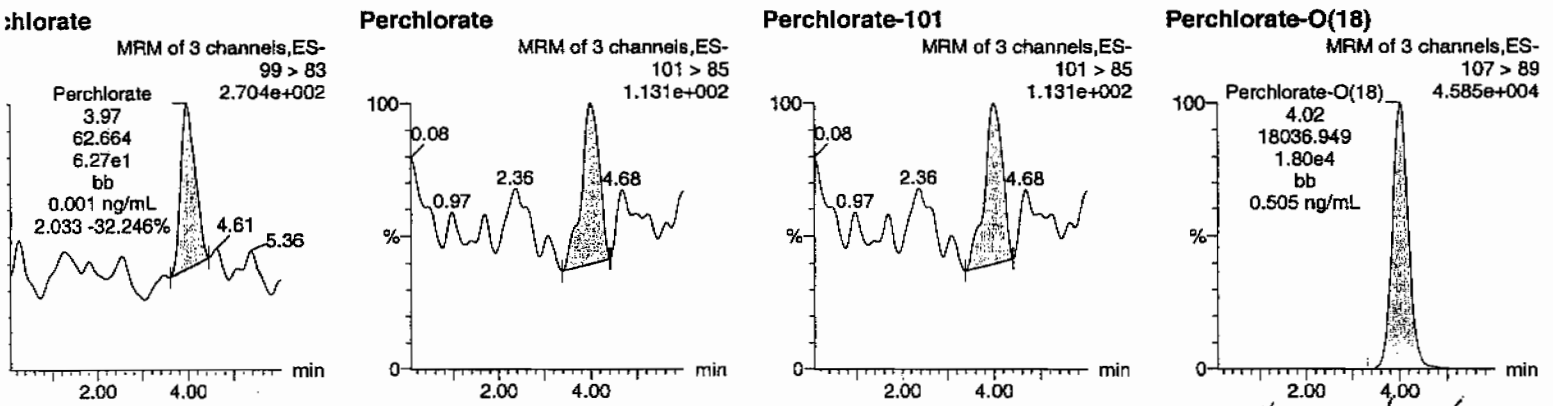
ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charters W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221002a
e: 21-Feb-2010
e: 13:27:31
PB001
: 1:1,A

CWJ 02-22-10




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | Perchlorate | 99 > 83 | 3.97 | 62.664 | 62.664 | bb | | | 0.0015 | | | 28.060 | 2.03 |
| 01 | Perchlorate-101 | 101 > 85 | 3.99 | 30.829 | 30.829 | bb | | | 0.0023 | | | 26.587 | |
| 01 | Perchlorate-O(18) | 107 > 89 | 4.02 | 18036.949 | 18036.949 | bb | | | 0.5047 | 100.94 | 0.94 | 13449.... | |

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 4

**Perchlorate Continuing Calibration Blank**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10-1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id | GEL Sample ID |
|---|---|---|---|---|---|---|
| Perchlorate | 0.00 | 0 | NA | 21-FEB-10 | per0221008a | IPB002 |
| Perchlorate-101 | 0.00 | 0 | NA | 21-FEB-10 | per0221008a | IPB002 |
| Perchlorate | 0.00 | 0 | NA | 21-FEB-10 | per0221010a | IPB003 |
| Perchlorate-101 | 0.00 | 0 | NA | 21-FEB-10 | per0221010a | IPB003 |
| Perchlorate | 0.00 | 0 | NA | 21-FEB-10 | per0221021a | IPB004 |
| Perchlorate-101 | 0.00 | 0 | NA | 21-FEB-10 | per0221021a | IPB004 |
| Perchlorate | 0.00 | 0 | NA | 21-FEB-10 | per0221034a | IPB005 |
| Perchlorate-101 | 0.00 | 0 | NA | 21-FEB-10 | per0221034a | IPB005 |
| Perchlorate | 0.00 | 0 | NA | 21-FEB-10 | per0221039a | IPB006 |
| Perchlorate-101 | 0.00 | 0 | NA | 21-FEB-10 | per0221039a | IPB006 |
| Perchlorate | 0.00 | 0 | NA | 21-FEB-10 | per0221047a | IPB007 |
| Perchlorate-101 | 0.00 | 0 | NA | 21-FEB-10 | per0221047a | IPB007 |
| Perchlorate | 0.00 | 0 | NA | 21-FEB-10 | per0221058a | IPB008 |



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Form 4

**Perchlorate Continuing Calibration Blank**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id | GEL Sample ID |
|---|---|---|---|---|---|---|
| Perchlorate–101 | 0.00 | 0 | NA | 21–FEB–10 | per0221058a | IPB008 |
| Perchlorate | 0.00 | 0 | NA | 21–FEB–10 | per0221070a | IPB009 |
| Perchlorate–101 | 0.00 | 0 | NA | 21–FEB–10 | per0221070a | IPB009 |
| Perchlorate | 0.00 | 0 | NA | 22–FEB–10 | per0221081a | IPB010 |
| Perchlorate–101 | 0.00 | 0 | NA | 22–FEB–10 | per0221081a | IPB010 |
| Perchlorate | 0.00 | 0 | NA | 22–FEB–10 | per0221091a | IPB011 |
| Perchlorate–101 | 0.00 | 0 | NA | 22–FEB–10 | per0221091a | IPB011 |
| Perchlorate | 0.00 | 0 | NA | 22–FEB–10 | per0221102a | IPB012 |
| Perchlorate–101 | 0.00 | 0 | NA | 22–FEB–10 | per0221102a | IPB012 |
| Perchlorate | 0.00 | 0 | NA | 22–FEB–10 | per0221115a | IPB013 |
| Perchlorate–101 | 0.00 | 0 | NA | 22–FEB–10 | per0221115a | IPB013 |
| Perchlorate | 0.00 | 0 | NA | 22–FEB–10 | per0221128a | IPB014 |
| Perchlorate–101 | 0.00 | 0 | NA | 22–FEB–10 | per0221128a | IPB014 |



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**ıntify Sample Report MassLynx 4.0 SP4**
· GEL Group, LLC Analyst: Charlers W. Wilson

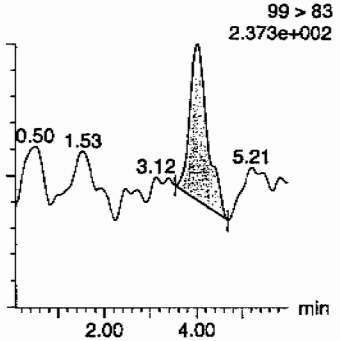
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ıted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

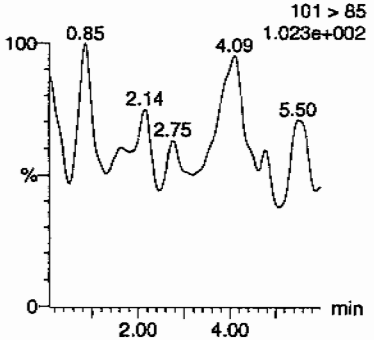
**ne: per0221008a**
**e: 21-Feb-2010**
**ıe: 14:21:48**
**IPB002**
**: 1:1,A**

CWJ 02-22-10

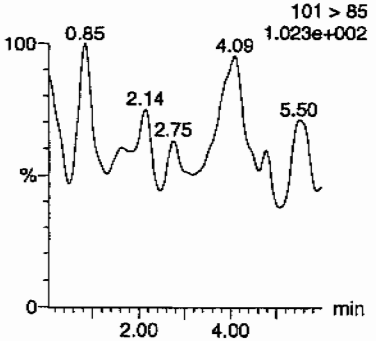
**chlorate**



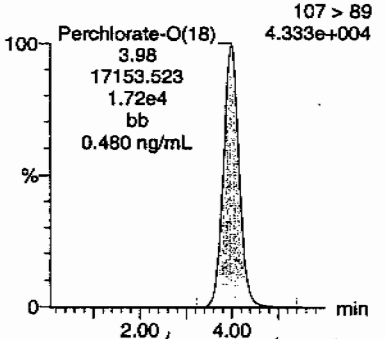

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMK 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| )02 | Perchlorate | 99 > 83 | 4.00 | 64.134 | 64.134 | bb | | | 0.0015 | | | 9.160 | 0.00 |
| )02 | Perchlorate-101 | 101 > 85 | | | | | | | | | | | |
| )02 | Perchlorate-O(18) | 107 > 89 | 3.98 | 17153.523 | 17153.523 | bb | | | 0.4800 | 96.00 | -4.00 | 2373.8... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



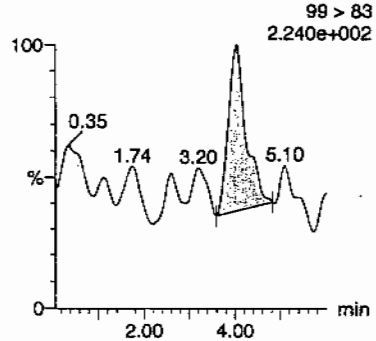
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

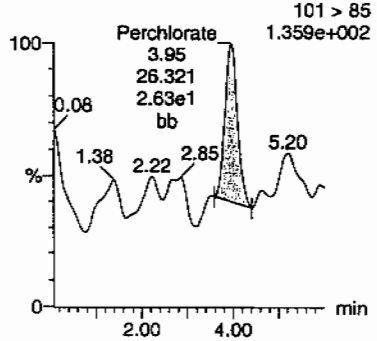
**Name: per0221010a**
**Date: 21-Feb-2010**
**Time: 14:39:52**
**ID: IPB003**
**Vial: 1:1,A**

CWW 02-22-10

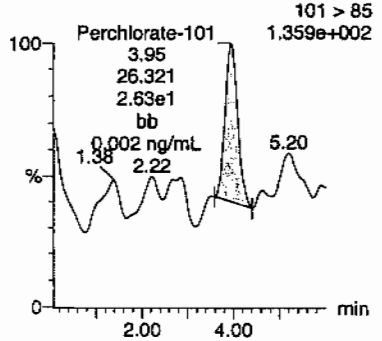
**Perchlorate**



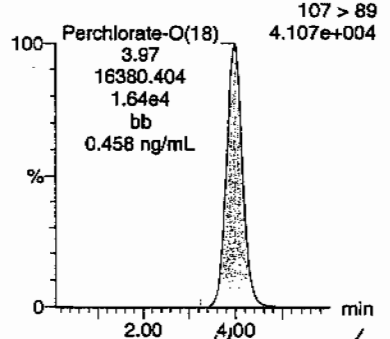

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




AMM 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB003 | Perchlorate | 99 > 83 | 4.02 | 64.700 | 64.700 | bb | | | 0.0015 | | | 13.963 | 2.46 |
| IPB003 | Perchlorate-101 | 101 > 85 | 3.95 | 26.321 | 26.321 | bb | | | 0.0020 | | | 38.439 | |
| IPB003 | Perchlorate-O(18) | 107 > 89 | 3.97 | 16380.404 | 16380.404 | bb | | | 0.4584 | 91.67 | -8.33 | 6874.7... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

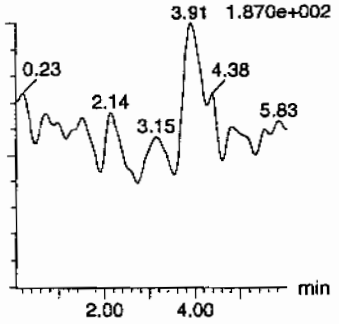
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

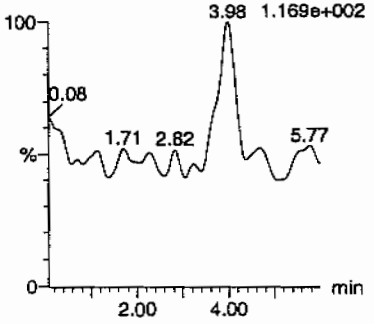
ne: per0221021a
e: 21-Feb-2010
e: 16:21:15
IPB004
l: 1:1,A

CW 02-22-10

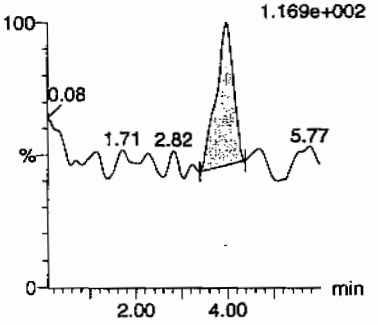
chlorate



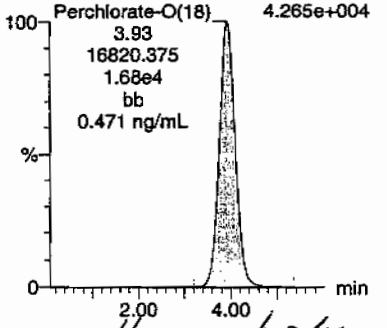

Perchlorate




Perchlorate-101




Perchlorate-O(18)




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04 | Perchlorate | 99 > 83 | | | | | | | | | | | 0.00 |
| 04 | Perchlorate-101 | 101 > 85 | 3.98 | 27.708 | 27.708 | bb | | | 0.0021 | | | 38.242 | |
| 04 | Perchlorate-O(18) | 107 > 89 | 3.93 | 16820.375 | 16820.375 | bb | | | 0.4707 | 94.14 | -5.86 | 10306.... | |

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



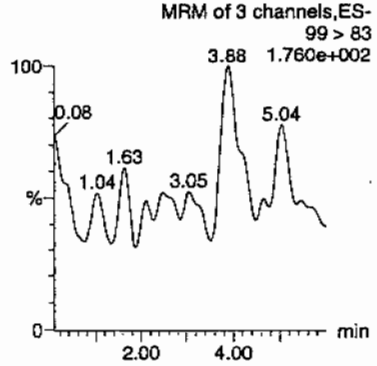
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

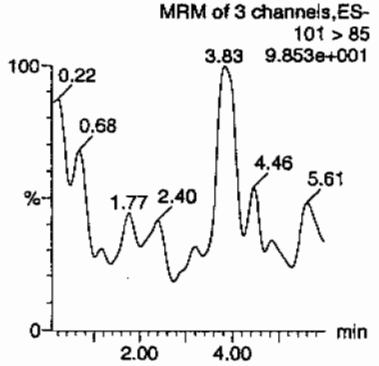
**Name: per0221034a**
**Date: 21-Feb-2010**
**Time: 18:18:56**
**ID: IPB005**
**Vial: 1:1,A**

aw
02-22-10

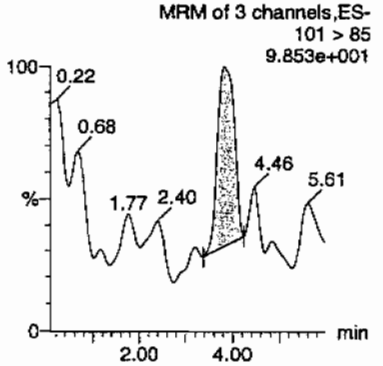
**Perchlorate**



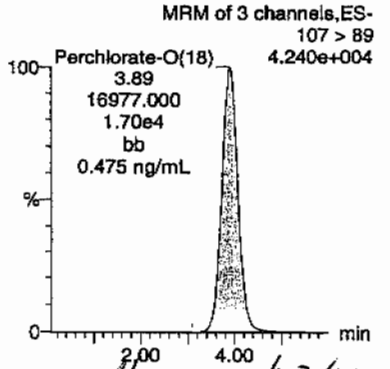

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hnm 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB005 | Perchlorate | 99 > 83 | | | | | | | | | | | 0.00 |
| IPB005 | Perchlorate-101 | 101 > 85 | 3.83 | 28.036 | 28.036 | bb | | | 0.0021 | | | 14.538 | |
| IPB005 | Perchlorate-O(18) | 107 > 89 | 3.89 | 16977.000 | 16977.000 | bb | | | 0.4751 | 95.01 | -4.99 | 3122.0... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

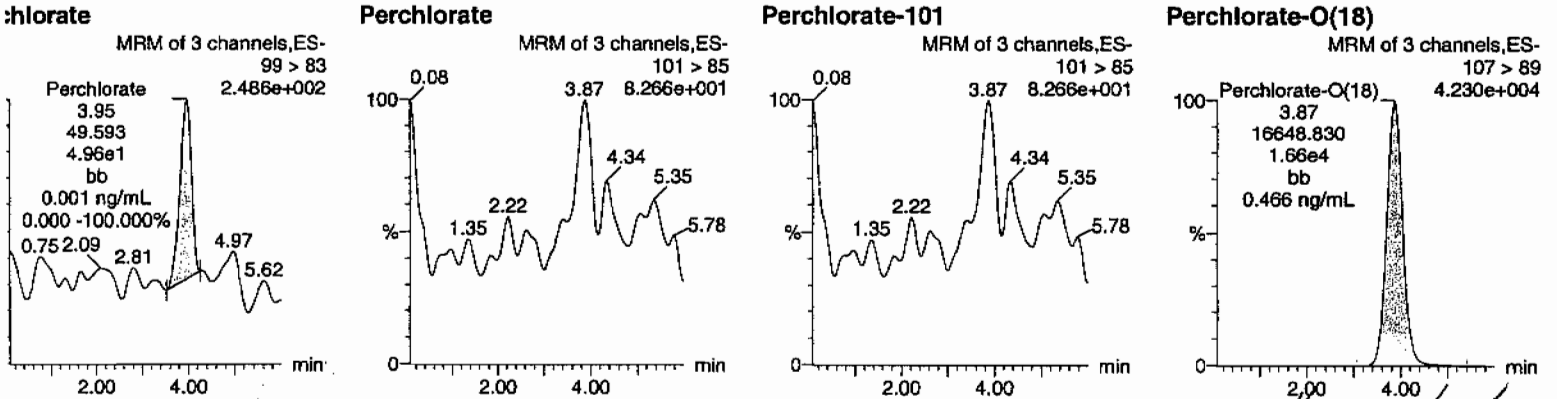
**ntify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ıe: per0221039a**
**: 21-Feb-2010**
**ɜ: 19:04:27**
**PB006**
**: 1:1,A**

02-22-10




4/min 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| )6 | Perchlorate | 99 > 83 | 3.95 | 49.593 | 49.593 | bb | | | 0.0012 | | | 21.909 | 0.00 |
| )6 | Perchlorate-101 | 101 > 85 | | | | | | | | | | | |
| )6 | Perchlorate-O(18) | 107 > 89 | 3.87 | 16648.830 | 16648.830 | bb | | | 0.4659 | 93.18 | -6.82 | 1029.0... | |

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

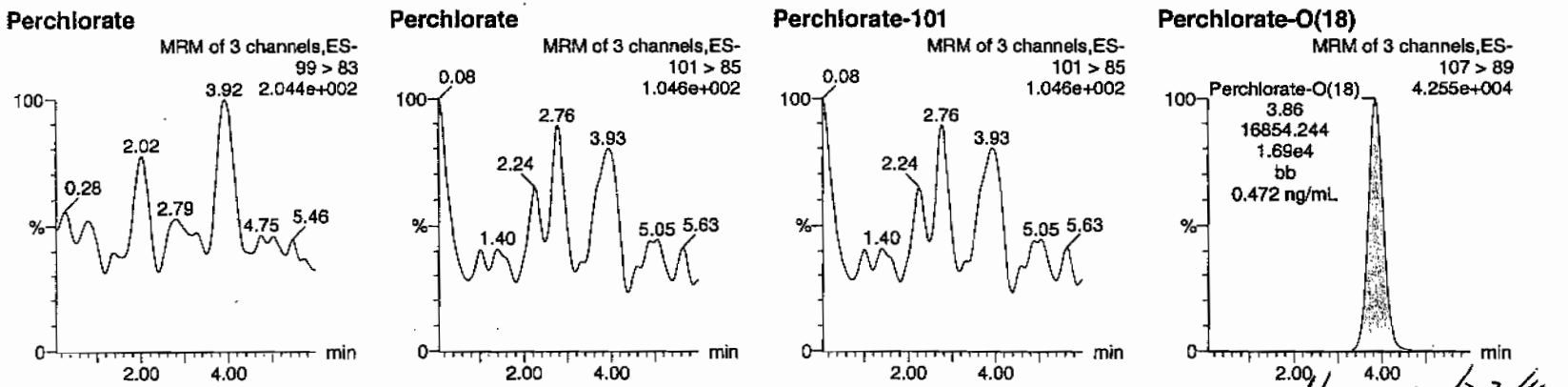


Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**Name: per0221047a**
**Date: 21-Feb-2010**
**Time: 20:17:04**
**ID: IPB007**
**Vial: 1:1,A**

GWO 02-22-10




HMW 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB007 | Perchlorate | 99 > 83 | | | | | | | | | | | 0.00 |
| IPB007 | Perchlorate-101 | 101 > 85 | | | | | | | | | | | |
| IPB007 | Perchlorate-O(18) | 107 > 89 | 3.86 | 16854.244 | 16854.244 | bb | | | 0.4716 | 94.32 | -5.68 | 5102.5... | |



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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



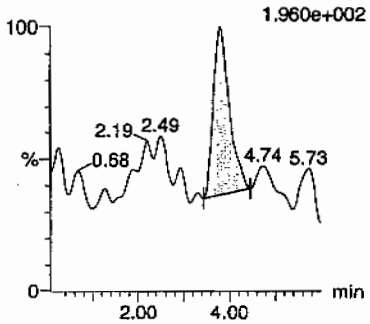
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

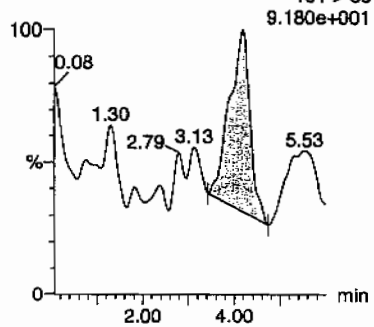
**Name: per0221058a**
**Date: 21-Feb-2010**
**Time: 21:57:17**
**ID: IPB008**
**Vial: 1:1,A**

CWW
02-22-10

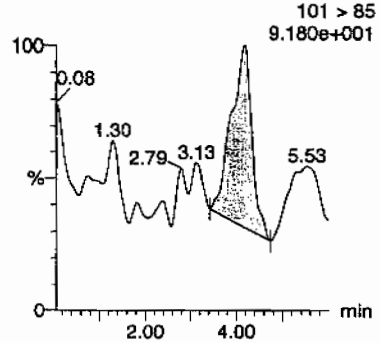
**Perchlorate**



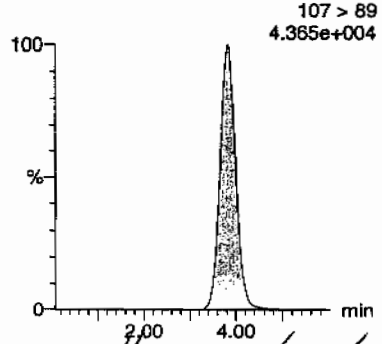

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB008 | Perchlorate | 99 > 83 | 3.79 | 50.339 | 50.339 | bb | | | 0.0012 | | | 22.450 | 1.52 |
| IPB008 | Perchlorate-101 | 101 > 85 | 4.19 | 33.012 | 33.012 | bb | | | 0.0025 | | | 19.317 | |
| IPB008 | Perchlorate-O(18) | 107 > 89 | 3.82 | 17119.211 | 17119.211 | bb | | | 0.4790 | 95.81 ✓ | -4.19 | 2040.6... | |

OKAY
<0.0500



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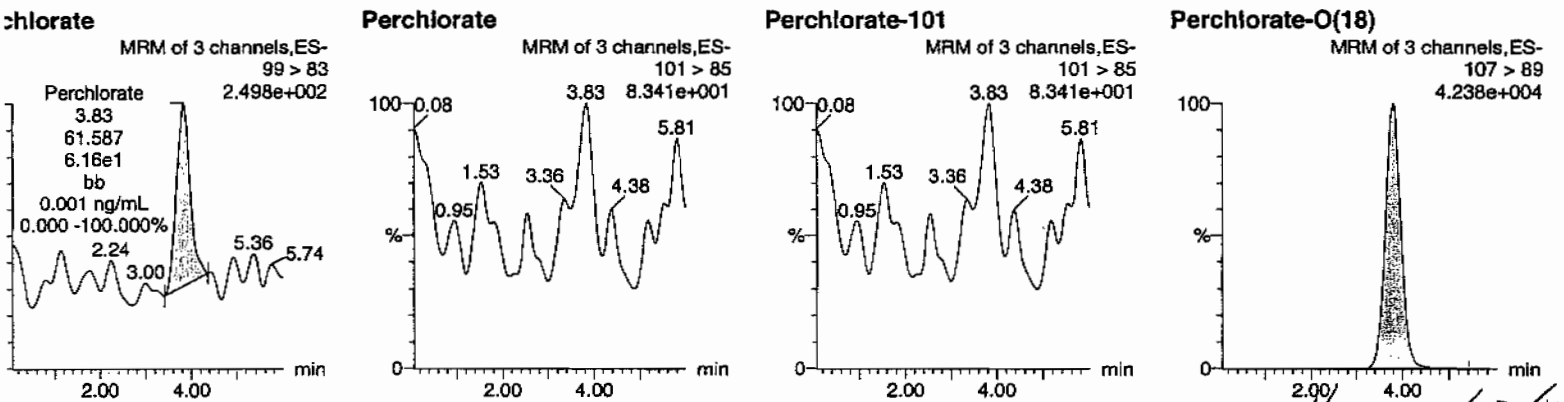
**ıntify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

l Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ne: per0221070a**
**e: 21-Feb-2010**
**e: 23:46:06**
**PB009**
**: 1:1,A**

CWW 02-22-10




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 09 | Perchlorate | 99 > 83 | 3.83 | 61.587 | 61.587 | bb | | | 0.0015 | | | 17.078 | 0.00 |
| 09 | Perchlorate-101 | 101 > 85 | | | | | | | | | | | |
| 09 | Perchlorate-O(18) | 107 > 89 | 3.79 | 16745.736 | 16745.736 | bb | | | 0.4686 | 93.72 ✓ | -6.28 | 32026.... | |

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



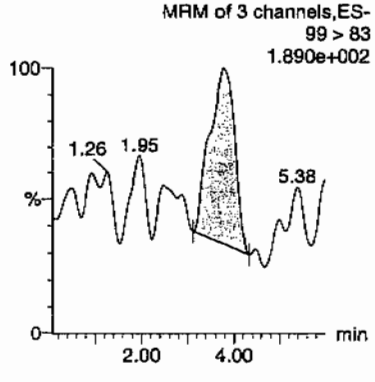
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

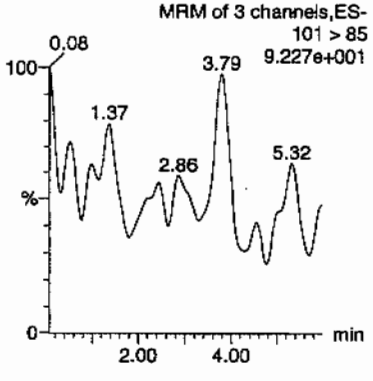
**Name: per0221081a**
**Date: 22-Feb-2010**
**Time: 01:26:02**
**ID: IPB010**
**Vial: 1:1,A**

ano 02-22-10

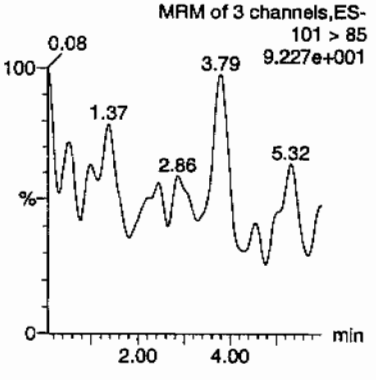
**Perchlorate**



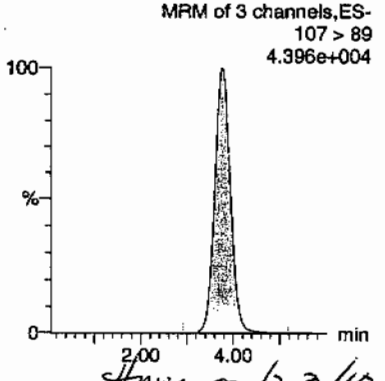

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMW 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB010 | Perchlorate | 99 > 83 | 3.77 | 78.250 | 78.250 | bb | | | 0.0019 | | | 11.419 | 0.00 |
| IPB010 | Perchlorate-101 | 101 > 85 | | | | | | | | | | | |
| IPB010 | Perchlorate-O(18) | 107 > 89 | 3.77 | 17116.012 | 17116.012 | bb | | | 0.4789 | 95.79 | -4.21 | 699.446 | |



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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



GEL Group, LLC Analyst: Charlers W. Wilson

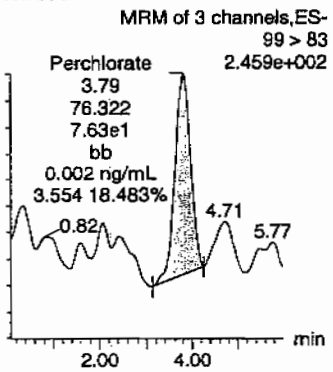
ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

: Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

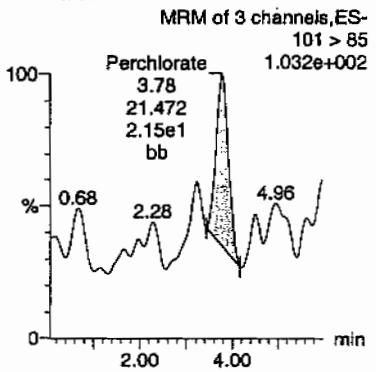
**ıe: per0221091a**
**ɜ: 22-Feb-2010**
**e: 02:56:59**
**PB011**
**: 1:1,A**

Cmo
02.22-10

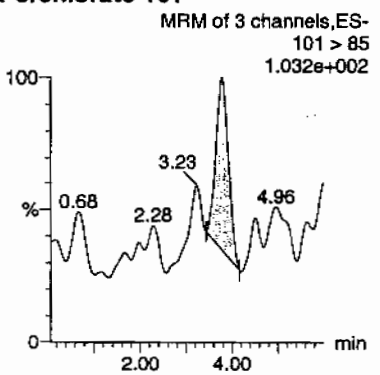
**:hlorate**



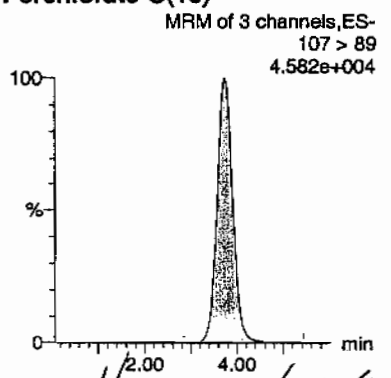

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | Perchlorate | 99 > 83 | 3.79 | 76.322 | 76.322 | bb | | | 0.0018 | | | 22.816 | 3.55 |
| 11 | Perchlorate-101 | 101 > 85 | 3.78 | 21.472 | 21.472 | bb | | | 0.0016 | | | 13.305 | |
| 11 | Perchlorate-O(18) | 107 > 89 | 3.73 | 18082.072 | 18082.072 | bb | | | 0.5060 | 101.20 | 1.20 | 1215.8... | |

**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



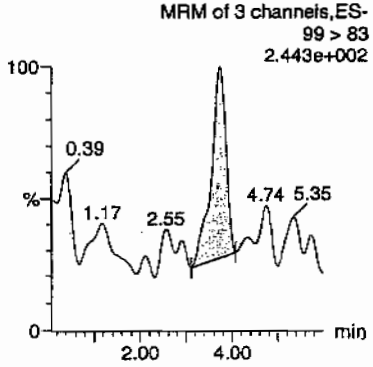
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

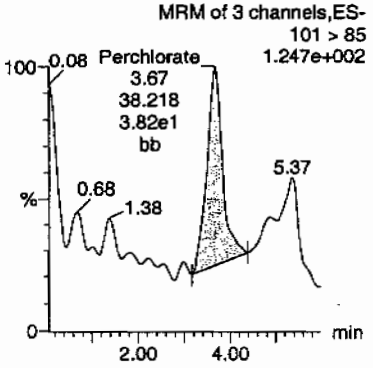
**Name: per0221102a**
**Date: 22-Feb-2010**
**Time: 04:37:01**
**ID: IPB012**
**Vial: 1:1,A**

GMS 02-22-10

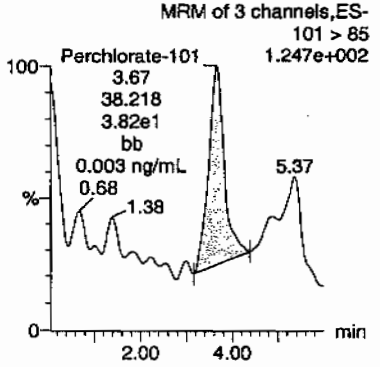
**Perchlorate**



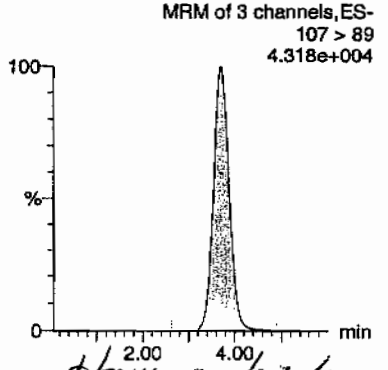

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMK 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB012 | Perchlorate | 99 > 83 | 3.73 | 66.169 | 66.169 | bb | | | 0.0016 | | | 8.746 | 1.73 |
| IPB012 | Perchlorate-101 | 101 > 85 | 3.67 | 38.218 | 38.218 | bb | | | 0.0029 | | | 15.279 | |
| IPB012 | Perchlorate-O(18) | 107 > 89 | 3.71 | 16801.039 | 16801.039 | bb | | | 0.4701 | 94.03 | -5.97 | 1957.0... | |

OKAY
<0.050



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**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



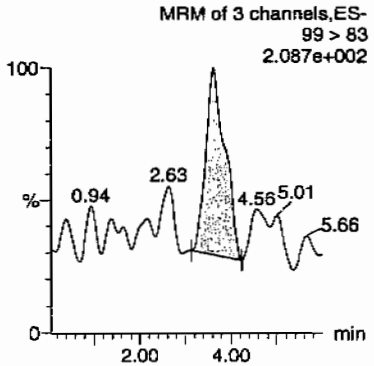
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

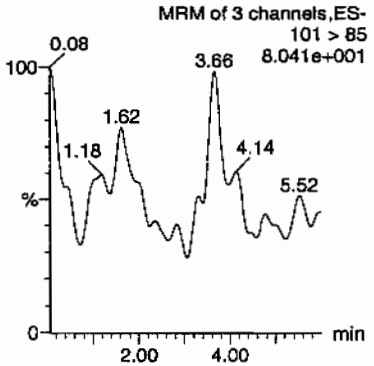
**Name: per0221115a**
**Date: 22-Feb-2010**
**Time: 06:34:48**
**ID: IPB013**
**Vial: 1:1,A**

CWW
02-22-10

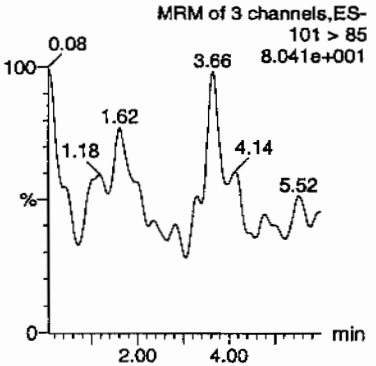
**Perchlorate**



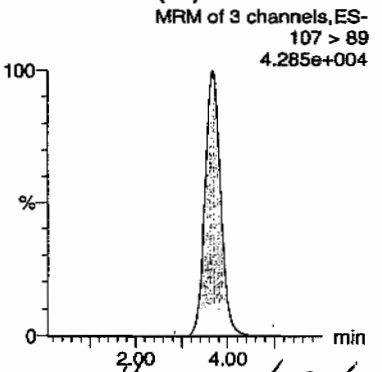

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB013 | Perchlorate | 99 > 83 | 3.62 | 73.460 | 73.460 | bb | | | 0.0017 | | | 18.738 | 0.00 |
| IPB013 | Perchlorate-101 | 101 > 85 | | | | | | | | | | | |
| IPB013 | Perchlorate-O(18) | 107 > 89 | 3.68 | 16744.482 | 16744.482 | bb | | | 0.4686 | 93.71 | -6.29 | 3052.5... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



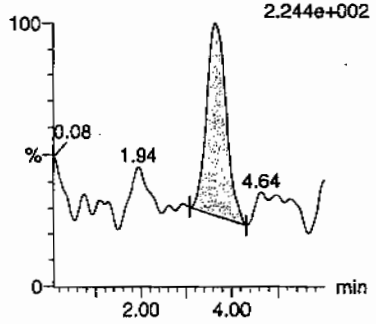
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

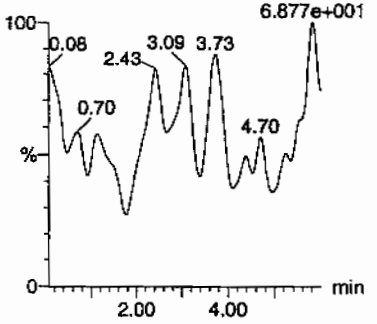
**Name: per0221128a**
**Date: 22-Feb-2010**
**Time: 08:32:54**
**ID: IPB014**
**Vial: 1:1,A**

CWW
02-22-10

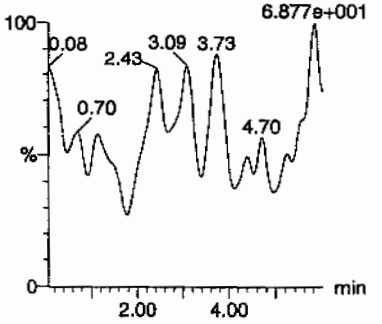
**Perchlorate**



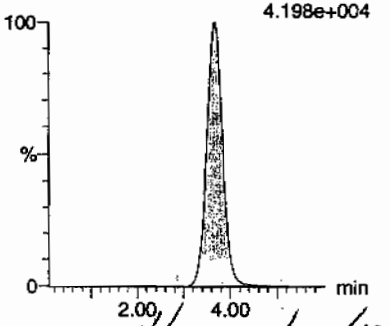

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB014 | Perchlorate | 99 > 83 | 3.66 | 82.326 | 82.326 | bb | | | 0.0019 | | | 19.536 | 0.00 |
| IPB014 | Perchlorate-101 | 101 > 85 | | | | | | | | | | | |
| IPB014 | Perchlorate-O(18) | 107 > 89 | 3.66 | 16438.121 | 16438.121 | bb | | | 0.4600 | 92.00 | -8.00 | 1940.2... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;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 |

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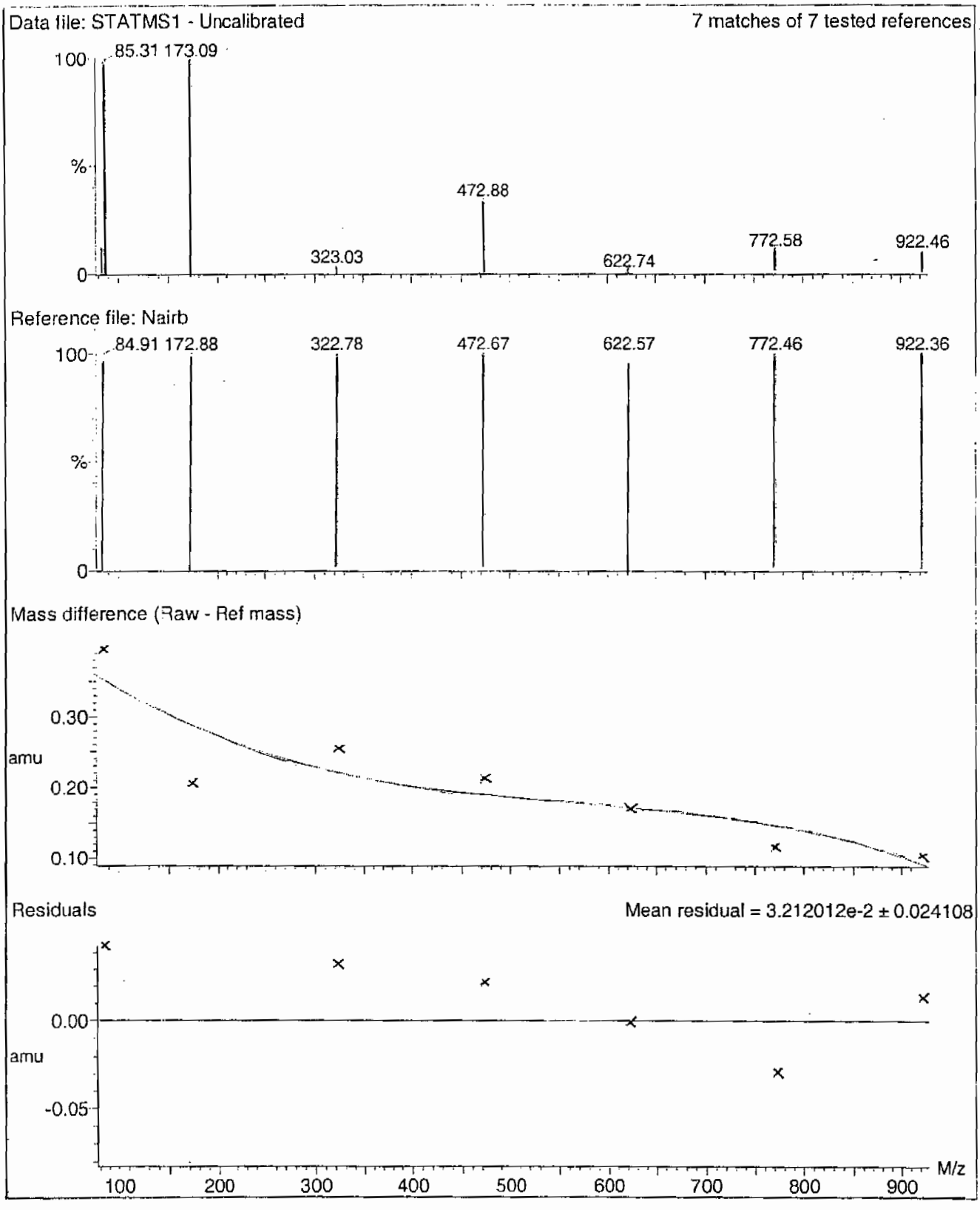
QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static



Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY GUNS 01-09-03



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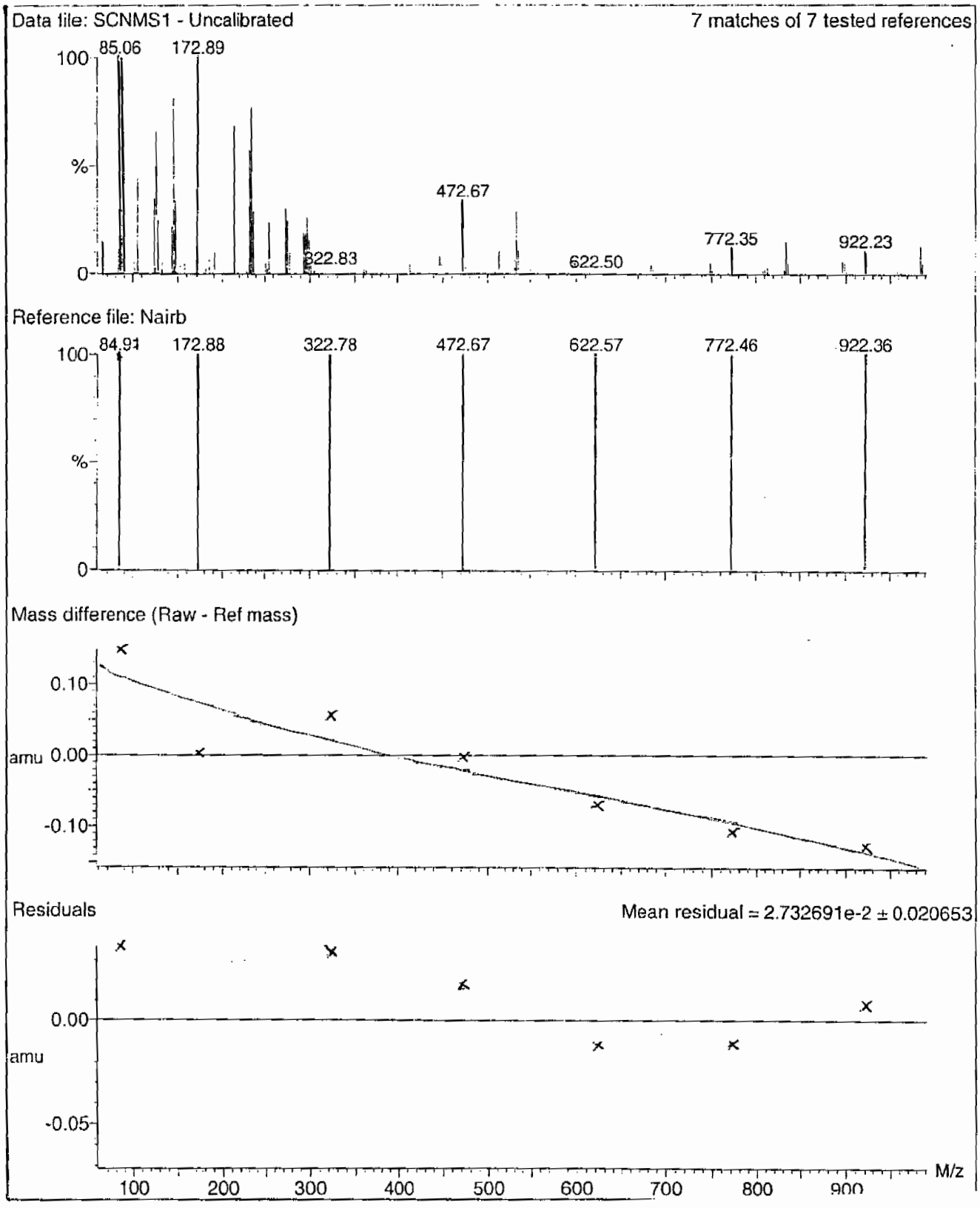
Calibration Report - MS1 Scanning



Printed: Tue Jan 08 12:20:09 2008



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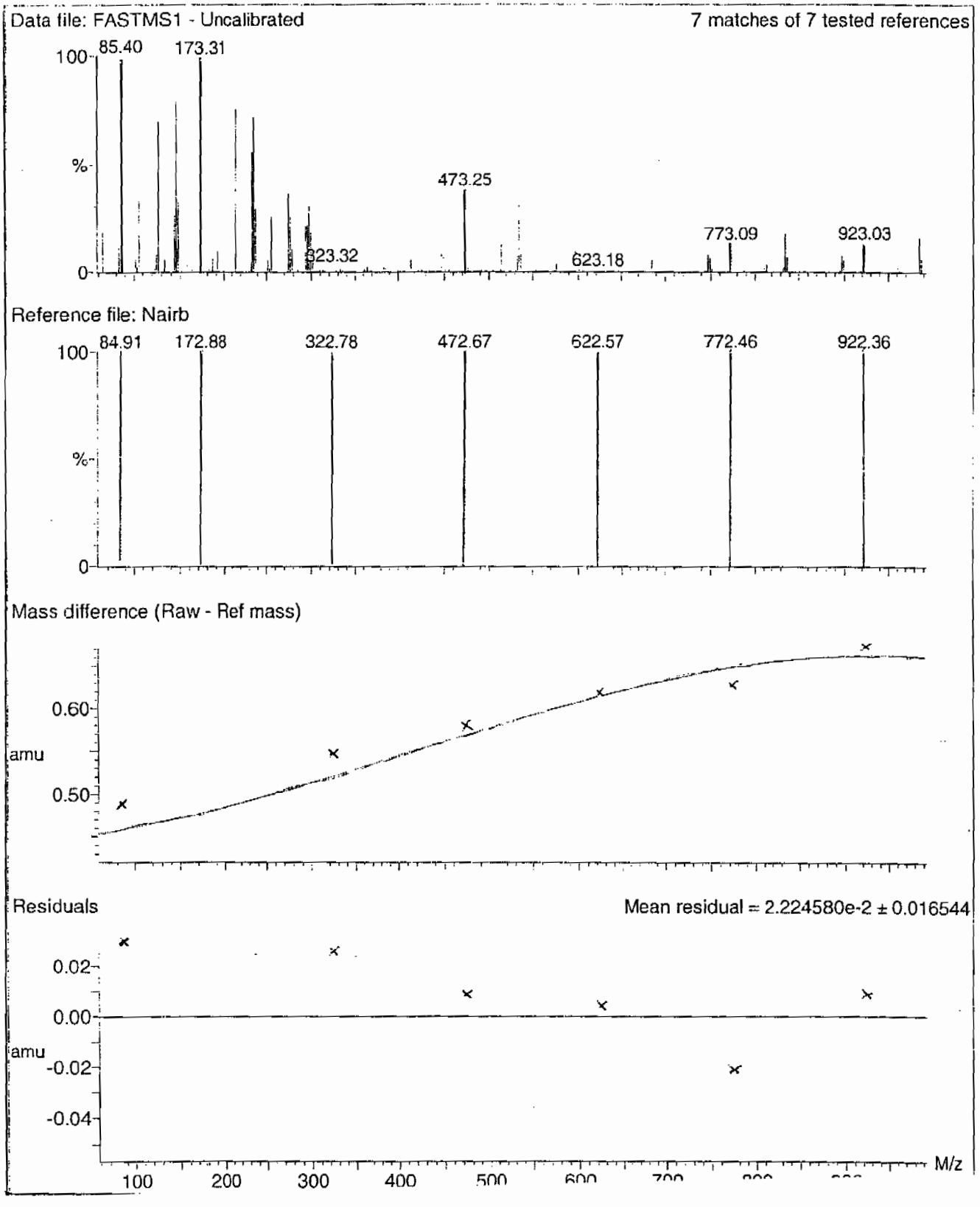
Calibration Report - MS1 Scan Speed Compensation



Printed: Tue Jan 08 12:21:04 2008

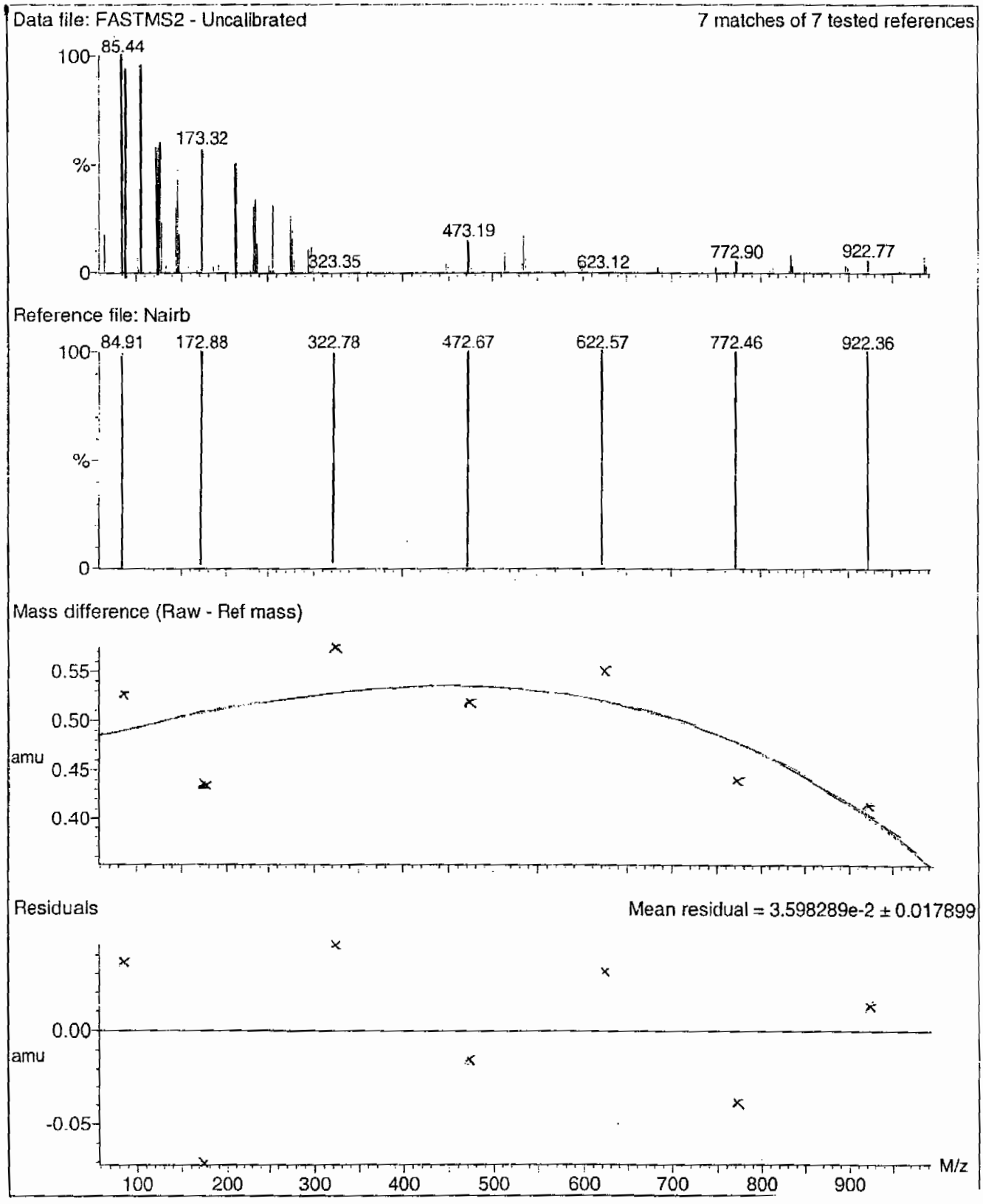


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation



Printed: Tue Jan 08 12:23:51 2008



PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

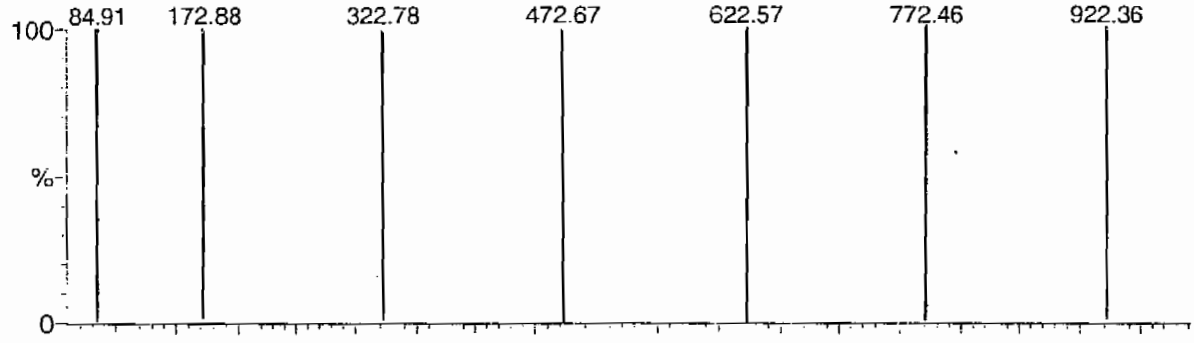


Printed: Tue Jan 08 12:22:56 2008

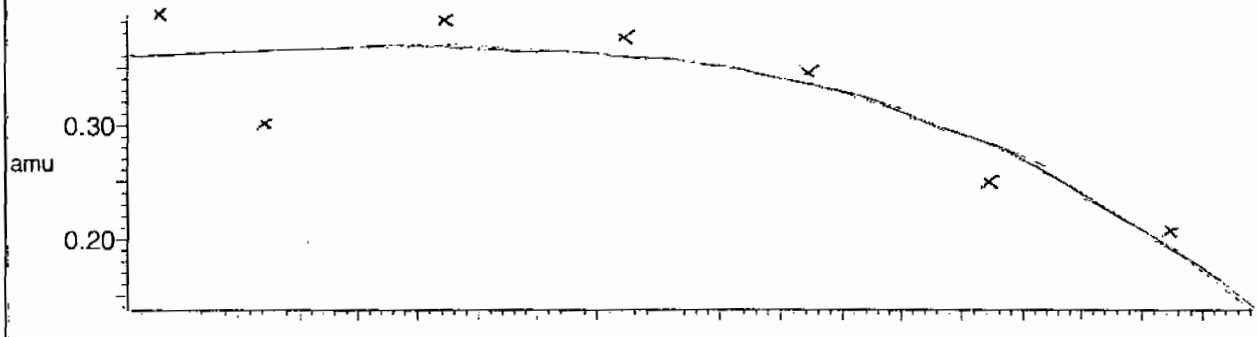
Data file: SCNMS2 - Uncalibrated

7 matches of 7 tested references

Reference file: Nairb

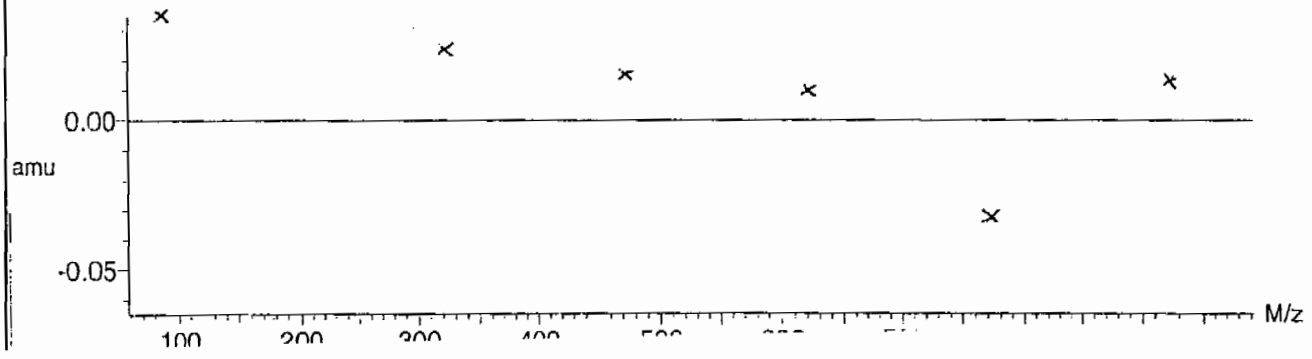



Mass difference (Raw - Ref mass)




Residuals

Mean residual = 2.782494e-2 ± 0.017442

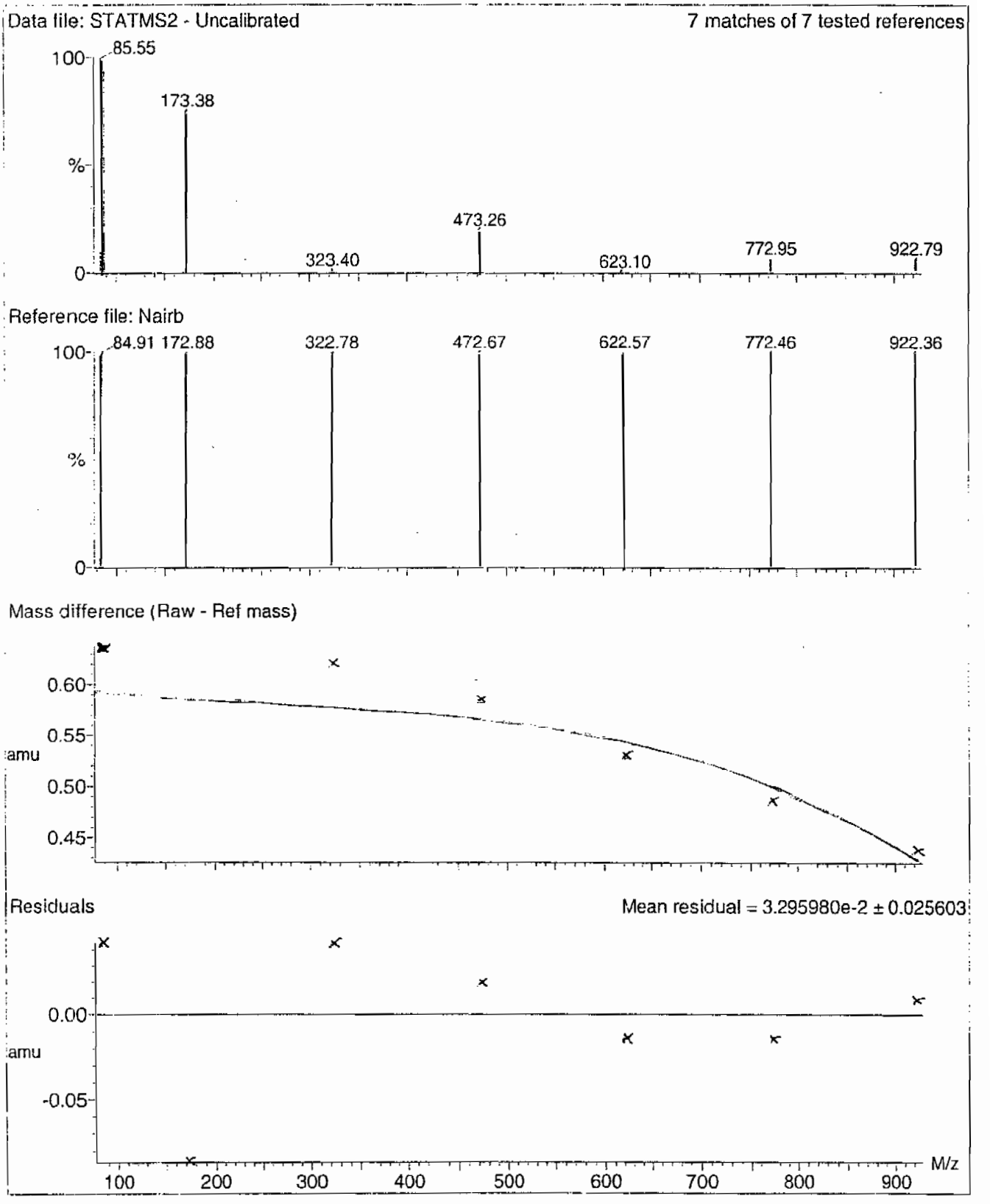


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static



Printed: Tue Jan 08 12:21:59 2008



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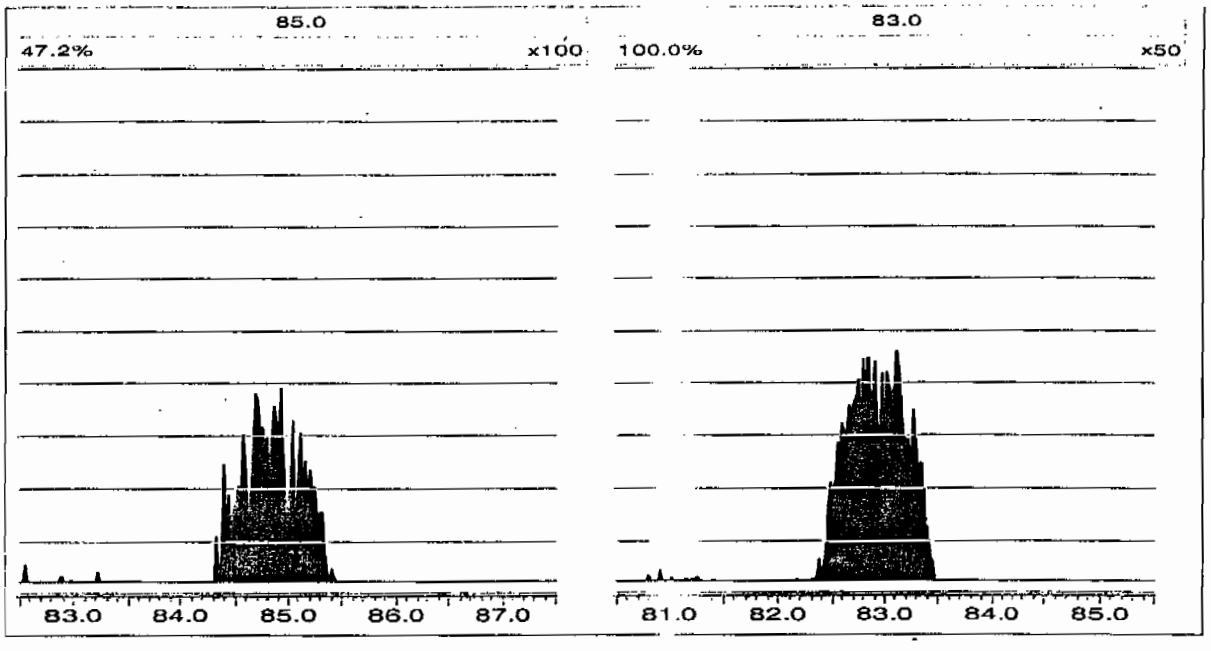
File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, February 21, 2010 11:58:13 Eastern Standard Time



Form 8

## Perchlorate RT And Area Summary

**Lab Name:** General Engineering Laboratories **GEL Job No.(SDG):** 10-1512

**Lab Code:** GEL

**Instrument ID:** LCMSMS

**HPLC Column:** Phenomenex Ion Pac AG-16 2 X 50 mm

| Sample ID | Datafile | Run Date | Area | RT | RT CLO4 | RRT | Q 0.98-1.02 |
|---|---|---|---|---|---|---|---|
| **MidLevel Standard Area** | **per0221006a** | **21-FEB-10** | **17665.3** | | | | |
| **Lower Area Limit** | | | **8832.65** | | | | |
| **Upper Area Limit** | | | **35330.6** | | | | |
| 1202035641 | per0221104a | 22-FEB-10 04:55 | 17560.2 | 3.72 | 3.7313 | 1.003 | |
| 1202035642 | per0221105a | 22-FEB-10 05:04 | 16872.3 | 3.71 | 3.71883 | 1.002 | |
| 1202035645 | per0221106a | 22-FEB-10 05:13 | 16885.2 | 3.72 | 3.73128 | 1.003 | |
| 245969001 | per0221107a | 22-FEB-10 05:22 | 16793.9 | 3.69 | 3.70635 | 1.004 | |
| 1202035643 | per0221108a | 22-FEB-10 05:31 | 17304.6 | 3.69 | 3.71882 | 1.008 | |
| 1202035644 | per0221109a | 22-FEB-10 05:40 | 16421.9 | 3.69 | 3.70633 | 1.004 | |
| 245969002 | per0221110a | 22-FEB-10 05:49 | 17225.1 | 3.69 | 3.70635 | 1.004 | |
| 245969003 | per0221111a | 22-FEB-10 05:58 | 18276.7 | 3.68 | 3.70635 | 1.007 | |



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Form 8

## Perchlorate RT And Area Summary

**Lab Name:** General Engineering Laboratories **GEL Job No.(SDG):** 10–1512

**Lab Code:** GEL

**Instrument ID:** LCMSMS

**HPLC Column:** Phenomenex Ion Pac AG–16 2 X 50 mm

| Sample ID | Datafile | Run Date | Area | RT | RT CLO4 | RRT | Q 0.98–1.02 |
|---|---|---|---|---|---|---|---|
| **MidLevel Standard Area** | **per0221006a** | **21–FEB–10** | **17665.3** | | | | |
| **Lower Area Limit** | | | **8832.65** | | | | |
| **Upper Area Limit** | | | **35330.6** | | | | |
| 245969004 | per0221112a | 22–FEB–10 06:07 | 17427.6 | 3.69 | 3.71882 | 1.008 | |
| 245969005 | per0221113a | 22–FEB–10 06:16 | 16916.6 | 3.68 | 3.68158 | 1 | |
| 245969006 | per0221117a | 22–FEB–10 06:52 | 18170.4 | 3.68 | 3.70637 | 1.007 | |
| 245969007 | per0221118a | 22–FEB–10 07:02 | 18091.4 | 3.68 | 3.70637 | 1.007 | |
| 245969008 | per0221119a | 22–FEB–10 07:11 | 18221.7 | 3.67 | 3.69405 | 1.007 | |
| 245969009 | per0221120a | 22–FEB–10 07:20 | 19644.8 | 3.68 | 3.69402 | 1.004 | |
| 245969010 | per0221121a | 22–FEB–10 07:29 | 18139.6 | 3.68 | 3.6691 | .997 | |
| 245969011 | per0221122a | 22–FEB–10 07:38 | 19195.1 | 3.67 | 3.68158 | 1.003 | |



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Form 8

## Perchlorate RT And Area Summary

**Lab Name:** General Engineering Laboratories **GEL Job No.(SDG):** 10–1512

**Lab Code:** GEL

**Instrument ID:** LCMSMS

**HPLC Column:** Phenomenex Ion Pac AG–16 2 X 50 mm

| Sample ID | Datafile | Run Date | Area | RT | RT CLO4 | RRT | Q 0.98–1.02 |
|---|---|---|---|---|---|---|---|
| **MidLevel Standard Area** | **per0221006a** | **21–FEB–10** | **17665.3** | | | | |
| **Lower Area Limit** | | | **8832.65** | | | | |
| **Upper Area Limit** | | | **35330.6** | | | | |
| 245969012 | per0221123a | 22–FEB–10 07:47 | 18059.7 | 3.68 | 3.70638 | 1.007 | |
| 245969013 | per0221124a | 22–FEB–10 07:56 | 18651.5 | 3.67 | 3.69402 | 1.007 | |
| 245969014 | per0221125a | 22–FEB–10 08:05 | 17922.8 | 3.66 | 3.66907 | 1.002 | |
| 245969015 | per0221126a | 22–FEB–10 08:14 | 18461.8 | 3.64 | 3.66908 | 1.008 | |



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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from CRL.

SAMPLE
DATA

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7880

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969001

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 92.5

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .541 | 2.16 | 0.541 | ug/kg | U | 1 | 22-FEB-10 05:22 | per0221107a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 05:22 | per0221107a |
| 14797-73-0 | Perchlorate-101 | .541 | 2.16 | 0.541 | ug/kg | U | 1 | 22-FEB-10 05:22 | per0221107a |
| | Perchlorate-O(18) | | | 5.08 | ug/kg | | 1 | 22-FEB-10 05:22 | per0221107a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

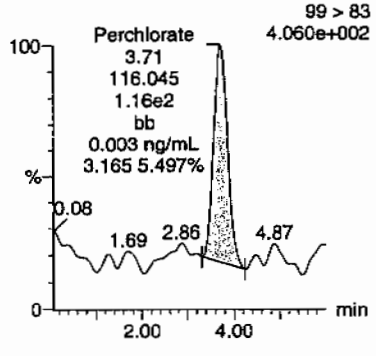
Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**Name: per0221107a**
**Date: 22-Feb-2010**
**Time: 05:22:22**
**ID: 245969001**
**Vial: 3:1,D**

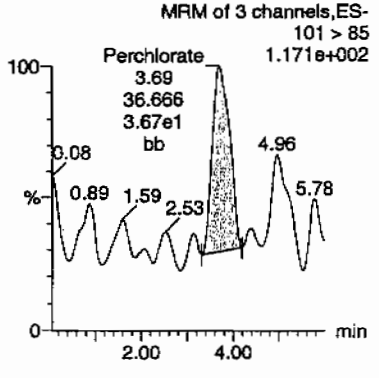
|LANL|950060|SOLID|1|

02-22-10

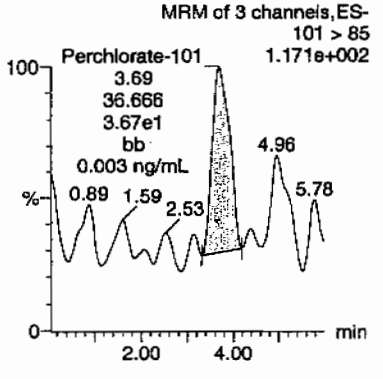
**Perchlorate**



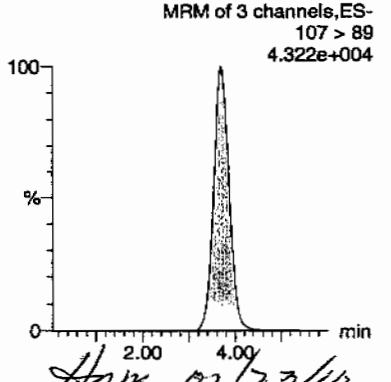

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969001 | Perchlorate | 99 > 83 | 3.71 | 116.045 | 116.045 | bb | | | 0.0027 | | | 47.922 | 3.16 |
| 245969001 | Perchlorate-101 | 101 > 85 | 3.69 | 36.666 | 36.666 | bb | | | 0.0028 | | | 10.703 | |
| 245969001 | Perchlorate-O(18) | 107 > 89 | 3.69 | 16793.863 | 16793.863 | bb | | | 0.4699 | 93.99 | -6.01 | 5001.9... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7891

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969002

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 74

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .676 | 2.7 | 0.676 | ug/kg | U | 1 | 22-FEB-10 05:49 | per0221110a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 05:49 | per0221110a |
| 14797-73-0 | Perchlorate-101 | .676 | 2.7 | 0.676 | ug/kg | U | 1 | 22-FEB-10 05:49 | per0221110a |
| | Perchlorate-O(18) | | | 6.51 | ug/kg | | 1 | 22-FEB-10 05:49 | per0221110a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**ıntify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

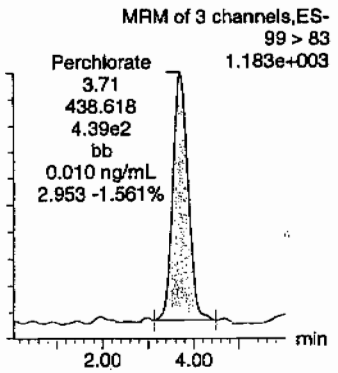
: Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ıe: per0221110a**
**ɜ: 22-Feb-2010**
**e: 05:49:24**
**245969002**
**: 3:2,A**

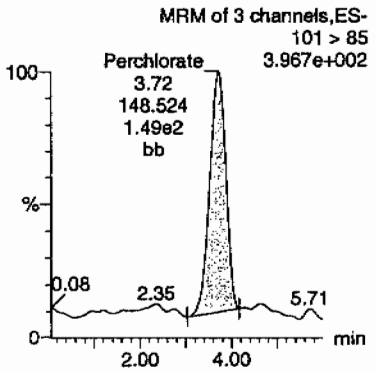
|LANL|950060|SDZD|1|

GW
02-22-10

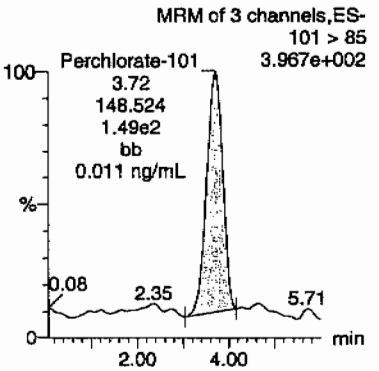
**chlorate**



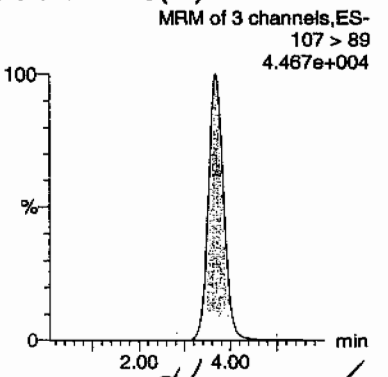

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMW 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| )69002 | Perchlorate | 99 > 83 | 3.71 | 438.618 | 438.618 | bb | | | 0.0104 | | | 123.093 | 2.95 |
| )69002 | Perchlorate-101 | 101 > 85 | 3.72 | 148.524 | 148.524 | bb | | | 0.0112 | | | 67.436 | |
| )69002 | Perchlorate-O(18) | 107 > 89 | 3.69 | 17225.094 | 17225.094 | bb | | | 0.4820 | 96.40 | -3.60 | 4807.5... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7892

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969003

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 93

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .537 | 2.15 | 0.571 | ug/kg | J | 1 | 22-FEB-10 05:58 | per0221111a |
| | Perchlorate Isotope Ratio | | | 3.1 | | | 1 | 22-FEB-10 05:58 | per0221111a |
| 14797-73-0 | Perchlorate-101 | .537 | 2.15 | 0.588 | ug/kg | J | 1 | 22-FEB-10 05:58 | per0221111a |
| | Perchlorate-O(18) | | | 5.50 | ug/kg | | 1 | 22-FEB-10 05:58 | per0221111a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

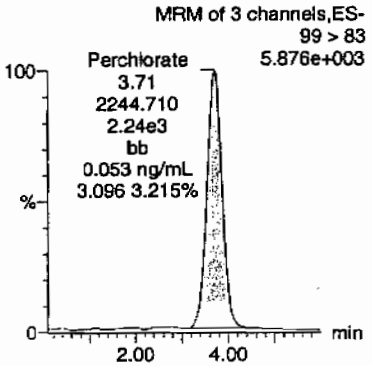
Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**Name: per0221111a**
**Date: 22-Feb-2010**
**Time: 05:58:27**
**ID: 245969003**
**Vial: 3:2,B**

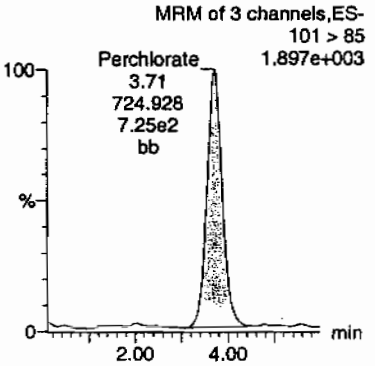
|LANL|950060|50120|1|

GWD
02-22-10

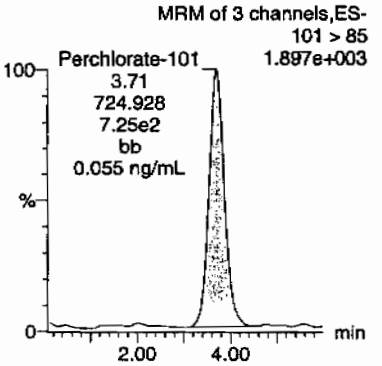
**Perchlorate**



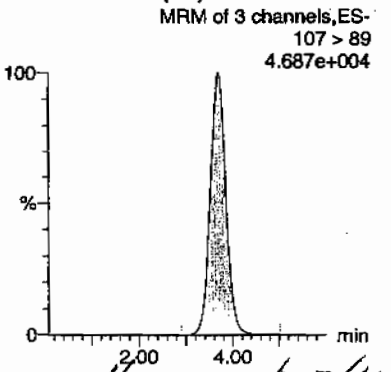

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969003 | Perchlorate | 99 > 83 | 3.71 | 2244.710 | 2244.710 | bb | | | 0.0532 | | | 690.489 | 3.10 |
| 245969003 | Perchlorate-101 | 101 > 85 | 3.71 | 724.928 | 724.928 | bb | | | 0.0547 | | | 114.010 | |
| 245969003 | Perchlorate-O(18) | 107 > 89 | 3.68 | 18276.682 | 18276.682 | bb | | | 0.5114 | 102.29 | 2.29 | 4189.2... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7967

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969004

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 76

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .659 | 2.64 | 0.659 | ug/kg | U | 1 | 22-FEB-10 06:07 | per0221112a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:07 | per0221112a |
| 14797-73-0 | Perchlorate-101 | .659 | 2.64 | 0.659 | ug/kg | U | 1 | 22-FEB-10 06:07 | per0221112a |
| | Perchlorate-O(18) | | | 6.43 | ug/kg | | 1 | 22-FEB-10 06:07 | per0221112a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson



aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

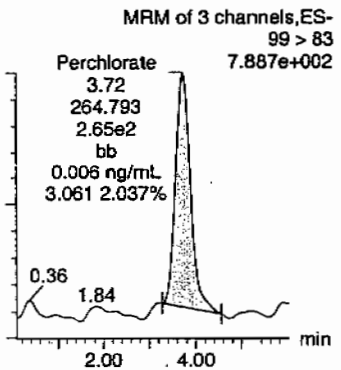
t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221112a
e: 22-Feb-2010
e: 06:07:29
245969004
l: 3:2,C

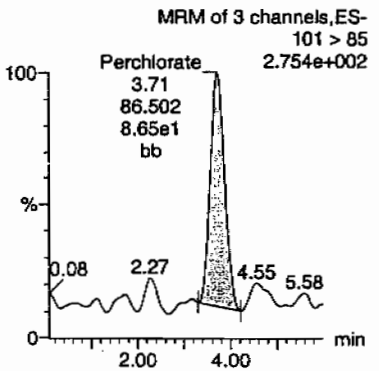
|LANL|950060|50120|1|

CWW 02-22-10

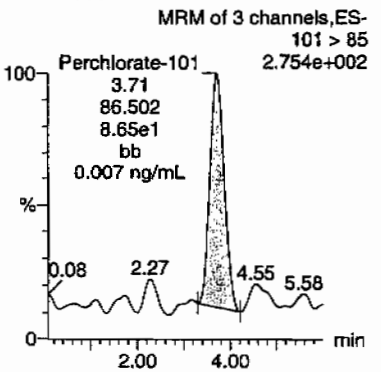
chlorate



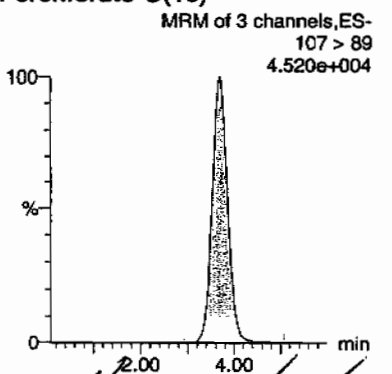

Perchlorate




Perchlorate-101




Perchlorate-O(18)




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 969004 | Perchlorate | 99 > 83 | 3.72 | 264.793 | 264.793 | bb | | | 0.0063 | | | 40.492 | 3.06 |
| 969004 | Perchlorate-101 | 101 > 85 | 3.71 | 86.502 | 86.502 | bb | | | 0.0065 | | | 93.584 | |
| 969004 | Perchlorate-O(18) | 107 > 89 | 3.69 | 17427.576 | 17427.576 | bb | | | 0.4877 | 97.53 | -2.47 | 7011.9... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7976

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969005

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 96.3

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .519 | 2.08 | 0.519 | ug/kg | U | 1 | 22-FEB-10 06:16 | per0221113a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:16 | per0221113a |
| 14797-73-0 | Perchlorate-101 | .519 | 2.08 | 0.519 | ug/kg | U | 1 | 22-FEB-10 06:16 | per0221113a |
| | Perchlorate-O(18) | | | 4.92 | ug/kg | | 1 | 22-FEB-10 06:16 | per0221113a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



**uantify Sample Report MassLynx 4.0 SP4**
ne GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

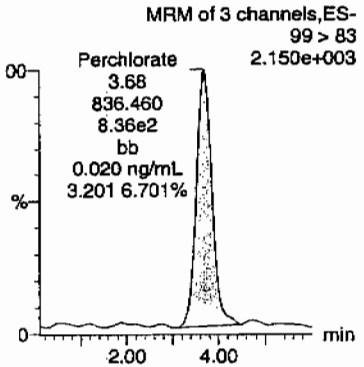
ast Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
rinted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ame: per0221113a**
**ate: 22-Feb-2010**
**ime: 06:16:31**
**): 245969005**
**ial: 3:2,D**

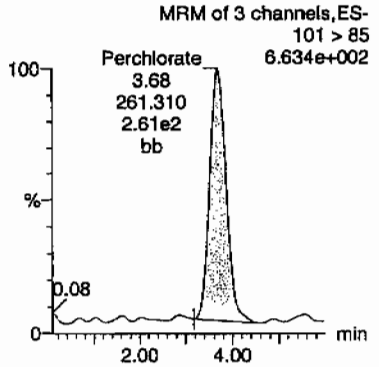
|LANL|950060|SOLID|1|

CWJ
02-22-10

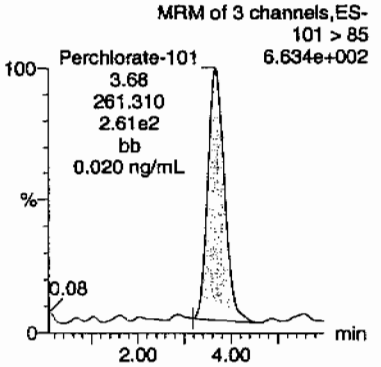
**erchlorate**



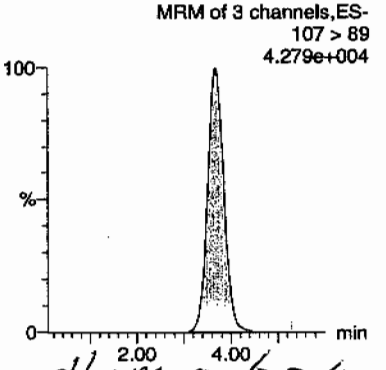

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| ) | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 45969005 | Perchlorate | 99 > 83 | 3.68 | 836.460 | 836.460 | bb | | | 0.0198 | | | 170.050 | 3.20 |
| 45969005 | Perchlorate-101 | 101 > 85 | 3.68 | 261.310 | 261.310 | bb | | | 0.0197 | | | 50.310 | |
| 45969005 | Perchlorate-O(18) | 107 > 89 | 3.68 | 16916.621 | 16916.621 | bb | | | 0.4734 | 94.67 | -5.33 | 11059.... | |

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7968

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969006

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 89

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 06:52 | per0221117a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 06:52 | per0221117a |
| 14797-73-0 | Perchlorate-101 | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 06:52 | per0221117a |
| | Perchlorate-O(18) | | | 5.70 | ug/kg | | 1 | 22-FEB-10 06:52 | per0221117a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



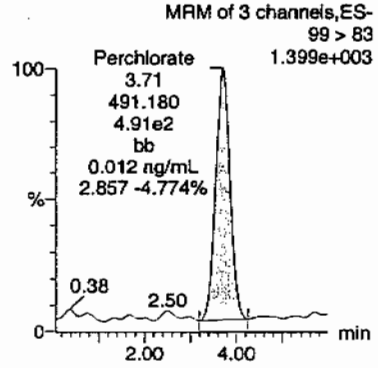
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

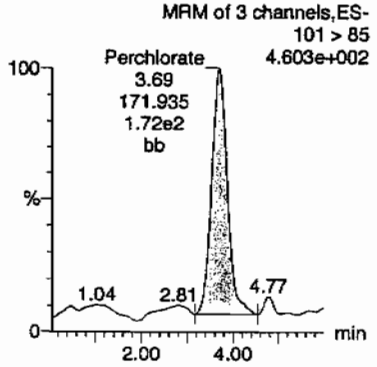
**Name: per0221117a**
**Date: 22-Feb-2010**
**Time: 06:52:52**
**ID: 245969006** |LANL|950060|50120|1|
**Vial: 3:2,E**

GW
02.22.10

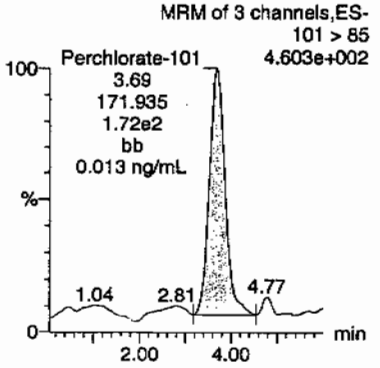
**Perchlorate**



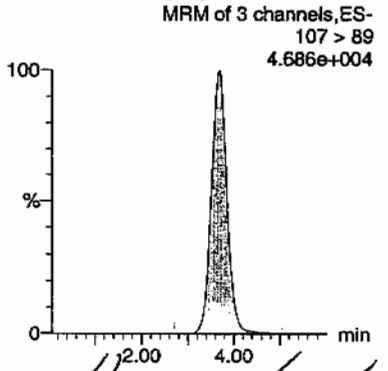

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969006 | Perchlorate | 99 > 83 | 3.71 | 491.180 | 491.180 | bb | | | 0.0116 | | | 153.870 | 2.86 |
| 245969006 | Perchlorate-101 | 101 > 85 | 3.69 | 171.935 | 171.935 | bb | | | 0.0130 | | | 113.616 | |
| 245969006 | Perchlorate-O(18) | 107 > 89 | 3.68 | 18170.389 | 18170.389 | bb | | | 0.5085 | 101.69 | 1.69 | 1689.1... | |

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7965

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969007

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 78

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .643 | 2.57 | 0.643 | ug/kg | U | 1 | 22-FEB-10 07:02 | per0221118a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:02 | per0221118a |
| 14797-73-0 | Perchlorate-101 | .643 | 2.57 | 0.643 | ug/kg | U | 1 | 22-FEB-10 07:02 | per0221118a |
| | Perchlorate-O(18) | | | 6.51 | ug/kg | | 1 | 22-FEB-10 07:02 | per0221118a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**ntify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

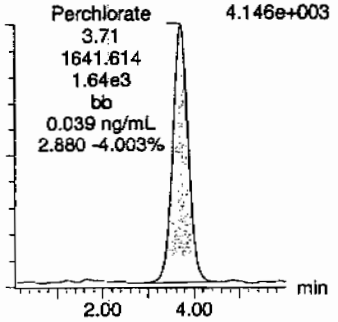
t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ne: per0221118a**
**e: 22-Feb-2010**
**e: 07:02:07**
**245969007**
**: 3:2,F**

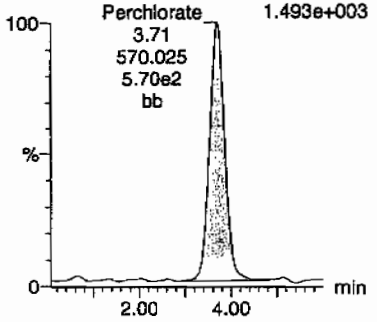
|LANL|950060|SD20|1|

GWS 02.22.10

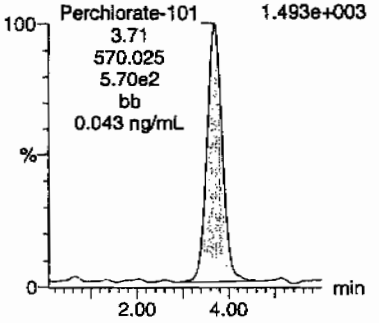
**chlorate**



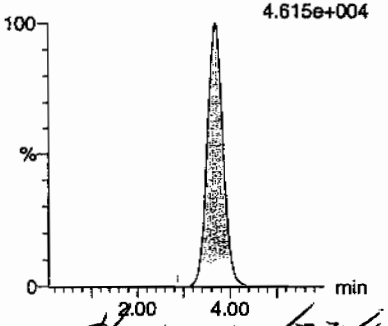

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




AMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 969007 | Perchlorate | 99 > 83 | 3.71 | 1641.614 | 1641.614 | bb | | | 0.0389 | | | 45.134 | 2.88 |
| 969007 | Perchlorate-101 | 101 > 85 | 3.71 | 570.025 | 570.025 | bb | | | 0.0430 | | | 34.119 | |
| 969007 | Perchlorate-O(18) | 107 > 89 | 3.68 | 18091.354 | 18091.354 | bb | | | 0.5062 | 101.25 | 1.25 | 7810.3... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7975

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969008

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 74

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .671 | 2.68 | 0.671 | ug/kg | U | 1 | 22-FEB-10 07:11 | per0221119a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:11 | per0221119a |
| 14797-73-0 | Perchlorate-101 | .671 | 2.68 | 0.671 | ug/kg | U | 1 | 22-FEB-10 07:11 | per0221119a |
| | Perchlorate-O(18) | | | 6.84 | ug/kg | | 1 | 22-FEB-10 07:11 | per0221119a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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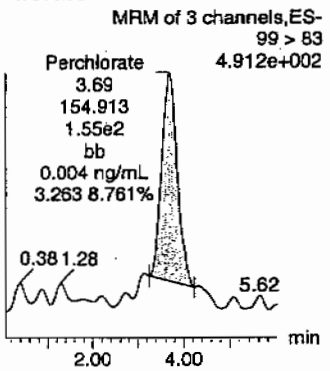
ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
:ed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

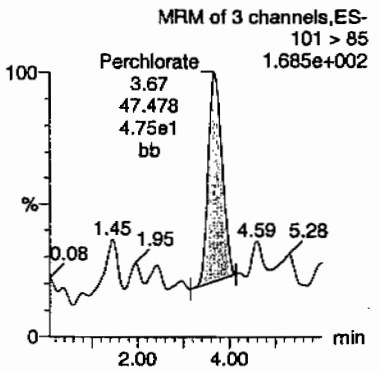
ıe: per0221119a
:: 22-Feb-2010
ɜ: 07:11:07
!45969008 |LANL|950060|50120|1|
3:3,A

CWW
02-22-10

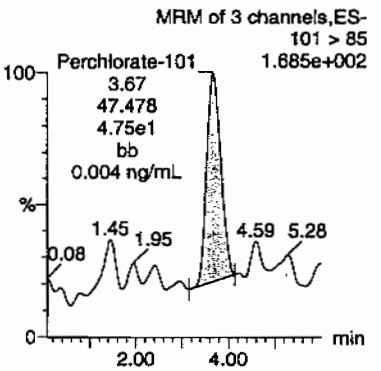
:hlorate



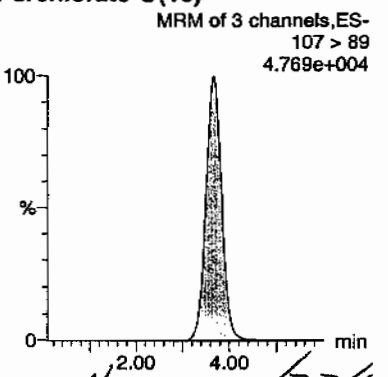

Perchlorate




Perchlorate-101




Perchlorate-O(18)




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 59008 | Perchlorate | 99 > 83 | 3.69 | 154.913 | 154.913 | bb | | | 0.0037 | | | 94.677 | 3.26 |
| 59008 | Perchlorate-101 | 101 > 85 | 3.67 | 47.478 | 47.478 | bb | | | 0.0036 | | | 35.367 | |
| 59008 | Perchlorate-O(18) | 107 > 89 | 3.67 | 18221.727 | 18221.727 | bb | | | 0.5099 | 101.98 | 1.98 | 9688.3... | |

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7978

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969009

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 83

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .602 | 2.41 | 0.602 | ug/kg | U | 1 | 22-FEB-10 07:20 | per0221120a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:20 | per0221120a |
| 14797-73-0 | Perchlorate-101 | .602 | 2.41 | 0.602 | ug/kg | U | 1 | 22-FEB-10 07:20 | per0221120a |
| | Perchlorate-O(18) | | | 6.62 | ug/kg | | 1 | 22-FEB-10 07:20 | per0221120a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**luantify Sample Report MassLynx 4.0 SP4**
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

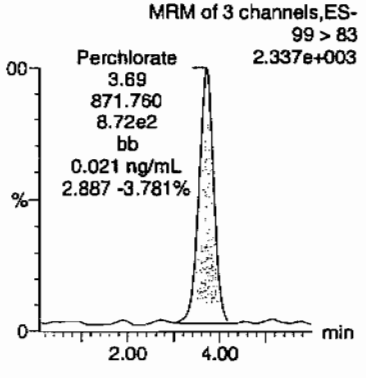
ast Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
rinted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ame: per0221120a**
**ate: 22-Feb-2010**
**ime: 07:20:10**
**): 245969009**
**ial: 3:3,B**

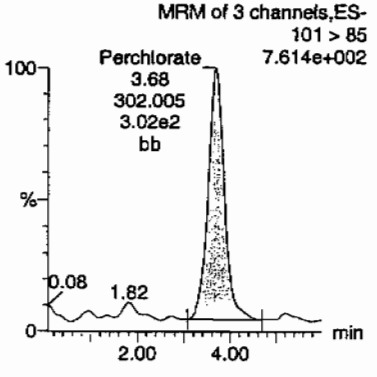
|LANL|950060|SOLID|1|

CWW
02-22-10

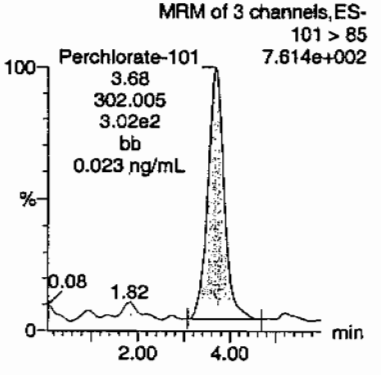
**erchlorate**



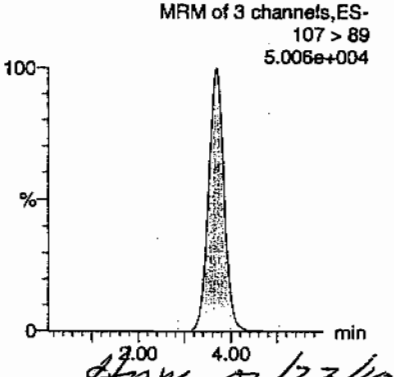

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| ) | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 45969009 | Perchlorate | 99 > 83 | 3.69 | 871.760 | 871.760 | bb | | | 0.0206 | | | 146.010 | 2.89 |
| 45969009 | Perchlorate-101 | 101 > 85 | 3.68 | 302.005 | 302.005 | bb | | | 0.0228 | | | 39.355 | |
| 45969009 | Perchlorate-O(18) | 107 > 89 | 3.68 | 19644.795 | 19644.795 | bb | | | 0.5497 | 109.94 | 9.94 | 6118.5... | |

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7970

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969010

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 91.8

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .545 | 2.18 | 0.545 | ug/kg | U | 1 | 22-FEB-10 07:29 | per0221121a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:29 | per0221121a |
| 14797-73-0 | Perchlorate-101 | .545 | 2.18 | 0.545 | ug/kg | U | 1 | 22-FEB-10 07:29 | per0221121a |
| | Perchlorate-O(18) | | | 5.53 | ug/kg | | 1 | 22-FEB-10 07:29 | per0221121a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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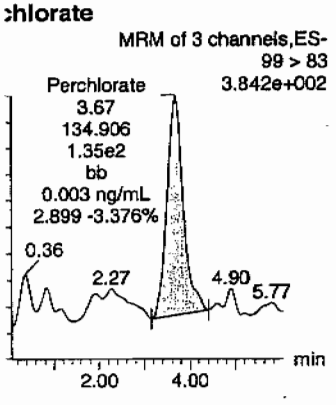
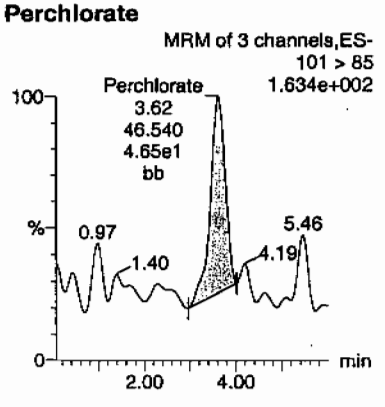
ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

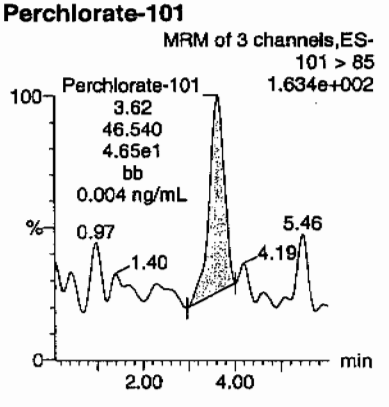
Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

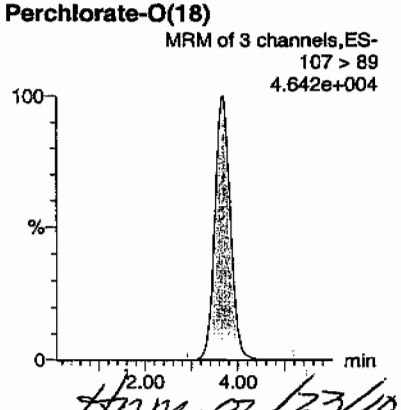
ıe: per0221121a
ɜ: 22-Feb-2010
e: 07:29:13
245969010 |LANL|950060|50120|1|
: 3:3,C

cw
02-22-10




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 169010 | Perchlorate | 99 > 83 | 3.67 | 134.906 | 134.906 | bb | | | 0.0032 | | | 91.536 | 2.90 |
| 169010 | Perchlorate-101 | 101 > 85 | 3.62 | 46.540 | 46.540 | bb | | | 0.0035 | | | 23.410 | |
| 169010 | Perchlorate-O(18) | 107 > 89 | 3.68 | 18139.631 | 18139.631 | bb | | | 0.5076 | 101.52 | 1.52 | 8498.7... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7964

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969011

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 89

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 07:38 | per0221122a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:38 | per0221122a |
| 14797-73-0 | Perchlorate-101 | .56 | 2.24 | 0.560 | ug/kg | U | 1 | 22-FEB-10 07:38 | per0221122a |
| | Perchlorate-O(18) | | | 6.01 | ug/kg | | 1 | 22-FEB-10 07:38 | per0221122a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



**iantify Sample Report MassLynx 4.0 SP4**
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

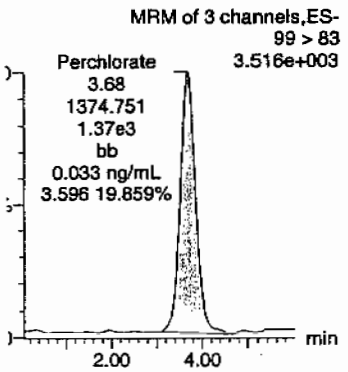
st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**me: per0221122a**
**te: 22-Feb-2010**
**ne: 07:38:15**
**245969011**
**il: 3:3,D**

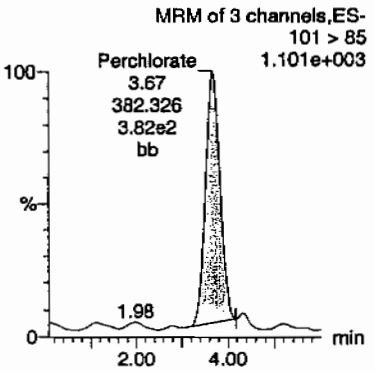
|LANL|950060|SOLID|1|

02-22-10

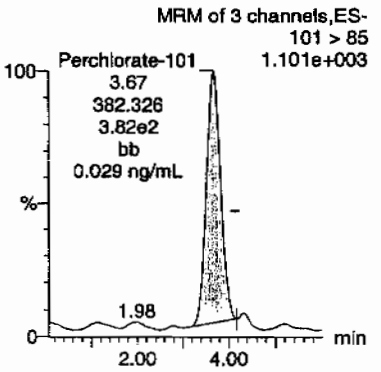
**rchlorate**



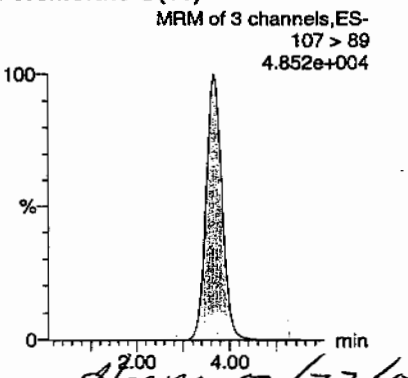

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 969011 | Perchlorate | 99 > 83 | 3.68 | 1374.751 | 1374.751 | bb | | | 0.0326 | | | 316.241 | 3.60 |
| 969011 | Perchlorate-101 | 101 > 85 | 3.67 | 382.326 | 382.326 | bb | | | 0.0288 | | | 50.869 | |
| 969011 | Perchlorate-O(18) | 107 > 89 | 3.67 | 19195.102 | 19195.102 | bb | | | 0.5371 | 107.43 | 7.43 | 2295.6... | |

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7973

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969012

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 82

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .613 | 2.45 | 0.613 | ug/kg | U | 1 | 22-FEB-10 07:47 | per0221123a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 07:47 | per0221123a |
| 14797-73-0 | Perchlorate-101 | .613 | 2.45 | 0.613 | ug/kg | U | 1 | 22-FEB-10 07:47 | per0221123a |
| | Perchlorate-O(18) | | | 6.20 | ug/kg | | 1 | 22-FEB-10 07:47 | per0221123a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

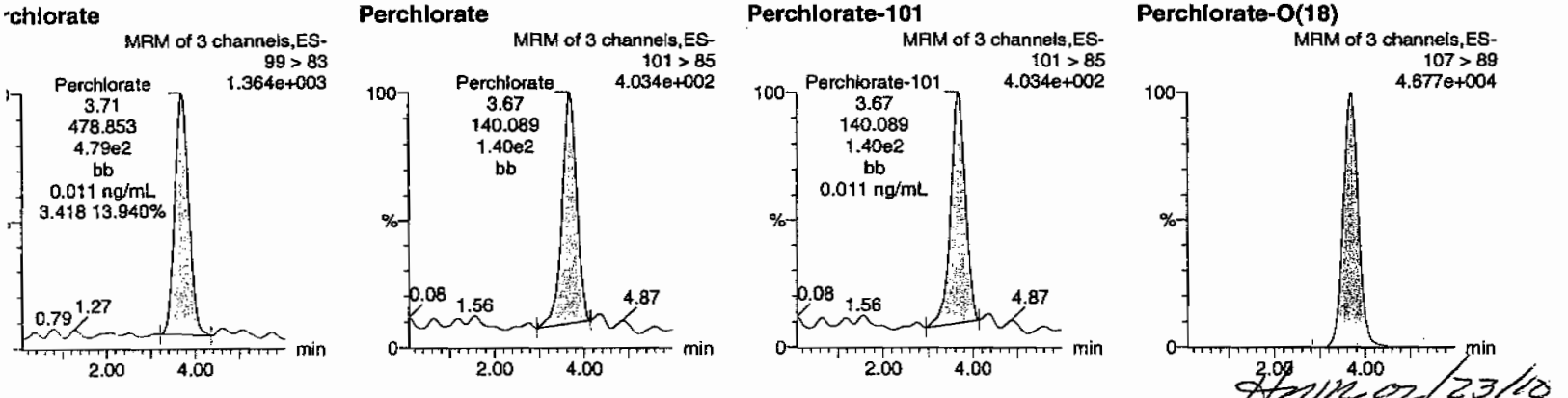
taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221123a
te: 22-Feb-2010
ne: 07:47:31
245969012
ıl: 3:3,E

|LANL| 950060 | 50120 | 1 |

02-22-10




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 969012 | Perchlorate | 99 > 83 | 3.71 | 478.853 | 478.853 | bb | | | 0.0113 | | | 53.137 | 3.42 |
| 969012 | Perchlorate-101 | 101 > 85 | 3.67 | 140.089 | 140.089 | bb | | | 0.0106 | | | 42.604 | |
| 969012 | Perchlorate-O(18) | 107 > 89 | 3.68 | 18059.682 | 18059.682 | bb | | | 0.5054 | 101.07 | 1.07 | 7064.3... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7962

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969013

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 94.7

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .528 | 2.11 | 0.689 | ug/kg | J | 1 | 22-FEB-10 07:56 | per0221124a |
| | Perchlorate Isotope Ratio | | | 3.38 | | | 1 | 22-FEB-10 07:56 | per0221124a |
| 14797-73-0 | Perchlorate-101 | .528 | 2.11 | 0.650 | ug/kg | J | 1 | 22-FEB-10 07:56 | per0221124a |
| | Perchlorate-O(18) | | | 5.51 | ug/kg | | 1 | 22-FEB-10 07:56 | per0221124a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

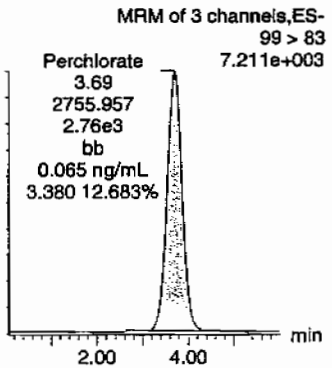
: Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221124a
ɜ: 22-Feb-2010
e: 07:56:32
245969013
: 3:3,F

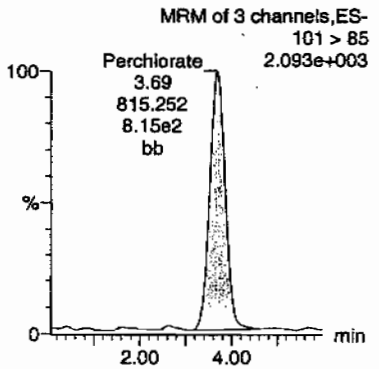
|LANL|950060|SOLID|1|

02-22-10

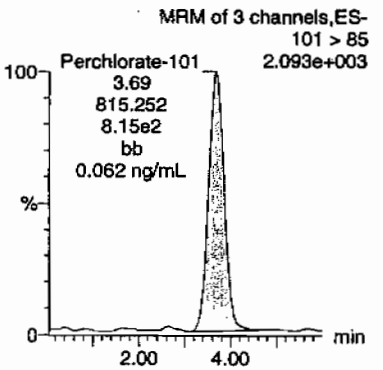
:hlorate



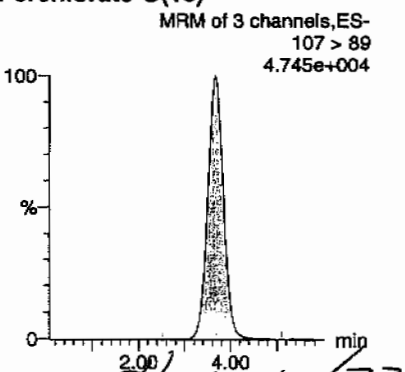

Perchlorate




Perchlorate-101




Perchlorate-O(18)




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 69013 | Perchlorate | 99 > 83 | 3.69 | 2755.957 | 2755.957 | bb | | | 0.0653 | | | 454.363 | 3.38 |
| 69013 | Perchlorate-101 | 101 > 85 | 3.69 | 815.252 | 815.252 | bb | | | 0.0615 | | | 342.282 | |
| 69013 | Perchlorate-O(18) | 107 > 89 | 3.67 | 18651.484 | 18651.484 | bb | | | 0.5219 | 104.38 | 4.38 | 4209.9... | |

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7963

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969014

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 79

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .631 | 2.52 | 0.631 | ug/kg | U | 1 | 22-FEB-10 08:05 | per0221125a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 08:05 | per0221125a |
| 14797-73-0 | Perchlorate-101 | .631 | 2.52 | 0.631 | ug/kg | U | 1 | 22-FEB-10 08:05 | per0221125a |
| | Perchlorate-O(18) | | | 6.33 | ug/kg | | 1 | 22-FEB-10 08:05 | per0221125a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**antify Sample Report MassLynx 4.0 SP4**
› GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

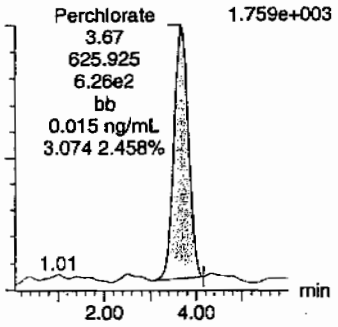
t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ne: per0221125a**
**e: 22-Feb-2010**
**e: 08:05:33**
**245969014**
**l: 3:4,A**

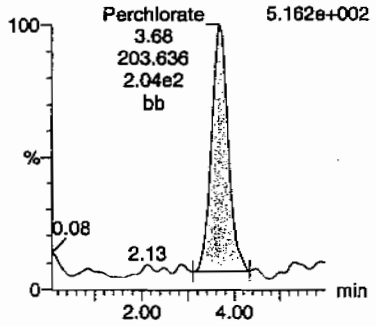
|LANL|950060|SOLZO|11|

CMO
02-22-10

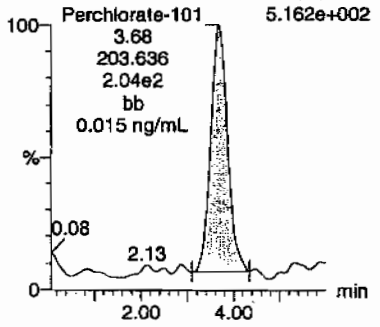
**chlorate**



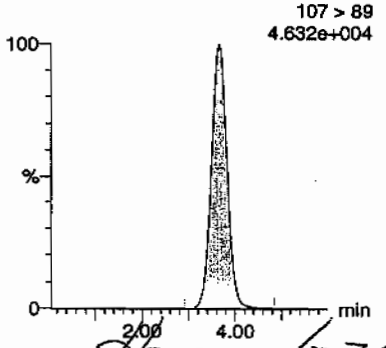

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 969014 | Perchlorate | 99 > 83 | 3.67 | 625.925 | 625.925 | bb | | | 0.0148 | | | 137.589 | 3.07 |
| 969014 | Perchlorate-101 | 101 > 85 | 3.68 | 203.636 | 203.636 | bb | | | 0.0154 | | | 54.097 | |
| 969014 | Perchlorate-O(18) | 107 > 89 | 3.66 | 17922.814 | 17922.814 | bb | | | 0.5015 | 100.31 | 0.31 | 2001.6... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7977

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 245969015

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 64

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .784 | 3.14 | 0.784 | ug/kg | U | 1 | 22-FEB-10 08:14 | per0221126a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 08:14 | per0221126a |
| 14797-73-0 | Perchlorate-101 | .784 | 3.14 | 0.784 | ug/kg | U | 1 | 22-FEB-10 08:14 | per0221126a |
| | Perchlorate-O(18) | | | 8.10 | ug/kg | | 1 | 22-FEB-10 08:14 | per0221126a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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antify Sample Report MassLynx 4.0 SP4 Page 126 of 129
e GEL Group, LLC Analyst: Charlers W. Wilson

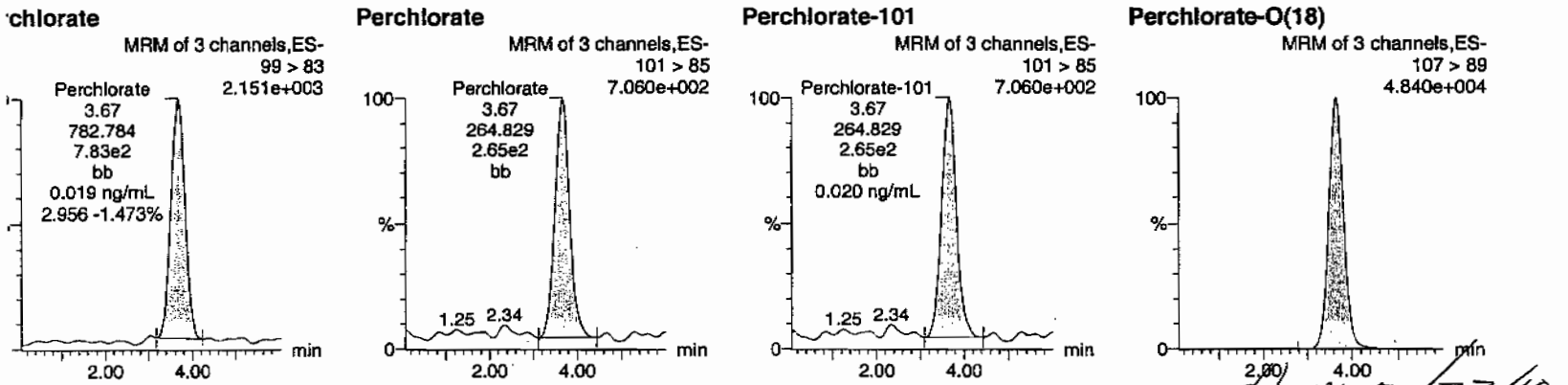
taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221126a
te: 22-Feb-2010
ne: 08:14:36
245969015
l: 3:4,B

|LANL|950060|50120|1|

Cmo
02-22-10




Amk 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 969015 | Perchlorate | 99 > 83 | 3.67 | 782.784 | 782.784 | bb | | | 0.0185 | | | 195.401 | 2.96 |
| 969015 | Perchlorate-101 | 101 > 85 | 3.67 | 264.829 | 264.829 | bb | | | 0.0200 | | | 121.343 | |
| 969015 | Perchlorate-O(18) | 107 > 89 | 3.64 | 18461.848 | 18461.848 | bb | | | 0.5166 | 103.32 | 3.32 | 8970.0... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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# STANDARDS DATA

Form 2

## Perchlorate Initial Calibration

**Lab Name:** General Engineering Laboratories **GEL Job No.(SDG):** 10-1512

**Lab Code:** GEL

**Instrument ID:** LCMSMS **Date Analyzed:** 21-FEB-10

**HPLC Column:** Phenomenex Ion Pac AG-16 2 X 50 mm

| Calibration Level | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Cal Concentration (ug/L) | 0.05 | 0.1 | 0.25 | 0.50 | 1.0 |

**Parmname** Perchlorate

**Coefficient of Determination:**

**Calibration Curve:** 42228.24

**Response Type:** External Standard

**Curve Type:** RF

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Form 2

## Perchlorate Initial Calibration

**Lab Name:** General Engineering Laboratories **GEL Job No.(SDG):** 10-1512

**Lab Code:** GEL

**Instrument ID:** LCMSMS **Date Analyzed:** 21-FEB-10

**HPLC Column:** Phenomenex Ion Pac AG-16 2 X 50 mm

| Calibration Level | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Cal Concentration (ug/L) | 0.05 | 0.1 | 0.25 | 0.50 | 1.0 |

**Parmname** Perchlorate-101

**Coefficient of Determination:**

**Calibration Curve:** 13252.58

**Response Type:** External Standard

**Curve Type:** RF

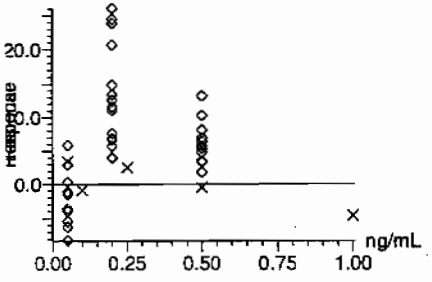
**uantify Calibration Report MassLynx 4.0 SP4**
ıe GEL Group, LLC Analyst: Charlers W. Wilson

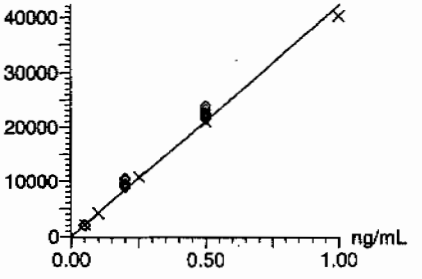
ıtaset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ıst Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
inted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ethod: C:\MassLynx\Perchlorate.PRO\MethDB\per022110a.mdb 22 Feb 2010 10:33:42**
**ılibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022110a.cdb 22 Feb 2010 10:34:00**

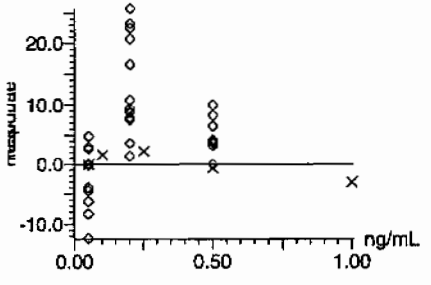
ɔmpound name: Perchlorate
ɜsponse Factor: 42228.2
RF SD: 1348.24, % Relative SD: 3.19274
ɜsponse type: External Std, Area
ırve type: RF

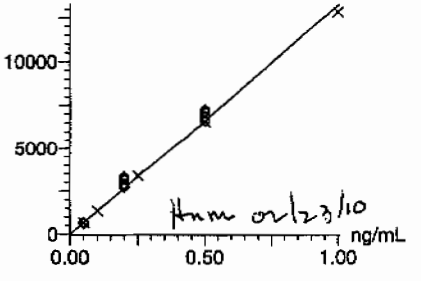



aw
02-22-10

ɔmpound name: Perchlorate-101
ɜsponse Factor: 13252.6
RF SD: 272.534, % Relative SD: 2.05646
ɜsponse type: External Std, Area
ırve type: RF




Hmm 02/23/10

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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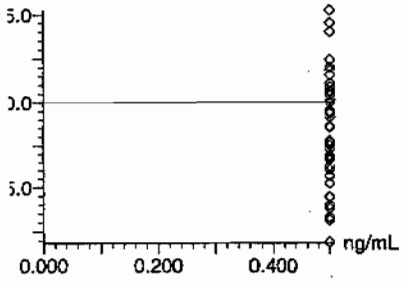
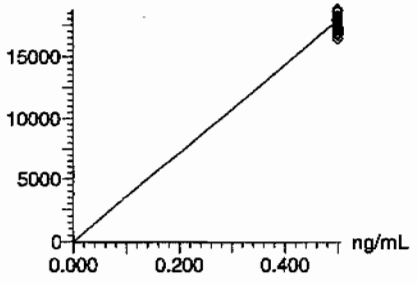
**ntify Calibration Report** **MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıpound name: Perchlorate-O(18)
onse Factor: 35736.6
SD: 787.598, % Relative SD: 2.2039
onse type: External Std, Area
e type: RF



Form 3

**Perchlorate Initial Calibration Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10-1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id |
|---|---|---|---|---|---|
| Perchlorate | .5 | .51 | 101.82 | 21-FEB-10 14:30 | per0221009a |
| Perchlorate Isotope Ratio | | 3.11 | | 21-FEB-10 14:30 | per0221009a |
| Perchlorate-101 | .5 | .52 | 104.25 | 21-FEB-10 14:30 | per0221009a |

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

**uantify Sample Report MassLynx 4.0 SP4**
ıe GEL Group, LLC Analyst: Charlers W. Wilson



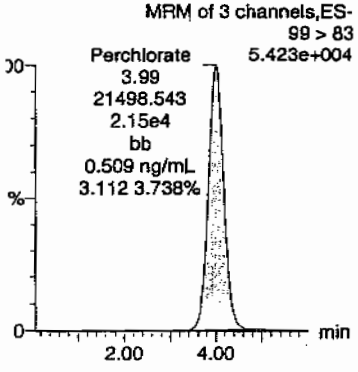
ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ıst Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
rinted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

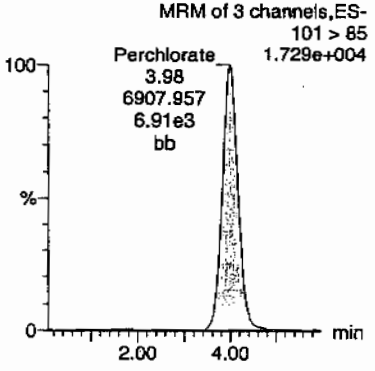
**ame: per0221009a**
**ate: 21-Feb-2010**
**me: 14:30:50**
**: WCL100219-06ICV**
**al: 1:2,A**

Pass
02-22-10

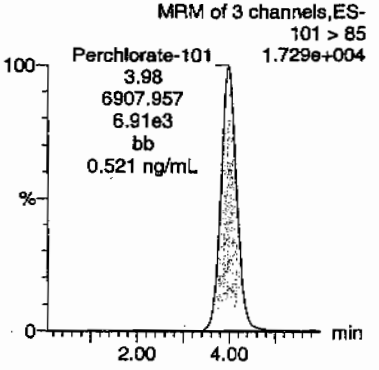
**erchlorate**



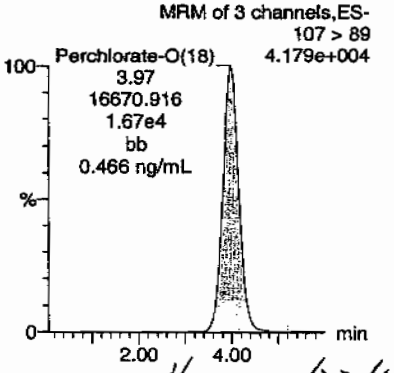

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmc 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 'CL100219-06ICV | Perchlorate | 99 > 83 | 3.99 | 21498.543 | 21498.543 | bb | | | 0.5091 | 101.82 | 1.82 | 4138.6... | 3.11 |
| 'CL100219-06ICV | Perchlorate-101 | 101 > 85 | 3.98 | 6907.957 | 6907.957 | bb | | | 0.5213 | 104.25 | 4.25 | 4215.4... | |
| 'CL100219-06ICV | Perchlorate-O(18) | 107 > 89 | 3.97 | 16670.916 | 16670.916 | bb | | | 0.4665 | 93.30 | -6.70 | 18341.... | |

Form 3

**Perchlorate Continuing Calibration Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10-1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id |
|---|---|---|---|---|---|
| Perchlorate | .5 | .52 | 103.54 | 21-FEB-10 16:12 | per0221020a |
| Perchlorate Isotope Ratio | | 3.16 | | 21-FEB-10 16:12 | per0221020a |
| Perchlorate-101 | .5 | .52 | 104.25 | 21-FEB-10 16:12 | per0221020a |
| Perchlorate | .5 | .52 | 104.82 | 21-FEB-10 18:09 | per0221033a |
| Perchlorate Isotope Ratio | | 3.14 | | 21-FEB-10 18:09 | per0221033a |
| Perchlorate-101 | .5 | .53 | 106.48 | 21-FEB-10 18:09 | per0221033a |
| Perchlorate | .5 | .53 | 105.44 | 21-FEB-10 20:07 | per0221046a |
| Perchlorate Isotope Ratio | | 3.23 | | 21-FEB-10 20:07 | per0221046a |
| Perchlorate-101 | .5 | .52 | 104.04 | 21-FEB-10 20:07 | per0221046a |
| Perchlorate | .5 | .54 | 108.16 | 21-FEB-10 21:48 | per0221057a |
| Perchlorate Isotope Ratio | | 3.24 | | 21-FEB-10 21:48 | per0221057a |
| Perchlorate-101 | .5 | .53 | 106.53 | 21-FEB-10 21:48 | per0221057a |
| Perchlorate | .5 | .53 | 105.81 | 21-FEB-10 23:36 | per0221069a |

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Form 3

**Perchlorate Continuing Calibration Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10-1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| | | | | | |
|---|---|---|---|---|---|
| Perchlorate Isotope Ratio | | 3.37 | | 21-FEB-10 23:36 | per0221069a |
| Perchlorate-101 | .5 | .5 | 99.97 | 21-FEB-10 23:36 | per0221069a |
| Perchlorate | .5 | .52 | 103.28 | 22-FEB-10 01:16 | per0221080a |
| Perchlorate Isotope Ratio | | 3.19 | | 22-FEB-10 01:16 | per0221080a |
| Perchlorate-101 | .5 | .52 | 103.17 | 22-FEB-10 01:16 | per0221080a |
| Perchlorate | .5 | .57 | 113.18 | 22-FEB-10 02:47 | per0221090a |
| Perchlorate Isotope Ratio | | 3.28 | | 22-FEB-10 02:47 | per0221090a |
| Perchlorate-101 | .5 | .55 | 109.98 | 22-FEB-10 02:47 | per0221090a |
| Perchlorate | .5 | .55 | 110.28 | 22-FEB-10 04:27 | per0221101a |
| Perchlorate Isotope Ratio | | 3.25 | | 22-FEB-10 04:27 | per0221101a |
| Perchlorate-101 | .5 | .54 | 108.26 | 22-FEB-10 04:27 | per0221101a |
| Perchlorate | .5 | .53 | 106.95 | 22-FEB-10 06:25 | per0221114a |
| Perchlorate Isotope Ratio | | 3.28 | | 22-FEB-10 06:25 | per0221114a |

Form 3

**Perchlorate Continuing Calibration Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| | | | | | |
|---|---|---|---|---|---|
| Perchlorate–101 | .5 | .52 | 103.77 | 22–FEB–10 06:25 | per0221114a |
| Perchlorate | .5 | .53 | 106.44 | 22–FEB–10 08:23 | per0221127a |
| Perchlorate Isotope Ratio | | 3.27 | | 22–FEB–10 08:23 | per0221127a |
| Perchlorate–101 | .5 | .52 | 103.61 | 22–FEB–10 08:23 | per0221127a |

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**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



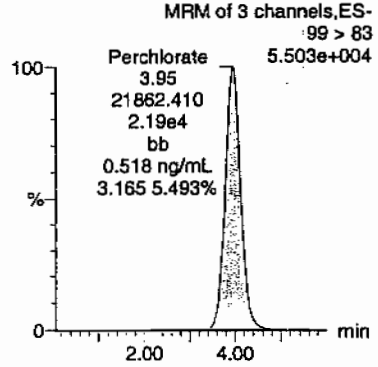
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

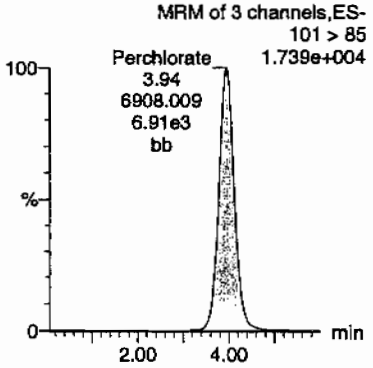
**Name: per0221020a**
**Date: 21-Feb-2010**
**Time: 16:12:04**
**ID: WCL100219-06CCV**
**Vial: 1:2,A**

PWD
AWD
02-22-10

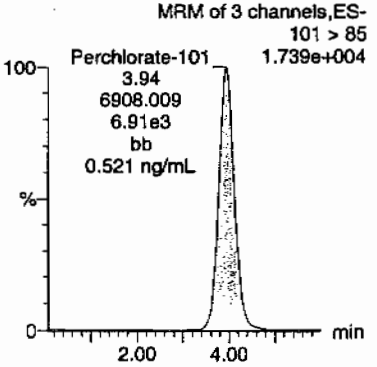
**Perchlorate**



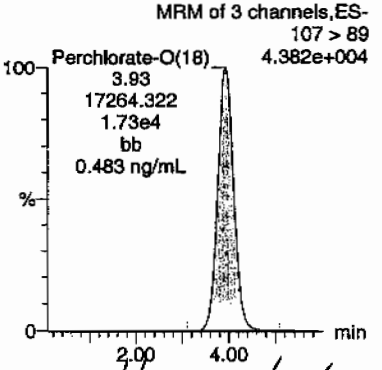

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100219-06CCV | Perchlorate | 99 > 83 | 3.95 | 21862.410 | 21862.410 | bb | | | 0.5177 | 103.54 | 3.54 | 3416.8... | 3.16 |
| WCL100219-06CCV | Perchlorate-101 | 101 > 85 | 3.94 | 6908.009 | 6908.009 | bb | | | 0.5213 | 104.25 | 4.25 | 1685.8... | |
| WCL100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.93 | 17264.322 | 17264.322 | bb | | | 0.4831 | 96.62 | -3.38 | 5384.9... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**ıntify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

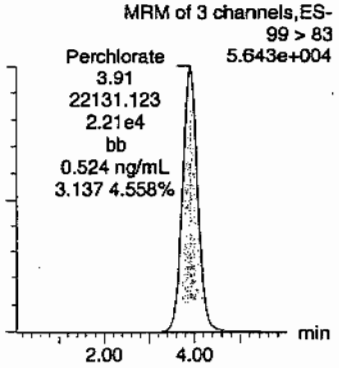
ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

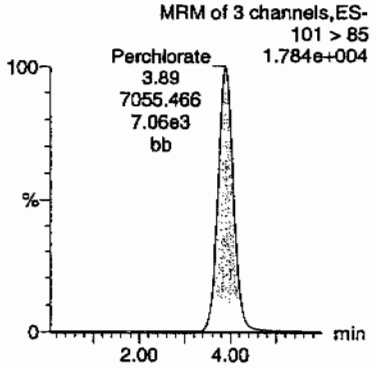
**ne: per0221033a**
**e: 21-Feb-2010**
**e: 18:09:45**
**WCL100219-06CCV**
**: 1:2,A**

Rev
and
02-22-10

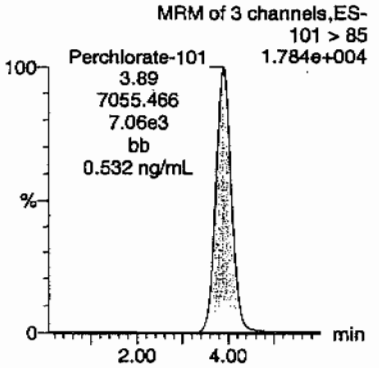
**chlorate**



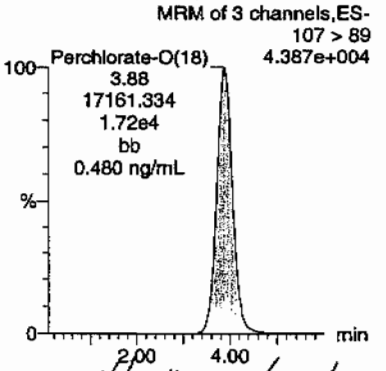

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-06CCV | Perchlorate | 99 > 83 | 3.91 | 22131.123 | 22131.123 | bb | | | 0.5241 | 104.82 | 4.82 | 8208.2... | 3.14 |
| L100219-06CCV | Perchlorate-101 | 101 > 85 | 3.89 | 7055.466 | 7055.466 | bb | | | 0.5324 | 106.48 | 6.48 | 3045.4... | |
| L100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.88 | 17161.334 | 17161.334 | bb | | | 0.4802 | 96.04 | -3.96 | 3493.5... | |

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

**antify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

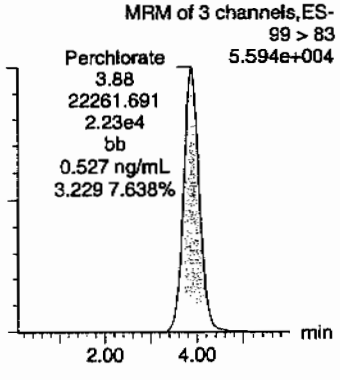
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ited: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

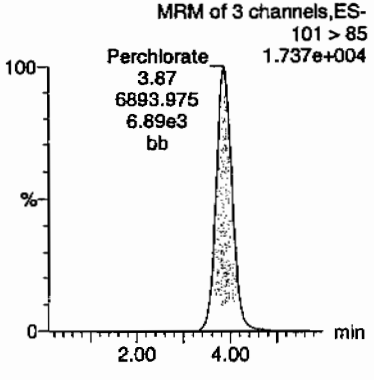
**ne: per0221046a**
**e: 21-Feb-2010**
**e: 20:07:47**
**WCL100219-06CCV**
**l: 1:2,A**

Pass
aw
02-22-10

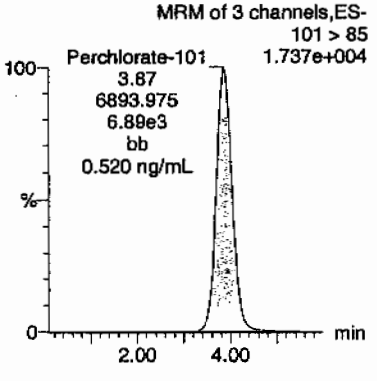
**chlorate**



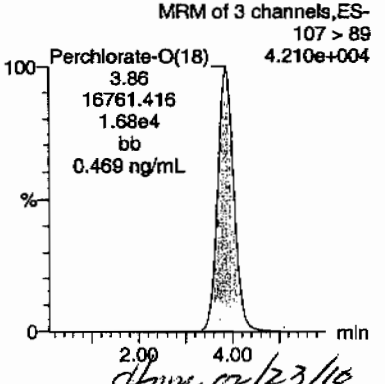

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




dmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| _100219-06CCV | Perchlorate | 99 > 83 | 3.88 | 22261.691 | 22261.691 | bb | | | 0.5272 | 105.44 | 5.44 | 4786.1... | 3.23 |
| _100219-06CCV | Perchlorate-101 | 101 > 85 | 3.87 | 6893.975 | 6893.975 | bb | | | 0.5202 | 104.04 | 4.04 | 3584.6... | |
| _100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.86 | 16761.416 | 16761.416 | bb | | | 0.4690 | 93.81 | -6.19 | 925.841 | |

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson



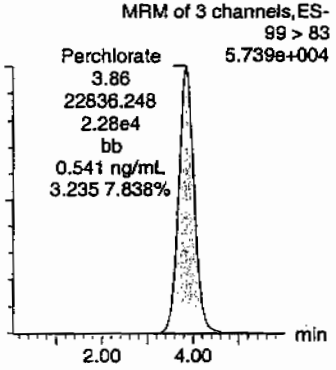
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ited: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

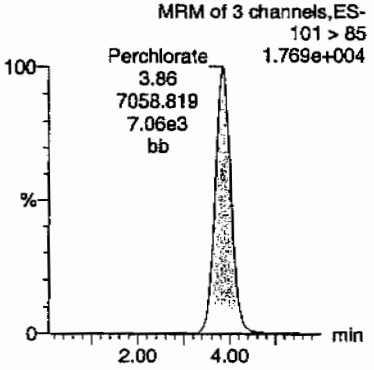
ne: per0221057a
e: 21-Feb-2010
ie: 21:48:00
WCL100219-06CCV
l: 1:2,A

Pass
02-22-10

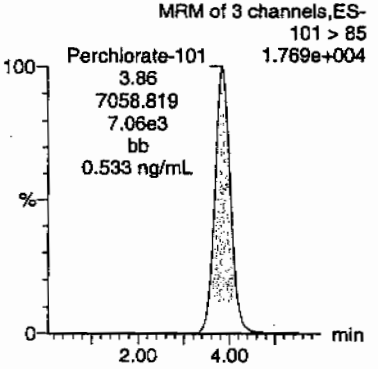
chlorate



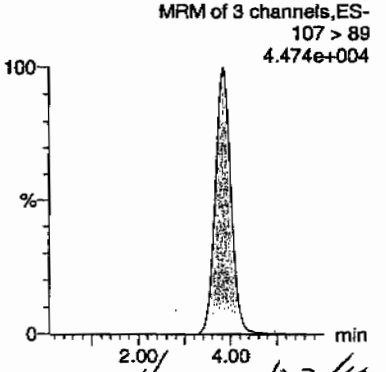

Perchlorate




Perchlorate-101




Perchlorate-O(18)




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .100219-06CCV | Perchlorate | 99 > 83 | 3.86 | 22836.248 | 22836.248 | bb | | | 0.5408 | 108.16 | 8.16 | 1854.7... | 3.24 |
| .100219-06CCV | Perchlorate-101 | 101 > 85 | 3.86 | 7058.819 | 7058.819 | bb | | | 0.5326 | 106.53 | 6.53 | 1961.7... | |
| .100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.83 | 17782.117 | 17782.117 | bb | | | 0.4976 | 99.52 | -0.48 | 3243.6... | |

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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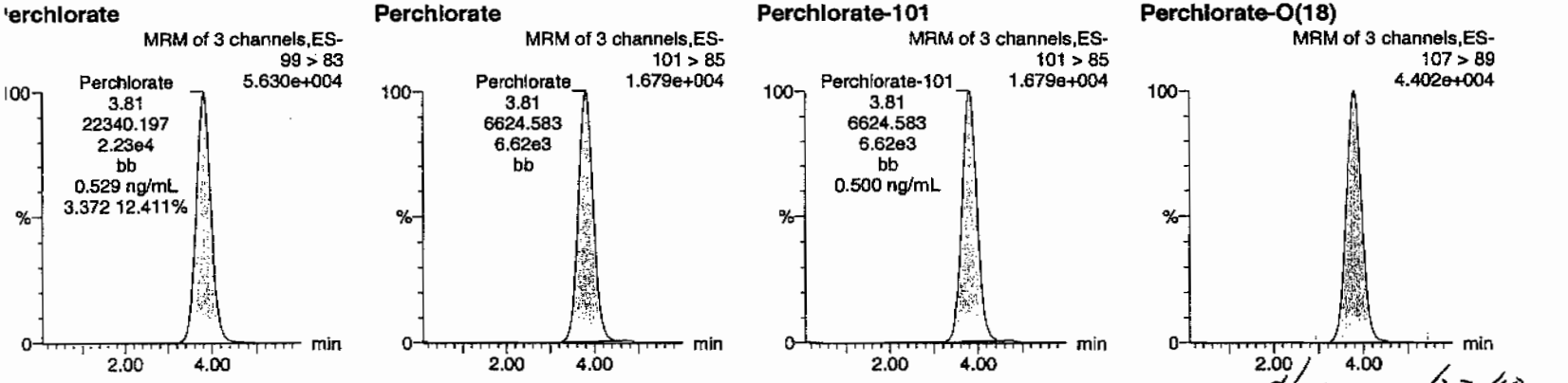
**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**Name: per0221069a**
**Date: 21-Feb-2010**
**Time: 23:36:49**
**ID: WCL100219-06CCV**
**Vial: 1:2,A**

Pass
02-22-10




Hmm 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100219-06CCV | Perchlorate | 99 > 83 | 3.81 | 22340.197 | 22340.197 | bb | | | 0.5290 | 105.81 | 5.81 | 8199.9... | 3.37 |
| WCL100219-06CCV | Perchlorate-101 | 101 > 85 | 3.81 | 6624.583 | 6624.583 | bb | | | 0.4999 | 99.97 | -0.03 | 1129.8... | |
| WCL100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.79 | 17421.932 | 17421.932 | bb | | | 0.4875 | 97.50 | -2.50 | 4313.3... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

antify Sample Report MassLynx 4.0 SP4 
GEL Group, LLC Analyst: Charlers W. Wilson

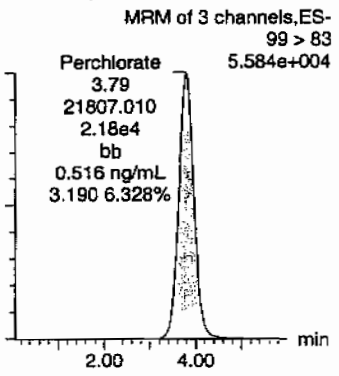
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ited: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

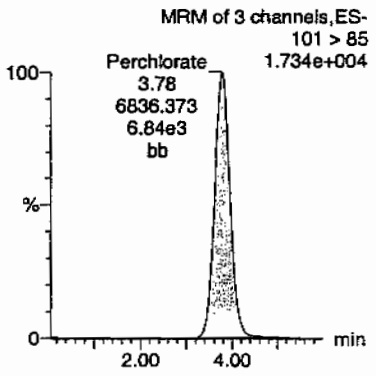
ne: per0221080a
e: 22-Feb-2010
ie: 01:16:45
WCL100219-06CCV
l: 1:2,A

Pm
02-22-10

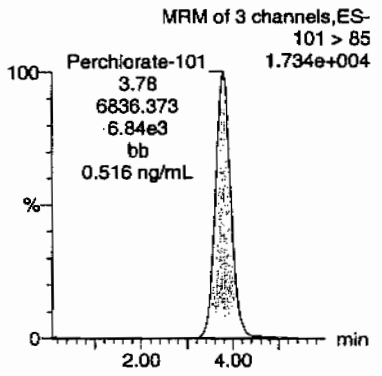
chlorate



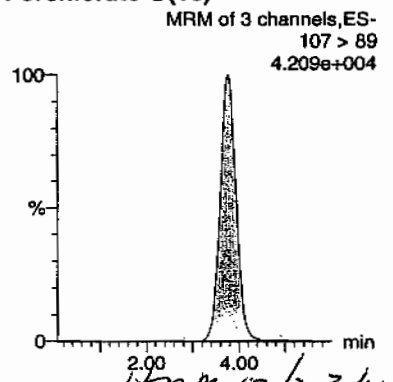

Perchlorate




Perchlorate-101




Perchlorate-O(18)




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| _100219-06CCV | Perchlorate | 99 > 83 | 3.79 | 21807.010 | 21807.010 | bb | | | 0.5164 | 103.28 | 3.28 | 3636.2... | 3.19 |
| _100219-06CCV | Perchlorate-101 | 101 > 85 | 3.78 | 6836.373 | 6836.373 | bb | | | 0.5159 | 103.17 | 3.17 | 4238.7... | |
| _100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.77 | 16645.631 | 16645.631 | bb | | | 0.4658 | 93.16 | -6.84 | 5166.1... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

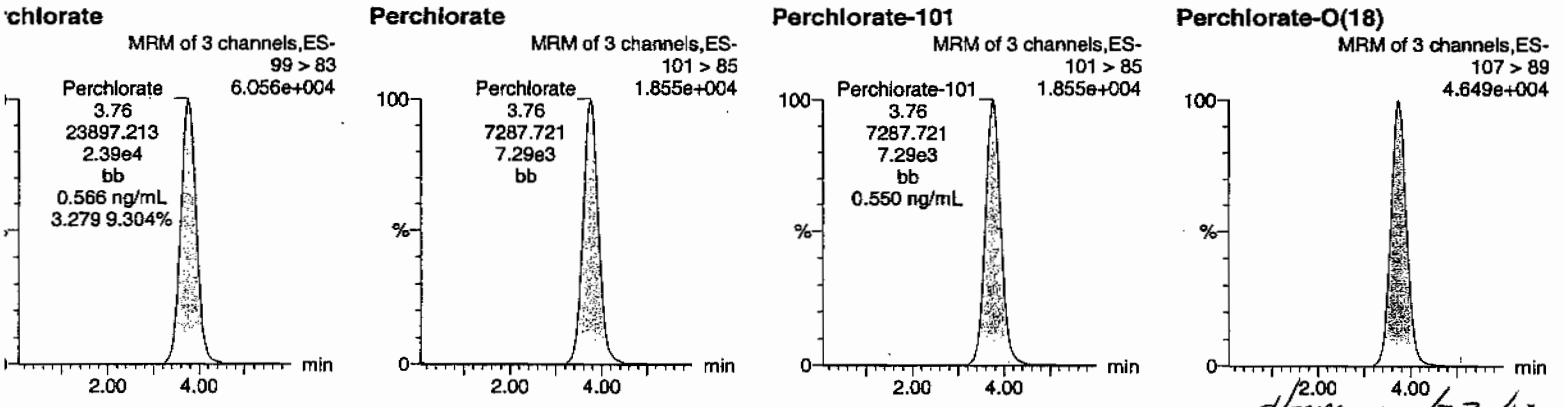


aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ne: per0221090a**
**e: 22-Feb-2010**
**e: 02:47:42**
**WCL100219-06CCV**
**l: 1:2,A**

Pass
ano
02·22-10




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-06CCV | Perchlorate | 99 > 83 | 3.76 | 23897.213 | 23897.213 | bb | | | 0.5659 | 113.18 | 13.18 | 4354.0... | 3.28 |
| L100219-06CCV | Perchlorate-101 | 101 > 85 | 3.76 | 7287.721 | 7287.721 | bb | | | 0.5499 | 109.98 | 9.98 | 4094.2... | |
| L100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.74 | 18150.475 | 18150.475 | bb | | | 0.5079 | 101.58 | 1.58 | 5185.5... | |

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

**antify Sample Report MassLynx 4.0 SP4**
e GEL Group, LLC Analyst: Charlers W. Wilson

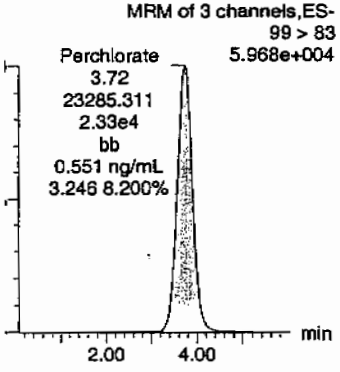
taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

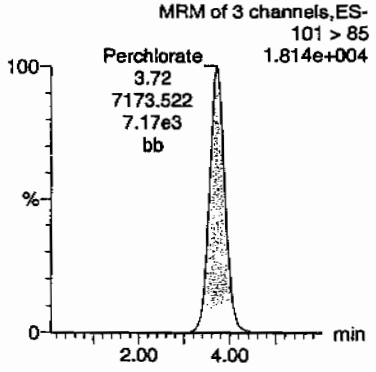
**me: per0221101a**
**te: 22-Feb-2010**
**ne: 04:27:44**
**WCL100219-06CCV**
**l: 1:2,A**

Pass
and
02-22-10

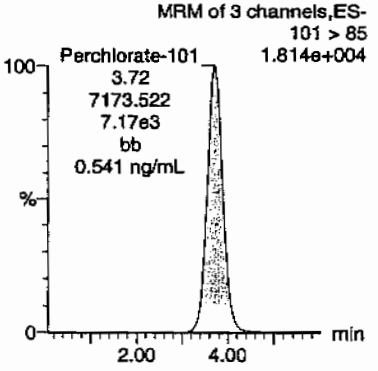
**chlorate**



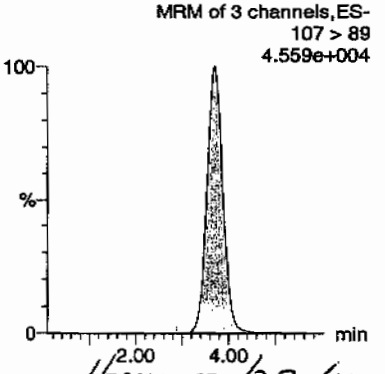

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-06CCV | Perchlorate | 99 > 83 | 3.72 | 23285.311 | 23285.311 | bb | | | 0.5514 | 110.28 | 10.28 | 5301.8... | 3.25 |
| L100219-06CCV | Perchlorate-101 | 101 > 85 | 3.72 | 7173.522 | 7173.522 | bb | | | 0.5413 | 108.26 | 8.26 | 4568.4... | |
| L100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.71 | 17973.590 | 17973.590 | bb | | | 0.5029 | 100.59 | 0.59 | 4175.3... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

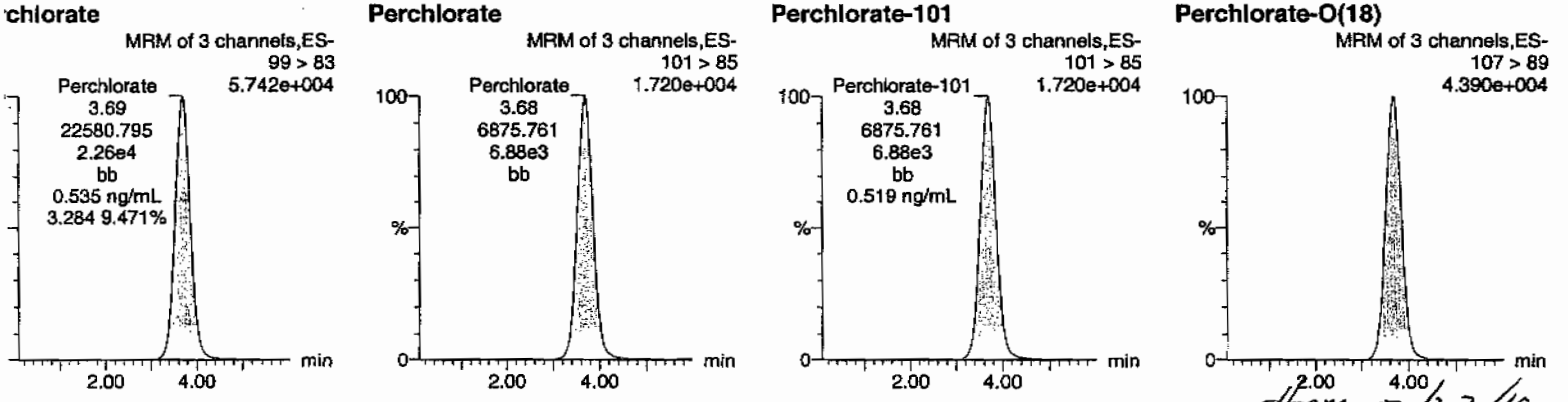
antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221114a
te: 22-Feb-2010
me: 06:25:33
WCL100219-06CCV
l: 1:2,A

Pam
aw
02-22-10




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-06CCV | Perchlorate | 99 > 83 | 3.69 | 22580.795 | 22580.795 | bb | | | 0.5347 | 106.95 | 6.95 | 7881.5... | 3.28 |
| _100219-06CCV | Perchlorate-101 | 101 > 85 | 3.68 | 6875.761 | 6875.761 | bb | | | 0.5188 | 103.77 | 3.77 | 4423.9... | |
| _100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.67 | 17319.486 | 17319.486 | bb | | | 0.4846 | 96.93 | -3.07 | 2086.9... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**ıantify Sample Report MassLynx 4.0 SP4**
e GEL Group, LLC Analyst: Charlers W. Wilson



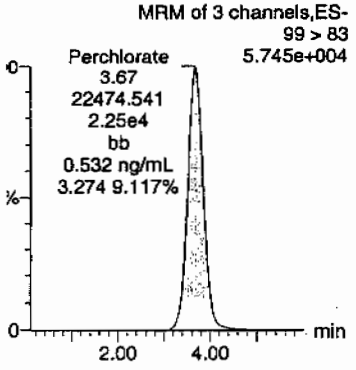
ıtaset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
inted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

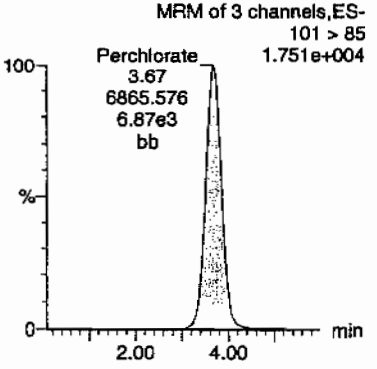
**ıme: per0221127a**
**ıte: 22-Feb-2010**
**ne: 08:23:39**
**: WCL100219-06CCV**
**al: 1:2,A**

Pam
02-22-10

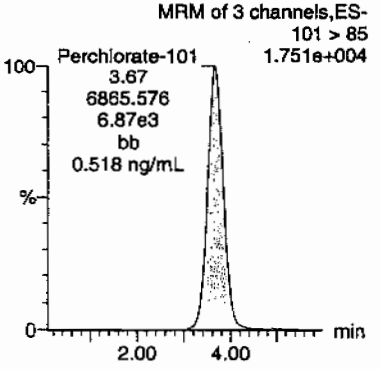
**ırchlorate**



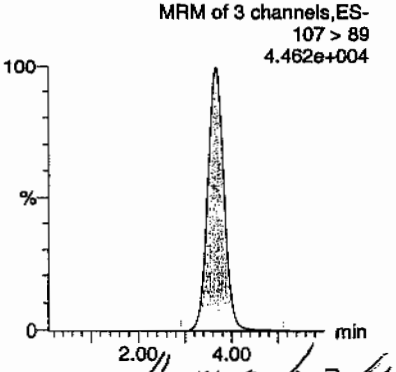

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CL100219-06CCV | Perchlorate | 99 > 83 | 3.67 | 22474.541 | 22474.541 | bb | | | 0.5322 | 106.44 | 6.44 | 5232.4... | 3.27 |
| CL100219-06CCV | Perchlorate-101 | 101 > 85 | 3.67 | 6865.576 ✓ | 6865.576 | bb | | | 0.5181 | 103.61 | 3.61 | 3129.7... | |
| CL100219-06CCV | Perchlorate-O(18) | 107 > 89 | 3.66 | 17604.570 | 17604.570 | bb | | | 0.4926 | 98.52 | -1.48 | 9856.4... | |

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 3

**Perchlorate MDL Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id |
|---|---|---|---|---|---|
| Perchlorate | .05 | .05 | 100.37 | 21–FEB–10 14:48 | per0221011a |
| Perchlorate Isotope Ratio | | 3.05 | | 21–FEB–10 14:48 | per0221011a |
| Perchlorate–101 | .05 | .05 | 104.87 | 21–FEB–10 14:48 | per0221011a |
| Perchlorate | .05 | .05 | 102.97 | 21–FEB–10 16:30 | per0221022a |
| Perchlorate Isotope Ratio | | 3.5 | | 21–FEB–10 16:30 | per0221022a |
| Perchlorate–101 | .05 | .05 | 93.78 | 21–FEB–10 16:30 | per0221022a |
| Perchlorate | .05 | .05 | 91.84 | 21–FEB–10 18:28 | per0221035a |
| Perchlorate Isotope Ratio | | 3.06 | | 21–FEB–10 18:28 | per0221035a |
| Perchlorate–101 | .05 | .05 | 95.51 | 21–FEB–10 18:28 | per0221035a |
| Perchlorate | .05 | .05 | 98.9 | 21–FEB–10 20:26 | per0221048a |
| Perchlorate Isotope Ratio | | 3.15 | | 21–FEB–10 20:26 | per0221048a |

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Form 3

**Perchlorate MDL Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| | | | | | |
|---|---|---|---|---|---|
| Perchlorate–101 | .05 | .05 | 100.09 | 21–FEB–10 20:26 | per0221048a |
| Perchlorate | .05 | .05 | 96.39 | 21–FEB–10 22:06 | per0221059a |
| Perchlorate Isotope Ratio | | 3.2 | | 21–FEB–10 22:06 | per0221059a |
| Perchlorate–101 | .05 | .05 | 96.06 | 21–FEB–10 22:06 | per0221059a |
| Perchlorate | .05 | .05 | 94.61 | 21–FEB–10 23:55 | per0221071a |
| Perchlorate Isotope Ratio | | 3.02 | | 21–FEB–10 23:55 | per0221071a |
| Perchlorate–101 | .05 | .05 | 99.8 | 21–FEB–10 23:55 | per0221071a |
| Perchlorate | .05 | .05 | 93.79 | 22–FEB–10 01:35 | per0221082a |
| Perchlorate Isotope Ratio | | 3.41 | | 22–FEB–10 01:35 | per0221082a |
| Perchlorate–101 | .05 | .04 | 87.61 | 22–FEB–10 01:35 | per0221082a |
| Perchlorate | .05 | .05 | 98.85 | 22–FEB–10 03:06 | per0221092a |

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Form 3

**Perchlorate MDL Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10-1512

**Lab Code:** GEL

**Reporting Units:** ug/kg

| | | | | | |
|---|---|---|---|---|---|
| Perchlorate Isotope Ratio | | 3.44 | | 22-FEB-10 03:06 | per0221092a |
| Perchlorate-101 | .05 | .05 | 91.68 | 22-FEB-10 03:06 | per0221092a |
| Perchlorate | .05 | .05 | 96.07 | 22-FEB-10 04:46 | per0221103a |
| Perchlorate Isotope Ratio | | 3.06 | | 22-FEB-10 04:46 | per0221103a |
| Perchlorate-101 | .05 | .05 | 99.99 | 22-FEB-10 04:46 | per0221103a |
| Perchlorate | .05 | .05 | 105.88 | 22-FEB-10 06:43 | per0221116a |
| Perchlorate Isotope Ratio | | 3.28 | | 22-FEB-10 06:43 | per0221116a |
| Perchlorate-101 | .05 | .05 | 103.01 | 22-FEB-10 06:43 | per0221116a |
| Perchlorate | .05 | .05 | 98.51 | 22-FEB-10 08:41 | per0221129a |
| Perchlorate Isotope Ratio | | 3.06 | | 22-FEB-10 08:41 | per0221129a |
| Perchlorate-101 | .05 | .05 | 102.63 | 22-FEB-10 08:41 | per0221129a |

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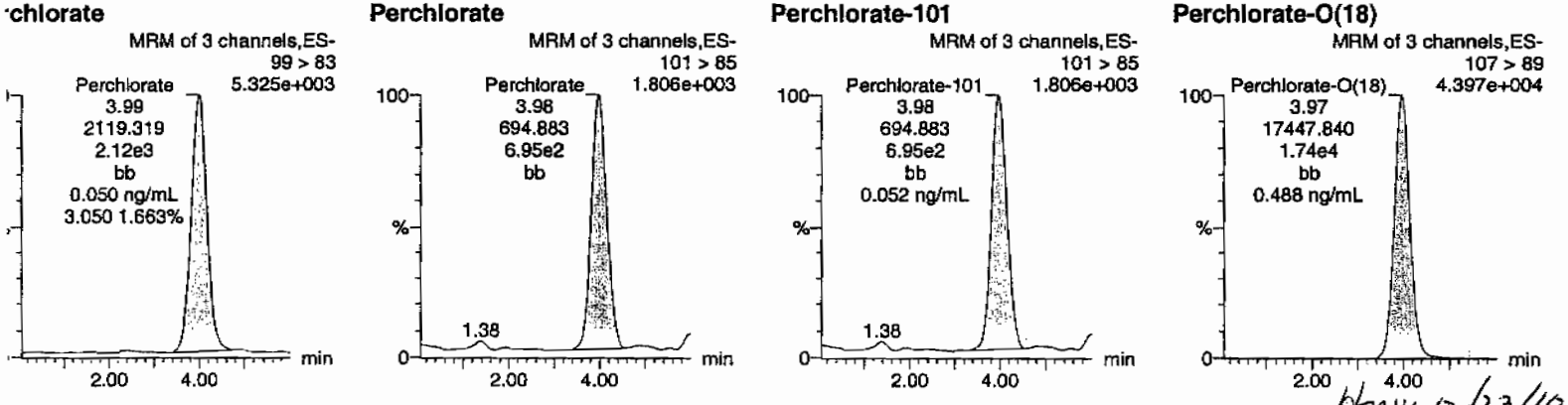
:antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221011a
te: 21-Feb-2010
ne: 14:48:54
WCL100219-07CRI
l: 1:2,B

Pers 02-22-10




HMW 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-07CRI | Perchlorate | 99 > 83 | 3.99 | 2119.319 | 2119.319 | bb | | | 0.0502 | 100.37 | 0.37 | 475.986 | 3.05 |
| L100219-07CRI | Perchlorate-101 | 101 > 85 | 3.98 | 694.883 | 694.883 | bb | | | 0.0524 | 104.87 | 4.87 | 345.958 | |
| L100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.97 | 17447.840 | 17447.840 | bb | | | 0.4882 | 97.65 | -2.35 | 2151.4... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**ıantify Sample Report MassLynx 4.0 SP4**
e GEL Group, LLC Analyst: Charlers W. Wilson

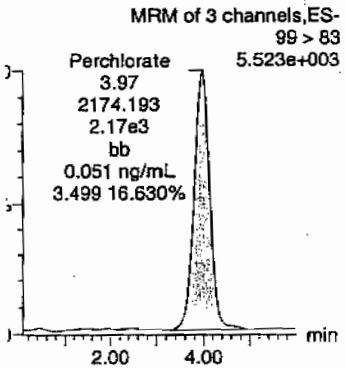
taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

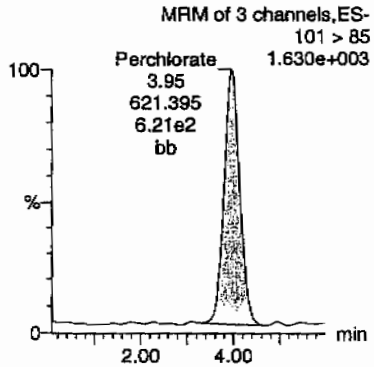
**me: per0221022a**
**te: 21-Feb-2010**
**ne: 16:30:17**
**WCL100219-07CRI**
**ıl: 1:2,B**

Pass
[illegible]
02-22-10

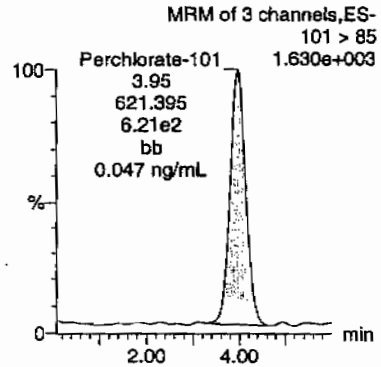
**rchlorate**



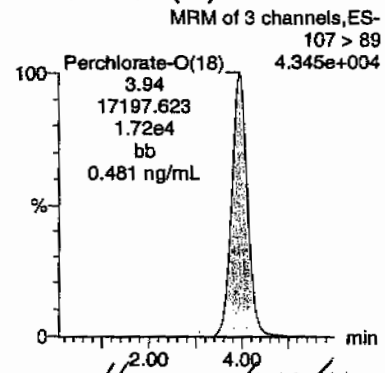

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-07CRI | Perchlorate | 99 > 83 | 3.97 | 2174.193 | 2174.193 | bb | | | 0.0515 | 102.97 | 2.97 | 111.812 | 3.50 |
| L100219-07CRI | Perchlorate-101 | 101 > 85 | 3.95 | 621.395 | 621.395 | bb | | | 0.0469 | 93.78 | -6.22 | 317.832 | |
| L100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.94 | 17197.623 | 17197.623 | bb | | | 0.4812 | 96.25 | -3.75 | 10592.... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

**ıantify Sample Report MassLynx 4.0 SP4**
e GEL Group, LLC Analyst: Charlers W. Wilson

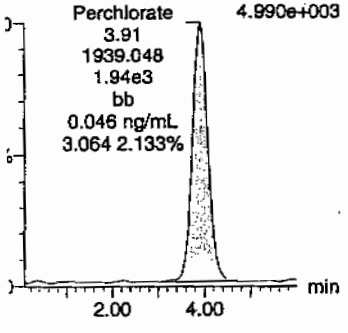
:taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

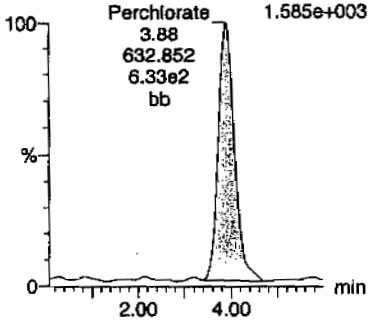
**me: per0221035a**
**te: 21-Feb-2010**
**ne: 18:28:06**
**WCL100219-07CRI**
**ıl: 1:2,B**

Pass
and
02-22-10

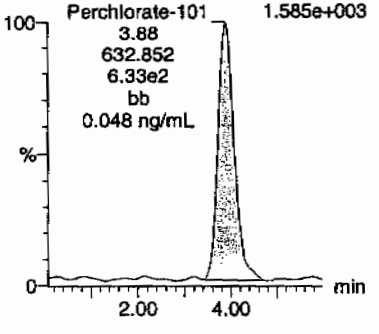
**rchlorate**



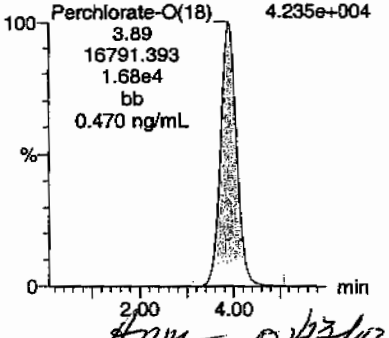

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| :L100219-07CRI | Perchlorate | 99 > 83 | 3.91 | 1939.048 | 1939.048 | bb | | | 0.0459 | 91.84 | -8.16 | 355.614 | 3.06 |
| :L100219-07CRI | Perchlorate-101 | 101 > 85 | 3.88 | 632.852 | 632.852 | bb | | | 0.0478 | 95.51 | -4.49 | 329.995 | |
| :L100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.89 | 16791.393 | 16791.393 | bb | | | 0.4699 | 93.97 | -6.03 | 2392.7... | |

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

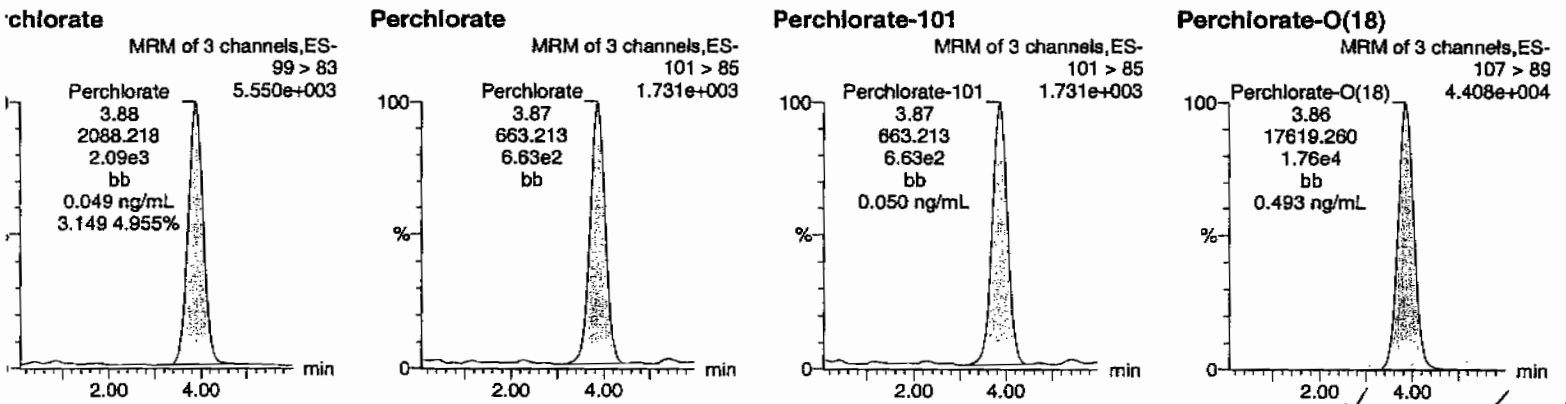


taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221048a
te: 21-Feb-2010
ne: 20:26:14
WCL100219-07CRI
l: 1:2,B

Pass
ans
02-22-10




HMK 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-07CRI | Perchlorate | 99 > 83 | 3.88 | 2088.218 | 2088.218 | bb | | | 0.0495 | 98.90 | -1.10 | 560.856 | 3.15 |
| L100219-07CRI | Perchlorate-101 | 101 > 85 | 3.87 | 663.213 | 663.213 | bb | | | 0.0500 | 100.09 | 0.09 | 193.032 | |
| L100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.86 | 17619.260 | 17619.260 | bb | | | 0.4930 | 98.61 | -1.39 | 2482.2... | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

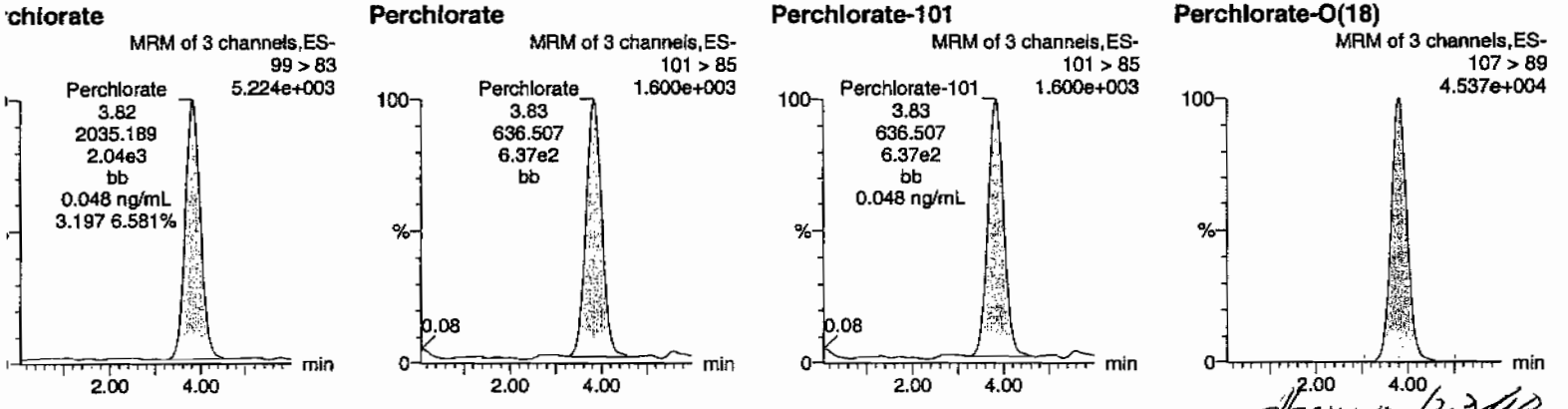


:aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

it Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**me: per0221059a**
**te: 21-Feb-2010**
**ne: 22:06:19**
**WCL100219-07CRI**
**l: 1:2,B**

Pwo
ano
02-22-10




Annex 2/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-07CRI | Perchlorate | 99 > 83 | 3.82 | 2035.189 | 2035.189 | bb | | | 0.0482 | 96.39 | -3.61 | 488.291 | 3.20 |
| L100219-07CRI | Perchlorate-101 | 101 > 85 | 3.83 | 636.507 | 636.507 | bb | | | 0.0480 | 96.06 | -3.94 | 129.668 | |
| L100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.81 | 17944.182 | 17944.182 | bb | | | 0.5021 | 100.42 | 0.42 | 19618.... | |

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



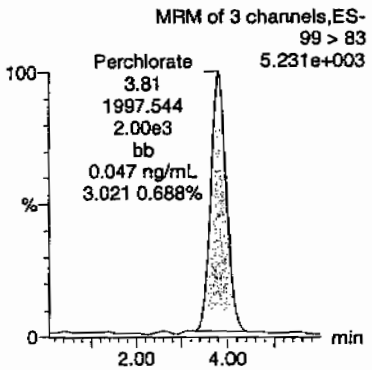
Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

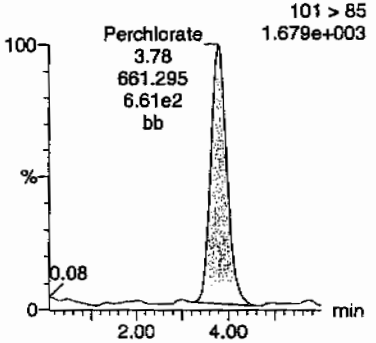
**Name: per0221071a**
**Date: 21-Feb-2010**
**Time: 23:55:08**
**ID: WCL100219-07CRI**
**Vial: 1:2,B**

Pass
[illegible]
0222-10

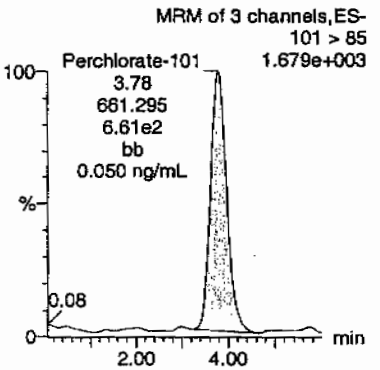
**Perchlorate**



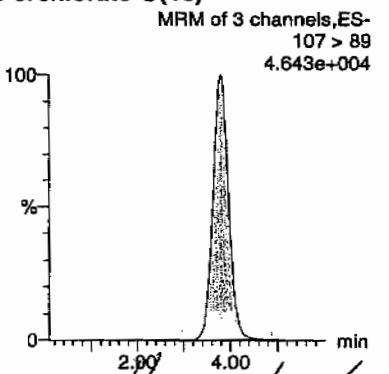

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




[illegible] 02/23/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100219-07CRI | Perchlorate | 99 > 83 | 3.81 | 1997.544 | 1997.544 | bb | | | 0.0473 | 94.61 | -5.39 | 206.439 | 3.02 |
| WCL100219-07CRI | Perchlorate-101 | 101 > 85 | 3.78 | 661.295 | 661.295 | bb | | | 0.0499 | 99.80 | -0.20 | 415.917 | |
| WCL100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.79 | 18029.004 | 18029.004 | bb | | | 0.5045 | 100.90 | 0.90 | 3709.6... | |

antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

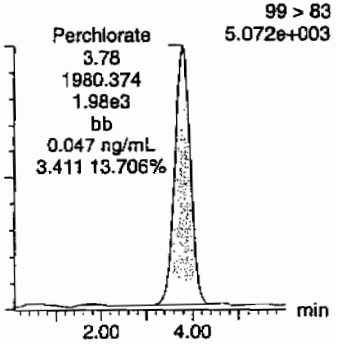
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

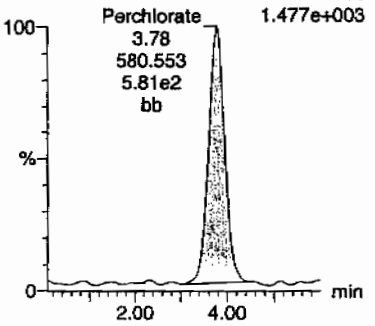
ne: per0221082a
e: 22-Feb-2010
e: 01:35:04
WCL100219-07CRI
l: 1:2,B

Pass
02-22-10

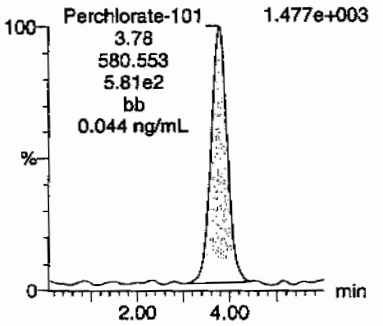
chlorate



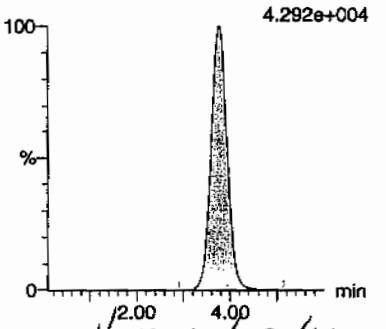

Perchlorate




Perchlorate-101




Perchlorate-O(18)




HMK 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-07CRI | Perchlorate | 99 > 83 | 3.78 | 1980.374 | 1980.374 | bb | | | 0.0469 | 93.79 | -6.21 | 122.389 | 3.41 |
| L100219-07CRI | Perchlorate-101 | 101 > 85 | 3.78 | 580.553 | 580.553 | bb | | | 0.0438 | 87.61 | -12.39 | 208.858 | |
| L100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.76 | 17092.373 | 17092.373 | bb | | | 0.4783 | 95.66 | -4.34 | 961.808 | |

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

**antify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

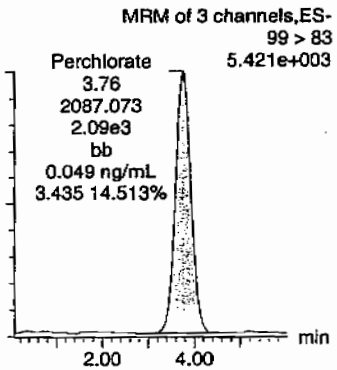
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

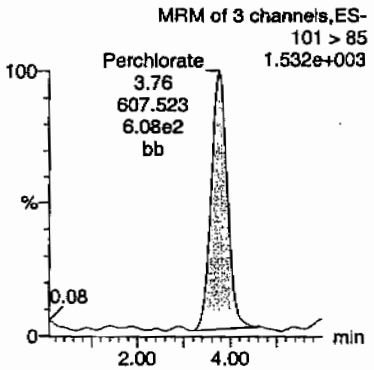
**ne: per0221092a**
**e: 22-Feb-2010**
**e: 03:06:01**
**WCL100219-07CRI**
**: 1:2,B**

Pass
02-22-10

**chlorate**




**Perchlorate**

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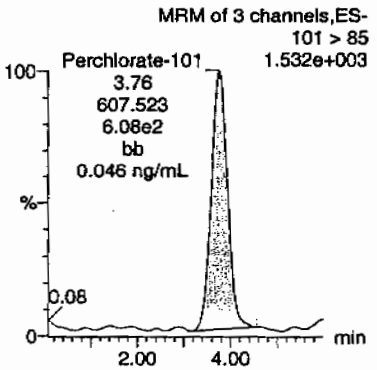
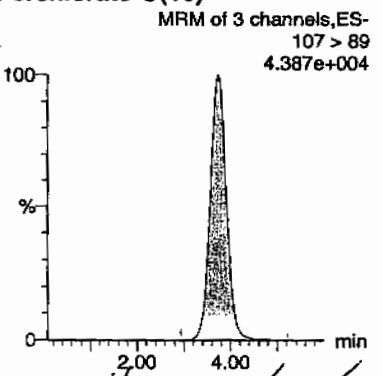



**Perchlorate-O(18)**




HMK 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .100219-07CRI | Perchlorate | 99 > 83 | 3.76 | 2087.073 | 2087.073 | bb | | | 0.0494 | 98.85 | -1.15 | 567.489 | 3.44 |
| .100219-07CRI | Perchlorate-101 | 101 > 85 | 3.76 | 607.523 | 607.523 | bb | | | 0.0458 | 91.68 | -8.32 | 187.286 | |
| .100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.73 | 17466.512 | 17466.512 | bb | | | 0.4888 | 97.75 | -2.25 | 6342.9... | |

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

**ıntify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

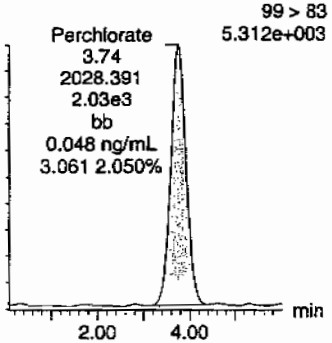
ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

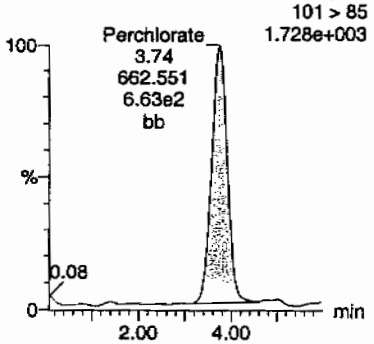
**ıe: per0221103a**
**ɜ: 22-Feb-2010**
**e: 04:46:02**
**NCL100219-07CRI**
**: 1:2,B**

Pass
02-22-10

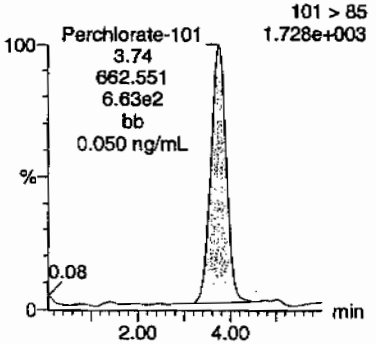
**:hlorate**



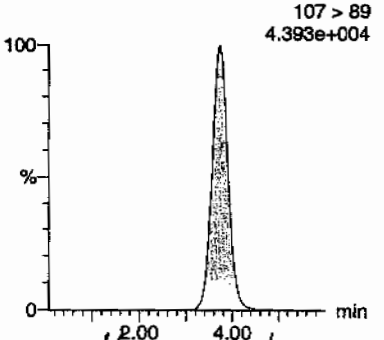

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| .100219-07CRI | Perchlorate | 99 > 83 | 3.74 | 2028.391 | 2028.391 | bb | | | 0.0480 | 96.07 | -3.93 | 351.448 | 3.06 |
| .100219-07CRI | Perchlorate-101 | 101 > 85 | 3.74 | 662.551 | 662.551 | bb | | | 0.0500 | 99.99 | -0.01 | 393.567 | |
| 100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.73 | 17273.334 | 17273.334 | bb | | | 0.4834 | 96.67 | -3.33 | 10252.... | |

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

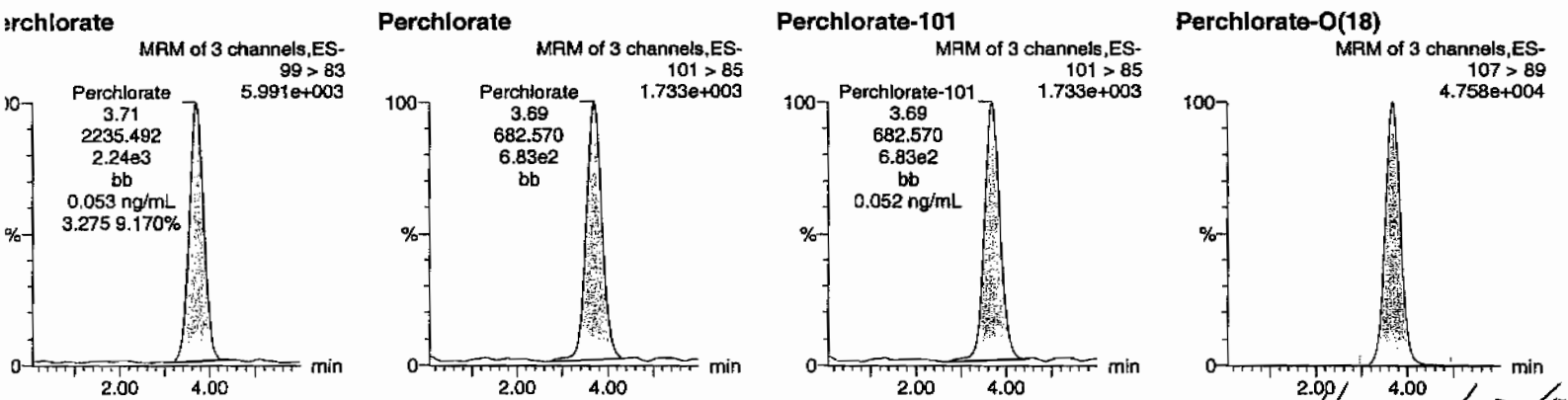


ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ıst Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
inted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ame: per0221116a**
**ate: 22-Feb-2010**
**me: 06:43:50**
**: WCL100219-07CRI**
**al: 1:2,B**

Pwd
02-22-10




Hnm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CL100219-07CRI | Perchlorate | 99 > 83 | 3.71 | 2235.492 | 2235.492 | bb | | | 0.0529 | 105.88 | 5.88 | 526.848 | 3.28 |
| CL100219-07CRI | Perchlorate-101 | 101 > 85 | 3.69 | 682.570 | 682.570 | bb | | | 0.0515 | 103.01 | 3.01 | 126.340 | |
| CL100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.68 | 18303.521 | 18303.521 | bb | | | 0.5122 | 102.44 | 2.44 | 4860.8... | |

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

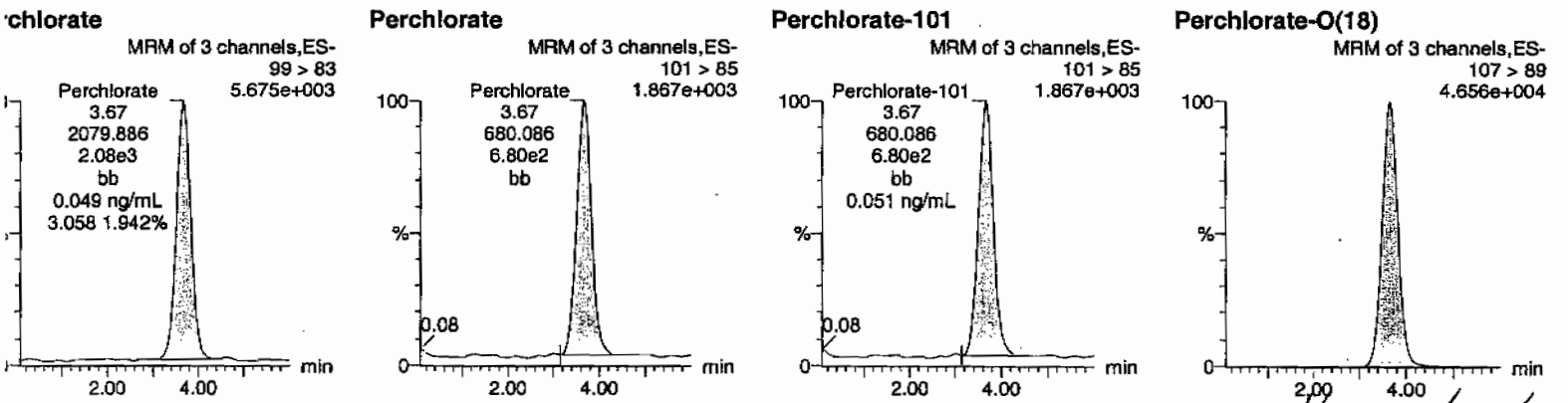


taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221129a
te: 22-Feb-2010
ne: 08:41:56
WCL100219-07CRI
l: 1:2,B

Pam
and
02-22-10




Hmm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L100219-07CRI | Perchlorate | 99 > 83 | 3.67 | 2079.886 | 2079.886 | bb | | | 0.0493 | 98.51 | -1.49 | 289.629 | 3.06 |
| L100219-07CRI | Perchlorate-101 | 101 > 85 | 3.67 | 680.086 | 680.086 | bb | | | 0.0513 | 102.63 | 2.63 | 429.047 | |
| L100219-07CRI | Perchlorate-O(18) | 107 > 89 | 3.66 | 17989.350 | 17989.350 | bb | | | 0.5034 | 100.68 | 0.68 | 5974.6... | |

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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# QUALITY CONTROL

Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** EPA 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
MB

**Date Received:** 17-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 1202035641

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 100

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .5 | 2 | 0.500 | ug/kg | U | 1 | 22-FEB-10 04:55 | per0221104a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 22-FEB-10 04:55 | per0221104a |
| 14797-73-0 | Perchlorate-101 | .5 | 2 | 0.500 | ug/kg | U | 1 | 22-FEB-10 04:55 | per0221104a |
| | Perchlorate-O(18) | | | 4.91 | ug/kg | | 1 | 22-FEB-10 04:55 | per0221104a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**antify Sample Report MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

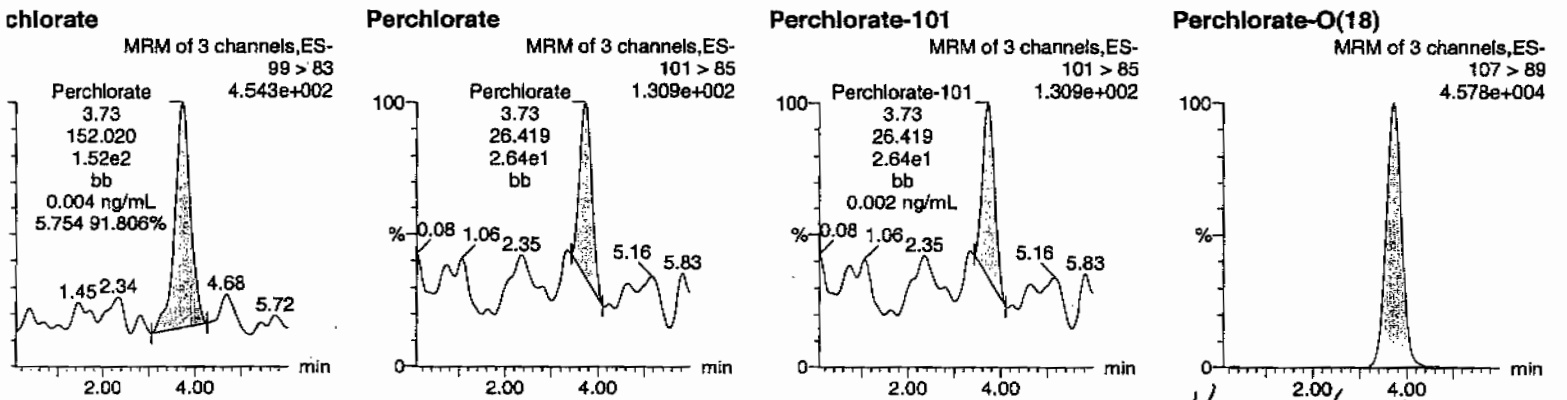
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

**ne: per0221104a**
**e: 22-Feb-2010**
**e: 04:55:04**
**1202035641**
**: 3:1,A**

|LANL|950060|SOLID|MB|1|

GW 02-22-10




Hmc 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 035641 | Perchlorate | 99 > 83 | 3.73 | 152.020 | 152.020 | bb | | | 0.0036 | | | 31.660 | 5.75 |
| 035641 | Perchlorate-101 | 101 > 85 | 3.73 | 26.419 | 26.419 | bb | | | 0.0020 | | | 19.301 | |
| 035641 | Perchlorate-O(18) | 107 > 89 | 3.72 | 17560.178 | 17560.178 | bb | | | 0.4914 | 98.28 | -1.72 | 9192.5... | |

ONLY <0.0500

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** EPA 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
LCS

**Date Received:** 17-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 1202035642

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 100

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .5 | 2 | 2.23 | ug/kg | | 1 | 22-FEB-10 05:04 | per0221105a |
| | Perchlorate Isotope Ratio | | | 3.31 | | | 1 | 22-FEB-10 05:04 | per0221105a |
| 14797-73-0 | Perchlorate-101 | .5 | 2 | 2.15 | ug/kg | | 1 | 22-FEB-10 05:04 | per0221105a |
| | Perchlorate-O(18) | | | 4.72 | ug/kg | | 1 | 22-FEB-10 05:04 | per0221105a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson



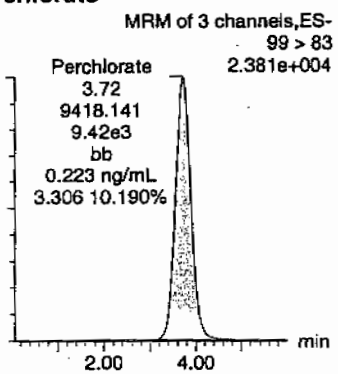
aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ited: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

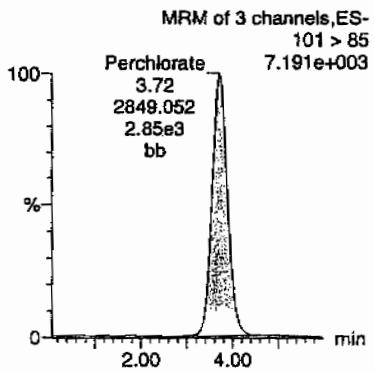
ne: per0221105a
e: 22-Feb-2010
ie: 05:04:19
1202035642 | LANL | 950060 | SOLID | LLS | 1 |
l: 3:1,B

CWD
02-22-10

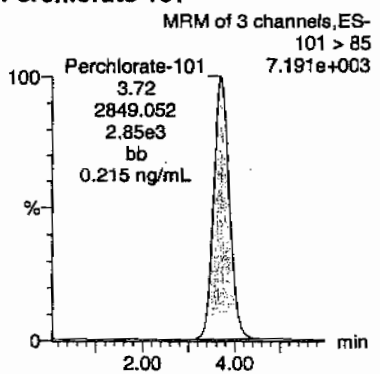
chlorate



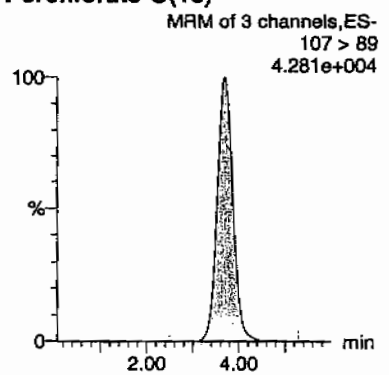

Perchlorate




Perchlorate-101




Perchlorate-O(18)




| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 035642 | Perchlorate | 99 > 83 | 3.72 | 9418.141 | 9418.141 | bb | | | 0.2230 | 111.51 | 11.51 | 1187.6... | 3.31 |
| 035642 | Perchlorate-101 | 101 > 85 | 3.72 | 2849.052 | 2849.052 | bb | | | 0.2150 | 107.49 | 7.49 | 620.036 | |
| 035642 | Perchlorate-O(18) | 107 > 89 | 3.71 | 16872.275 | 16872.275 | bb | | | 0.4721 | 94.43 | -5.57 | 3638.6... | |

$\frac{9418.141}{42228.2} = 0.2230$

HMM 02/23/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7880MS

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 1202035643

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 92.5

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .541 | 2.16 | 2.33 | ug/kg | | 1 | 22-FEB-10 05:31 | per0221108a |
| | Perchlorate Isotope Ratio | | | 3.16 | | | 1 | 22-FEB-10 05:31 | per0221108a |
| 14797-73-0 | Perchlorate-101 | .541 | 2.16 | 2.35 | ug/kg | | 1 | 22-FEB-10 05:31 | per0221108a |
| | Perchlorate-O(18) | | | 5.24 | ug/kg | | 1 | 22-FEB-10 05:31 | per0221108a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

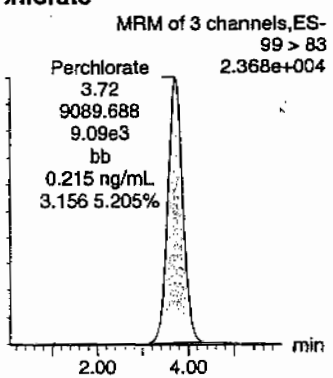
Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221108a
ɜ: 22-Feb-2010
e: 05:31:23
l202035643
: 3:1,E

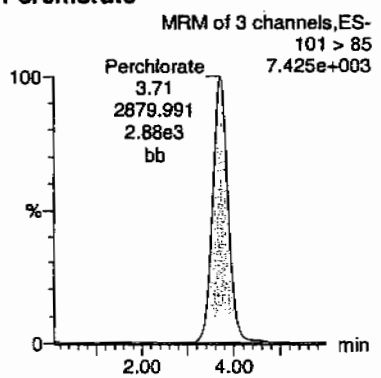
|LANL|950060|SOLID|MS|1|

GW
02-22-10

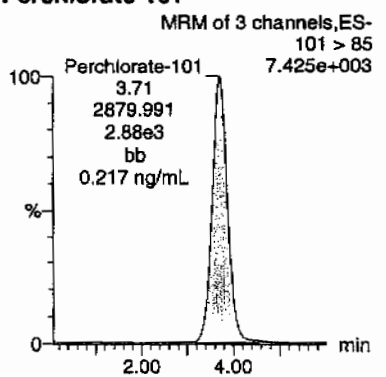
**:hlorate**



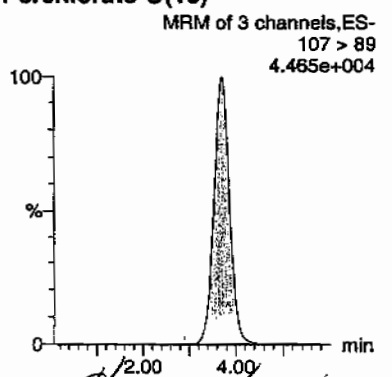

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 035643 | Perchlorate | 99 > 83 | 3.72 | 9089.688 | 9089.688 | bb | | | 0.2153 | 107.63 | 7.63 | 1708.2... | 3.16 |
| 035643 | Perchlorate-101 | 101 > 85 | 3.71 | 2879.991 | 2879.991 | bb | | | 0.2173 | 108.66 | 8.66 | 899.254 | |
| 035643 | Perchlorate-O(18) | 107 > 89 | 3.69 | 17304.617 | 17304.617 | bb | | | 0.4842 | 96.85 | -3.15 | 15399.... | |

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** SOIL

**Extraction Batch ID:** 950059

**Extraction Type:** Solid Prep

**Sample Volume/Weight:** 2.00 g

**Concentrated Extract Volume:** 20.0

**Client Sample No.**
RE15-10-7880MSD

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512

**GEL Sample ID:** 1202035644

**Date Filtered:** 17-FEB-10

**Injection Volume (uL):** 20

**%Solids:** 92.5

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .541 | 2.16 | 2.25 | ug/kg | | 1 | 22-FEB-10 05:40 | per0221109a |
| | Perchlorate Isotope Ratio | | | 3.2 | | | 1 | 22-FEB-10 05:40 | per0221109a |
| 14797-73-0 | Perchlorate-101 | .541 | 2.16 | 2.24 | ug/kg | | 1 | 22-FEB-10 05:40 | per0221109a |
| | Perchlorate-O(18) | | | 4.97 | ug/kg | | 1 | 22-FEB-10 05:40 | per0221109a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson



ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

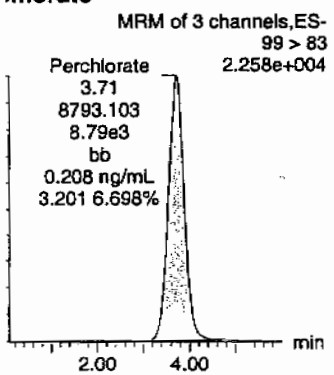
Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221109a
ɜ: 22-Feb-2010
e: 05:40:24
|202035644
: 3:1,F

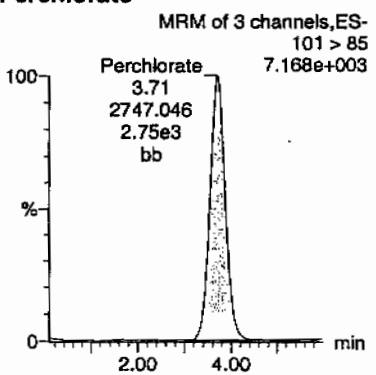
|LANL|950060|SOLID|MSD|1|

Cuo
02-22-10

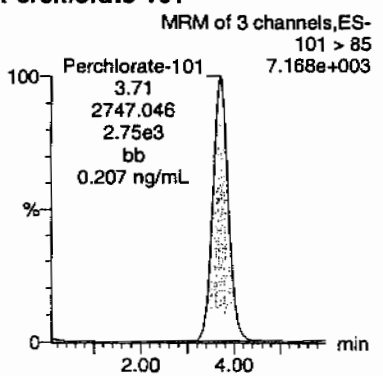
:hlorate



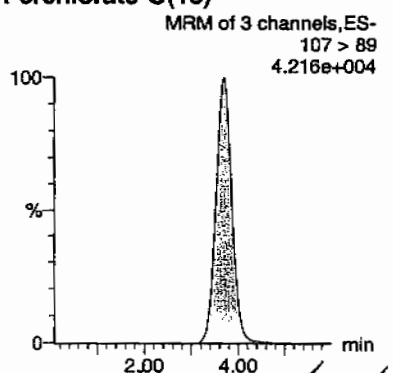

Perchlorate




Perchlorate-101




Perchlorate-O(18)




Amm 02/23/10

| | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 035644 | Perchlorate | 99 > 83 | 3.71 | 8793.103 | 8793.103 | bb | | | 0.2082 | 104.11 | 4.11 | 1956.0... | 3.20 |
| 035644 | Perchlorate-101 | 101 > 85 | 3.71 | 2747.046 | 2747.046 | bb | | | 0.2073 | 103.64 | 3.64 | 974.037 | |
| 035644 | Perchlorate-O(18) | 107 > 89 | 3.69 | 16421.867 | 16421.867 | bb | | | 0.4595 | 91.91 | -8.09 | 4505.4... | |

$$\frac{8793.103 \mid 10 \mid 100}{42228.2 \mid \quad \mid 92.5} = 2.25$$

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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# MISCELLANEOUS DATA

# Prep Logbook

## Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

**Batch ID:** 950059 **Verified by:**
**Analyst:** Michael Penny
**Method:** SW846 6850 Modified

**Lab SOP:** GL-OA-E-067 REV# 6
**Instrument:** MicroMass Quatro Ultima

| Sample ID | Run Date | Aliquot (g) | Prepped Aliquot (mL) | Prepped Factor (mL/g) |
|---|---|---|---|---|
| 1202035641 MB | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 1202035642 LCS | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969001 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 1202035643 MS (245969001) | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 1202035644 MSD (245969001) | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969002 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969003 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969004 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969005 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969006 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969007 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969008 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969009 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969010 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969011 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969012 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969013 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969014 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 245969015 | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |
| 1202035645 ICS | 17-FEB-2010 15:44:00 | 2 | 20 | 10 |

| Type | Sample Id | Description | Serial Number | Spike Amt | Units | Comments: |
|---|---|---|---|---|---|---|
| ICS | 1202035645 | 10 ug/L ICV/CCV Second Source | UCL100126-02.2 | .4 | mL | Desalting Cartridge Lot# 091120-1-Ba 7 100112-1-H. |
| LCS | 1202035642 | 10 ug/L ICV/CCV Second Source | UCL100126-02.2 | .4 | mL | |
| MS | 1202035643 | 10 ug/L ICV/CCV Second Source | UCL100126-02.2 | .4 | mL | |
| MSD | 1202035644 | 10 ug/L ICV/CCV Second Source | UCL100126-02.2 | .4 | mL | |

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/21/10
Extr. Injection Volume: 20uL
Sequence Number: per022110a
Initial Calibration Date: 02/21/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: [illegible]
Date: 02/23/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

| DataFile | Sample | Analyst | Injection Date | Batch | SDG | Dilution | Client | Comments | QC_Flag |
|---|---|---|---|---|---|---|---|---|---|
| per0221001a | IPB001 | CWW | 2/21/2010 13:18 | | | 1 | | USE | B |
| per0221002a | IPB001 | CWW | 2/21/2010 13:27 | | | 1 | | USE | B |
| per0221003a | WCLICAL-01 | CWW | 2/21/2010 13:36 | | | 1 | | USE | I |
| per0221004a | WCLICAL-02 | CWW | 2/21/2010 13:45 | | | 1 | | USE | I |
| per0221005a | WCLICAL-03 | CWW | 2/21/2010 13:54 | | | 1 | | USE | I |
| per0221006a | WCLICAL-04 | CWW | 2/21/2010 14:03 | | | 1 | | USE | I |
| per0221007a | WCLICAL-05 | CWW | 2/21/2010 14:12 | | | 1 | | USE | I |
| per0221008a | IPB002 | CWW | 2/21/2010 14:21 | | | 1 | | USE | B |
| per0221009a | WCLICV | CWW | 2/21/2010 14:30 | | | 1 | | USE | C |
| per0221010a | IPB003 | CWW | 2/21/2010 14:39 | | | 1 | | USE | B |
| per0221011a | WCLCRI | CWW | 2/21/2010 14:48 | | | 1 | | USE | C |
| per0221012a | 1202042236 | CWW | 2/21/2010 14:59 | 952826 | VARIOUS | 1 | LANL | USE | S |
| per0221013a | 1202042237 | CWW | 2/21/2010 15:08 | 952826 | VARIOUS | 1 | LANL | USE | S |
| per0221014a | 1202042240 | CWW | 2/21/2010 15:17 | 952826 | VARIOUS | 1 | LANL | USE | S |
| per0221015a | 246456001 | CWW | 2/21/2010 15:26 | 952826 | 10-1631-1 | 1 | LANL | USE | S |
| per0221016a | 246456002 | CWW | 2/21/2010 15:35 | 952826 | 10-1631-1 | 1 | LANL | USE | S |
| per0221017a | 246456003 | CWW | 2/21/2010 15:44 | 952826 | 10-1631-1 | 1 | LANL | USE | S |
| per0221018a | 246456004 | CWW | 2/21/2010 15:53 | 952826 | 10-1631-1 | 1 | LANL | USE | S |
| per0221019a | 246456005 | CWW | 2/21/2010 16:03 | 952826 | 10-1631-1 | 1 | LANL | USE | S |
| per0221020a | WCLCCV | CWW | 2/21/2010 16:12 | | | 1 | | USE | C |
| per0221021a | IPB004 | CWW | 2/21/2010 16:21 | | | 1 | | USE | B |
| per0221022a | WCLCRI | CWW | 2/21/2010 16:30 | | | 1 | | USE | C |
| per0221023a | 246460001 | CWW | 2/21/2010 16:39 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221024a | 1202042238 | CWW | 2/21/2010 16:48 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221025a | 1202042239 | CWW | 2/21/2010 16:57 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221026a | 246460002 | CWW | 2/21/2010 17:06 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221027a | 246460003 | CWW | 2/21/2010 17:15 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221028a | 246460004 | CWW | 2/21/2010 17:24 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221029a | 246460005 | CWW | 2/21/2010 17:33 | 952826 | 10-1633-1 | 1 | LANL | USE | S |

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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| per0221030a | 246460006 | CWW | 2/21/2010 17:42 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221031a | 246460007 | CWW | 2/21/2010 17:51 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221032a | 246460008 | CWW | 2/21/2010 18:00 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221033a | WCLCCV | CWW | 2/21/2010 18:09 | | | 1 | | USE | C |
| per0221034a | IPB005 | CWW | 2/21/2010 18:18 | | | 1 | | USE | B |
| per0221035a | WCLCRI | CWW | 2/21/2010 18:28 | | | 1 | | USE | C |
| per0221036a | 246460009 | CWW | 2/21/2010 18:37 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221037a | 246460010 | CWW | 2/21/2010 18:46 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221038a | 246460011 | CWW | 2/21/2010 18:55 | 952826 | 10-1633-1 | 1 | LANL | USE | S |
| per0221039a | IPB006 | CWW | 2/21/2010 19:04 | | | 1 | | USE | B |
| per0221040a | 1202042241 | CWW | 2/21/2010 19:13 | 952829 | VARIOUS | 1 | LANL | USE | S |
| per0221041a | 1202042242 | CWW | 2/21/2010 19:22 | 952829 | VARIOUS | 1 | LANL | USE | S |
| per0221042a | 1202042245 | CWW | 2/21/2010 19:31 | 952829 | VARIOUS | 1 | LANL | USE | S |
| per0221043a | 246432001 | CWW | 2/21/2010 19:40 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221044a | 246432002 | CWW | 2/21/2010 19:49 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221045a | 246432003 | CWW | 2/21/2010 19:58 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221046a | WCLCCV | CWW | 2/21/2010 20:07 | | | 1 | | USE | C |
| per0221047a | IPB007 | CWW | 2/21/2010 20:17 | | | 1 | | USE | B |
| per0221048a | WCLCRI | CWW | 2/21/2010 20:26 | | | 1 | | USE | C |
| per0221049a | 246432004 | CWW | 2/21/2010 20:35 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221050a | 246432005 | CWW | 2/21/2010 20:44 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221051a | 246432006 | CWW | 2/21/2010 20:53 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221052a | 246432007 | CWW | 2/21/2010 21:02 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221053a | 246432008 | CWW | 2/21/2010 21:11 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221054a | 246432009 | CWW | 2/21/2010 21:20 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221055a | 246432010 | CWW | 2/21/2010 21:29 | 952829 | 10-1650-1 | 1 | LANL | USE | S |
| per0221056a | 246470001 | CWW | 2/21/2010 21:38 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221057a | WCLCCV | CWW | 2/21/2010 21:48 | | | 1 | | USE | C |
| per0221058a | IPB008 | CWW | 2/21/2010 21:57 | | | 1 | | USE | B |
| per0221059a | WCLCRI | CWW | 2/21/2010 22:06 | | | 1 | | USE | C |
| per0221060a | 246470002 | CWW | 2/21/2010 22:15 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221061a | 1202042243 | CWW | 2/21/2010 22:24 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221062a | 1202042244 | CWW | 2/21/2010 22:33 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221063a | 246470003 | CWW | 2/21/2010 22:42 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221064a | 246470004 | CWW | 2/21/2010 22:51 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221065a | 246470005 | CWW | 2/21/2010 23:00 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221066a | 246470006 | CWW | 2/21/2010 23:09 | 952829 | 10-1638 | 1 | LANL | USE | S |

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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| per0221067a | 246470007 | CWW | 2/21/2010 23:18 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221068a | 246470008 | CWW | 2/21/2010 23:27 | 952829 | 10-1638 | 1 | LANL | USE | S |
| per0221069a | WCLCCV | CWW | 2/21/2010 23:36 | | | 1 | | USE | C |
| per0221070a | IPB009 | CWW | 2/21/2010 23:46 | | | 1 | | USE | B |
| per0221071a | WCLCRI | CWW | 2/21/2010 23:55 | | | 1 | | USE | C |
| per0221072a | 1202042428 | CWW | 2/22/2010 0:04 | 952903 | VARIOUS | 1 | LANL | USE | S |
| per0221073a | 1202042429 | CWW | 2/22/2010 0:13 | 952903 | VARIOUS | 1 | LANL | USE | S |
| per0221074a | 1202042432 | CWW | 2/22/2010 0:22 | 952903 | VARIOUS | 1 | LANL | USE | S |
| per0221075a | 246587007 | CWW | 2/22/2010 0:31 | 952903 | 10-1687 | 1 | LANL | USE | S |
| per0221076a | 246592001 | CWW | 2/22/2010 0:40 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221077a | 246592002 | CWW | 2/22/2010 0:49 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221078a | 246592003 | CWW | 2/22/2010 0:58 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221079a | 246592004 | CWW | 2/22/2010 1:07 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221080a | WCLCCV | CWW | 2/22/2010 1:16 | | | 1 | | USE | C |
| per0221081a | IPB010 | CWW | 2/22/2010 1:26 | | | 1 | | USE | B |
| per0221082a | WCLCRI | CWW | 2/22/2010 1:35 | | | 1 | | USE | C |
| per0221083a | 246592005 | CWW | 2/22/2010 1:44 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221084a | 246592006 | CWW | 2/22/2010 1:53 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221085a | 246592007 | CWW | 2/22/2010 2:02 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221086a | 246592008 | CWW | 2/22/2010 2:11 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221087a | 246592009 | CWW | 2/22/2010 2:20 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221088a | 246592010 | CWW | 2/22/2010 2:29 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221089a | 246592011 | CWW | 2/22/2010 2:38 | 952903 | 10-1689-1 | 1 | LANL | USE | S |
| per0221090a | WCLCCV | CWW | 2/22/2010 2:47 | | | 1 | | USE | C |
| per0221091a | IPB011 | CWW | 2/22/2010 2:56 | | | 1 | | USE | B |
| per0221092a | WCLCRI | CWW | 2/22/2010 3:06 | | | 1 | | USE | C |
| per0221093a | 246594001 | CWW | 2/22/2010 3:15 | 952903 | 10-1686-1 | 1 | LANL | USE | S |
| per0221094a | 1202042430 | CWW | 2/22/2010 3:24 | 952903 | 10-1686-1 | 1 | LANL | USE | S |
| per0221095a | 1202042431 | CWW | 2/22/2010 3:33 | 952903 | 10-1686-1 | 1 | LANL | USE | S |
| per0221096a | 246594002 | CWW | 2/22/2010 3:42 | 952903 | 10-1686-1 | 1 | LANL | USE | S |
| per0221097a | 246594003 | CWW | 2/22/2010 3:51 | 952903 | 10-1686-1 | 1 | LANL | USE | S |
| per0221098a | 246594004 | CWW | 2/22/2010 4:00 | 952903 | 10-1686-1 | 1 | LANL | USE | S |
| per0221099a | 246594005 | CWW | 2/22/2010 4:09 | 952903 | 10-1686-1 | 1 | LANL | USE | S |
| per0221100a | 246594006 | CWW | 2/22/2010 4:18 | 952903 | 10-1686-1 | 1 | LANL | USE | S |
| per0221101a | WCLCCV | CWW | 2/22/2010 4:27 | | | 1 | | USE | C |
| per0221102a | IPB012 | CWW | 2/22/2010 4:37 | | | 1 | | USE | B |
| per0221103a | WCLCRI | CWW | 2/22/2010 4:46 | | | 1 | | USE | C |

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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| per0221104a | 1202035641 | CWW | 2/22/2010 4:55 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221105a | 1202035642 | CWW | 2/22/2010 5:04 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221106a | 1202035645 | CWW | 2/22/2010 5:13 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221107a | 245969001 | CWW | 2/22/2010 5:22 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221108a | 1202035643 | CWW | 2/22/2010 5:31 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221109a | 1202035644 | CWW | 2/22/2010 5:40 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221110a | 245969002 | CWW | 2/22/2010 5:49 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221111a | 245969003 | CWW | 2/22/2010 5:58 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221112a | 245969004 | CWW | 2/22/2010 6:07 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221113a | 245969005 | CWW | 2/22/2010 6:16 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221114a | WCLCCV | CWW | 2/22/2010 6:25 | | | 1 | | USE | C |
| per0221115a | IPB013 | CWW | 2/22/2010 6:34 | | | 1 | | USE | B |
| per0221116a | WCLCRI | CWW | 2/22/2010 6:43 | | | 1 | | USE | C |
| per0221117a | 245969006 | CWW | 2/22/2010 6:52 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221118a | 245969007 | CWW | 2/22/2010 7:02 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221119a | 245969008 | CWW | 2/22/2010 7:11 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221120a | 245969009 | CWW | 2/22/2010 7:20 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221121a | 245969010 | CWW | 2/22/2010 7:29 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221122a | 245969011 | CWW | 2/22/2010 7:38 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221123a | 245969012 | CWW | 2/22/2010 7:47 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221124a | 245969013 | CWW | 2/22/2010 7:56 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221125a | 245969014 | CWW | 2/22/2010 8:05 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221126a | 245969015 | CWW | 2/22/2010 8:14 | 950060 | 10-1512 | 1 | LANL | USE | S |
| per0221127a | WCLCCV | CWW | 2/22/2010 8:23 | | | 1 | | USE | C |
| per0221128a | IPB014 | CWW | 2/22/2010 8:32 | | | 1 | | USE | B |
| per0221129a | WCLCRI | CWW | 2/22/2010 8:41 | | | 1 | | USE | C |

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## Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

## Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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1.

# LC/MS/MS PERCHLORATE ANALYSIS

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**Perchlorate by LC/MSMS**
**Los Alamos National Laboratory (LANL)**
**SDG 10-1512-1**

## Method/Analysis Information

| | |
|---|---|
| **Procedure:** | **Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)** |
| Analytical Method: | SW846 6850 Modified |
| Prep Method: | SW846 6850 Modified |
| Analytical Batch Number: | 950028 |
| Prep Batch Number: | 950027 |

## Sample Analysis

| Sample ID | Client ID |
|---|---|
| 245975001 | RE15-10-8084 |
| 1202035573 | Interference Check Sample (ICS) |
| 1202035565 | Method Blank (MB) |
| 1202035566 | Laboratory Control Sample (LCS) |
| 1202035571 | 245911001(RE16-10-1400) Matrix Spike (MS) |
| 1202035572 | 245911001(RE16-10-1400) Matrix Spike Duplicate (MSD) |

The samples in this SDG were analyzed on an "as received" 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-067 REV# 6.

## Calibration Information

**Initial Calibration**
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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

**CCB Requirements**
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

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**CCV Requirements**
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

**Low Level Standard (CRI) Requirements**
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

**Quality Control (QC) Information**

**Method Blank (MB) Statement**
The MB(s) analyzed with this SDG met the acceptance criteria.

**Interference Check Sample (ICS)**
The interference check sample (ICS) met all recovery acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**
The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**
Client sample 245911001 (RE16-10-1400) from SDG 10-1487-1 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 recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**
The MSD recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**
The RPD(s) between the MS and MSD met the acceptance limits.

**Retention Time Standard Area Acceptance**
The retention time standard areas were within the required acceptance criteria for all samples and QC.

**Retention Time**
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

**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.

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**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 dilutions.

**Miscellaneous Information**

**Data Exception (DER) Documentation**
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

**Manual Integrations**
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

**Method Comments**
The sample in this SDG was not originally analyzed using EPA Method 314.0.

**Additional Comments**
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

**Perchlorate Isotope Ratio**
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

**System Configuration**

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate 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 electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

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**Chromatographic Columns**

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

**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:** Herbert K Mauer **Date:** 02/11/10

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# SAMPLE DATA SUMMARY

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** WATER

**Extraction Batch ID:** 950027

**Extraction Type:** Filter/DAI

**Sample Volume/Weight:** 10.0 mL

**Concentrated Extract Volume:** 10.0

**Client Sample No.**
RE15-10-8084

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512-1

**GEL Sample ID:** 245975001

**Date Filtered:** 07-FEB-10

**Injection Volume (uL):** 20

**%Solids:**

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .05 | .2 | 0.050 | ug/L | U | 1 | 08-FEB-10 21:00 | per0208066a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 08-FEB-10 21:00 | per0208066a |
| 14797-73-0 | Perchlorate-101 | .05 | .2 | 0.050 | ug/L | U | 1 | 08-FEB-10 21:00 | per0208066a |
| | Perchlorate-O(18) | | | 0.480 | ug/L | | 1 | 08-FEB-10 21:00 | per0208066a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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# QUALITY CONTROL SUMMARY

## Perchlorate Laboratory Control Sample

**Lab Name:** General Engineering Laboratories

**Lab Code:** GEL

**GEL Job No. (SDG):** 10–1512–1

**Extract Batch Code:** 950027

**Date Filtered:** 07–FEB–10

**Matrix:** WASTE WATER

**Sample ID:** 1202035566

| Analyte^ | True | Found | Units | %Rec | Q | Control Limits |
|---|---|---|---|---|---|---|
| Perchlorate | 0.200 | .196 | ug/L | 98.0 | | 85 – 115 |
| Perchlorate Isotope Ratio | | 3.01 | | | | – |
| Perchlorate–101 | 0.200 | .207 | ug/L | 103 | | 85 – 115 |
| Perchlorate–O(18) | | .483 | ug/L | | | – |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

## Perchlorate Interference Check Sample

**Lab Name:** General Engineering Laboratories

**Lab Code:** GEL

**GEL Job No. (SDG):** 10–1512–1

**Extract Batch Code:** 950027

**Date Filtered:** 07–FEB–10

**Matrix:** WATER

**Sample ID:** 1202035573

| Analyte^ | True | Found | Units | %Rec | Q | Control Limits |
|---|---|---|---|---|---|---|
| Perchlorate | 0.200 | .211 | ug/L | 105 | | 70 – 130 |
| Perchlorate Isotope Ratio | | 3.12 | | | | |
| Perchlorate–101 | 0.200 | .214 | ug/L | 107 | | 70 – 130 |
| Perchlorate–O(18) | | .488 | ug/L | | | |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

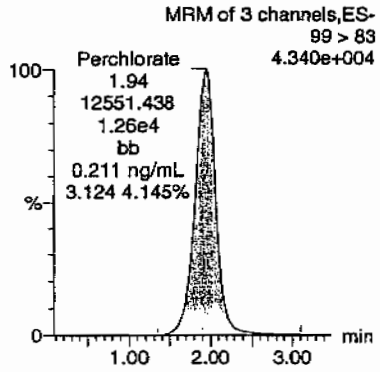
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208052a**
**Date: 08-Feb-2010**
**Time: 19:28:20**
**ID: 1202035573**
**Vial: 2:1,C**

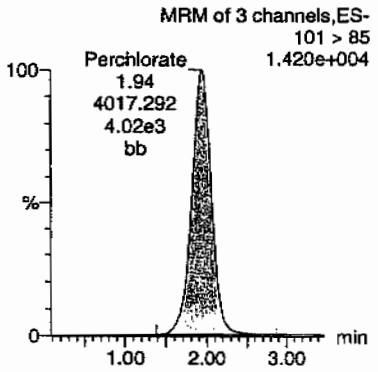
|LANL|950028|LLQ|ICS|1|

CWW
02-09-10

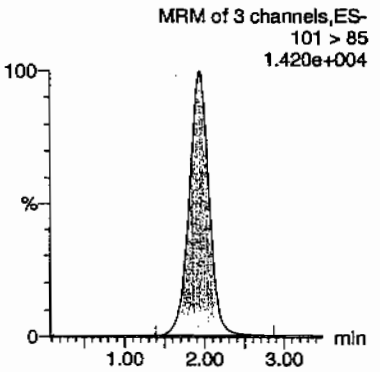
**Perchlorate**



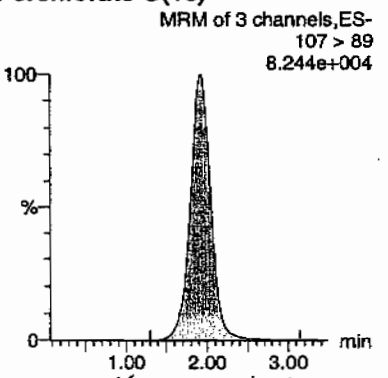

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




#nm 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202035573 | Perchlorate | 99 > 83 | 1.94 | 12551.438 | 12551.438 | bb | | | 0.2108 | 105.42 | 5.42 | 1217.2... | 3.12 |
| 1202035573 | Perchlorate-101 | 101 > 85 | 1.94 | 4017.292 | 4017.292 | bb | | | 0.2140 | 107.01 | 7.01 | 2883.8... | |
| 1202035573 | Perchlorate-O(18) | 107 > 89 | 1.93 | 23733.555 | 23733.555 | bb | | | 0.4879 | 97.59 | -2.41 | 5289.0... | |

Form 6

## Perchlorate Spike/Spike Duplicate Summary

**Lab Name:** General Engineering Laboratories

**Lab Code:** GEL

**GEL Job No (SDG):** 10-1512-1

**Extract Batch Code:** 950027

**Date Extracted:** 07-FEB-10

**GEL MS/PS ID:** 1202035571

**Client ID:** RE16-10-1400

**GEL MSD/PSD ID:** 1202035572

**QC Type:** MS

| Compound^ | Spike Added | Sample Conc | Units | MS Conc | MS Rec # | MSD Conc | MSD Rec # | RPD # | RPD Limit | Recovery Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 0.200 | 0.00204 | ug/L | 0.192 | 94.8 | .198 | 98.1 | 3.39 | 30 | 75 – 125 |
| Perchlorate Isotope Ratio | 0 | 0.00 | | 3 | | 3.01 | | 0 | | – |
| Perchlorate–101 | 0.200 | 0.00319 | ug/L | 0.203 | 99.9 | .209 | 103 | 2.76 | 30 | 75 – 125 |
| Perchlorate–O(18) | 0 | 0.461 | ug/L | 0.468 | | .462 | | 1.31 | | – |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

**Perchlorate Initial Calibration Blank**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10-1512-1

**Lab Code:** GEL

**Reporting Units:** ug/L

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id | GEL Sample ID |
|---|---|---|---|---|---|---|
| Perchlorate | 0.00 | 0 | NA | 08-FEB-10 | per0208001a | IPB001 |
| Perchlorate-101 | 0.00 | 0 | NA | 08-FEB-10 | per0208001a | IPB001 |
| Perchlorate | 0.00 | 0 | NA | 08-FEB-10 | per0208002a | IPB001 |
| Perchlorate-101 | 0.00 | 0 | NA | 08-FEB-10 | per0208002a | IPB001 |



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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

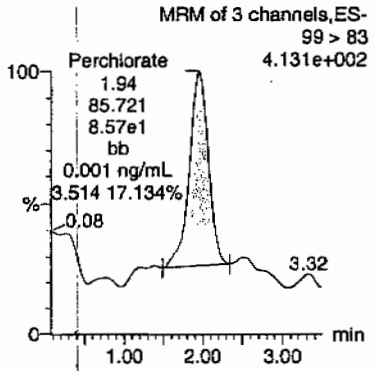
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59**
**Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17**

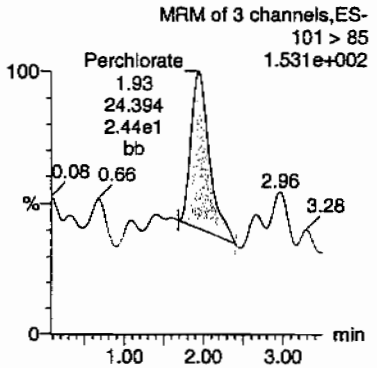
**Name: per0208001a**
**Date: 08-Feb-2010**
**Time: 13:54:09**
**ID: IPB001**
**Vial: 1:1,A**

CWW
02-09-10

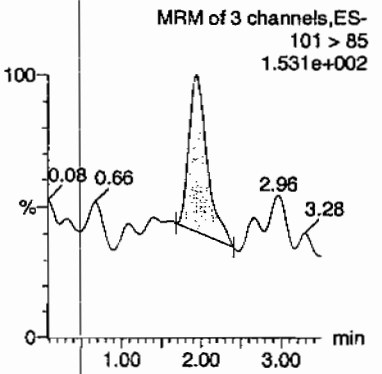
**Perchlorate**



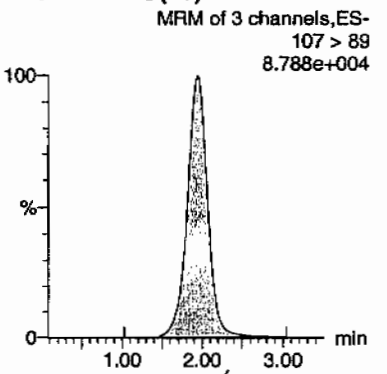

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




tum 02/10/10

| D | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB001 | Perchlorate | 99 > 83 | 1.94 | 85.721 | 85.721 | bb | | | 0.0014 | | | 29.463 | 3.51 |
| PB001 | Perchlorate-101 | 101 > 85 | 1.93 | 24.394 | 24.394 | bb | | | 0.0013 | | | 21.780 | |
| PB001 | Perchlorate-O(18) | 107 > 89 | 1.94 | 25816.436 | 25816.436 | bb | | | 0.5308 | 106.15 | 6.15 | 6489.2... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



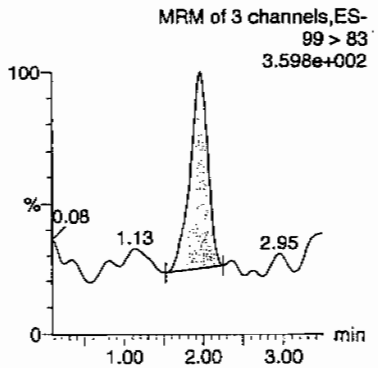
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

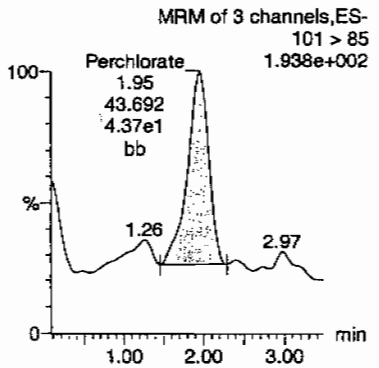
**Name: per0208002a**
**Date: 08-Feb-2010**
**Time: 14:00:52**
**ID: IPB001**
**Vial: 1:1,A**

CWW
02-09-10

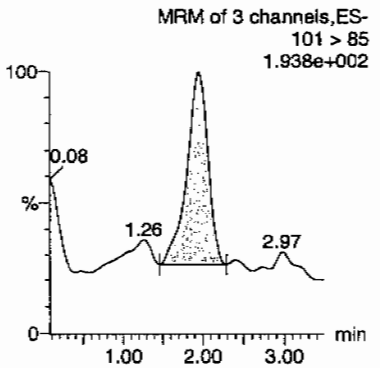
**Perchlorate**



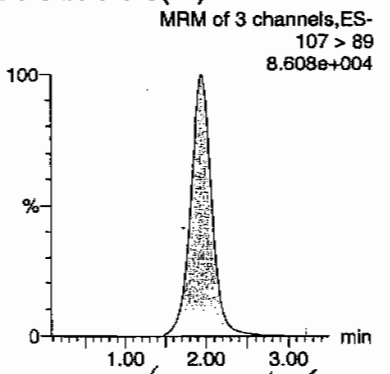

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Home on 1/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB001 | Perchlorate | 99 > 83 | 1.97 | 72.177 | 72.177 | bb | | | 0.0012 | | | 25.847 | 1.65 |
| IPB001 | Perchlorate-101 | 101 > 85 | 1.95 | 43.692 | 43.692 | bb | | | 0.0023 | | | 6.442 | |
| IPB001 | Perchlorate-O(18) | 107 > 89 | 1.94 | 25472.947 | 25472.947 | bb | | | 0.5237 | 104.74 | 4.74 | 6120.9... | |

OKAY
<0.050

Form 4

**Perchlorate Continuing Calibration Blank**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512–1

**Lab Code:** GEL

**Reporting Units:** ug/L

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id | GEL Sample ID |
|---|---|---|---|---|---|---|
| Perchlorate | 0.00 | 0 | NA | 08–FEB–10 | per0208008a | IPB002 |
| Perchlorate–101 | 0.00 | 0 | NA | 08–FEB–10 | per0208008a | IPB002 |
| Perchlorate | 0.00 | 0 | NA | 08–FEB–10 | per0208010a | IPB003 |
| Perchlorate–101 | 0.00 | 0 | NA | 08–FEB–10 | per0208010a | IPB003 |
| Perchlorate | 0.00 | 0 | NA | 08–FEB–10 | per0208022a | IPB004 |
| Perchlorate–101 | 0.00 | 0 | NA | 08–FEB–10 | per0208022a | IPB004 |
| Perchlorate | 0.00 | 0 | NA | 08–FEB–10 | per0208026a | IPB005 |
| Perchlorate–101 | 0.00 | 0 | NA | 08–FEB–10 | per0208026a | IPB005 |
| Perchlorate | 0.00 | 0 | NA | 08–FEB–10 | per0208035a | IPB006 |
| Perchlorate–101 | 0.00 | 0 | NA | 08–FEB–10 | per0208035a | IPB006 |
| Perchlorate | 0.00 | 0 | NA | 08–FEB–10 | per0208048a | IPB007 |
| Perchlorate–101 | 0.00 | 0 | NA | 08–FEB–10 | per0208048a | IPB007 |
| Perchlorate | 0.00 | 0 | NA | 08–FEB–10 | per0208061a | IPB008 |



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Form 4

**Perchlorate Continuing Calibration Blank**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512–1

**Lab Code:** GEL

**Reporting Units:** ug/L

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id | GEL Sample ID |
|---|---|---|---|---|---|---|
| Perchlorate–101 | 0.00 | 0 | NA | 08–FEB–10 | per0208061a | IPB008 |
| Perchlorate | 0.00 | 0 | NA | 08–FEB–10 | per0208074a | IPB009 |
| Perchlorate–101 | 0.00 | 0 | NA | 08–FEB–10 | per0208074a | IPB009 |



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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



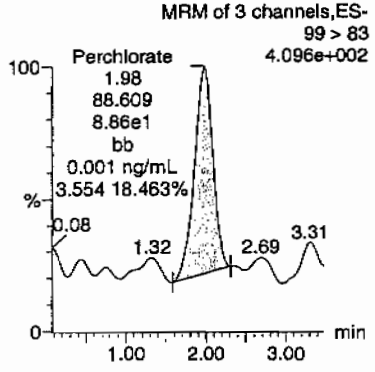
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

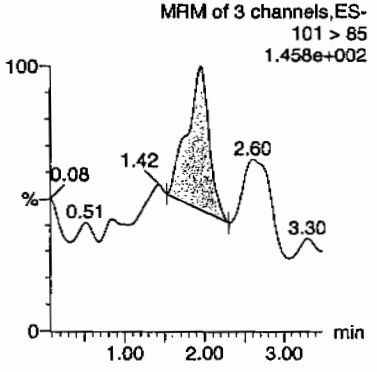
**Name: per0208008a**
**Date: 08-Feb-2010**
**Time: 14:40:00**
**ID: IPB002**
**Vial: 1:1,A**

CWW 02-09-10

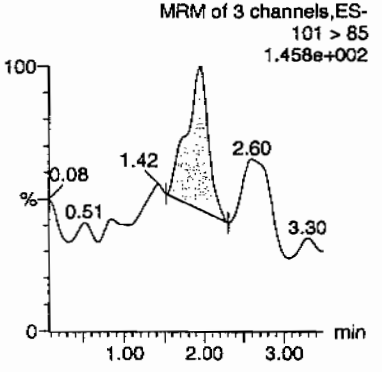
**Perchlorate**



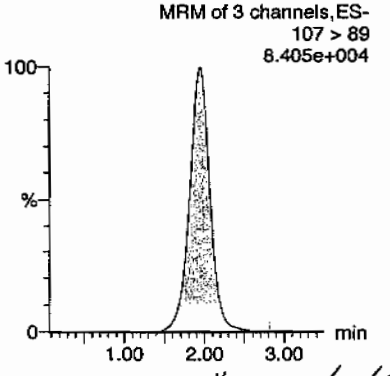

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmc 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB002 | Perchlorate | 99 > 83 | 1.98 | 88.609 | 88.609 | bb | | | 0.0015 | | | 17.608 | 3.55 |
| IPB002 | Perchlorate-101 | 101 > 85 | 1.95 | 24.933 | 24.933 | bb | | | 0.0013 | | | 9.796 | |
| IPB002 | Perchlorate-O(18) | 107 > 89 | 1.94 | 24800.170 | 24800.170 | bb | | | 0.5099 | 101.97 | 1.97 | 8413.0... | |



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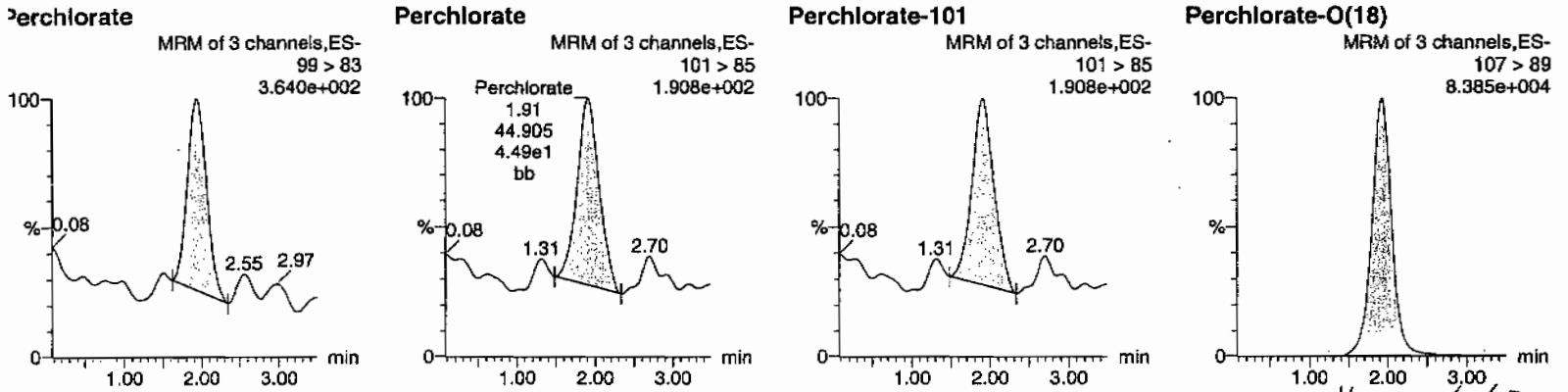
**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208010a**
**Date: 08-Feb-2010**
**Time: 14:53:04**
**ID: IPB003**
**Vial: 1:1,A**

CWW
02-09-10




Hmm a hoho

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB003 | Perchlorate | 99 > 83 | 1.93 | 78.058 | 78.058 | bb | | | 0.0013 | | | 17.447 | 1.74 |
| PB003 | Perchlorate-101 | 101 > 85 | 1.91 | 44.905 | 44.905 | bb | | | 0.0024 | | | 6.119 | |
| PB003 | Perchlorate-O(18) | 107 > 89 | 1.93 | 24645.639 | 24645.639 | bb | | | 0.5067 | 101.34 | 1.34 | 10100.... | |

OKAY
<0.050

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



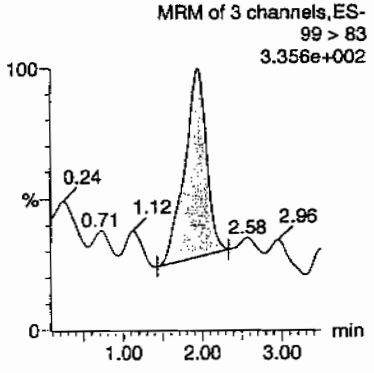
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

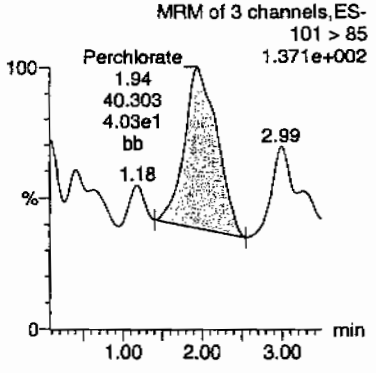
**Name: per0208022a**
**Date: 08-Feb-2010**
**Time: 16:11:45**
**ID: IPB004**
**Vial: 1:1,A**

CWW
02-09-10

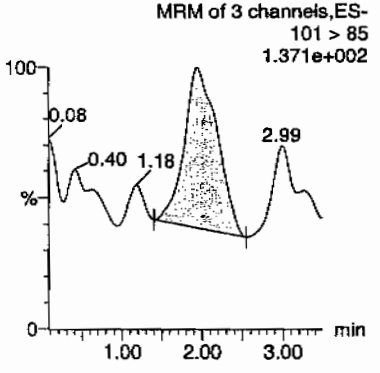
**Perchlorate**



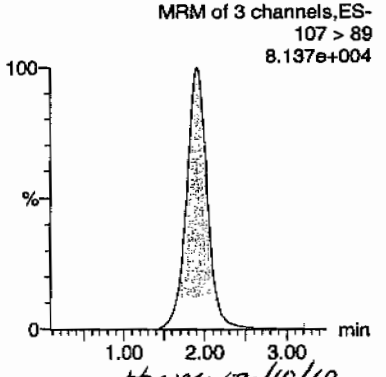

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hume 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB004 | Perchlorate | 99 > 83 | 1.94 | 78.709 | 78.709 | bb | | | 0.0013 | | | 20.514 | 1.95 |
| IPB004 | Perchlorate-101 | 101 > 85 | 1.94 | 40.303 | 40.303 | bb | | | 0.0021 | | | 13.319 | |
| IPB004 | Perchlorate-O(18) | 107 > 89 | 1.92 | 23985.541 | 23985.541 | bb | | | 0.4931 | 98.62 | -1.38 | 5434.3... | |

ok 94
<0.0000

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

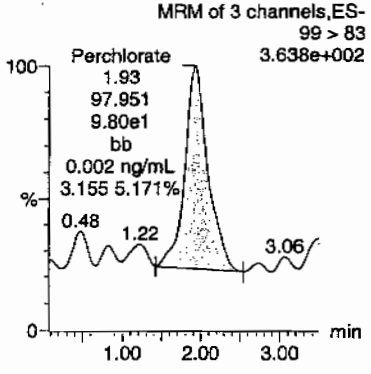
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

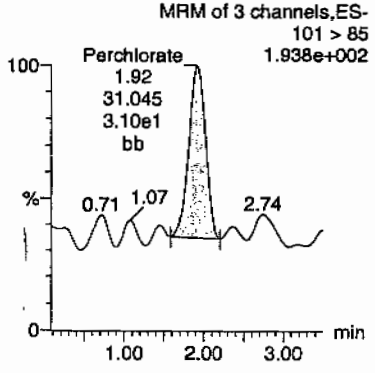
**Name: per0208026a**
**Date: 08-Feb-2010**
**Time: 16:37:55**
**ID: IPB005**
**Vial: 1:1,A**

CWW
02-09-10

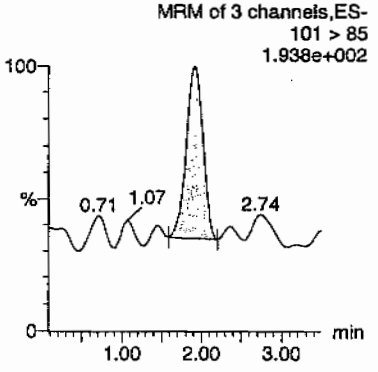
**Perchlorate**



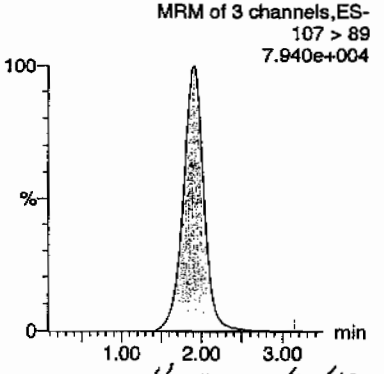

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/10/10

| D | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB005 | Perchlorate | 99 > 83 | 1.93 | 97.951 | 97.951 | bb | | | 0.0016 | | | 26.012 | 3.16 |
| PB005 | Perchlorate-101 | 101 > 85 | 1.92 | 31.045 | 31.045 | bb | | | 0.0017 | | | 24.338 | |
| PB005 | Perchlorate-O(18) | 107 > 89 | 1.91 | 23263.740 | 23263.740 | bb | | | 0.4783 | 95.66 | -4.34 | 17328.... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

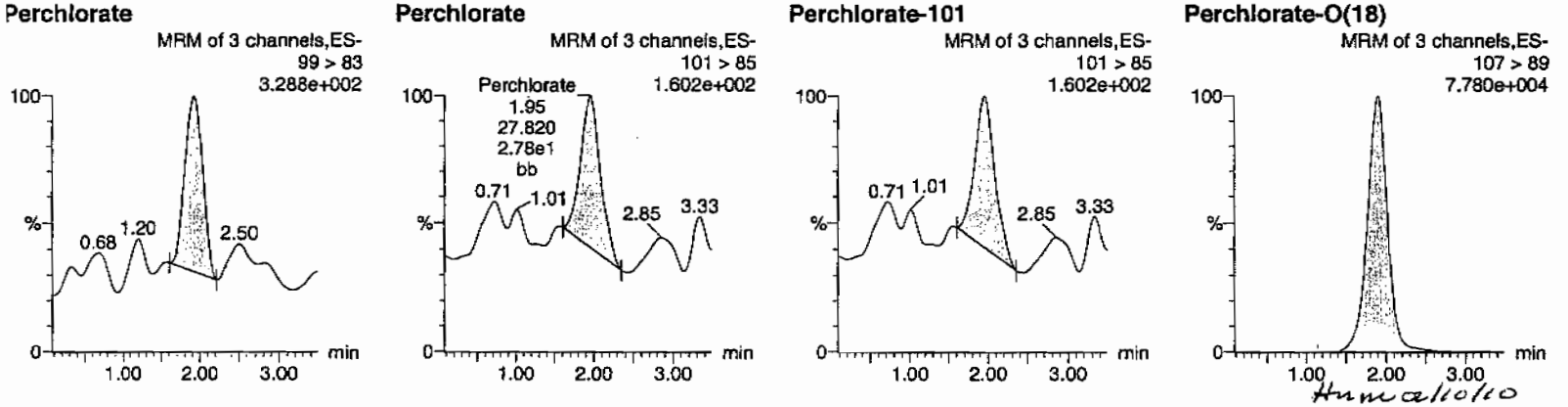


Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208035a**
**Date: 08-Feb-2010**
**Time: 17:36:50**
**ID: IPB006**
**Vial: 1:1,A**

CWW
02-09-10




Hmc 2/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPB006 | Perchlorate | 99 > 83 | 1.92 | 61.682 | 61.682 | bb | | | 0.0010 | | | 7.589 | 2.22 |
| IPB006 | Perchlorate-101 | 101 > 85 | 1.95 | 27.820 | 27.820 | bb | | | 0.0015 | | | 8.535 | |
| IPB006 | Perchlorate-O(18) | 107 > 89 | 1.89 | 22700.701 | 22700.701 | bb | | | 0.4667 | 93.34 | -6.66 | 9296.2... | |

Okay
2.0530

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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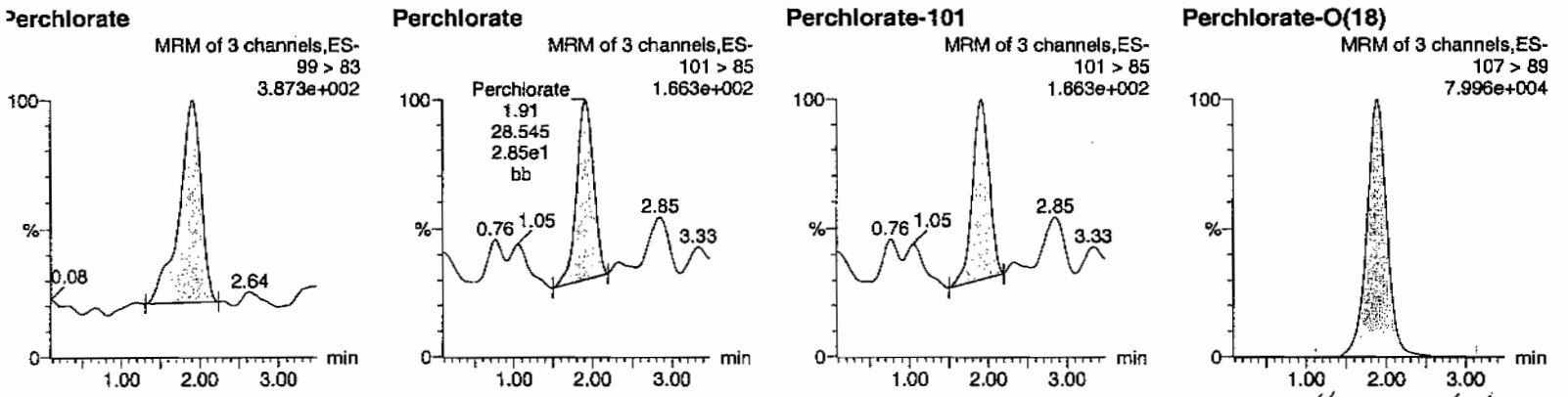
**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208048a**
**Date: 08-Feb-2010**
**Time: 19:01:59**
**ID: IPB007**
**Vial: 1:1,A**

OWJ
02-09-10




HM 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB007 | Perchlorate | 99 > 83 | 1.92 | 98.695 | 98.695 | bb | | | 0.0017 | | | 45.617 | 3.46 |
| PB007 | Perchlorate-101 | 101 > 85 | 1.91 | 28.545 | 28.545 | bb | | | 0.0015 | | | 16.585 | |
| PB007 | Perchlorate-O(18) | 107 > 89 | 1.88 | 23201.119 | 23201.119 | bb | | | 0.4770 | 95.40 | -4.60 | 2781.0... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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The GEL Group, LLC Analyst: Charlers W. Wilson

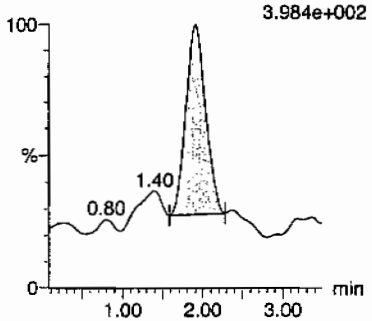
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

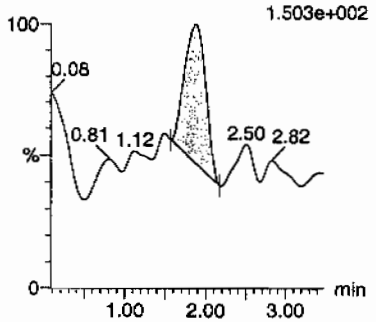
**Name: per0208061a**
**Date: 08-Feb-2010**
**Time: 20:27:18**
**ID: IPB008**
**Vial: 1:1,A**

CWW 02-09-10

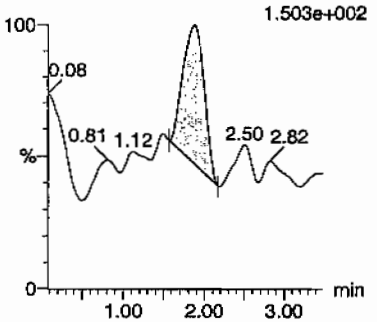
**Perchlorate**



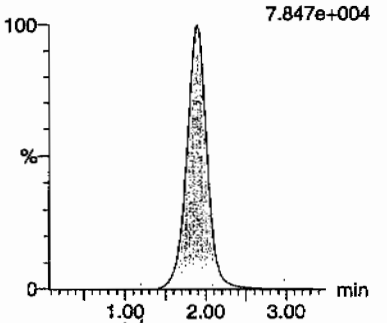

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB008 | Perchlorate | 99 > 83 | 1.91 | 82.327 | 82.327 | bb | | | 0.0014 | | | 25.247 | 3.44 |
| PB008 | Perchlorate-101 | 101 > 85 | 1.88 | 23.921 | 23.921 | bb | | | 0.0013 | | | 7.965 | |
| PB008 | Perchlorate-O(18) | 107 > 89 | 1.89 | 22850.625 | 22850.625 | bb | | | 0.4698 | 93.96 | -6.04 | 9586.1... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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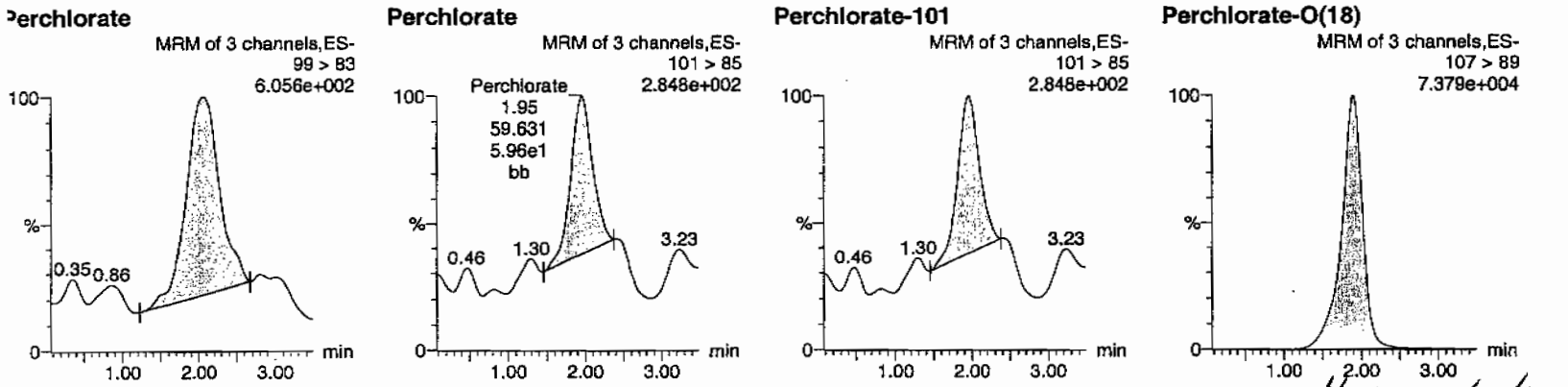
**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208074a**
**Date: 08-Feb-2010**
**Time: 21:52:41**
**ID: IPB009**
**Vial: 1:1,A**

CWW 02-09-10




HWW 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PB009 | Perchlorate | 99 > 83 | 2.05 | 246.817 | 246.817 | bb | | | 0.0041 | | | 12.504 | 4.14 |
| PB009 | Perchlorate-101 | 101 > 85 | 1.95 | 59.631 | 59.631 | bb | | | 0.0032 | | | 10.438 | |
| PB009 | Perchlorate-O(18) | 107 > 89 | 1.89 | 23201.656 | 23201.656 | bb | | | 0.4770 | 95.40 | -4.60 | 2554.5... | |

OK 24 LOQ 0.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;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 |

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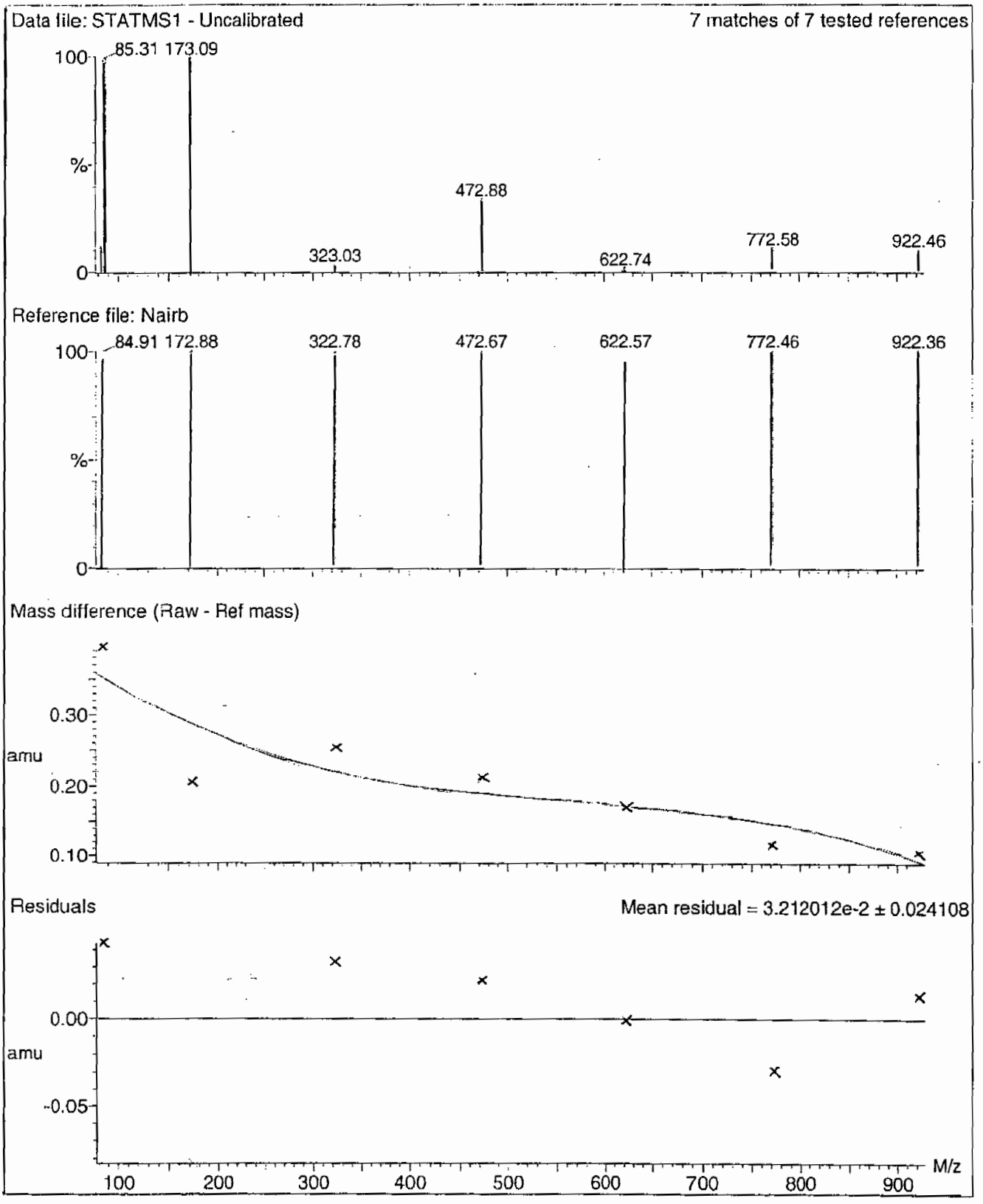
QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static



Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

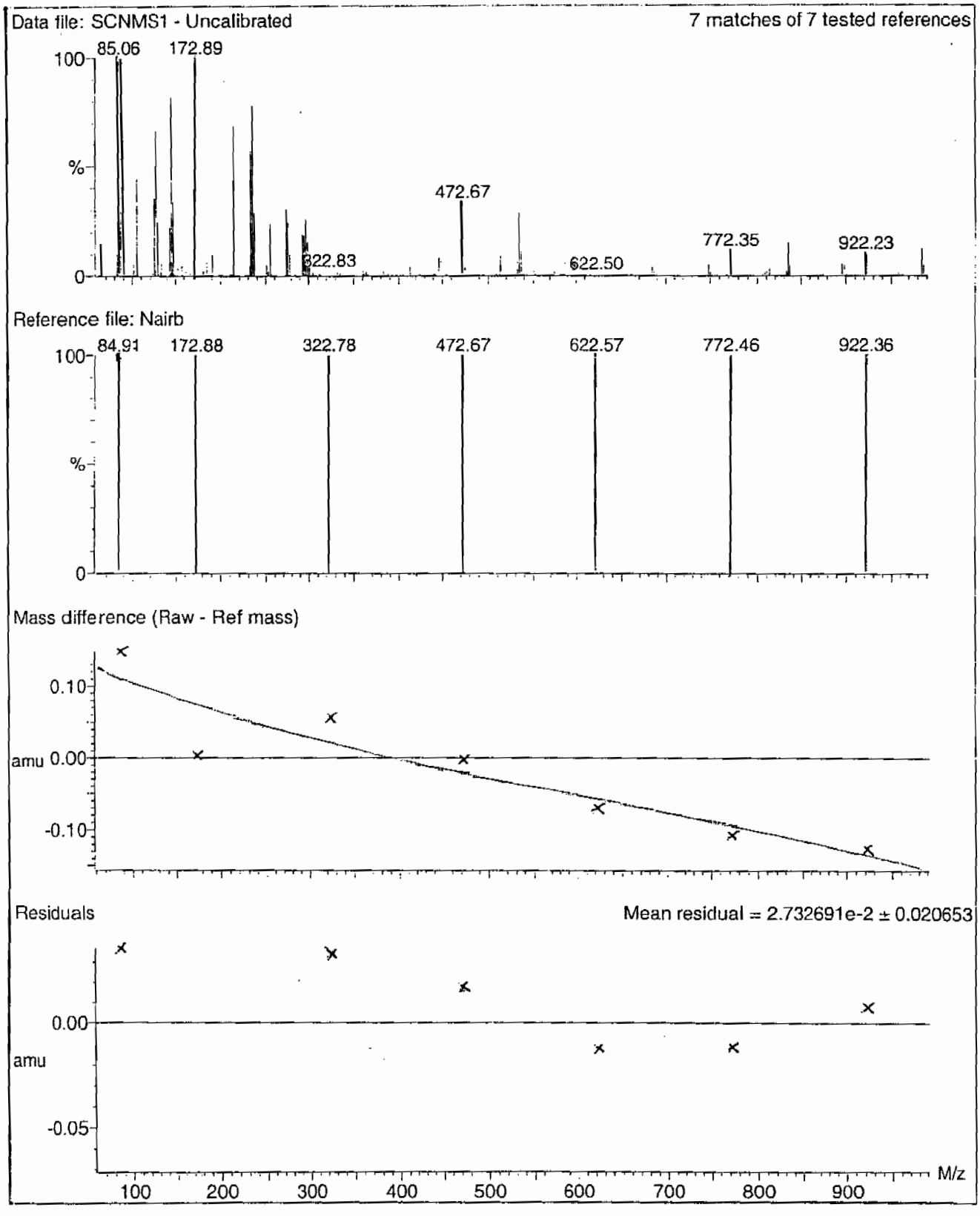


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning



Printed: Tue Jan 08 12:20:09 2008

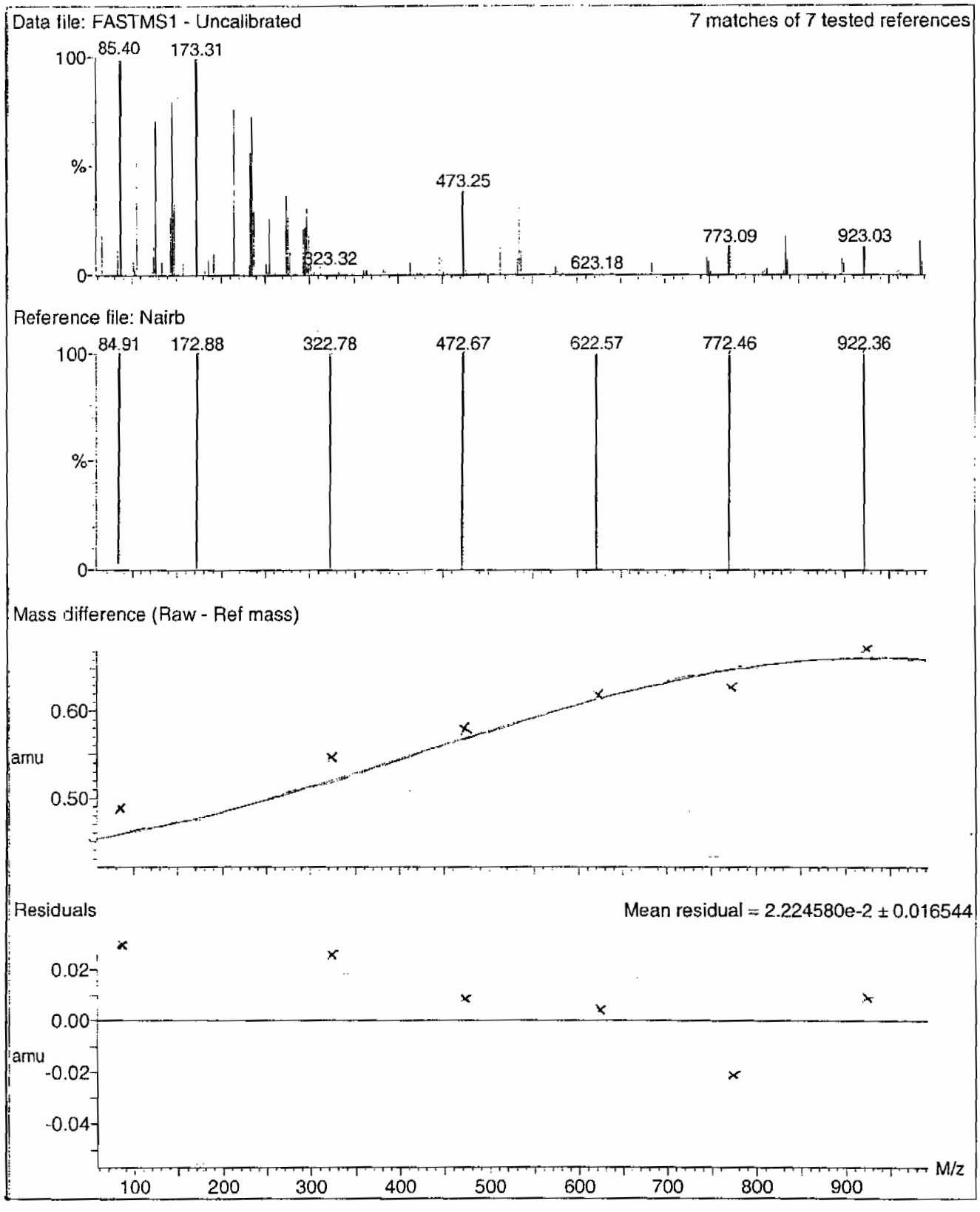


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation



Printed: Tue Jan 08 12:21:04 2008

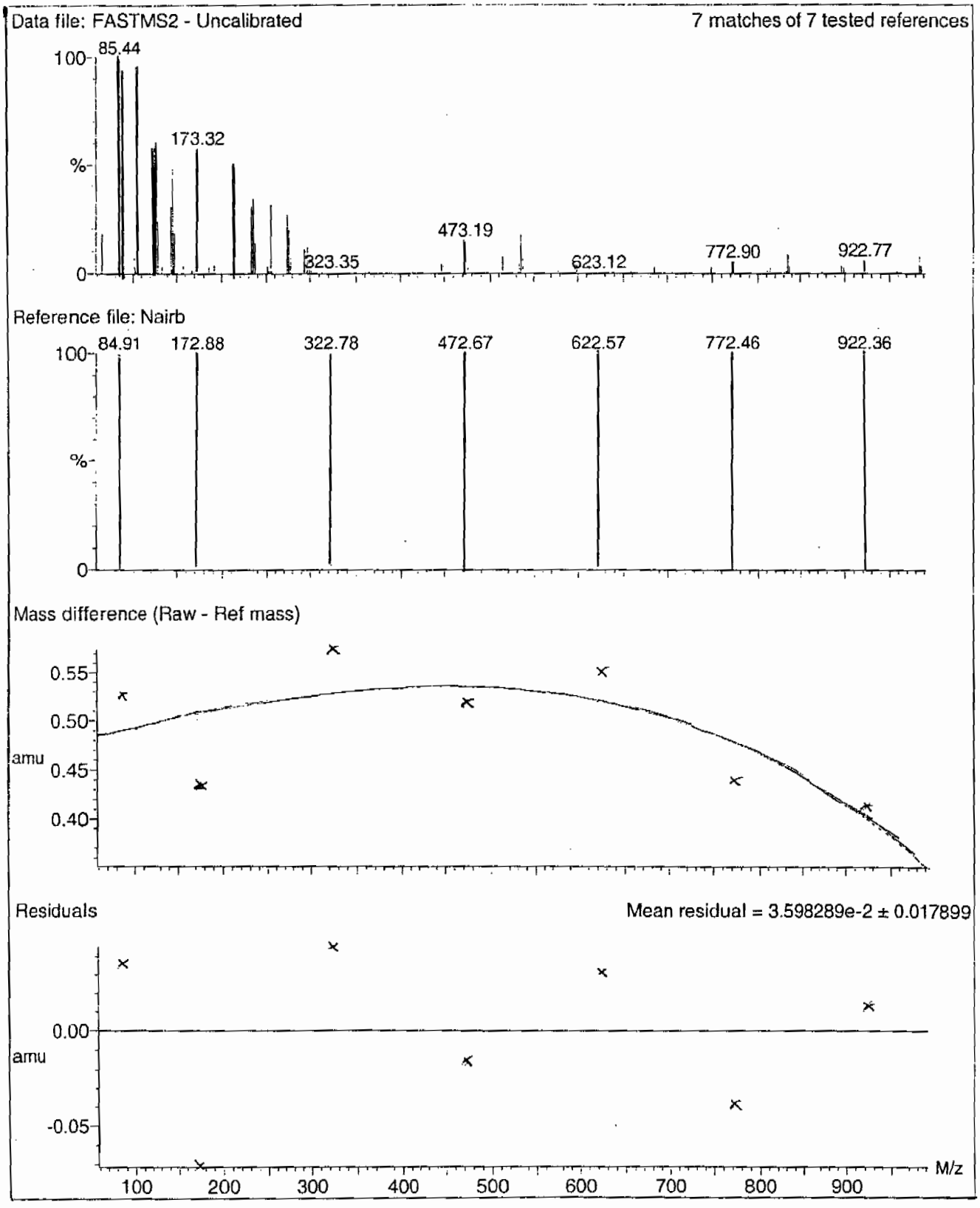


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation



Printed: Tue Jan 08 12:23:51 2008

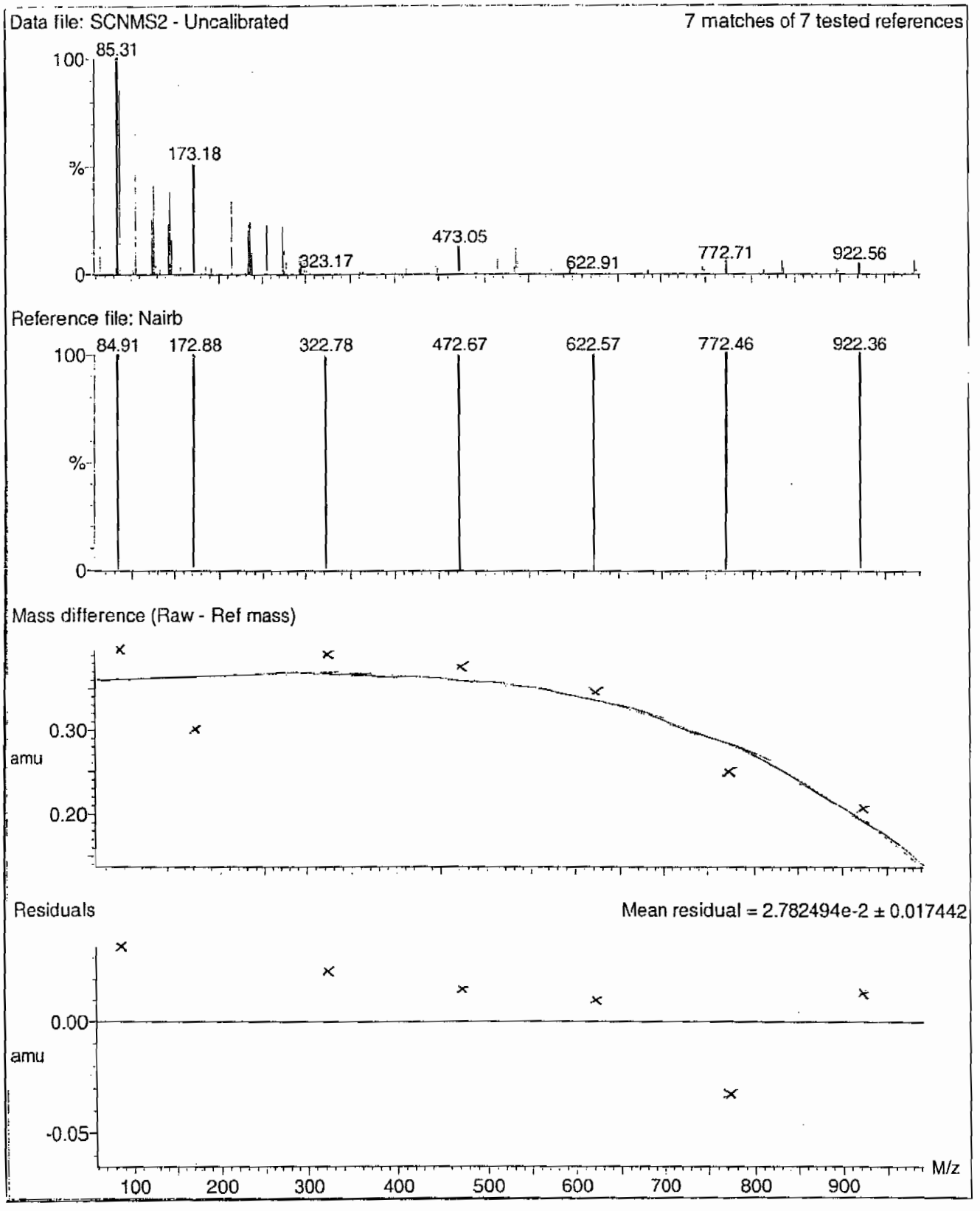


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning



Printed: Tue Jan 08 12:22:56 2008

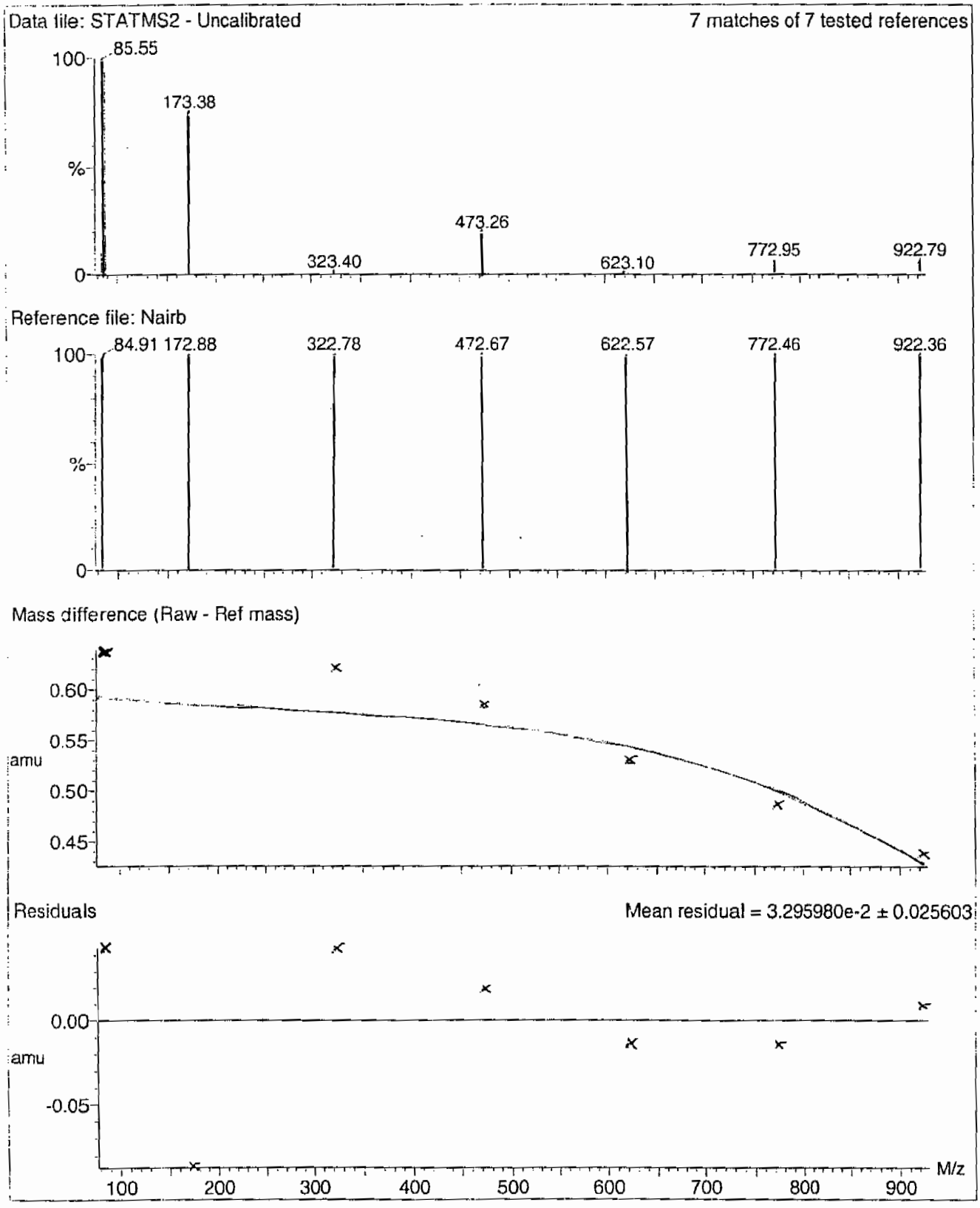


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static



Printed: Tue Jan 08 12:21:59 2008

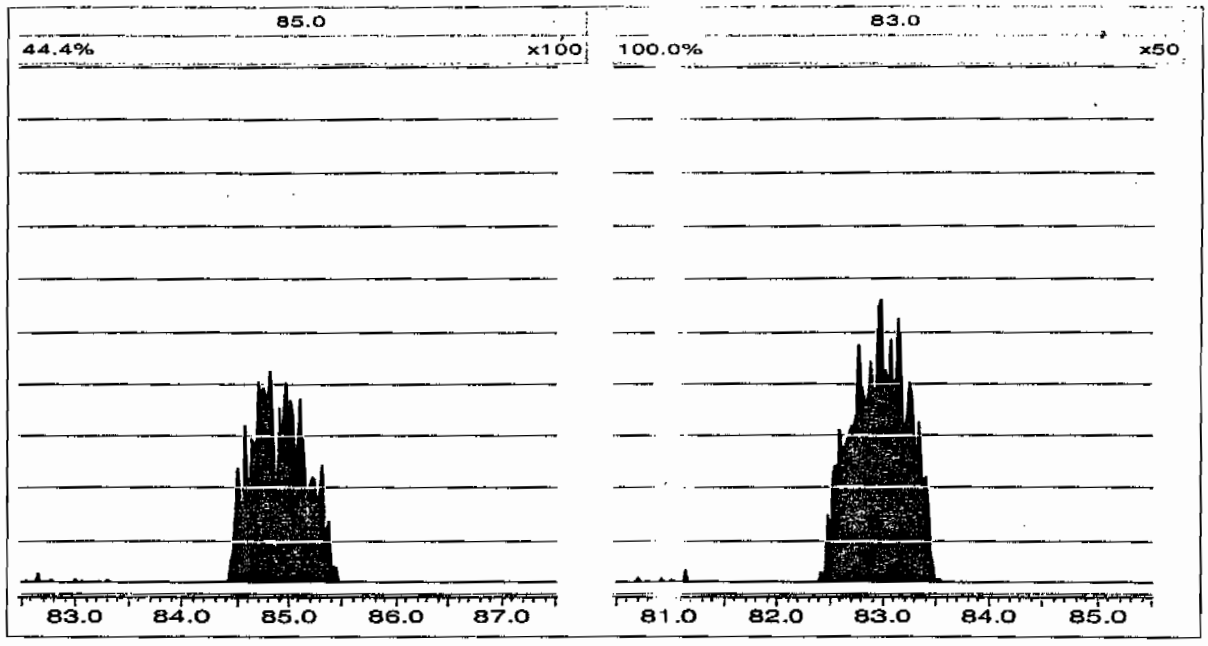


PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.



File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, February 08, 2010 12:29:43 Eastern Standard Time



Form 8

## Perchlorate RT And Area Summary

**Lab Name:** General Engineering Laboratories **GEL Job No.(SDG):** 10-1512-1

**Lab Code:** GEL

**Instrument ID:** LCMSMS

**HPLC Column:** Phenomenex Ion Pac AG-16 2 X 50 mm

| Sample ID | Datafile | Run Date | Area | RT | RT CLO4 | RRT | Q 0.98-1.02 |
|---|---|---|---|---|---|---|---|
| **MidLevel Standard Area** | **per0208006a** | **08-FEB-10** | **24441.6** | | | | |
| **Lower Area Limit** | | | **12220.8** | | | | |
| **Upper Area Limit** | | | **48883.2** | | | | |
| 1202035565 | per0208050a | 08-FEB-10 19:15 | 22209.3 | 1.88 | 1.89273 | 1.007 | |
| 1202035566 | per0208051a | 08-FEB-10 19:21 | 23514.8 | 1.88 | 1.89277 | 1.007 | |
| 1202035573 | per0208052a | 08-FEB-10 19:28 | 23733.6 | 1.93 | 1.94248 | 1.006 | |
| 245975001 | per0208066a | 08-FEB-10 21:00 | 23335 | 1.88 | 1.89273 | 1.007 | |



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SAMPLE
DATA

Form 1

**Perchlorate Analysis Data Sheet**

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** SW846 6850 Modified

**Matrix:** WATER

**Extraction Batch ID:** 950027

**Extraction Type:** Filter/DAI

**Sample Volume/Weight:** 10.0 mL

**Concentrated Extract Volume:** 10.0

**Client Sample No.**
RE15-10-8084

**Date Received:** 02-FEB-10

**GEL Job No (SDG):** 10-1512-1

**GEL Sample ID:** 245975001

**Date Filtered:** 07-FEB-10

**Injection Volume (uL):** 20

**%Solids:**

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .05 | .2 | 0.050 | ug/L | U | 1 | 08-FEB-10 21:00 | per0208066a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 08-FEB-10 21:00 | per0208066a |
| 14797-73-0 | Perchlorate-101 | .05 | .2 | 0.050 | ug/L | U | 1 | 08-FEB-10 21:00 | per0208066a |
| | Perchlorate-O(18) | | | 0.480 | ug/L | | 1 | 08-FEB-10 21:00 | per0208066a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

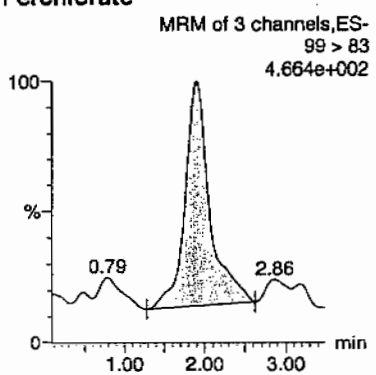
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208066a**
**Date: 08-Feb-2010**
**Time: 21:00:09**
**ID: 245975001**
**Vial: 2:3,B**

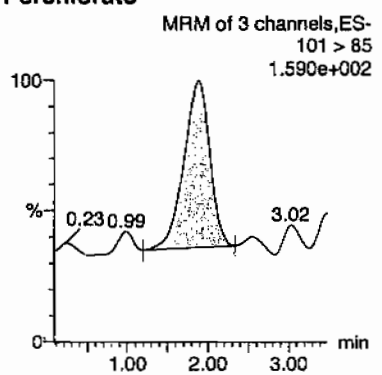
|LANL|950028|LZQ|1|

02-09-10

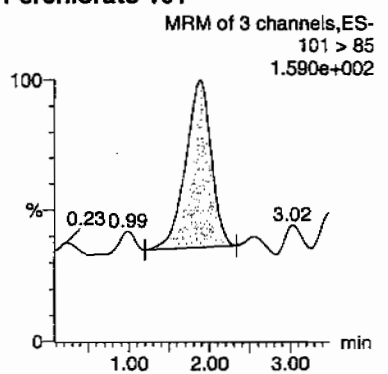
**Perchlorate**



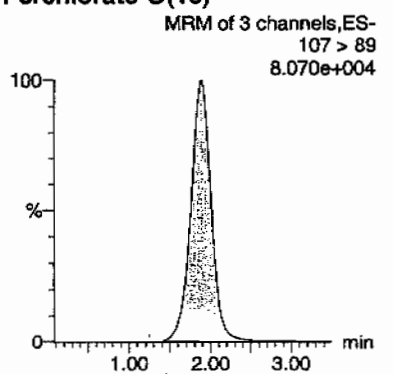

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hnm 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245975001 | Perchlorate | 99 > 83 | 1.89 | 142.781 | 142.781 | bb | | | 0.0024 | | | 15.546 | 3.81 |
| 245975001 | Perchlorate-101 | 101 > 85 | 1.88 | 37.453 | 37.453 | bb | | | 0.0020 | | | 15.831 | |
| 245975001 | Perchlorate-O(18) | 107 > 89 | 1.88 | 23335.006 | 23335.006 | bb | | | 0.4797 | 95.95 | -4.05 | 1296.9... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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# STANDARDS DATA

Form 2

## Perchlorate Initial Calibration

**Lab Name:** General Engineering Laboratories **GEL Job No.(SDG):** 10-1512-1

**Lab Code:** GEL

**Instrument ID:** LCMSMS **Date Analyzed:** 08-FEB-10

**HPLC Column:** Phenomenex Ion Pac AG-16 2 X 50 mm

| Calibration Level | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Cal Concentration (ug/L) | 0.05 | 0.1 | 0.25 | 0.50 | 1.0 |

**Parmname** Perchlorate

**Coefficient of Determination:**

**Calibration Curve:** 59530.66

**Response Type:** External Standard

**Curve Type:** RF

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Form 2

**Perchlorate Initial Calibration**

**Lab Name:** General Engineering Laboratories **GEL Job No.(SDG):** 10-1512-1

**Lab Code:** GEL

**Instrument ID:** LCMSMS **Date Analyzed:** 08-FEB-10

**HPLC Column:** Phenomenex Ion Pac AG-16 2 X 50 mm

| Calibration Level | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Cal Concentration (ug/L) | 0.05 | 0.1 | 0.25 | 0.50 | 1.0 |

**Parmname** Perchlorate-101

**Coefficient of Determination:**

**Calibration Curve:** 18771.12

**Response Type:** External Standard

**Curve Type:** RF

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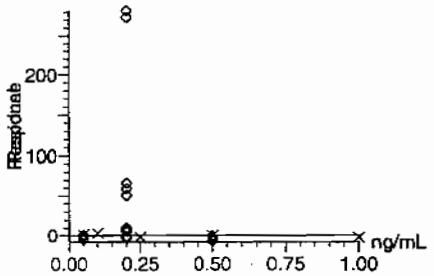
**Quantify Calibration Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

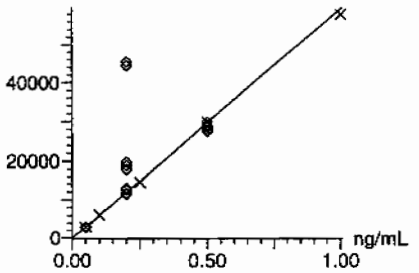
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59**
**Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17**

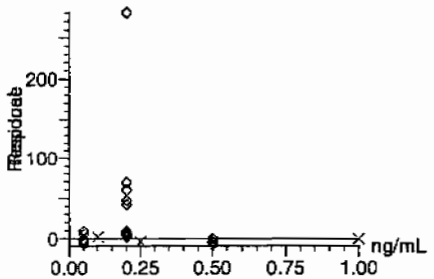
Compound name: Perchlorate
Response Factor: 59530.6
RRF SD: 1393.77, % Relative SD: 2.34126
Response type: External Std, Area
Curve type: RF

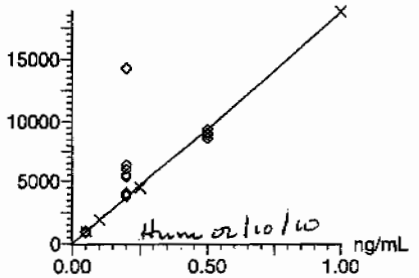



CWW
02-09-10

Compound name: Perchlorate-101
Response Factor: 18771.1
RRF SD: 687.466, % Relative SD: 3.66236
Response type: External Std, Area
Curve type: RF




Hum 02/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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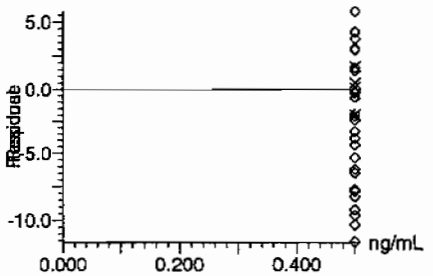
**Quantify Calibration Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

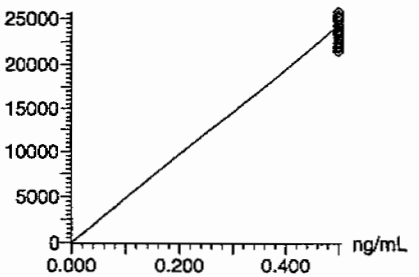


Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 48640
RRF SD: 647.782, % Relative SD: 1.33179
Response type: External Std, Area
Curve type: RF




GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

**Perchlorate Initial Calibration Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10-1512-1

**Lab Code:** GEL

**Reporting Units:** ug/L

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id |
|---|---|---|---|---|---|
| Perchlorate | .5 | .5 | 100.59 | 08-FEB-10 14:46 | per0208009a |
| Perchlorate Isotope Ratio | | 3.19 | | 08-FEB-10 14:46 | per0208009a |
| Perchlorate-101 | .5 | .5 | 99.88 | 08-FEB-10 14:46 | per0208009a |

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

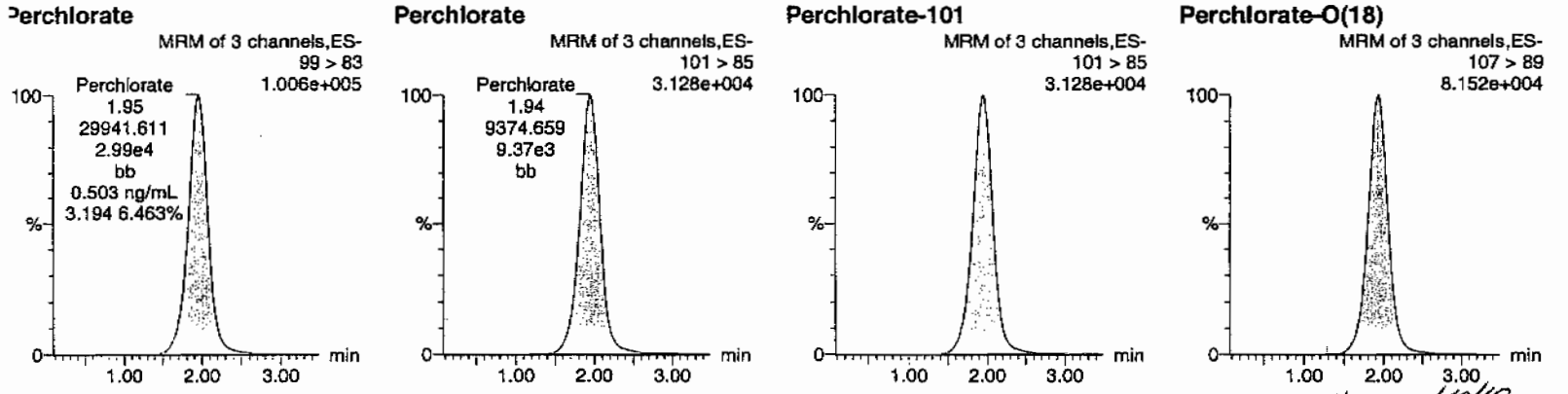


Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208009a**
**Date: 08-Feb-2010**
**Time: 14:46:32**
**ID: WCL100128-06ICV**
**Vial: 1:2,A**

Pwo
cwo
02-09-10




Hrw 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-06ICV | Perchlorate | 99 > 83 | 1.95 | 29941.611 | 29941.611 | bb | | | 0.5030 | 100.59 | 0.59 | 5446.9... | 3.19 |
| WCL100128-06ICV | Perchlorate-101 | 101 > 85 | 1.94 | 9374.659 | 9374.659 | bb | | | 0.4994 | 99.88 | -0.12 | 264.354 | |
| WCL100128-06ICV | Perchlorate-O(18) | 107 > 89 | 1.93 | 24277.504 | 24277.504 | bb | | | 0.4991 | 99.83 | -0.17 | 3258.6... | |



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Form 3

## Perchlorate Continuing Calibration Verification

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512–1

**Lab Code:** GEL

**Reporting Units:** ug/L

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id |
|---|---|---|---|---|---|
| Perchlorate | .5 | .49 | 98.49 | 08–FEB–10 16:05 | per0208021a |
| Perchlorate Isotope Ratio | | 3.13 | | 08–FEB–10 16:05 | per0208021a |
| Perchlorate–101 | .5 | .5 | 99.83 | 08–FEB–10 16:05 | per0208021a |
| Perchlorate | .5 | .49 | 97.32 | 08–FEB–10 17:30 | per0208034a |
| Perchlorate Isotope Ratio | | 3.24 | | 08–FEB–10 17:30 | per0208034a |
| Perchlorate–101 | .5 | .48 | 95.26 | 08–FEB–10 17:30 | per0208034a |
| Perchlorate | .5 | .48 | 95.6 | 08–FEB–10 18:55 | per0208047a |
| Perchlorate Isotope Ratio | | 3.13 | | 08–FEB–10 18:55 | per0208047a |
| Perchlorate–101 | .5 | .49 | 97 | 08–FEB–10 18:55 | per0208047a |
| Perchlorate | .5 | .47 | 93.45 | 08–FEB–10 20:20 | per0208060a |
| Perchlorate Isotope Ratio | | 3.05 | | 08–FEB–10 20:20 | per0208060a |
| Perchlorate–101 | .5 | .49 | 97.09 | 08–FEB–10 20:20 | per0208060a |
| Perchlorate | .5 | .48 | 96.67 | 08–FEB–10 21:45 | per0208073a |

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Form 3

**Perchlorate Continuing Calibration Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512–1

**Lab Code:** GEL

**Reporting Units:** ug/L

| | | | | | |
|---|---|---|---|---|---|
| Perchlorate Isotope Ratio | | 3.22 | | 08–FEB–10 21:45 | per0208073a |
| Perchlorate–101 | .5 | .48 | 95.12 | 08–FEB–10 21:45 | per0208073a |

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



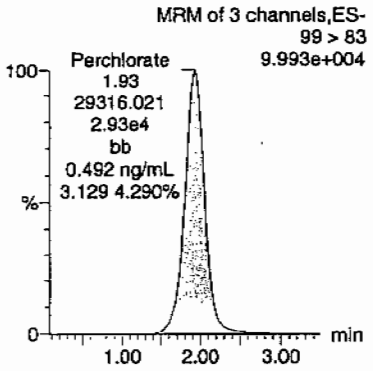
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

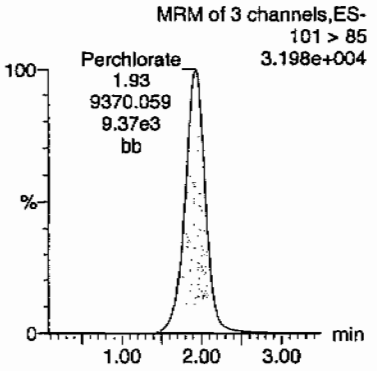
**Name: per0208021a**
**Date: 08-Feb-2010**
**Time: 16:05:12**
**ID: WCL100128-06CCV**
**Vial: 1:2,A**

Pass
CWW
02-09-10

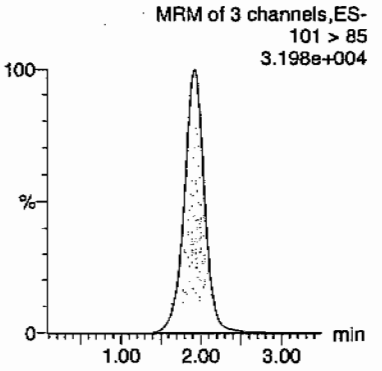
**Perchlorate**



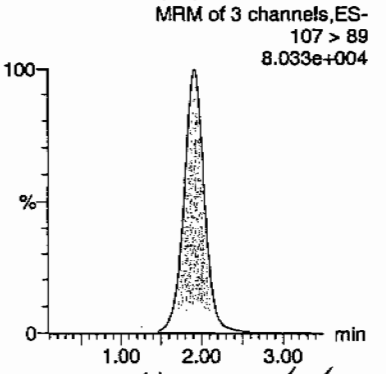

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hume 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-06CCV | Perchlorate | 99 > 83 | 1.93 | 29316.021 | 29316.021 | bb | | | 0.4925 | 98.49 | -1.51 | 1324.3... | 3.13 |
| WCL100128-06CCV | Perchlorate-101 | 101 > 85 | 1.93 | 9370.059 | 9370.059 | bb | | | 0.4992 | 99.83 | -0.17 | 4157.5... | |
| WCL100128-06CCV | Perchlorate-O(18) | 107 > 89 | 1.92 | 23385.551 | 23385.551 | bb | | | 0.4808 | 96.16 | -3.84 | 3253.6... | |

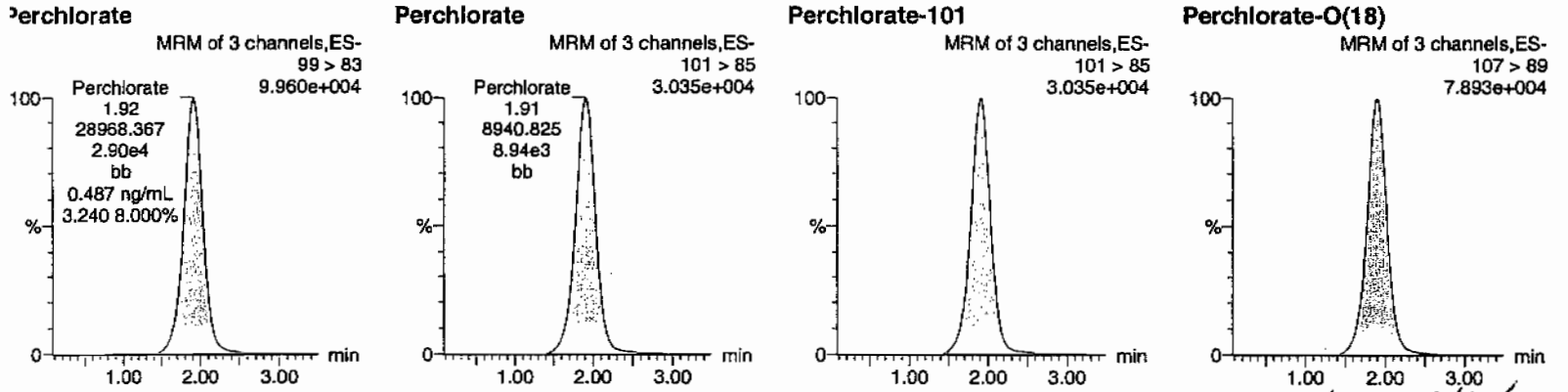
**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208034a**
**Date: 08-Feb-2010**
**Time: 17:30:17**
**ID: WCL100128-06CCV**
**Vial: 1:2,A**

PWD
AW
02-09-10




Hum 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-06CCV | Perchlorate | 99 > 83 | 1.92 | 28968.367 | 28968.367 | bb | | | 0.4866 | 97.32 | -2.68 | 7606.4... | 3.24 |
| WCL100128-06CCV | Perchlorate-101 | 101 > 85 | 1.91 | 8940.825 | 8940.825 | bb | | | 0.4763 | 95.26 | -4.74 | 3381.0... | |
| WCL100128-06CCV | Perchlorate-O(18) | 107 > 89 | 1.91 | 23019.350 | 23019.350 | bb | | | 0.4733 | 94.65 | -5.35 | 4411.7... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



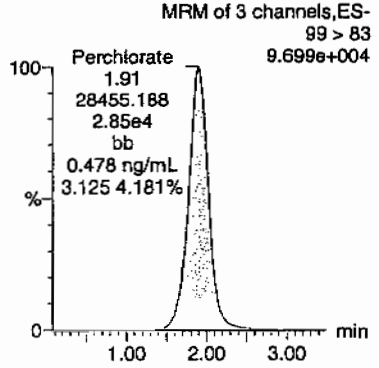
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

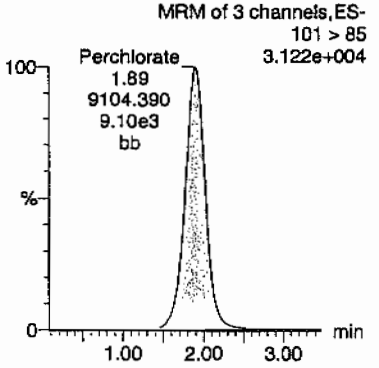
**Name: per0208047a**
**Date: 08-Feb-2010**
**Time: 18:55:25**
**ID: WCL100128-06CCV**
**Vial: 1:2,A**

Pass
aw
02-09-10

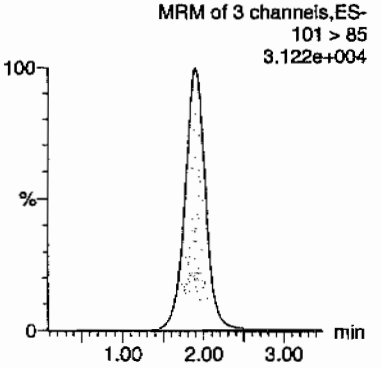
**Perchlorate**



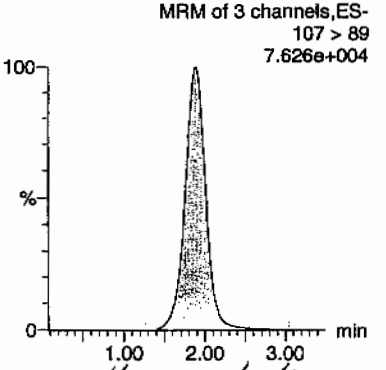

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmwallio

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-06CCV | Perchlorate | 99 > 83 | 1.91 | 28455.188 | 28455.188 | bb | | | 0.4780 | 95.60 | -4.40 | 6190.9... | 3.13 |
| WCL100128-06CCV | Perchlorate-101 | 101 > 85 | 1.89 | 9104.390 | 9104.390 | bb | | | 0.4850 | 97.00 | -3.00 | 681.071 | |
| WCL100128-06CCV | Perchlorate-O(18) | 107 > 89 | 1.89 | 22404.150 | 22404.150 | bb | | | 0.4606 | 92.12 | -7.88 | 2959.4... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



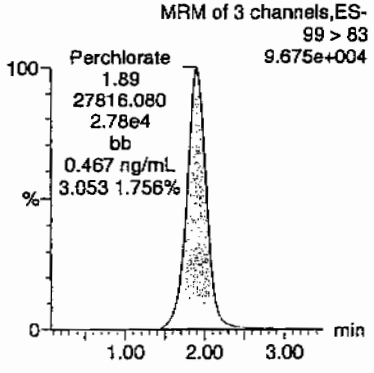
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

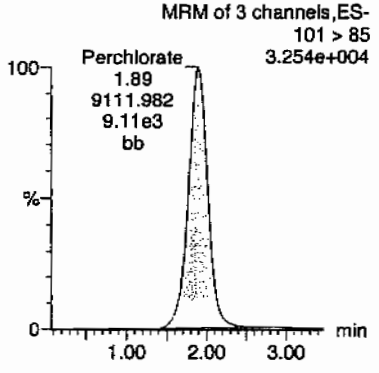
**Name: per0208060a**
**Date: 08-Feb-2010**
**Time: 20:20:32**
**ID: WCL100128-06CCV**
**Vial: 1:2,A**

Pass
and
02-09-10

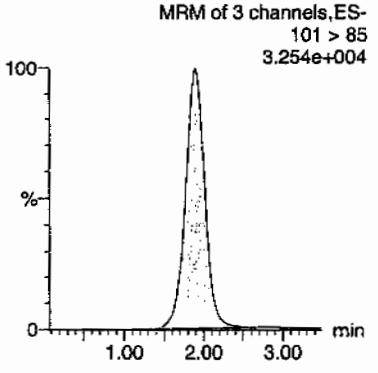
**Perchlorate**



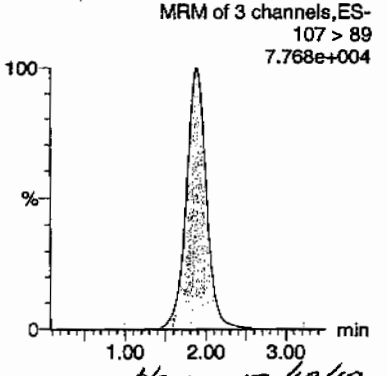

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-06CCV | Perchlorate | 99 > 83 | 1.89 | 27816.080 | 27816.080 | bb | | | 0.4673 | 93.45 | -6.55 | 1799.5... | 3.05 |
| WCL100128-06CCV | Perchlorate-101 | 101 > 85 | 1.89 | 9111.982 | 9111.982 | bb | | | 0.4854 | 97.09 | -2.91 | 1434.4... | |
| WCL100128-06CCV | Perchlorate-O(18) | 107 > 89 | 1.89 | 22435.383 | 22435.383 | bb | | | 0.4613 | 92.25 | -7.75 | 1805.8... | |



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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



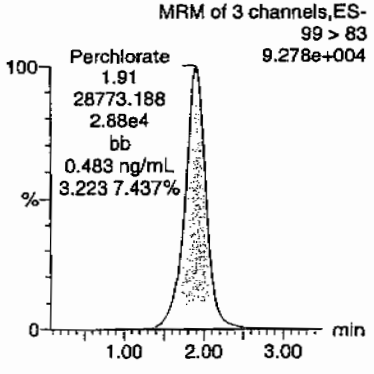
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

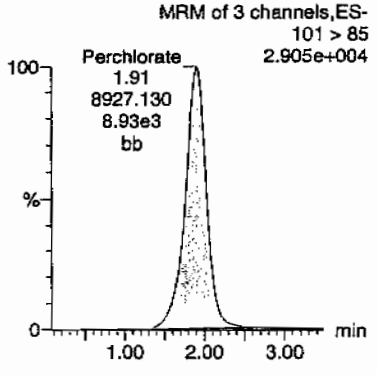
**Name: per0208073a**
**Date: 08-Feb-2010**
**Time: 21:45:55**
**ID: WCL100128-06CCV**
**Vial: 1:2,A**

Pass
02-09-10

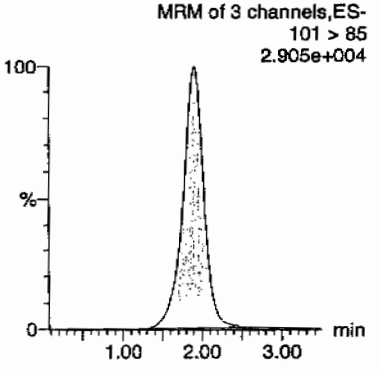
**Perchlorate**



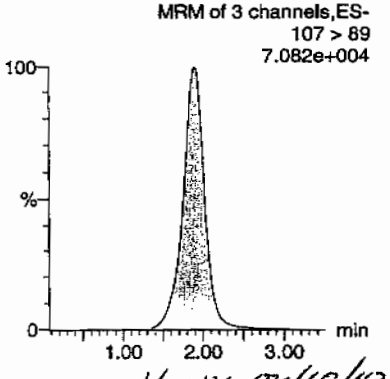

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmw 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-06CCV | Perchlorate | 99 > 83 | 1.91 | 28773.188 | 28773.188 | bb | | | 0.4833 | 96.67 | -3.33 | 3174.1... | 3.22 |
| WCL100128-06CCV | Perchlorate-101 | 101 > 85 | 1.91 | 8927.130 | 8927.130 | bb | | | 0.4756 | 95.12 | -4.88 | 5417.8... | |
| WCL100128-06CCV | Perchlorate-O(18) | 107 > 89 | 1.89 | 22077.664 | 22077.664 | bb | | | 0.4539 | 90.78 | -9.22 | 7805.6... | |



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Form 3

**Perchlorate MDL Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512–1

**Lab Code:** GEL

**Reporting Units:** ug/L

| Analyte | True | Found | %Rec | Date Analyzed | GEL File Id |
|---|---|---|---|---|---|
| Perchlorate | .05 | .05 | 101.73 | 08–FEB–10 14:59 | per0208011a |
| Perchlorate Isotope Ratio | | 2.96 | | 08–FEB–10 14:59 | per0208011a |
| Perchlorate–101 | .05 | .05 | 109.1 | 08–FEB–10 14:59 | per0208011a |
| Perchlorate | .05 | .05 | 100.29 | 08–FEB–10 16:18 | per0208023a |
| Perchlorate Isotope Ratio | | 3.21 | | 08–FEB–10 16:18 | per0208023a |
| Perchlorate–101 | .05 | .05 | 98.94 | 08–FEB–10 16:18 | per0208023a |
| Perchlorate | .05 | .05 | 101.53 | 08–FEB–10 17:43 | per0208036a |
| Perchlorate Isotope Ratio | | 3.05 | | 08–FEB–10 17:43 | per0208036a |
| Perchlorate–101 | .05 | .05 | 105.49 | 08–FEB–10 17:43 | per0208036a |
| Perchlorate | .05 | .05 | 101.45 | 08–FEB–10 19:08 | per0208049a |
| Perchlorate Isotope Ratio | | 3.36 | | 08–FEB–10 19:08 | per0208049a |

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Form 3

**Perchlorate MDL Verification**

**Lab Name:** General Engineering Laboratories

**GEL Job No.(SDG):** 10–1512–1

**Lab Code:** GEL

**Reporting Units:** ug/L

| | | | | | |
|---|---|---|---|---|---|
| Perchlorate–101 | .05 | .05 | 95.78 | 08–FEB–10 19:08 | per0208049a |
| Perchlorate | .05 | .05 | 97.2 | 08–FEB–10 20:33 | per0208062a |
| Perchlorate Isotope Ratio | | 3.14 | | 08–FEB–10 20:33 | per0208062a |
| Perchlorate–101 | .05 | .05 | 98.24 | 08–FEB–10 20:33 | per0208062a |
| Perchlorate | .05 | .05 | 99.1 | 08–FEB–10 21:59 | per0208075a |
| Perchlorate Isotope Ratio | | 3.16 | | 08–FEB–10 21:59 | per0208075a |
| Perchlorate–101 | .05 | .05 | 99.59 | 08–FEB–10 21:59 | per0208075a |

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



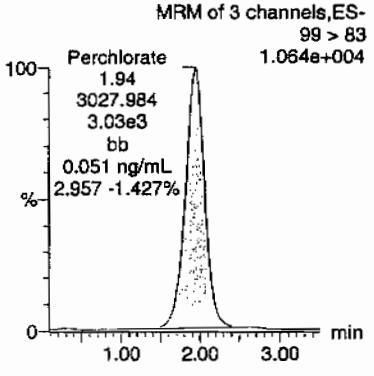
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

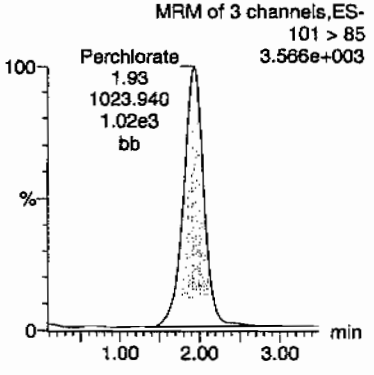
**Name: per0208011a**
**Date: 08-Feb-2010**
**Time: 14:59:36**
**ID: WCL100128-07CRI**
**Vial: 1:2,B**

Pass
CWW
02-09-10

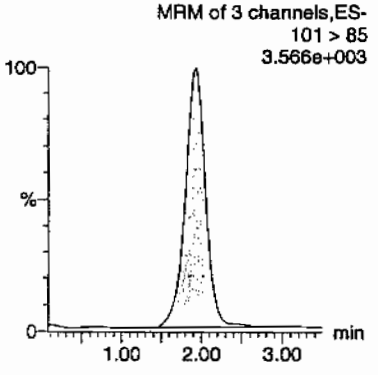
**Perchlorate**



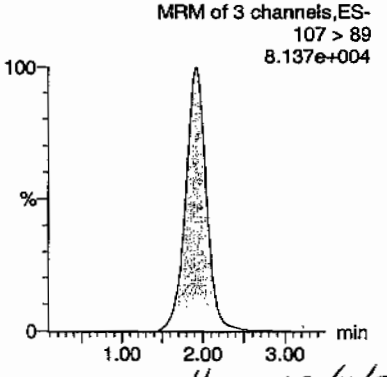

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-07CRI | Perchlorate | 99 > 83 | 1.94 | 3027.984 | 3027.984 | bb | | | 0.0509 | 101.73 | 1.73 | 849.198 | 2.96 |
| WCL100128-07CRI | Perchlorate-101 | 101 > 85 | 1.93 | 1023.940 | 1023.940 | bb | | | 0.0545 | 109.10 | 9.10 | 829.276 | |
| WCL100128-07CRI | Perchlorate-O(18) | 107 > 89 | 1.92 | 23852.451 | 23852.451 | bb | | | 0.4904 | 98.08 | -1.92 | 6658.6... | |



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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



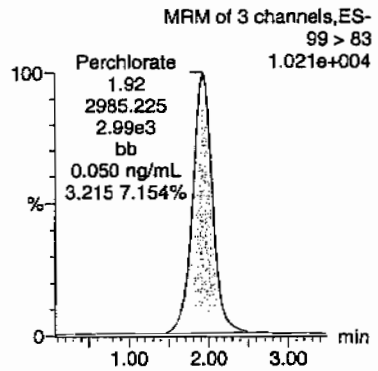
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

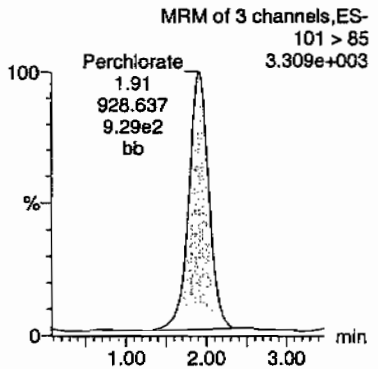
**Name: per0208023a**
**Date: 08-Feb-2010**
**Time: 16:18:17**
**ID: WCL100128-07CRI**
**Vial: 1:2,B**

Pass
02-09-10

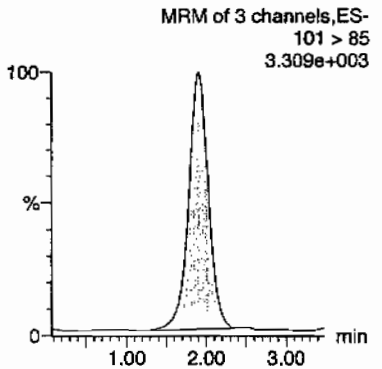
**Perchlorate**



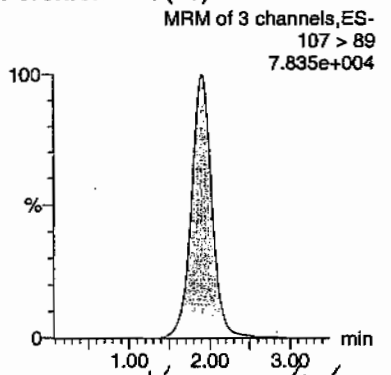

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hum 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-07CRI | Perchlorate | 99 > 83 | 1.92 | 2985.225 | 2985.225 | bb | | | 0.0501 | 100.29 | 0.29 | 2277.7... | 3.21 |
| WCL100128-07CRI | Perchlorate-101 | 101 > 85 | 1.91 | 928.637 | 928.637 | bb | | | 0.0495 | 98.94 | -1.06 | 1285.2... | |
| WCL100128-07CRI | Perchlorate-O(18) | 107 > 89 | 1.91 | 22805.957 | 22805.957 | bb | | | 0.4689 | 93.77 | -6.23 | 2391.8... | |

**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



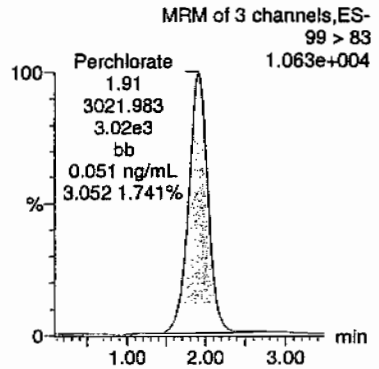
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

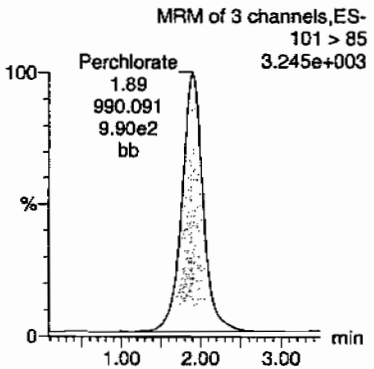
**Name: per0208036a**
**Date: 08-Feb-2010**
**Time: 17:43:22**
**ID: WCL100128-07CRI**
**Vial: 1:2,B**

Pass
ans
02-09-10

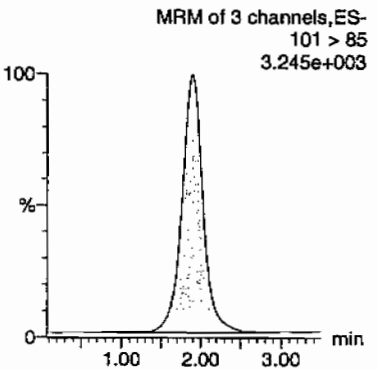
**Perchlorate**



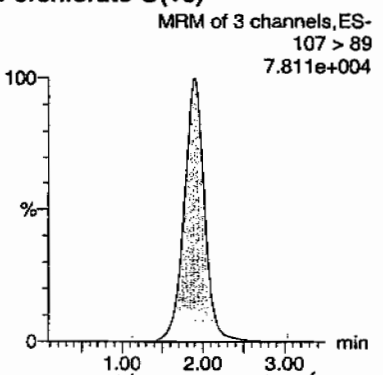

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-07CRI | Perchlorate | 99 > 83 | 1.91 | 3021.983 | 3021.983 | bb | | | 0.0508 | 101.53 | 1.53 | 1282.6... | 3.05 |
| WCL100128-07CRI | Perchlorate-101 | 101 > 85 | 1.89 | 990.091 | 990.091 | bb | | | 0.0527 | 105.49 | 5.49 | 30.390 | |
| WCL100128-07CRI | Perchlorate-O(18) | 107 > 89 | 1.89 | 22734.426 | 22734.426 | bb | | | 0.4674 | 93.48 | -6.52 | 4696.0... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



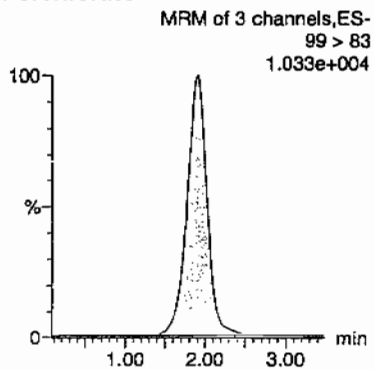
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

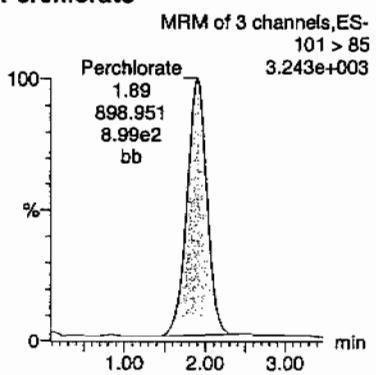
**Name: per0208049a**
**Date: 08-Feb-2010**
**Time: 19:08:31**
**ID: WCL100128-07CRI**
**Vial: 1:2,B**

Pass
aw
02-09-10

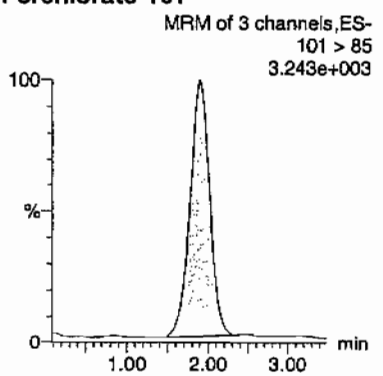
**Perchlorate**



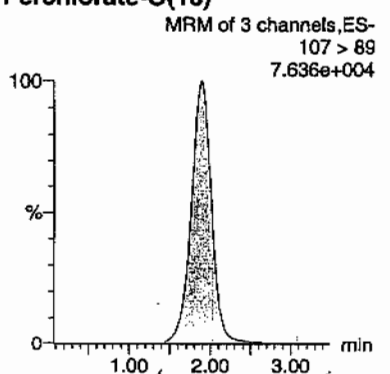

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-07CRI | Perchlorate | 99 > 83 | 1.91 | 3019.704 | 3019.704 | bb | | | 0.0507 | 101.45 | 1.45 | 1111.1... | 3.36 |
| WCL100128-07CRI | Perchlorate-101 | 101 > 85 | 1.89 | 898.951 | 898.951 | bb | | | 0.0479 | 95.78 | -4.22 | 607.346 | |
| WCL100128-07CRI | Perchlorate-O(18) | 107 > 89 | 1.89 | 22316.896 | 22316.896 | bb | | | 0.4588 | 91.76 | -8.24 | 6290.4... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



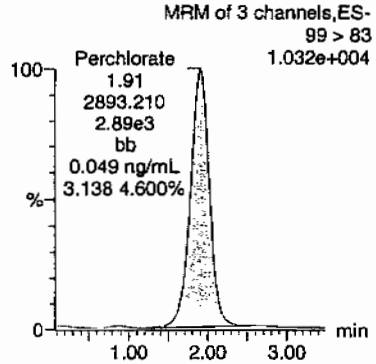
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

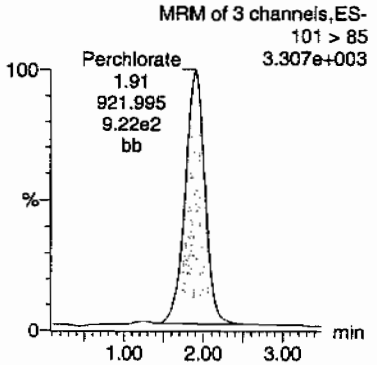
**Name: per0208062a**
**Date: 08-Feb-2010**
**Time: 20:33:51**
**ID: WCL100128-07CRI**
**Vial: 1:2,B**

Pers
aw
02-09-10

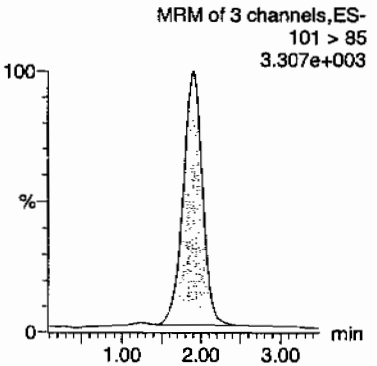
**Perchlorate**



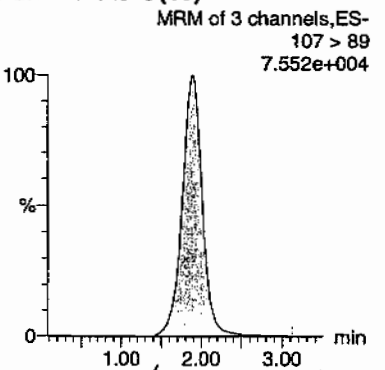

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-07CRI | Perchlorate | 99 > 83 | 1.91 | 2893.210 | 2893.210 | bb | | | 0.0486 | 97.20 | -2.80 | 767.866 | 3.14 |
| WCL100128-07CRI | Perchlorate-101 | 101 > 85 | 1.91 | 921.995 | 921.995 | bb | | | 0.0491 | 98.24 | -1.76 | 510.313 | |
| WCL100128-07CRI | Perchlorate-O(18) | 107 > 89 | 1.89 | 21979.691 | 21979.691 | bb | | | 0.4519 | 90.38 | -9.62 | 1938.1... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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The GEL Group, LLC Analyst: Charlers W. Wilson

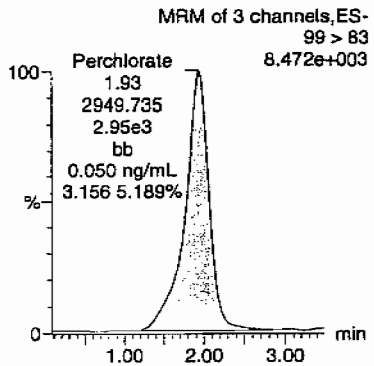
Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

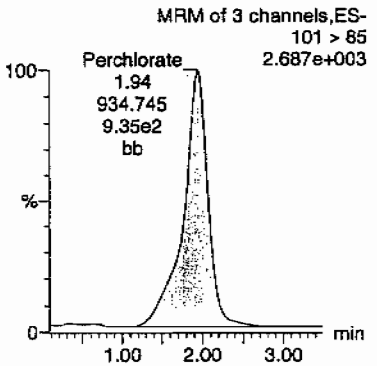
**Name: per0208075a**
**Date: 08-Feb-2010**
**Time: 21:59:15**
**ID: WCL100128-07CRI**
**Vial: 1:2,B**

Pass
and
02-24-10

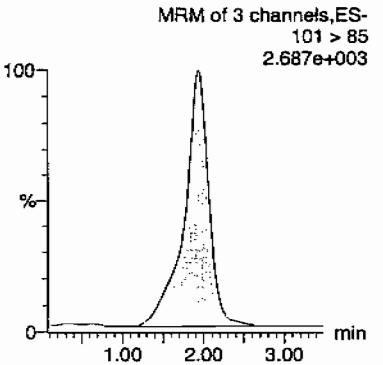
**Perchlorate**



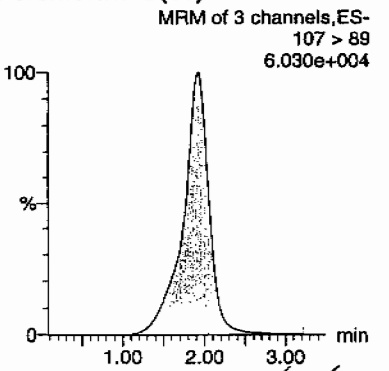

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hmm on 1/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCL100128-07CRI | Perchlorate | 99 > 83 | 1.93 | 2949.735 | 2949.735 | bb | | | 0.0495 | 99.10 | -0.90 | 555.102 | 3.16 |
| WCL100128-07CRI | Perchlorate-101 | 101 > 85 | 1.94 | 934.745 | 934.745 | bb | | | 0.0498 | 99.59 | -0.41 | 523.923 | |
| WCL100128-07CRI | Perchlorate-O(18) | 107 > 89 | 1.93 | 21809.545 | 21809.545 | bb | | | 0.4484 | 89.68 | -10.32 | 1949.9... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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# QUALITY CONTROL

Form 1

## Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** EPA 6850 Modified

**Matrix:** WASTE WATER

**Extraction Batch ID:** 950027

**Extraction Type:** Filter/DAI

**Sample Volume/Weight:** 10.0 mL

**Concentrated Extract Volume:** 10.0

**Client Sample No.**
MB

**Date Received:** 07-FEB-10

**GEL Job No (SDG):** 10-1512-1

**GEL Sample ID:** 1202035565

**Date Filtered:** 07-FEB-10

**Injection Volume (uL):** 20

**%Solids:**

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .05 | .2 | 0.050 | ug/L | U | 1 | 08-FEB-10 19:15 | per0208050a |
| | Perchlorate Isotope Ratio | | | | | | 1 | 08-FEB-10 19:15 | per0208050a |
| 14797-73-0 | Perchlorate-101 | .05 | .2 | 0.050 | ug/L | U | 1 | 08-FEB-10 19:15 | per0208050a |
| | Perchlorate-O(18) | | | 0.457 | ug/L | | 1 | 08-FEB-10 19:15 | per0208050a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

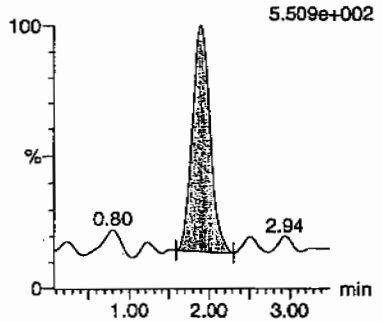
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208050a**
**Date: 08-Feb-2010**
**Time: 19:15:05**
**ID: 1202035565**
**Vial: 2:1,A**

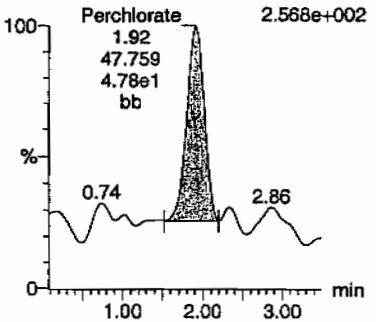
LANL | 950028 | LCQ | MB | 1 |

GWJ 02-09-10

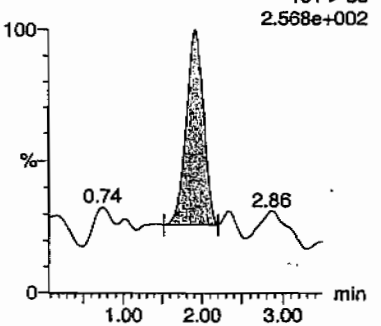
**Perchlorate**



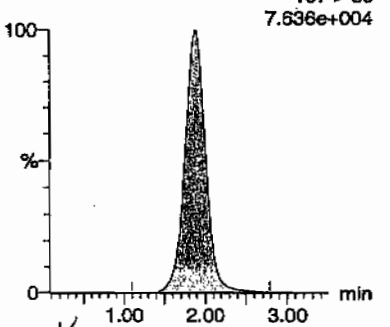

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




HMM 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202035565 | Perchlorate | 99 > 83 | 1.89 | 121.925 | 121.925 | bb | | | 0.0020 | | | 39.295 | 2.55 |
| 1202035565 | Perchlorate-101 | 101 > 85 | 1.92 | 47.759 | 47.759 | bb | | | 0.0025 | | | 14.790 | |
| 1202035565 | Perchlorate-O(18) | 107 > 89 | 1.88 | 22209.346 | 22209.346 | bb | | | 0.4566 | 91.32 | -8.68 | 5376.4... | |

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

# Perchlorate Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Lab Code:** GEL

**Instrument:** LCMSMS

**Method:** EPA 6850 Modified

**Matrix:** WASTE WATER

**Extraction Batch ID:** 950027

**Extraction Type:** Filter/DAI

**Sample Volume/Weight:** 10.0 mL

**Concentrated Extract Volume:** 10.0

**Client Sample No.**
LCS

**Date Received:** 07-FEB-10

**GEL Job No (SDG):** 10-1512-1

**GEL Sample ID:** 1202035566

**Date Filtered:** 07-FEB-10

**Injection Volume (uL):** 20

**%Solids:**

| CAS No. | Analyte^ | MDL | RL | Conc* | Units | Q | Dilution Factor | Date Analyzed | GEL File ID |
|---|---|---|---|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | .05 | .2 | 0.196 | ug/L | J | 1 | 08-FEB-10 19:21 | per0208051a |
| | Perchlorate Isotope Ratio | | | 3.01 | | | 1 | 08-FEB-10 19:21 | per0208051a |
| 14797-73-0 | Perchlorate-101 | .05 | .2 | 0.207 | ug/L | | 1 | 08-FEB-10 19:21 | per0208051a |
| | Perchlorate-O(18) | | | 0.483 | ug/L | | 1 | 08-FEB-10 19:21 | per0208051a |

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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**Quantify Sample Report** **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson



Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

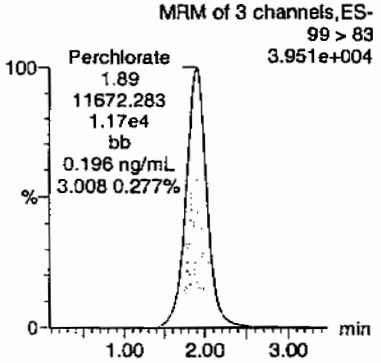
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208051a**
**Date: 08-Feb-2010**
**Time: 19:21:48**
**ID: 1202035566**
**Vial: 2:1,B**

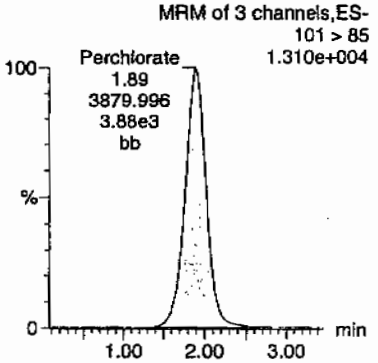
|LANL|950028|LCQ|LCS|11

CW 02-09-10

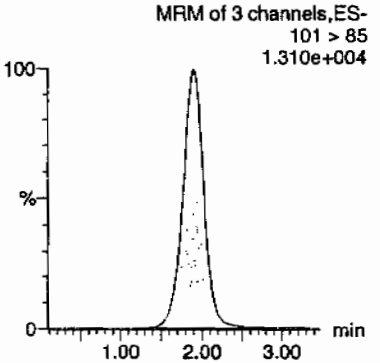
**Perchlorate**



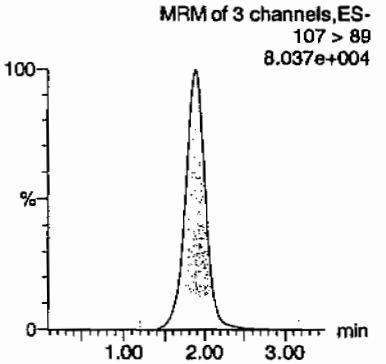

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202035566 | Perchlorate | 99 > 83 | 1.89 | 11672.283 | 11672.283 | bb | | | 0.1961 | 98.04 | -1.96 | 1706.5... | 3.01 |
| 1202035566 | Perchlorate-101 | 101 > 85 | 1.89 | 3879.996 | 3879.996 | bb | | | 0.2067 | 103.35 | 3.35 | 835.288 | |
| 1202035566 | Perchlorate-O(18) | 107 > 89 | 1.88 | 23514.770 | 23514.770 | bb | | | 0.4834 | 96.69 | -3.31 | 6317.6... | |

$$\frac{11672.283}{59530.6} = 0.1961$$

HMM 02/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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# MISCELLANEOUS DATA

# Prep Logbook

## Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

**Batch ID:** 950027 **Verified by:** _____

**Analyst:** Charles Wilson

**Method:** SW846 6850 Modified

**Lab SOP:** GL-OA-E-067 REV# 6

**Instrument:** MicroMass Quatro Ultima

| Sample ID | Run Date | Initial Volume (mL) | Final Volume (mL) | Prepped Factor (mL/mL) |
|---|---|---|---|---|
| 1202035565 MB | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 1202035566 LCS | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245911001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 1202035571 MS (245911001) | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 1202035572 MSD (245911001) | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245922001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245934001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245934004 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245939001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245939002 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245953001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245965001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245975001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 245981001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 246000001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 246007001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 246056001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 246056002 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 246056003 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 246056004 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 246375001 | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 1202035567 MS (246375001) | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 1202035568 MSD (246375001) | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |
| 1202035573 ICS | 07-FEB-2010 14:31:00 | 10 | 10 | 1 |

| Type | Sample Id | Description | Serial Number | Spike Amt | Units |
|---|---|---|---|---|---|
| ICS | 1202035573 | 10 ug/L ICV/CCV Second Source | UCL100126-02.1 | .2 | mL |
| LCS | 1202035566 | 10 ug/L ICV/CCV Second Source | UCL100126-02.1 | .2 | mL |
| MS | 1202035567 | 10 ug/L ICV/CCV Second Source | UCL100126-02.1 | .2 | mL |
| MS | 1202035571 | 10 ug/L ICV/CCV Second Source | UCL100126-02.1 | .2 | mL |
| MSD | 1202035568 | 10 ug/L ICV/CCV Second Source | UCL100126-02.1 | .2 | mL |
| MSD | 1202035572 | 10 ug/L ICV/CCV Second Source | UCL100126-02.1 | .2 | mL |
| RGNT | All | O2SI HPLC Grade Water | 1246195 | 10 | mL |
| RGNT | All | 500 ppm Carbonate, Bicarbonate, Chloride, Sulfate | 1262643 | 10 | mL |

**Comments:**

Desalting cartridges used: 100105-1-H & 091118-1-Ba



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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/08/10
Extr. Injection Volume: 20uL
Sequence Number: per020810a
Initial Calibration Date: 02/08/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 02/10/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

| DataFile | Sample | Analyst | Injection Date | Batch | SDG | Dilution | Client | Comments | QC_Flag |
|---|---|---|---|---|---|---|---|---|---|
| per0208001a | IPB001 | CWW | 2/8/2010 13:54 | | | 1 | | USE | B |
| per0208002a | IPB001 | CWW | 2/8/2010 14:00 | | | 1 | | USE | B |
| per0208003a | WCLICAL-01 | CWW | 2/8/2010 14:07 | | | 1 | | USE | I |
| per0208004a | WCLICAL-02 | CWW | 2/8/2010 14:13 | | | 1 | | USE | I |
| per0208005a | WCLICAL-03 | CWW | 2/8/2010 14:20 | | | 1 | | USE | I |
| per0208006a | WCLICAL-04 | CWW | 2/8/2010 14:26 | | | 1 | | USE | I |
| per0208007a | WCLICAL-05 | CWW | 2/8/2010 14:33 | | | 1 | | USE | I |
| per0208008a | IPB002 | CWW | 2/8/2010 14:40 | | | 1 | | USE | B |
| per0208009a | WCLICV | CWW | 2/8/2010 14:46 | | | 1 | | USE | C |
| per0208010a | IPB003 | CWW | 2/8/2010 14:53 | | | 1 | | USE | B |
| per0208011a | WCLCRI | CWW | 2/8/2010 14:59 | | | 1 | | USE | C |
| per0208012a | 1202035621 | CWW | 2/8/2010 15:06 | 950048 | VARIOUS | 1 | LANL | DUSE-RE | S |
| per0208013a | 1202035622 | CWW | 2/8/2010 15:12 | 950048 | VARIOUS | 1 | LANL | DUSE-RE | S |
| per0208014a | 1202035625 | CWW | 2/8/2010 15:19 | 950048 | VARIOUS | 1 | LANL | DUSE-RE | S |
| per0208015a | 246431001 | CWW | 2/8/2010 15:25 | 950048 | 10-1650 | 1 | LANL | DUSE-RE | S |
| per0208016a | 1202035623 | CWW | 2/8/2010 15:32 | 950048 | 10-1650 | 1 | LANL | DUSE-RE | S |
| per0208017a | 1202035624 | CWW | 2/8/2010 15:39 | 950048 | 10-1650 | 1 | LANL | DUSE-RE | S |
| per0208018a | 246431002 | CWW | 2/8/2010 15:45 | 950048 | 10-1650 | 1 | LANL | DUSE-RE | S |
| per0208019a | 246431003 | CWW | 2/8/2010 15:52 | 950048 | 10-1650 | 1 | LANL | DUSE-RE | S |
| per0208020a | 246431004 | CWW | 2/8/2010 15:58 | 950048 | 10-1650 | 1 | LANL | DUSE-RE | S |
| per0208021a | WCLCCV | CWW | 2/8/2010 16:05 | | | 1 | | USE | C |
| per0208022a | IPB004 | CWW | 2/8/2010 16:11 | | | 1 | | USE | B |
| per0208023a | WCLCRI | CWW | 2/8/2010 16:18 | | | 1 | | USE | C |
| per0208024a | 246472001 | CWW | 2/8/2010 16:24 | 950048 | 10-1640 | 1 | LANL | DUSE-RE | S |
| per0208025a | 246472002 | CWW | 2/8/2010 16:31 | 950048 | 10-1640 | 1 | LANL | DUSE-RE | S |
| per0208026a | IPB005 | CWW | 2/8/2010 16:37 | | | 1 | | USE | B |
| per0208027a | 1202029082 | CWW | 2/8/2010 16:44 | 947249 | VARIOUS | 1 | LANL | USE | S |
| per0208028a | 1202029083 | CWW | 2/8/2010 16:51 | 947249 | VARIOUS | 1 | LANL | USE | S |
| per0208029a | 1202029088 | CWW | 2/8/2010 16:57 | 947249 | VARIOUS | 1 | LANL | USE | S |

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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| per0208030a | 245605003 | CWW | 2/8/2010 17:04 | 947249 | 10-1413 | 200 | LANL | USE | S |
| per0208031a | 245608002 | CWW | 2/8/2010 17:10 | 947249 | 10-1415 | 1 | LANL | USE | S |
| per0208032a | 245673001 | CWW | 2/8/2010 17:17 | 947249 | 10-1442 | 100 | LANL | USE | S |
| per0208033a | 245673003 | CWW | 2/8/2010 17:23 | 947249 | 10-1442 | 200 | LANL | USE | S |
| per0208034a | WCLCCV | CWW | 2/8/2010 17:30 | | | 1 | | USE | C |
| per0208035a | IPB006 | CWW | 2/8/2010 17:36 | | | 1 | | USE | B |
| per0208036a | WCLCRI | CWW | 2/8/2010 17:43 | | | 1 | | USE | C |
| per0208037a | 245673006 | CWW | 2/8/2010 17:49 | 947249 | 10-1442 | 200 | LANL | USE | S |
| per0208038a | 245676001 | CWW | 2/8/2010 17:56 | 947249 | 10-1446 | 1 | LANL | USE | S |
| per0208039a | 1202029086 | CWW | 2/8/2010 18:03 | 947249 | 10-1446 | 1 | LANL | USE | S |
| per0208040a | 1202029087 | CWW | 2/8/2010 18:09 | 947249 | 10-1446 | 1 | LANL | USE | S |
| per0208041a | 245791001 | CWW | 2/8/2010 18:16 | 947249 | 10-1467 | 1 | LANL | USE | S |
| per0208042a | 1202029084 | CWW | 2/8/2010 18:22 | 947249 | 10-1467 | 1 | LANL | USE | S |
| per0208043a | 1202029085 | CWW | 2/8/2010 18:29 | 947249 | 10-1467 | 1 | LANL | USE | S |
| per0208044a | 245791003 | CWW | 2/8/2010 18:35 | 947249 | 10-1467 | 1 | LANL | USE | S |
| per0208045a | 245791006 | CWW | 2/8/2010 18:42 | 947249 | 10-1467 | 1 | LANL | USE | S |
| per0208046a | 245791007 | CWW | 2/8/2010 18:48 | 947249 | 10-1467 | 1 | LANL | USE | S |
| per0208047a | WCLCCV | CWW | 2/8/2010 18:55 | | | 1 | | USE | C |
| per0208048a | IPB007 | CWW | 2/8/2010 19:01 | | | 1 | | USE | B |
| per0208049a | WCLCRI | CWW | 2/8/2010 19:08 | | | 1 | | USE | C |
| per0208050a | 1202035565 | CWW | 2/8/2010 19:15 | 950028 | VARIOUS | 1 | LANL | USE | S |
| per0208051a | 1202035566 | CWW | 2/8/2010 19:21 | 950028 | VARIOUS | 1 | LANL | USE | S |
| per0208052a | 1202035573 | CWW | 2/8/2010 19:28 | 950028 | VARIOUS | 1 | LANL | USE | S |
| per0208053a | 245911001 | CWW | 2/8/2010 19:34 | 950028 | 10-1487-1 | 1 | LANL | USE | S |
| per0208054a | 1202035571 | CWW | 2/8/2010 19:41 | 950028 | 10-1487-1 | 1 | LANL | USE | S |
| per0208055a | 1202035572 | CWW | 2/8/2010 19:47 | 950028 | 10-1487-1 | 1 | LANL | USE | S |
| per0208056a | 245922001 | CWW | 2/8/2010 19:54 | 950028 | 10-1493-1 | 1 | LANL | USE | S |
| per0208057a | 245934001 | CWW | 2/8/2010 20:00 | 950028 | 10-1502 | 1 | LANL | DUSE-DL | S |
| per0208058a | 245934004 | CWW | 2/8/2010 20:07 | 950028 | 10-1502 | 1 | LANL | DUSE-RA | S |
| per0208059a | 245939001 | CWW | 2/8/2010 20:14 | 950028 | 10-1506-1 | 1 | LANL | USE | S |
| per0208060a | WCLCCV | CWW | 2/8/2010 20:20 | | | 1 | | USE | C |
| per0208061a | IPB008 | CWW | 2/8/2010 20:27 | | | 1 | | USE | B |
| per0208062a | WCLCRI | CWW | 2/8/2010 20:33 | | | 1 | | USE | C |
| per0208063a | 245939002 | CWW | 2/8/2010 20:40 | 950028 | 10-1506-1 | 1 | LANL | USE | S |
| per0208064a | 245953001 | CWW | 2/8/2010 20:47 | 950028 | 10-1508-1 | 1 | LANL | USE | S |
| per0208065a | 245965001 | CWW | 2/8/2010 20:53 | 950028 | 10-1511-1 | 1 | LANL | USE | S |
| per0208066a | 245975001 | CWW | 2/8/2010 21:00 | 950028 | 10-1512-1 | 1 | LANL | USE | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| per0208067a | 245981001 | CWW | 2/8/2010 21:06 | 950028 | 10-1514-1 | 1 | LANL | USE | S |
| per0208068a | 246000001 | CWW | 2/8/2010 21:13 | 950028 | 10-1517-1 | 1 | LANL | USE | S |
| per0208069a | 246007001 | CWW | 2/8/2010 21:19 | 950028 | 10-1520-1 | 1 | LANL | USE | S |
| per0208070a | 246056001 | CWW | 2/8/2010 21:26 | 950028 | 10-1545-1 | 1 | LANL | USE | S |
| per0208071a | 246056002 | CWW | 2/8/2010 21:32 | 950028 | 10-1545-1 | 1 | LANL | USE | S |
| per0208072a | 246056003 | CWW | 2/8/2010 21:39 | 950028 | 10-1545-1 | 1 | LANL | USE | S |
| per0208073a | WCLCCV | CWW | 2/8/2010 21:45 | | | 1 | | USE | C |
| per0208074a | IPB009 | CWW | 2/8/2010 21:52 | | | 1 | | USE | B |
| per0208075a | WCLCRI | CWW | 2/8/2010 21:59 | | | 1 | | USE | C |
| per0208076a | 246056004 | CWW | 2/8/2010 22:05 | 950028 | 10-1545-1 | 1 | LANL | USE | S |
| per0208077a | 246375001 | CWW | 2/8/2010 22:12 | 950028 | 10-1609 | 1 | LANL | USE | S |
| per0208078a | 1202035567 | CWW | 2/8/2010 22:19 | 950028 | 10-1609 | 1 | LANL | USE | S |
| per0208079a | 1202035568 | CWW | 2/8/2010 22:25 | 950028 | 10-1609 | 1 | LANL | USE | S |
| per0208080a | IPB010 | CWW | 2/8/2010 22:32 | | | 1 | | USE | B |
| per0208081a | 1262643 Supp | CWW | 2/8/2010 22:38 | Screen | Inhouse | 1 | GEL | DUSE | S |
| per0208082a | 1202035625 | CWW | 2/8/2010 22:45 | 950048 | VARIOUS | 1 | LANL | DUSE | S |
| per0208083a | WCLCCV | CWW | 2/8/2010 22:52 | | | 1 | | USE | C |
| per0208084a | IPB011 | CWW | 2/8/2010 22:58 | | | 1 | | USE | B |
| per0208085a | WCLCRI | CWW | 2/8/2010 23:05 | | | 1 | | USE | C |

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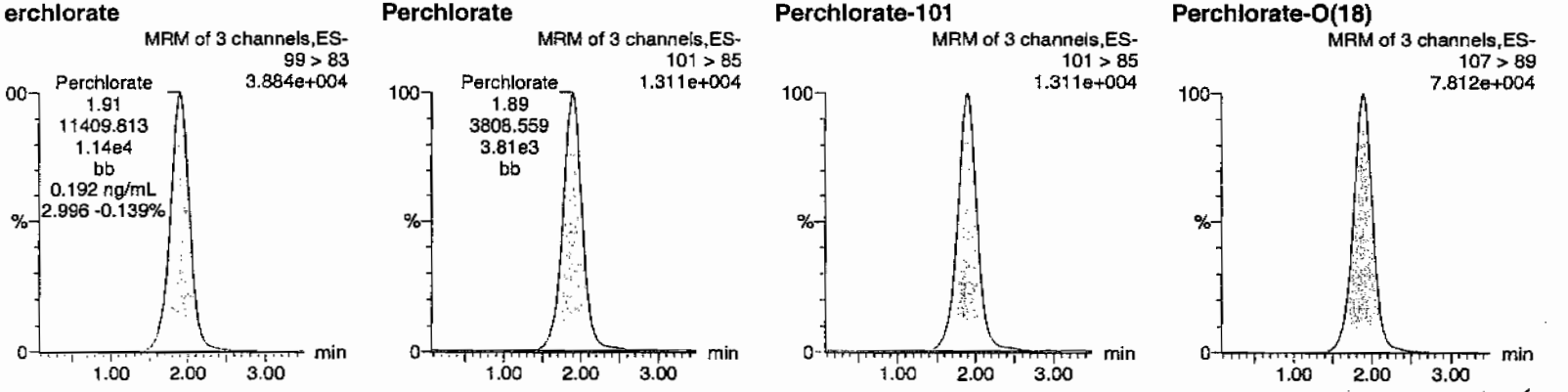
**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208054a**
**Date: 08-Feb-2010**
**Time: 19:41:23**
**ID: 1202035571** |LANL|950028|LZQ|MS|1|
**Vial: 2:1,E**

WWJ 02-04-10




Hmm 02/10/10

| D | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 202035571 | Perchlorate | 99 > 83 | 1.91 | 11409.813 | 11409.813 | bb | | | 0.1917 | 95.83 | -4.17 | 2471.6... | 3.00 |
| 202035571 | Perchlorate-101 | 101 > 85 | 1.89 | 3808.559 | 3808.559 | bb | | | 0.2029 | 101.45 | 1.45 | 676.220 | |
| 202035571 | Perchlorate-O(18) | 107 > 89 | 1.89 | 22745.916 | 22745.916 | bb | | | 0.4676 | 93.53 | -6.47 | 4602.2... | |

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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**Quantify Sample Report MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

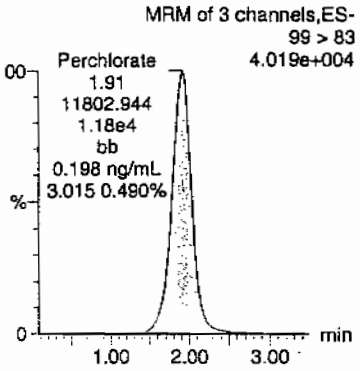
Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

**Name: per0208055a**
**Date: 08-Feb-2010**
**Time: 19:47:53**
**ID: 1202035572**
**Vial: 2:1,F**

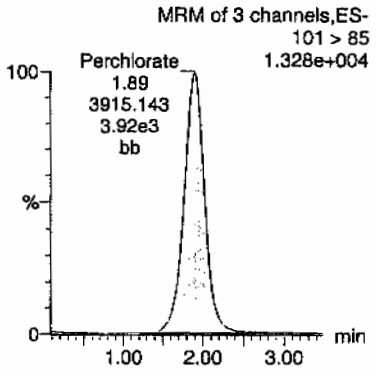
|LANL|950028|LLQ|MSD|1|

CWW
02-09-10

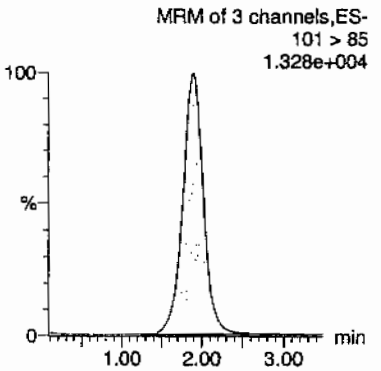
**Perchlorate**



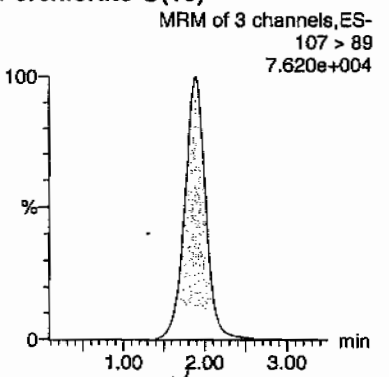

**Perchlorate**




**Perchlorate-101**




**Perchlorate-O(18)**




Hum 02/10/10

| ID | Name | Trace | RT | Area | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N | Ion Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 202035572 | Perchlorate | 99 > 83 | 1.91 | 11802.944 | 11802.944 | bb | | | 0.1983 | 99.13 | -0.87 | 5921.1... | 3.01 |
| 202035572 | Perchlorate-101 | 101 > 85 | 1.89 | 3915.143 | 3915.143 | bb | | | 0.2086 | 104.29 | 4.29 | 847.965 | |
| 202035572 | Perchlorate-O(18) | 107 > 89 | 1.89 | 22449.852 | 22449.852 | bb | | | 0.4616 | 92.31 | -7.69 | 7045.6... | |

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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## Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

## Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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# LC/MS/MS EXPLOSIVES ANALYSIS

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**LC/MS/MS Case Narrative**
**Los Alamos National Laboratory (LANL)**
**SDG 10-1512**

**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: | 948575 |
| Prep Batch Number: | 948574 |

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

| Sample ID | Client ID |
|---|---|
| 245969001 | RE15-10-7880 |
| 245969002 | RE15-10-7891 |
| 245969003 | RE15-10-7892 |
| 245969004 | RE15-10-7967 |
| 245969005 | RE15-10-7976 |
| 245969006 | RE15-10-7968 |
| 245969007 | RE15-10-7965 |
| 245969008 | RE15-10-7975 |
| 245969009 | RE15-10-7978 |
| 245969010 | RE15-10-7970 |
| 245969011 | RE15-10-7964 |
| 245969012 | RE15-10-7973 |
| 245969013 | RE15-10-7962 |
| 245969014 | RE15-10-7963 |

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| | |
|---|---|
| 245969015 | RE15-10-7977 |
| 1202032101 | Method Blank (MB) |
| 1202032102 | Laboratory Control Sample (LCS) |
| 1202032103 | 245969001(RE15-10-7880) Matrix Spike (MS) |
| 1202032104 | 245969001(RE15-10-7880) 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.

**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 spike recoveries were within the established acceptance limits.

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**QC Sample Designation**
Sample 245969001 (RE15-10-7880) was chosen for matrix spike and matrix spike duplicate analysis.

**Matrix Spike (MS) Recovery Statement**
The MS spike recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**
The MSD spike recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**
The RPD(s) between the MS and MSD met the acceptance limits.

**Internal Standard (ISTD) Acceptance**
Sample 245969011 (RE15-10-7964) failed ISTD acceptance criteria. It was re-analyzed and confirmed the failure. Please see the Form 8 in the data package for the exact recoveries. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 798580.

**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. Sample 245969007 (RE15-10-7965) was further diluted to bring the over range concentration within the calibration range. The final dilution in each case takes the 1:1 v/v dilution into account.

**Sample Re-extraction/Re-analysis**
Sample 245969011 (RE15-10-7964) failed ISTD acceptance criteria. It was re-analyzed and confirmed the failure. Please see the Form 8 in the data package for the exact recoveries. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 798580.

Sample 245969010 (RE15-10-7970) failed ISTD acceptance criteria. It was re-analyzed and passed acceptance criteria. The re-analysis is passed 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.

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**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 2,4-Diamino-6-nitrotoluene at 117% with recovery limits of 52-114% and recovered 2,6-Diamino-4-nitrotoluene at 148% with recovery limits of 64-122%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 798580.

**QC Sample Designation**
Sample 245969001 (RE15-10-7880) 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 2,6-Diamino-4-nitrotoluene at 144%. The recovery limits are 55-130%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 798580.

**Matrix Spike Duplicate (MSD) Recovery Statement**
The MSD recovered 2,6-Diamino-4-nitrotoluene at 130.4%. The recovery limits are 55-130%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 798580.

**MS/MSD Relative Percent Difference (RPD) Statement**
The RPD(s) between the MS and MSD met the acceptance limits.

**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.

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**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 798580 was generated fort his SDG.

The LCS recovered 2,4-Diamino-6-nitrotoluene at 117% with recovery limits of 52-114% and recovered 2,6-Diamino-4-nitrotoluene at 148% with recovery limits of 64-122%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported.

The MS recovered 2,6-Diamino-4-nitrotoluene at 144%. The recovery limits are 55-130%. The MSD recovered 2,6-Diamino-4-nitrotoluene at 130.4%. The recovery limits are 55-130%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 798580.

Sample 245969011 (RE15-10-7964) failed ISTD acceptance criteria. It was re-analyzed and confirmed the failure. Please see the Form 8 in the data package for the exact recoveries. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section.

**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.

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**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 Mann **Date:** 03/05/10

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# SAMPLE DATA SUMMARY

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969001

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301022a

**Date Analyzed:** 02-MAR-10 01:52

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969001

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220020.wiff

**Date Analyzed:** 22-FEB-10 22:00

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7891

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969002

**Sample Amount** 2

**Moisture:** 26.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301025a

**Date Analyzed:** 02-MAR-10 03:20

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7891

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969002

**Sample Amount** 2

**Moisture:** 26.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220023.wiff

**Date Analyzed:** 22-FEB-10 22:47

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7892

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969003

**Sample Amount** 2

**Moisture:** 7.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301026a

**Date Analyzed:** 02-MAR-10 03:50

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7892

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969003

**Sample Amount** 2

**Moisture:** 7.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220027.wiff

**Date Analyzed:** 22-FEB-10 23:50

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7967

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969004

**Sample Amount** 2

**Moisture:** 24.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301027a

**Date Analyzed:** 02-MAR-10 04:19

**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 | 205 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7967

**Lab Code:** GEI

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969004

**Sample Amount** 2

**Moisture:** 24.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220028.wiff

**Date Analyzed:** 23-FEB-10 00:06

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 3770 | |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7976

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969005

**Sample Amount** 2

**Moisture:** 3.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301028a

**Date Analyzed:** 02-MAR-10 04:49

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7976

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969005

**Sample Amount** 2

**Moisture:** 3.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220029.wiff

**Date Analyzed:** 23-FEB-10 00:22

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7968

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969006

**Sample Amount** 2

**Moisture:** 10.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301029a

**Date Analyzed:** 02-MAR-10 05:18

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7968

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969006

**Sample Amount** 2

**Moisture:** 10.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220030.wiff

**Date Analyzed:** 23-FEB-10 00:37

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301033a

**Date Analyzed:** 02-MAR-10 07:16

**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 | 423 | J |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 10

**Injection Volume (uL):** 50

**GEL data file:** EXP0301042a

**Date Analyzed:** 02-MAR-10 11:42

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 2691-41-0 | HMX | 35300 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220031.wiff

**Date Analyzed:** 23-FEB-10 00:53

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 5310 | |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7975

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969008

**Sample Amount** 2

**Moisture:** 25.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301034a

**Date Analyzed:** 02-MAR-10 07:46

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7975

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969008

**Sample Amount** 2

**Moisture:** 25.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220032.wiff

**Date Analyzed:** 23-FEB-10 01:09

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7978

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969009

**Sample Amount** 2

**Moisture:** 16.9

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301035a

**Date Analyzed:** 02-MAR-10 08:15

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7978

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969009

**Sample Amount** 2

**Moisture:** 16.9

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220033.wiff

**Date Analyzed:** 23-FEB-10 01:24

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7970

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969010

**Sample Amount** 2

**Moisture:** 8.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301071a

**Date Analyzed:** 03-MAR-10 02:05

**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 | 559 | |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500 | U |
| 2691-41-0 | HMX | 158 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7970

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969010

**Sample Amount** 2

**Moisture:** 8.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220034.wiff

**Date Analyzed:** 23-FEB-10 01:40

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 812 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7964

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969011

**Sample Amount** 2

**Moisture:** 10.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301072a

**Date Analyzed:** 03-MAR-10 02:34

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7964

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969011

**Sample Amount** 2

**Moisture:** 10.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220035.wiff

**Date Analyzed:** 23-FEB-10 01:56

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7973

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969012

**Sample Amount** 2

**Moisture:** 18.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301038a

**Date Analyzed:** 02-MAR-10 09:44

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7973

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969012

**Sample Amount** 2

**Moisture:** 18.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220036.wiff

**Date Analyzed:** 23-FEB-10 02:11

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7962

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969013

**Sample Amount** 2

**Moisture:** 5.3

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301039a

**Date Analyzed:** 02-MAR-10 10:13

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7962

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969013

**Sample Amount** 2

**Moisture:** 5.3

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220040.wiff

**Date Analyzed:** 23-FEB-10 03:14

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7963

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969014

**Sample Amount** 2

**Moisture:** 20.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301040a

**Date Analyzed:** 02-MAR-10 10:42

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7963

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969014

**Sample Amount** 2

**Moisture:** 20.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220041.wiff

**Date Analyzed:** 23-FEB-10 03:30

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7977

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969015

**Sample Amount** 2

**Moisture:** 36.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301041a

**Date Analyzed:** 02-MAR-10 11:12

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7977

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969015

**Sample Amount** 2

**Moisture:** 36.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220042.wiff

**Date Analyzed:** 23-FEB-10 03:46

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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# QUALITY CONTROL SUMMARY

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# High Explosives Surrogate Recovery Summary

**Lab Name:** GEL Laboratories LLC **GEL Job No (SDG):** 10-1512

**Lab Code:** GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

| Lab Sample ID | Client Sample ID | DNT | QC Limits | Flg |
|---|---|---|---|---|
| 245969001 | RE15-10-7880 | 91.4 | 70 – 144 | |
| 245969001 | RE15-10-7880 | 116 | 70 – 144 | |
| 245969002 | RE15-10-7891 | 89.4 | 70 – 144 | |
| 245969002 | RE15-10-7891 | 120 | 70 – 144 | |
| 245969003 | RE15-10-7892 | 107 | 70 – 144 | |
| 245969003 | RE15-10-7892 | 129 | 70 – 144 | |
| 245969004 | RE15-10-7967 | 101 | 70 – 144 | |
| 245969004 | RE15-10-7967 | 125 | 70 – 144 | |
| 245969005 | RE15-10-7976 | 97 | 70 – 144 | |
| 245969005 | RE15-10-7976 | 121 | 70 – 144 | |
| 245969006 | RE15-10-7968 | 101 | 70 – 144 | |
| 245969006 | RE15-10-7968 | 119 | 70 – 144 | |
| 245969007 | RE15-10-7965 | 99.3 | 70 – 144 | |
| 245969007 | RE15-10-7965 | 124 | 70 – 144 | |
| 245969007 | RE15-10-7965 | 84.7 | 70 – 144 | |
| 245969008 | RE15-10-7975 | 114 | 70 – 144 | |
| 245969008 | RE15-10-7975 | 124 | 70 – 144 | |
| 245969009 | RE15-10-7978 | 103 | 70 – 144 | |
| 245969009 | RE15-10-7978 | 122 | 70 – 144 | |
| 245969010 | RE15-10-7970 | 99.4 | 70 – 144 | |
| 245969010 | RE15-10-7970 | 125 | 70 – 144 | |
| 245969011 | RE15-10-7964 | 98.5 | 70 – 144 | |
| 245969011 | RE15-10-7964 | 126 | 70 – 144 | |
| 245969012 | RE15-10-7973 | 104 | 70 – 144 | |
| 245969012 | RE15-10-7973 | 130 | 70 – 144 | |
| 245969013 | RE15-10-7962 | 101 | 70 – 144 | |
| 245969013 | RE15-10-7962 | 127 | 70 – 144 | |
| 245969014 | RE15-10-7963 | 84.8 | 70 – 144 | |
| 245969014 | RE15-10-7963 | 122 | 70 – 144 | |
| 245969015 | RE15-10-7977 | 96.6 | 70 – 144 | |
| 245969015 | RE15-10-7977 | 129 | 70 – 144 | |
| 1202032101 | MB for batch 948574 | 95.7 | 70 – 144 | |
| 1202032101 | MB for batch 948574 | 110 | 70 – 144 | |
| 1202032102 | LCS for batch 948574 | 96.3 | 70 – 144 | |
| 1202032102 | LCS for batch 948574 | 114 | 70 – 144 | |
| 1202032103 | RE15-10-7880(245969001MS) | 103 | 70 – 144 | |
| 1202032103 | RE15-10-7880(245969001MS) | 122 | 70 – 144 | |

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.



# High Explosives Surrogate Recovery Summary

**Lab Name:** GEL Laboratories LLC **GEL Job No (SDG):** 10–1512

**Lab Code:** GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

| Lab Sample ID | Client Sample ID | DNT | QC Limits | Flg |
|---|---|---|---|---|
| 1202032104 | RE15–10–7880(245969001MSD) | 101 | 70 – 144 | |
| 1202032104 | RE15–10–7880(245969001MSD) | 115 | 70 – 144 | |

DNT = 3,4–Dinitrotoluene

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# 3B
## High Explosives LCS/LCS Duplicate Summary

**Lab Name:** GEL Laboratories LLC

**Client ID:** LCS

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Extract Batch Code:** 948574

**Date Extracted:** 09-FEB-10

**GEL LCS ID:** 1202032102

**GEL LCSDUP ID:**

**Analysis Date/Time:** 02-MAR-10 01:22

**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 |
|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 5000 | 4670 | 93.3 | | | | | 69 – 126 |
| 2,4,6-Trinitrotoluene | 5000 | 5190 | 104 | | | | | 73 – 149 |
| 2,4-Dinitrotoluene | 5000 | 5360 | 107 | | | | | 87 – 137 |
| 2,6-Dinitrotoluene | 5000 | 4850 | 97.1 | | | | | 89 – 120 |
| 2-Amino-4,6-dinitrotoluene | 5000 | 5460 | 109 | | | | | 90 – 130 |
| 4-Amino-2,6-dinitrotoluene | 5000 | 5110 | 102 | | | | | 84 – 130 |
| HMX | 5000 | 4670 | 93.5 | | | | | 58 – 138 |
| Nitrobenzene | 5000 | 4970 | 99.3 | | | | | 71 – 122 |
| PETN | 5000 | 5390 | 108 | | | | | 64 – 137 |
| RDX | 5000 | 4980 | 99.6 | | | | | 81 – 137 |
| Tetryl | 5000 | 2580 | 51.6 | | | | | 51 – 112 |
| m-Dinitrobenzene | 5000 | 4610 | 92.2 | | | | | 83 – 122 |
| m-Nitrotoluene | 5000 | 4180 | 83.6 | | | | | 73 – 118 |
| o-Nitrotoluene | 5000 | 4510 | 90.1 | | | | | 72 – 119 |
| p-Nitrotoluene | 5000 | 4640 | 92.7 | | | | | 67 – 131 |

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

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

3B
High Explosives LCS/LCS Duplicate Summary

**Lab Name:** GEL Laboratories LLC

**Client ID:** LCS

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Extract Batch Code:** 948574

**Date Extracted:** 09-FEB-10

**GEL LCS ID:** 1202032102

**GEL LCSDUP ID:**

**Analysis Date/Time:** 22-FEB-10 21:44

**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 | 5870 | 117 | * | | | | | | | 52 – 114 |
| 2,6-Diamino-4-nitrotoluene | 5000 | 7390 | 148 | * | | | | | | | 64 – 122 |
| 3,5-Dinitroaniline | 5000 | 5110 | 102 | | | | | | | | 70 – 127 |
| TATB | 7500 | 6400 | 85.3 | | | | | | | | 28 – 162 |
| tris(o-cresyl) phosphate | 5000 | 4930 | 98.6 | | | | | | | | 84 – 119 |

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

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

3

## High Explosives MS/MSD Summary

**Lab Name:** GEL Laboratories LLC

**Client ID:** RE15-10-7880

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Extract Batch Code:** 948574

**Date Extracted:** 09-FEB-10

**GEL Spike ID:** 1202032103

**GEL SpikeDup ID:** 1202032104

**Analysis Date/Time:** 02-MAR-10 02:21

**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 | 4980 | 99.6 | 5440 | 109 | 8.84 | 30 | 50 – 140 |
| 2,4,6-Trinitrotoluene | 5000 | 0 | 5760 | 115 | 5770 | 115 | .091 | 30 | 76 – 144 |
| 2,4-Dinitrotoluene | 5000 | 0 | 5400 | 108 | 4590 | 91.9 | 16.2 | 30 | 86 – 135 |
| 2,6-Dinitrotoluene | 5000 | 0 | 5010 | 100 | 4890 | 97.7 | 2.46 | 30 | 90 – 118 |
| 2-Amino-4,6-dinitrotoluene | 5000 | 0 | 5680 | 114 | 5590 | 112 | 1.67 | 30 | 85 – 137 |
| 4-Amino-2,6-dinitrotoluene | 5000 | 0 | 5310 | 106 | 5290 | 106 | .517 | 30 | 72 – 143 |
| HMX | 5000 | 0 | 5410 | 108 | 5280 | 106 | 2.41 | 30 | 51 – 144 |
| Nitrobenzene | 5000 | 0 | 4840 | 96.8 | 4200 | 84.1 | 14.1 | 30 | 70 – 122 |
| PETN | 5000 | 0 | 5750 | 115 | 5200 | 104 | 9.94 | 30 | 60 – 140 |
| RDX | 5000 | 0 | 5760 | 115 | 5270 | 105 | 8.91 | 30 | 59 – 152 |
| Tetryl | 5000 | 0 | 3880 | 77.6 | 4210 | 84.1 | 8.06 | 30 | 36 – 124 |
| m-Dinitrobenzene | 5000 | 0 | 4740 | 94.8 | 5110 | 102 | 7.56 | 30 | 85 – 118 |
| m-Nitrotoluene | 5000 | 0 | 4480 | 89.7 | 4580 | 91.6 | 2.1 | 30 | 70 – 120 |
| o-Nitrotoluene | 5000 | 0 | 4640 | 92.7 | 4480 | 89.7 | 3.34 | 30 | 69 – 123 |
| p-Nitrotoluene | 5000 | 0 | 4830 | 96.7 | 4960 | 99.1 | 2.52 | 30 | 65 – 133 |

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

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3

## High Explosives MS/MSD Summary

**Lab Name:** GEL Laboratories LLC

**Client ID:** RE15-10-7880

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Extract Batch Code:** 948574

**Date Extracted:** 09-FEB-10

**GEL Spike ID:** 1202032103

**GEL SpikeDup ID:** 1202032104

**Analysis Date/Time:** 22-FEB-10 22:16

**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 |
|---|---|---|---|---|---|---|---|---|---|
| 3,5-Dinitroaniline | 5000 | 0 | 5130 | 103 | 5170 | 103 | .777 | 30 | 73 – 129 |
| TATB | 7500 | 0 | 7500 | 100 | 8590 | 115 | 13.5 | 30 | 29 – 155 |
| tris(o-cresyl) phosphate | 5000 | 11 | 4960 | 99 | 4900 | 97.8 | 1.22 | 30 | 72 – 127 |
| 2,6-Diamino-4-nitrotoluene | 5000 | 0 | 7220 | 144 * | 6520 | 130 * | 10.2 | 30 | 55 – 130 |
| 2,4-Diamino-6-nitrotoluene | 5000 | 0 | 6060 | 121 | 5970 | 119 | 1.5 | 26 | 34 – 135 |

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

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# Explosives Initial Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10–1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK01

**Analysis Date:** 01–MAR–10 15:33

**GEL Data File:** EXP0301001a

**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 | 506.135 |
| 2,4,6–Trinitrotoluene | 0 | 0 |
| 2,4–Dinitrotoluene | 0 | 0 |
| 2,6–Dinitrotoluene | 0 | 0 |
| 2,6–Dinitrotoluene–d3 | 500 | 544.922 |
| 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



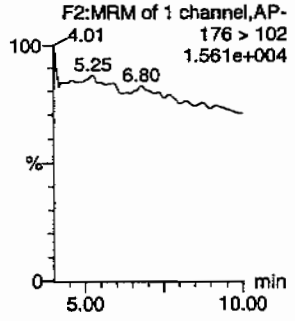
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

**Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010**
**Calibration: Untitled, Time: Tue Mar 02 09:59:16 2010**

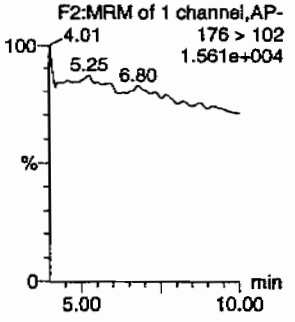
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301001a**
**Date: 01-Mar-2010**
**Time: 15:33:10**
**ID: XIBLK01**
**Vial: 1:1,A**

MMT 3/2/10

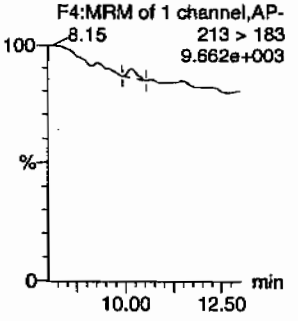
**HMX**



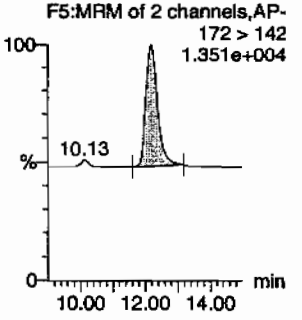

**RDX**



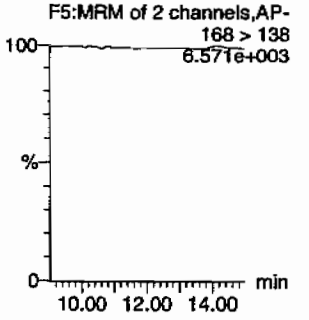

**135-Trinitrobenzene**



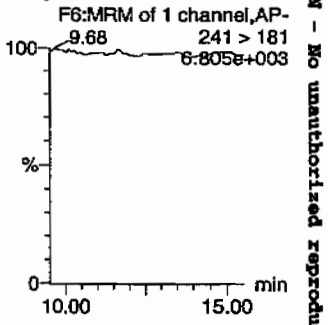

**13-Dinitrobenzene-d4**



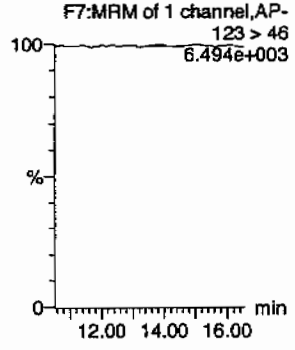

**13-Dinitrobenzene**



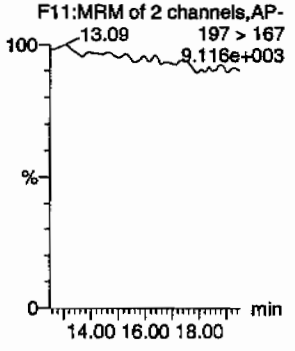

**Tetryl**



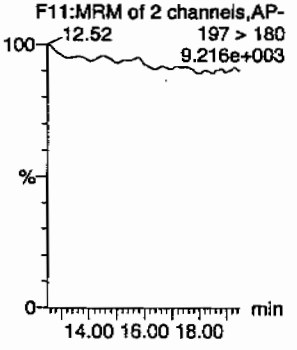

**Nitrobenzene**



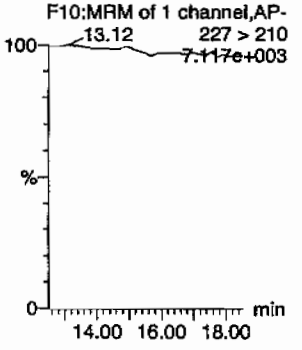

**4-Amino-26-dinitrotoluene**



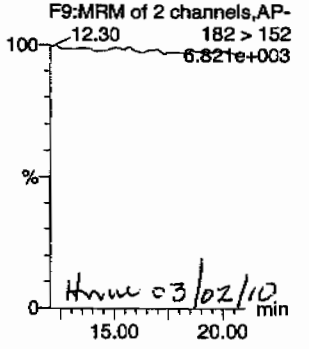

**2-Amino-46-dinitrotoluene**




**246-Trinitrotoluene**

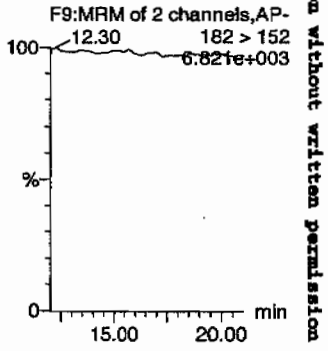



**34-dinitrotoluene**




Hmm 03/02/10

**26-dinitrotoluene**

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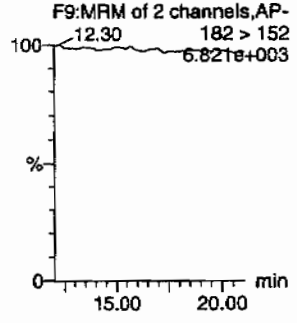
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

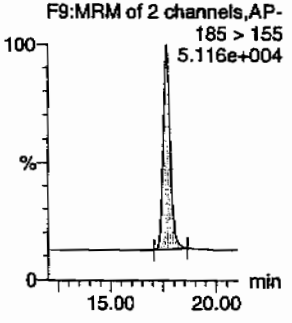


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

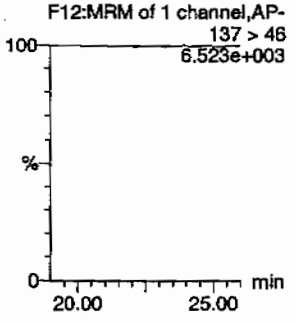
**24-dinitrotoluene**



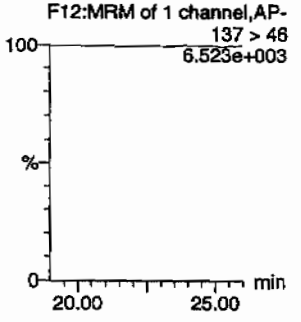

**26-dinitrotoluene-d3**



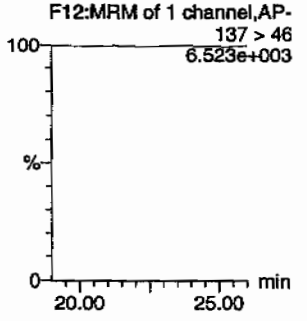

**2-Nitrotoluene**



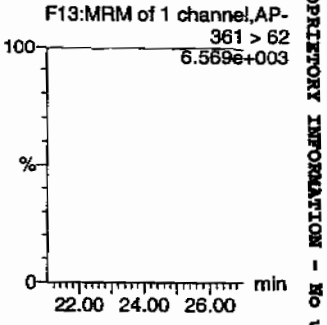

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK01 | HMX | 176 > 102 | | | 2933.636 | | | | | | | | | |
| XIBLK01 | RDX | 176 > 102 | | | 2933.636 | | | | | | | | | |
| XIBLK01 | 135-Trinitrobenzene | 213 > 183 | | | 2933.636 | | | MM- | 02-Mar-10 | 09:57:26 | | | | |
| XIBLK01 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.21 | 2933.636 | | 2933.636 | 2933.636 | bb | | | 506.1351 | 101.2 | 1.2 | 224.6 |
| XIBLK01 | 13-Dinitrobenzene | 168 > 138 | | | 2933.636 | | | | | | | | | |
| XIBLK01 | Tetryl | 241 > 181 | | | 2933.636 | | | | | | | | | |
| XIBLK01 | Nitrobenzene | 123 > 46 | | | 2933.636 | | | | | | | | | |
| XIBLK01 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | 246-Trinitrotoluene | 227 > 210 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | 34-dinitrotoluene | 182 > 152 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | 26-dinitrotoluene | 182 > 152 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | 24-dinitrotoluene | 182 > 152 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | 26-dinitrotoluene-d3 | 185 > 155 | 17.64 | 17529.949 | | 17529.949 | 17529.949 | bb | | | 544.9221 | 109.0 | 9.0 | 1581.7 |
| XIBLK01 | 2-Nitrotoluene | 137 > 46 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | 4-Nitrotoluene | 137 > 46 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | 3-Nitrotoluene | 137 > 46 | | | 17529.949 | | | | | | | | | |
| XIBLK01 | PETN | 361 > 62 | | | 17529.949 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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# Explosives Initial Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK01

**Analysis Date:** 01-MAR-10 16:02

**GEL Data File:** EXP0301002a

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found (ug/L) |
|---|---|---|
| 1,3-Dinitrobenzene-d4 | 500 | 482.107 |
| 2,4,6-Trinitrotoluene | 0 | 0 |
| 2,4-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene-d3 | 500 | 528.54 |
| 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 |

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

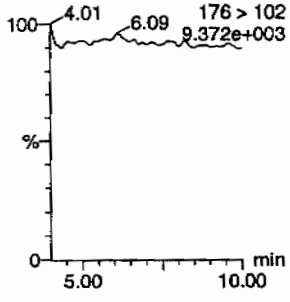


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

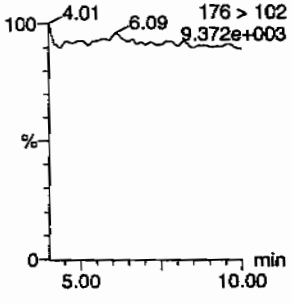
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301002a**
**Date: 01-Mar-2010**
**Time: 16:02:42**
**ID: XIBLK01**
**Vial: 1:1,A**

MAP 3/2/10

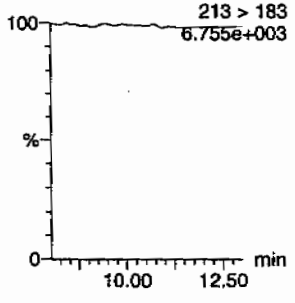
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
4.01 6.09 9.372e+003



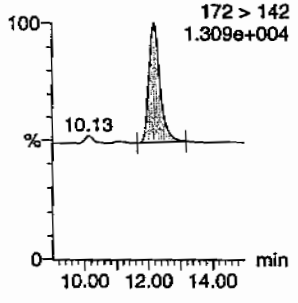

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
4.01 6.09 9.372e+003



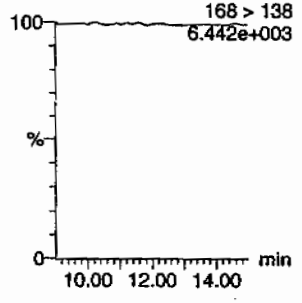

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.755e+003



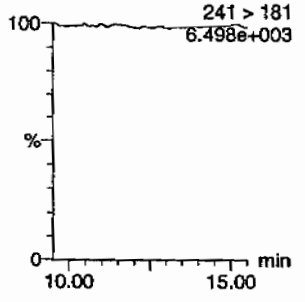

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.309e+004



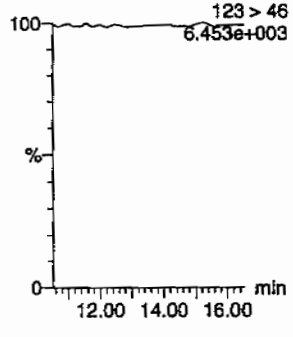

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.442e+003



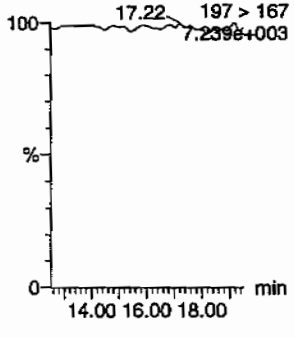

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.498e+003



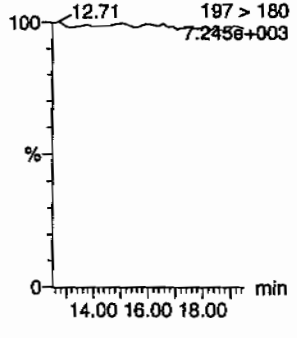

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.453e+003



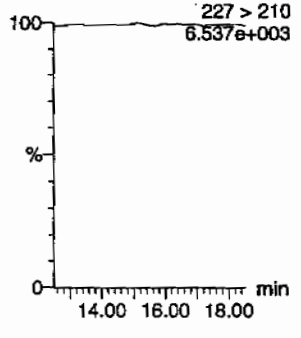

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
17.22 7.239e+003



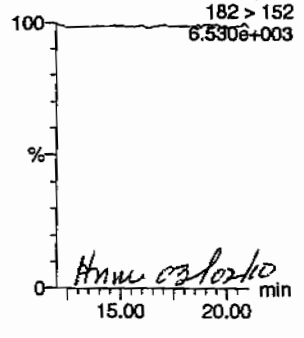

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
12.71 7.245e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.537e+003

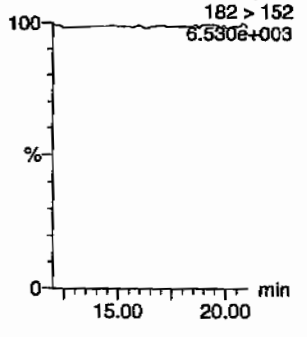



**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.530e+003




Hmm 03/02/10

**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.530e+003

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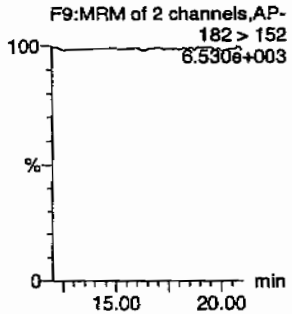
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

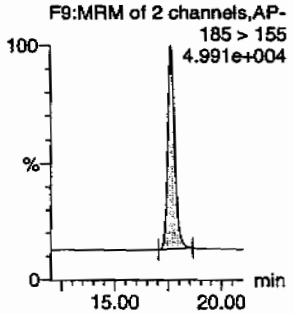


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

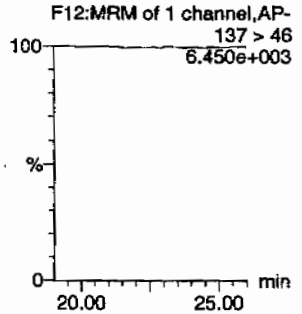
**24-dinitrotoluene**



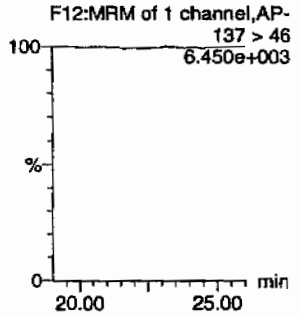

**26-dinitrotoluene-d3**



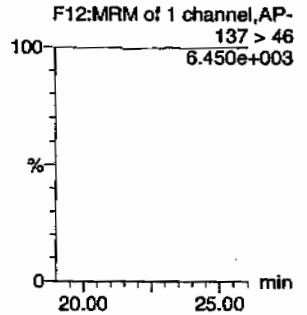

**2-Nitrotoluene**



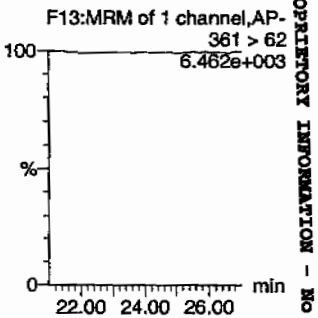

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK01 | HMX | 176 > 102 | | | 2794.367 | | | | | | | | | |
| XIBLK01 | RDX | 176 > 102 | | | 2794.367 | | | | | | | | | |
| XIBLK01 | 135-Trinitrobenzene | 213 > 183 | | | 2794.367 | | | | | | | | | |
| XIBLK01 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2794.367 | | 2794.367 | 2794.367 | bb | | | 482.1072 | 96.4 | -3.6 | 249.6 |
| XIBLK01 | 13-Dinitrobenzene | 168 > 138 | | | 2794.367 | | | | | | | | | |
| XIBLK01 | Tetryl | 241 > 181 | | | 2794.367 | | | | | | | | | |
| XIBLK01 | Nitrobenzene | 123 > 46 | | | 2794.367 | | | | | | | | | |
| XIBLK01 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | 246-Trinitrotoluene | 227 > 210 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | 34-dinitrotoluene | 182 > 152 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | 26-dinitrotoluene | 182 > 152 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | 24-dinitrotoluene | 182 > 152 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | 26-dinitrotoluene-d3 | 185 > 155 | 17.64 | 17002.941 | | 17002.941 | 17002.941 | bb | | | 528.5399 | 105.7 | 5.7 | 1208.2 |
| XIBLK01 | 2-Nitrotoluene | 137 > 46 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | 4-Nitrotoluene | 137 > 46 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | 3-Nitrotoluene | 137 > 46 | | | 17002.941 | | | | | | | | | |
| XIBLK01 | PETN | 361 > 62 | | | 17002.941 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

# Explosives Initial Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK01

**Analysis Date:** 22-FEB-10 17:01

**GEL Data File:** EXS02220001.wiff

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

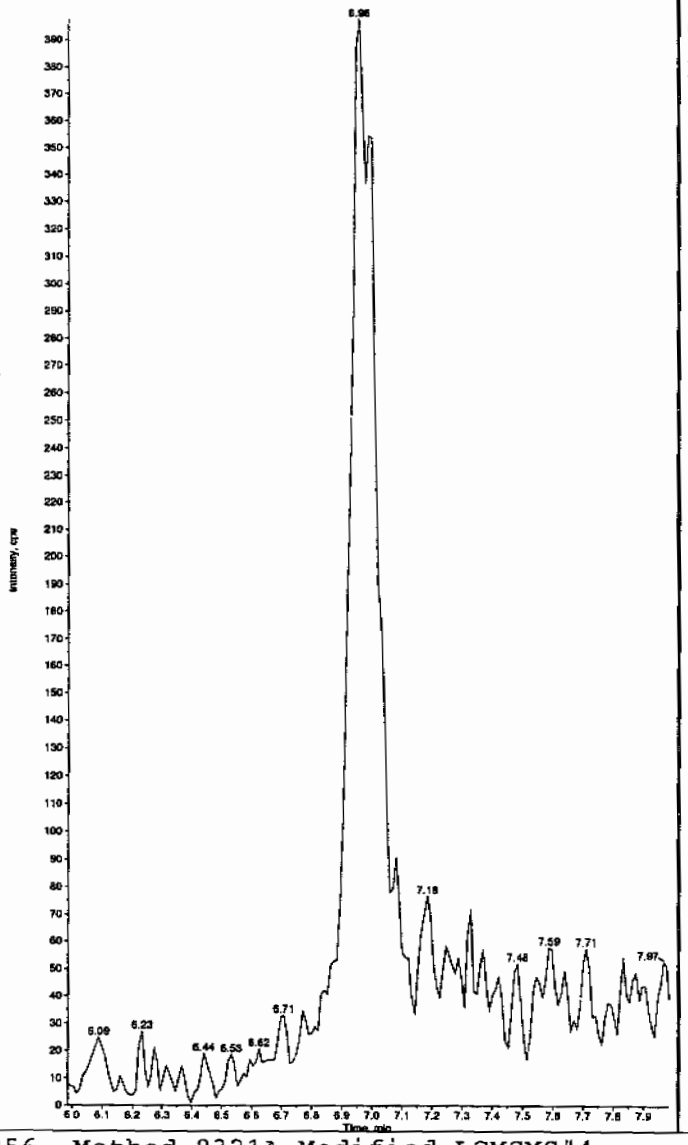
| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4-Dinitrotoluene | 0 | 0 |
| tris(o-cresyl) phosphate | 0 | 1.87 |
| TATB | 0 | 0 |
| 3,5-Dinitroaniline | 0 | 0 |
| 2,4-Diamino-6-nitrotoluene | 0 | 0 |
| 2,6-Diamino-4-nitrotoluene | 0 | 0 |

Ran 2/23/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

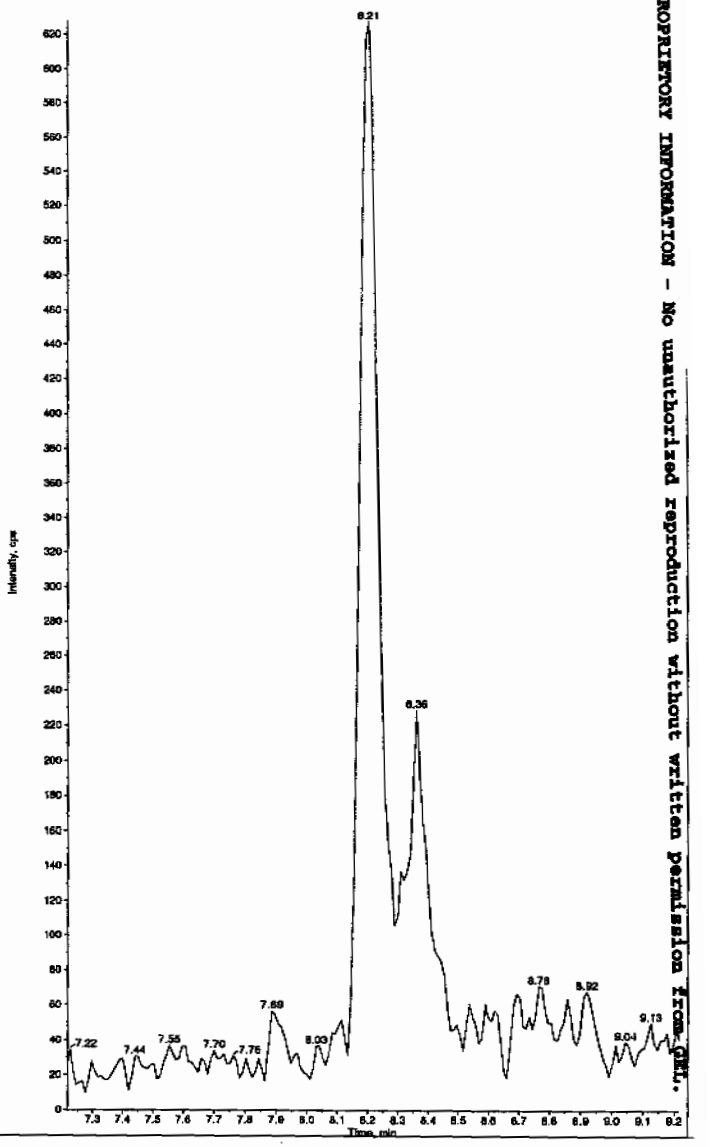
Modified: No




Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No




Hm M 02/23/10

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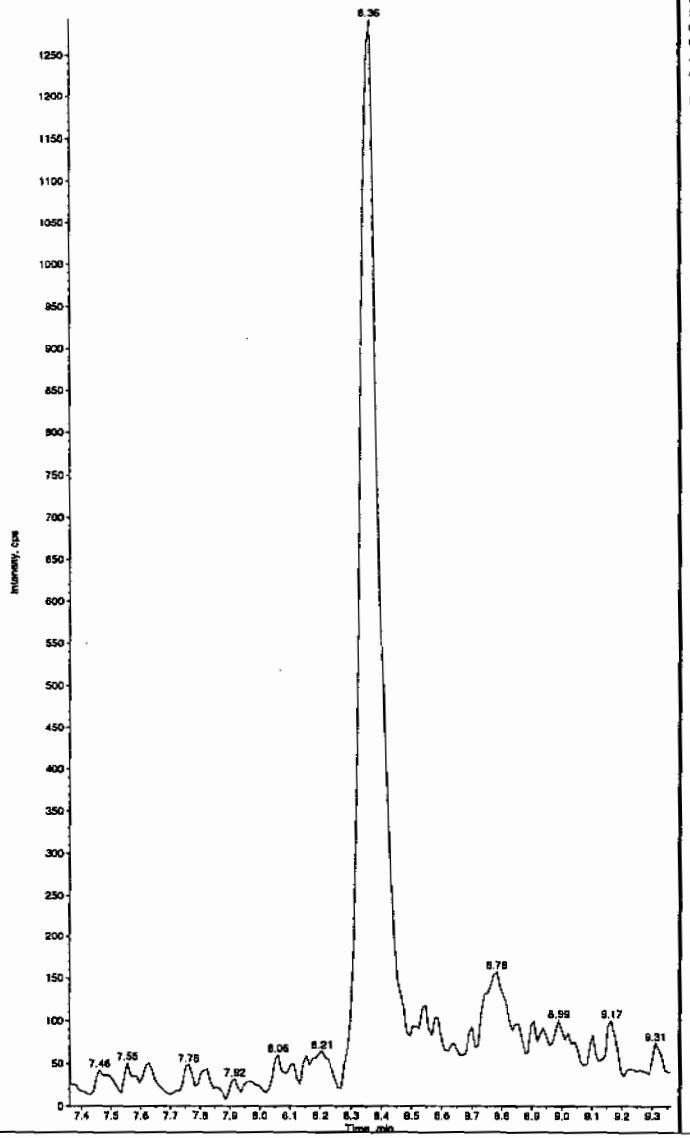
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

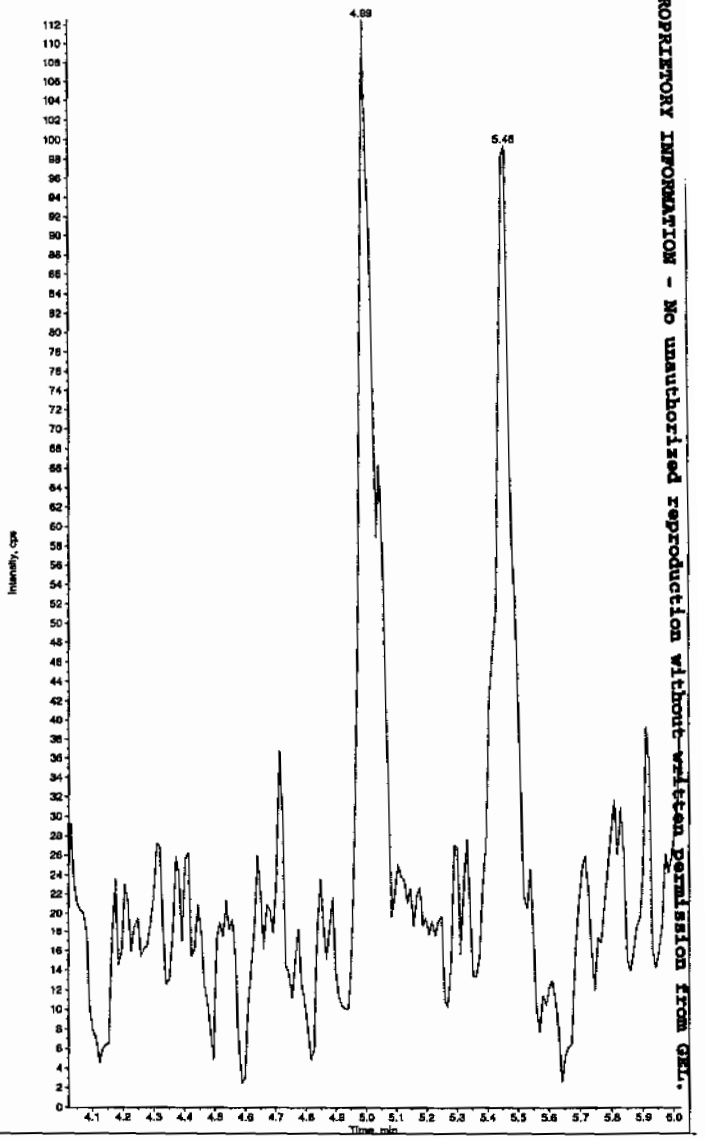
Modified: No




Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

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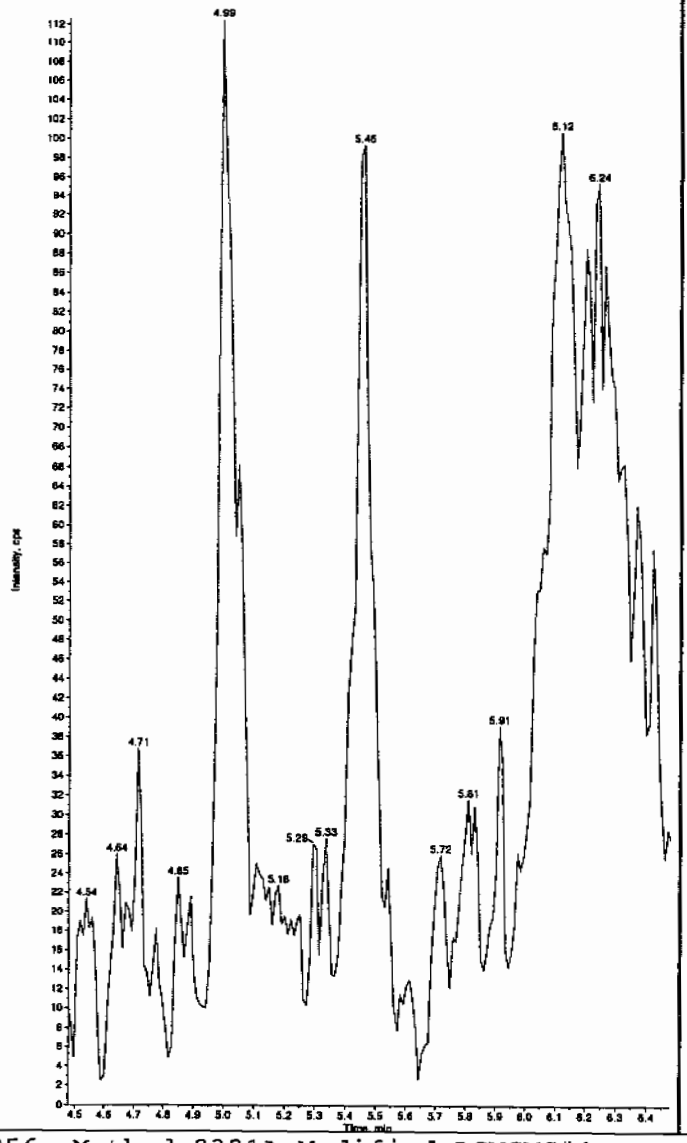
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

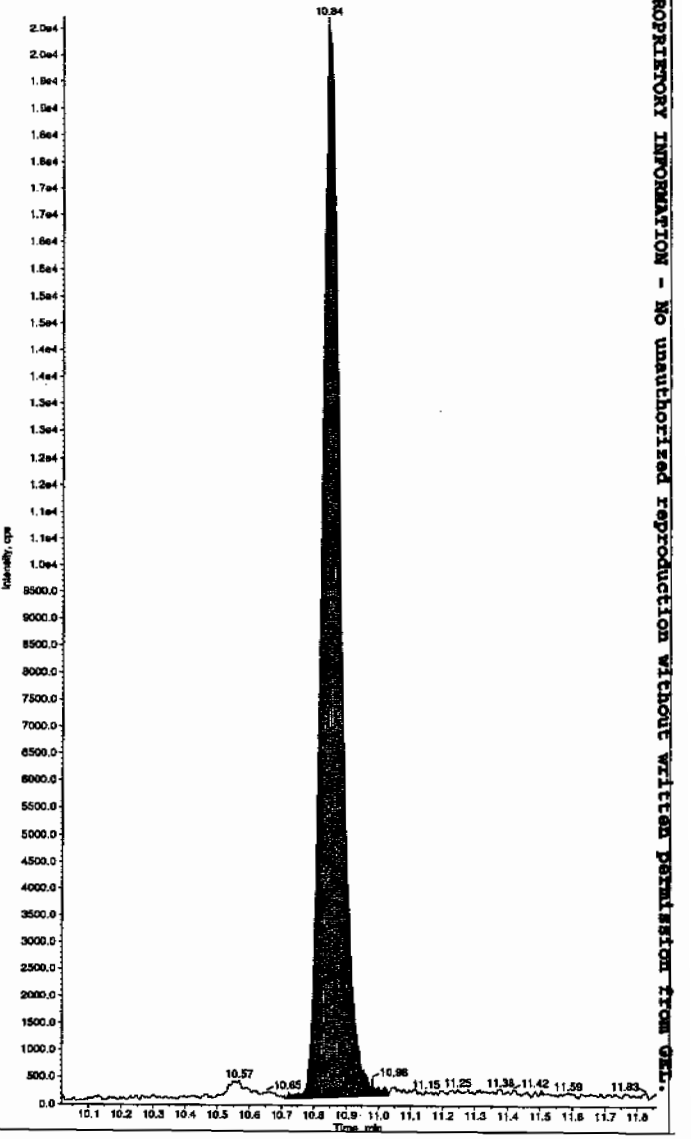



Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.87 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 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: 8.33e+004 counts
Height: 20889.369 cps
Start Time: 10.7 min
End Time: 11.0 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# Explosives Initial Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK01

**Analysis Date:** 22-FEB-10 17:17

**GEL Data File:** EXS02220002.wiff

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

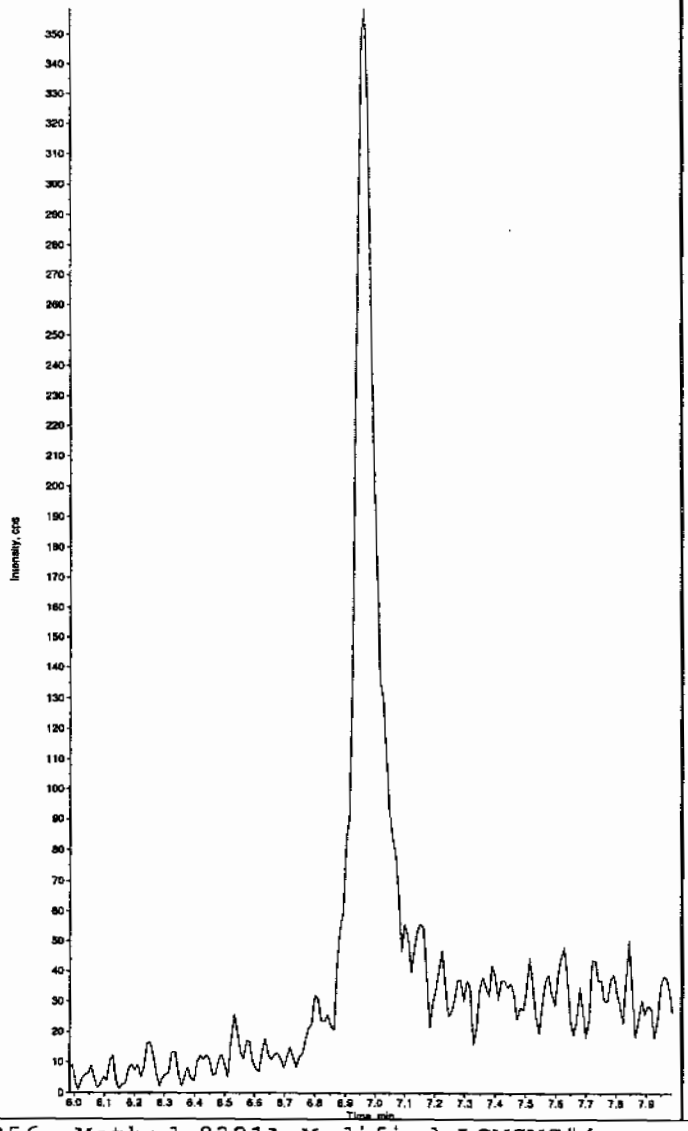
| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4-Dinitrotoluene | 0 | 0 |
| tris(o-cresyl) phosphate | 0 | 1.84 |
| TATB | 0 | 0 |
| 3,5-Dinitroaniline | 0 | 0 |
| 2,4-Diamino-6-nitrotoluene | 0 | 0 |
| 2,6-Diamino-4-nitrotoluene | 0 | 0 |

Sam 2/23/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

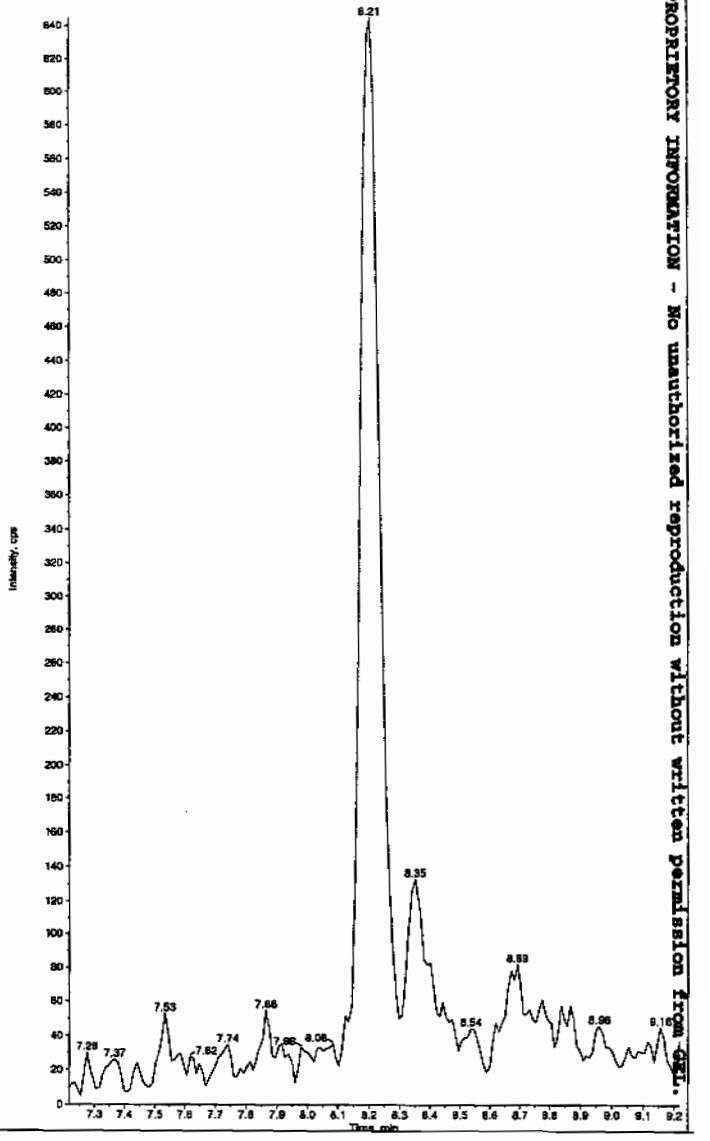
Modified: No




Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No




Hm 02/23/10

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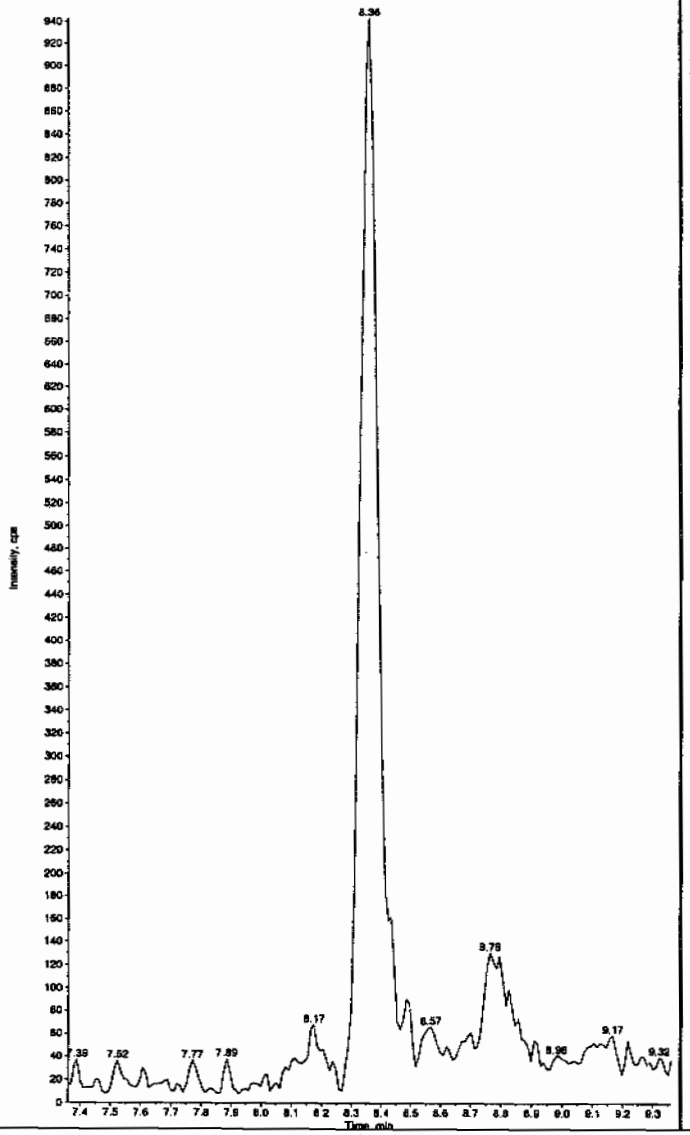
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

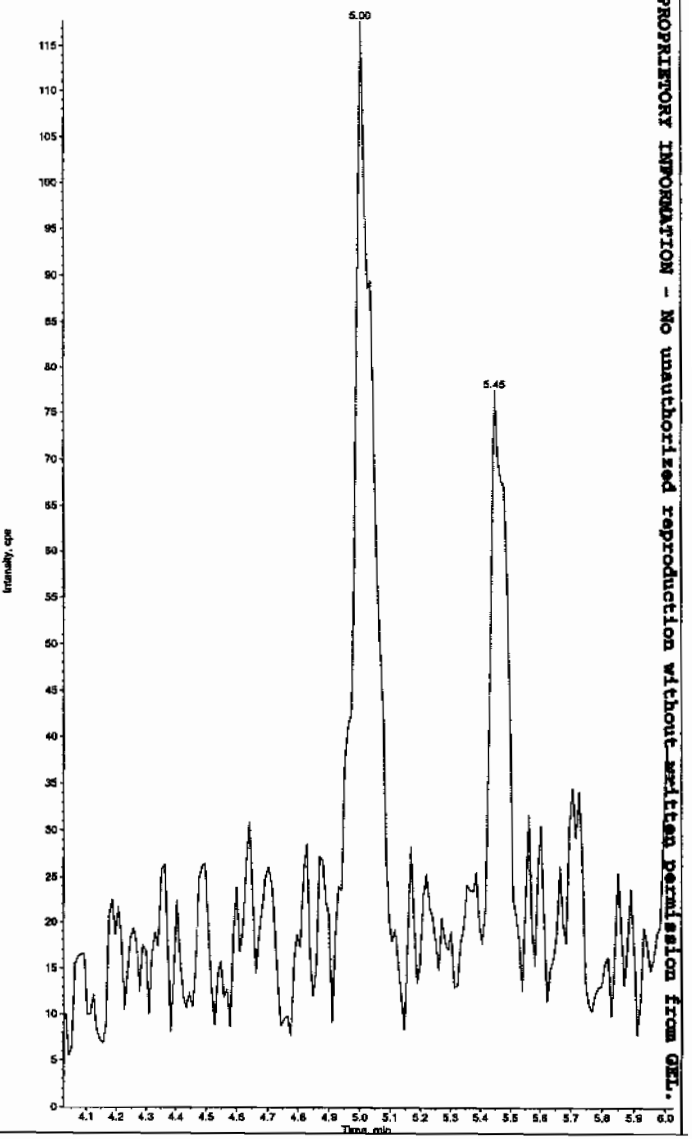
Modified: No




Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

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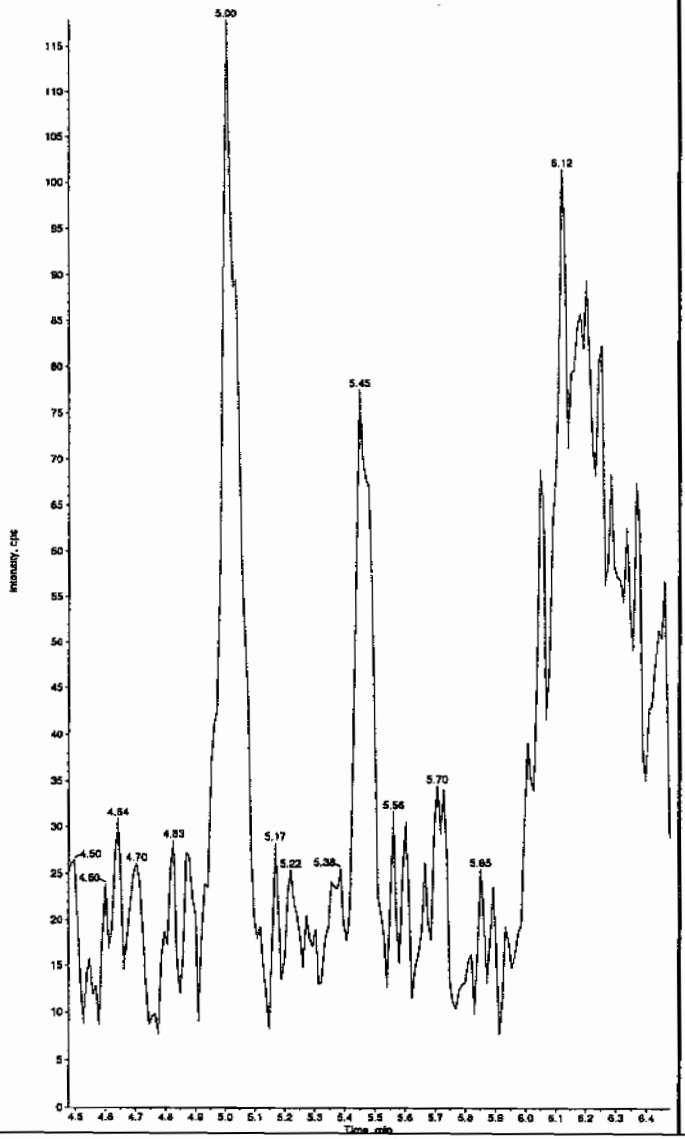
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XI8LK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: **

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

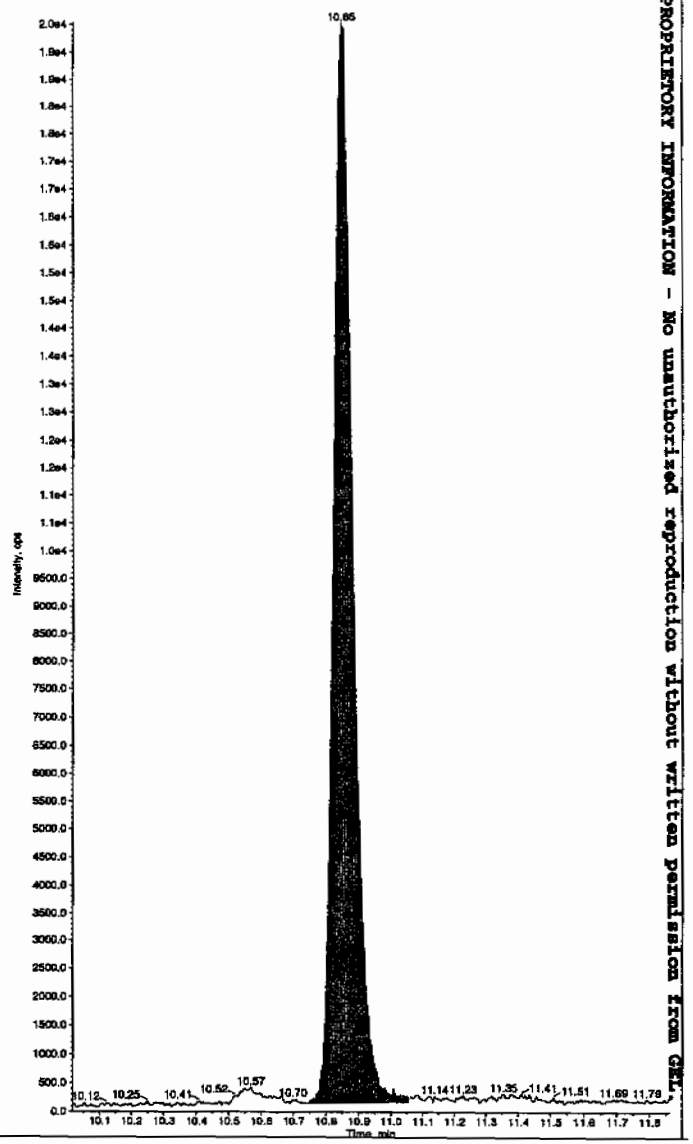



Sample Name: "XI8LK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: **

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.84 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 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: 8.25e+004 counts
Height: 19383.148 cps
Start Time: 10.7 min
End Time: 11.1 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK02

**Analysis Date:** 01-MAR-10 19:28

**GEL Data File:** EXP0301009a

**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 | 489.394 |
| 2,4,6-Trinitrotoluene | 0 | 0 |
| 2,4-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene-d3 | 500 | 463.845 |
| 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

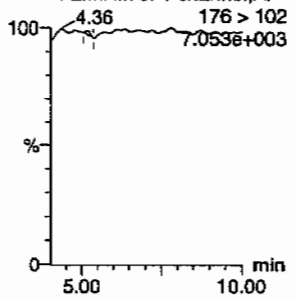


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

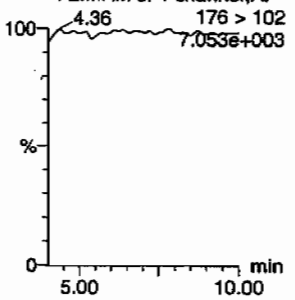
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301009a**
**Date: 01-Mar-2010**
**Time: 19:28:59**
**ID: XIBLK02**
**Vial: 1:1,A**

MMT 3/2/10

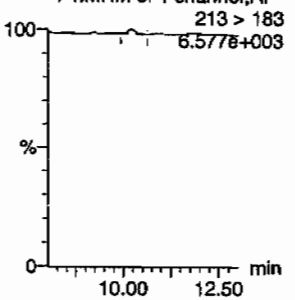
**HMX**
F2:MRM of 1 channel,AP-
4.36 176 > 102
7.053e+003



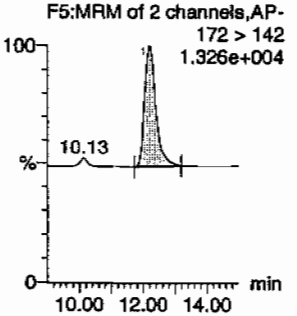

**RDX**
F2:MRM of 1 channel,AP-
4.36 176 > 102
7.053e+003



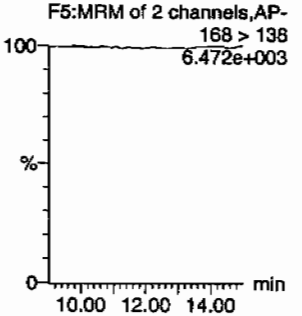

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.577e+003



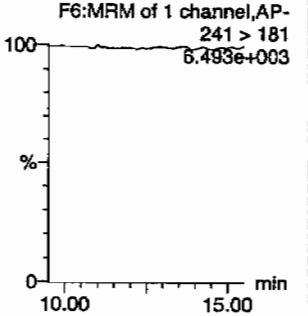

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.326e+004



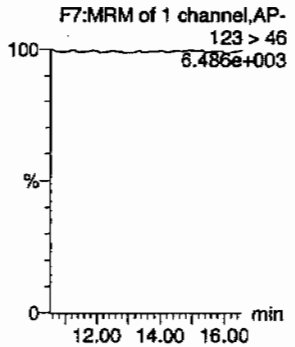

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.472e+003



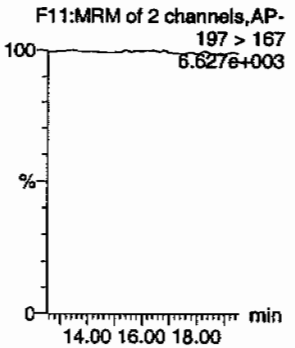

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.493e+003



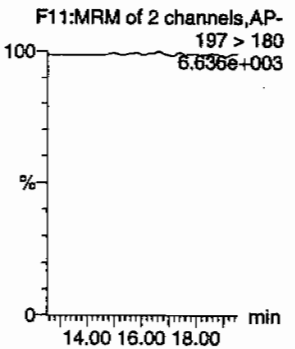

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.485e+003



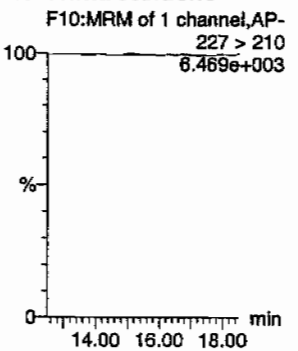

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.627e+003



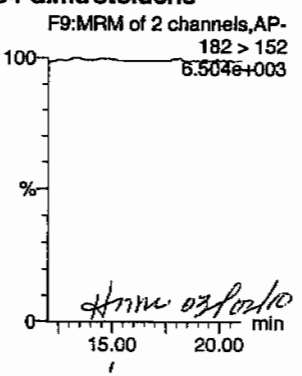

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.636e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.469e+003

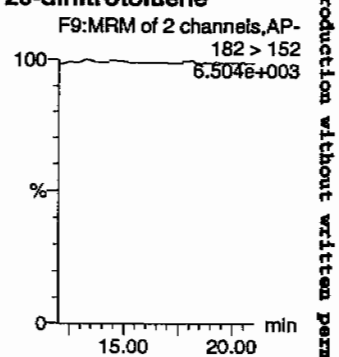



**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.504e+003




Hmw 03/02/10

**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.504e+003

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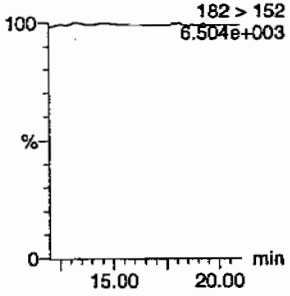
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

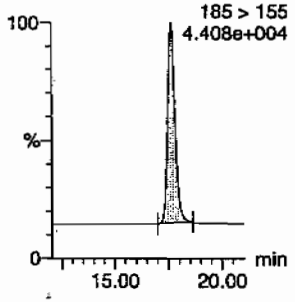


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

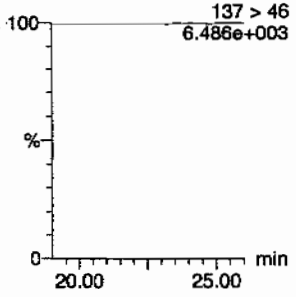
**24-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.504e+003



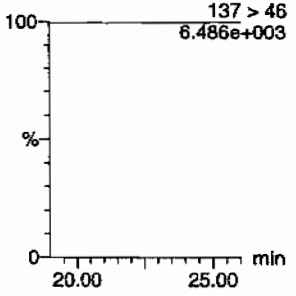

**26-dinitrotoluene-d3**
F9:MRM of 2 channels,AP-
185 > 155
4.408e+004



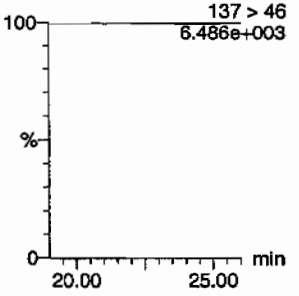

**2-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.486e+003



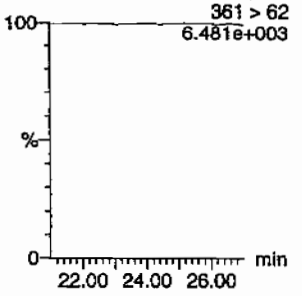

**4-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.486e+003




**3-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.486e+003




**PETN**
F13:MRM of 1 channel,AP-
361 > 62
6.481e+003




| ID | Name | Trace | RT | Area | S/Area | Abs Resp | Response | Flags | Mod Date | Mod Time | µg/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK02 | HMX | 176 > 102 | | | 2836.603 | | | MM- | 02-Mar-10 | 09:58:29 | | | | |
| XIBLK02 | RDX | 176 > 102 | | | 2836.603 | | | | | | | | | |
| XIBLK02 | 135-Trinitrobenzene | 213 > 183 | | | 2836.603 | | | MM- | 02-Mar-10 | 09:57:05 | | | | |
| XIBLK02 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2836.603 | | 2836.603 | 2836.603 | bb | | | 489.3941 | 97.9 | -2.1 | 355.5 |
| XIBLK02 | 13-Dinitrobenzene | 168 > 138 | | | 2836.603 | | | | | | | | | |
| XIBLK02 | Tetryl | 241 > 181 | | | 2836.603 | | | | | | | | | |
| XIBLK02 | Nitrobenzene | 123 > 46 | | | 2836.603 | | | | | | | | | |
| XIBLK02 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | 246-Trinitrotoluene | 227 > 210 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | 34-dinitrotoluene | 182 > 152 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | 26-dinitrotoluene | 182 > 152 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | 24-dinitrotoluene | 182 > 152 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | 26-dinitrotoluene-d3 | 185 > 155 | 17.64 | 14921.731 | | 14921.731 | 14921.731 | bb | | | 463.8451 | 92.8 | -7.2 | 858.6 |
| XIBLK02 | 2-Nitrotoluene | 137 > 46 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | 4-Nitrotoluene | 137 > 46 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | 3-Nitrotoluene | 137 > 46 | | | 14921.731 | | | | | | | | | |
| XIBLK02 | PETN | 361 > 62 | | | 14921.731 | | | | | | | | | |

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK03

**Analysis Date:** 01-MAR-10 20:27

**GEL Data File:** EXP0301011a

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found (ug/L) |
|---|---|---|
| 1,3,5-Trinitrobenzene | 0 | 0 |
| 1,3-Dinitrobenzene-d4 | 500 | 593.284 |
| 2,4,6-Trinitrotoluene | 0 | 0 |
| 2,4-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene-d3 | 500 | 629.492 |
| 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 |

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

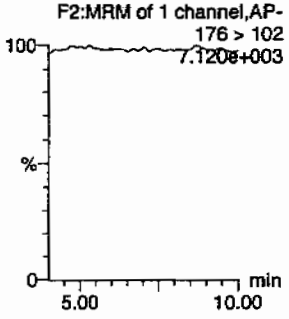


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

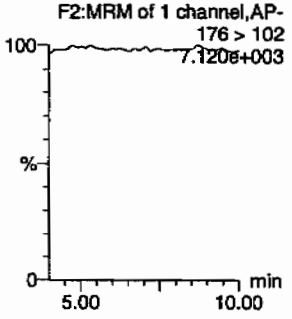
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301011a**
**Date: 01-Mar-2010**
**Time: 20:27:57**
**ID: XIBLK03**
**Vial: 1:1,A**

MATT 3/2/10

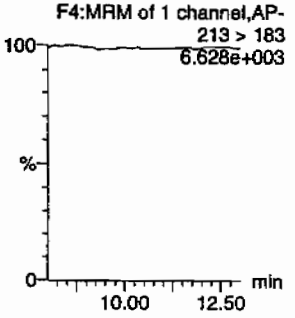
**HMX**



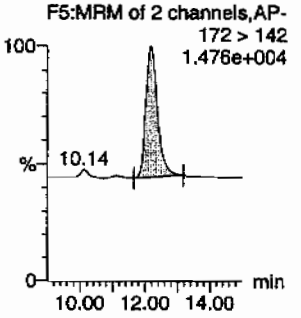

**RDX**



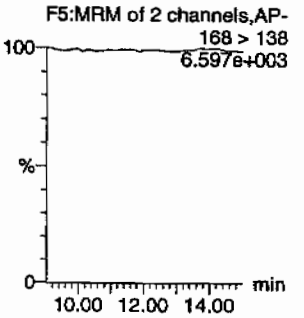

**135-Trinitrobenzene**



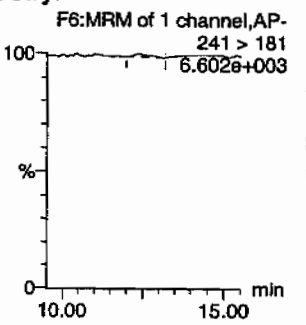

**13-Dinitrobenzene-d4**



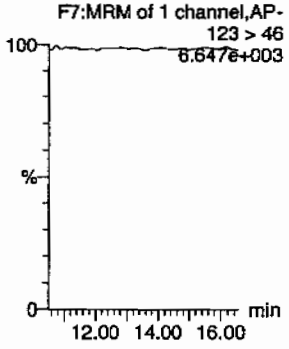

**13-Dinitrobenzene**



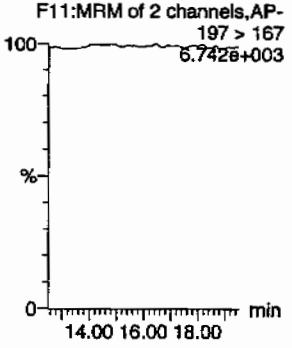

**Tetryl**



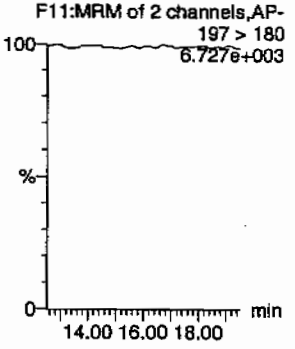

**Nitrobenzene**



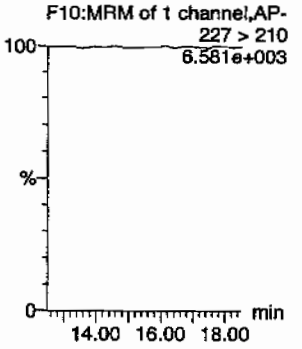

**4-Amino-26-dinitrotoluene**



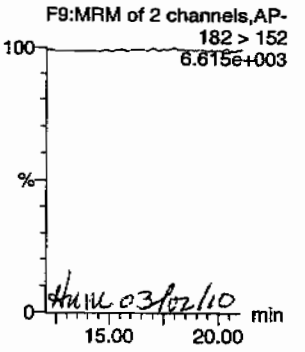

**2-Amino-46-dinitrotoluene**




**246-Trinitrotoluene**

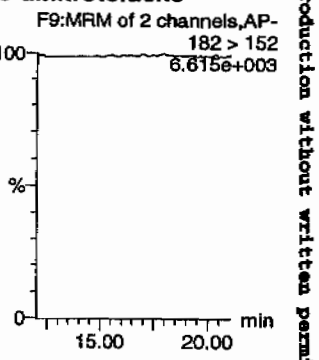



**34-dinitrotoluene**




HMM 03/02/10

**26-dinitrotoluene**

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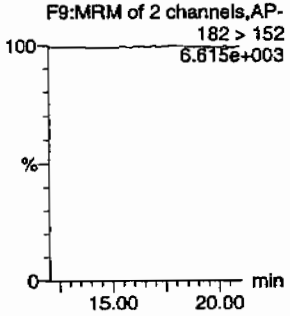
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

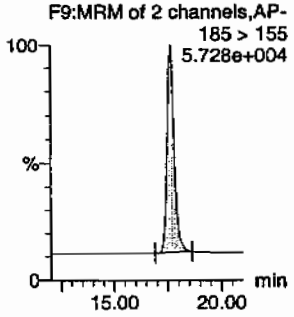


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

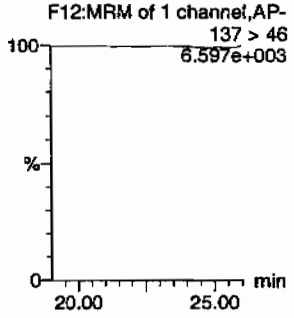
**24-dinitrotoluene**



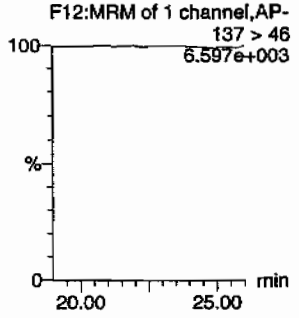

**26-dinitrotoluene-d3**



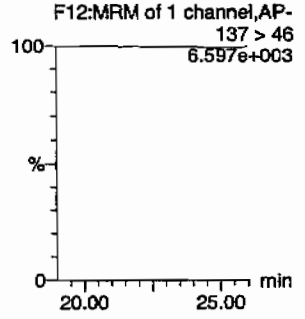

**2-Nitrotoluene**



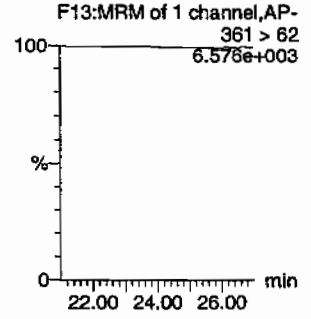

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK03 | HMX | 176 > 102 | | | 3438.767 | | | | | | | | | |
| XIBLK03 | RDX | 176 > 102 | | | 3438.767 | | | | | | | | | |
| XIBLK03 | 135-Trinitrobenzene | 213 > 183 | | | 3438.767 | | | | | | | | | |
| XIBLK03 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3438.767 | | 3438.767 | 3438.767 | bb | | | 593.2844 | 118.7 | 18.7 | 152.6 |
| XIBLK03 | 13-Dinitrobenzene | 168 > 138 | | | 3438.767 | | | | | | | | | |
| XIBLK03 | Tetryl | 241 > 181 | | | 3438.767 | | | MM- | 02-Mar-10 | 09:55:33 | | | | |
| XIBLK03 | Nitrobenzene | 123 > 46 | | | 3438.767 | | | | | | | | | |
| XIBLK03 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | 246-Trinitrotoluene | 227 > 210 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | 34-dinitrotoluene | 182 > 152 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | 26-dinitrotoluene | 182 > 152 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | 24-dinitrotoluene | 182 > 152 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 20250.545 | | 20250.545 | 20250.545 | bb | | | 629.4924 | 125.9 | 25.9 | 1728.6 |
| XIBLK03 | 2-Nitrotoluene | 137 > 46 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | 4-Nitrotoluene | 137 > 46 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | 3-Nitrotoluene | 137 > 46 | | | 20250.545 | | | | | | | | | |
| XIBLK03 | PETN | 361 > 62 | | | 20250.545 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK04

**Analysis Date:** 01-MAR-10 23:54

**GEL Data File:** EXP0301018a

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

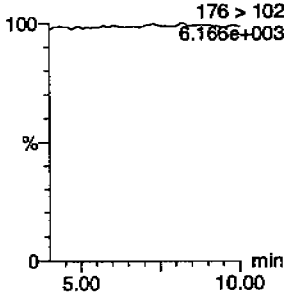
| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4-Dinitrotoluene | 0 | 0 |
| 1,3,5-Trinitrobenzene | 0 | 0 |
| 1,3-Dinitrobenzene-d4 | 500 | 606.462 |
| 2,4,6-Trinitrotoluene | 0 | 0 |
| 2,4-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene-d3 | 500 | 554.129 |
| 2-Amino-4,6-dinitrotoluene | 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\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

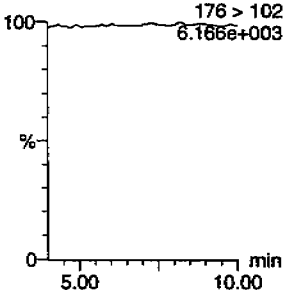
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301018a**
**Date: 01-Mar-2010**
**Time: 23:54:20**
**ID: XIBLK04**
**Vial: 1:1,A**

MMT 3/2/10

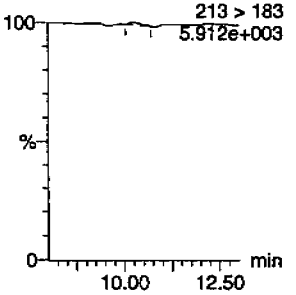
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
6.166e+003



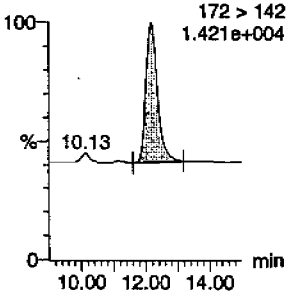

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
6.166e+003



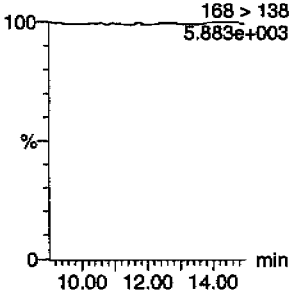

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
5.912e+003



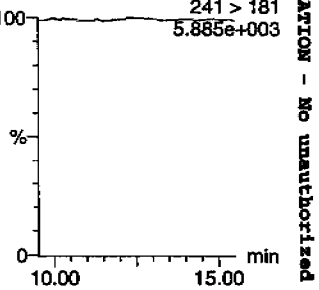

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.421e+004



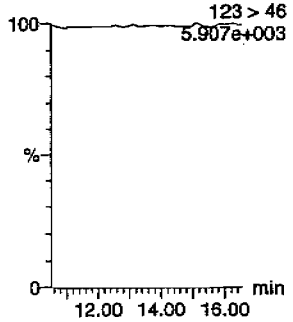

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
5.883e+003



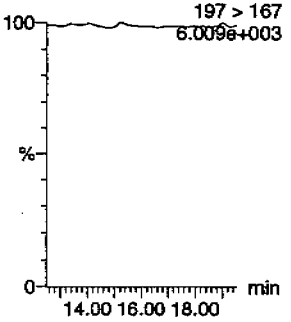

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
5.885e+003



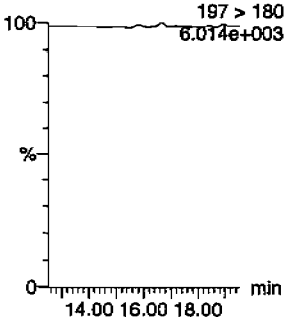

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
5.907e+003



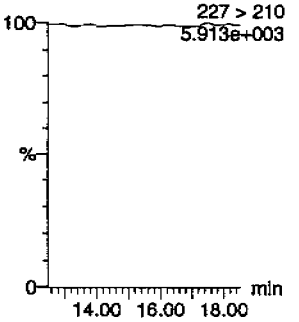

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.009e+003



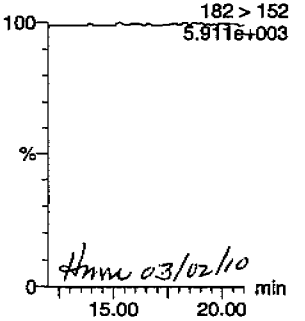

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.014e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
5.913e+003

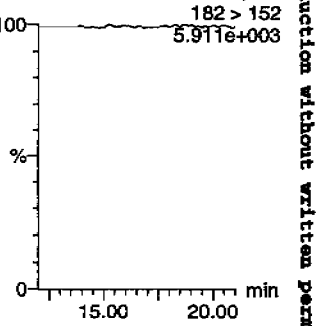



**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003




Hmm 03/02/10

**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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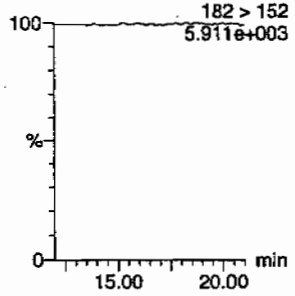
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

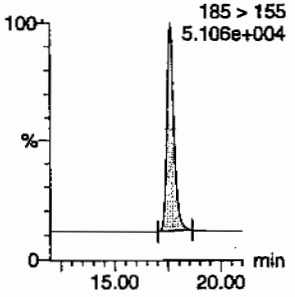


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

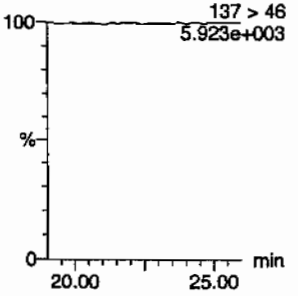
**24-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003



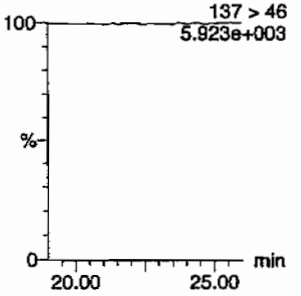

**26-dinitrotoluene-d3**
F9:MRM of 2 channels,AP-
185 > 155
5.106e+004



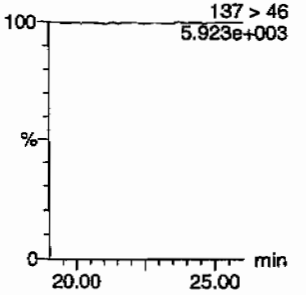

**2-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003



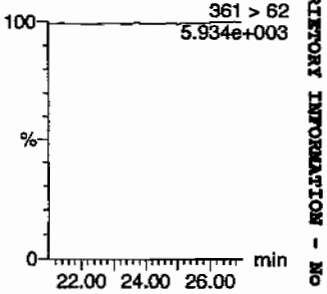

**4-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003




**3-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003




**PETN**
F13:MRM of 1 channel,AP-
361 > 62
5.934e+003




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK04 | HMX | 176 > 102 | | | 3515.148 | | | | | | | | | |
| XIBLK04 | RDX | 176 > 102 | | | 3515.148 | | | | | | | | | |
| XIBLK04 | 135-Trinitrobenzene | 213 > 183 | | | 3515.148 | | | MM- | 02-Mar-10 | 09:56:58 | | | | |
| XIBLK04 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3515.148 | | 3515.148 | 3515.148 | bb | | | 606.4623 | 121.3 | 21.3 | 516.3 |
| XIBLK04 | 13-Dinitrobenzene | 168 > 138 | | | 3515.148 | | | | | | | | | |
| XIBLK04 | Tetryl | 241 > 181 | | | 3515.148 | | | | | | | | | |
| XIBLK04 | Nitrobenzene | 123 > 46 | | | 3515.148 | | | | | | | | | |
| XIBLK04 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | 246-Trinitrotoluene | 227 > 210 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | 34-dinitrotoluene | 182 > 152 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | 26-dinitrotoluene | 182 > 152 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | 24-dinitrotoluene | 182 > 152 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17826.121 | | 17826.121 | 17826.121 | bb | | | 554.1287 | 110.8 | 10.8 | 2328.6 |
| XIBLK04 | 2-Nitrotoluene | 137 > 46 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | 4-Nitrotoluene | 137 > 46 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | 3-Nitrotoluene | 137 > 46 | | | 17826.121 | | | | | | | | | |
| XIBLK04 | PETN | 361 > 62 | | | 17826.121 | | | | | | | | | |

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# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK05

**Analysis Date:** 02-MAR-10 06:17

**GEL Data File:** EXP0301031a

**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 | 455.251 |
| 2,4,6-Trinitrotoluene | 0 | 0 |
| 2,4-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene-d3 | 500 | 499.31 |
| 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

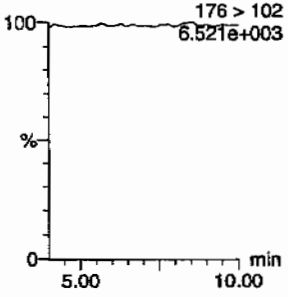


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

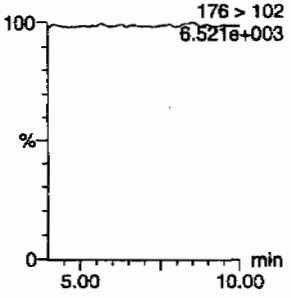
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301031a**
**Date: 02-Mar-2010**
**Time: 06:17:40**
**ID: XIBLK05**
**Vial: 1:1,A**

MMT 3/2/10

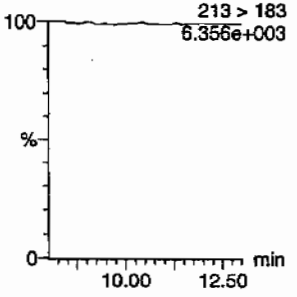
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
6.521e+003



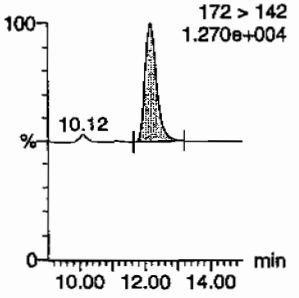

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
6.521e+003



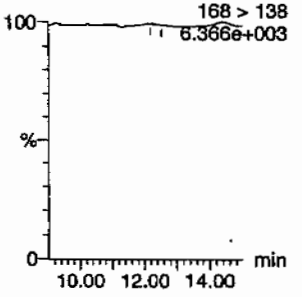

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.356e+003



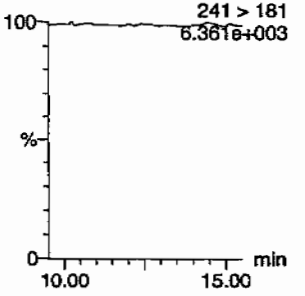

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.270e+004



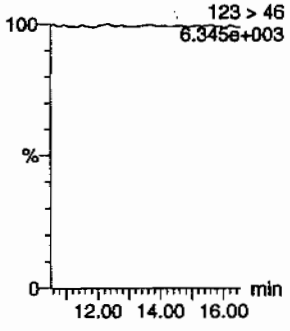

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.366e+003



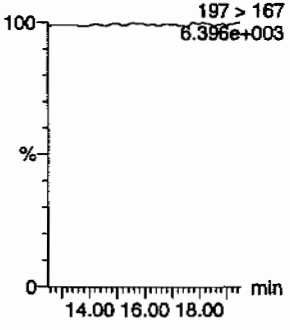

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.361e+003



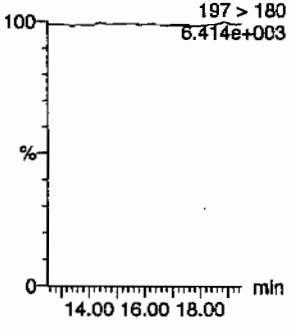

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.345e+003



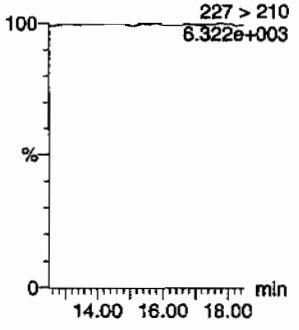

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.396e+003



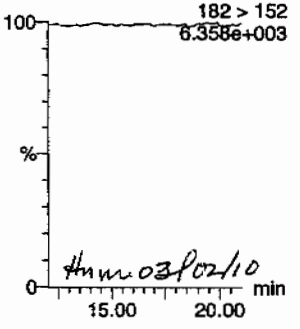

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.414e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.322e+003

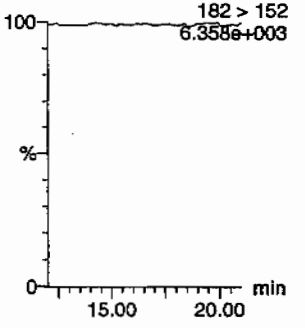



**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.358e+003




Hmm 03/02/10

**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.358e+003




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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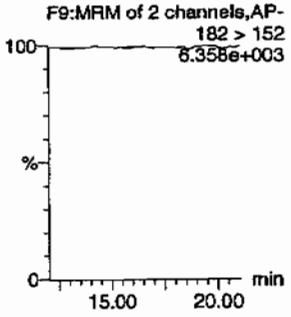
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

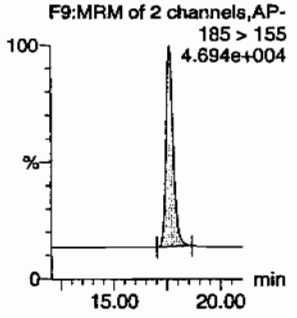


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

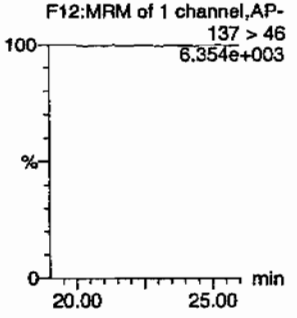
**24-dinitrotoluene**



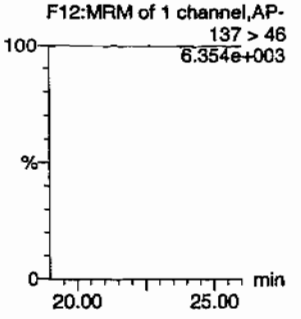

**26-dinitrotoluene-d3**



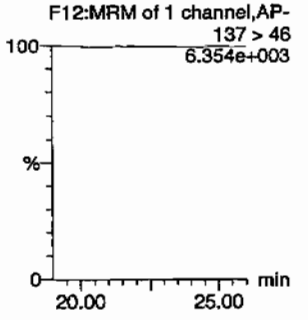

**2-Nitrotoluene**



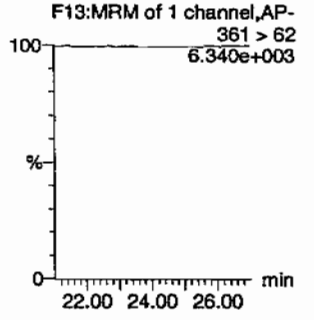

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK05 | HMX | 176 > 102 | | | 2638.707 | | | | | | | | | |
| XIBLK05 | RDX | 176 > 102 | | | 2638.707 | | | | | | | | | |
| XIBLK05 | 135-Trinitrobenzene | 213 > 183 | | | 2638.707 | | | | | | | | | |
| XIBLK05 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2638.707 | | 2638.707 | 2638.707 | bb | | | 455.2515 | 91.1 | -8.9 | 188.8 |
| XIBLK05 | 13-Dinitrobenzene | 168 > 138 | | | 2638.707 | | | MM- | 02-Mar-10 | 09:56:43 | | | | |
| XIBLK05 | Tetryl | 241 > 181 | | | 2638.707 | | | | | | | | | |
| XIBLK05 | Nitrobenzene | 123 > 46 | | | 2638.707 | | | | | | | | | |
| XIBLK05 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | 246-Trinitrotoluene | 227 > 210 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | 34-dinitrotoluene | 182 > 152 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | 26-dinitrotoluene | 182 > 152 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | 24-dinitrotoluene | 182 > 152 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 16062.614 | | 16062.614 | 16062.614 | bb | | | 499.3097 | 99.9 | -0.1 | 1757.4 |
| XIBLK05 | 2-Nitrotoluene | 137 > 46 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | 4-Nitrotoluene | 137 > 46 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | 3-Nitrotoluene | 137 > 46 | | | 16062.614 | | | | | | | | | |
| XIBLK05 | PETN | 361 > 62 | | | 16062.614 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK06

**Analysis Date:** 02-MAR-10 12:41

**GEL Data File:** EXP0301044a

**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 | 507.1 |
| 2,4,6-Trinitrotoluene | 0 | 0 |
| 2,4-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene-d3 | 500 | 517.389 |
| 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

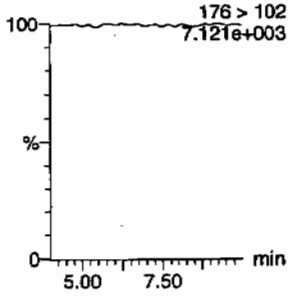


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

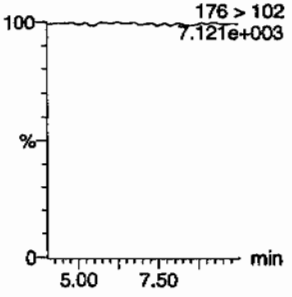
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301044a**
**Date: 02-Mar-2010**
**Time: 12:41:52**
**ID: XIBLK06**
**Vial: 1:1,A**

MM 3/3/10

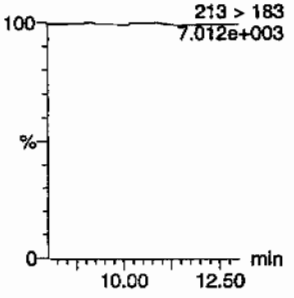
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
7.121e+003



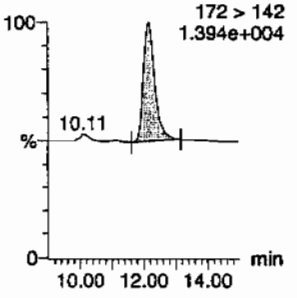

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
7.121e+003



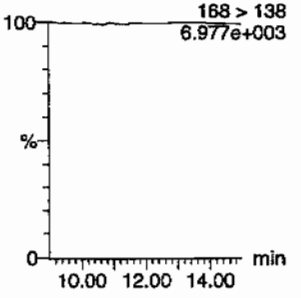

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
7.012e+003



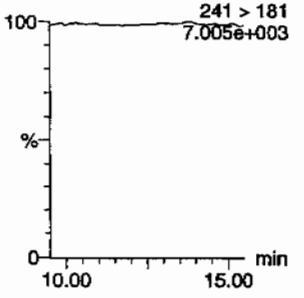

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.394e+004



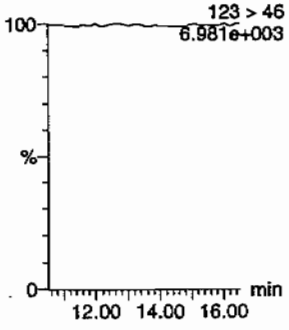

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.977e+003



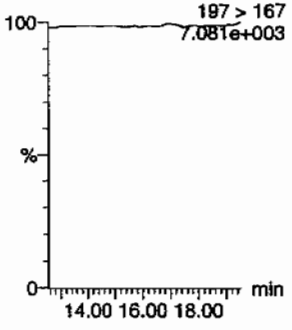

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
7.005e+003



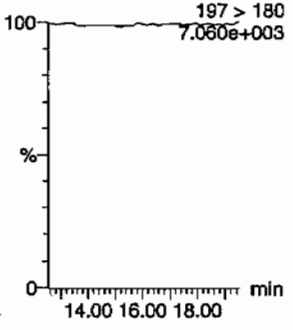

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.981e+003



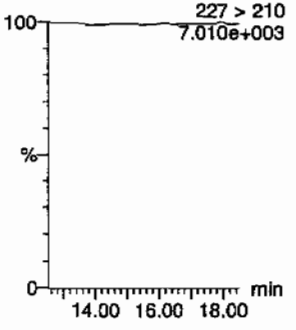

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
7.081e+003



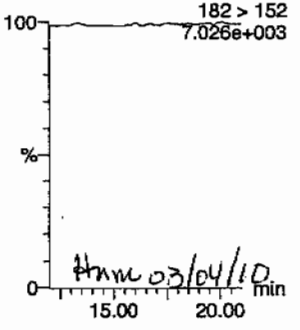

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
7.060e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
7.010e+003

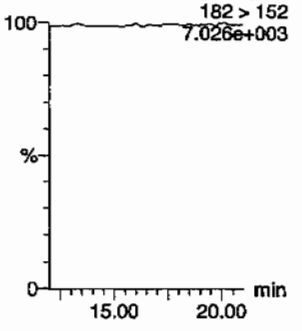



**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
7.026e+003




Hmm 03/04/10

**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
7.026e+003

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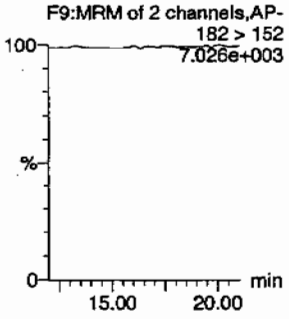
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

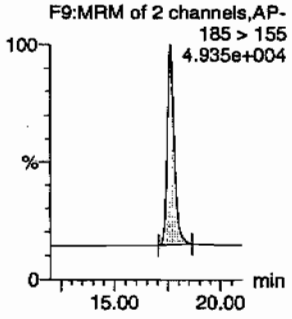


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

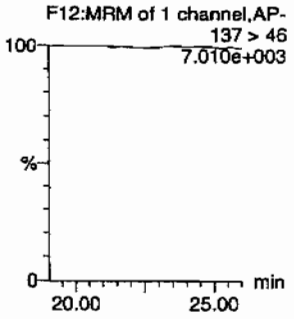
**24-dinitrotoluene**



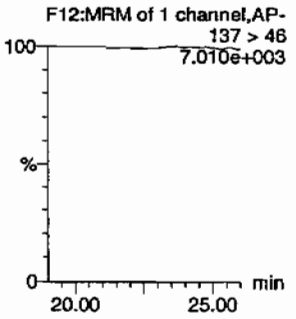

**26-dinitrotoluene-d3**



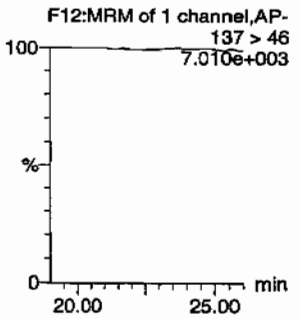

**2-Nitrotoluene**



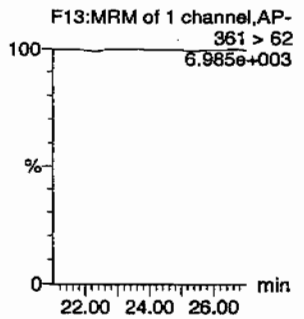

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK06 | HMX | 176 > 102 | | | 2939.228 | | | | | | | | | |
| XIBLK06 | RDX | 176 > 102 | | | 2939.228 | | | | | | | | | |
| XIBLK06 | 135-Trinitrobenzene | 213 > 183 | | | 2939.228 | | | | | | | | | |
| XIBLK06 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2939.228 | | 2939.228 | 2939.228 | bb | | | 507.0999 | 101.4 | 1.4 | 285.5 |
| XIBLK06 | 13-Dinitrobenzene | 168 > 138 | | | 2939.228 | | | | | | | | | |
| XIBLK06 | Tetryl | 241 > 181 | | | 2939.228 | | | | | | | | | |
| XIBLK06 | Nitrobenzene | 123 > 46 | | | 2939.228 | | | | | | | | | |
| XIBLK06 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | 246-Trinitrotoluene | 227 > 210 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | 34-dinitrotoluene | 182 > 152 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | 26-dinitrotoluene | 182 > 152 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | 24-dinitrotoluene | 182 > 152 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | 26-dinitrotoluene-d3 | 185 > 155 | 17.63 | 16644.225 | | 16644.225 | 16644.225 | bb | | | 517.3892 | 103.5 | 3.5 | 1828.0 |
| XIBLK06 | 2-Nitrotoluene | 137 > 46 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | 4-Nitrotoluene | 137 > 46 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | 3-Nitrotoluene | 137 > 46 | | | 16644.225 | | | | | | | | | |
| XIBLK06 | PETN | 361 > 62 | | | 16644.225 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK07

**Analysis Date:** 02-MAR-10 19:12

**GEL Data File:** EXP0301057a

**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 | 498.442 |
| 2,4,6-Trinitrotoluene | 0 | 0 |
| 2,4-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene-d3 | 500 | 513.169 |
| 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

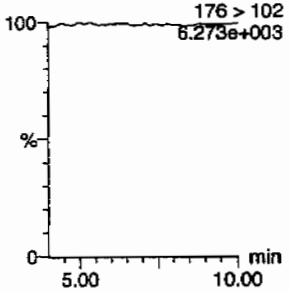


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

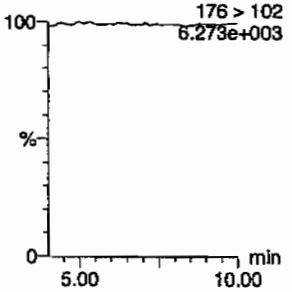
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301057a**
**Date: 02-Mar-2010**
**Time: 19:12:15**
**ID: XIBLK07**
**Vial: 1:1,A**

HMT 3/3/10

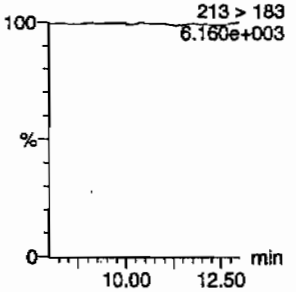
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
6.273e+003



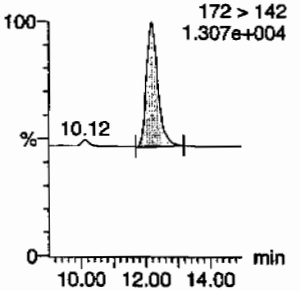

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
6.273e+003



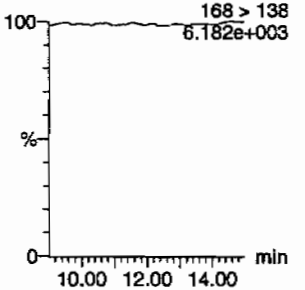

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.160e+003



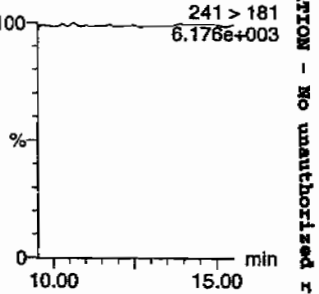

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.307e+004



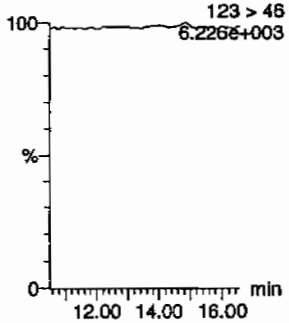

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.182e+003



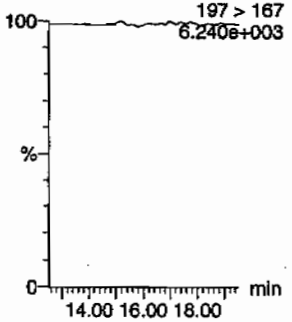

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.176e+003



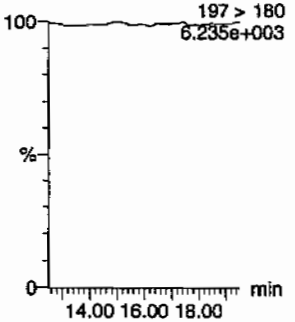

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.226e+003



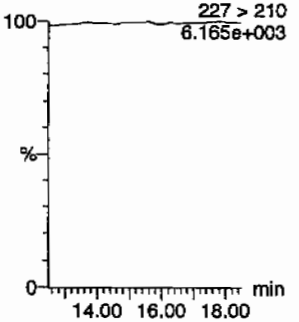

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.240e+003



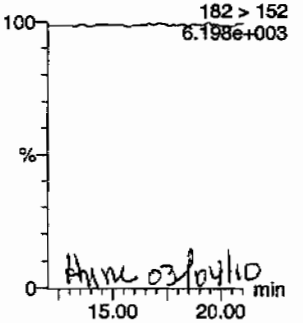

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.235e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.165e+003




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.198e+003

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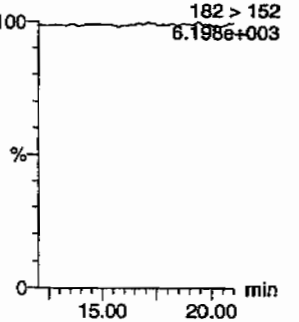
**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.198e+003



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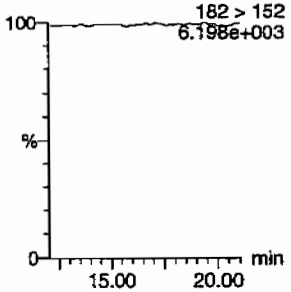
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

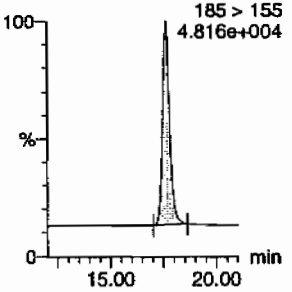


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

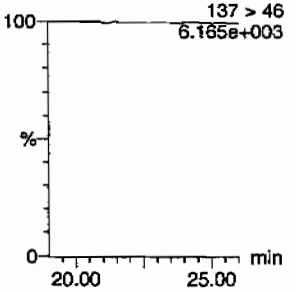
**24-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.198e+003



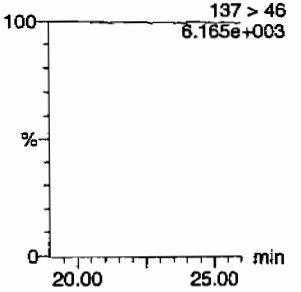

**26-dinitrotoluene-d3**
F9:MRM of 2 channels,AP-
185 > 155
4.816e+004



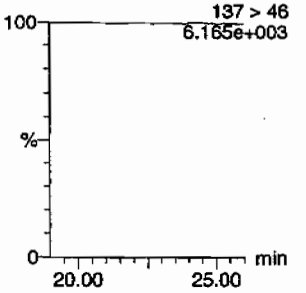

**2-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.165e+003



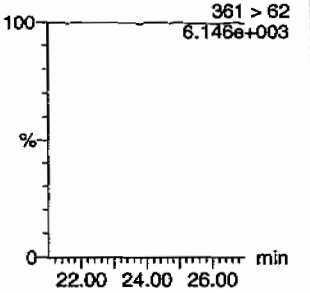

**4-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.165e+003




**3-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.165e+003




**PETN**
F13:MRM of 1 channel,AP-
361 > 62
6.146e+003




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK07 | HMX | 176 > 102 | | | 2889.043 | | | | | | | | | |
| XIBLK07 | RDX | 176 > 102 | | | 2889.043 | | | | | | | | | |
| XIBLK07 | 135-Trinitrobenzene | 213 > 183 | | | 2889.043 | | | | | | | | | |
| XIBLK07 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2889.043 | | 2889.043 | 2889.043 | bb | | | 498.4415 | 99.7 | -0.3 | 171.0 |
| XIBLK07 | 13-Dinitrobenzene | 168 > 138 | | | 2889.043 | | | | | | | | | |
| XIBLK07 | Tetryl | 241 > 181 | | | 2889.043 | | | | | | | | | |
| XIBLK07 | Nitrobenzene | 123 > 46 | | | 2889.043 | | | | | | | | | |
| XIBLK07 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | 246-Trinitrotoluene | 227 > 210 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | 34-dinitrotoluene | 182 > 152 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | 26-dinitrotoluene | 182 > 152 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | 24-dinitrotoluene | 182 > 152 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | 26-dinitrotoluene-d3 | 185 > 155 | 17.64 | 16508.475 | | 16508.475 | 16508.475 | bb | | | 513.1694 | 102.6 | 2.6 | 1224.6 |
| XIBLK07 | 2-Nitrotoluene | 137 > 46 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | 4-Nitrotoluene | 137 > 46 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | 3-Nitrotoluene | 137 > 46 | | | 16508.475 | | | | | | | | | |
| XIBLK07 | PETN | 361 > 62 | | | 16508.475 | | | | | | | | | |

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK08

**Analysis Date:** 03-MAR-10 01:06

**GEL Data File:** EXP0301069a

**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 | 575.51 |
| 2,4,6-Trinitrotoluene | 0 | 0 |
| 2,4-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene | 0 | 0 |
| 2,6-Dinitrotoluene-d3 | 500 | 589.51 |
| 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

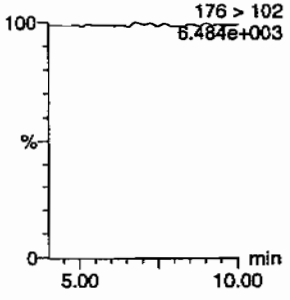


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

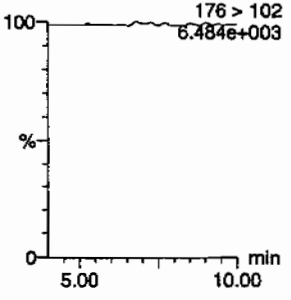
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301069a**
**Date: 03-Mar-2010**
**Time: 01:06:20**
**ID: XIBLK08**
**Vial: 1:1,A**

MMP 3/3/10

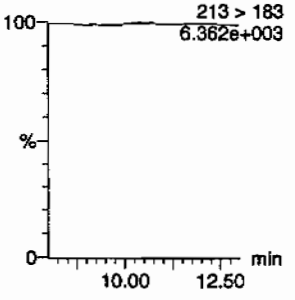
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
6.484e+003



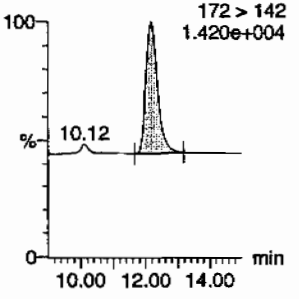

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
6.484e+003



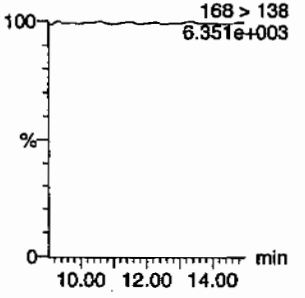

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.362e+003



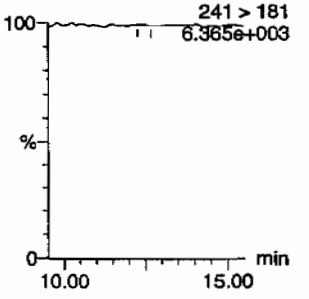

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.420e+004



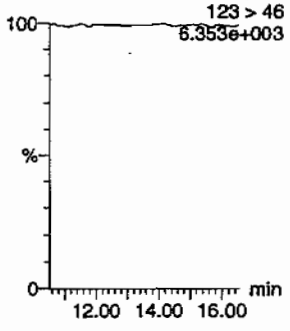

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.351e+003



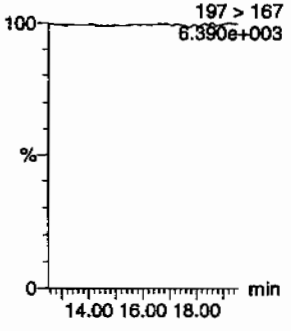

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.365e+003



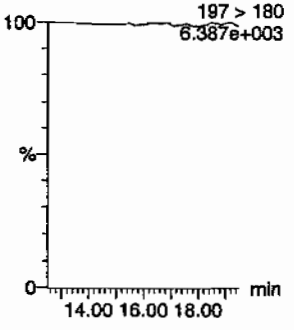

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.353e+003



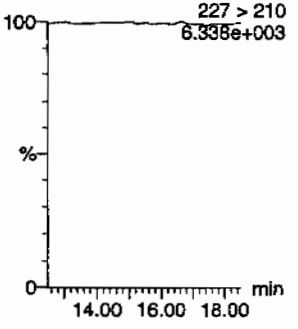

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.390e+003



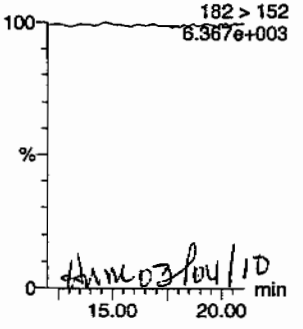

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.387e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.338e+003




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.367e+003

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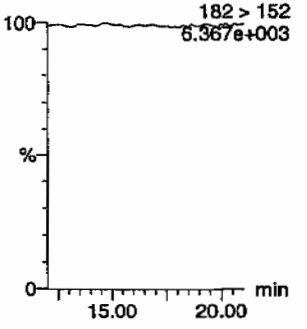
**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.367e+003




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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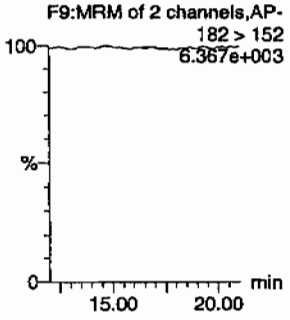
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

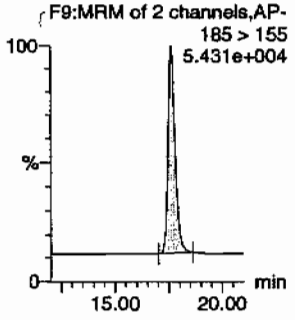


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

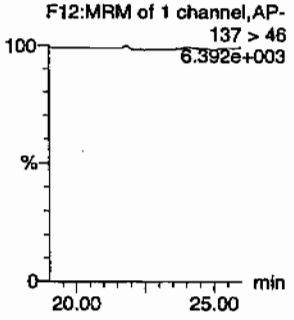
**24-dinitrotoluene**



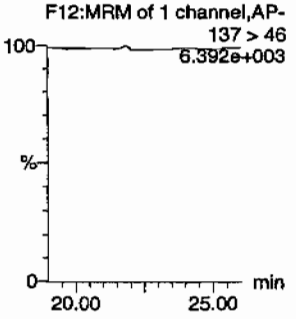

**26-dinitrotoluene-d3**



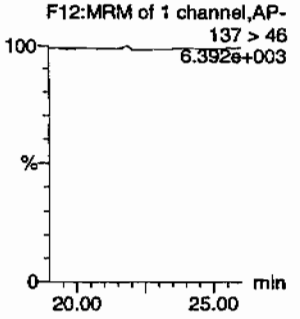

**2-Nitrotoluene**



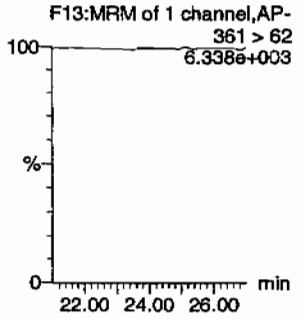

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK08 | HMX | 176 > 102 | | | 3335.746 | | | | | | | | | |
| XIBLK08 | RDX | 176 > 102 | | | 3335.746 | | | | | | | | | |
| XIBLK08 | 135-Trinitrobenzene | 213 > 183 | | | 3335.746 | | | | | | | | | |
| XIBLK08 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3335.746 | | 3335.746 | 3335.746 | bb | | | 575.5104 | 115.1 | 15.1 | 206.2 |
| XIBLK08 | 13-Dinitrobenzene | 168 > 138 | | | 3335.746 | | | | | | | | | |
| XIBLK08 | Tetryl | 241 > 181 | | | 3335.746 | | | MM- | 03-Mar-10 | 08:44:06 | | | | |
| XIBLK08 | Nitrobenzene | 123 > 46 | | | 3335.746 | | | | | | | | | |
| XIBLK08 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | 246-Trinitrotoluene | 227 > 210 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | 34-dinitrotoluene | 182 > 152 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | 26-dinitrotoluene | 182 > 152 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | 24-dinitrotoluene | 182 > 152 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18964.324 | | 18964.324 | 18964.324 | bb | | | 589.5099 | 117.9 | 17.9 | 2280.5 |
| XIBLK08 | 2-Nitrotoluene | 137 > 46 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | 4-Nitrotoluene | 137 > 46 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | 3-Nitrotoluene | 137 > 46 | | | 18964.324 | | | | | | | | | |
| XIBLK08 | PETN | 361 > 62 | | | 18964.324 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10–1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK09

**Analysis Date:** 03–MAR–10 07:29

**GEL Data File:** EXP0301082a

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found (ug/L) |
|---|---|---|
| 2,6–Dinitrotoluene | 0 | 0 |
| 2,6–Dinitrotoluene–d3 | 500 | 556.508 |
| 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 | 554.089 |
| 2,4,6–Trinitrotoluene | 0 | 0 |

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

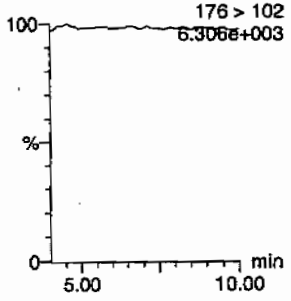


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

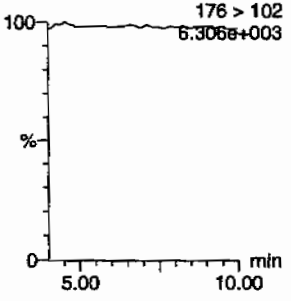
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301082a**
**Date: 03-Mar-2010**
**Time: 07:29:51**
**ID: XIBLK09**
**Vial: 1:1,A**

HMM 3/3/10

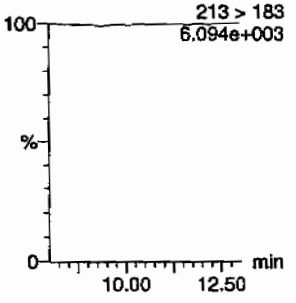
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
6.306e+003



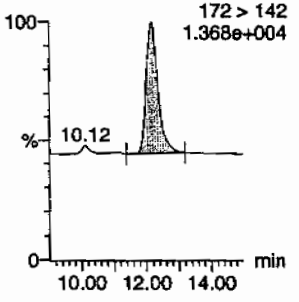

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
6.306e+003



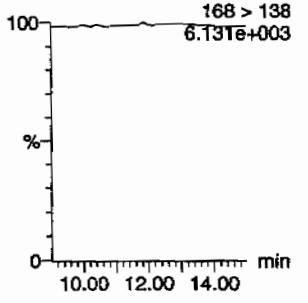

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.094e+003



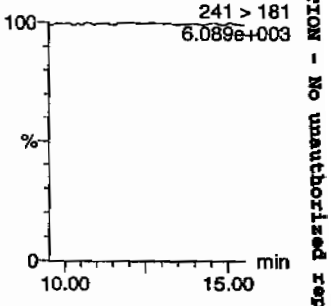

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.368e+004



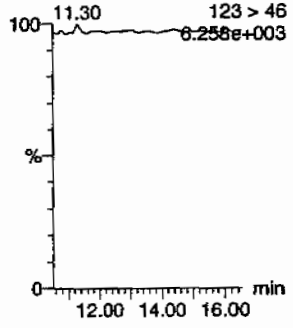

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.131e+003



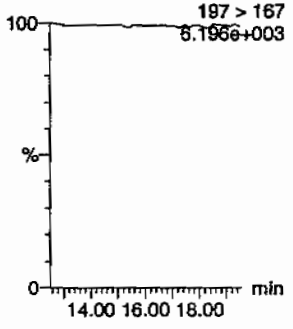

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.089e+003



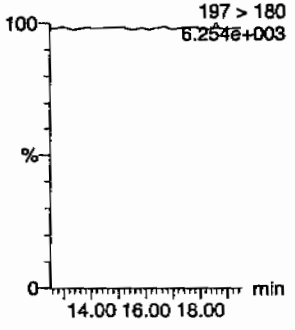

**Nitrobenzene**
F7:MRM of 1 channel,AP-
11.30
123 > 46
6.258e+003



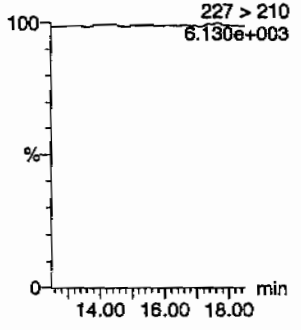

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.196e+003



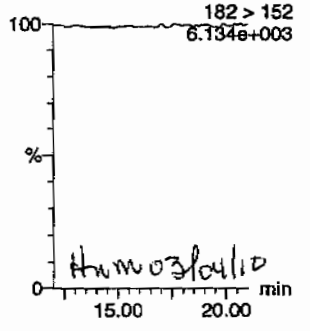

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.254e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.130e+003

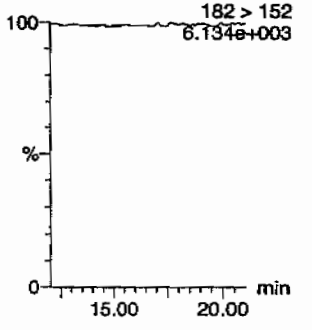



**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.134e+003




HMM 03/04/10

**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.134e+003

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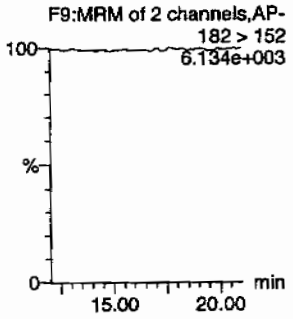
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

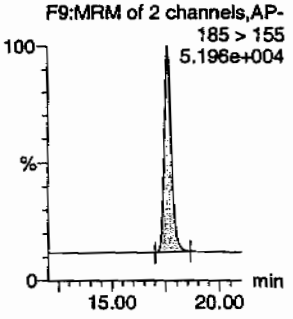


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

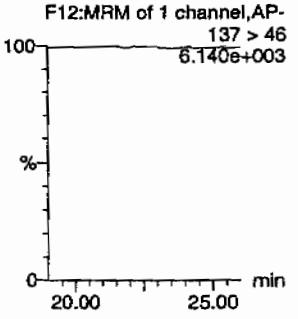
**24-dinitrotoluene**



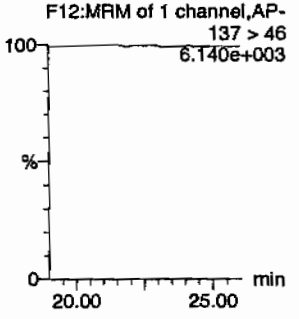

**26-dinitrotoluene-d3**



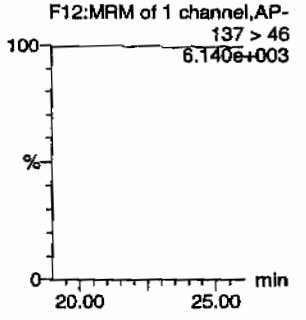

**2-Nitrotoluene**



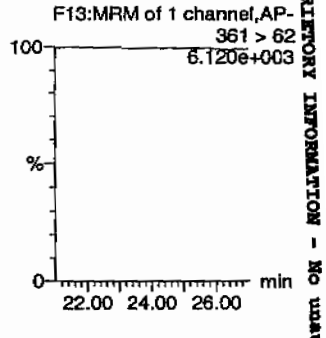

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XIBLK09 | HMX | 176 > 102 | | | 3211.582 | | | | | | | | | |
| XIBLK09 | RDX | 176 > 102 | | | 3211.582 | | | | | | | | | |
| XIBLK09 | 135-Trinitrobenzene | 213 > 183 | | | 3211.582 | | | | | | | | | |
| XIBLK09 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3211.582 | | 3211.582 | 3211.582 | bb | | | 554.0886 | 110.8 | 10.8 | 286.4 |
| XIBLK09 | 13-Dinitrobenzene | 168 > 138 | | | 3211.582 | | | | | | | | | |
| XIBLK09 | Tetryl | 241 > 181 | | | 3211.582 | | | | | | | | | |
| XIBLK09 | Nitrobenzene | 123 > 46 | | | 3211.582 | | | | | | | | | |
| XIBLK09 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | 246-Trinitrotoluene | 227 > 210 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | 34-dinitrotoluene | 182 > 152 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | 26-dinitrotoluene | 182 > 152 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | 24-dinitrotoluene | 182 > 152 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17902.656 | | 17902.656 | 17902.656 | bb | | | 556.5078 | 111.3 | 11.3 | 1976.1 |
| XIBLK09 | 2-Nitrotoluene | 137 > 46 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | 4-Nitrotoluene | 137 > 46 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | 3-Nitrotoluene | 137 > 46 | | | 17902.656 | | | | | | | | | |
| XIBLK09 | PETN | 361 > 62 | | | 17902.656 | | | | | | | | | |

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10–1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK02

**Analysis Date:** 22–FEB–10 19:23

**GEL Data File:** EXS02220010.wiff

**Instrument ID:** LCMSMS

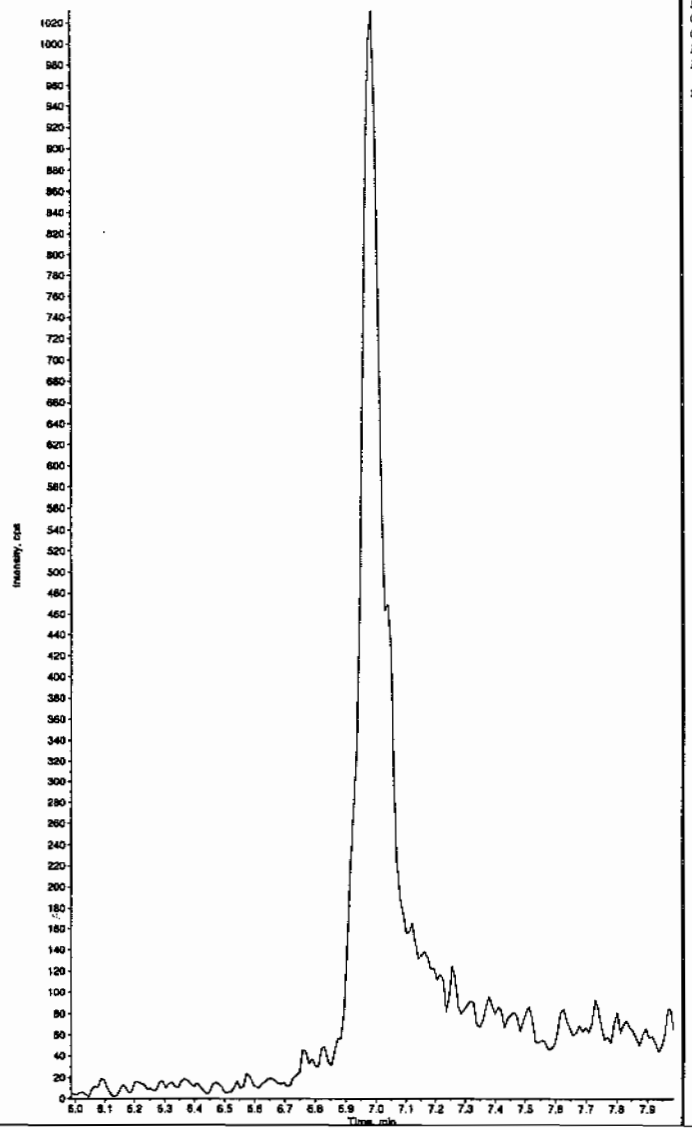
**Column:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4–Dinitrotoluene | 0 | 1.35 |
| tris(o–cresyl) phosphate | 0 | 10.7 |
| TATB | 0 | 0 |
| 3,5–Dinitroaniline | 0 | 0 |
| 2,4–Diamino–6–nitrotoluene | 0 | 0 |
| 2,6–Diamino–4–nitrotoluene | 0 | 0 |

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02220010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

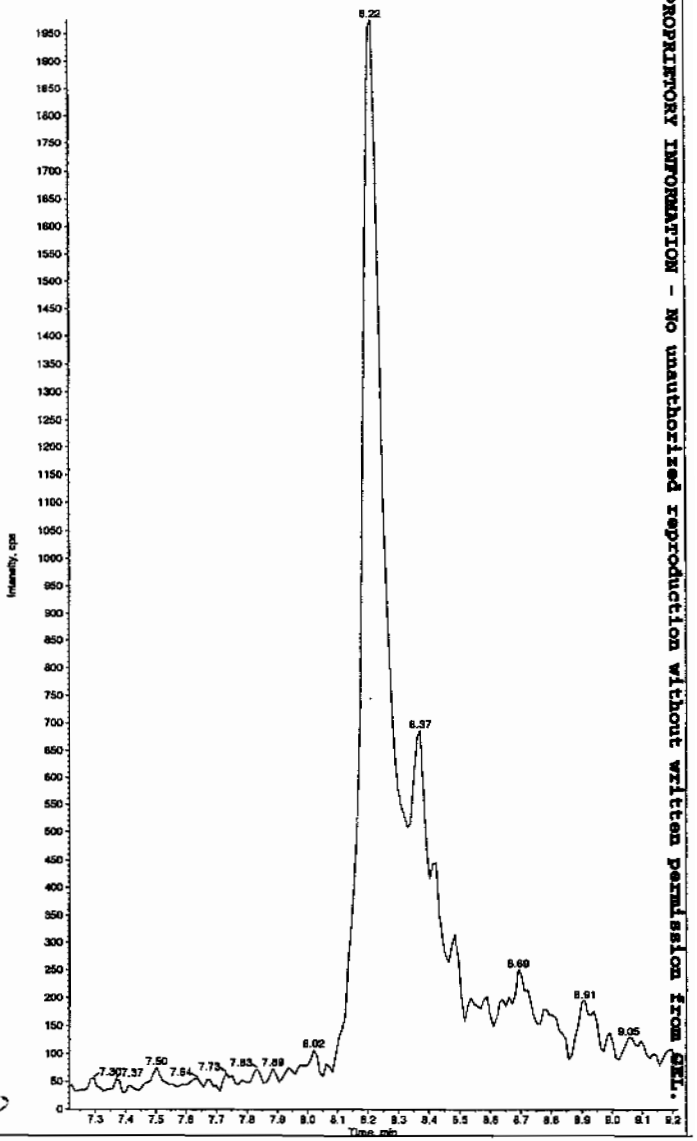
Modified: No




Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02220010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

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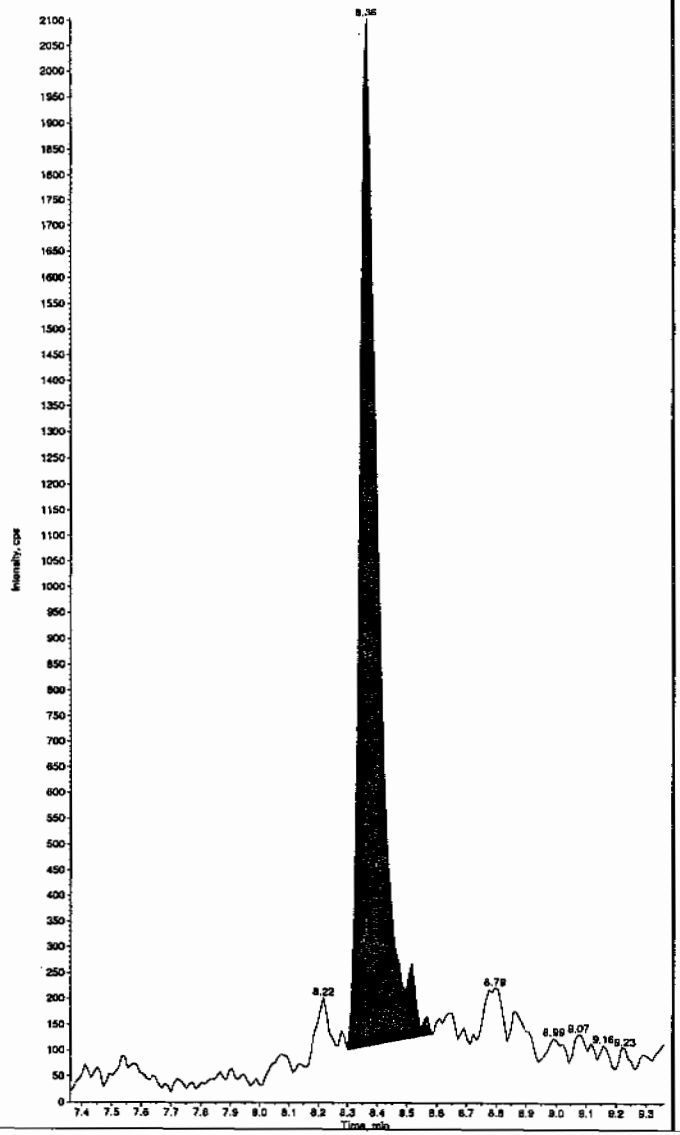
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.35 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

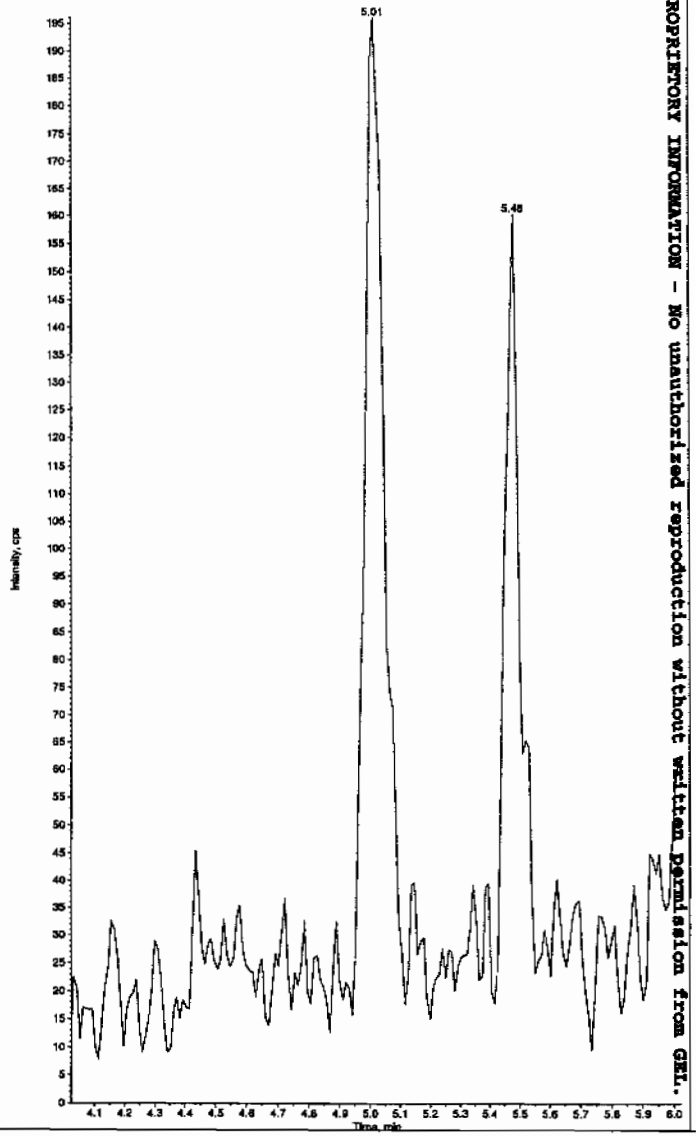
Int. Type: Valley
Retention Time: 8.36 min
Area: 9.14e+003 counts
Height: 1997.357 cps
Start Time: 8.30 min
End Time: 8.59 min




Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

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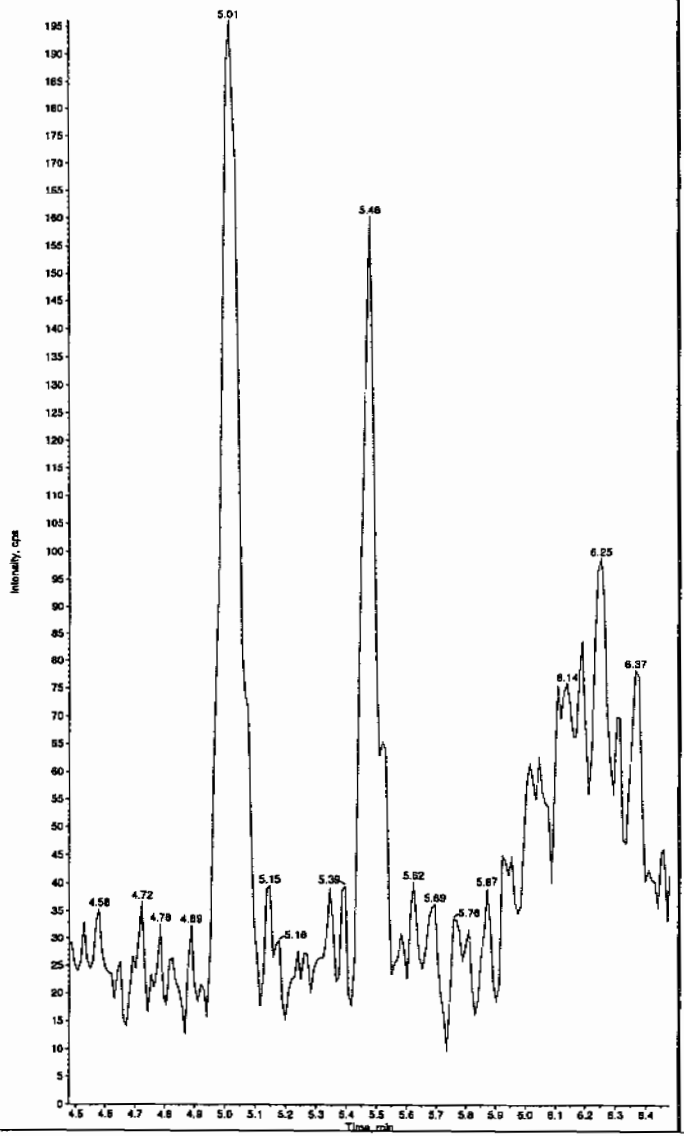
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

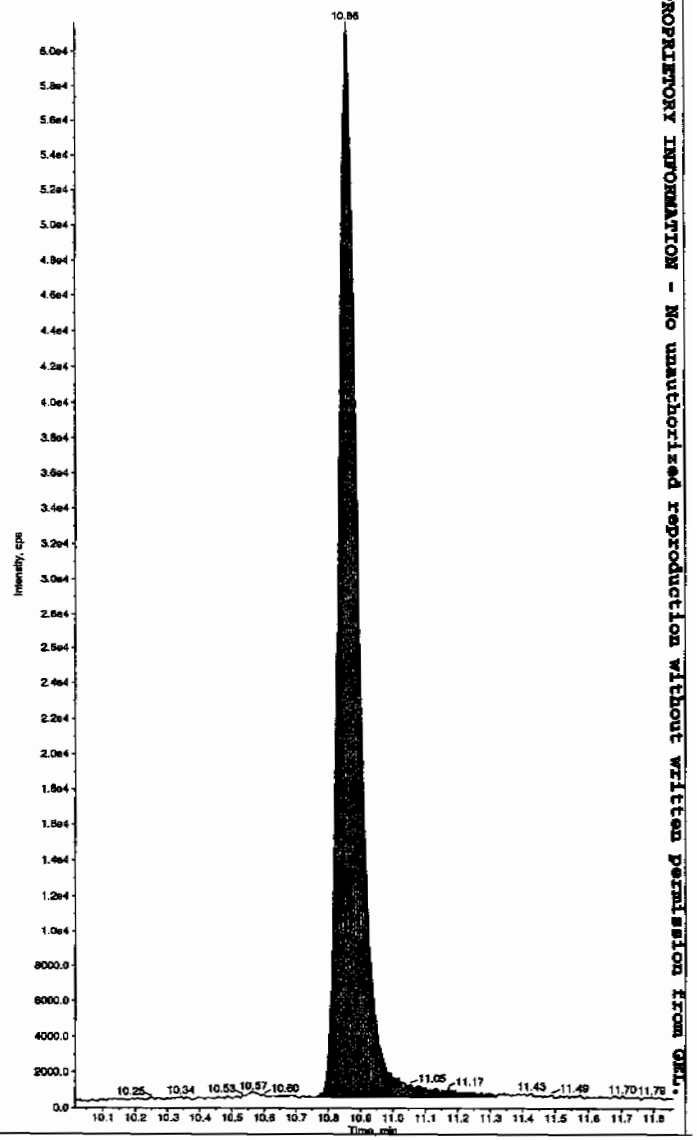



Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 10.7 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 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: 2.72e+005 counts
Height: 61036.366 cps
Start Time: 10.8 min
End Time: 11.3 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10–1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK03

**Analysis Date:** 22–FEB–10 19:54

**GEL Data File:** EXS02220012.wiff

**Instrument ID:** LCMSMS

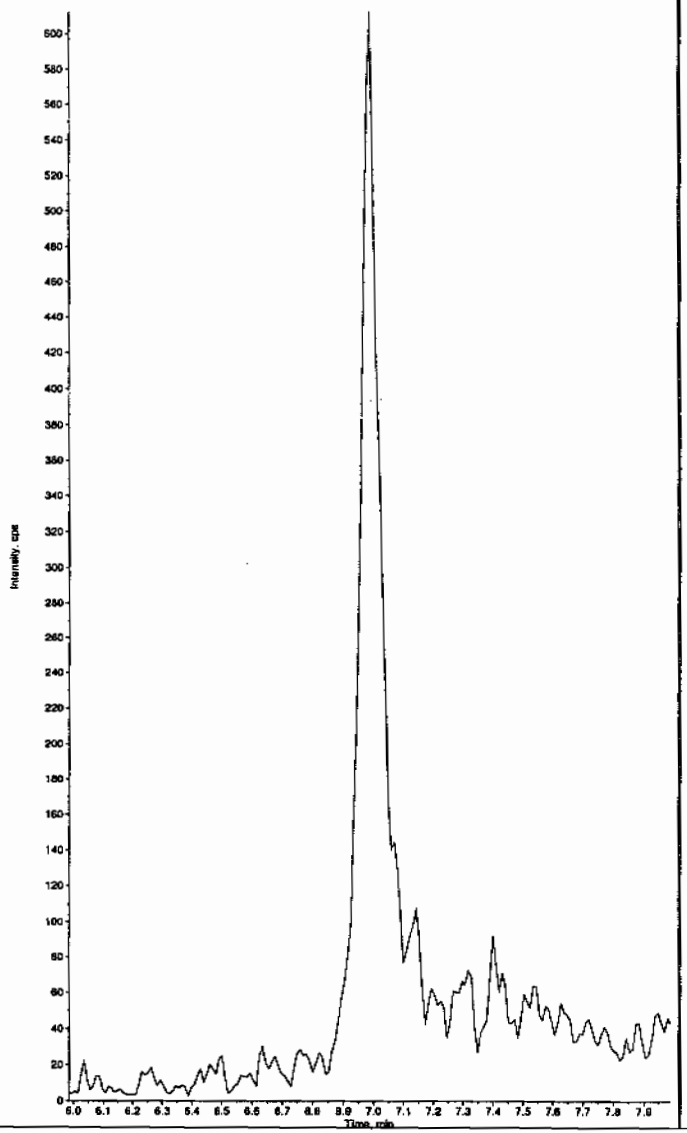
**Column:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4–Dinitrotoluene | 0 | 0 |
| tris(o–cresyl) phosphate | 0 | 7.18 |
| TATB | 0 | 0 |
| 3,5–Dinitroaniline | 0 | 0 |
| 2,4–Diamino–6–nitrotoluene | 0 | 0 |
| 2,6–Diamino–4–nitrotoluene | 0 | 0 |

Lan 2/23/10

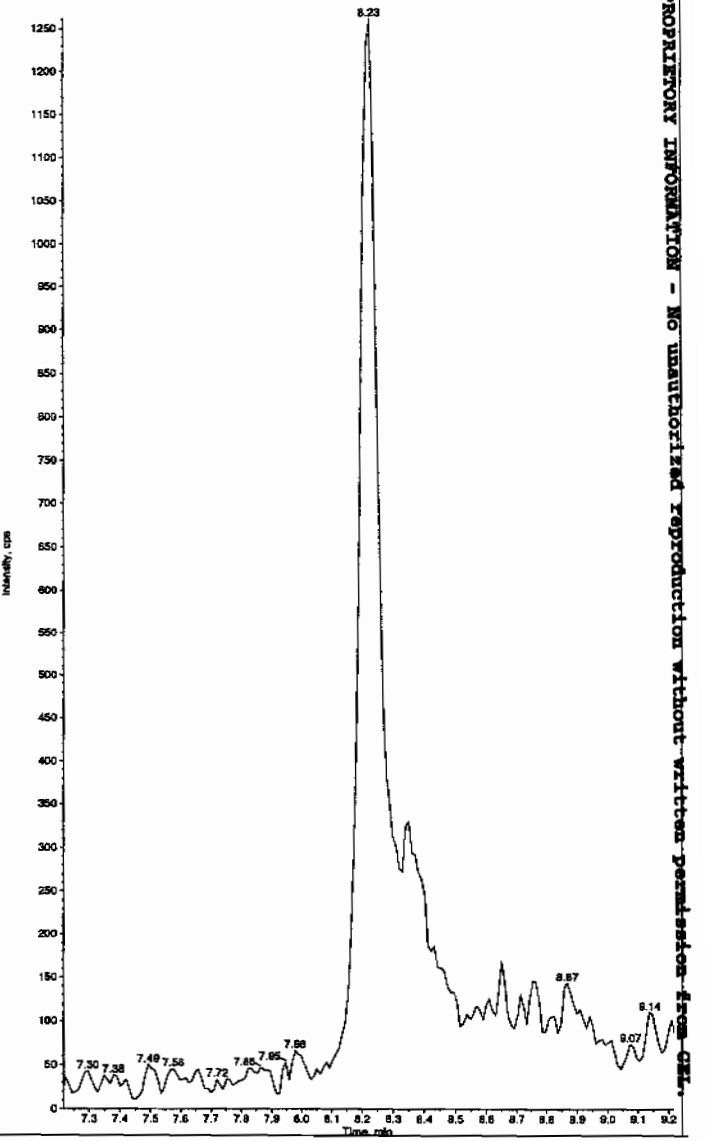
Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02220012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No




Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02220012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No




HJ 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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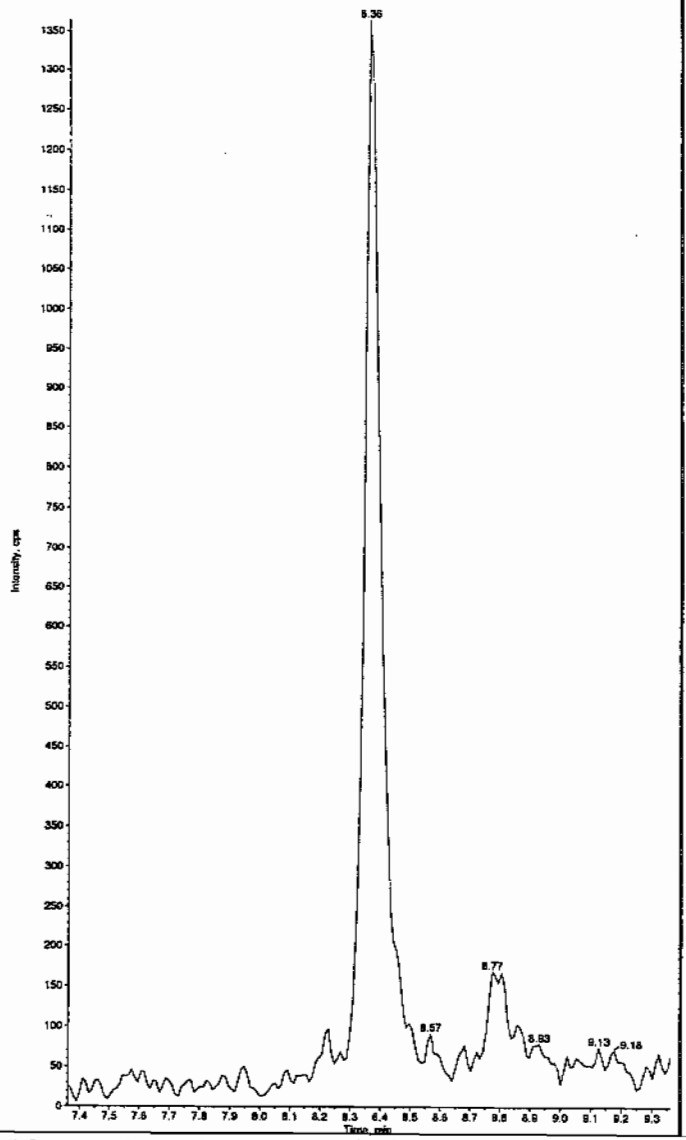
Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

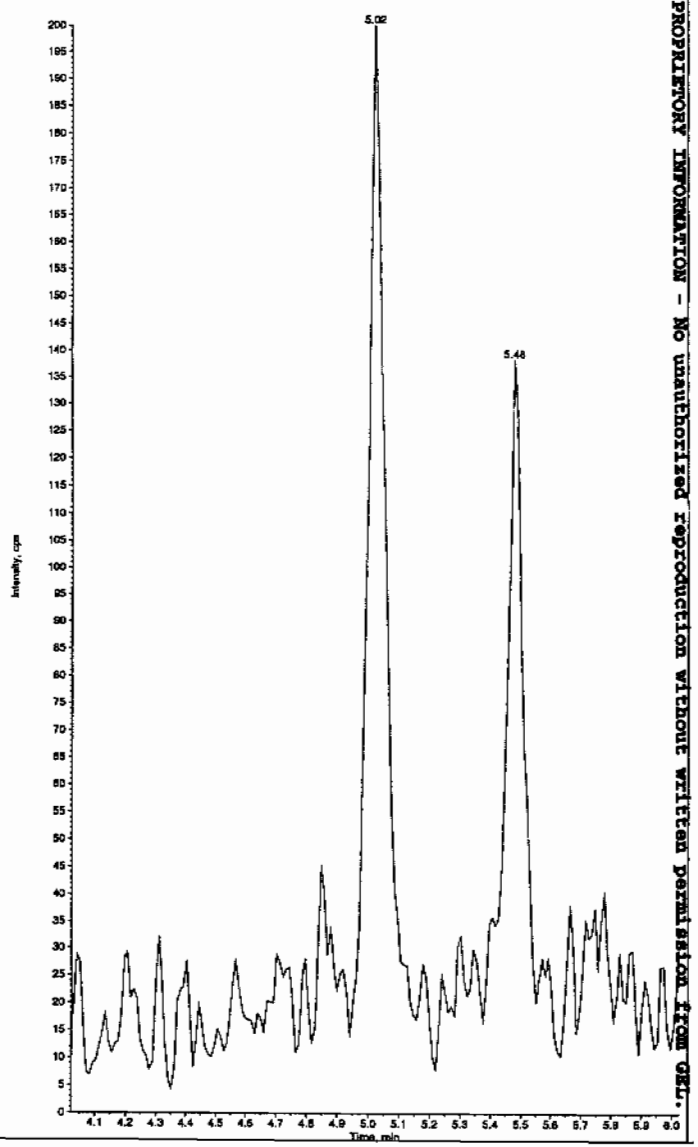
Modified: No




Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

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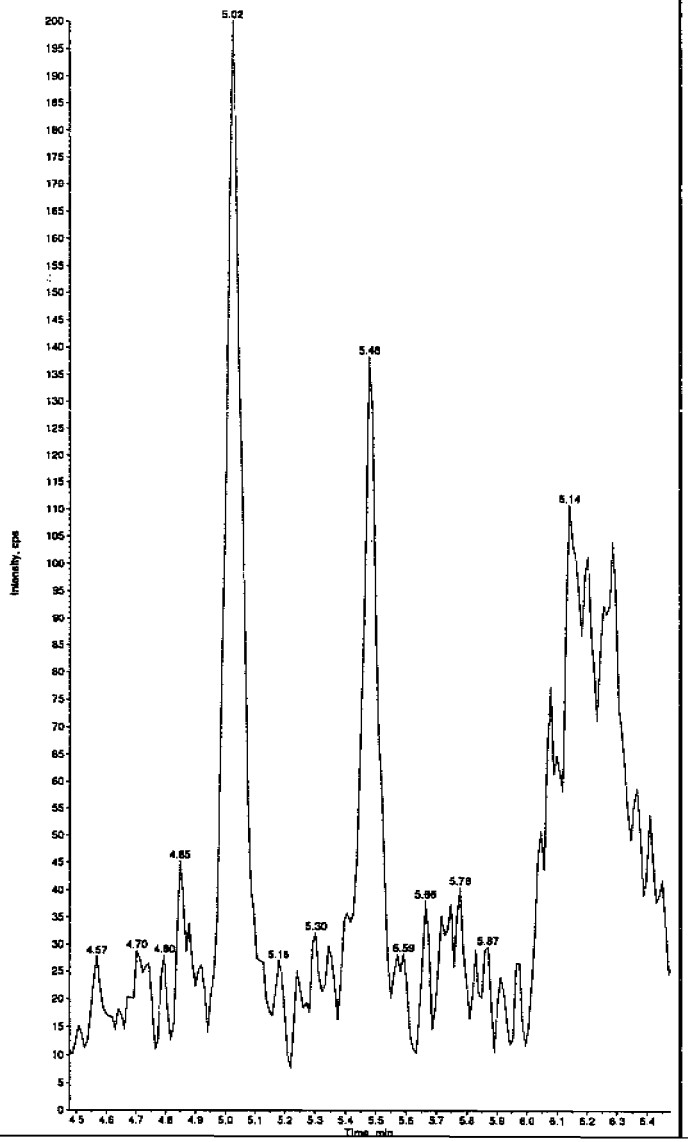
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

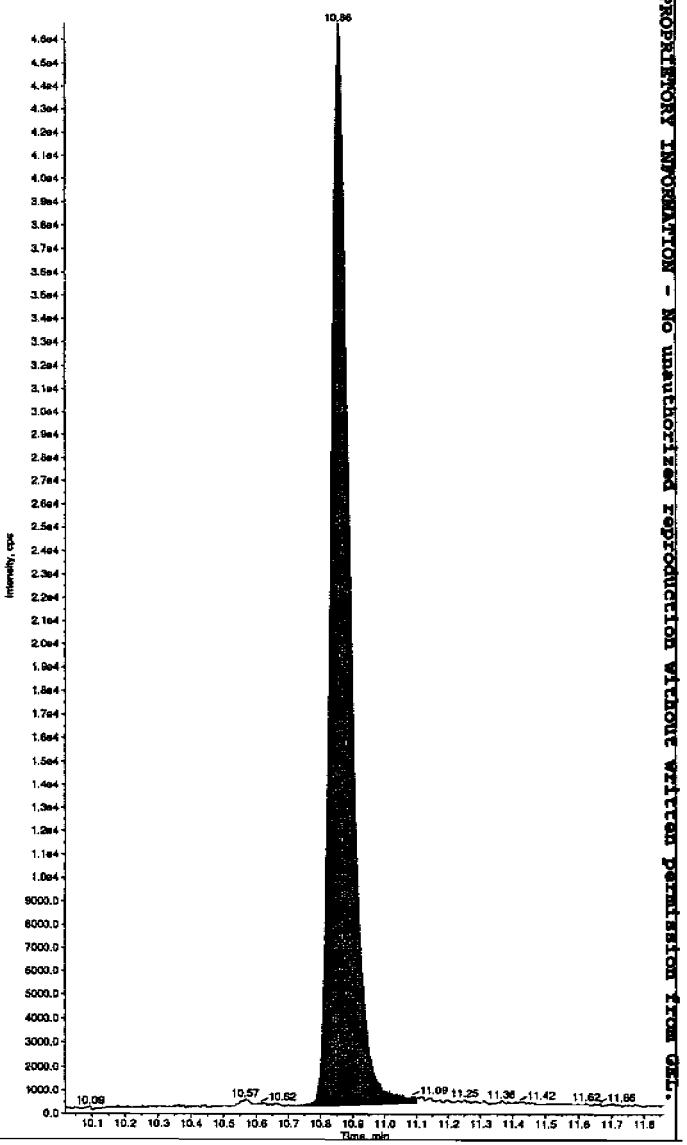



Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 7.18 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 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: 1.97e+005 counts
Height: 46330.444 cps
Start Time: 10.7 min
End Time: 11.1 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK04

**Analysis Date:** 22-FEB-10 21:13

**GEL Data File:** EXS02220017.wiff

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

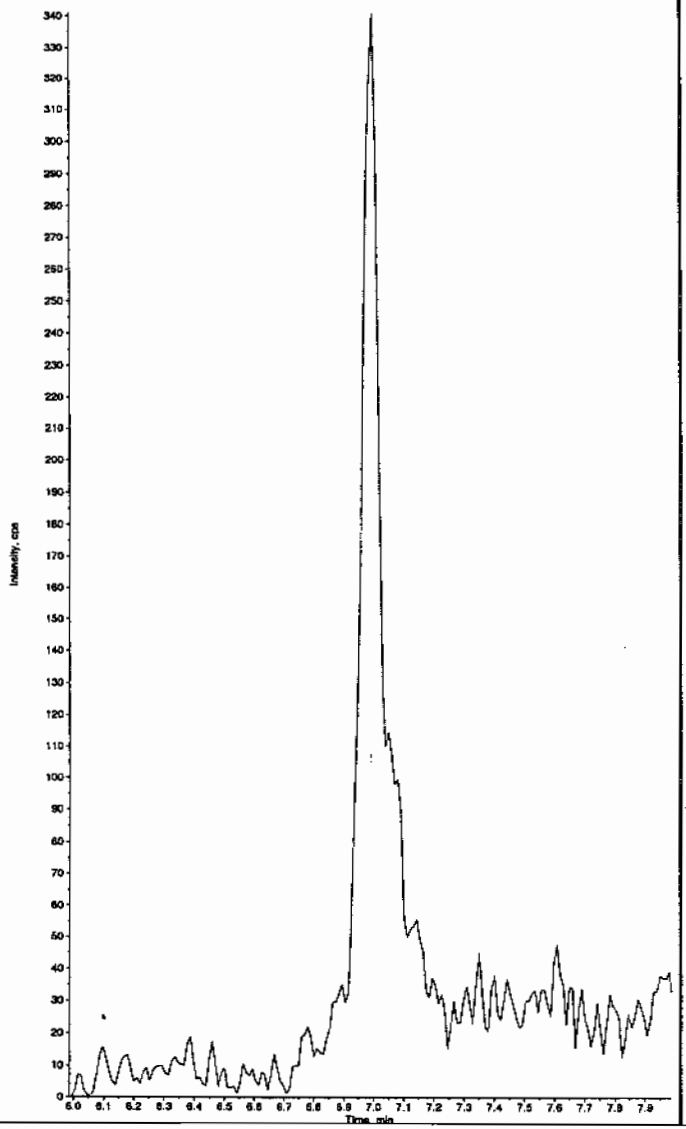
| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4-Dinitrotoluene | 0 | 1.15 |
| tris(o-cresyl) phosphate | 0 | 2.53 |
| TATB | 0 | 0 |
| 3,5-Dinitroaniline | 0 | 0 |
| 2,4-Diamino-6-nitrotoluene | 0 | 0 |
| 2,6-Diamino-4-nitrotoluene | 0 | 0 |

Lan 2/23/10

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02220017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

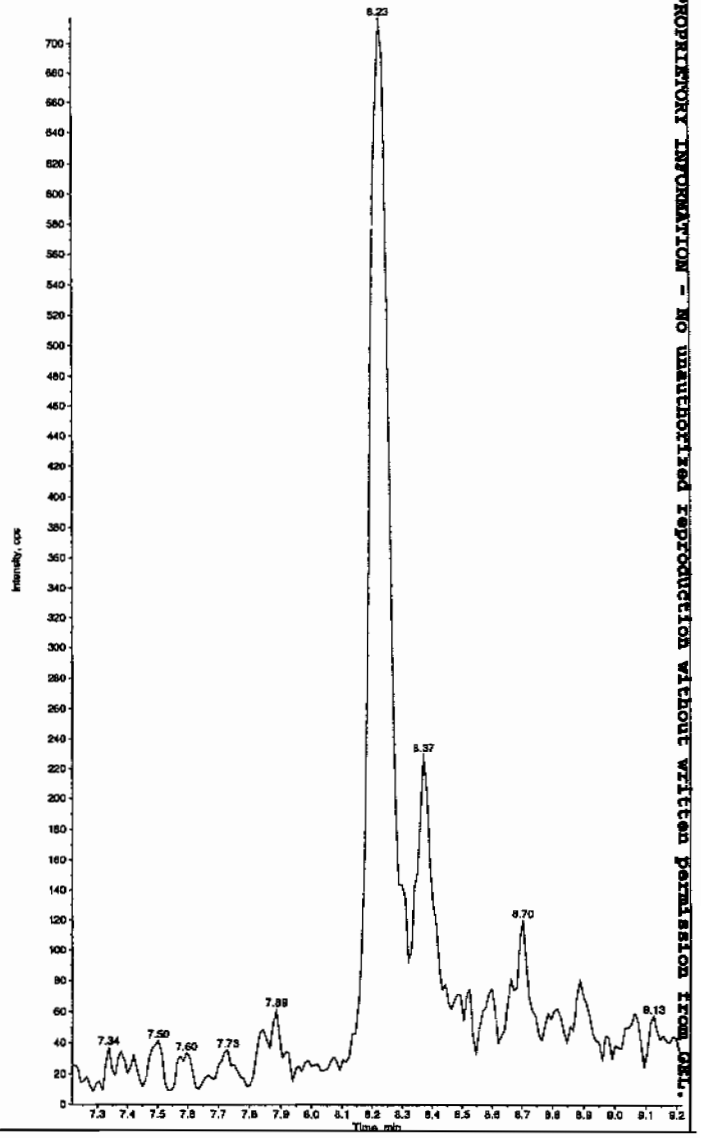
Modified: No




Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02220017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No




HM 02/23/10

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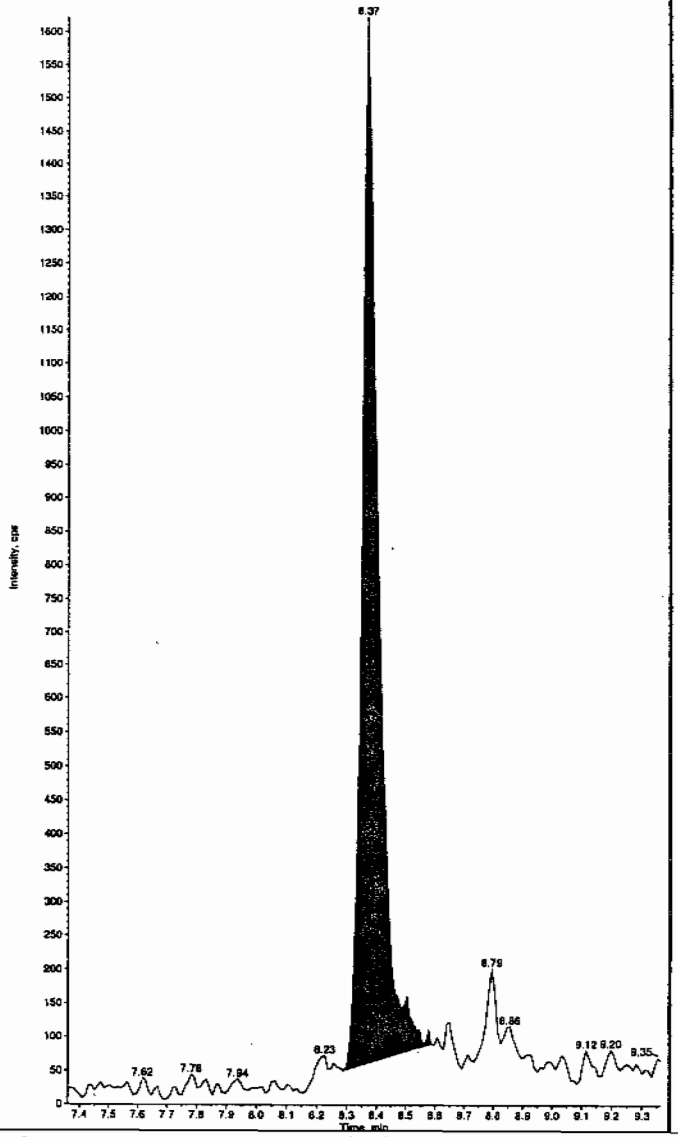
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02220017.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.15 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

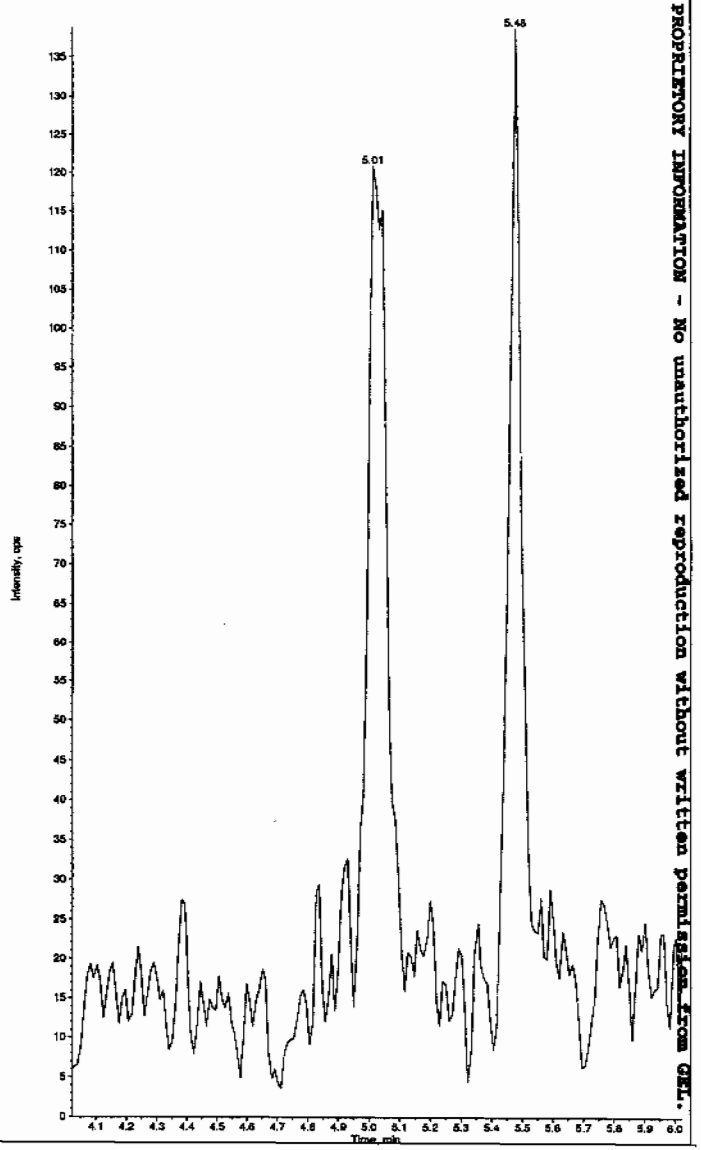
Int. Type: Valley
Retention Time: 8.37 min
Area: 6.37e+003 counts
Height: 1560.241 cps
Start Time: 8.29 min
End Time: 8.59 min




Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02220017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

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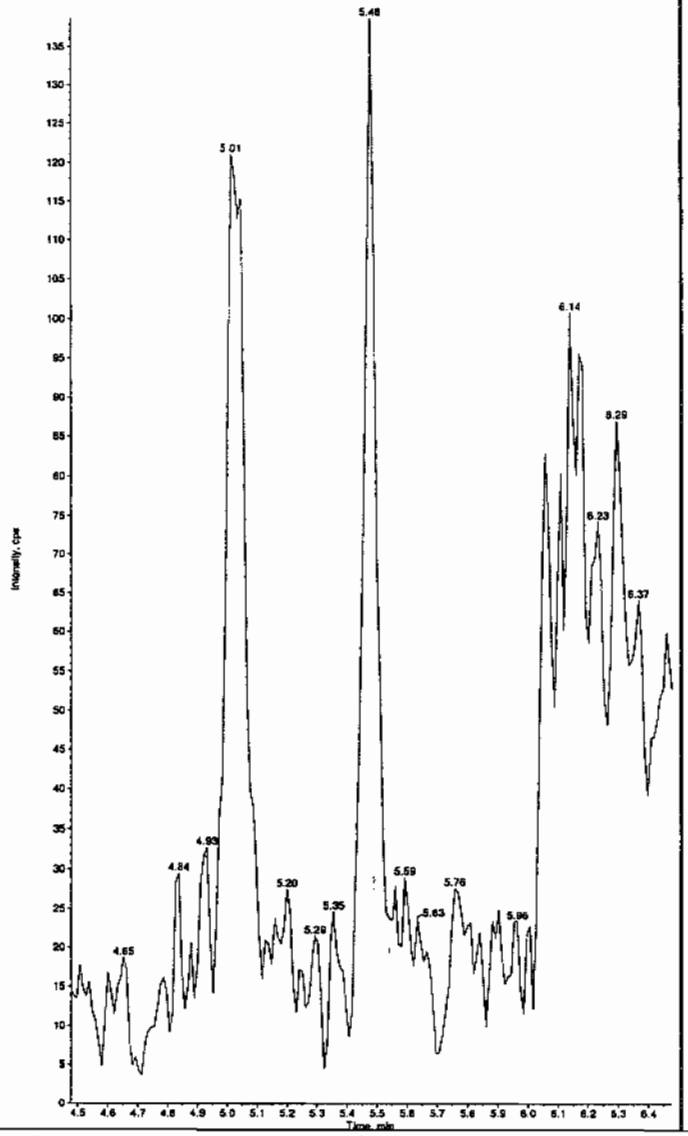
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXSC2220017.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

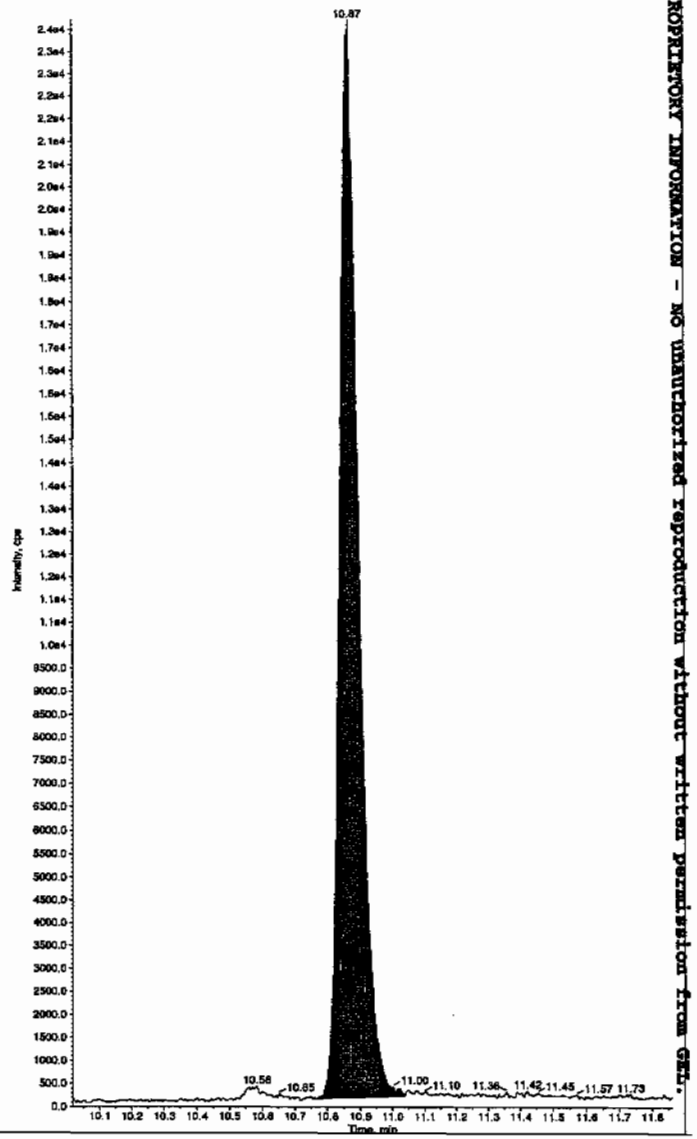



Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXSC2220017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.53 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 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: 9.75e+004 counts
Height: 23543.831 cps
Start Time: 10.8 min
End Time: 11.0 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10–1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK05

**Analysis Date:** 22–FEB–10 23:19

**GEL Data File:** EXS02220025.wiff

**Instrument ID:** LCMSMS

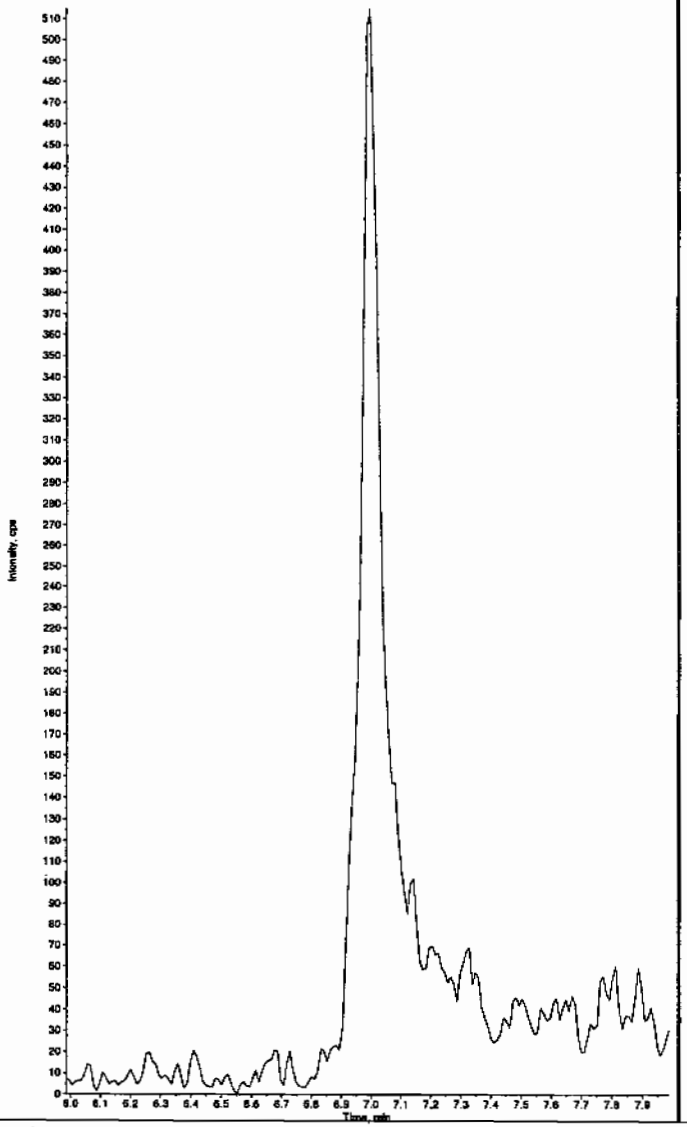
**Column:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4–Dinitrotoluene | 0 | 0 |
| tris(o–cresyl) phosphate | 0 | 4.52 |
| TATB | 0 | 0 |
| 3,5–Dinitroaniline | 0 | 0 |
| 2,4–Diamino–6–nitrotoluene | 0 | 0 |
| 2,6–Diamino–4–nitrotoluene | 0 | 0 |

Sam 2/23/10

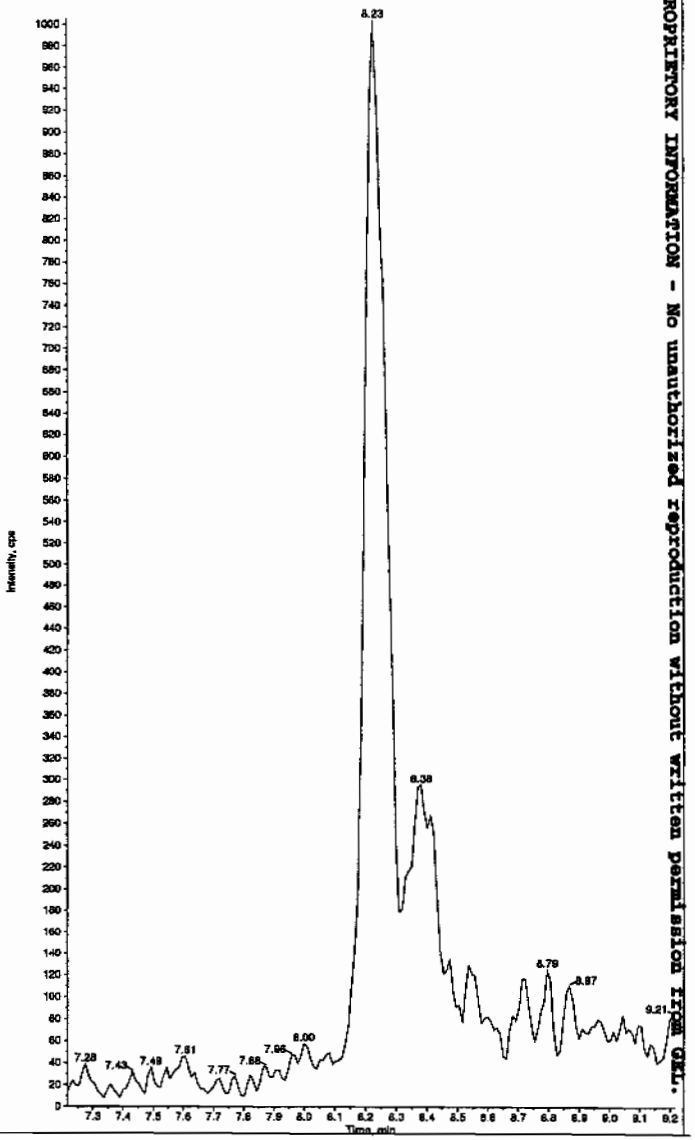
Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No




Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No




Hmw 02/23/10

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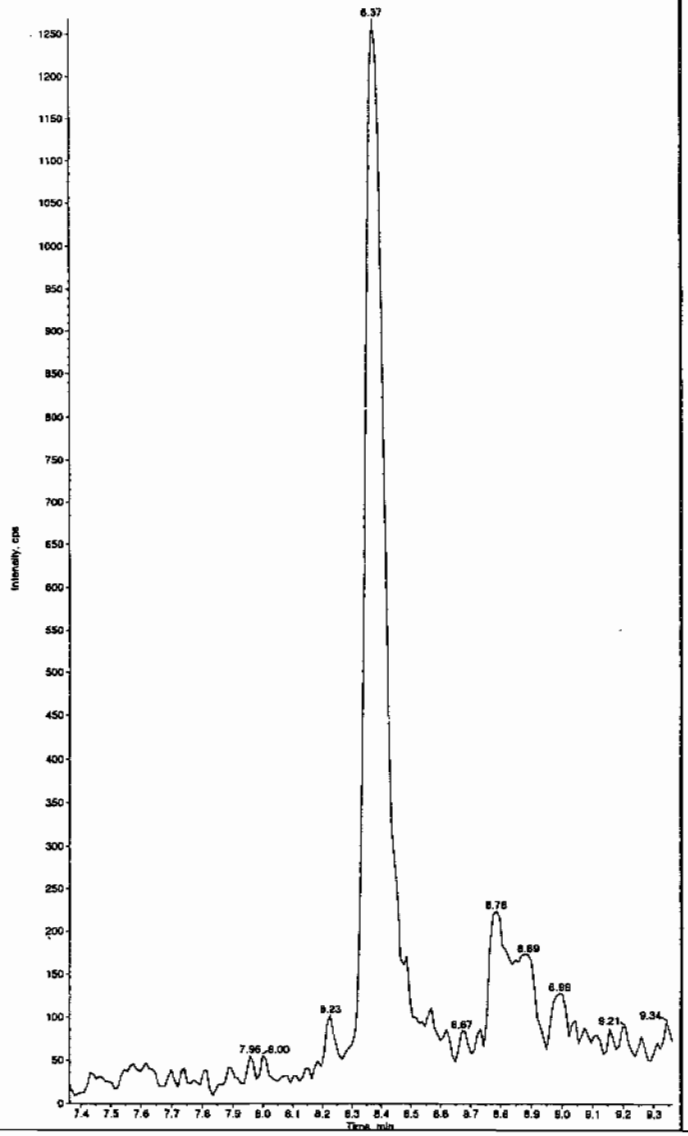
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02220025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

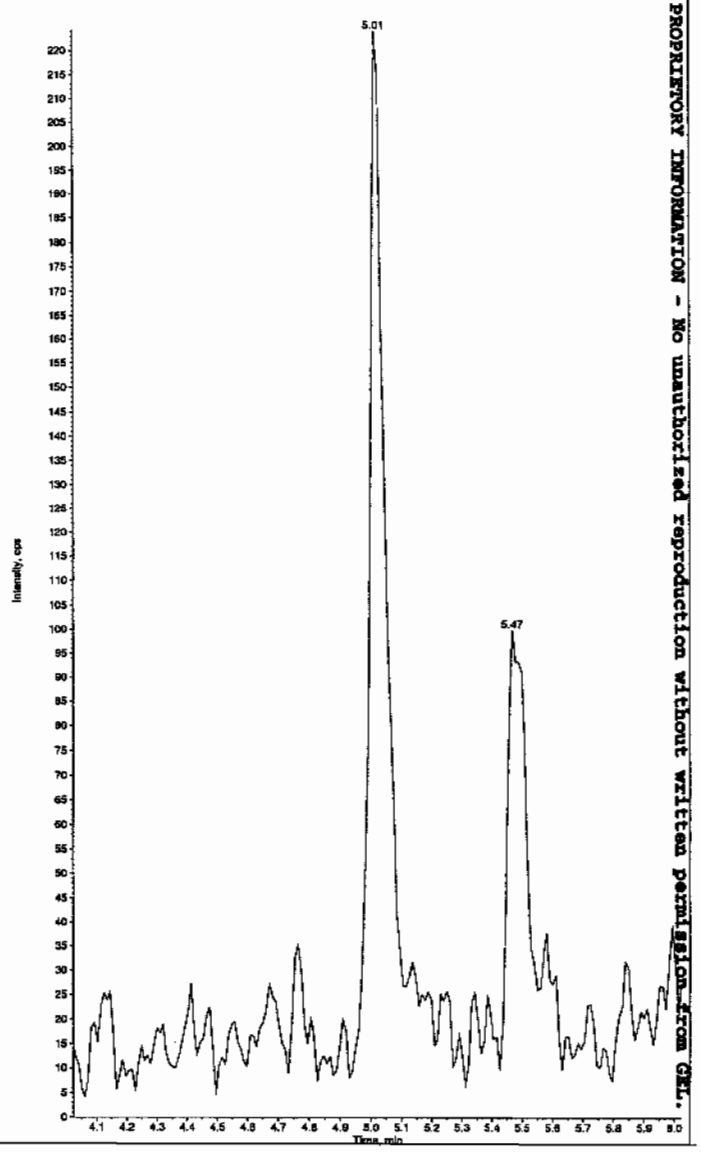
Modified: No




Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02220025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

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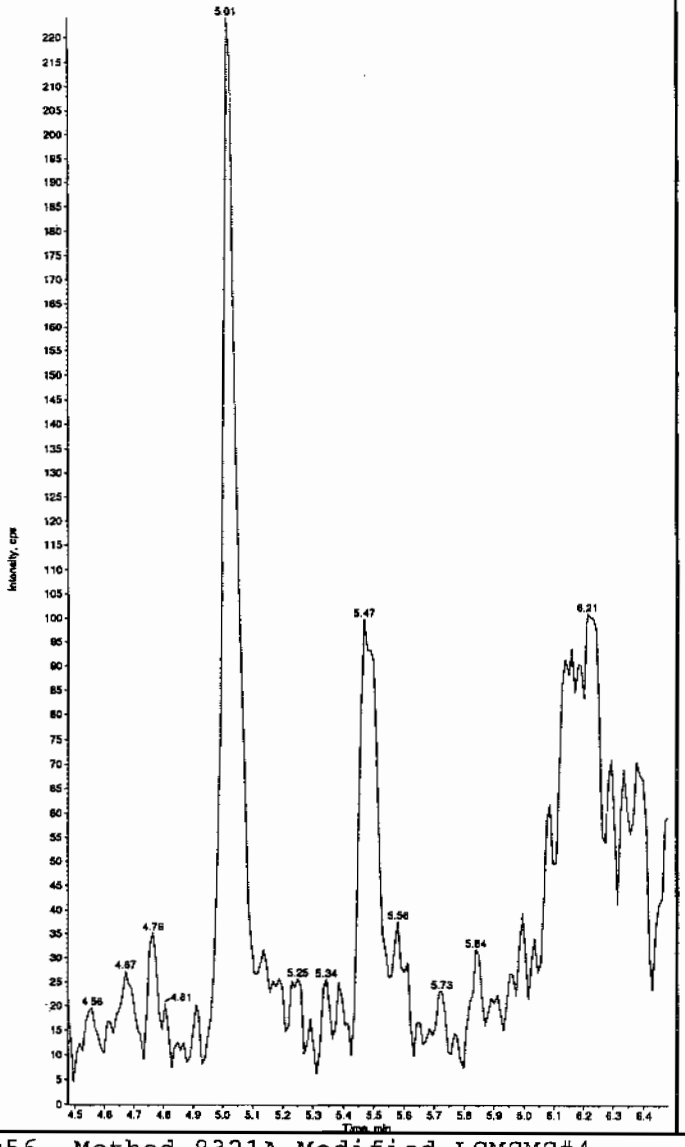
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

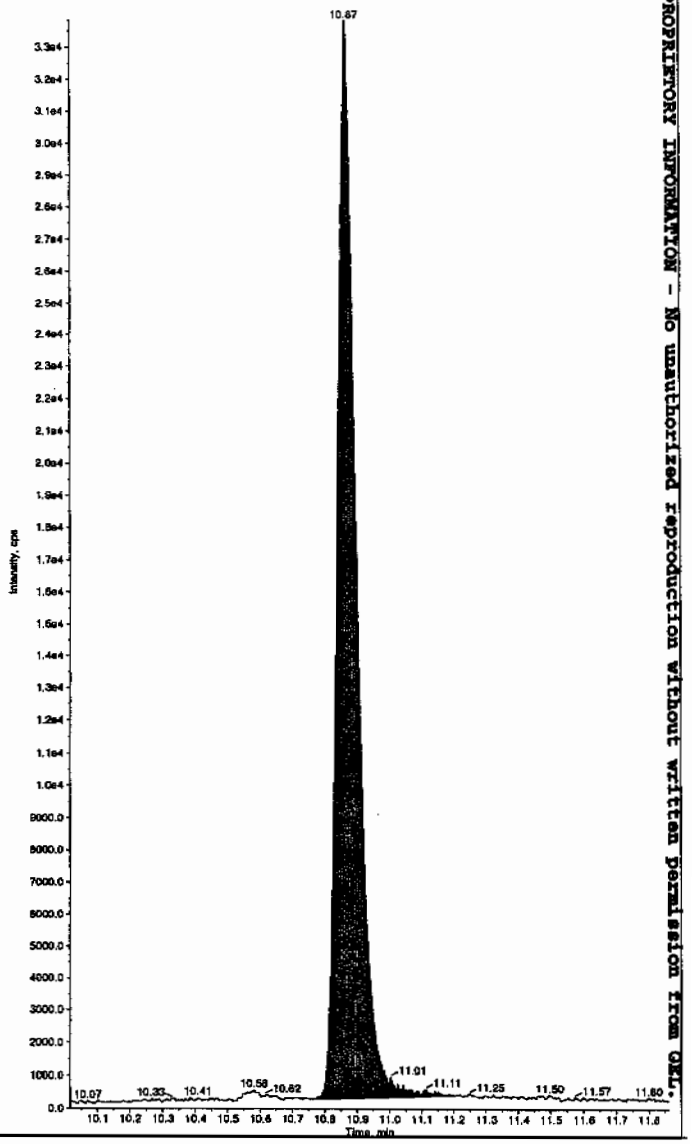



Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.52 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 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: 1.40e+005 counts
Height: 33527.149 cps
Start Time: 10.8 min
End Time: 11.2 min

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK06

**Analysis Date:** 23-FEB-10 02:43

**GEL Data File:** EXS02220038.wiff

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

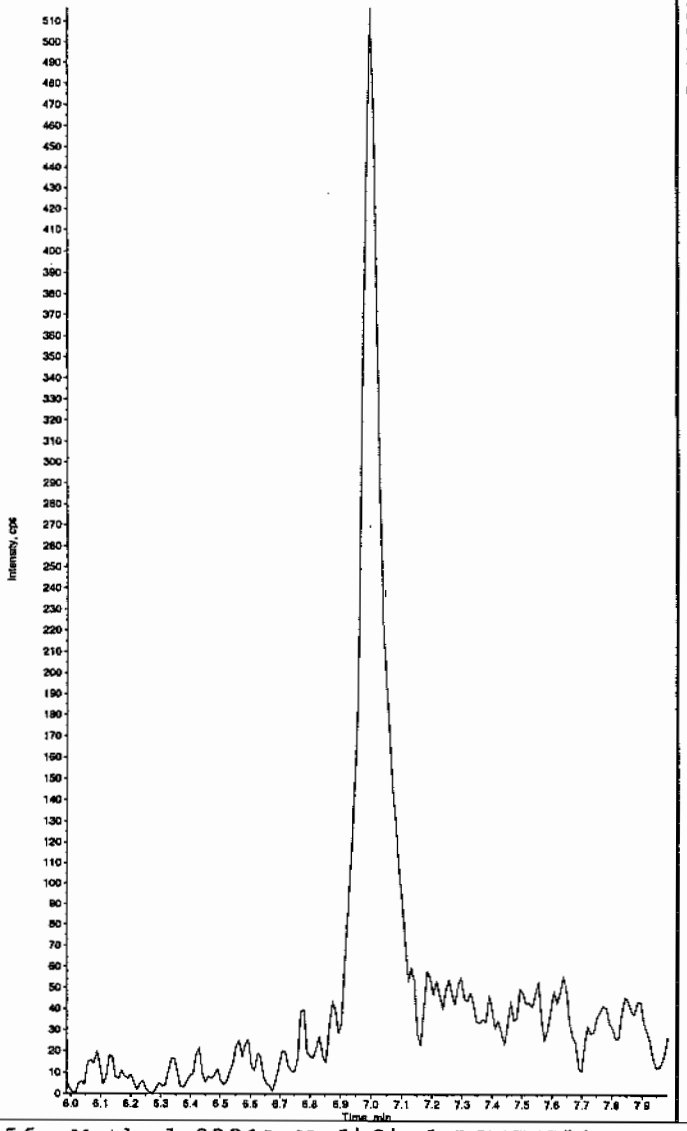
| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4-Dinitrotoluene | 0 | 1.18 |
| tris(o-cresyl) phosphate | 0 | 4.04 |
| TATB | 0 | 0 |
| 3,5-Dinitroaniline | 0 | 0 |
| 2,4-Diamino-6-nitrotoluene | 0 | 0 |
| 2,6-Diamino-4-nitrotoluene | 0 | 0 |

Ken 2/23/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

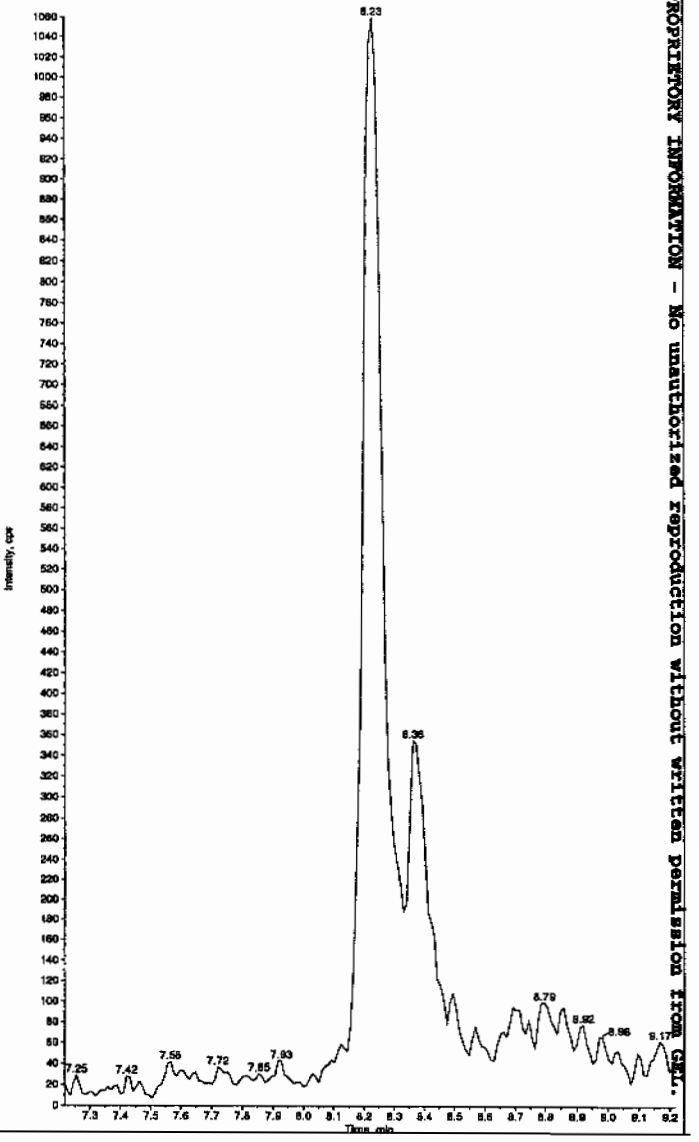
Modified: No




Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No




Anne 02/23/10

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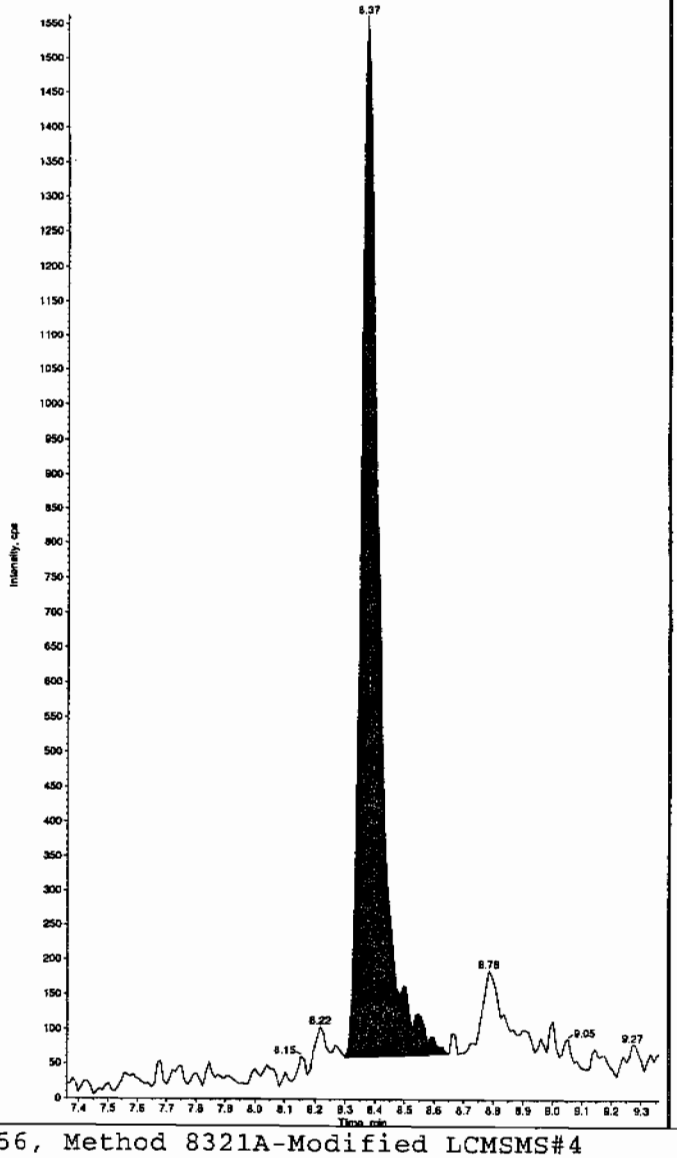
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02220038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.18 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

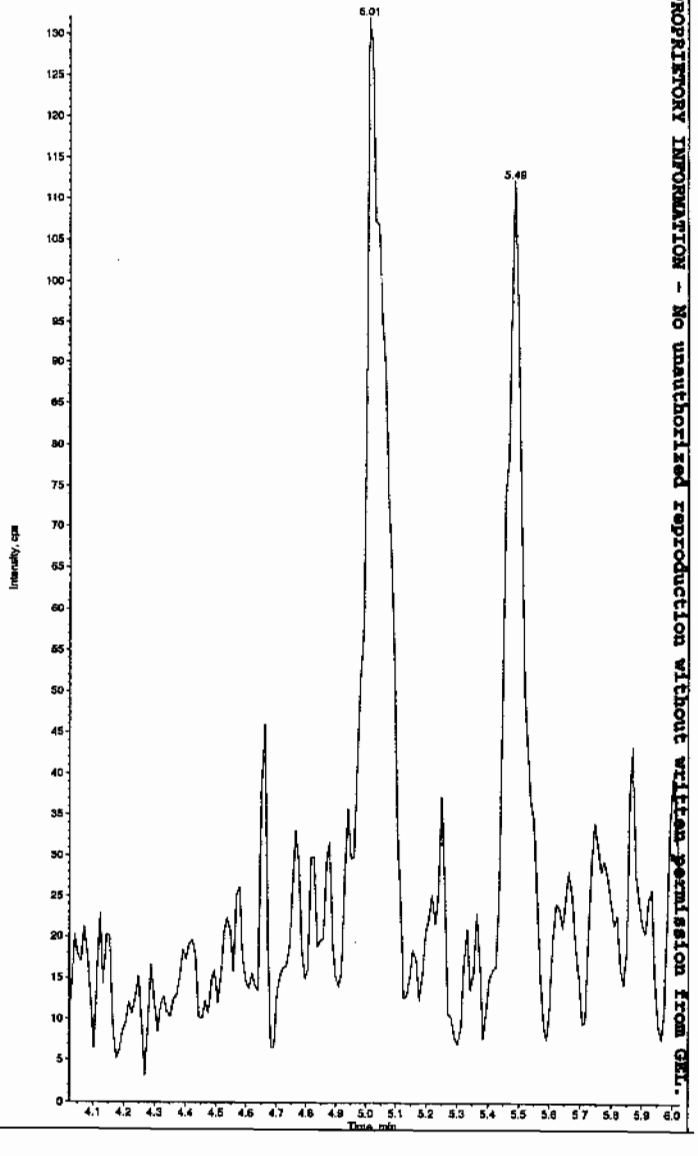
Int. Type: Valley
Retention Time: 8.37 min
Area: 6.82e+003 counts
Height: 1502.971 cps
Start Time: 8.30 min
End Time: 8.65 min




Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02220038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

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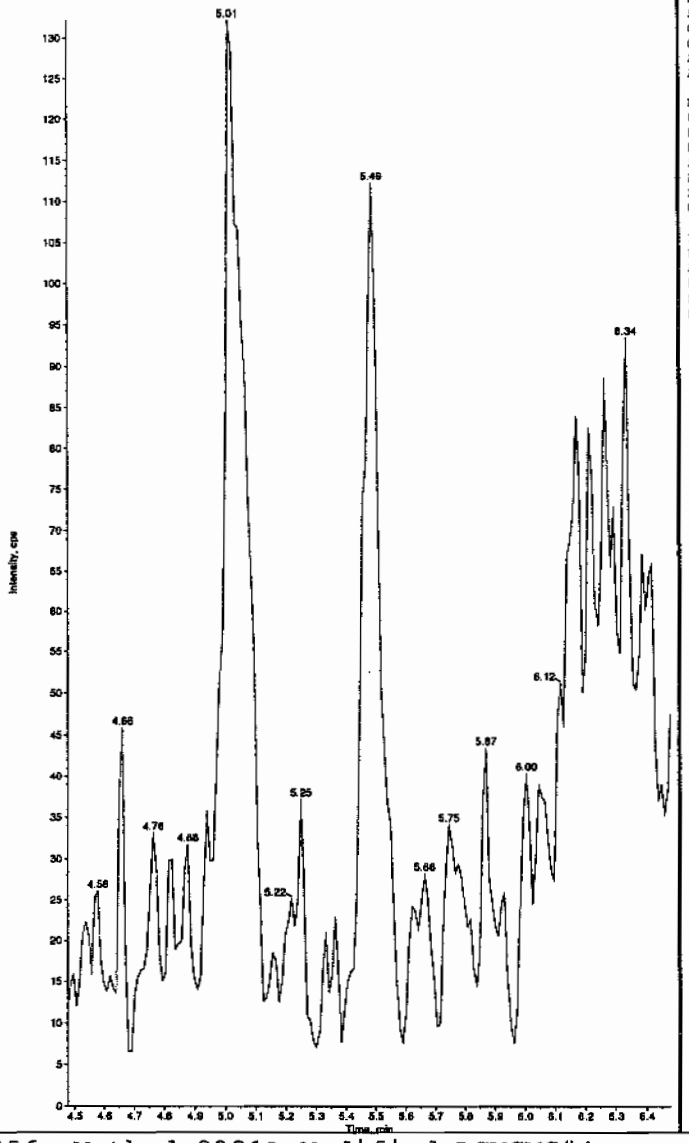
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

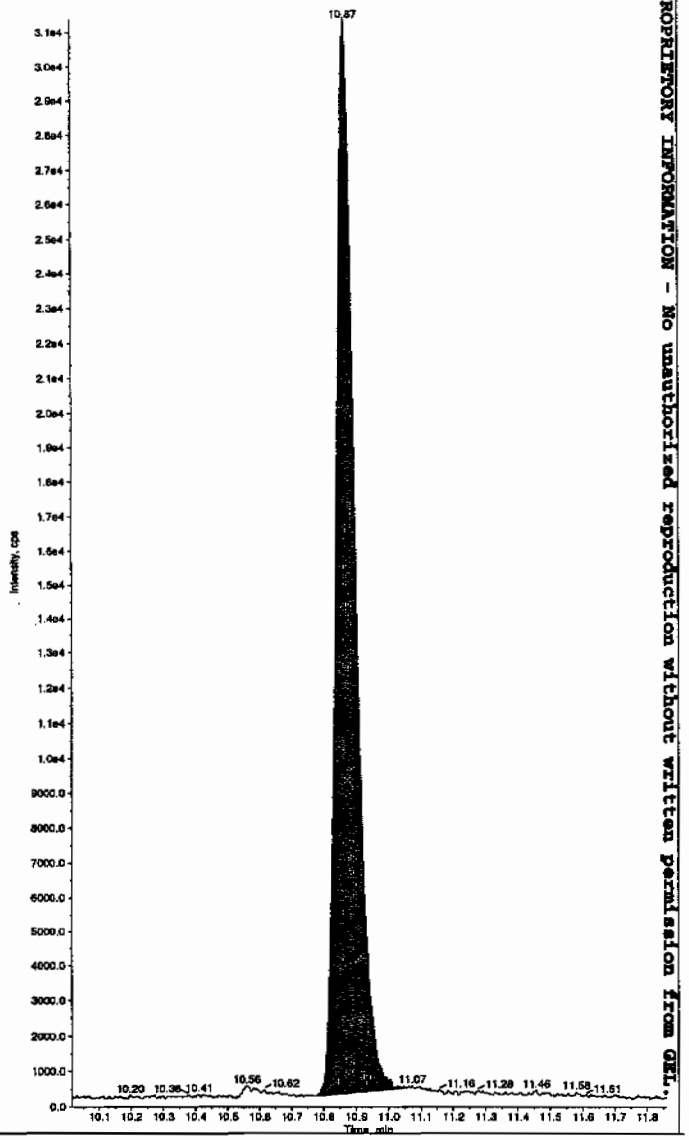



Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.04 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 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: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.30e+005 counts
Height: 31013.344 cps
Start Time: 10.8 min
End Time: 11.1 min

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

4A

# Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK07

**Analysis Date:** 23-FEB-10 04:02

**GEL Data File:** EXS02220043.wiff

**Instrument ID:** LCMSMS

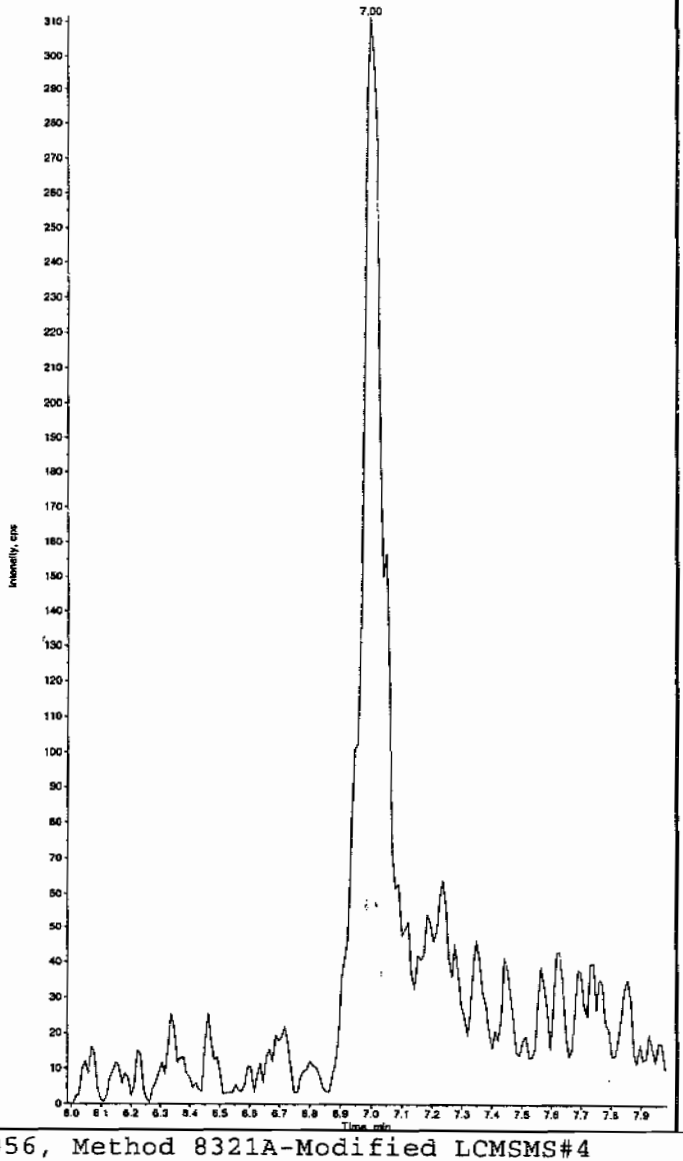
**Column:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found (ug/L) |
|---|---|---|
| 2,6-Diamino-4-nitrotoluene | 0 | 0 |
| 3,4-Dinitrotoluene | 0 | 0 |
| tris(o-cresyl) phosphate | 0 | 2.43 |
| TATB | 0 | 0 |
| 3,5-Dinitroaniline | 0 | 0 |
| 2,4-Diamino-6-nitrotoluene | 0 | 0 |

Lan 2/23/10

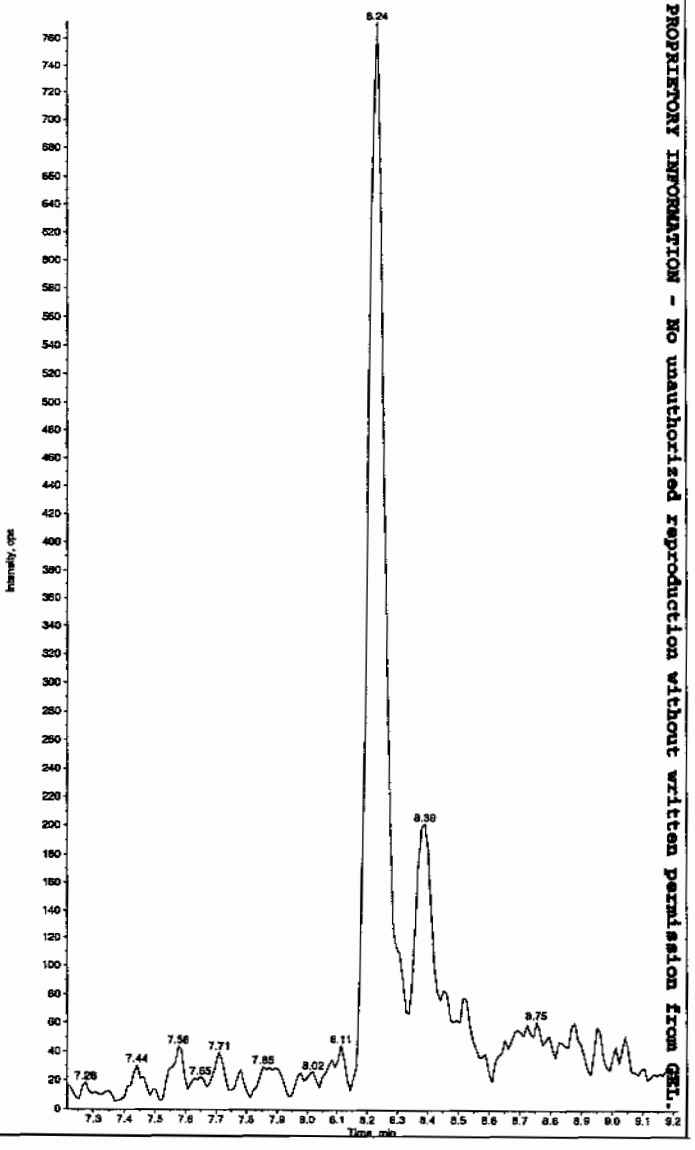
Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No




Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No




HJW 02/23/10

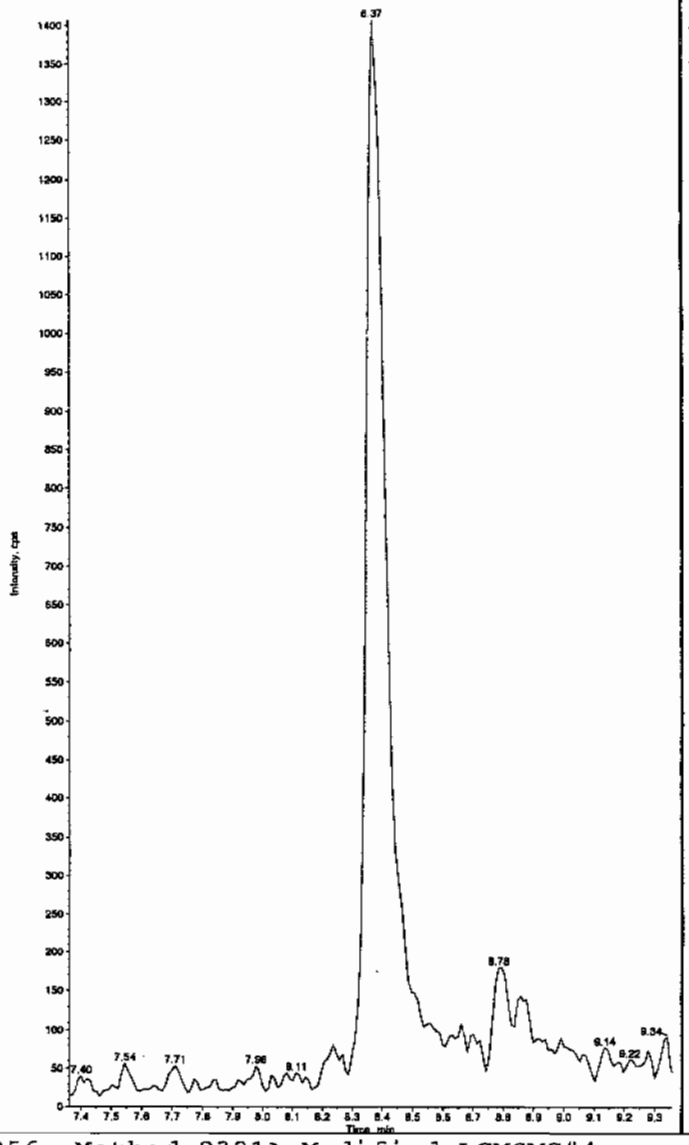
PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XISLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

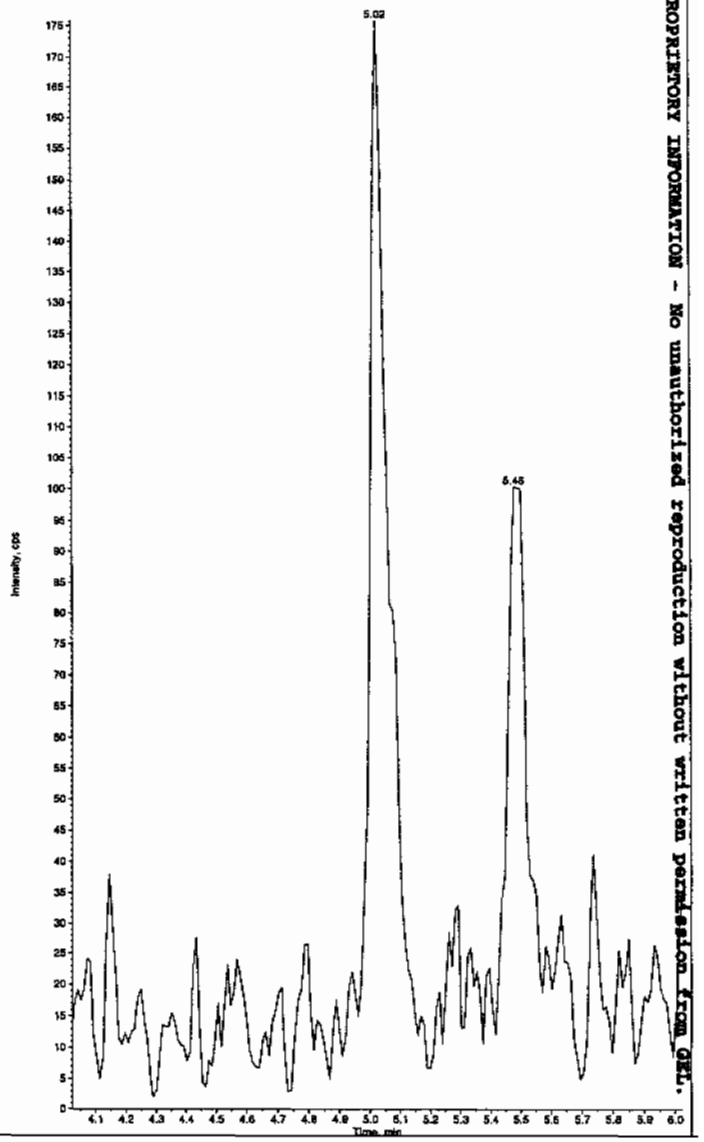
Modified: No




Sample Name: "XISLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

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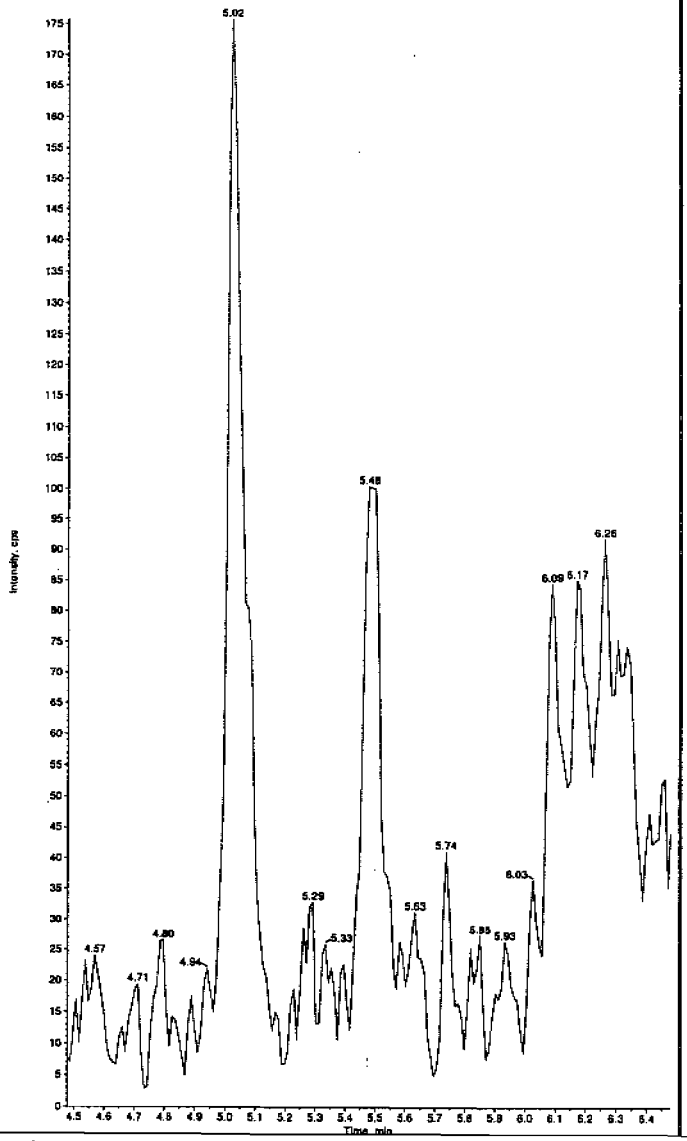
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02220043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

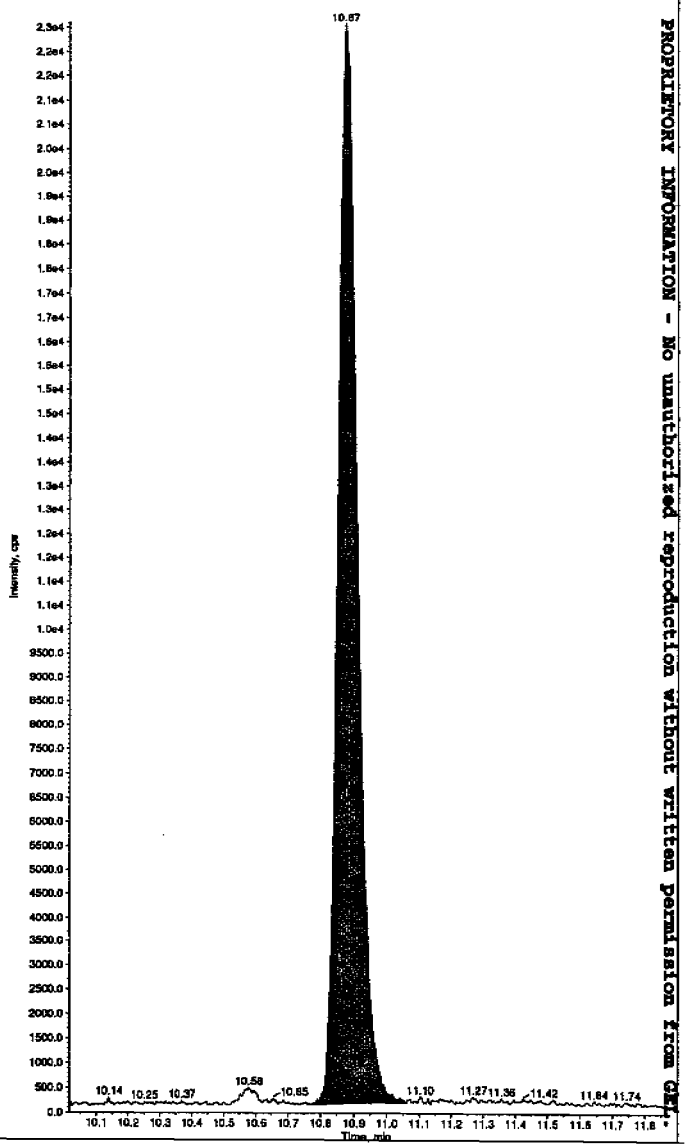



Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02220043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.43 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 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: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.52e+004 counts
Height: 22422.792 cps
Start Time: 10.8 min
End Time: 11.1 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

## Explosives Continuing Calibration Blank

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-1512

**Lab Code:** GEL

**Lab Sample ID:** XIBLK08

**Analysis Date:** 23-FEB-10 06:08

**GEL Data File:** EXS02220051.wiff

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

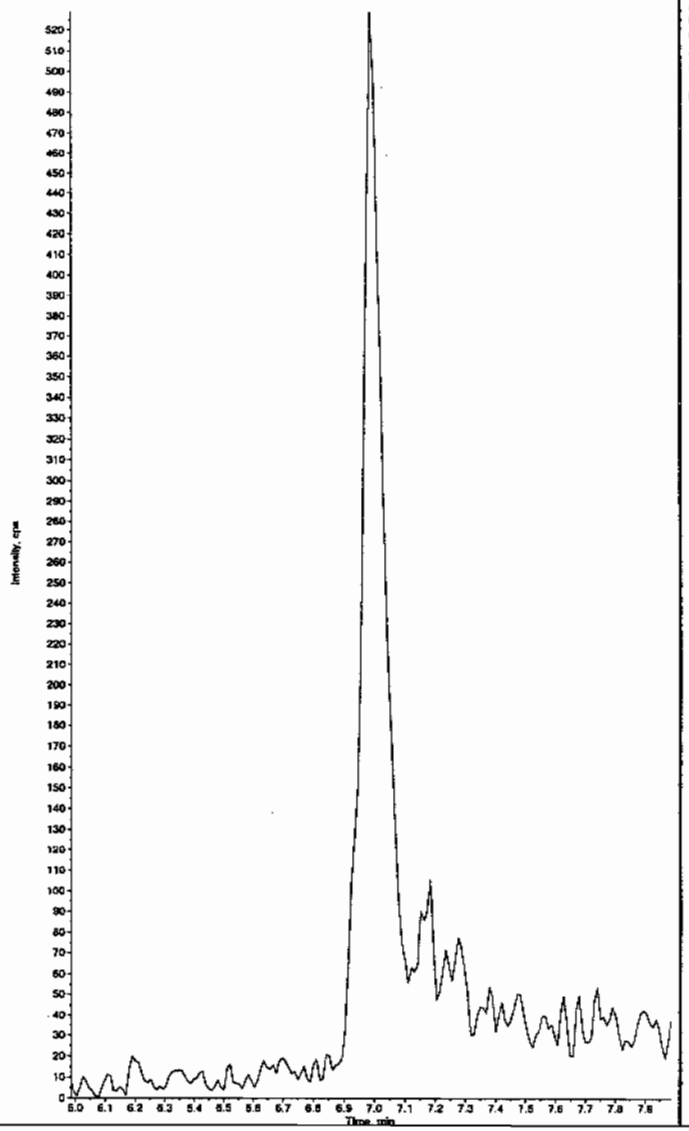
| Compound | True | Found (ug/L) |
|---|---|---|
| 3,4-Dinitrotoluene | 0 | 0 |
| tris(o-cresyl) phosphate | 0 | 5.67 |
| TATB | 0 | 0 |
| 3,5-Dinitroaniline | 0 | 0 |
| 2,4-Diamino-6-nitrotoluene | 0 | 0 |
| 2,6-Diamino-4-nitrotoluene | 0 | 0 |

dar 2/23/10

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

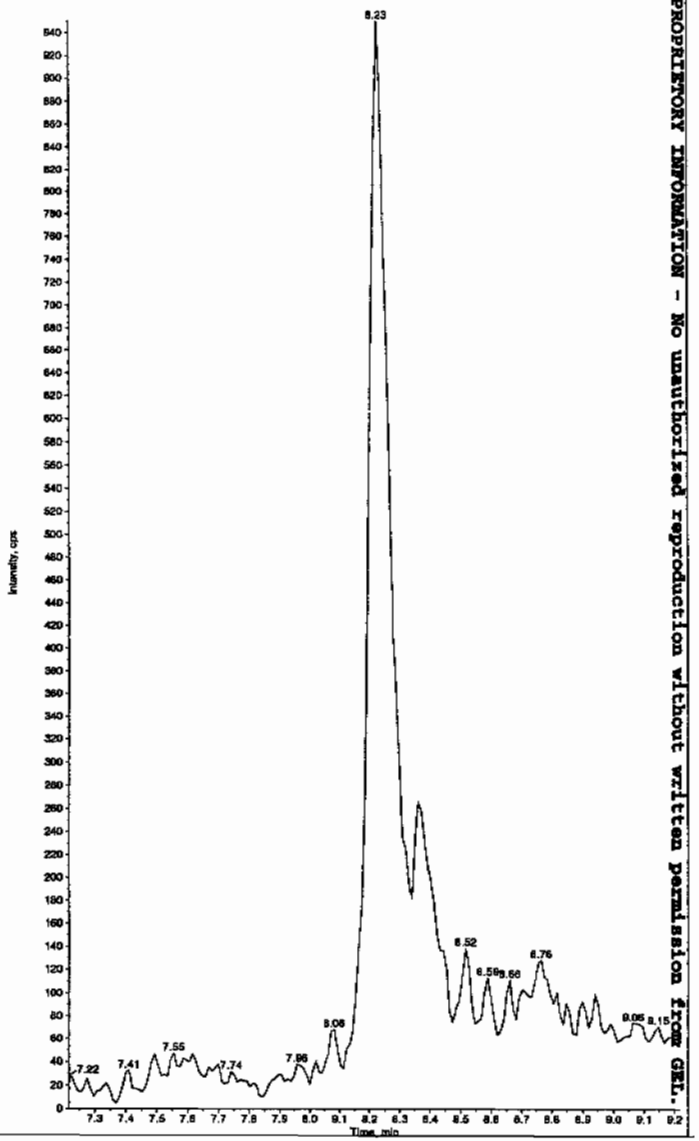
Modified: No




Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No




HJM 02/23/10

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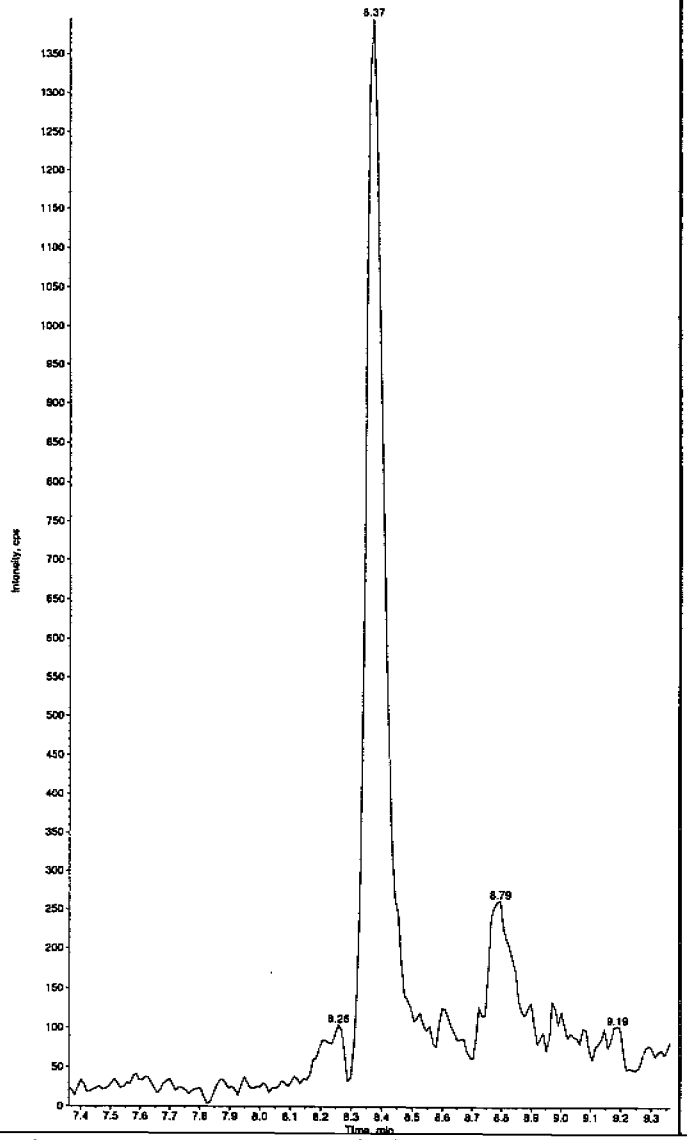
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02220051.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

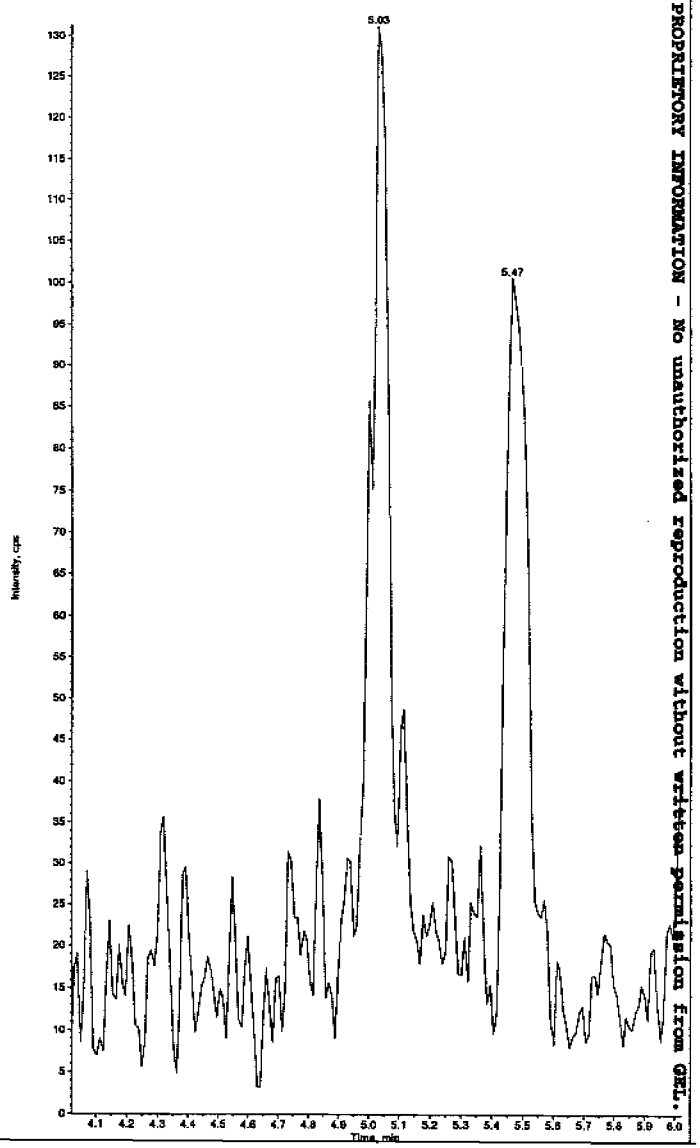
Modified: No




Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02220051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

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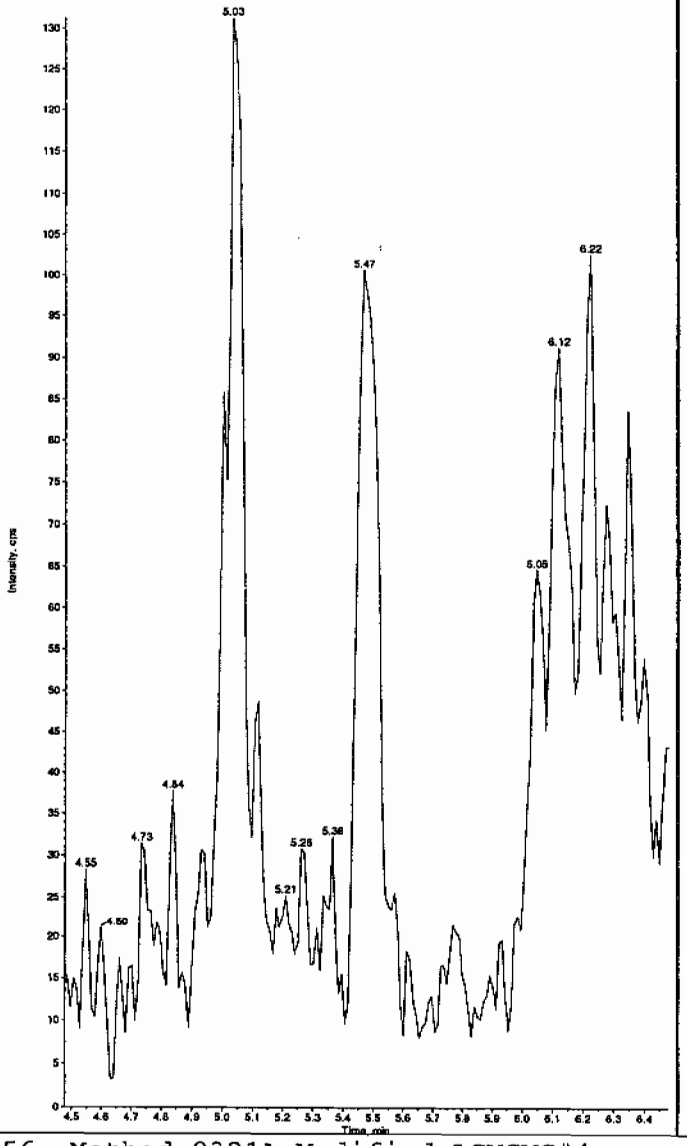
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

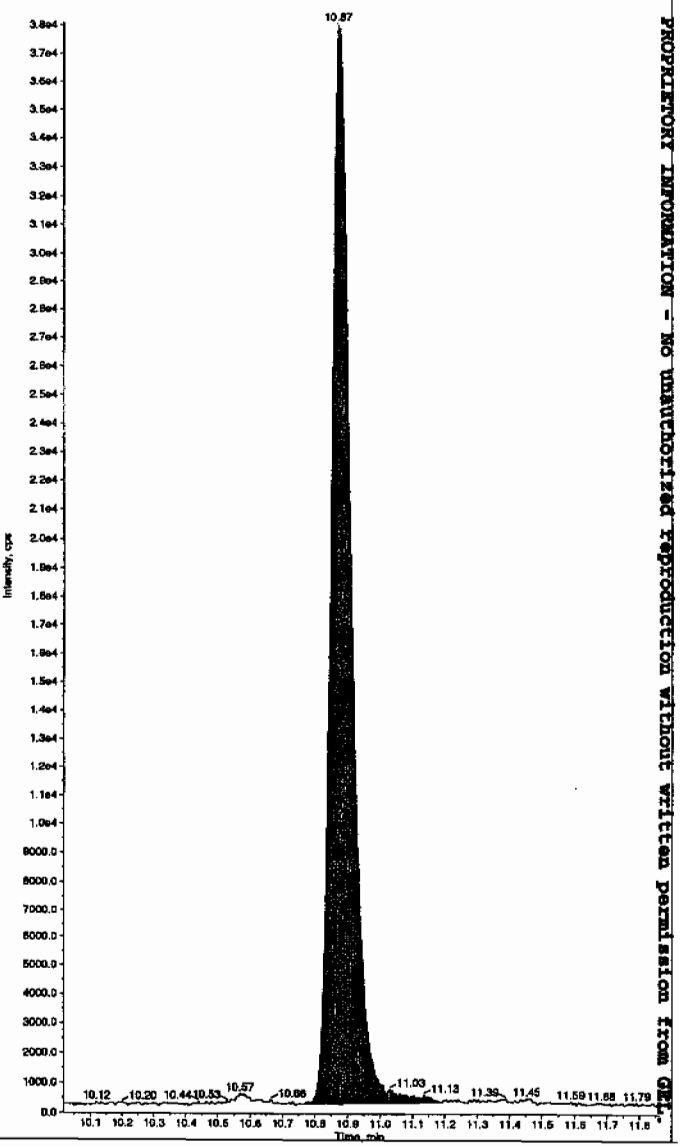



Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.67 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 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: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.65e+005 counts
Height: 37790.951 cps
Start Time: 10.8 min
End Time: 11.2 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;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 |

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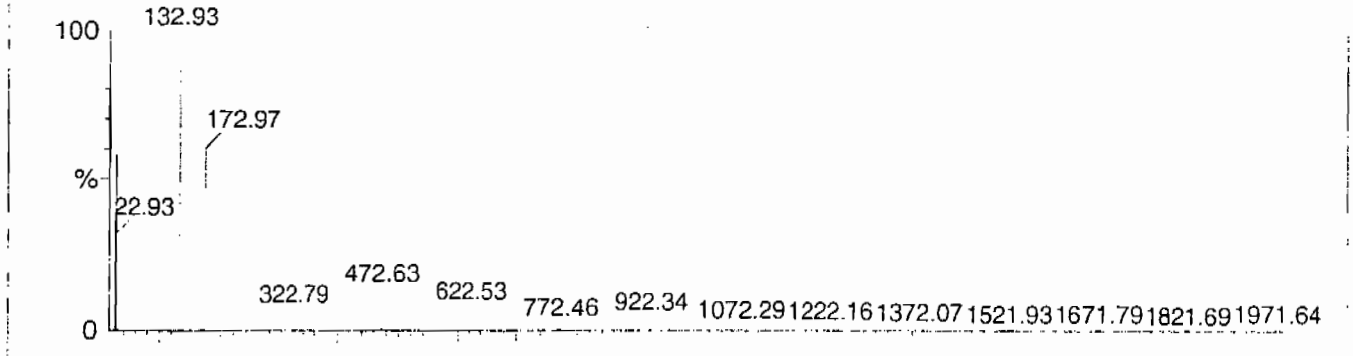
Calibration Report - MS1 Static



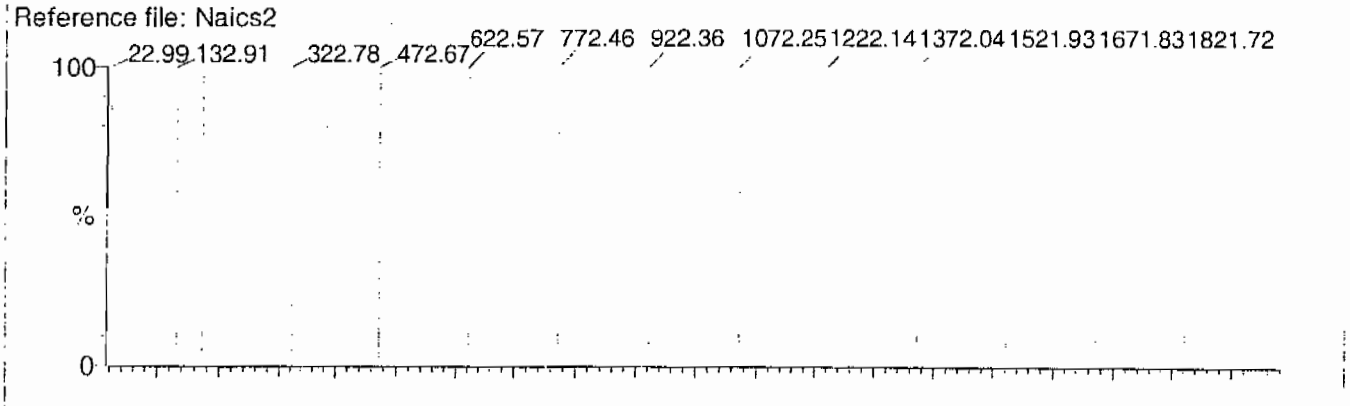
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

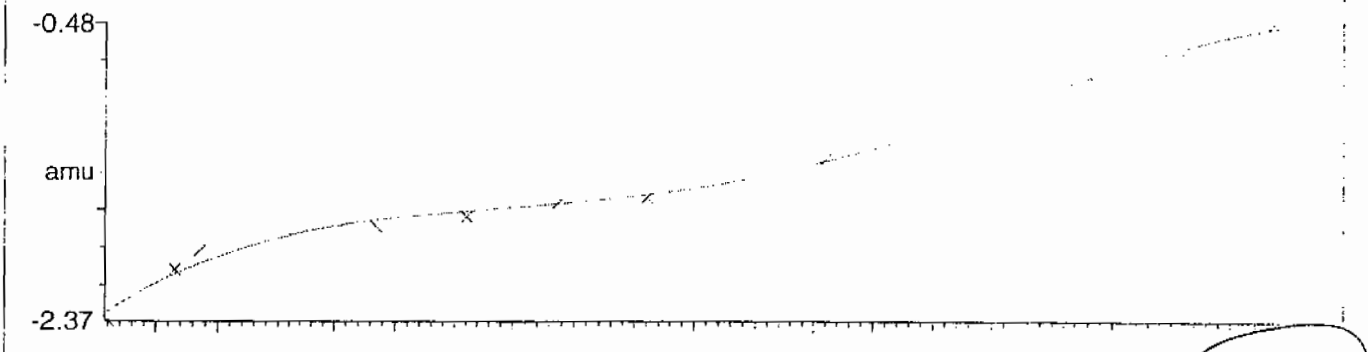
15 matches of 15 tested references




Reference file: Naics2



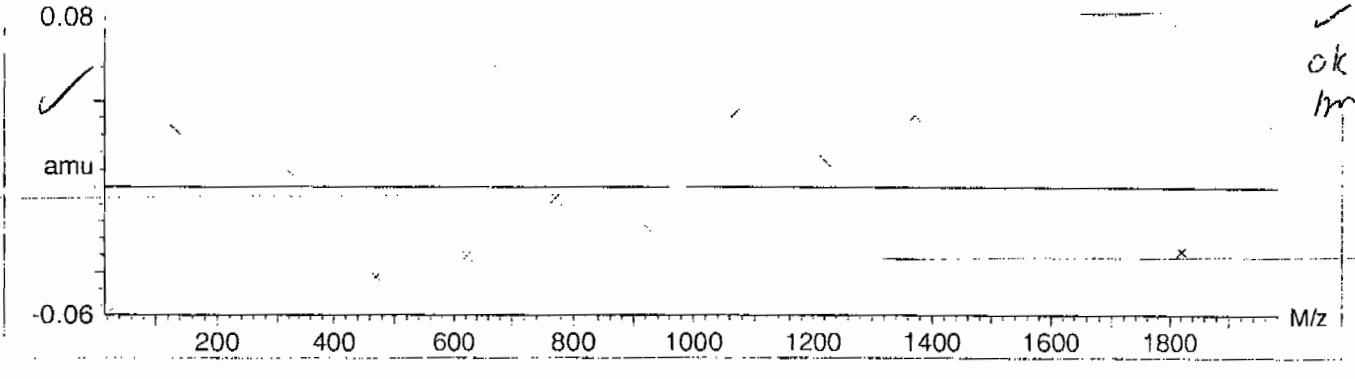

Mass difference (Raw - Ref mass)




Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm



PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

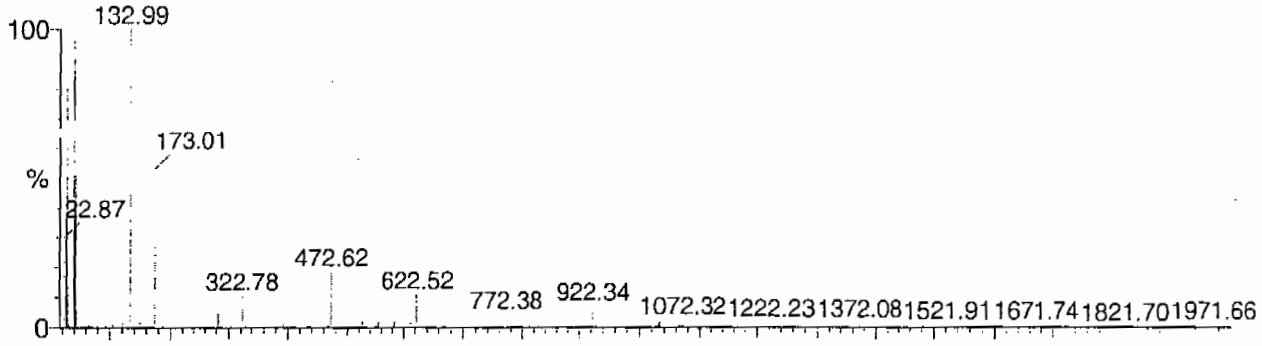
Calibration Report - MS1 Scanning



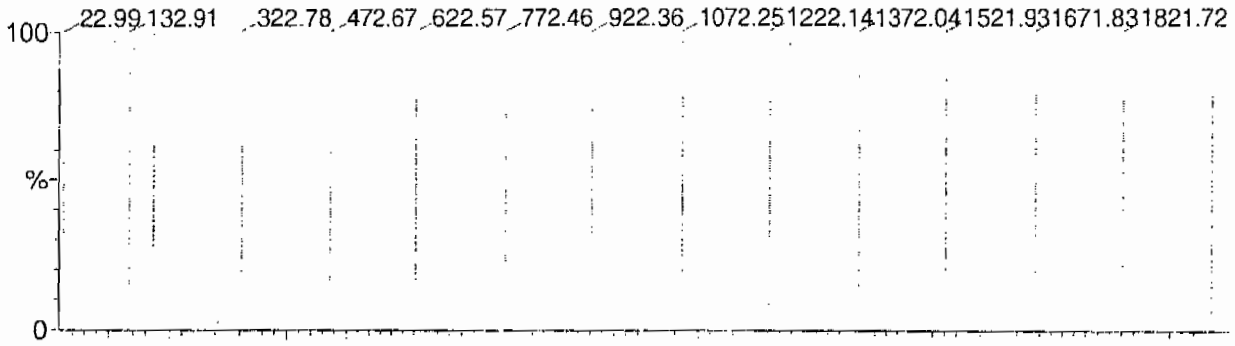
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

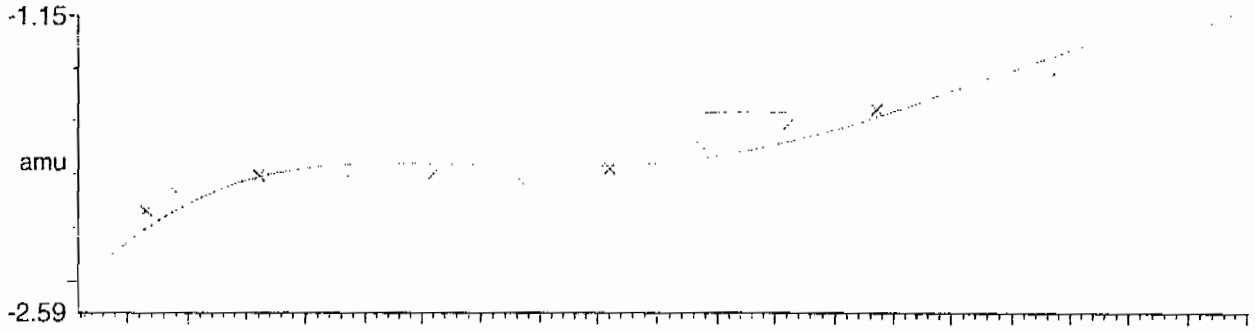
15 matches of 15 tested references




Reference file: Naics2



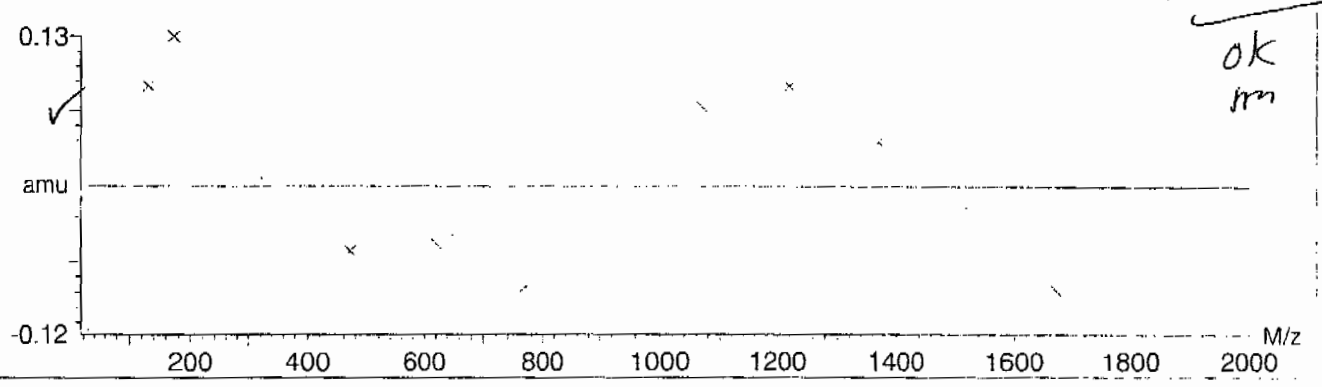

Mass difference (Raw - Ref mass)




Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
jm



PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

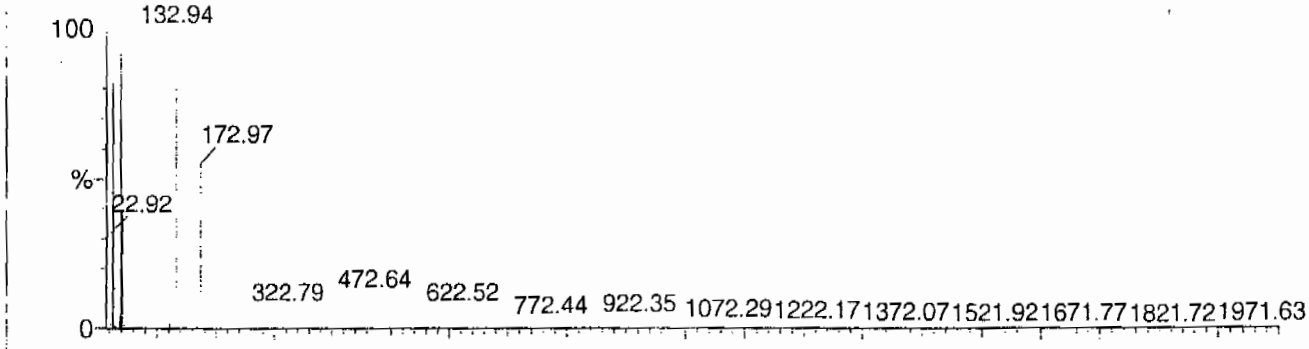
Calibration Report - MS1 Scan Speed Compensation



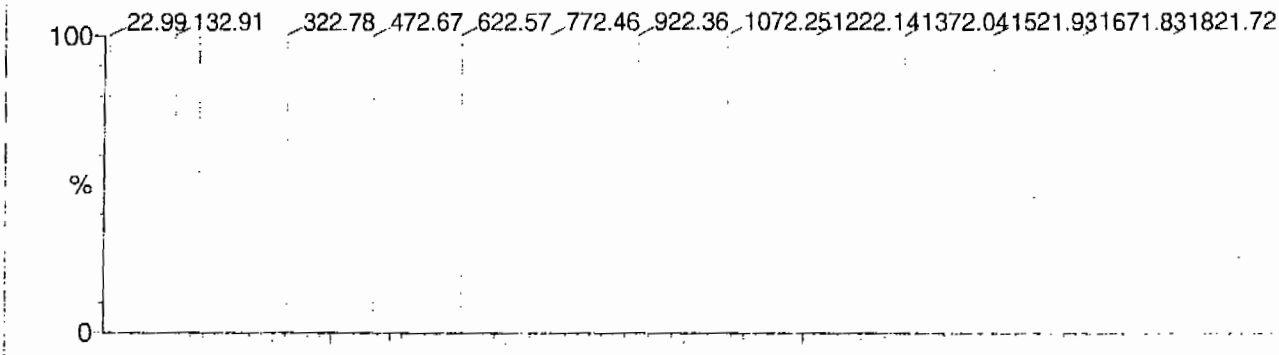
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

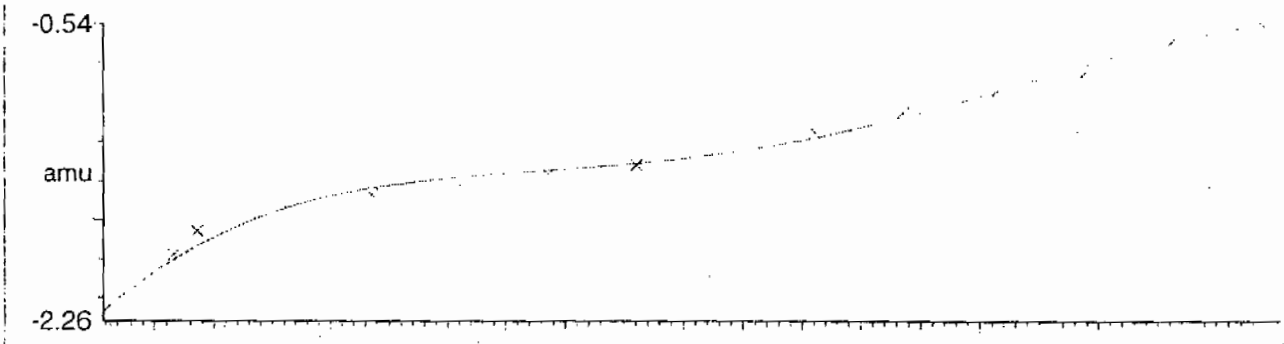
15 matches of 15 tested references




Reference file: Naics2

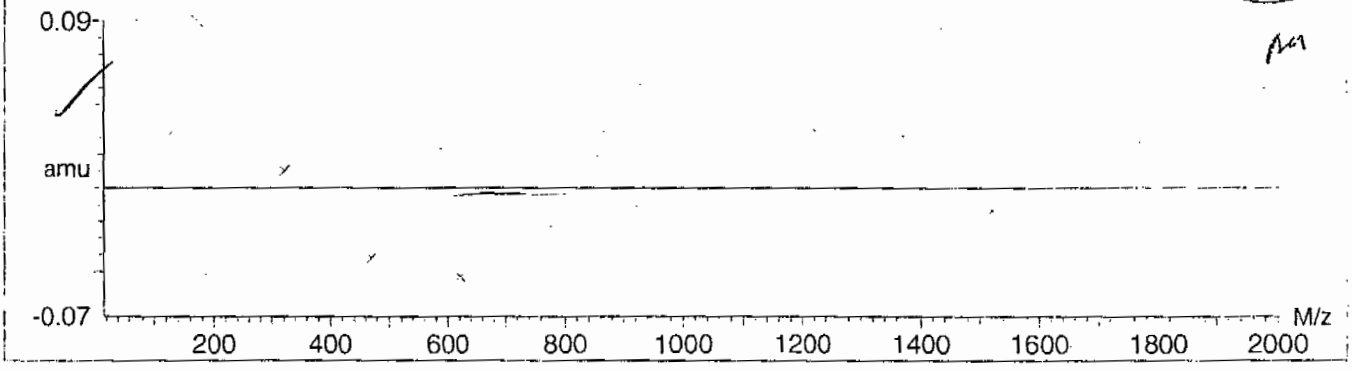



Mass difference (Raw - Ref mass)




Residuals

Mean residual = 3.486639e-9 ± 0.040487



PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

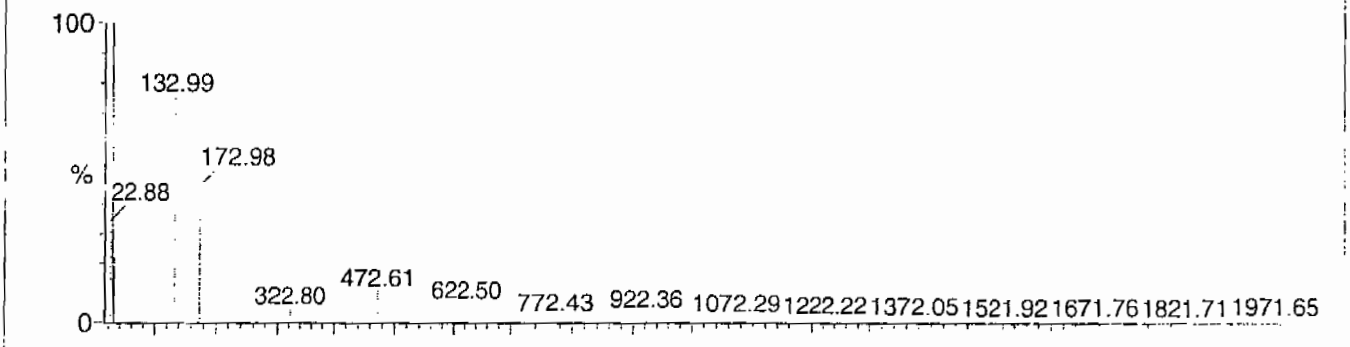
Calibration Report - MS2 Static



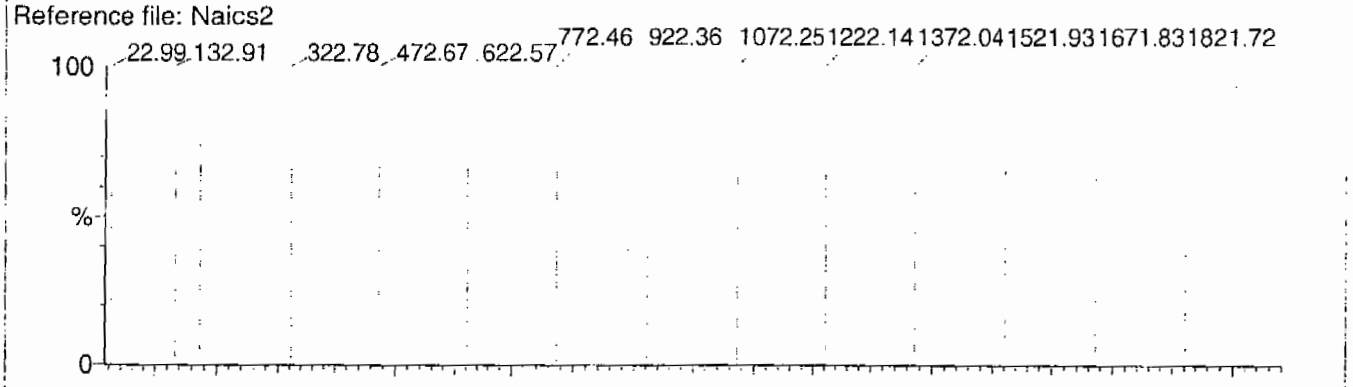
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

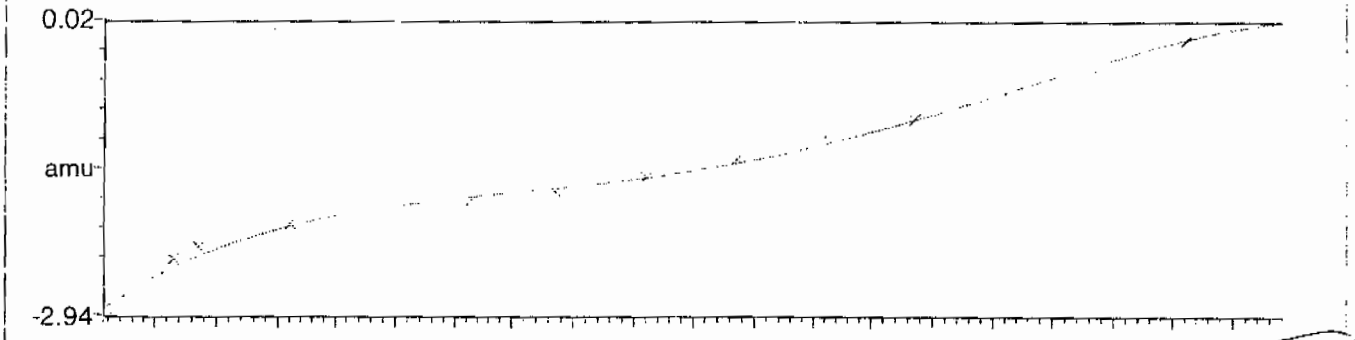
15 matches of 15 tested references




Reference file: Naics2

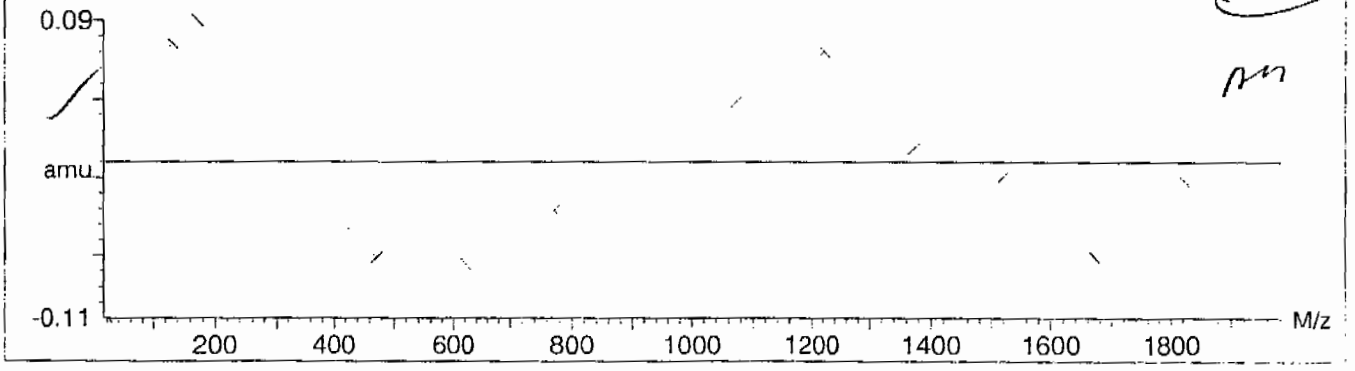



Mass difference (Raw - Ref mass)




Residuals

Mean residual = 2.048910e-9 ± 0.057803



PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

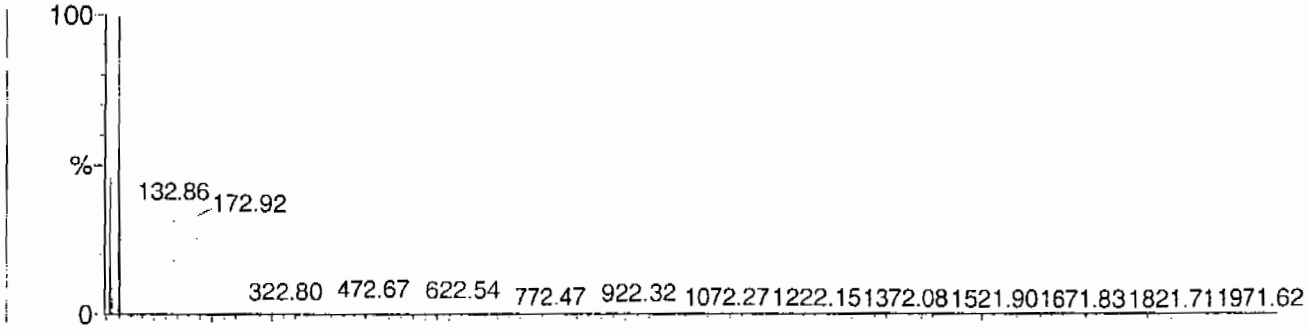
Calibration Report - MS2 Scanning



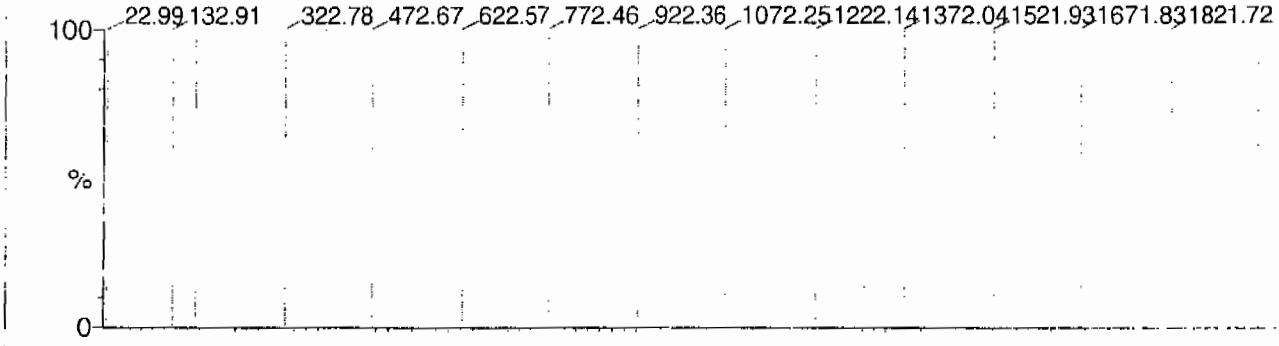
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

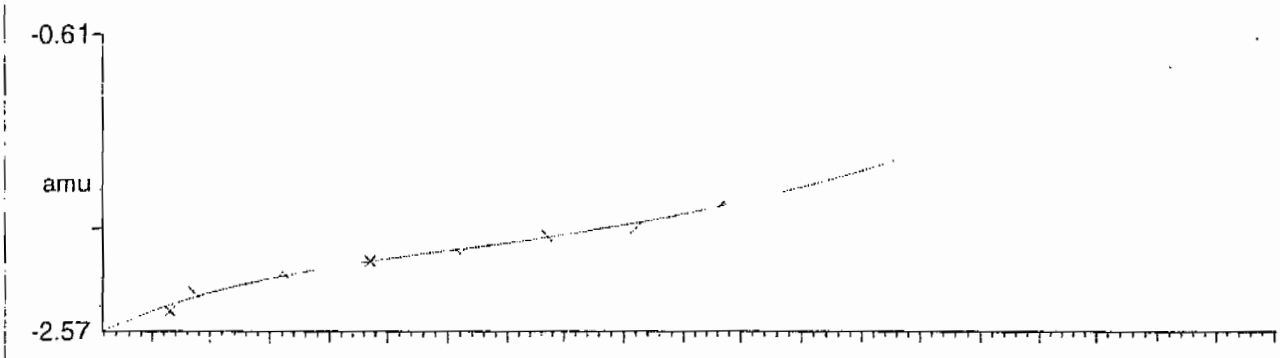
14 matches of 15 tested references




Reference file: Naics2

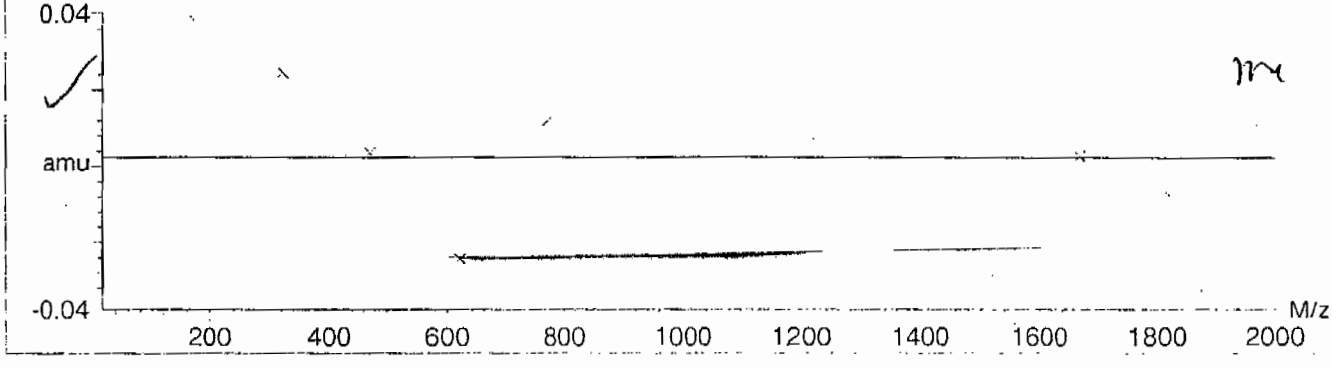



Mass difference (Raw - Ref mass)




Residuals

Mean residual = -2.623502e-9 ± 0.025622



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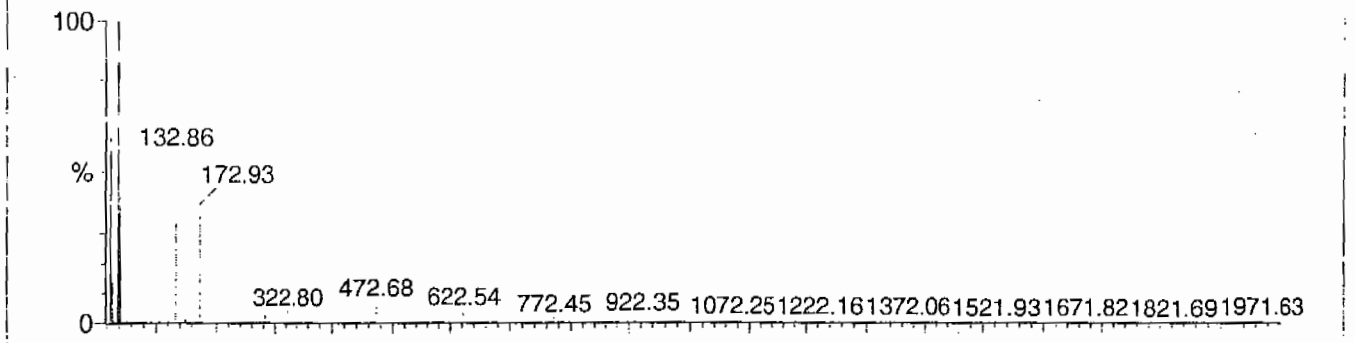
Calibration Report - MS2 Scan Speed Compensation



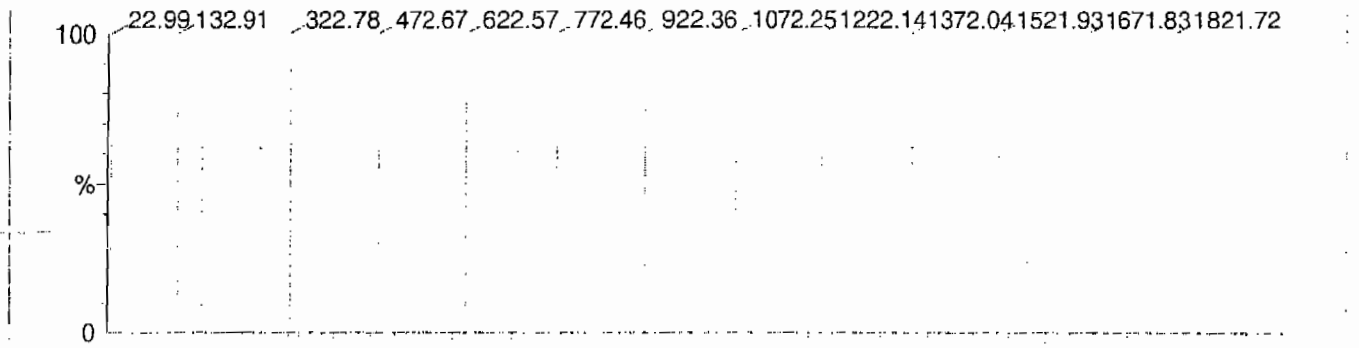
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

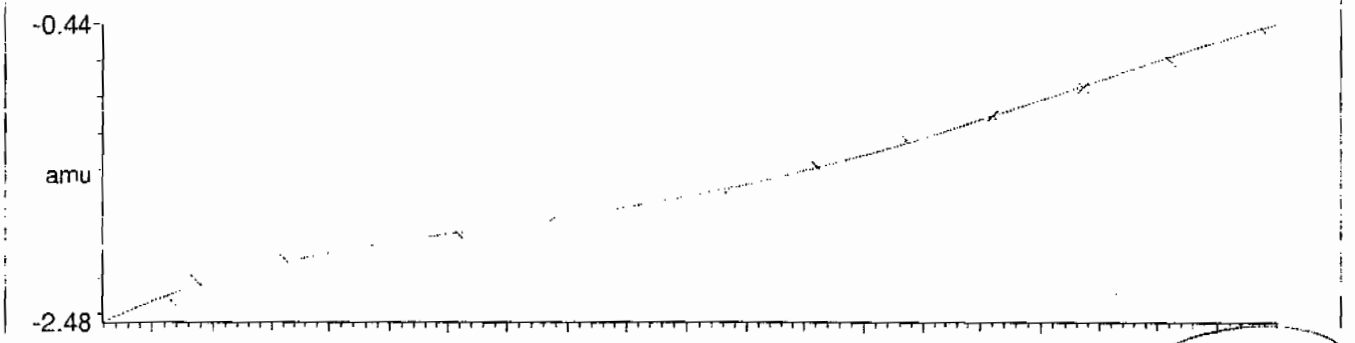
14 matches of 15 tested references




Reference file: Naics2



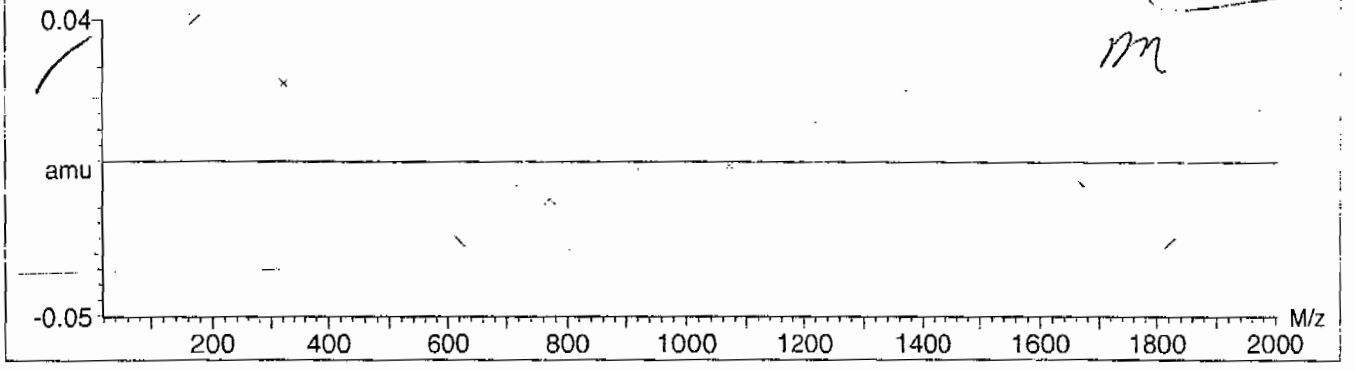

Mass difference (Raw - Ref mass)




Residuals

Mean residual = -6.785350e-9 ± 0.023134

m



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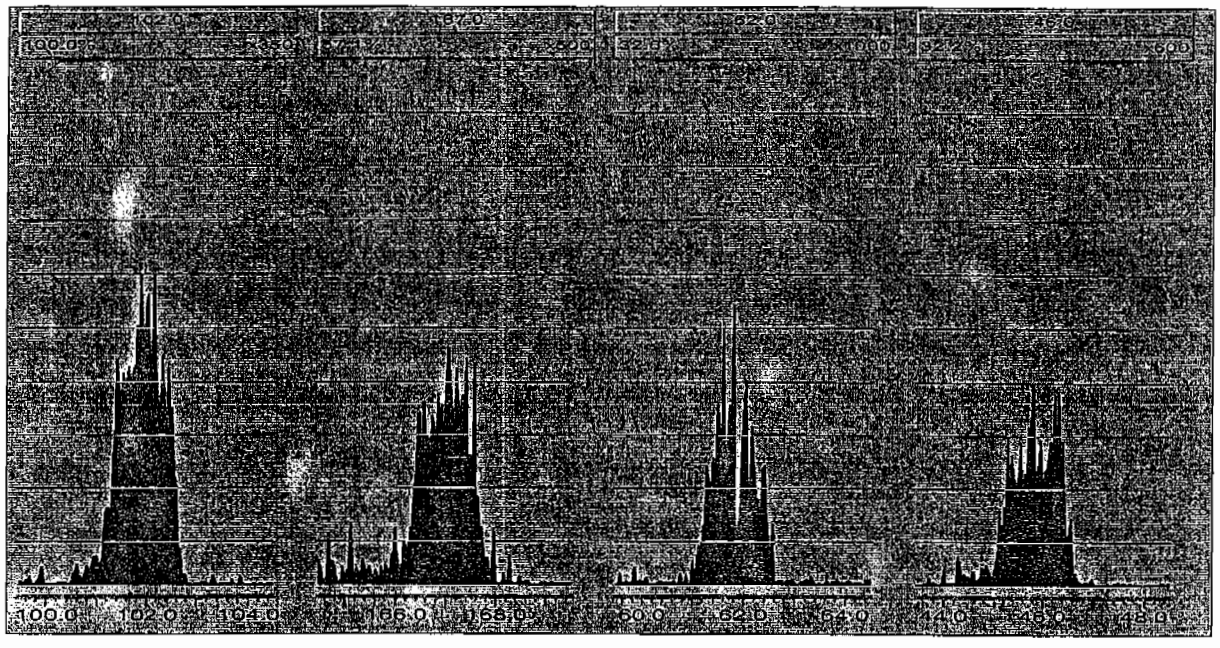
**Quattro Micro Tune Parameters**



Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Mon Mar 01 15:29:45 2010



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8

# High Explosives Internal Standard Summary

**Lab Name:** GEL Laboratories LLC **GEL Job No (SDG):** 10–1512

**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) # |
|---|---|---|---|---|---|---|
| | | | 2898.075 | 12.172 | 16084.817 | 17.641 |
| Upper Limit | | | 3767.4975 | 12.672 | 20910.2621 | 18.141 |
| Lower Limit | | | 2028.6525 | 11.672 | 11259.3719 | 17.141 |
| MB for batch 948574 | 02–mar–10 00:53 | EXP0301020a | 3031.69 | 12.173 | 17820.9 | 17.618 |
| LCS for batch 948574 | 02–mar–10 01:22 | EXP0301021a | 3195.65 | 12.171 | 19489.5 | 17.62 |
| RE15–10–7880 | 02–mar–10 01:52 | EXP0301022a | 3005.51 | 12.173 | 19601.9 | 17.617 |
| RE15–10–7880(245969001MS) | 02–mar–10 02:21 | EXP0301023a | 3132.86 | 12.171 | 18707.1 | 17.62 |
| RE15–10–7880(245969001MSD) | 02–mar–10 02:51 | EXP0301024a | 3226.56 | 12.171 | 19570.5 | 17.62 |
| RE15–10–7891 | 02–mar–10 03:20 | EXP0301025a | 2837.44 | 12.177 | 17557.4 | 17.619 |
| RE15–10–7892 | 02–mar–10 03:50 | EXP0301026a | 3211.5 | 12.171 | 17944.4 | 17.62 |
| RE15–10–7967 | 02–mar–10 04:19 | EXP0301027a | 3434.82 | 12.177 | 19751 | 17.618 |
| RE15–10–7976 | 02–mar–10 04:49 | EXP0301028a | 2967.61 | 12.17 | 18051.6 | 17.62 |
| RE15–10–7968 | 02–mar–10 05:18 | EXP0301029a | 3027.76 | 12.171 | 17476.3 | 17.619 |
| RE15–10–7965 | 02–mar–10 07:16 | EXP0301033a | 3533.72 | 12.171 | 20642.3 | 17.619 |
| RE15–10–7975 | 02–mar–10 07:46 | EXP0301034a | 3366.21 | 12.17 | 17204.5 | 17.62 |
| RE15–10–7978 | 02–mar–10 08:15 | EXP0301035a | 3263.73 | 12.173 | 20013.8 | 17.64 |
| RE15–10–7973 | 02–mar–10 09:44 | EXP0301038a | 3285.49 | 12.175 | 19737.6 | 17.62 |
| RE15–10–7962 | 02–mar–10 10:13 | EXP0301039a | 3270.32 | 12.175 | 19188.2 | 17.62 |
| RE15–10–7963 | 02–mar–10 10:42 | EXP0301040a | 3046.05 | 12.174 | 18821.2 | 17.619 |
| RE15–10–7977 | 02–mar–10 11:12 | EXP0301041a | 3054.03 | 12.171 | 17111.7 | 17.62 |
| RE15–10–7965 | 02–mar–10 11:42 | EXP0301042a | 2840.41 | 12.17 | 16344.4 | 17.619 |
| RE15–10–7970 | 03–mar–10 02:05 | EXP0301071a | 3022.93 | 12.17 | 18875.2 | 17.618 |
| RE15–10–7964 | 03–mar–10 02:34 | EXP0301072a | 3690.86 | 12.17 | 22118.1 * | 17.618 |

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

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

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SAMPLE
DATA

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969001

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301022a

**Date Analyzed:** 02-MAR-10 01:52

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

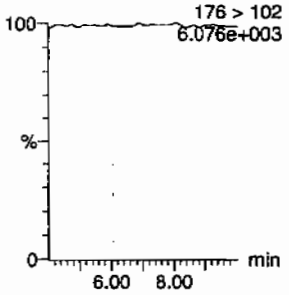


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

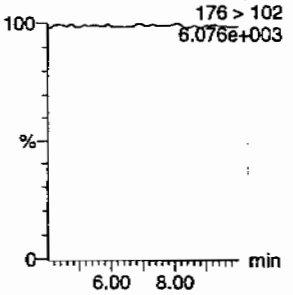
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301022a**
**Date: 02-Mar-2010**
**Time: 01:52:19**
**ID: 245969001** | LANL | 948575 | Soil | 2 |
**Vial: 2:1,C**

HMT 3/2/10

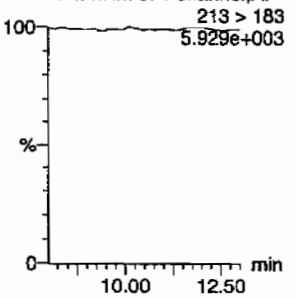
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
6.076e+003



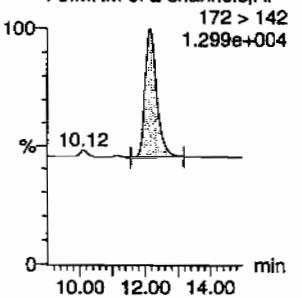

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
6.076e+003



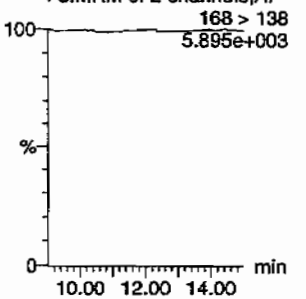

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
5.929e+003



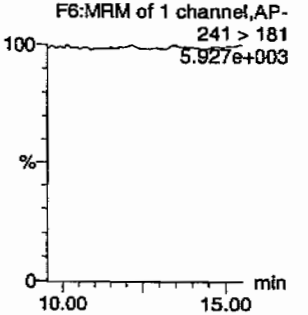

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.299e+004



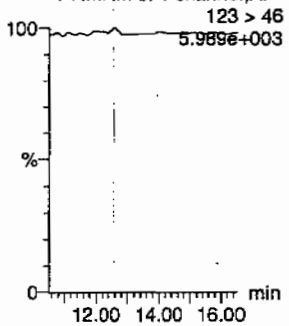

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
5.895e+003



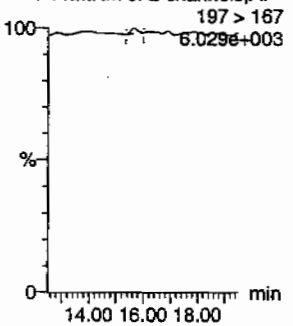

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
5.927e+003



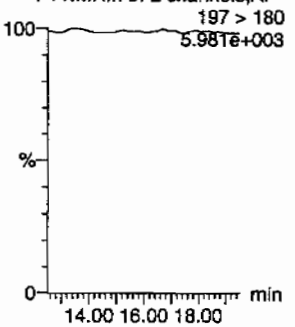

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
5.989e+003



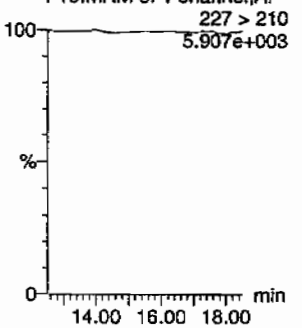

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.029e+003



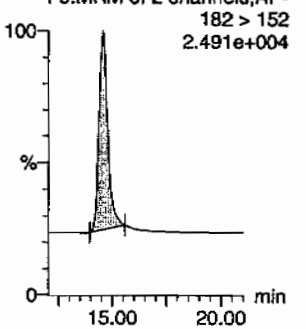

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
5.981e+003



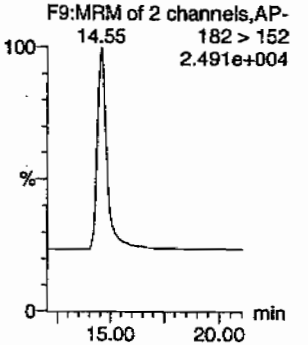

**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
5.907e+003




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
2.491e+004




**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
14.55
182 > 152
2.491e+004




HMM 03/04/10

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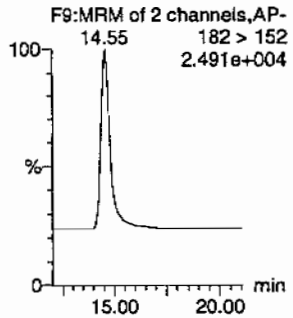
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

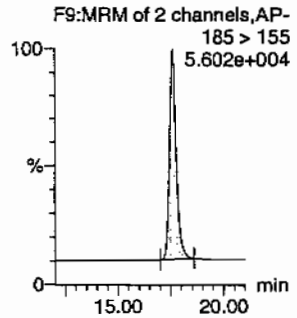


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

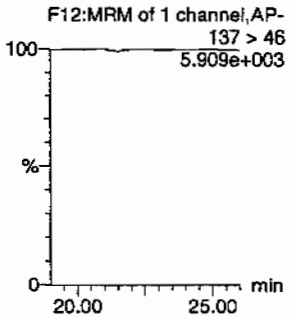
**24-dinitrotoluene**



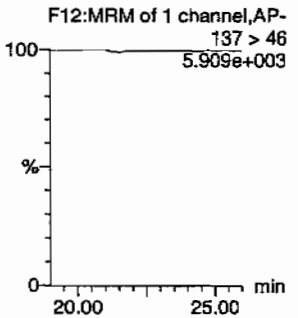

**26-dinitrotoluene-d3**



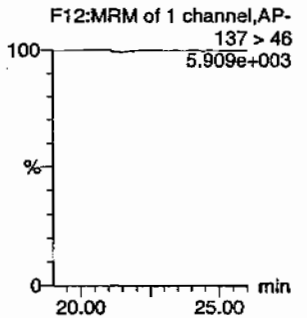

**2-Nitrotoluene**



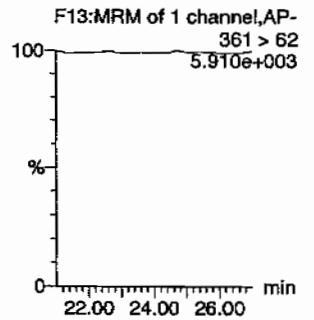

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969001 | HMX | 176 > 102 | | | 3005.509 | | | | | | | | | |
| 245969001 | RDX | 176 > 102 | | | 3005.509 | | | | | | | | | |
| 245969001 | 135-Trinitrobenzene | 213 > 183 | | | 3005.509 | | | | | | | | | |
| 245969001 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3005.509 | | 3005.509 | 3005.509 | bb | | | 518.5352 | 103.7 | 3.7 | 318.2 |
| 245969001 | 13-Dinitrobenzene | 168 > 138 | | | 3005.509 | | | | | | | | | |
| 245969001 | Tetryl | 241 > 181 | | | 3005.509 | | | | | | | | | |
| 245969001 | Nitrobenzene | 123 > 46 | | | 3005.509 | | | | | | | | | |
| 245969001 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 19601.941 | | | MM- | 02-Mar-10 | 09:47:25 | | | | |
| 245969001 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 19601.941 | | | | | | | | | |
| 245969001 | 246-Trinitrotoluene | 227 > 210 | | | 19601.941 | | | | | | | | | |
| 245969001 | 34-dinitrotoluene | 182 > 152 | 14.55 | 8874.404 | 19601.941 | 8874.404 | 226.365 | bb | | | 228.4982 | 91.4 | -8.6 | 476.2 |
| 245969001 | 26-dinitrotoluene | 182 > 152 | | | 19601.941 | | | | | | | | | |
| 245969001 | 24-dinitrotoluene | 182 > 152 | | | 19601.941 | | | | | | | | | |
| 245969001 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 19601.941 | | 19601.941 | 19601.941 | bb | | | 609.3304 | 121.9 | 21.9 | 2935.9 |
| 245969001 | 2-Nitrotoluene | 137 > 46 | | | 19601.941 | | | | | | | | | |
| 245969001 | 4-Nitrotoluene | 137 > 46 | | | 19601.941 | | | | | | | | | |
| 245969001 | 3-Nitrotoluene | 137 > 46 | | | 19601.941 | | | | | | | | | |
| 245969001 | PETN | 361 > 62 | | | 19601.941 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969001

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220020.wiff

**Date Analyzed:** 22-FEB-10 22:00

**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 =

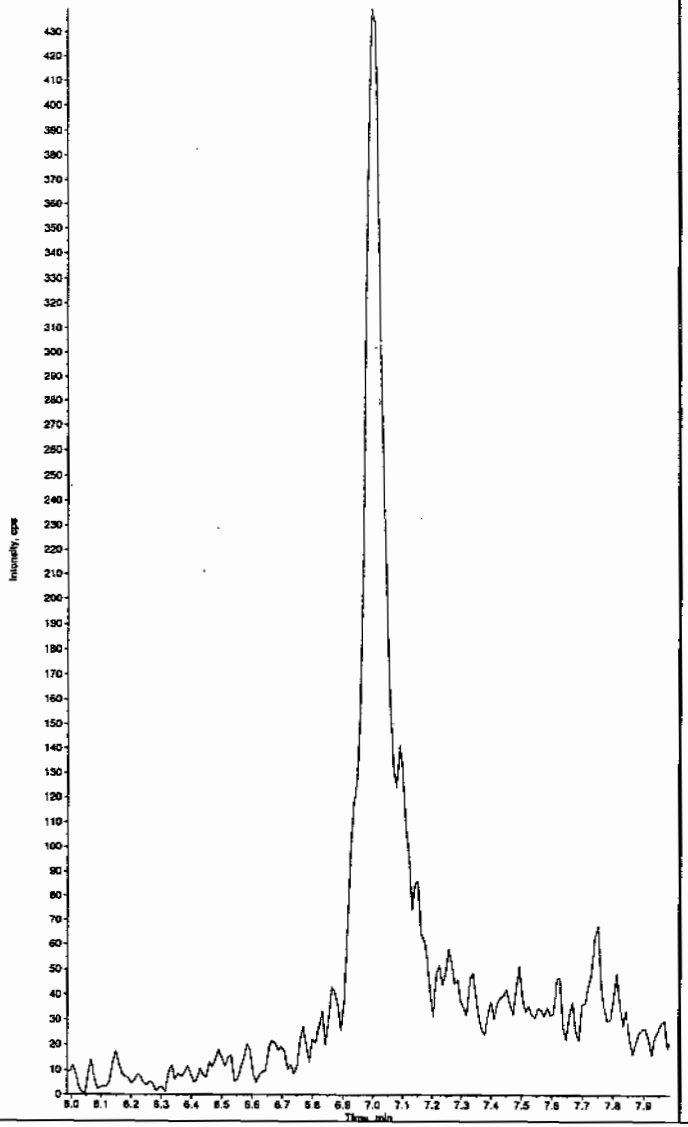
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/23/10

Sample Name: "245969001" Sample ID: "948575|2|LER" File: "EXS02220020.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:25 PM

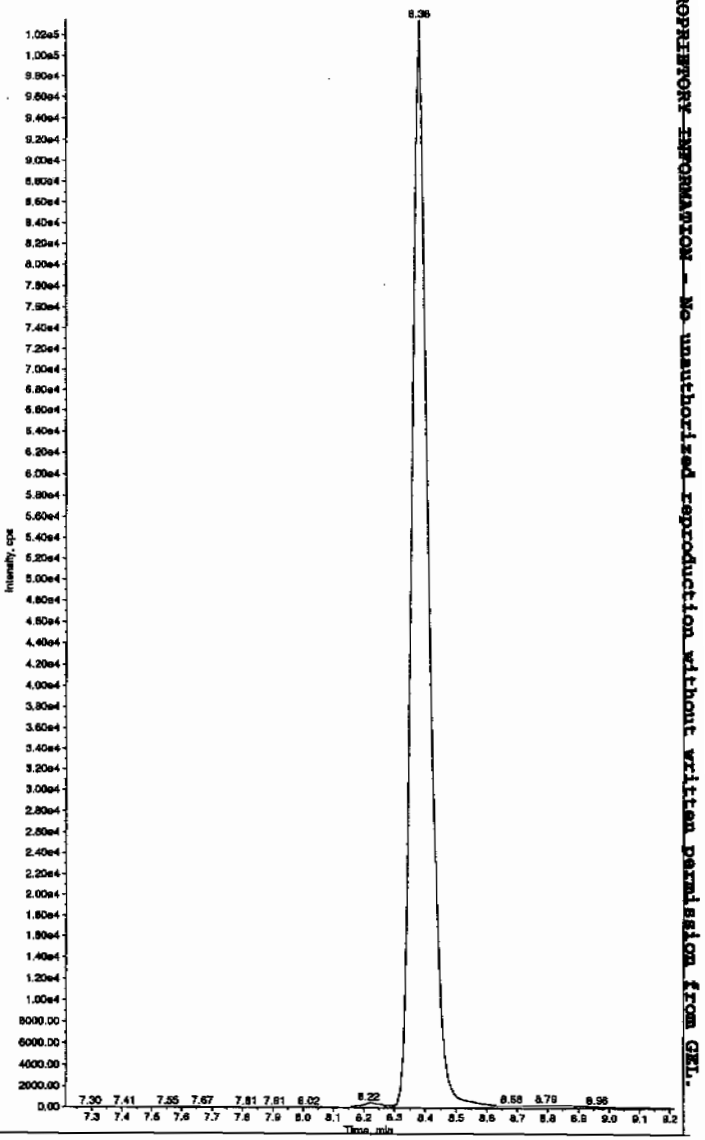
Modified: No




Sample Name: "245969001" Sample ID: "948575|2|LER" File: "EXS02220020.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 PM

Modified: No




HMIL 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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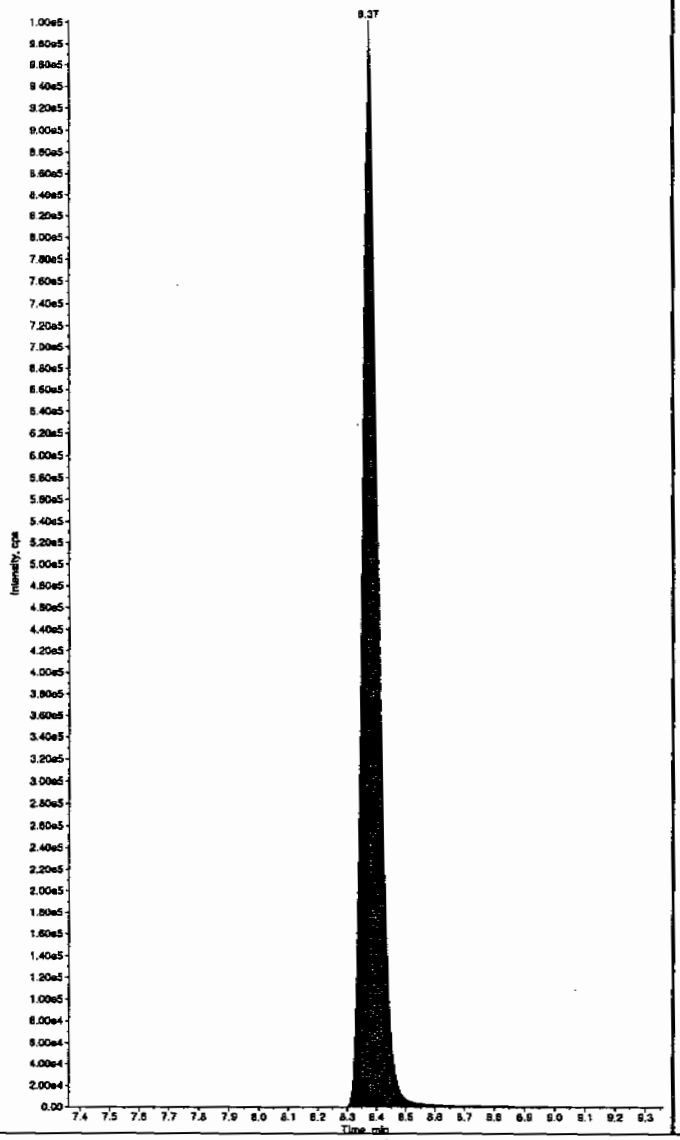
Sample Name: "245969001" Sample ID: "9485752|LER" File: "EXS02220020.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 290. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

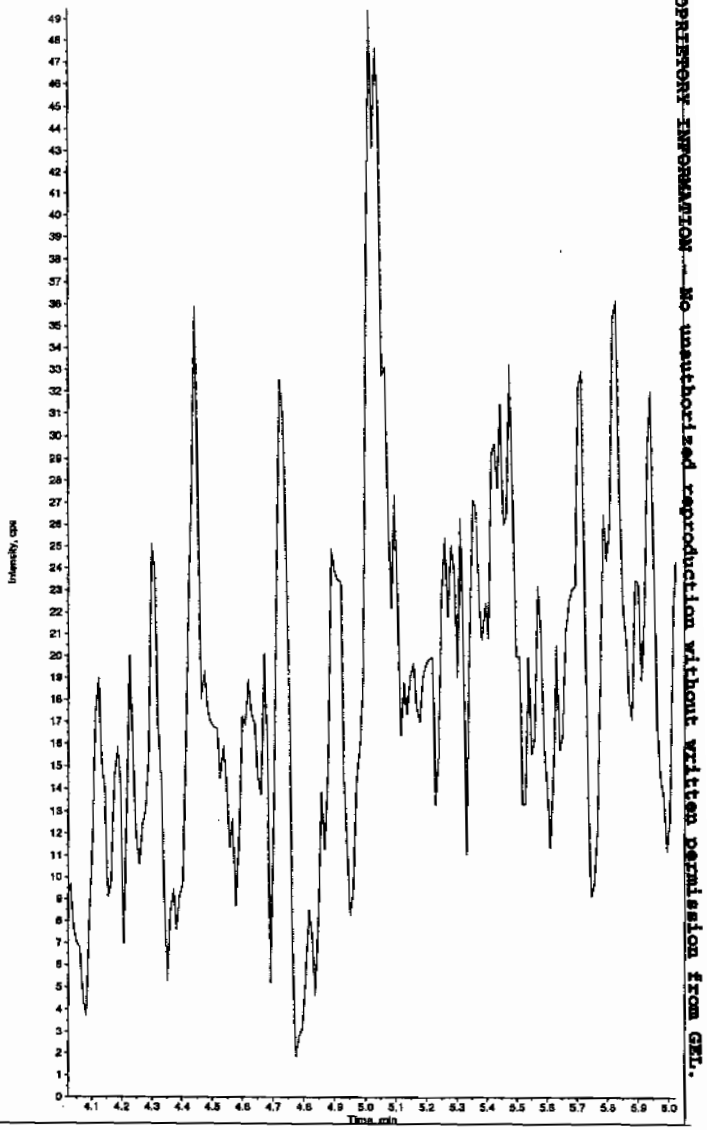
Int. Type: Valley
Retention Time: 8.37 min
Area: 3.83e+006 counts
Height: 1002356.750 cps
Start Time: 8.28 min
End Time: 8.72 min




Sample Name: "245969001" Sample ID: "9485752|LER" File: "EXS02220020.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 PM

Modified: No

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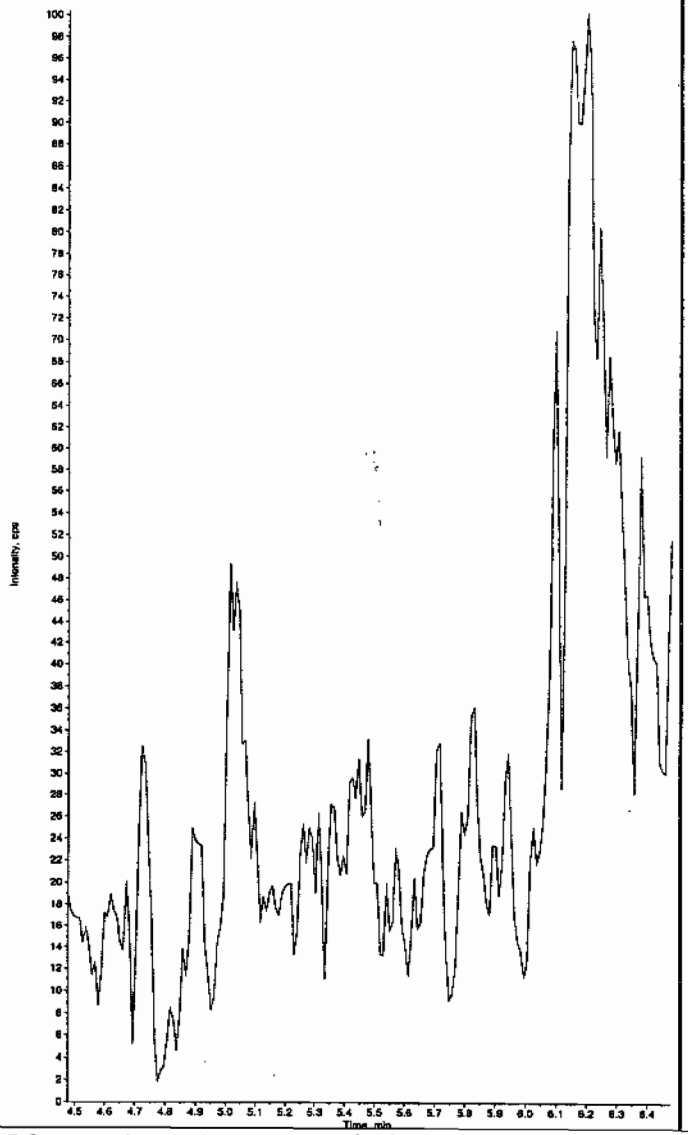
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969001" Sample ID: "948575|2|LER" File: "EXS02220020.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 PM

Modified: No

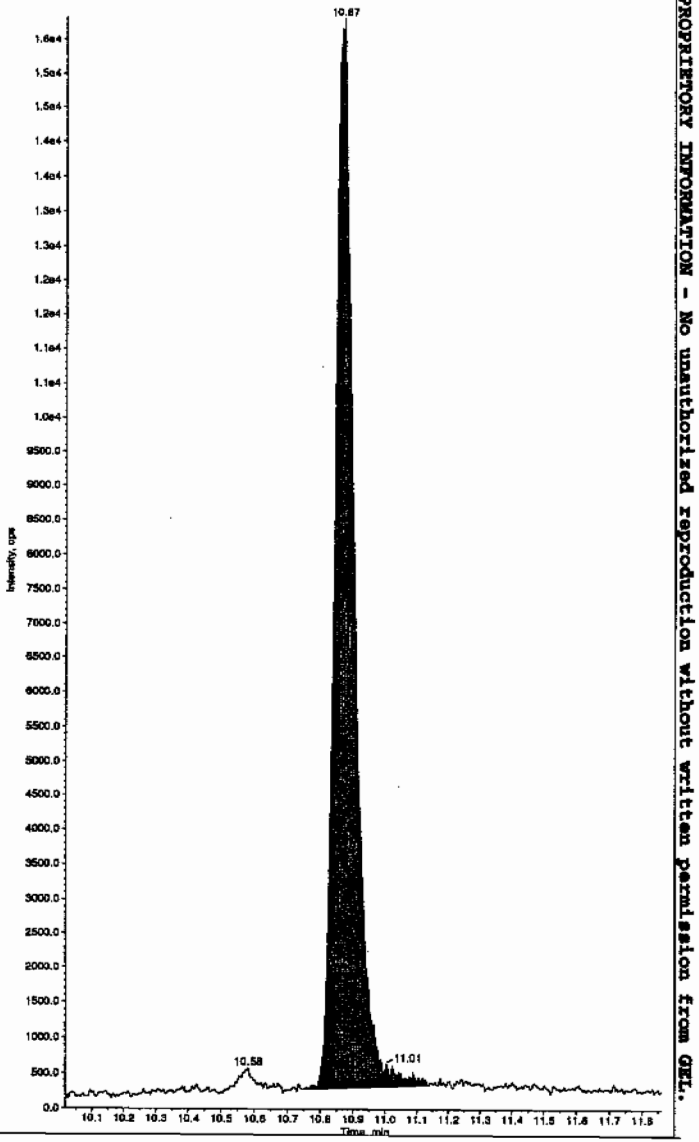



Sample Name: "245969001" Sample ID: "948575|2|LER" File: "EXS02220020.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.10 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 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: 6.67e+004 counts
Height: 15522.993 cps
Start Time: 10.7 min
End Time: 11.1 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7891

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969002

**Sample Amount** 2

**Moisture:** 26.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301025a

**Date Analyzed:** 02-MAR-10 03:20

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

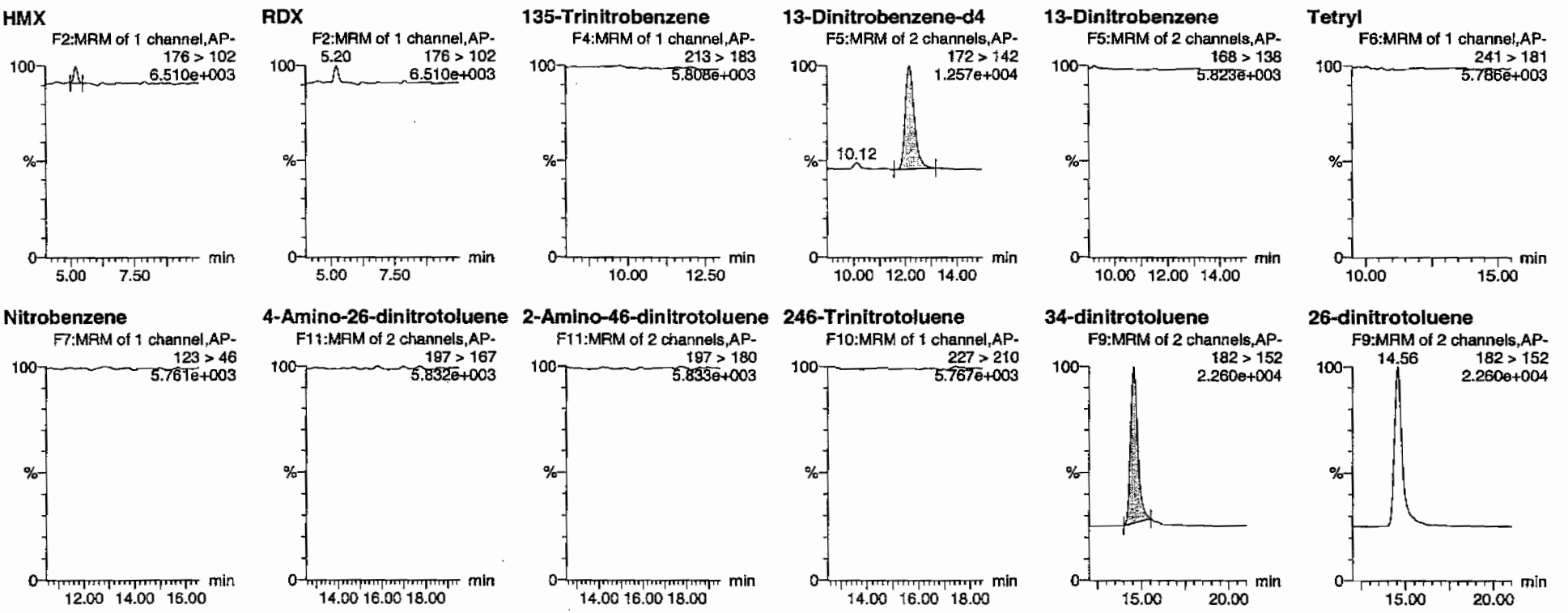


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301025a**
**Date: 02-Mar-2010**
**Time: 03:20:42**
**ID: 245969002**
**Vial: 2:1,F**

| LANL | 948575 | Solid | 2 |

MAP 3/2/10



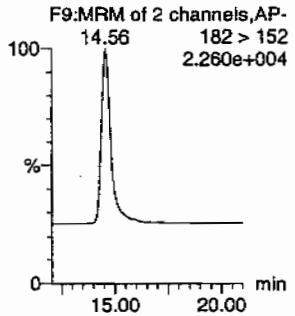

HMM 03/04/10

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

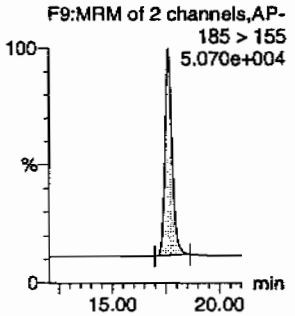


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

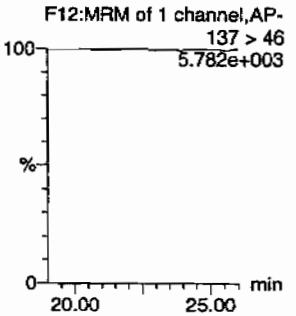
**24-dinitrotoluene**



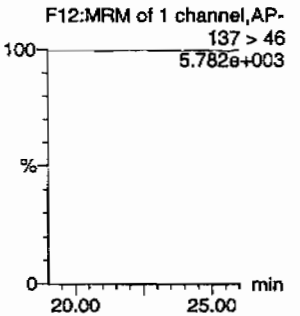

**26-dinitrotoluene-d3**



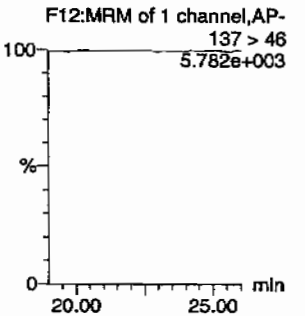

**2-Nitrotoluene**



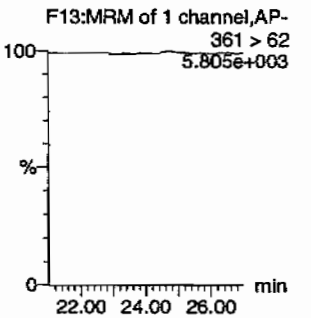

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969002 | HMX | 176 > 102 | 5.20 | 108.585 | 2837.443 | 108.585 | 19.134 | bb | | | 5.0158 | | | 25.0 |
| 245969002 | RDX | 176 > 102 | | | 2837.443 | | | | | | | | | |
| 245969002 | 135-Trinitrobenzene | 213 > 183 | | | 2837.443 | | | | | | | | | |
| 245969002 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.18 | 2837.443 | | 2837.443 | 2837.443 | bb | | | 489.5391 | 97.9 | -2.1 | 157.6 |
| 245969002 | 13-Dinitrobenzene | 168 > 138 | | | 2837.443 | | | | | | | | | |
| 245969002 | Tetryl | 241 > 181 | | | 2837.443 | | | | | | | | | |
| 245969002 | Nitrobenzene | 123 > 46 | | | 2837.443 | | | | | | | | | |
| 245969002 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17557.436 | | | | | | | | | |
| 245969002 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17557.436 | | | | | | | | | |
| 245969002 | 246-Trinitrotoluene | 227 > 210 | | | 17557.436 | | | | | | | | | |
| 245969002 | 34-dinitrotoluene | 182 > 152 | 14.56 | 7776.750 | 17557.436 | 7776.750 | 221.466 | bb | | | 223.5526 | 89.4 | -10.6 | 519.3 |
| 245969002 | 26-dinitrotoluene | 182 > 152 | | | 17557.436 | | | | | | | | | |
| 245969002 | 24-dinitrotoluene | 182 > 152 | | | 17557.436 | | | | | | | | | |
| 245969002 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17557.436 | | 17557.436 | 17557.436 | bb | | | 545.7765 | 109.2 | 9.2 | 2169.1 |
| 245969002 | 2-Nitrotoluene | 137 > 46 | | | 17557.436 | | | | | | | | | |
| 245969002 | 4-Nitrotoluene | 137 > 46 | | | 17557.436 | | | | | | | | | |
| 245969002 | 3-Nitrotoluene | 137 > 46 | | | 17557.436 | | | | | | | | | |
| 245969002 | PETN | 361 > 62 | | | 17557.436 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7891

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969002

**Sample Amount** 2

**Moisture:** 26.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220023.wiff

**Date Analyzed:** 22-FEB-10 22:47

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

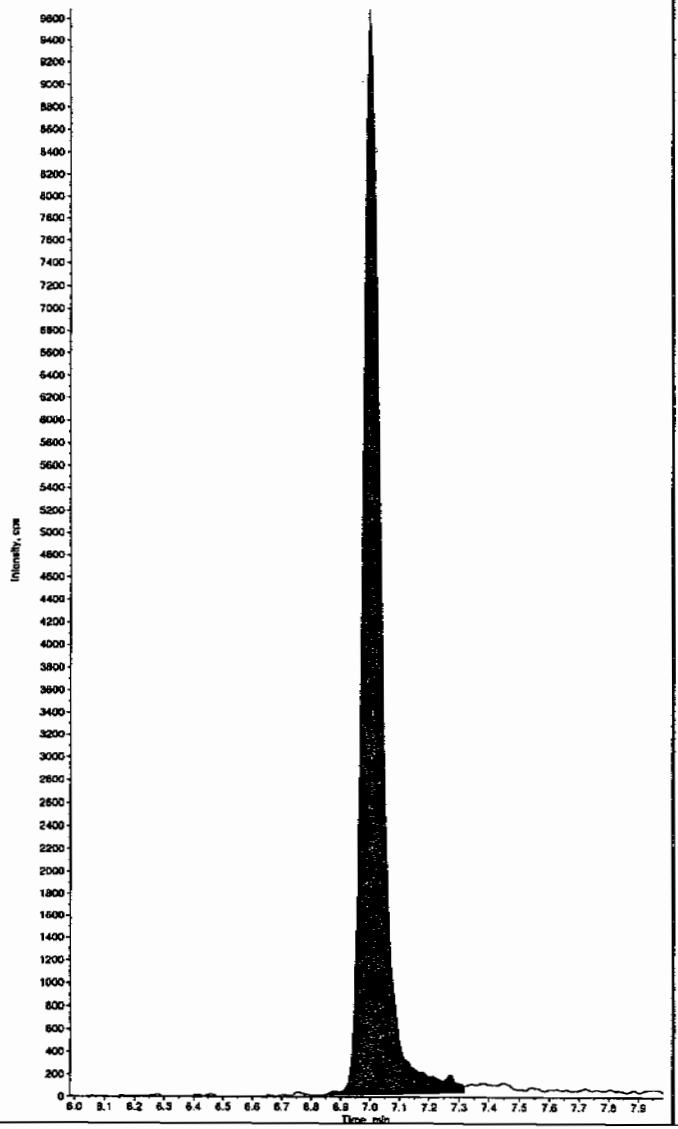
2/23/10

Sample Name: "245969002" Sample ID: "948575[2]LER" File: "EXS02220023.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 20.3 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 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: 6.99 min
Use Relative RT: No

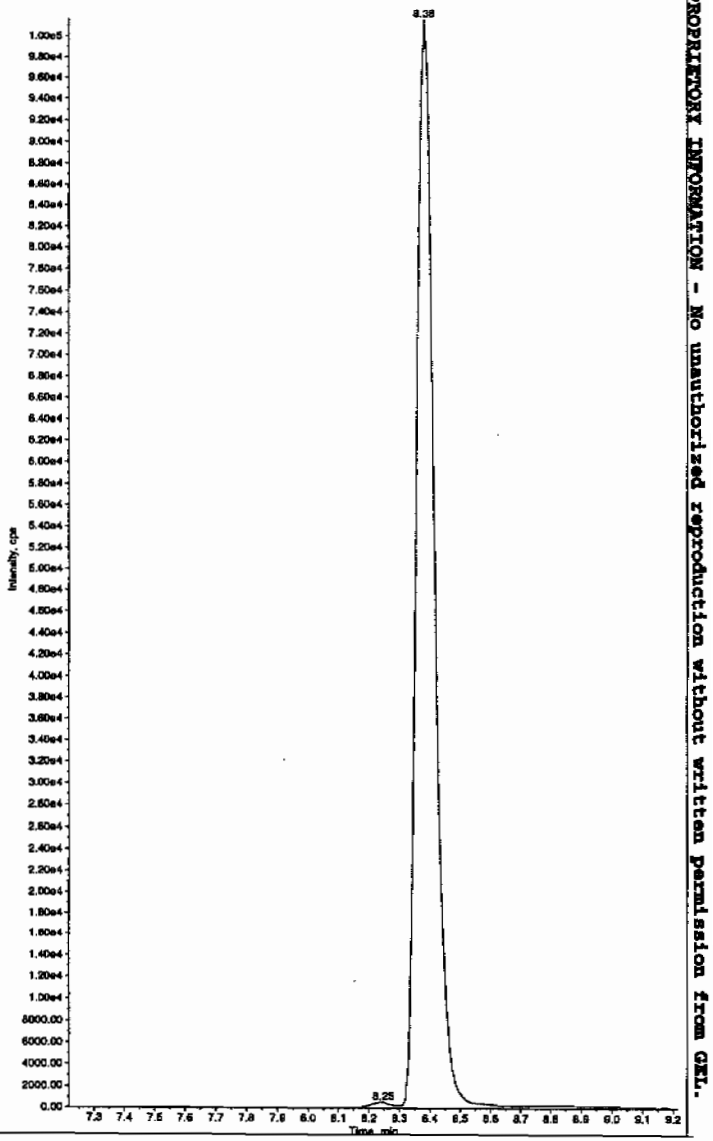
Int. Type: Valley
Retention Time: 7.00 min
Area: 4.34e+004 counts
Height: 9665.325 cps
Start Time: 6.83 min
End Time: 7.32 min




Sample Name: "245969002" Sample ID: "948575[2]LER" File: "EXS02220023.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No




HMW 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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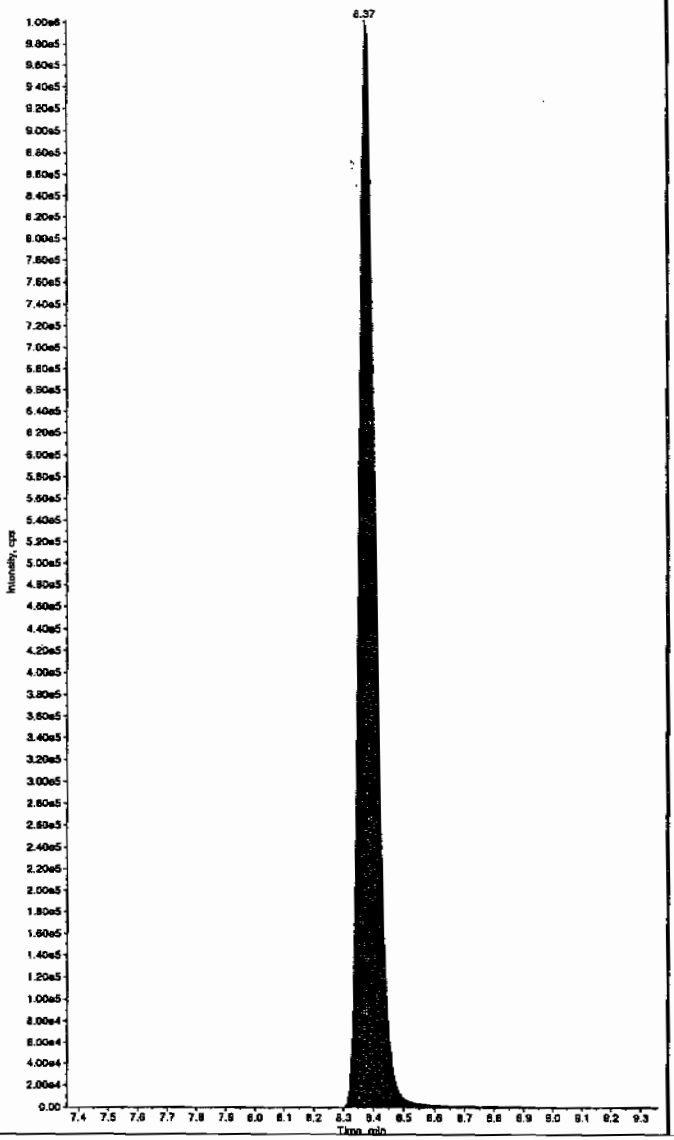
Sample Name: "245969002" Sample ID: "948575|2|LER" File: "EXS02220023.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 301. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

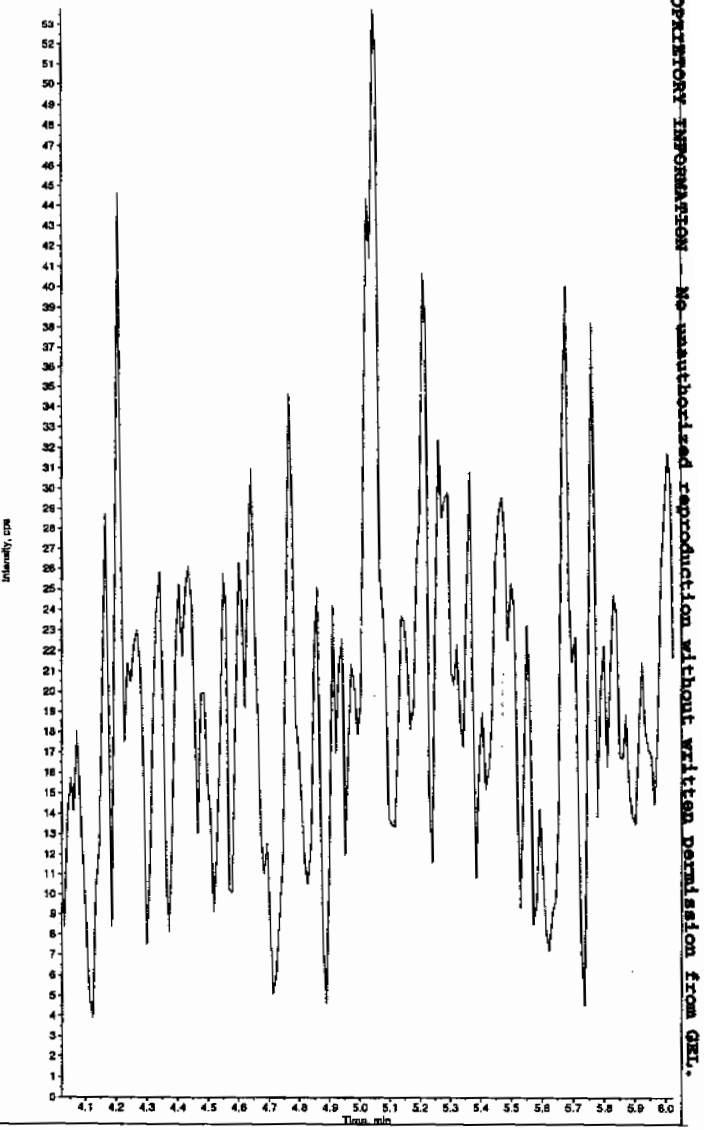
Int. Type: Valley
Retention Time: 8.37 min
Area: 3.97e+006 counts
Height: 1002885.498 cps
Start Time: 8.26 min
End Time: 8.72 min




Sample Name: "245969002" Sample ID: "948575|2|LER" File: "EXS02220023.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No

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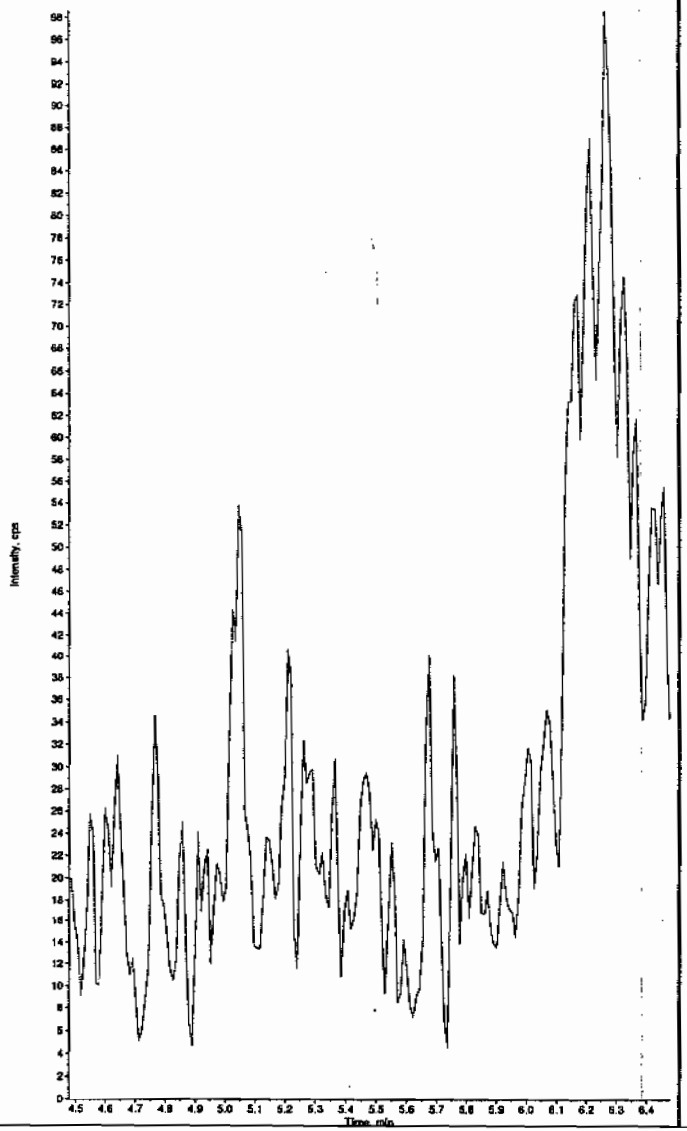
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969002" Sample ID: "948575|2|LER" File: "EXS02220023.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No

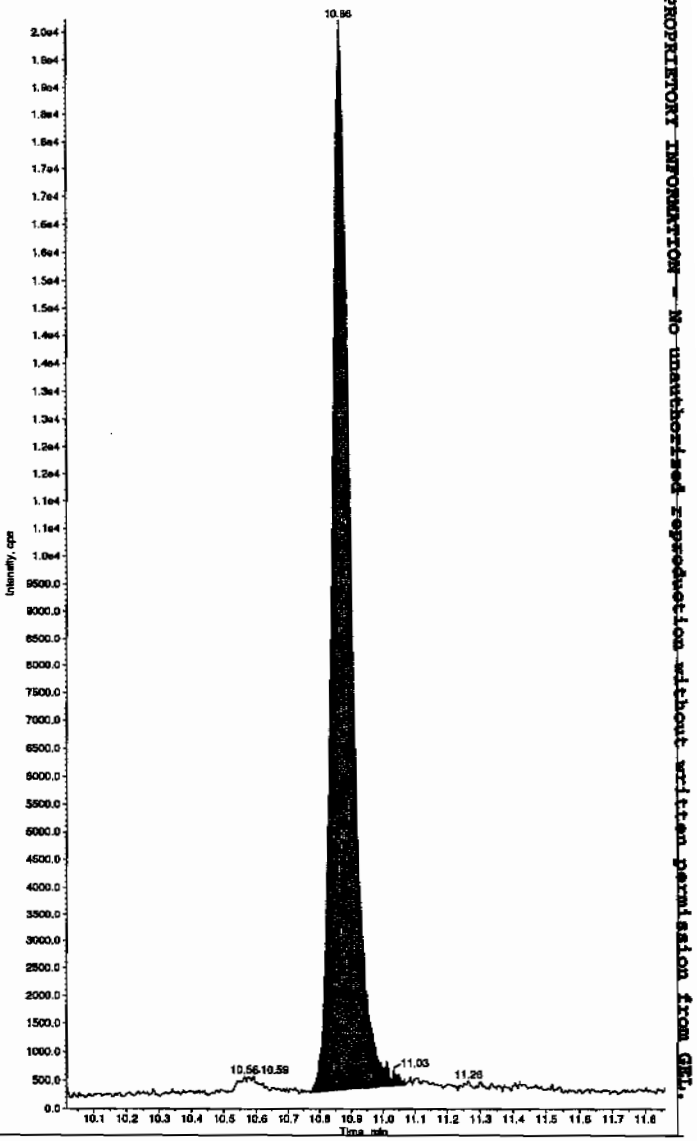



Sample Name: "245969002" Sample ID: "948575|2|LER" File: "EXS02220023.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.87 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 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: 8.32e+004 counts
Height: 19400.309 cps
Start Time: 10.8 min
End Time: 11.1 min

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7892

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969003

**Sample Amount** 2

**Moisture:** 7.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301026a

**Date Analyzed:** 02-MAR-10 03:50

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

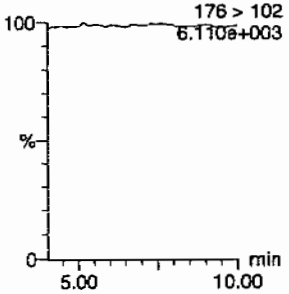


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

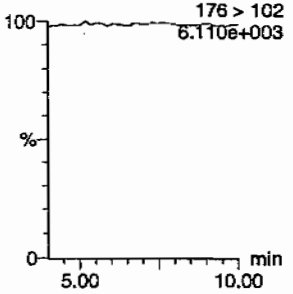
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301026a**
**Date: 02-Mar-2010**
**Time: 03:50:10**
**ID: 245969003** | LANL | 948575 | Solids | 2 |
**Vial: 2:2,A**

MMT 3/2/10

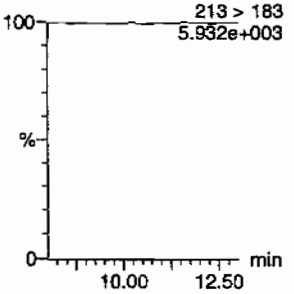
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
6.110e+003



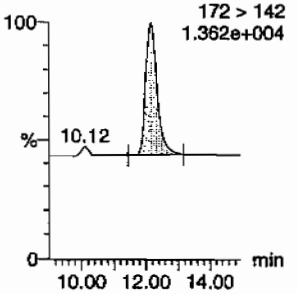

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
6.110e+003



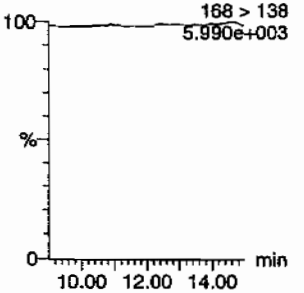

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
5.932e+003



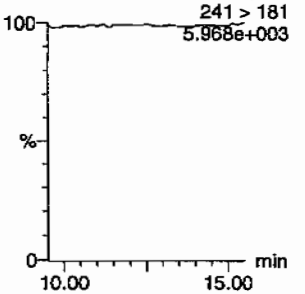

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.362e+004



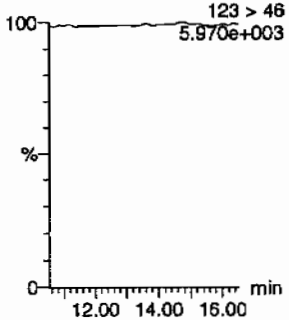

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
5.990e+003



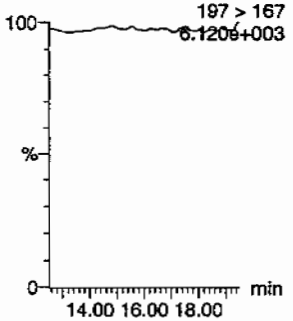

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
5.968e+003



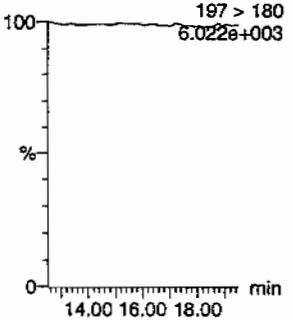

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
5.970e+003



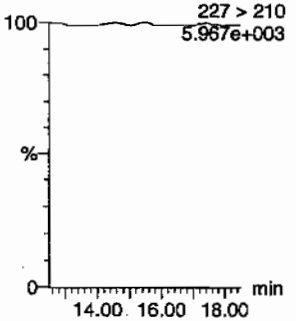

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.120e+003



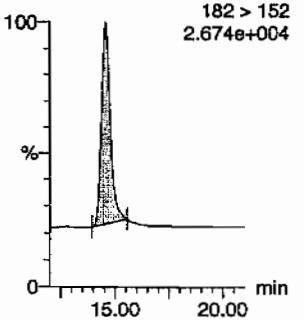

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.022e+003



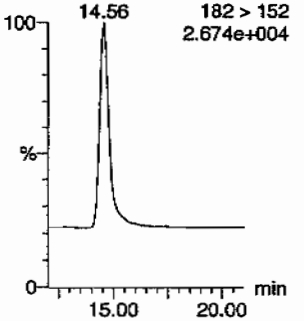

**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
5.967e+003




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
2.674e+004




**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.674e+004




KMM 03/04/10



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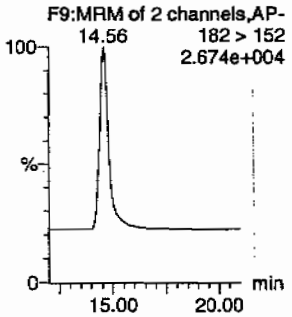
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

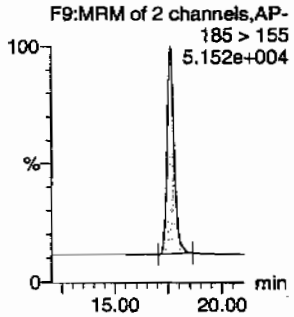


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

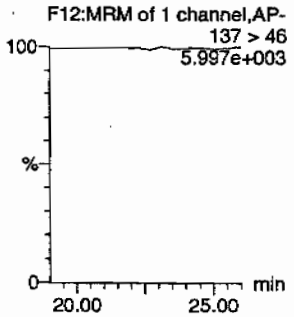
**24-dinitrotoluene**



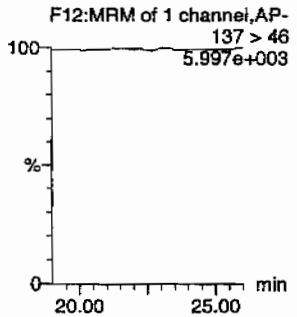

**26-dinitrotoluene-d3**



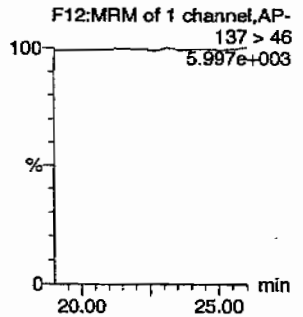

**2-Nitrotoluene**



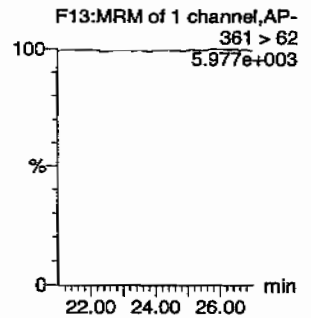

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/ml | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969003 | HMX | 176 > 102 | | | 3211.497 | | | | | | | | | |
| 245969003 | RDX | 176 > 102 | | | 3211.497 | | | | | | | | | |
| 245969003 | 135-Trinitrobenzene | 213 > 183 | | | 3211.497 | | | | | | | | | |
| 245969003 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3211.497 | | 3211.497 | 3211.497 | bb | | | 554.0739 | 110.8 | 10.8 | 292.0 |
| 245969003 | 13-Dinitrobenzene | 168 > 138 | | | 3211.497 | | | | | | | | | |
| 245969003 | Tetryl | 241 > 181 | | | 3211.497 | | | | | | | | | |
| 245969003 | Nitrobenzene | 123 > 46 | | | 3211.497 | | | | | | | | | |
| 245969003 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17944.379 | | | | | | | | | |
| 245969003 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17944.379 | | | | | | | | | |
| 245969003 | 246-Trinitrotoluene | 227 > 210 | | | 17944.379 | | | | | | | | | |
| 245969003 | 34-dinitrotoluene | 182 > 152 | 14.56 | 9552.513 | 17944.379 | 9552.513 | 266.170 | bb | | | 268.6779 | 107.5 | 7.5 | 909.8 |
| 245969003 | 26-dinitrotoluene | 182 > 152 | | | 17944.379 | | | | | | | | | |
| 245969003 | 24-dinitrotoluene | 182 > 152 | | | 17944.379 | | | | | | | | | |
| 245969003 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17944.379 | | 17944.379 | 17944.379 | bb | | | 557.8047 | 111.6 | 11.6 | 1482.7 |
| 245969003 | 2-Nitrotoluene | 137 > 46 | | | 17944.379 | | | | | | | | | |
| 245969003 | 4-Nitrotoluene | 137 > 46 | | | 17944.379 | | | | | | | | | |
| 245969003 | 3-Nitrotoluene | 137 > 46 | | | 17944.379 | | | | | | | | | |
| 245969003 | PETN | 361 > 62 | | | 17944.379 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7892

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969003

**Sample Amount** 2

**Moisture:** 7.0

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220027.wiff

**Date Analyzed:** 22-FEB-10 23:50

**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 =

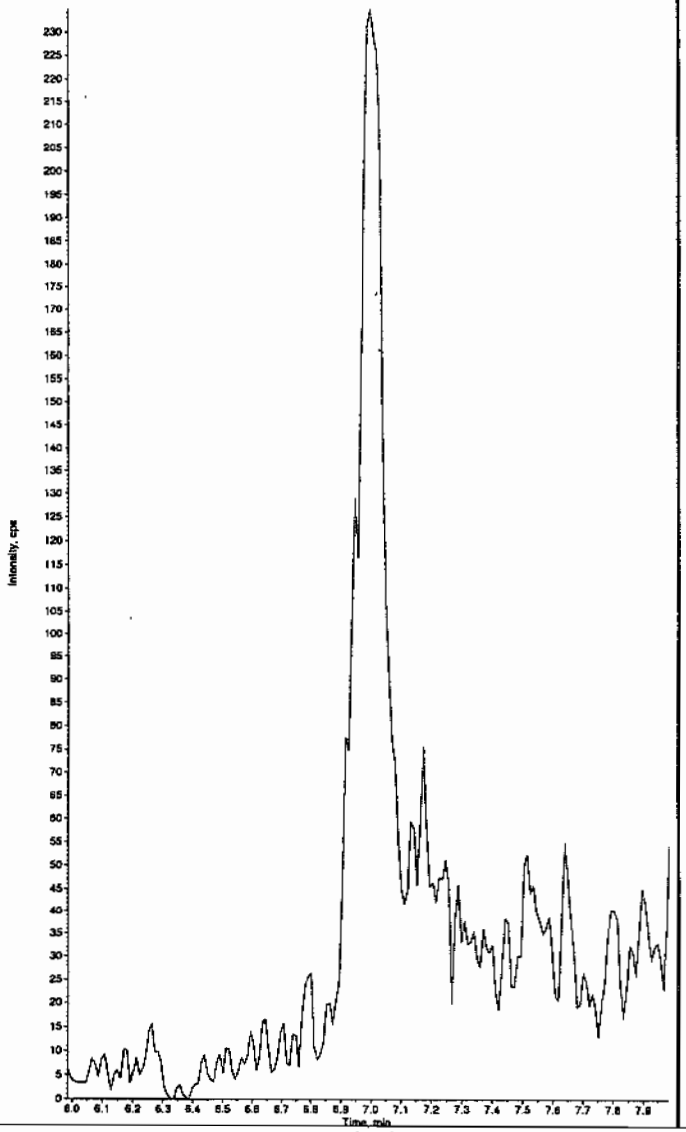
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/23/10

Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

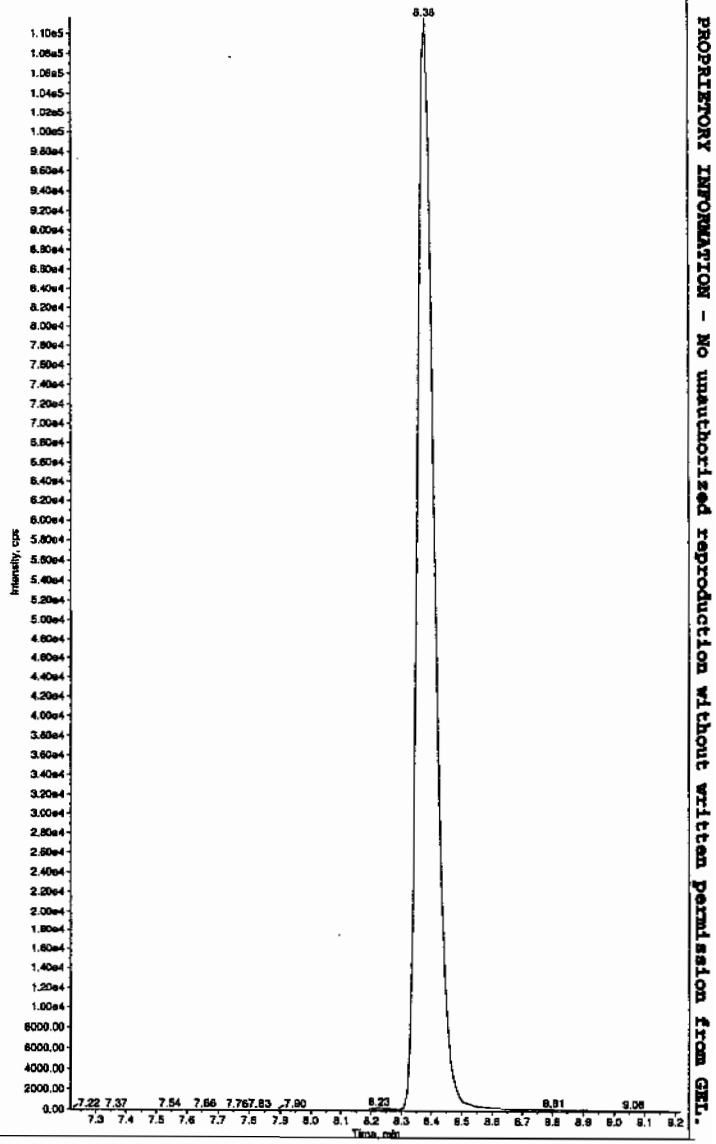
Modified: No




Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No




Hmm. 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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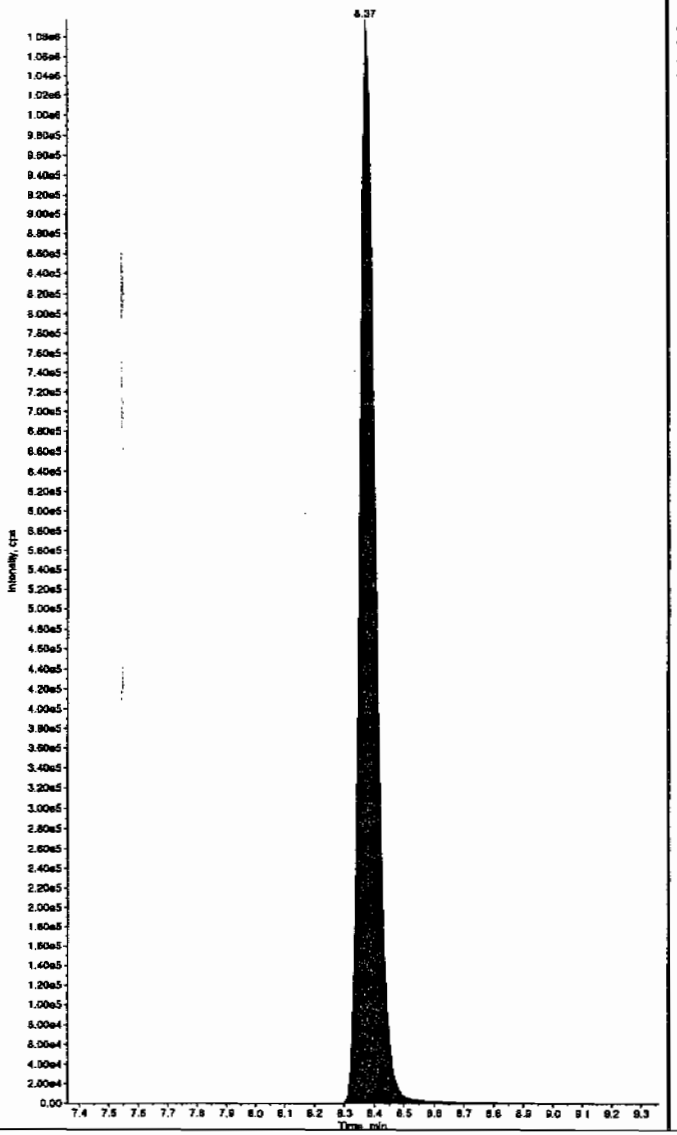
Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 323. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

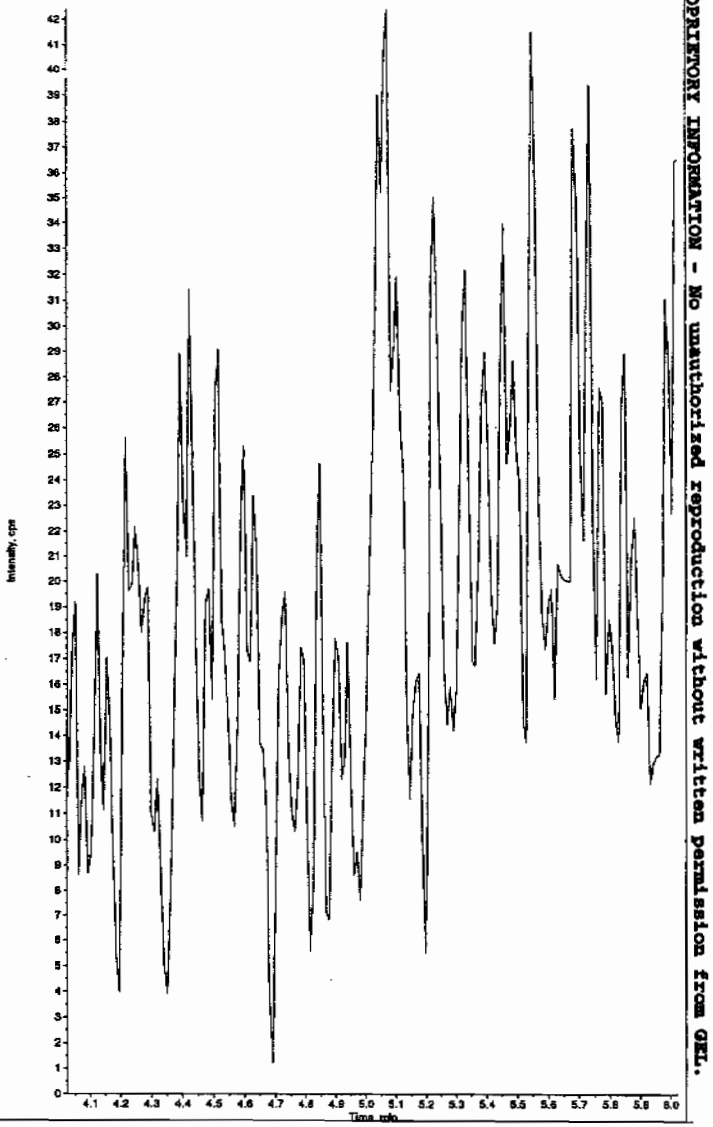
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.24e+006 counts
Height: 1098804.321 cps
Start Time: 8.28 min
End Time: 8.73 min




Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No



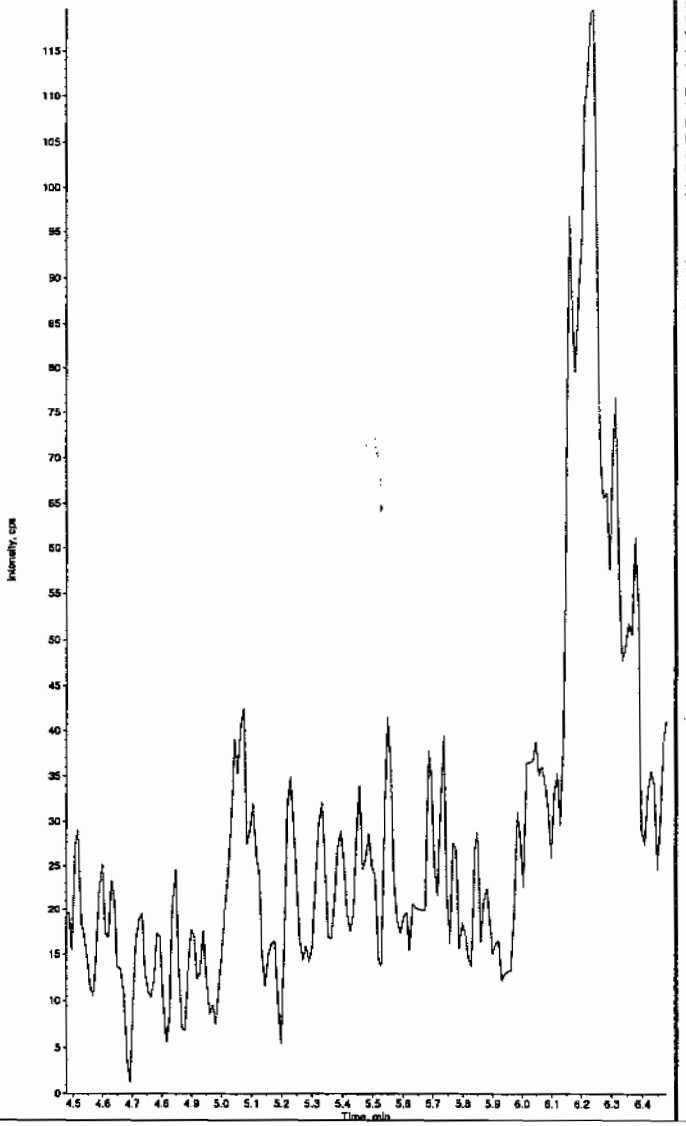

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No

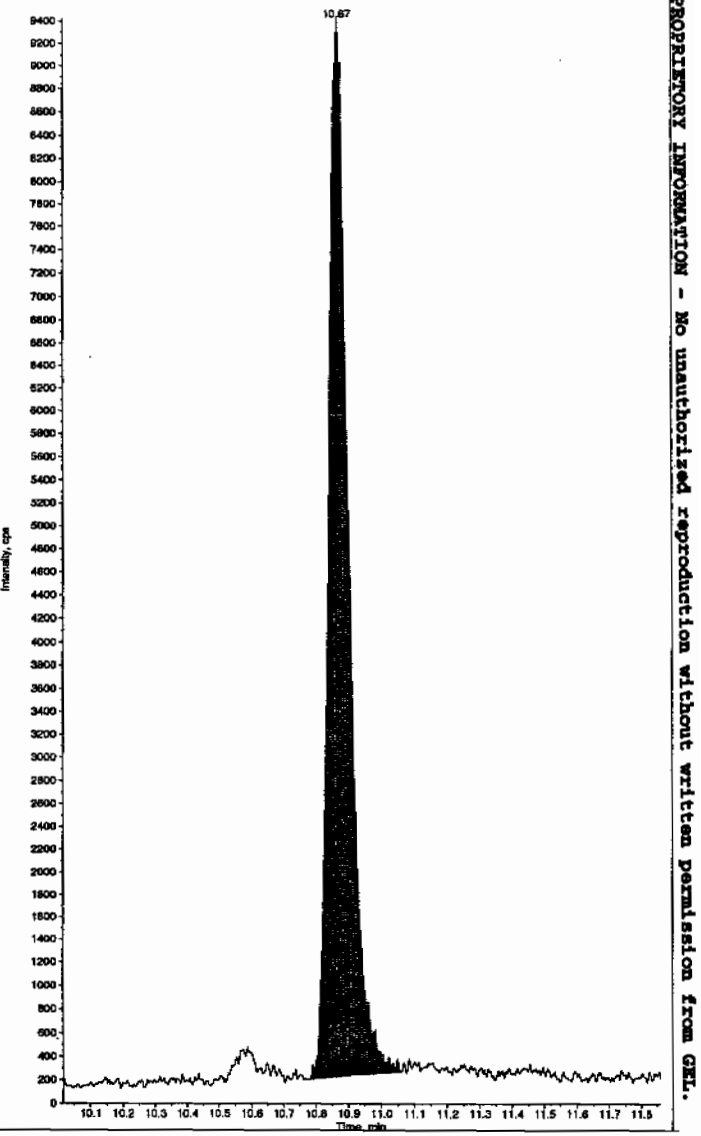



Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 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: 10.9 min
Area: 4.00e+004 counts
Height: 9194.028 cps
Start Time: 10.8 min
End Time: 11.1 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7967

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969004

**Sample Amount** 2

**Moisture:** 24.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301027a

**Date Analyzed:** 02-MAR-10 04:19

**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 | 205 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

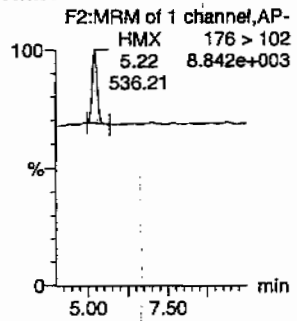


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

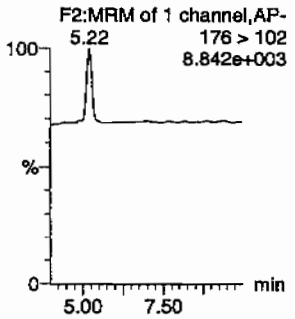
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301027a**
**Date: 02-Mar-2010**
**Time: 04:19:39**
**ID: 245969004** | LANL | 948575 | Soil | 2 |
**Vial: 2:2,B**

3/2/10

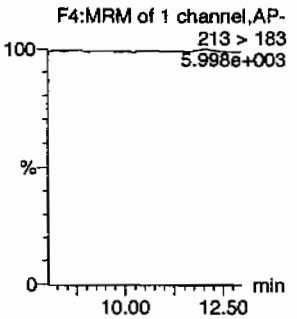
**HMX**



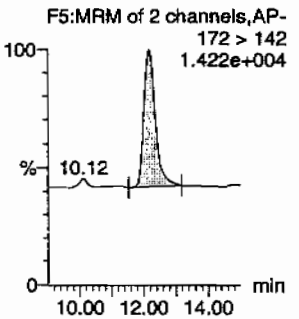

**RDX**



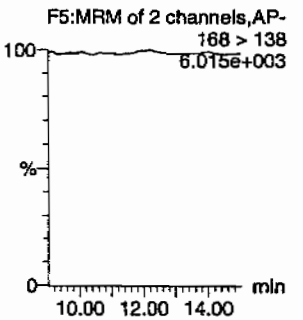

**135-Trinitrobenzene**



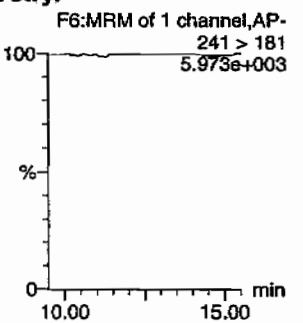

**13-Dinitrobenzene-d4**



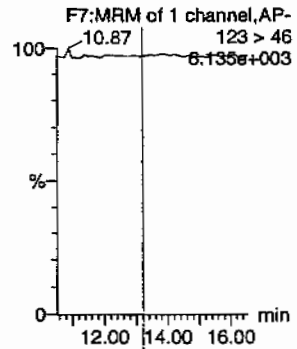

**13-Dinitrobenzene**



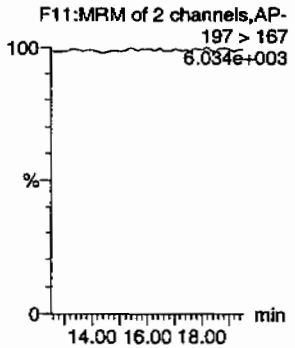

**Tetryl**



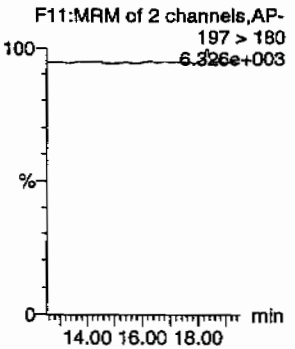

**Nitrobenzene**



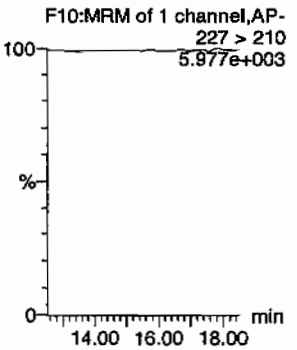

**4-Amino-26-dinitrotoluene**



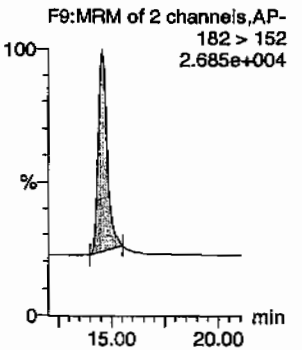

**2-Amino-46-dinitrotoluene**



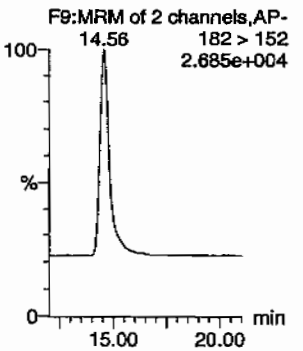

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**




03/04/10

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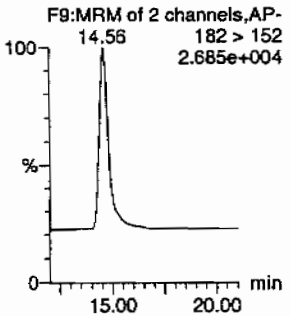
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

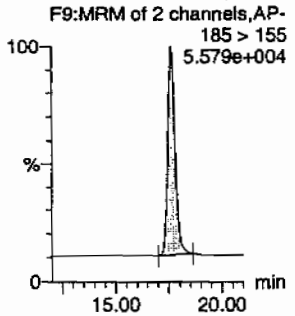


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

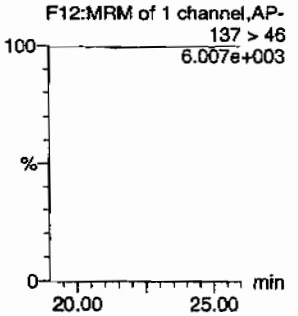
**24-dinitrotoluene**



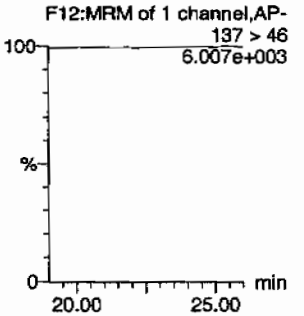

**26-dinitrotoluene-d3**



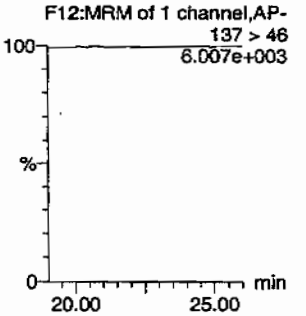

**2-Nitrotoluene**



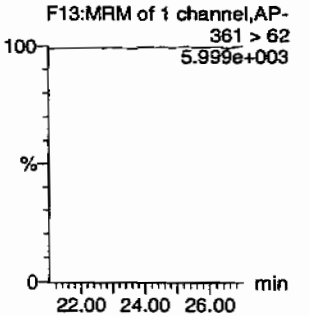

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969004 | HMX | 176 > 102 | 5.22 | 536.209 | 3434.816 | 536.209 | 78.055 | bb | | | 20.4610 | | | 57.8 |
| 245969004 | RDX | 176 > 102 | | | 3434.816 | | | | | | | | | |
| 245969004 | 135-Trinitrobenzene | 213 > 183 | | | 3434.816 | | | | | | | | | |
| 245969004 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.18 | 3434.816 | | 3434.816 | 3434.816 | bb | | | 592.6028 | 118.5 | 18.5 | 371.2 |
| 245969004 | 13-Dinitrobenzene | 168 > 138 | | | 3434.816 | | | | | | | | | |
| 245969004 | Tetryl | 241 > 181 | | | 3434.816 | | | | | | | | | |
| 245969004 | Nitrobenzene | 123 > 46 | | | 3434.816 | | | | | | | | | |
| 245969004 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 19751.045 | | | | | | | | | |
| 245969004 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 19751.045 | | | | | | | | | |
| 245969004 | 246-Trinitrotoluene | 227 > 210 | | | 19751.045 | | | | | | | | | |
| 245969004 | 34-dinitrotoluene | 182 > 152 | 14.56 | 9854.593 | 19751.045 | 9854.593 | 249.470 | bb | | | 251.8206 | 100.7 | 0.7 | 168.1 |
| 245969004 | 26-dinitrotoluene | 182 > 152 | | | 19751.045 | | | | | | | | | |
| 245969004 | 24-dinitrotoluene | 182 > 152 | | | 19751.045 | | | | | | | | | |
| 245969004 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 19751.045 | | 19751.045 | 19751.045 | bb | | | 613.9653 | 122.8 | 22.8 | 1057.7 |
| 245969004 | 2-Nitrotoluene | 137 > 46 | | | 19751.045 | | | | | | | | | |
| 245969004 | 4-Nitrotoluene | 137 > 46 | | | 19751.045 | | | | | | | | | |
| 245969004 | 3-Nitrotoluene | 137 > 46 | | | 19751.045 | | | | | | | | | |
| 245969004 | PETN | 361 > 62 | | | 19751.045 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7967

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969004

**Sample Amount** 2

**Moisture:** 24.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220028.wiff

**Date Analyzed:** 23-FEB-10 00:06

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 3770 | |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

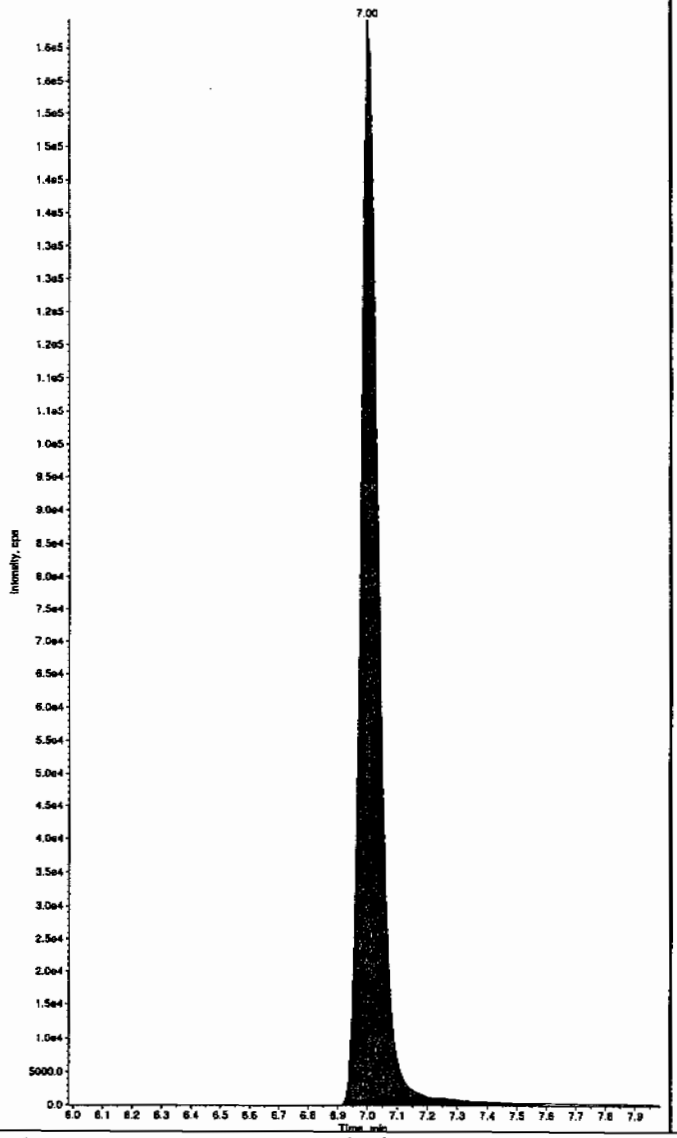
Lan 2/23/10

Sample Name: "245969004" Sample ID: "948575[2]LER" File: "EXS02220028.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 377. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

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: 6.99 min
Use Relative RT: No

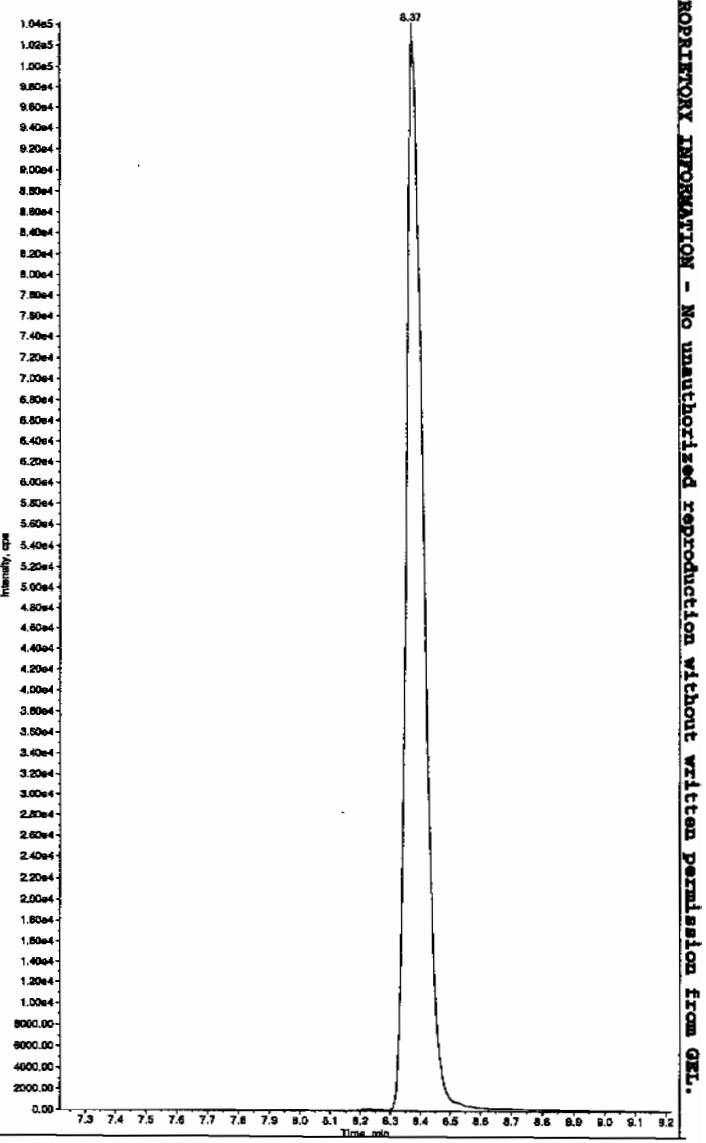
Int. Type: Valley
Retention Time: 7.00 min
Area: 7.22e+005 counts
Height: 164341.553 cps
Start Time: 6.89 min
End Time: 7.58 min




Sample Name: "245969004" Sample ID: "948575[2]LER" File: "EXS02220028.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No




Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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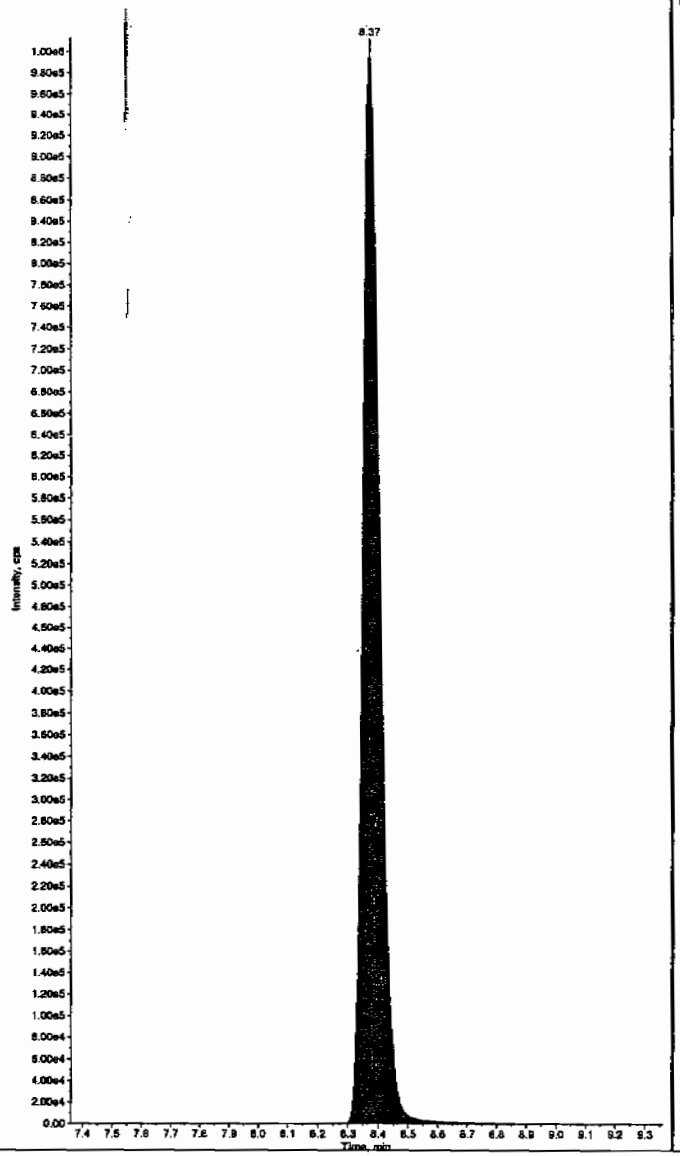
Sample Name: "245969004" Sample ID: "948575|2|LER" File: "EXS02220028.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 313. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

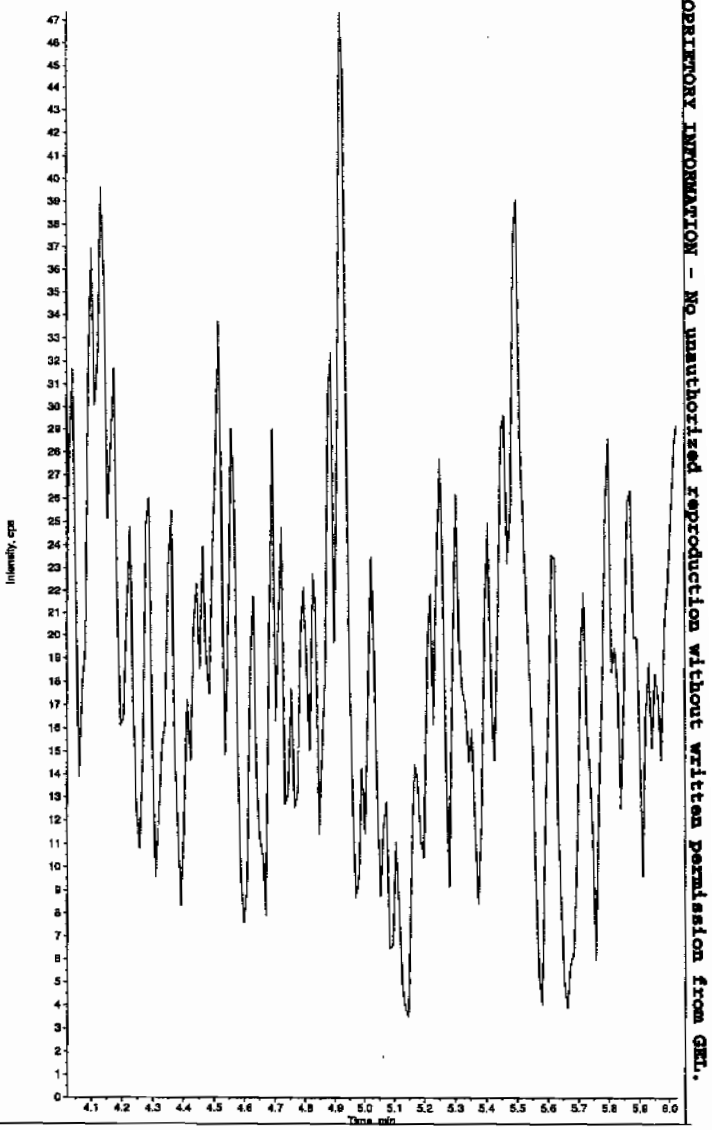
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.11e+006 counts
Height: 1012753.601 cps
Start Time: 8.26 min
End Time: 8.83 min




Sample Name: "245969004" Sample ID: "948575|2|LER" File: "EXS02220028.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No



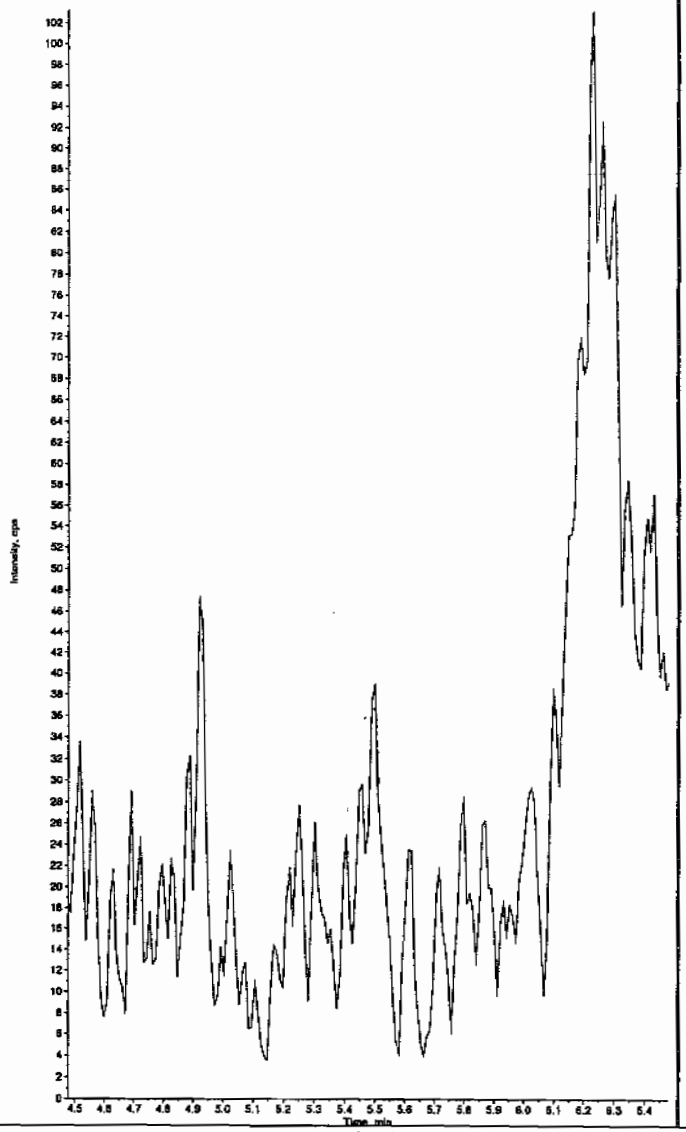

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245969004" Sample ID: "948575[2]LER" File: "EX502220028.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No

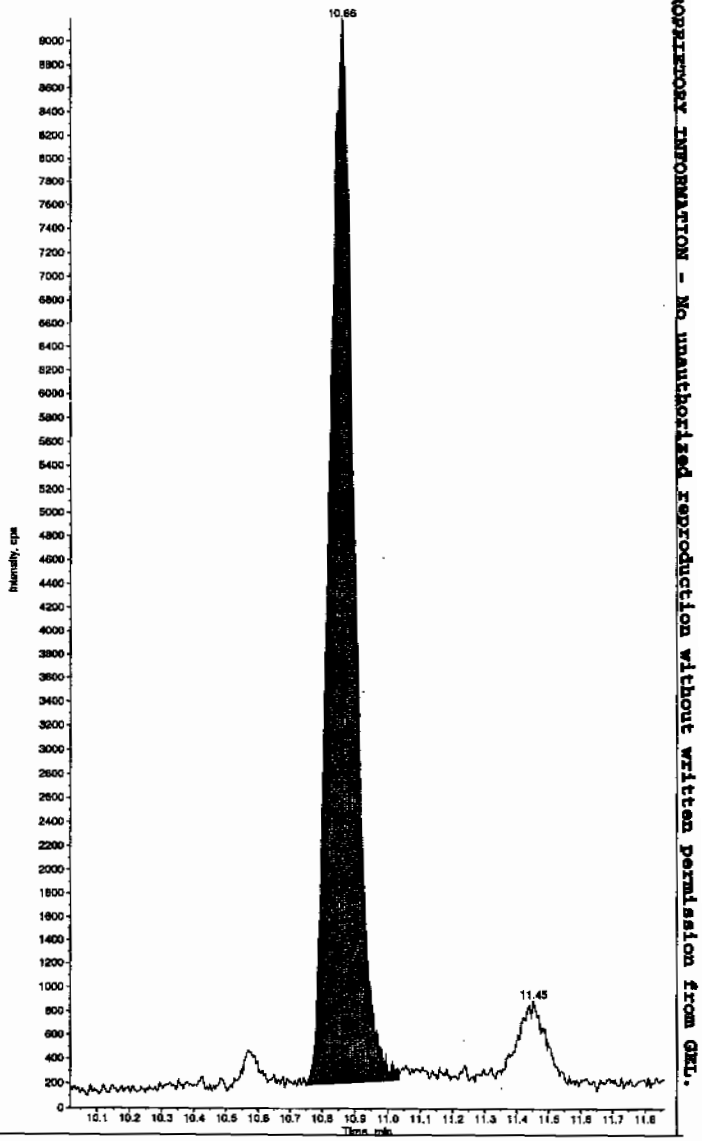



Sample Name: "245969004" Sample ID: "948575[2]LER" File: "EX502220028.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.251 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 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: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.84e+004 counts
Height: 8992.203 cps
Start Time: 10.7 min
End Time: 11.0 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7976

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969005

**Sample Amount** 2

**Moisture:** 3.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301028a

**Date Analyzed:** 02-MAR-10 04:49

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

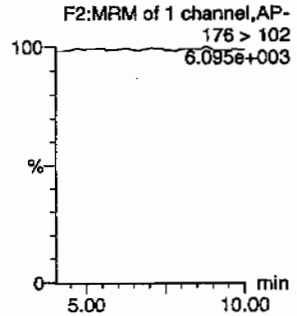


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

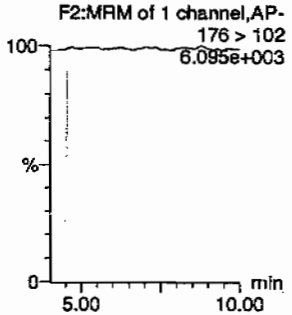
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301028a**
**Date: 02-Mar-2010**
**Time: 04:49:08**
**ID: 245969005** | LANL | 948575 | Solid | 2 |
**Vial: 2:2,C**

MM 3/2/10

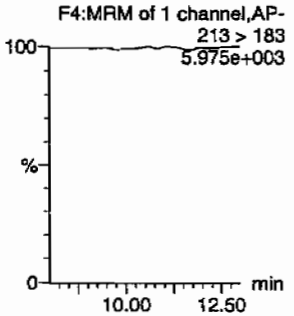
**HMX**



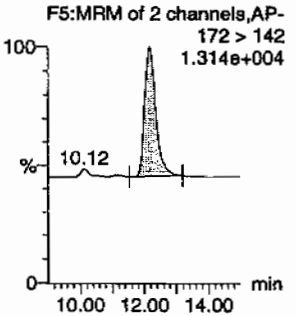

**RDX**



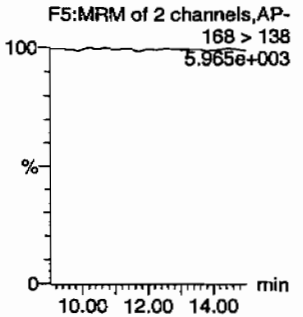

**135-Trinitrobenzene**



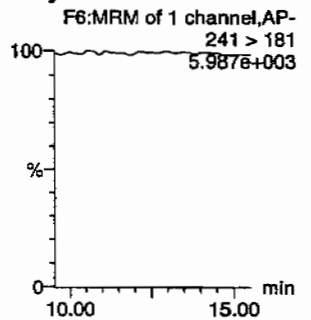

**13-Dinitrobenzene-d4**



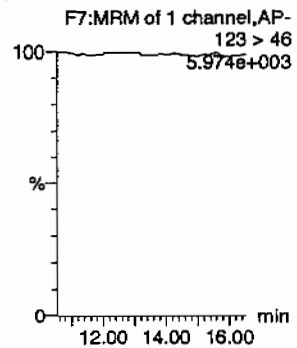

**13-Dinitrobenzene**



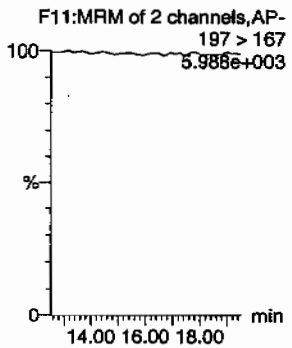

**Tetryl**



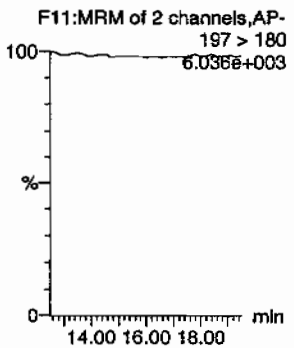

**Nitrobenzene**



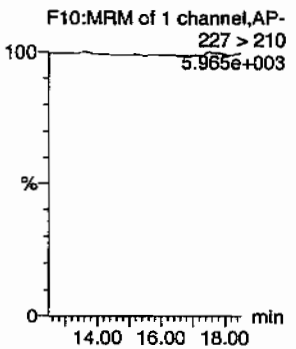

**4-Amino-26-dinitrotoluene**



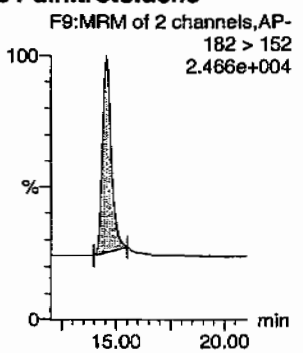

**2-Amino-46-dinitrotoluene**



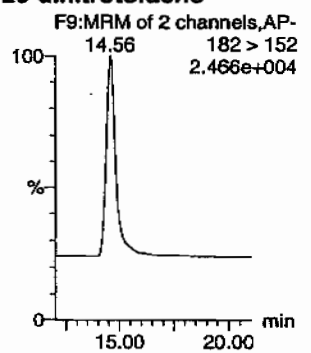

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**




thme 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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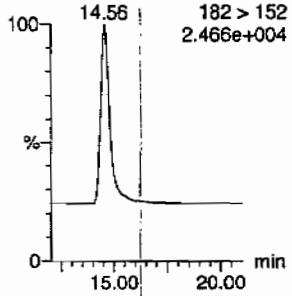
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

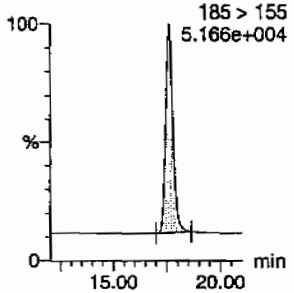


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

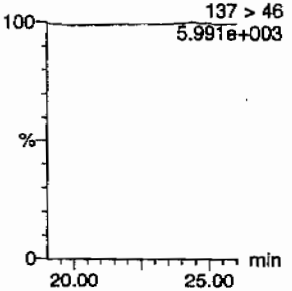
**24-dinitrotoluene**
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.466e+004



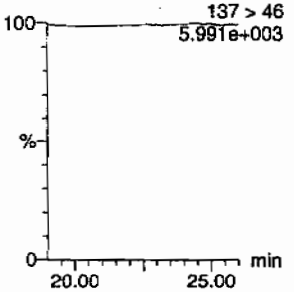

**26-dinitrotoluene-d3**
F9:MRM of 2 channels,AP-
185 > 155
5.166e+004



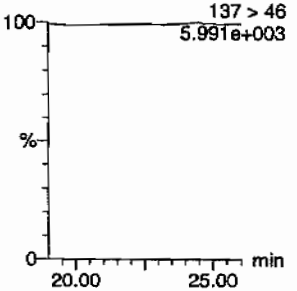

**2-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
5.991e+003



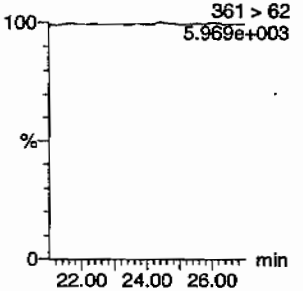

**4-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
5.991e+003




**3-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
5.991e+003




**PETN**
F13:MRM of 1 channel,AP-
361 > 62
5.969e+003




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969005 | HMX | 176 > 102 | | | 2967.610 | | | | | | | | | |
| 245969005 | RDX | 176 > 102 | | | 2967.610 | | | | | | | | | |
| 245969005 | 135-Trinitrobenzene | 213 > 183 | | | 2967.610 | | | | | | | | | |
| 245969005 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2967.610 | | 2967.610 | 2967.610 | bb | | | 511.9966 | 102.4 | 2.4 | 325.1 |
| 245969005 | 13-Dinitrobenzene | 168 > 138 | | | 2967.610 | | | | | | | | | |
| 245969005 | Tetryl | 241 > 181 | | | 2967.610 | | | | | | | | | |
| 245969005 | Nitrobenzene | 123 > 46 | | | 2967.610 | | | | | | | | | |
| 245969005 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 18051.559 | | | | | | | | | |
| 245969005 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 18051.559 | | | | | | | | | |
| 245969005 | 246-Trinitrotoluene | 227 > 210 | | | 18051.559 | | | | | | | | | |
| 245969005 | 34-dinitrotoluene | 182 > 152 | 14.56 | 8671.126 | 18051.559 | 8671.126 | 240.177 | bb | | | 242.4396 | 97.0 | -3.0 | 1133.5 |
| 245969005 | 26-dinitrotoluene | 182 > 152 | | | 18051.559 | | | | | | | | | |
| 245969005 | 24-dinitrotoluene | 182 > 152 | | | 18051.559 | | | | | | | | | |
| 245969005 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18051.559 | | 18051.559 | 18051.559 | bb | | | 561.1364 | 112.2 | 12.2 | 2363.8 |
| 245969005 | 2-Nitrotoluene | 137 > 46 | | | 18051.559 | | | | | | | | | |
| 245969005 | 4-Nitrotoluene | 137 > 46 | | | 18051.559 | | | | | | | | | |
| 245969005 | 3-Nitrotoluene | 137 > 46 | | | 18051.559 | | | | | | | | | |
| 245969005 | PETN | 361 > 62 | | | 18051.559 | | | | | | | | | |



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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7976

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969005

**Sample Amount** 2

**Moisture:** 3.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220029.wiff

**Date Analyzed:** 23-FEB-10 00:22

**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 =

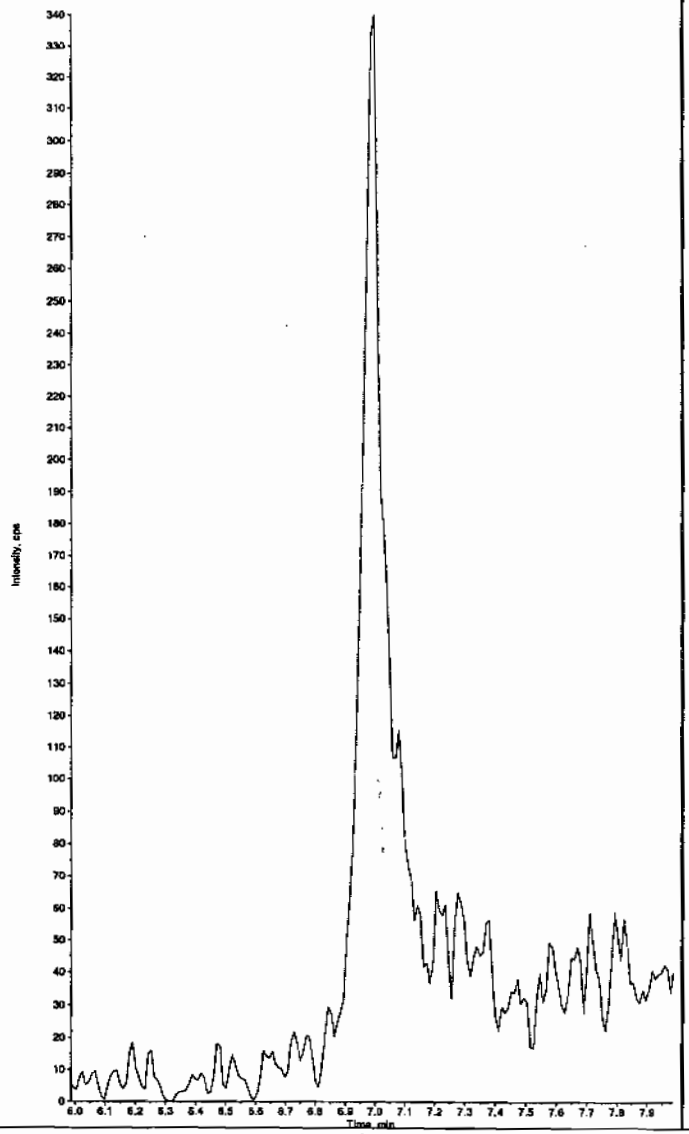
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 2/23/10

Sample Name: "245969005" Sample ID: "946575|2|LER" File: "EXS02220029.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

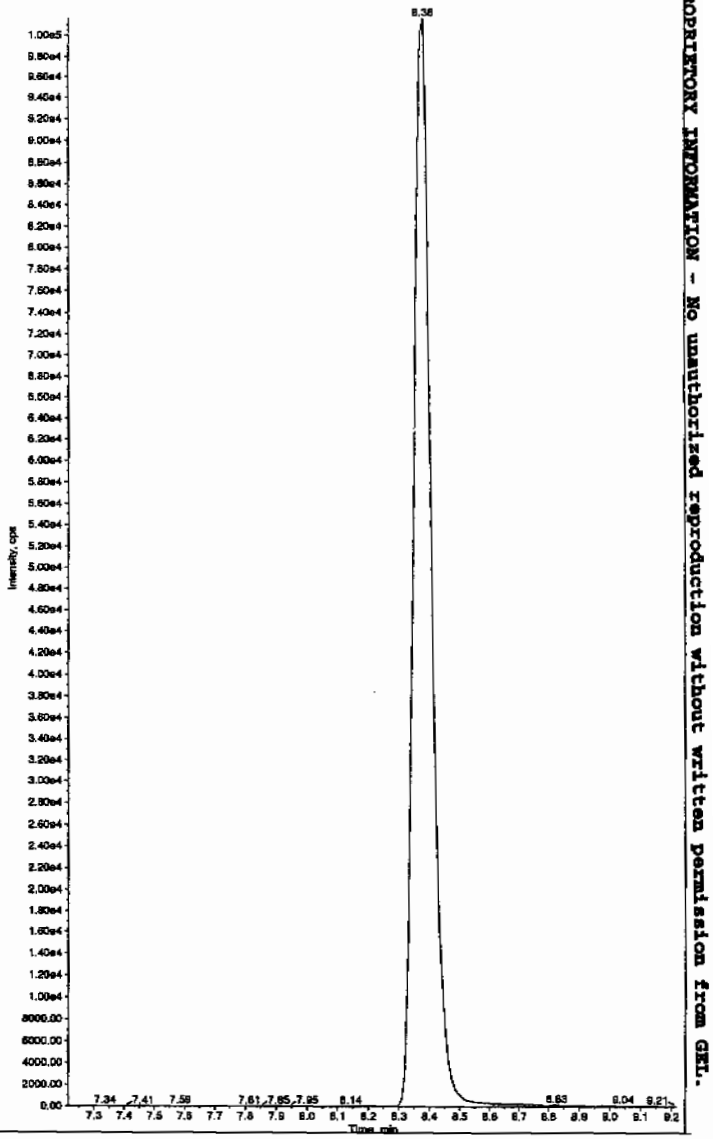
Modified: No




Sample Name: "245969005" Sample ID: "946575|2|LER" File: "EXS02220029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No




Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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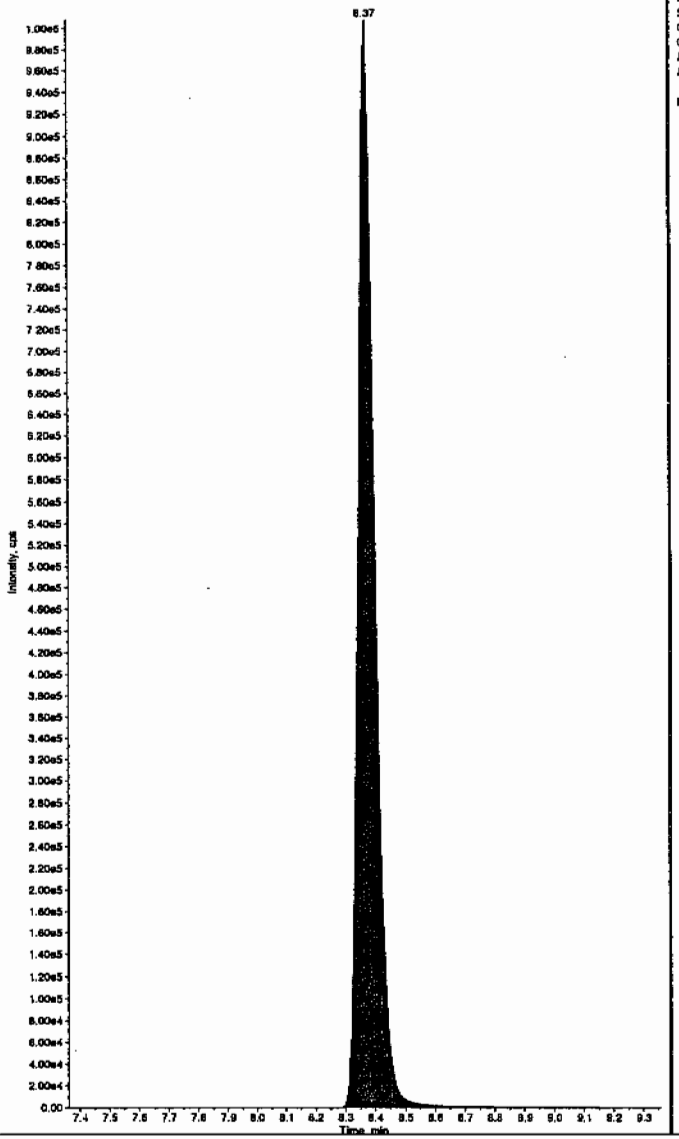
Sample Name: "245969005" Sample ID: "948575|2|LER" File: "EXS02220029.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 303. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

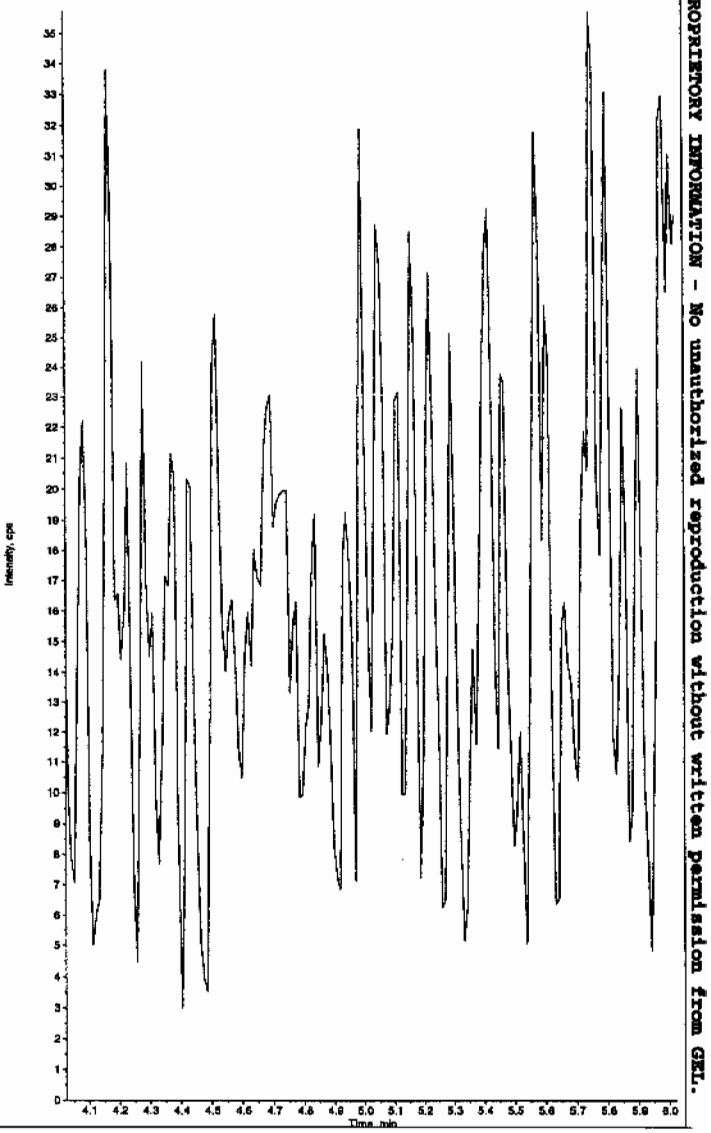
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.00e+006 counts
Height: 1009346.375 cps
Start Time: 8.27 min
End Time: 8.86 min




Sample Name: "245969005" Sample ID: "948575|2|LER" File: "EXS02220029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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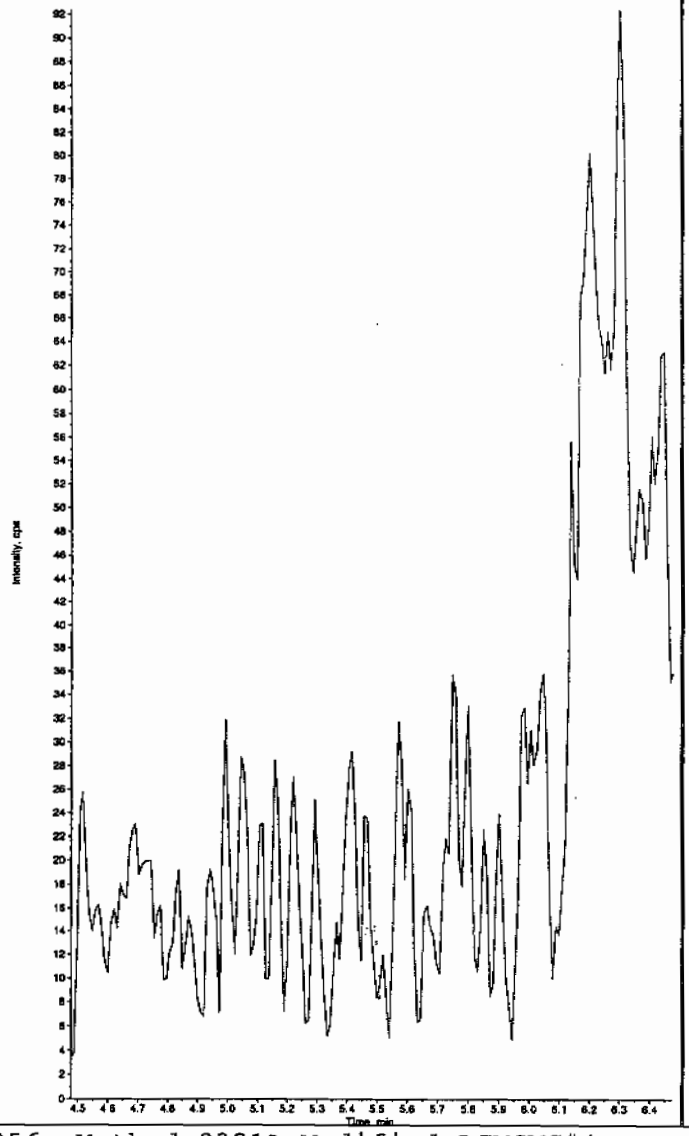
Sample Name: "245969005" Sample ID: "948575[2]LER" File: "EXS02220029.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

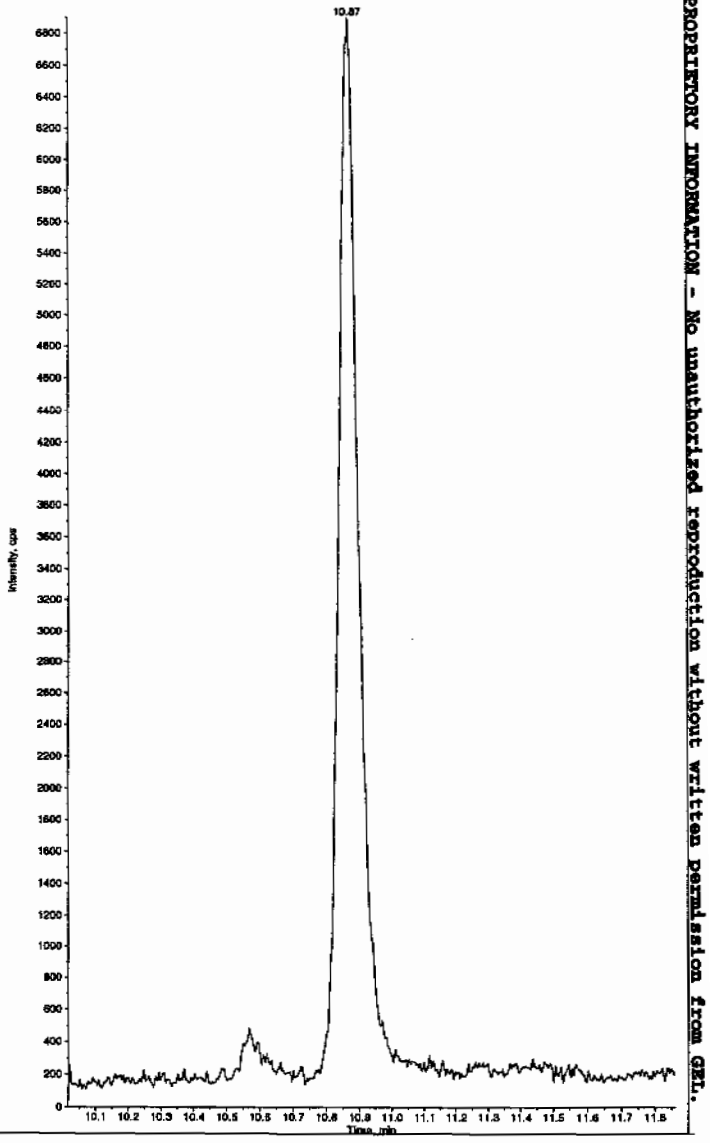
Modified: No




Sample Name: "245969005" Sample ID: "948575[2]LER" File: "EXS02220029.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7968

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969006

**Sample Amount** 2

**Moisture:** 10.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301029a

**Date Analyzed:** 02-MAR-10 05:18

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

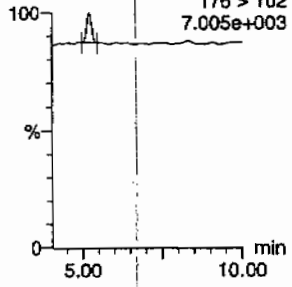


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

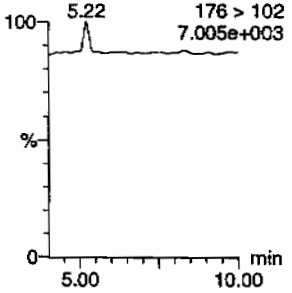
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301029a**
**Date: 02-Mar-2010**
**Time: 05:18:37**
**ID: 245969006** | LANL | 948575 | Soils | 2 |
**Vial: 2:2,D**

MM 3/2/10

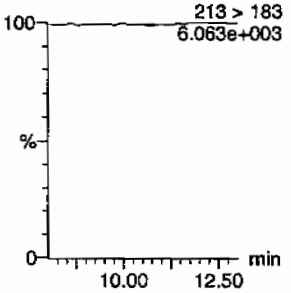
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
7.005e+003



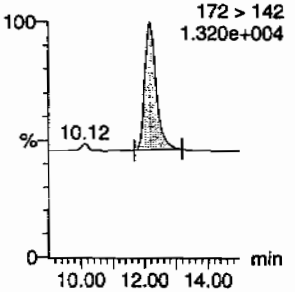

**RDX**
F2:MRM of 1 channel,AP-
5.22
176 > 102
7.005e+003



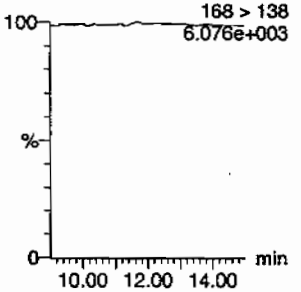

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.063e+003



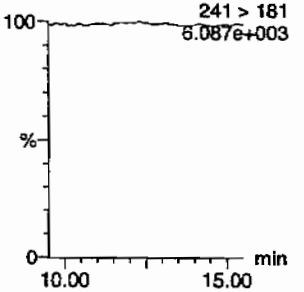

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.320e+004



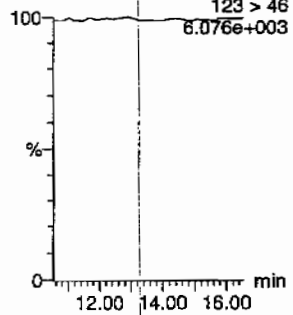

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.076e+003



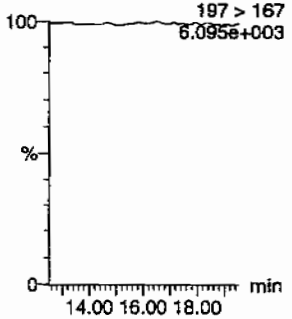

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.087e+003



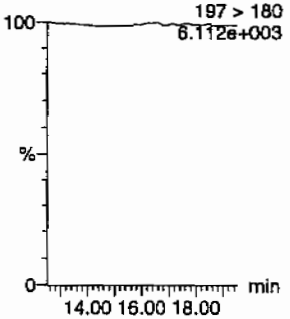

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.076e+003



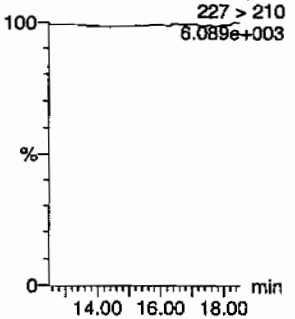

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.095e+003



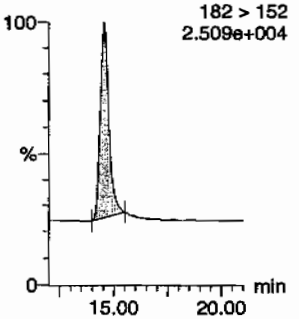

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.112e+003



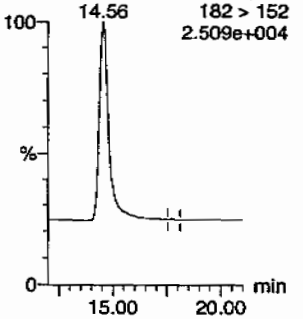

**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.089e+003




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
2.509e+004




**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.509e+004




HMW 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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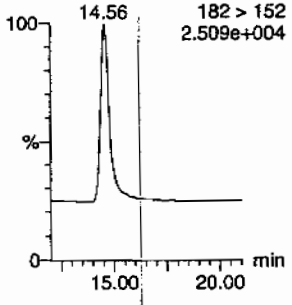
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

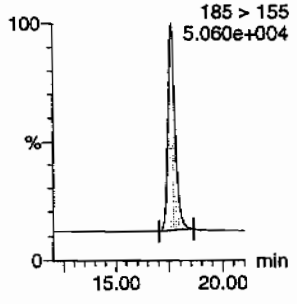


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

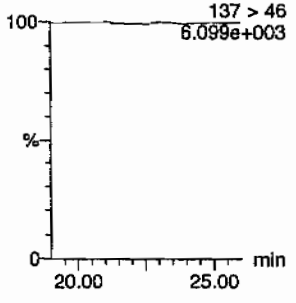
**24-dinitrotoluene**
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.509e+004



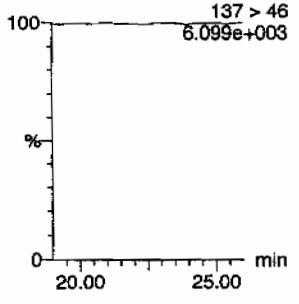

**26-dinitrotoluene-d3**
F9:MRM of 2 channels,AP-
185 > 155
5.060e+004



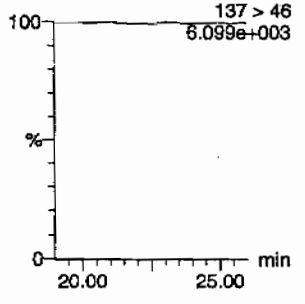

**2-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.099e+003



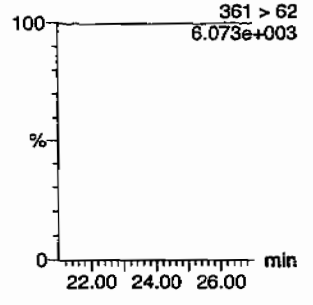

**4-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.099e+003




**3-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.099e+003




**PETN**
F13:MRM of 1 channel,AP-
361 > 62
6.073e+003




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/ml | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969006 | HMX | 176 > 102 | 5.22 | 173.332 | 3027.761 | 173.332 | 28.624 | bb | | | 7.5033 | | | 40.4 |
| 245969006 | RDX | 176 > 102 | | | 3027.761 | | | | | | | | | |
| 245969006 | 135-Trinitrobenzene | 213 > 183 | | | 3027.761 | | | | | | | | | |
| 245969006 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3027.761 | | 3027.761 | 3027.761 | bb | | | 522.3743 | 104.5 | 4.5 | 155.8 |
| 245969006 | 13-Dinitrobenzene | 168 > 138 | | | 3027.761 | | | | | | | | | |
| 245969006 | Tetryl | 241 > 181 | | | 3027.761 | | | | | | | | | |
| 245969006 | Nitrobenzene | 123 > 46 | | | 3027.761 | | | | | | | | | |
| 245969006 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17476.256 | | | | | | | | | |
| 245969006 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17476.256 | | | | | | | | | |
| 245969006 | 246-Trinitrotoluene | 227 > 210 | | | 17476.256 | | | | | | | | | |
| 245969006 | 34-dinitrotoluene | 182 > 152 | 14.56 | 8711.428 | 17476.256 | 8711.428 | 249.236 | bb | | | 251.5844 | 100.6 | 0.6 | 480.4 |
| 245969006 | 26-dinitrotoluene | 182 > 152 | | | 17476.256 | | | MM- | 02-Mar-10 | 09:38:31 | | | | |
| 245969006 | 24-dinitrotoluene | 182 > 152 | | | 17476.256 | | | | | | | | | |
| 245969006 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17476.256 | | 17476.256 | 17476.256 | bb | | | 543.2530 | 108.7 | 8.7 | 2074.1 |
| 245969006 | 2-Nitrotoluene | 137 > 46 | | | 17476.256 | | | | | | | | | |
| 245969006 | 4-Nitrotoluene | 137 > 46 | | | 17476.256 | | | | | | | | | |
| 245969006 | 3-Nitrotoluene | 137 > 46 | | | 17476.256 | | | | | | | | | |
| 245969006 | PETN | 361 > 62 | | | 17476.256 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7968

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969006

**Sample Amount** 2

**Moisture:** 10.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220030.wiff

**Date Analyzed:** 23-FEB-10 00:37

**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 |

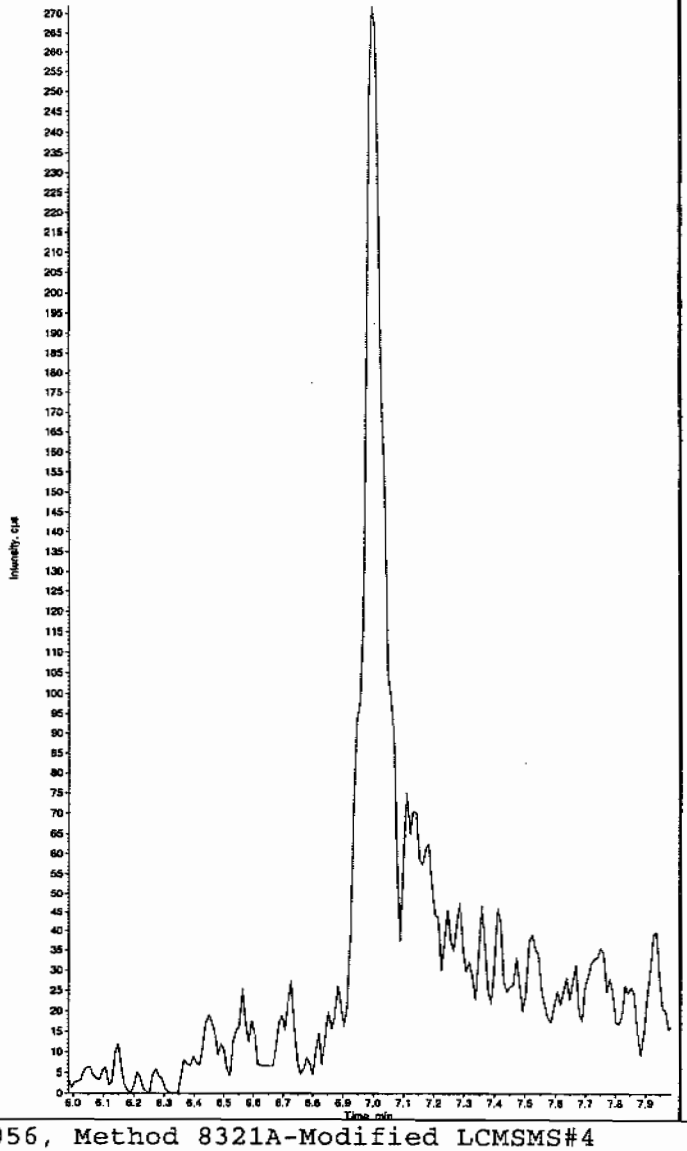
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/23/10

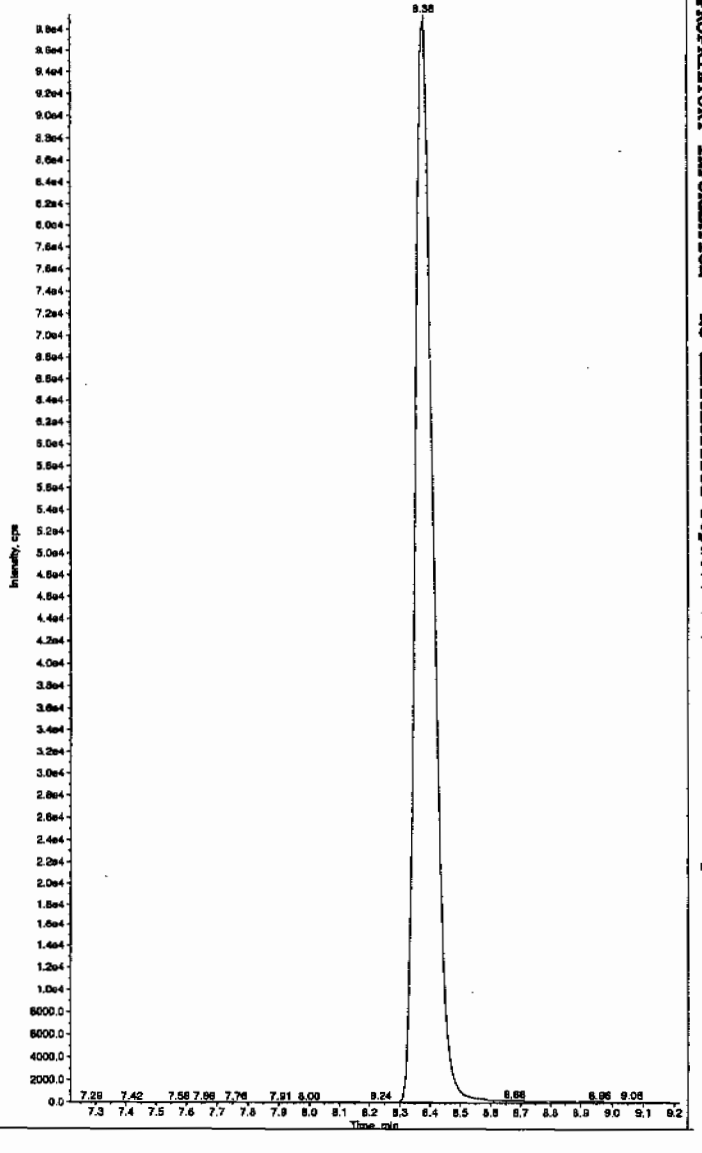
Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No




Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No




Hnnc 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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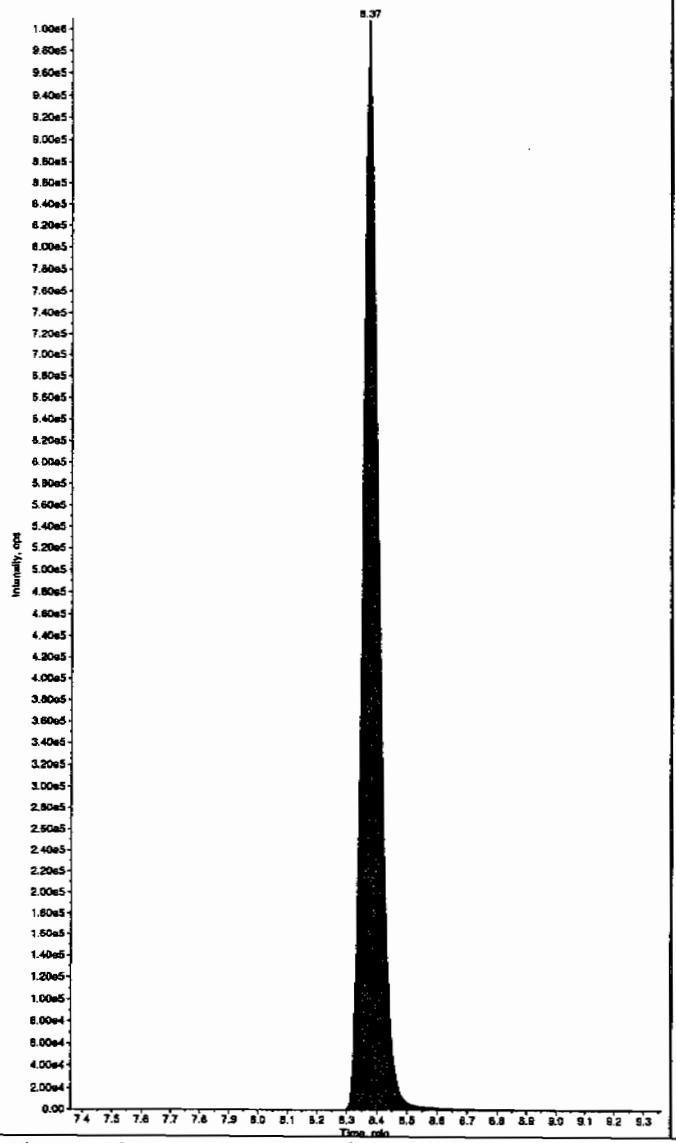
Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 298. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

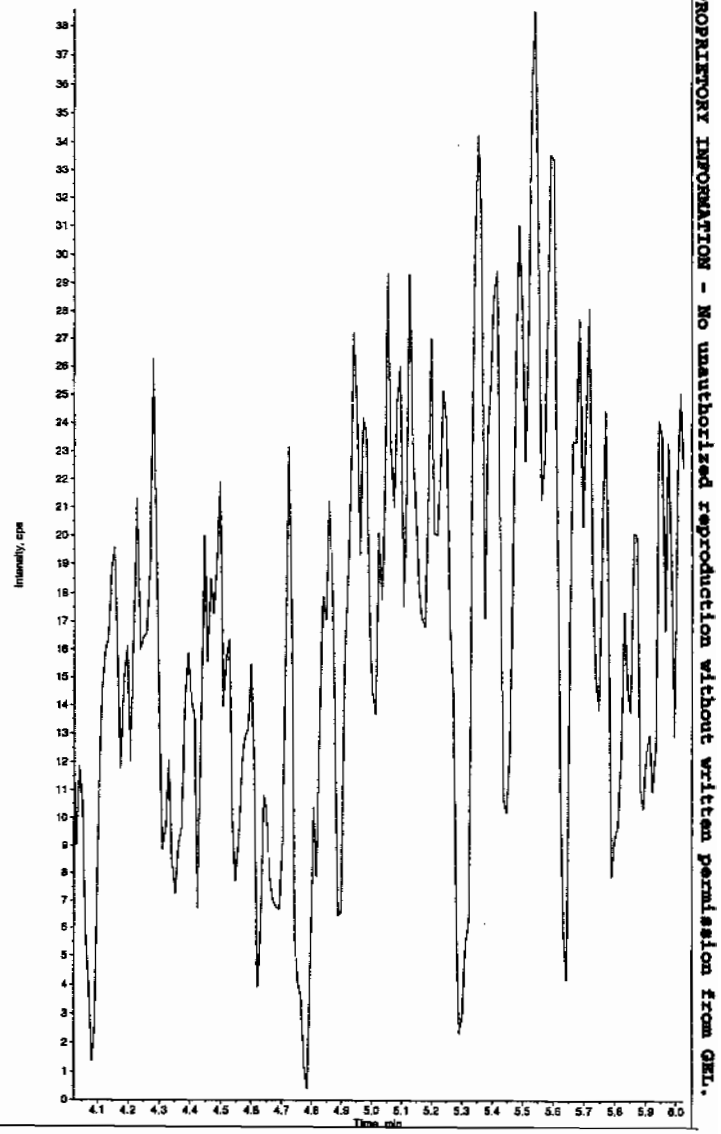
Int. Type: Valley
Retention Time: 8.37 min
Area: 3.93e+006 counts
Height: 1009873.474 cps
Start Time: 8.26 min
End Time: 8.84 min




Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No

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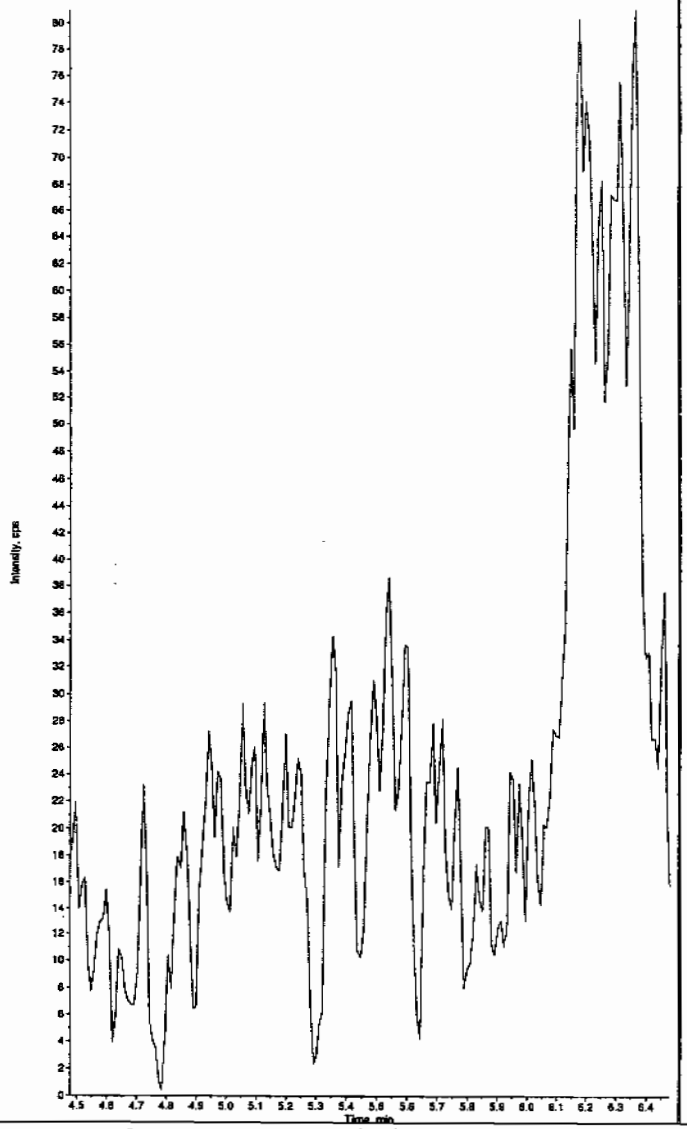
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

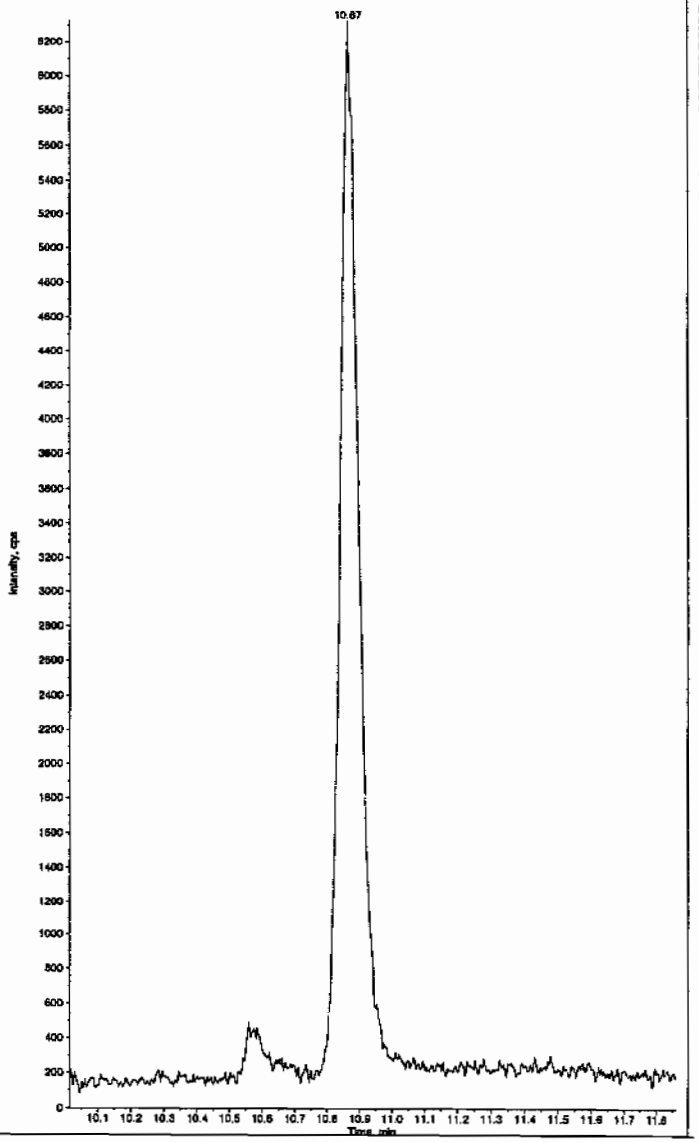
Modified: No




Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEI

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301033a

**Date Analyzed:** 02-MAR-10 07:16

**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 | 423 | J |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

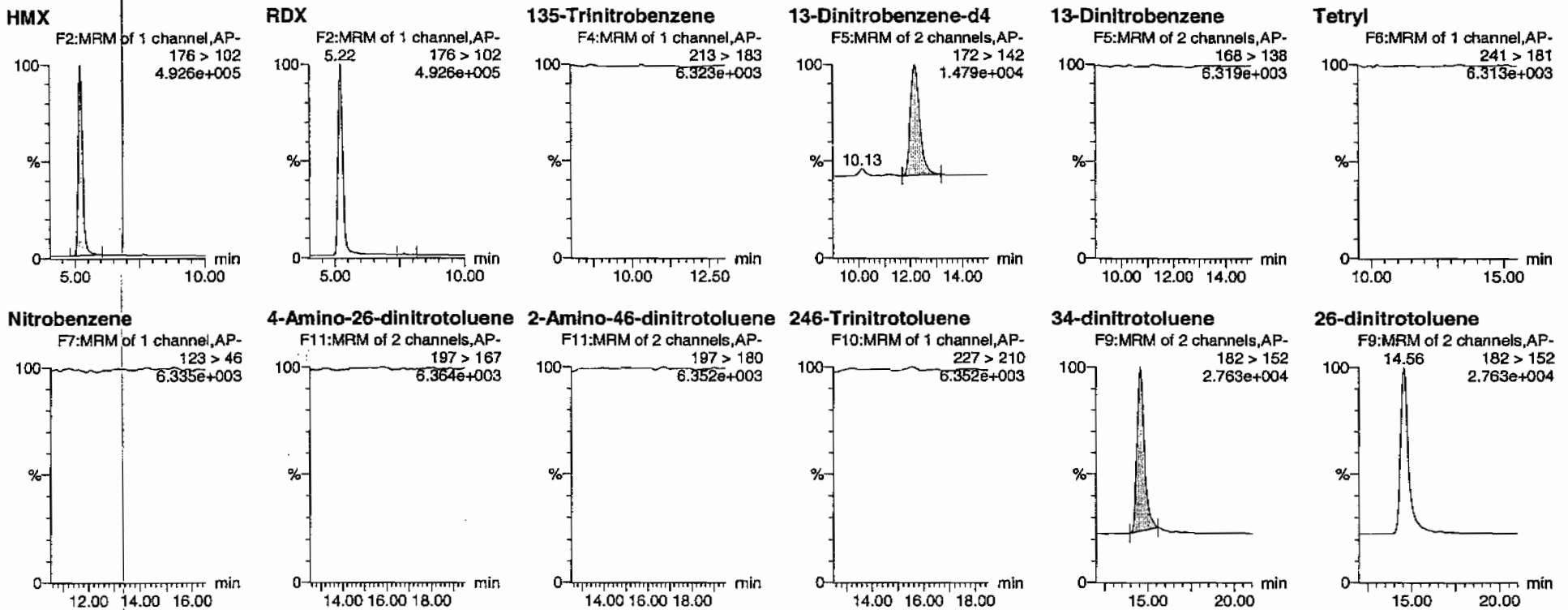
**Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010**
**Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030110expa.cdb, Time: Tue Mar 02 09:59:16 2010**

Use 10x for HMX

See EXP0301042a

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301033a**
**Date: 02-Mar-2010**
**Time: 07:16:36**
**ID: 245969007** | LANL | 948575 | Solids | 2 |
**Vial: 2:2,E**

MH 3/3/10




HMW 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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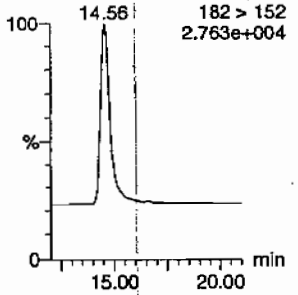
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

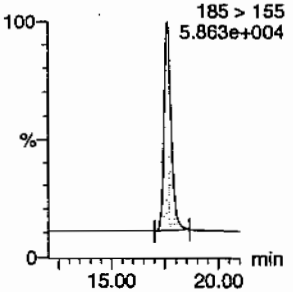


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

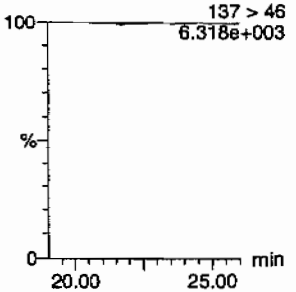
**24-dinitrotoluene**
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.763e+004



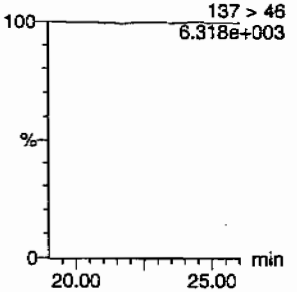

**26-dinitrotoluene-d3**
F9:MRM of 2 channels,AP-
185 > 155
5.863e+004



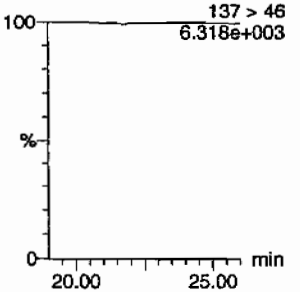

**2-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.318e+003



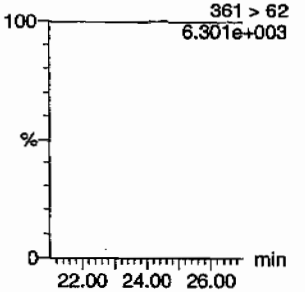

**4-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.318e+003




**3-Nitrotoluene**
F12:MRM of 1 channel,AP-
137 > 46
6.318e+003




**PETN**
F13:MRM of 1 channel,AP-
361 > 62
6.301e+003




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969007 | HMX | 176 > 102 | 5.22 | 100862.047 | 3533.722 | 100862.047 | 14271.361 | bb | | | 3741.0... | | | 4976.6 |
| 245969007 | RDX | 176 > 102 | 7.64 | 821.333 | 3533.722 | 821.333 | 116.214 | bb | | | 42.3424 | | | 38.0 |
| 245969007 | 135-Trinitrobenzene | 213 > 183 | | | 3533.722 | | | | | | | | | |
| 245969007 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3533.722 | | 3533.722 | 3533.722 | bb | | | 609.6669 | 121.9 | 21.9 | 696.6 |
| 245969007 | 13-Dinitrobenzene | 168 > 138 | | | 3533.722 | | | | | | | | | |
| 245969007 | Tetryl | 241 > 181 | | | 3533.722 | | | | | | | | | |
| 245969007 | Nitrobenzene | 123 > 46 | | | 3533.722 | | | | | | | | | |
| 245969007 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 20642.258 | | | | | | | | | |
| 245969007 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 20642.258 | | | | | | | | | |
| 245969007 | 246-Trinitrotoluene | 227 > 210 | | | 20642.258 | | | | | | | | | |
| 245969007 | 34-dinitrotoluene | 182 > 152 | 14.56 | 10148.735 | 20642.258 | 10148.735 | 245.824 | bb | | | 248.1404 | 99.3 | -0.7 | 824.5 |
| 245969007 | 26-dinitrotoluene | 182 > 152 | | | 20642.258 | | | | | | | | | |
| 245969007 | 24-dinitrotoluene | 182 > 152 | | | 20642.258 | | | | | | | | | |
| 245969007 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 20642.258 | | 20642.258 | 20642.258 | bb | | | 641.6689 | 128.3 | 28.3 | 1567.8 |
| 245969007 | 2-Nitrotoluene | 137 > 46 | | | 20642.258 | | | | | | | | | |
| 245969007 | 4-Nitrotoluene | 137 > 46 | | | 20642.258 | | | | | | | | | |
| 245969007 | 3-Nitrotoluene | 137 > 46 | | | 20642.258 | | | | | | | | | |
| 245969007 | PETN | 361 > 62 | | | 20642.258 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 10

**Injection Volume (uL):** 50

**GEL data file:** EXP0301042a

**Date Analyzed:** 02-MAR-10 11:42

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 2691-41-0 | HMX | 35300 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Mar 03 09:10:52 2010, Page 19 of 103

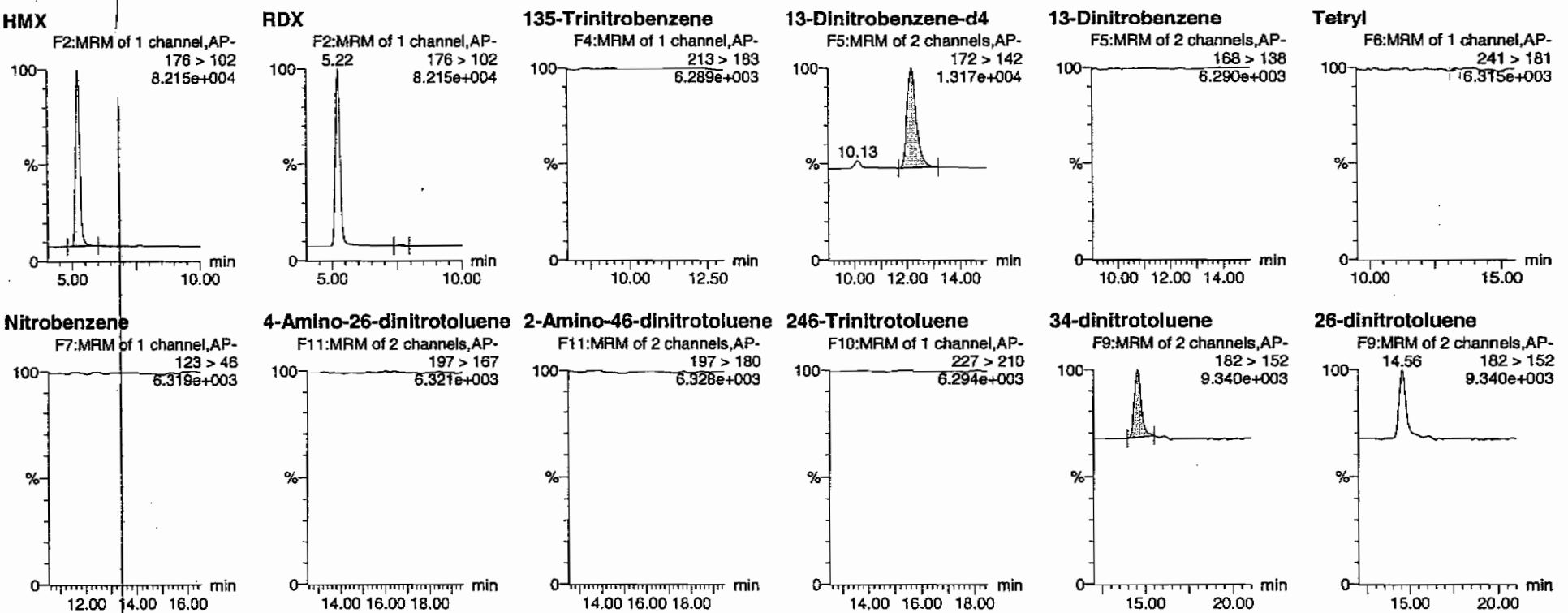
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Report HMX w/ EXP 0301033a

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301042a**
**Date: 02-Mar-2010**
**Time: 11:42:42**
**ID: 245969007**
**Vial: 2:4,B**

| LANL | 948575 | SOLID | DL | 10 |

MTP 3/3/10




HNM 03/04/10

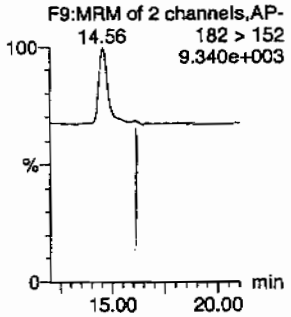
GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

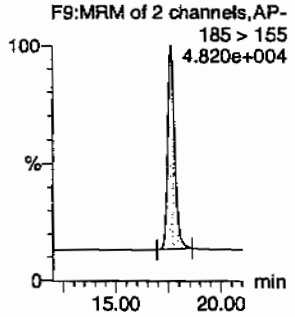


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

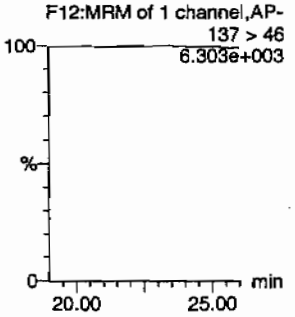
**24-dinitrotoluene**



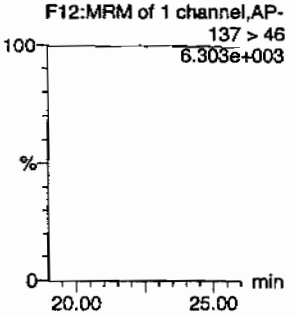

**26-dinitrotoluene-d3**



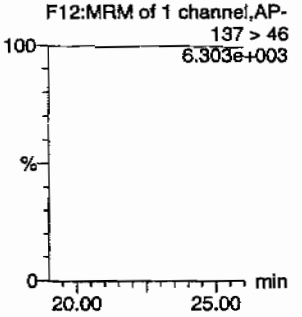

**2-Nitrotoluene**



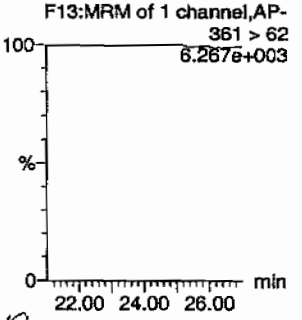

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




x10

| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969007 | HMX | 176 > 102 | 5.22 | 15321.056 | 2840.407 | 15321.056 | 2696.983 | bb | | | 706.9745 | 3530 | | 2341.3 |
| 245969007 | RDX | 176 > 102 | 7.64 | 128.065 | 2840.407 | 128.065 | 22.543 | bb | | | 8.2137 | | | 18.0 |
| 245969007 | 135-Trinitrobenzene | 213 > 183 | | | 2840.407 | | | | | | | | | |
| 245969007 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2840.407 | | 2840.407 | 2840.407 | bb | | | 490.0504 | 98.0 | -2.0 | 229.4 |
| 245969007 | 13-Dinitrobenzene | 168 > 138 | | | 2840.407 | | | | | | | | | |
| 245969007 | Tetryl | 241 > 181 | | | 2840.407 | | | MM- | 03-Mar-10 | 08:43:51 | | | | |
| 245969007 | Nitrobenzene | 123 > 46 | | | 2840.407 | | | | | | | | | |
| 245969007 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 16344.418 | | | | | | | | | |
| 245969007 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 16344.418 | | | | | | | | | |
| 245969007 | 246-Trinitrotoluene | 227 > 210 | | | 16344.418 | | | | | | | | | |
| 245969007 | 34-dinitrotoluene | 182 > 152 | 14.56 | 1371.781 | 16344.418 | 1371.781 | 41.965 | bb | | | 42.3602 | 16.9 | -83.1 | 123.2 |
| 245969007 | 26-dinitrotoluene | 182 > 152 | | | 16344.418 | | | | | | | | | |
| 245969007 | 24-dinitrotoluene | 182 > 152 | | | 16344.418 | | | | | | | | | |
| 245969007 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 16344.418 | | 16344.418 | 16344.418 | bb | | | 508.0696 | 101.6 | 1.6 | 1333.9 |
| 245969007 | 2-Nitrotoluene | 137 > 46 | | | 16344.418 | | | | | | | | | |
| 245969007 | 4-Nitrotoluene | 137 > 46 | | | 16344.418 | | | | | | | | | |
| 245969007 | 3-Nitrotoluene | 137 > 46 | | | 16344.418 | | | | | | | | | |
| 245969007 | PETN | 361 > 62 | | | 16344.418 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7965

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969007

**Sample Amount** 2

**Moisture:** 22.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220031.wiff

**Date Analyzed:** 23-FEB-10 00:53

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 5310 | |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

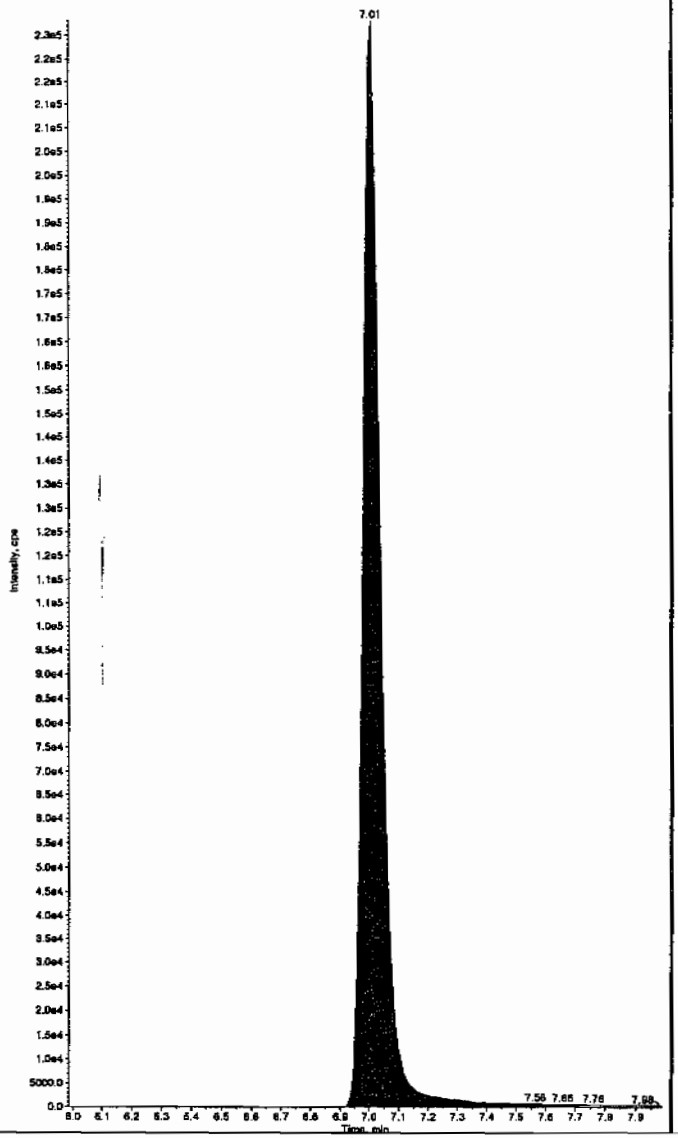
Ran 2/23/10

Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 531. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

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: 6.99 min
Use Relative RT: No

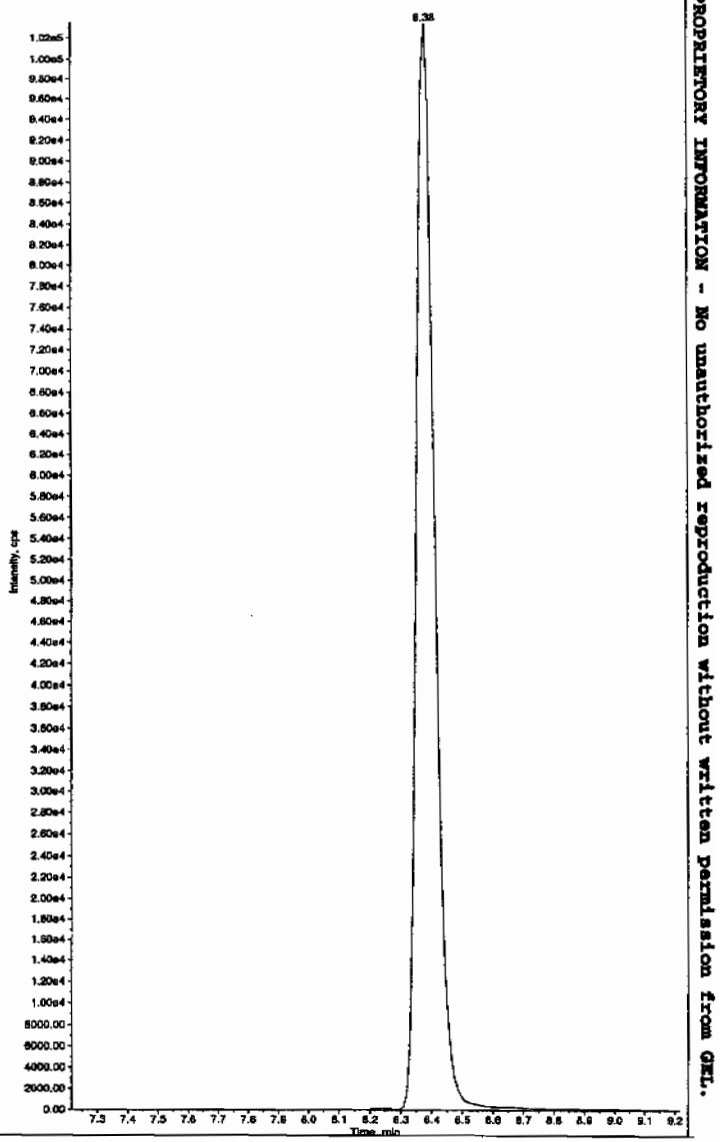
Int. Type: Valley
Retention Time: 7.01 min
Area: 1.01e+006 counts
Height: 227989.014 cps
Start Time: 6.88 min
End Time: 7.71 min




Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No




HMC 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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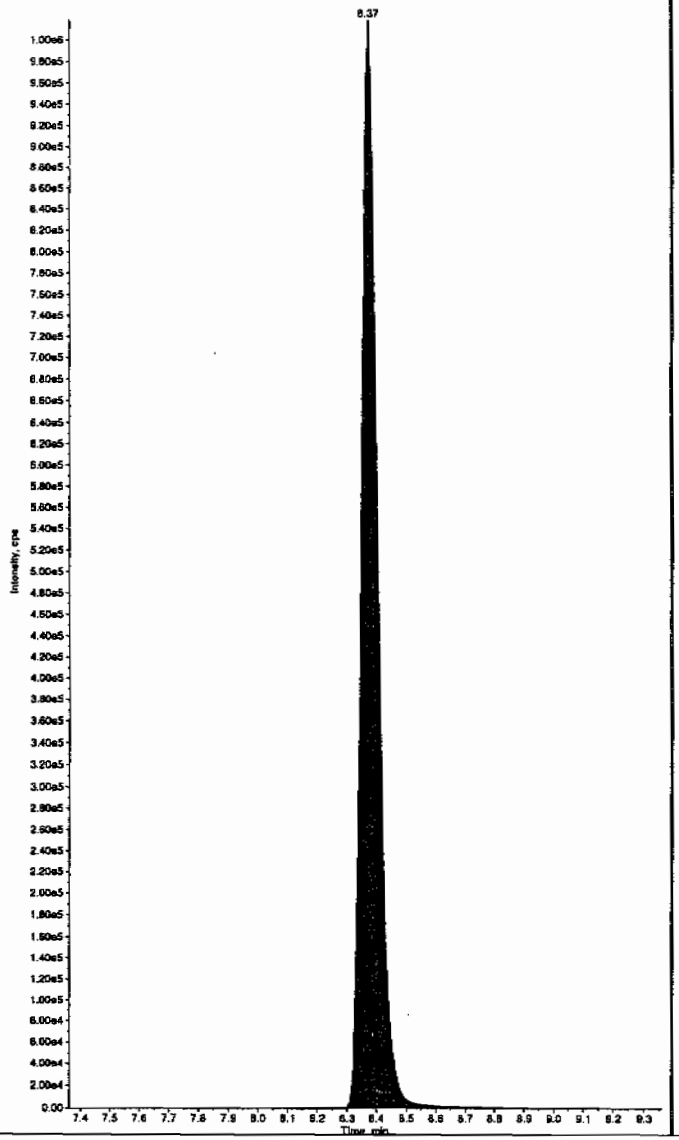
Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 309. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

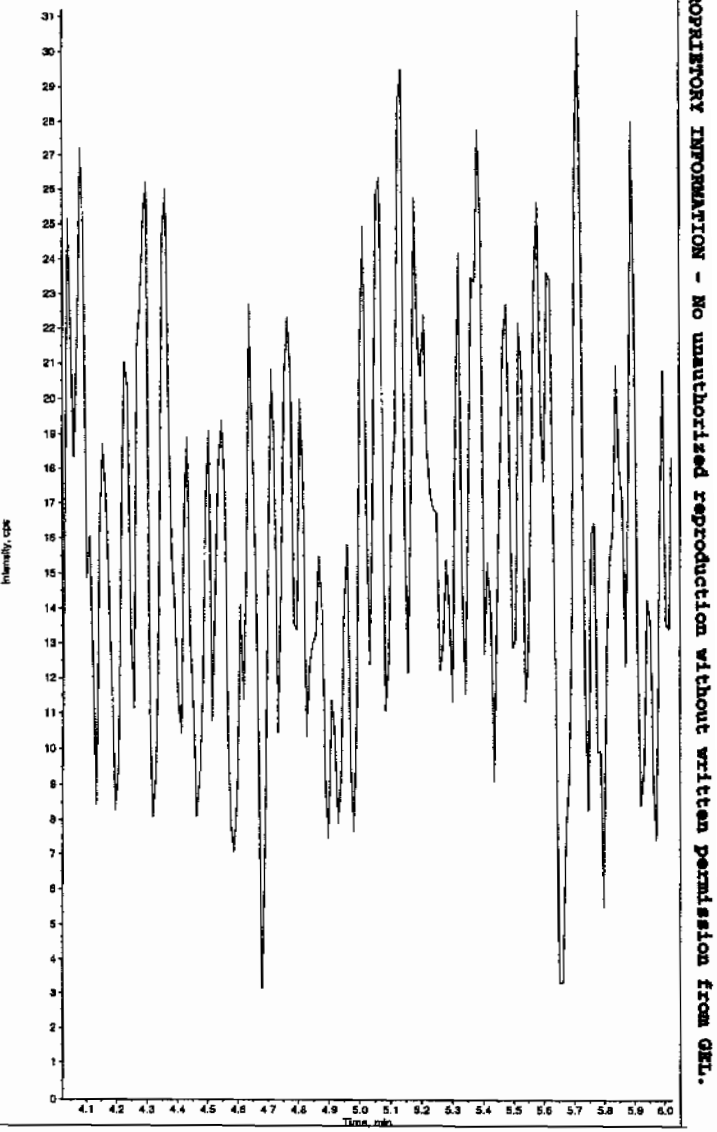
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.07e+006 counts
Height: 1019402.100 cps
Start Time: 8.28 min
End Time: 8.92 min




Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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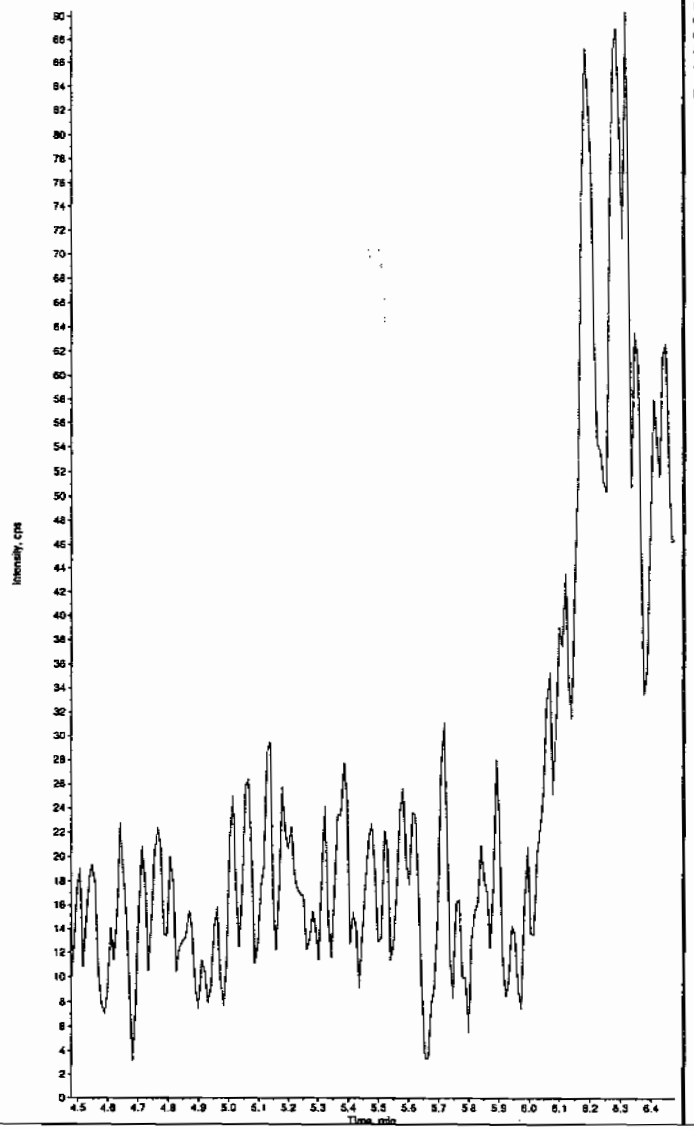
Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

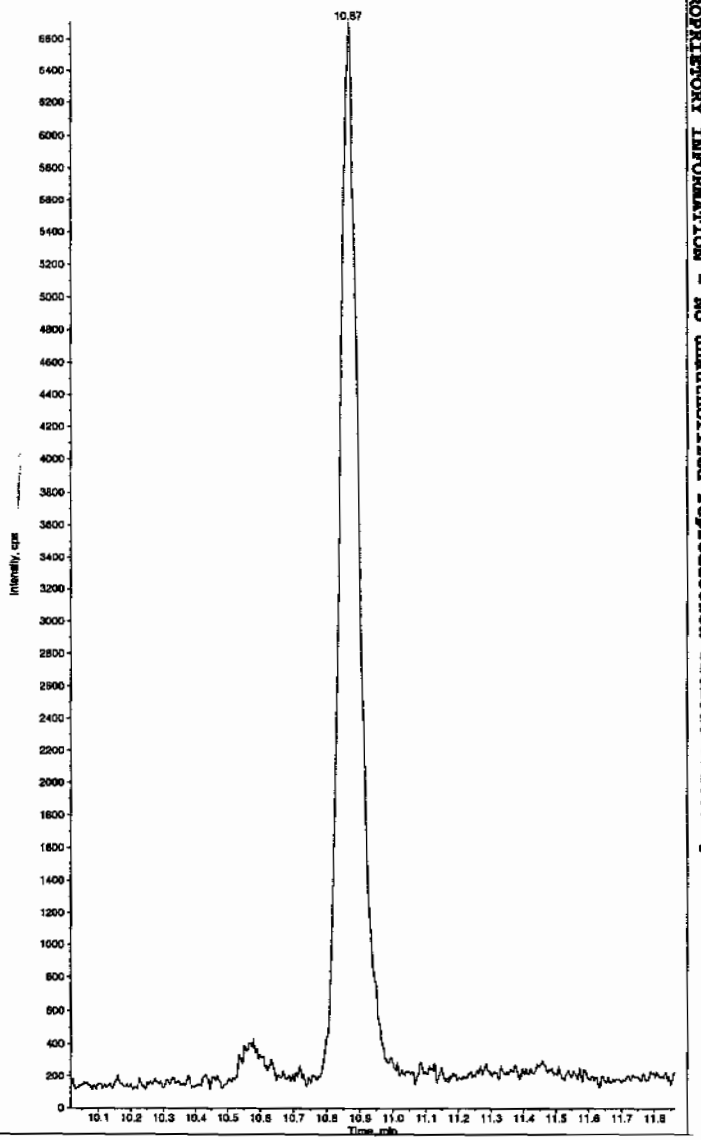
Modified: No




Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7975

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969008

**Sample Amount** 2

**Moisture:** 25.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301034a

**Date Analyzed:** 02-MAR-10 07:46

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

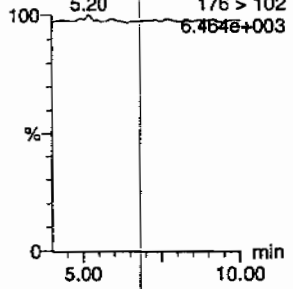


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

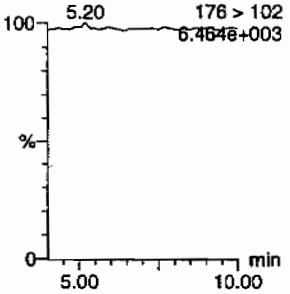
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301034a**
**Date: 02-Mar-2010**
**Time: 07:46:07**
**ID: 245969008** | LANL | 948575 | Soil | 2-1
**Vial: 2:2,F**

3/3/10

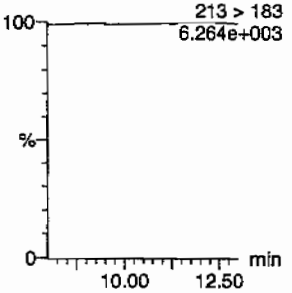
**HMX**
F2:MRM of 1 channel,AP-
5.20 176 > 102
6.464e+003



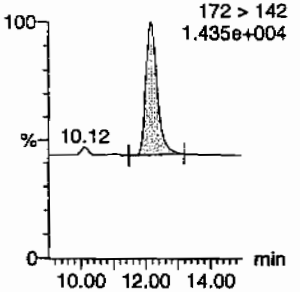

**RDX**
F2:MRM of 1 channel,AP-
5.20 176 > 102
6.464e+003



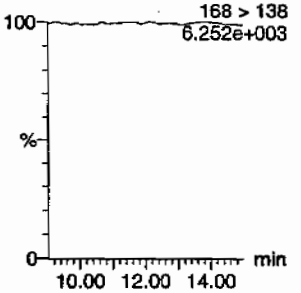

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.264e+003



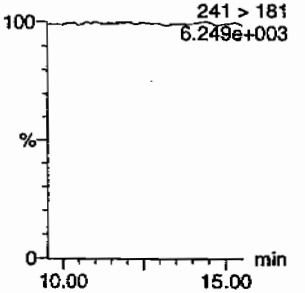

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.435e+004



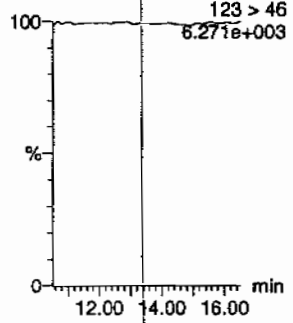

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.252e+003



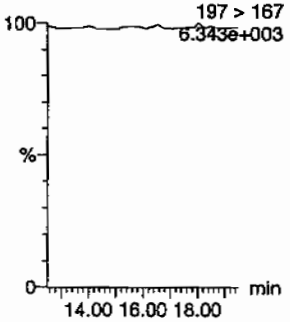

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.249e+003



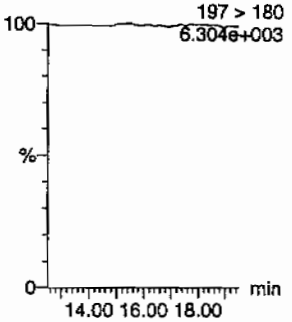

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.271e+003



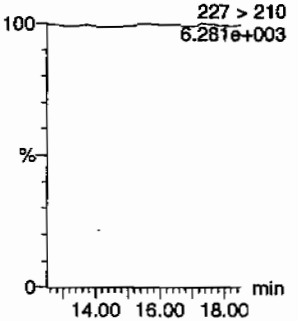

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.343e+003



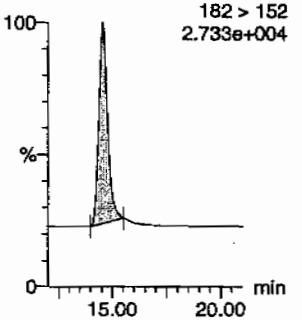

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.304e+003



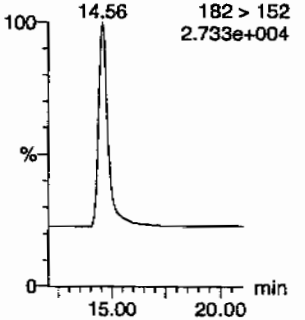

**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.281e+003




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
2.733e+004




**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.733e+004




HM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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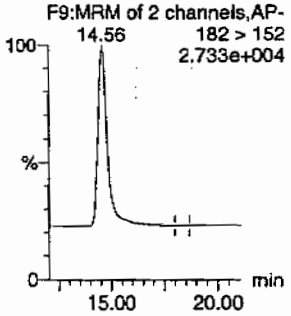
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

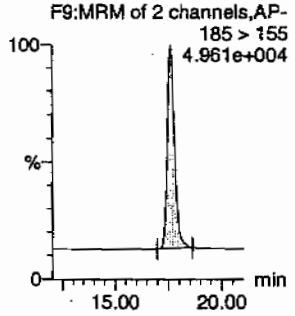


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

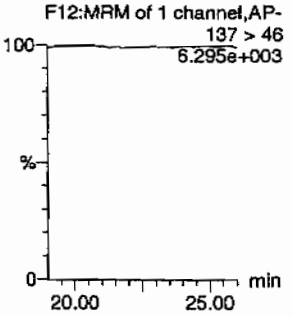
**24-dinitrotoluene**



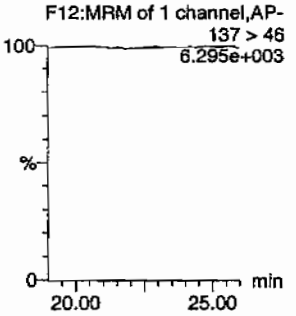

**26-dinitrotoluene-d3**



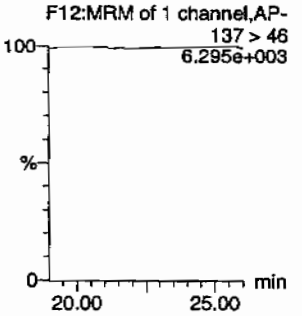

**2-Nitrotoluene**



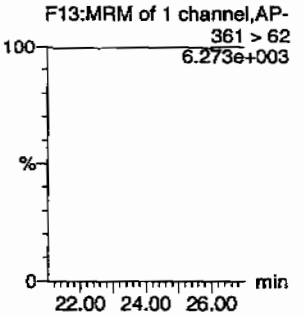

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969008 | HMX | 176 > 102 | | | 3366.211 | | | | | | | | | |
| 245969008 | RDX | 176 > 102 | | | 3366.211 | | | | | | | | | |
| 245969008 | 135-Trinitrobenzene | 213 > 183 | | | 3366.211 | | | | | | | | | |
| 245969008 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3366.211 | | 3366.211 | 3366.211 | bb | | | 580.7665 | 116.2 | 16.2 | 318.8 |
| 245969008 | 13-Dinitrobenzene | 168 > 138 | | | 3366.211 | | | | | | | | | |
| 245969008 | Tetryl | 241 > 181 | | | 3366.211 | | | | | | | | | |
| 245969008 | Nitrobenzene | 123 > 46 | | | 3366.211 | | | | | | | | | |
| 245969008 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17204.547 | | | | | | | | | |
| 245969008 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17204.547 | | | | | | | | | |
| 245969008 | 246-Trinitrotoluene | 227 > 210 | | | 17204.547 | | | | | | | | | |
| 245969008 | 34-dinitrotoluene | 182 > 152 | 14.56 | 9707.890 | 17204.547 | 9707.890 | 282.132 | bb | | | 284.7897 | 113.9 | 13.9 | 581.2 |
| 245969008 | 26-dinitrotoluene | 182 > 152 | | | 17204.547 | | | | | | | | | |
| 245969008 | 24-dinitrotoluene | 182 > 152 | | | 17204.547 | | | MM- | 03-Mar-10 | 08:56:49 | | | | |
| 245969008 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17204.547 | | 17204.547 | 17204.547 | bb | | | 534.8069 | 107.0 | 7.0 | 1578.6 |
| 245969008 | 2-Nitrotoluene | 137 > 46 | | | 17204.547 | | | | | | | | | |
| 245969008 | 4-Nitrotoluene | 137 > 46 | | | 17204.547 | | | | | | | | | |
| 245969008 | 3-Nitrotoluene | 137 > 46 | | | 17204.547 | | | | | | | | | |
| 245969008 | PETN | 361 > 62 | | | 17204.547 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7975

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969008

**Sample Amount** 2

**Moisture:** 25.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220032.wiff

**Date Analyzed:** 23-FEB-10 01:09

**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 =

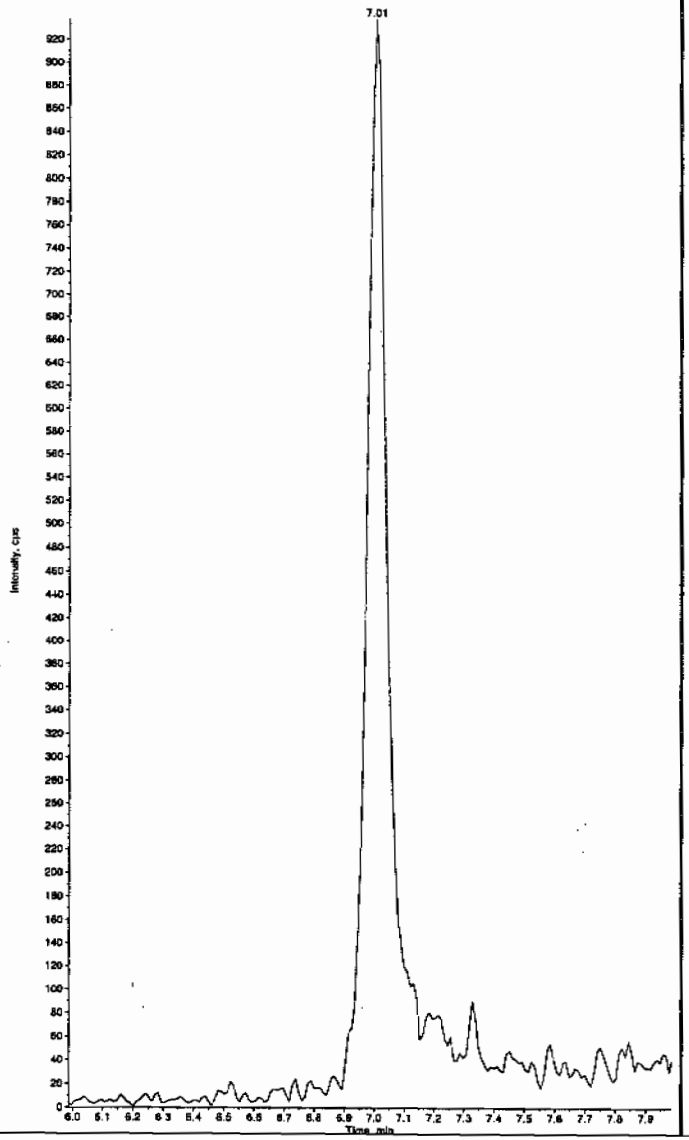
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Jan 2/23/10

Sample Name: "245969008" Sample ID: "948575|2|LER" File: "EXS02220032.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

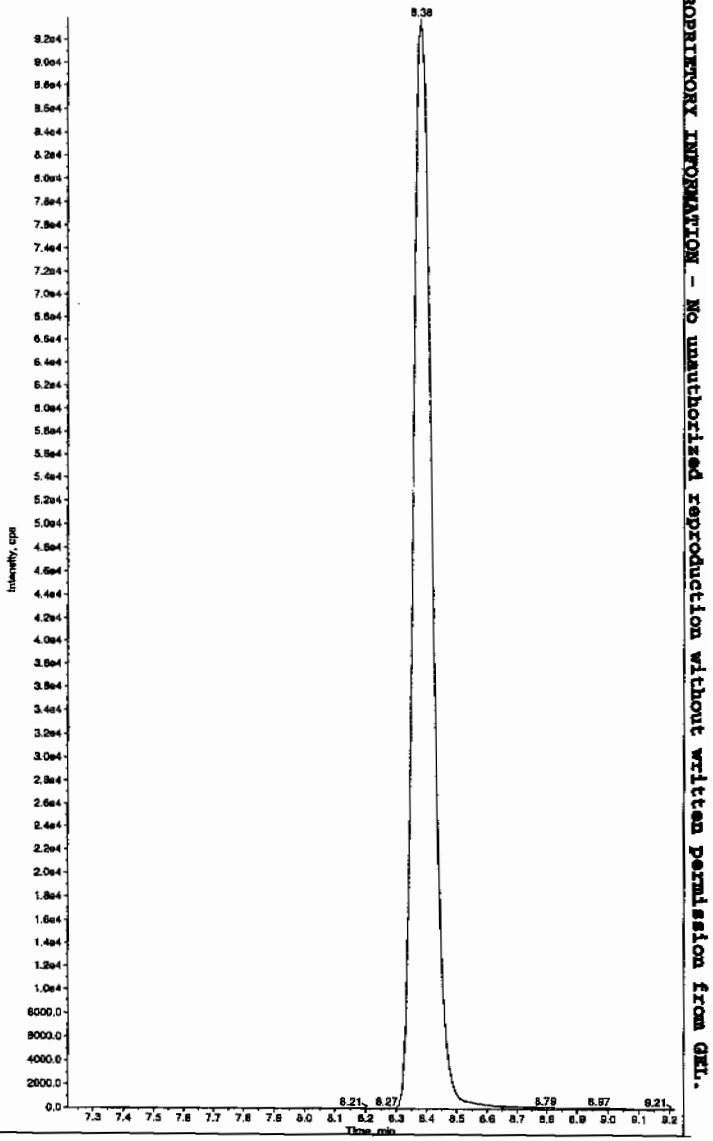
Modified: No




Sample Name: "245969008" Sample ID: "948575|2|LER" File: "EXS02220032.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No




HMK 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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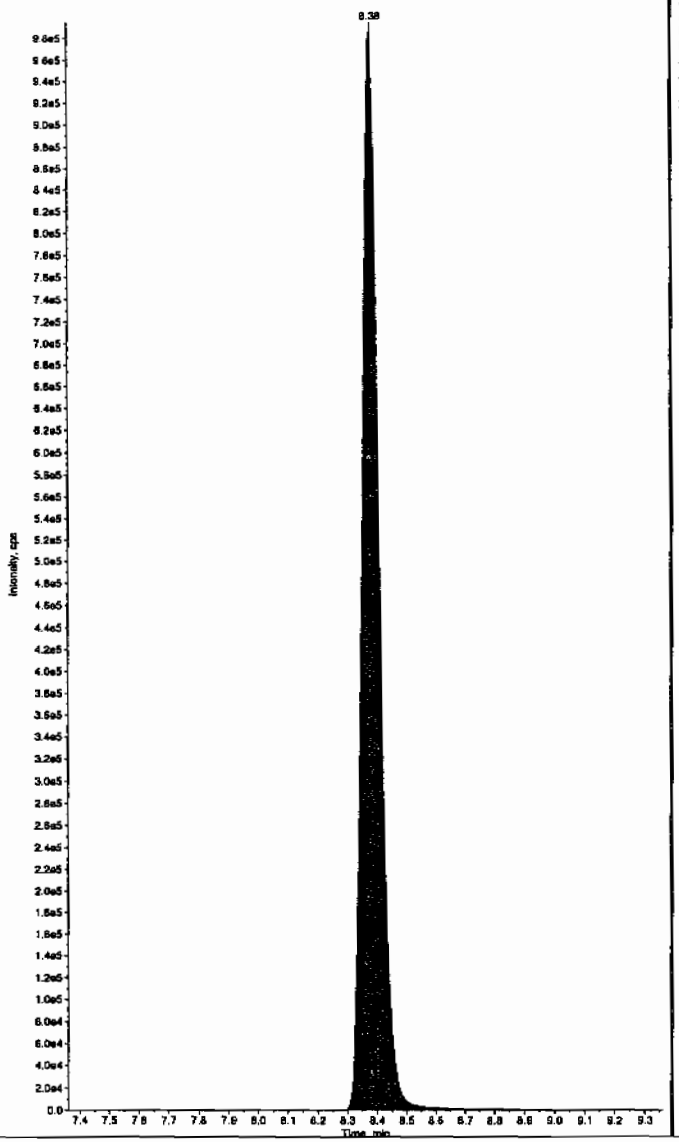
Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220032.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 309. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

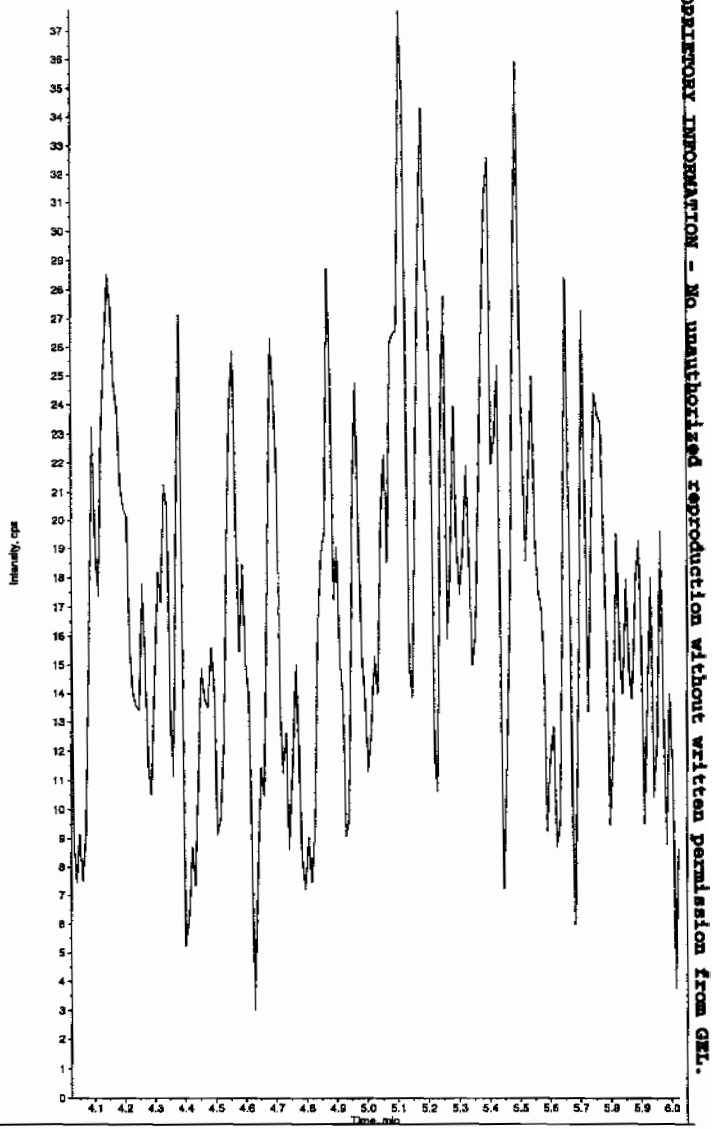
Int. Type: Valley
Retention Time: 8.38 min
Area: 4.07e+006 counts
Height: 995893.005 cps
Start Time: 8.28 min
End Time: 8.83 min




Sample Name: "245969008" Sample ID: "948575|2|LER" File: "EXS02220032.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No

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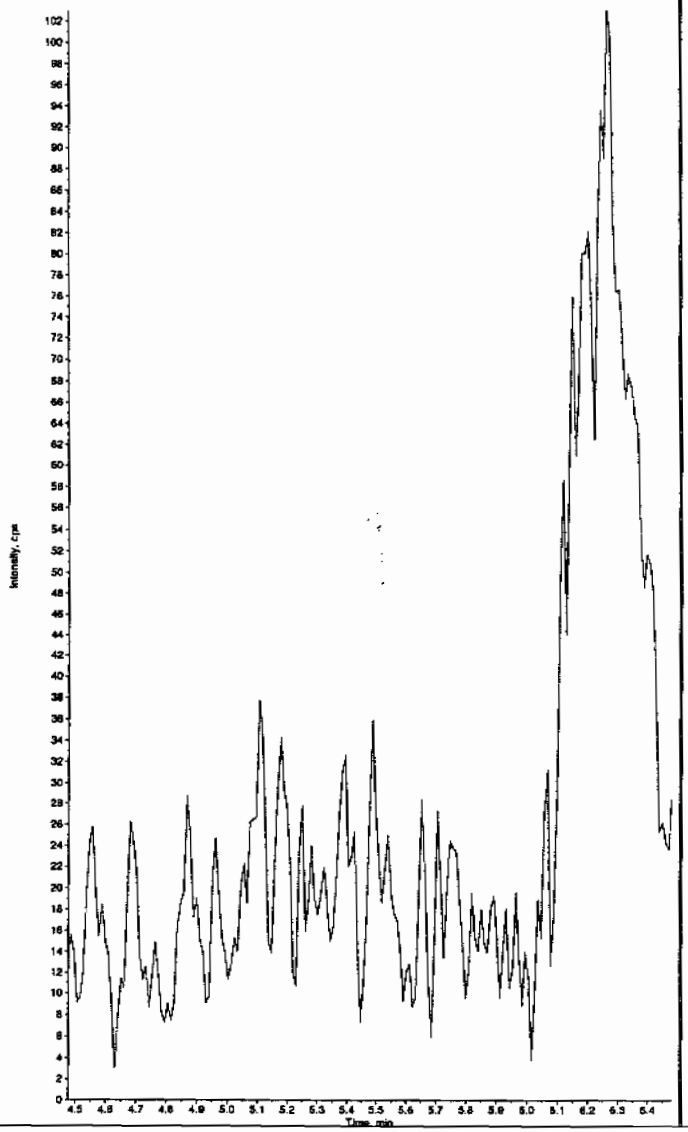
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969006" Sample ID: "948575[2]LER" File: "EXS02220032.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

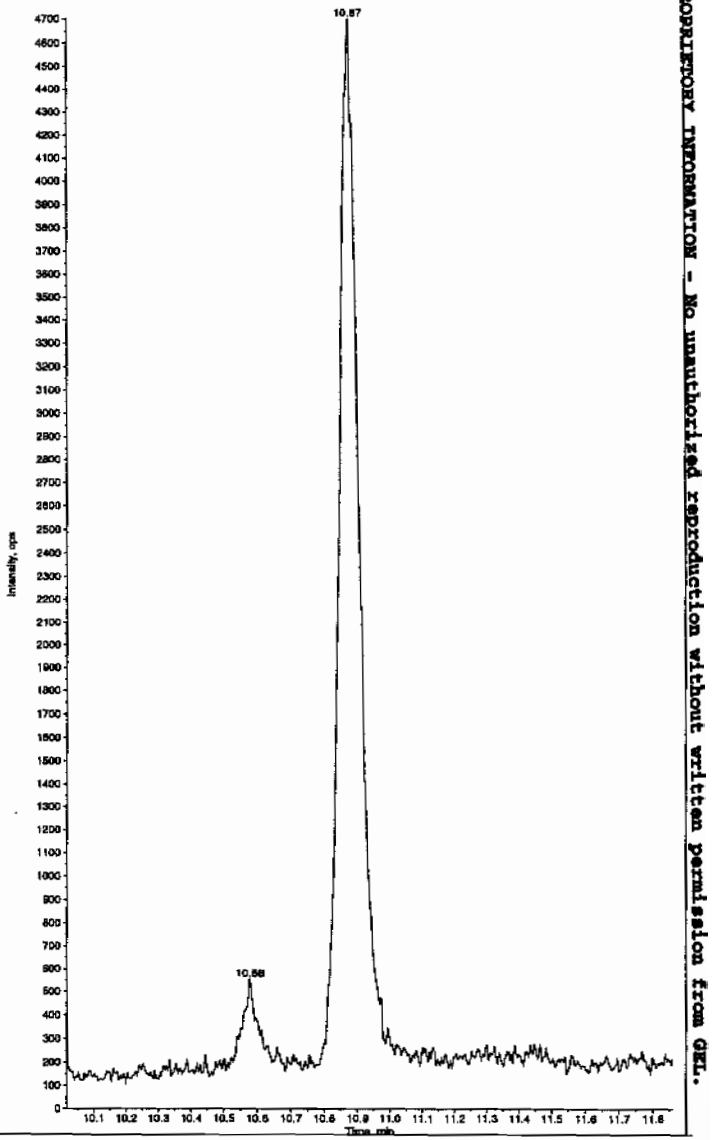
Modified: No




Sample Name: "245969006" Sample ID: "948575[2]LER" File: "EXS02220032.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7978

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969009

**Sample Amount** 2

**Moisture:** 16.9

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301035a

**Date Analyzed:** 02-MAR-10 08:15

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

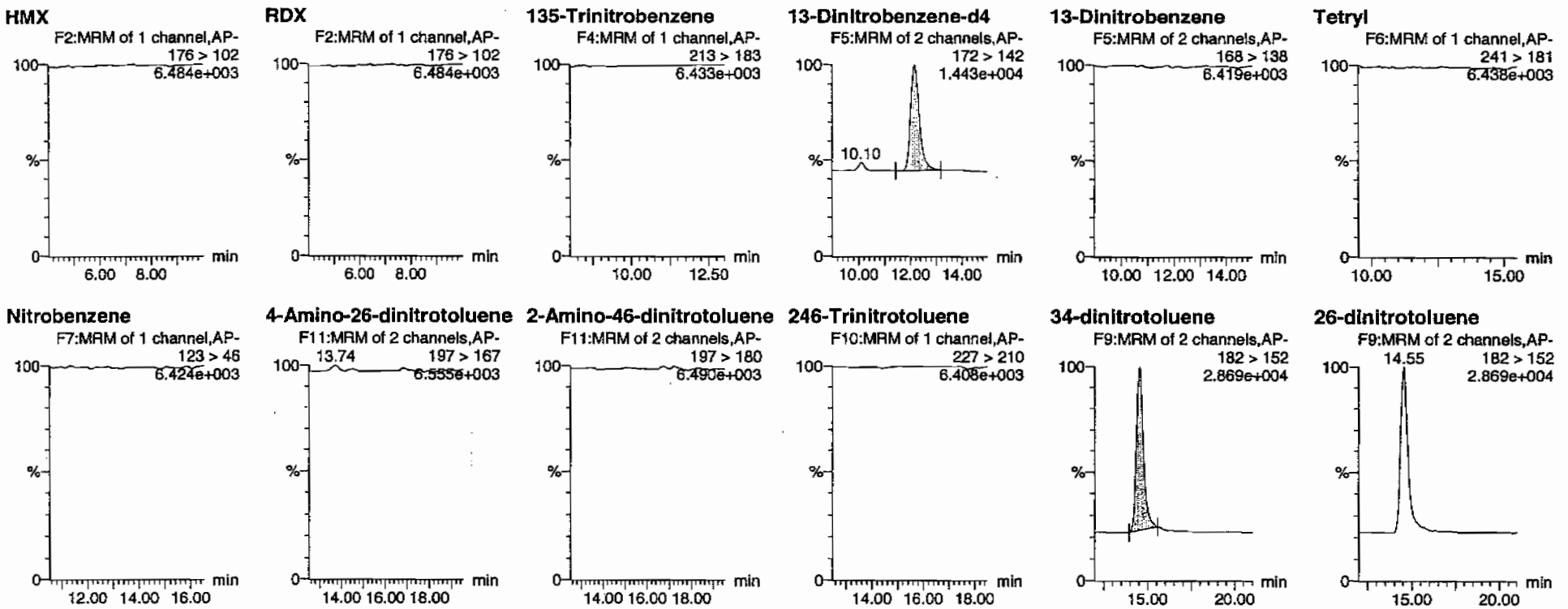
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301035a**
**Date: 02-Mar-2010**
**Time: 08:15:35**
**ID: 245969009** | LANL | 948575 | Soil | 2 |
**Vial: 2:3,A**

LMM 3/3/10




HMM 03/04/10

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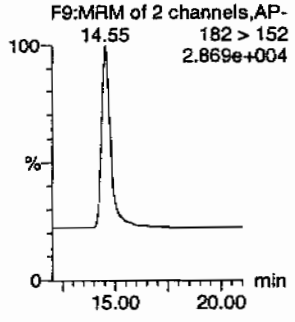
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

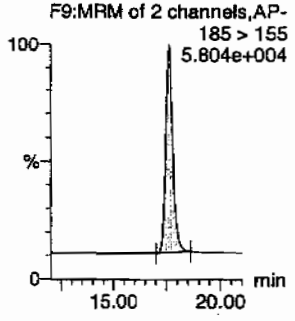


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

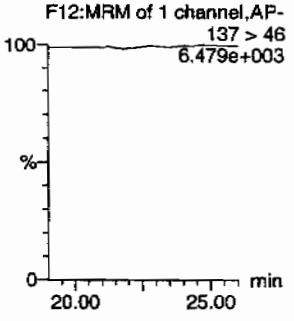
**24-dinitrotoluene**



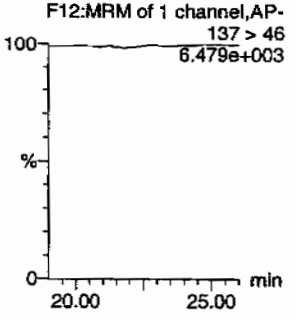

**26-dinitrotoluene-d3**



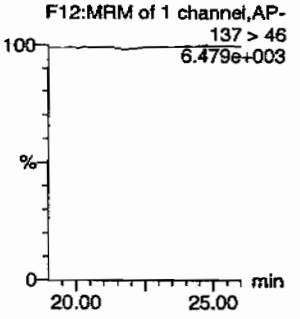

**2-Nitrotoluene**



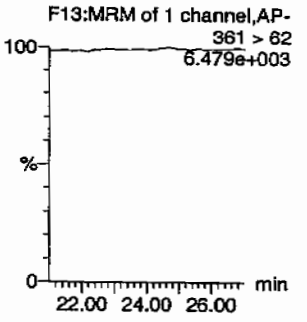

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969009 | HMX | 176 > 102 | | | 3263.733 | | | | | | | | | |
| 245969009 | RDX | 176 > 102 | | | 3263.733 | | | | | | | | | |
| 245969009 | 135-Trinitrobenzene | 213 > 183 | | | 3263.733 | | | | | | | | | |
| 245969009 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3263.733 | | 3263.733 | 3263.733 | bb | | | 563.0861 | 112.6 | 12.6 | 251.1 |
| 245969009 | 13-Dinitrobenzene | 168 > 138 | | | 3263.733 | | | | | | | | | |
| 245969009 | Tetryl | 241 > 181 | | | 3263.733 | | | | | | | | | |
| 245969009 | Nitrobenzene | 123 > 46 | | | 3263.733 | | | | | | | | | |
| 245969009 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 20013.813 | | | | | | | | | |
| 245969009 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 20013.813 | | | | | | | | | |
| 245969009 | 246-Trinitrotoluene | 227 > 210 | | | 20013.813 | | | | | | | | | |
| 245969009 | 34-dinitrotoluene | 182 > 152 | 14.55 | 10187.454 | 20013.813 | 10187.454 | 254.511 | bb | | | 256.9085 | 102.8 | 2.8 | 887.6 |
| 245969009 | 26-dinitrotoluene | 182 > 152 | | | 20013.813 | | | | | | | | | |
| 245969009 | 24-dinitrotoluene | 182 > 152 | | | 20013.813 | | | | | | | | | |
| 245969009 | 26-dinitrotoluene-d3 | 185 > 155 | 17.64 | 20013.813 | | 20013.813 | 20013.813 | bb | | | 622.1335 | 124.4 | 24.4 | 1923.0 |
| 245969009 | 2-Nitrotoluene | 137 > 46 | | | 20013.813 | | | | | | | | | |
| 245969009 | 4-Nitrotoluene | 137 > 46 | | | 20013.813 | | | | | | | | | |
| 245969009 | 3-Nitrotoluene | 137 > 46 | | | 20013.813 | | | | | | | | | |
| 245969009 | PETN | 361 > 62 | | | 20013.813 | | | | | | | | | |



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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7978

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969009

**Sample Amount** 2

**Moisture:** 16.9

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220033.wiff

**Date Analyzed:** 23-FEB-10 01:24

**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 =

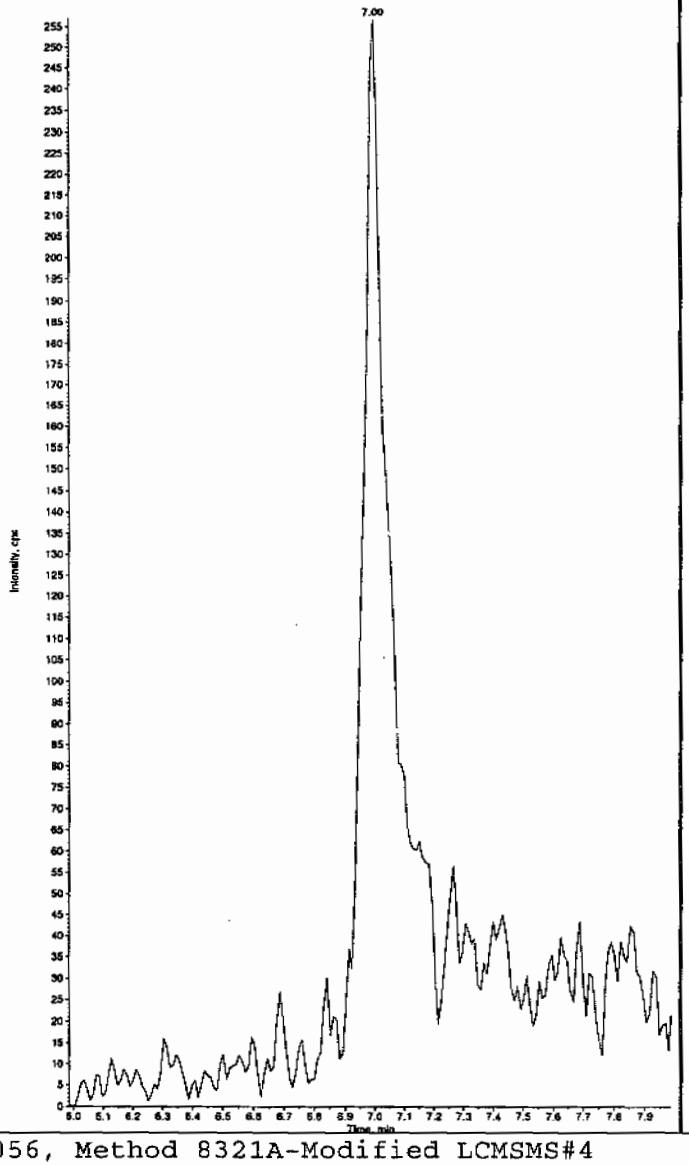
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sam 2/23/10

Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

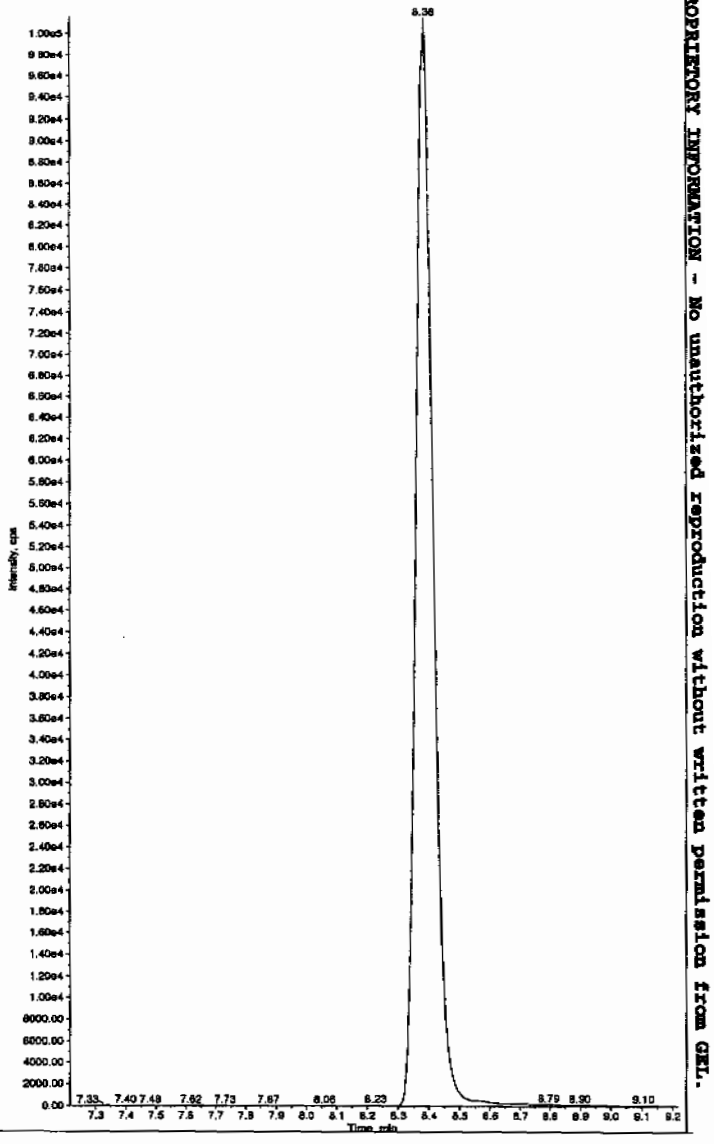
Modified: No




Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No




Hm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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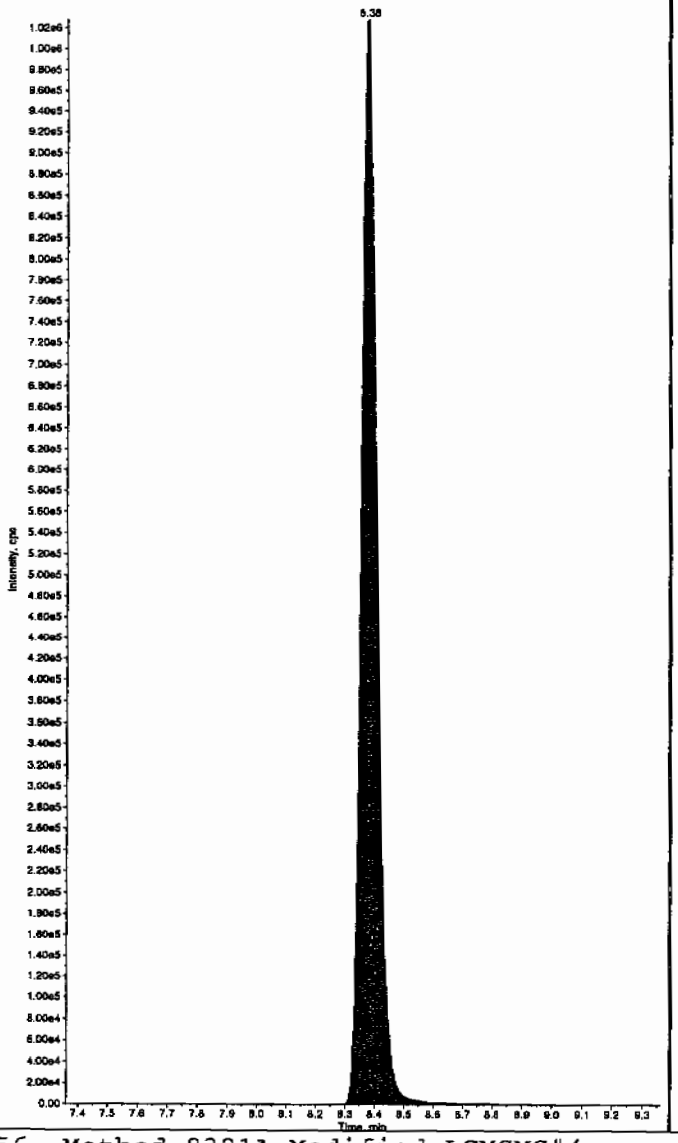
Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 305. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

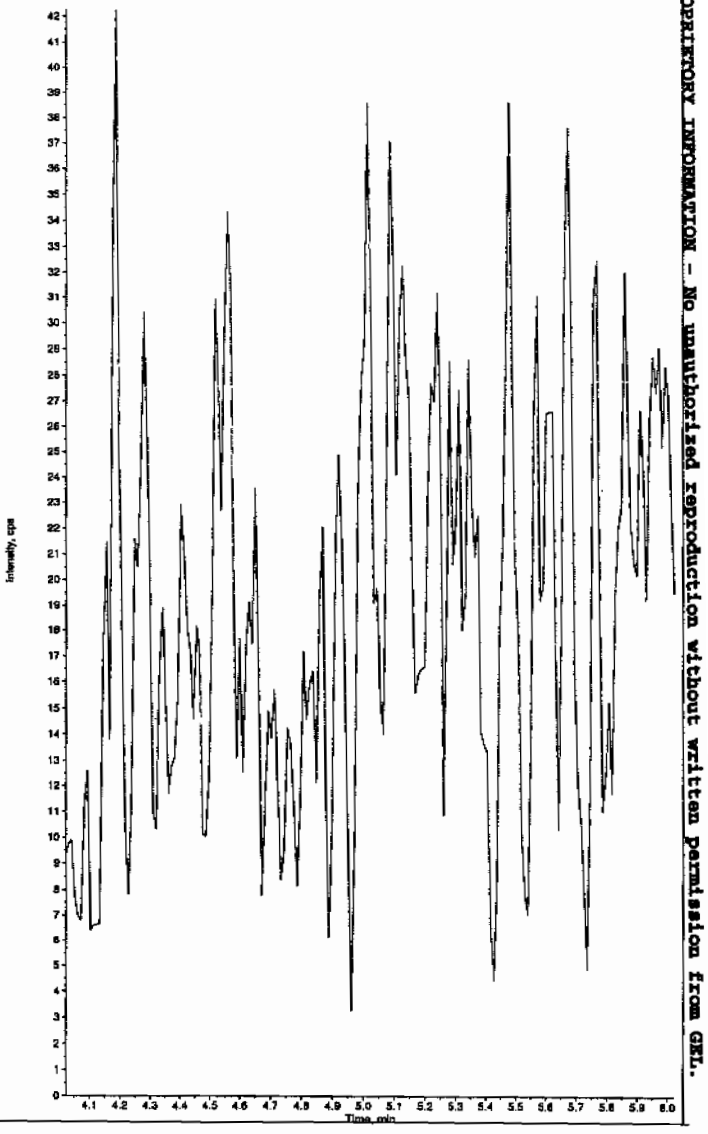
Int. Type: Valley
Retention Time: 8.38 min
Area: 4.02e+006 counts
Height: 1028659.790 cps
Start Time: 8.25 min
End Time: 8.92 min




Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No



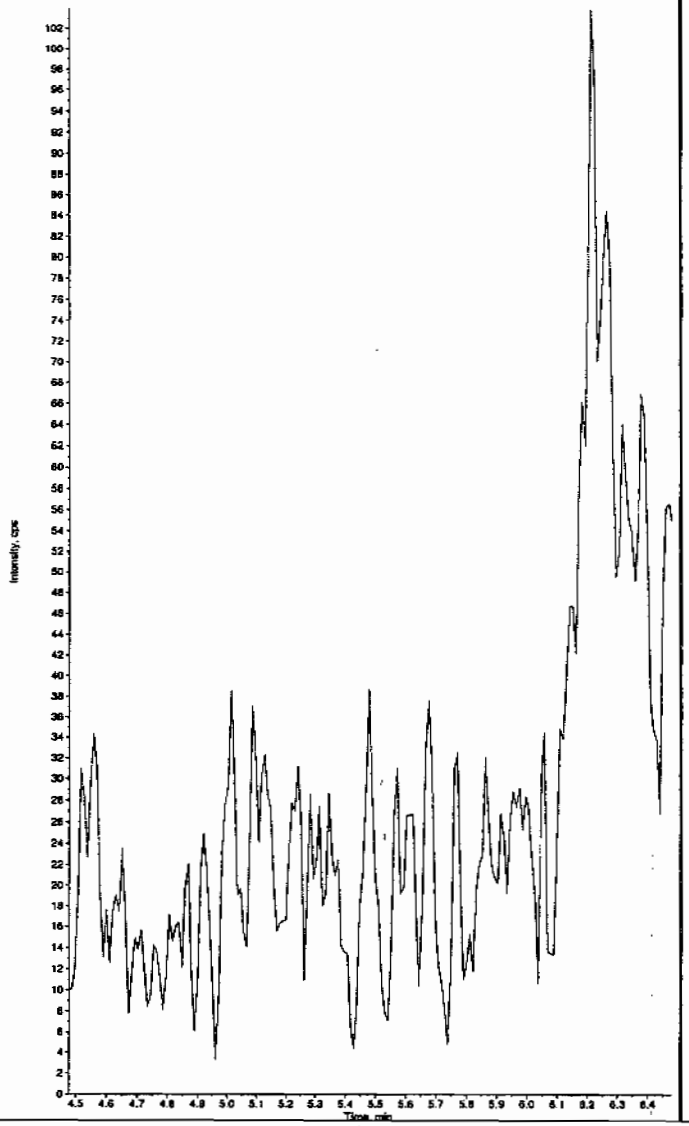

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

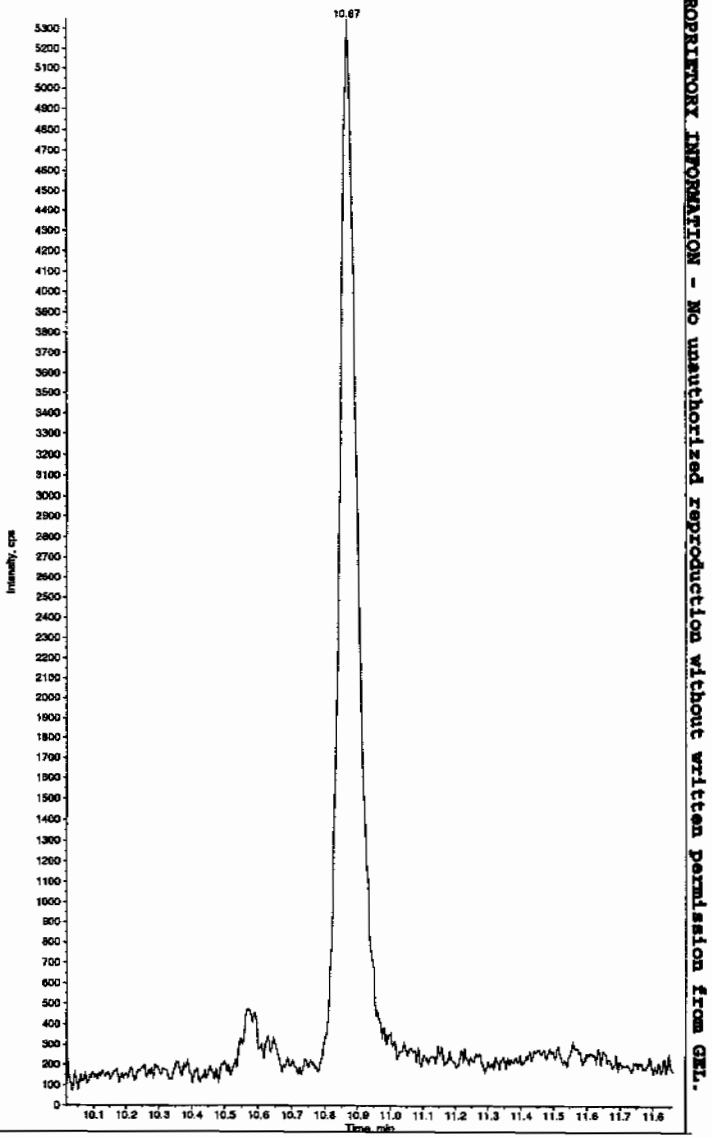
Modified: No




Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7970

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969010

**Sample Amount** 2

**Moisture:** 8.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301071a

**Date Analyzed:** 03-MAR-10 02:05

**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 | 559 | |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 500 | U |
| 2691-41-0 | HMX | 158 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



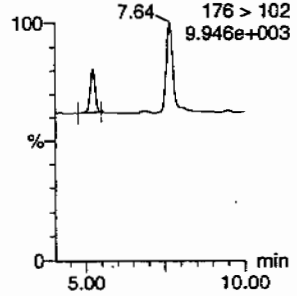
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

**Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010**
**Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030110expa.cdb, Time: Tue Mar 02 09:59:16 2010**

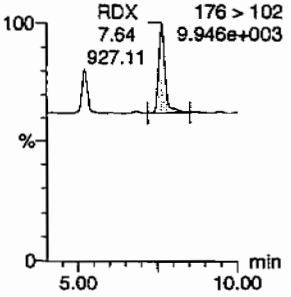
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301071a**
**Date: 03-Mar-2010**
**Time: 02:05:19**
**ID: 245969010** | LANL | 948575 | Solid | 2 |
**Vial: 2:4,C**

HMP
3/3/10

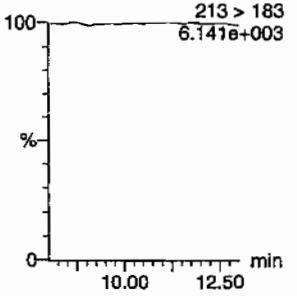
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
9.946e+003
7.64



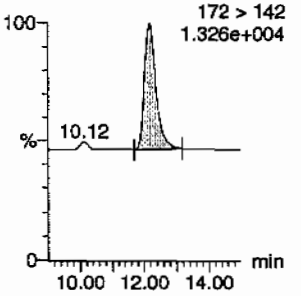

**RDX**
F2:MRM of 1 channel,AP-
RDX
176 > 102
9.946e+003
7.64
927.11



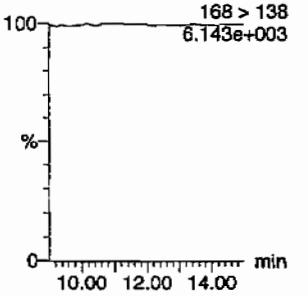

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
6.141e+003



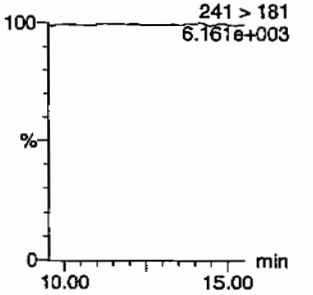

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.326e+004
10.12



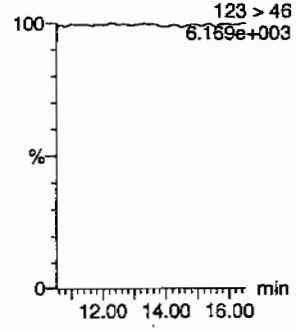

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.143e+003



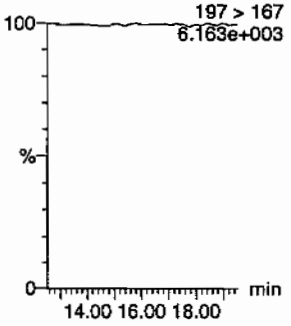

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
6.161e+003



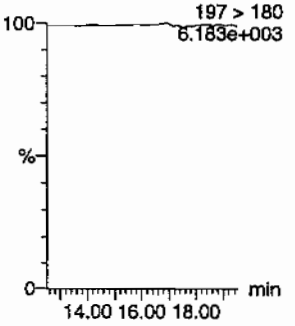

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.159e+003



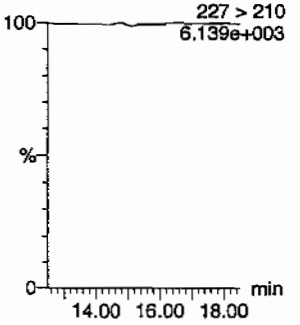

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
6.163e+003



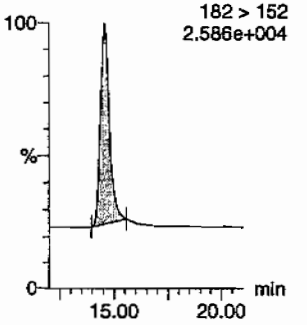

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
6.183e+003



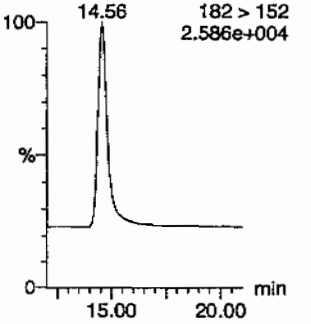

**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
6.139e+003




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
2.586e+004




**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.586e+004




HMM
03/04/10

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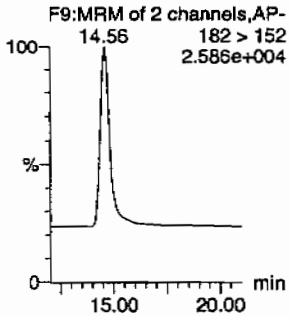
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

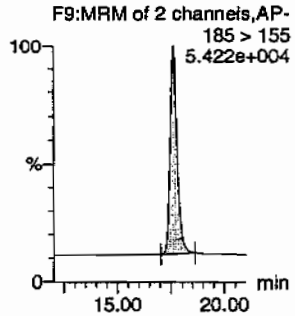


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

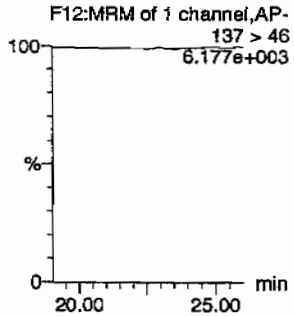
**24-dinitrotoluene**



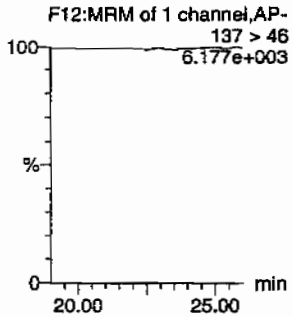

**26-dinitrotoluene-d3**



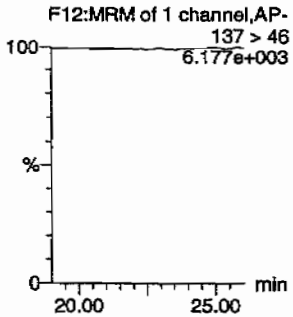

**2-Nitrotoluene**



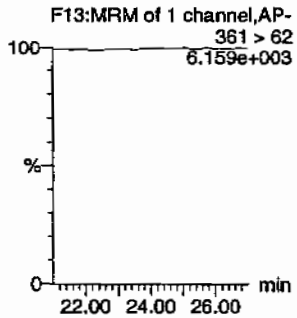

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969010 | HMX | 176 > 102 | 5.20 | 364.926 | 3022.925 | 364.926 | 60.360 | bb | | | 15.8224 | | | 47.0 |
| 245969010 | RDX | 176 > 102 | 7.64 | 927.107 | 3022.925 | 927.107 | 153.346 | bb | | | 55.8715 | | | 95.9 |
| 245969010 | 135-Trinitrobenzene | 213 > 183 | | | 3022.925 | | | | | | | | | |
| 245969010 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3022.925 | | 3022.925 | 3022.925 | bb | | | 521.5400 | 104.3 | 4.3 | 309.9 |
| 245969010 | 13-Dinitrobenzene | 168 > 138 | | | 3022.925 | | | | | | | | | |
| 245969010 | Tetryl | 241 > 181 | | | 3022.925 | | | | | | | | | |
| 245969010 | Nitrobenzene | 123 > 46 | | | 3022.925 | | | | | | | | | |
| 245969010 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 18875.246 | | | | | | | | | |
| 245969010 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 18875.246 | | | | | | | | | |
| 245969010 | 246-Trinitrotoluene | 227 > 210 | | | 18875.246 | | | | | | | | | |
| 245969010 | 34-dinitrotoluene | 182 > 152 | 14.56 | 9291.354 | 18875.246 | 9291.354 | 246.125 | bb | | | 248.4443 | 99.4 | -0.6 | 348.2 |
| 245969010 | 26-dinitrotoluene | 182 > 152 | | | 18875.246 | | | | | | | | | |
| 245969010 | 24-dinitrotoluene | 182 > 152 | | | 18875.246 | | | | | | | | | |
| 245969010 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18875.246 | | 18875.246 | 18875.246 | bb | | | 586.7409 | 117.3 | 17.3 | 2229.6 |
| 245969010 | 2-Nitrotoluene | 137 > 46 | | | 18875.246 | | | | | | | | | |
| 245969010 | 4-Nitrotoluene | 137 > 46 | | | 18875.246 | | | | | | | | | |
| 245969010 | 3-Nitrotoluene | 137 > 46 | | | 18875.246 | | | | | | | | | |
| 245969010 | PETN | 361 > 62 | | | 18875.246 | | | | | | | | | |

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7970

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969010

**Sample Amount** 2

**Moisture:** 8.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220034.wiff

**Date Analyzed:** 23-FEB-10 01:40

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 812 | J |
| 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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

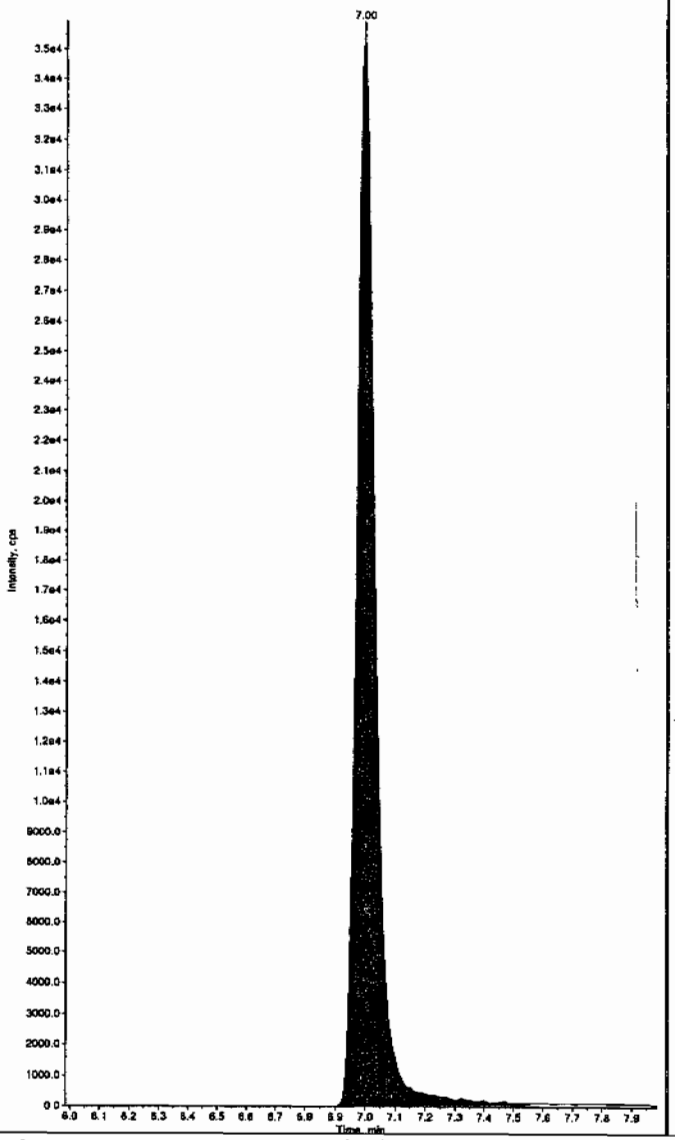
Ken 2/23/10

Sample Name: "245969010" Sample ID: "948575|2|LER" File: "EXS02220034.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 81.2 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

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: 6.99 min
Use Relative RT: No

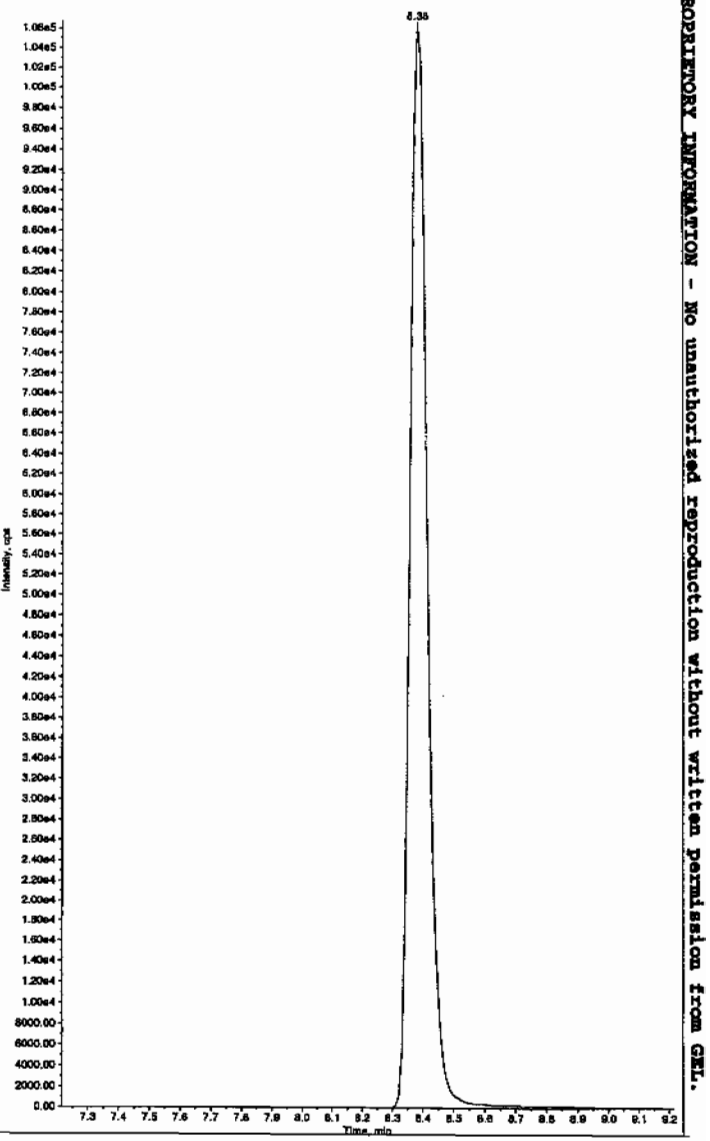
Int. Type: Valley
Retention Time: 7.00 min
Area: 1.61e+005 counts
Height: 35954.834 cps
Start Time: 6.86 min
End Time: 7.55 min




Sample Name: "245969010" Sample ID: "948575|2|LER" File: "EXS02220034.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No




Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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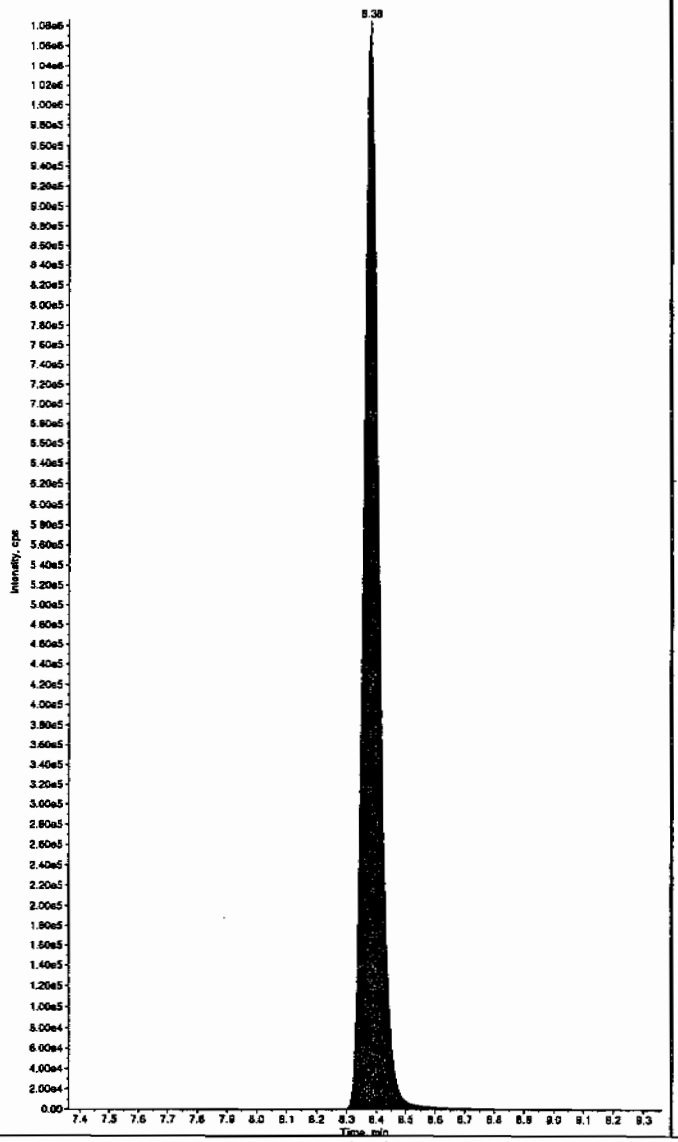
Sample Name: "245969010" Sample ID: "948575|2|LER" File: "EXS02220034.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 312. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

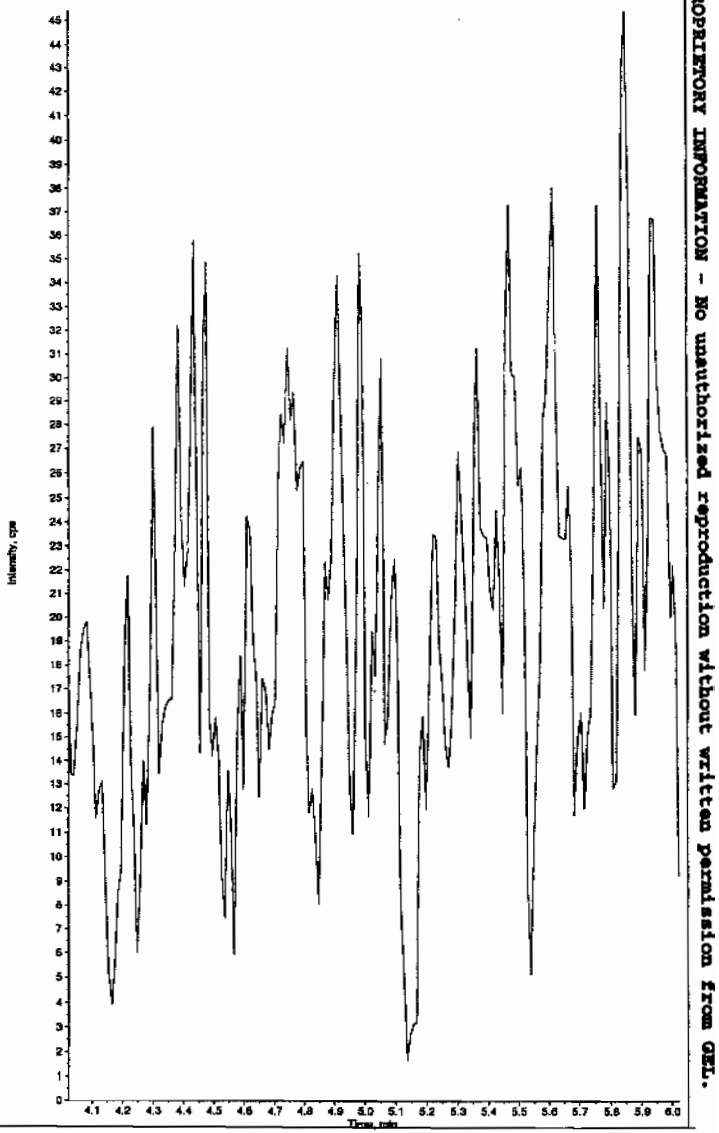
Int. Type: Valley
Retention Time: 8.38 min
Area: 4.11e+006 counts
Height: 1086439.697 cps
Start Time: 8.25 min
End Time: 8.75 min




Sample Name: "245969010" Sample ID: "948575|2|LER" File: "EXS02220034.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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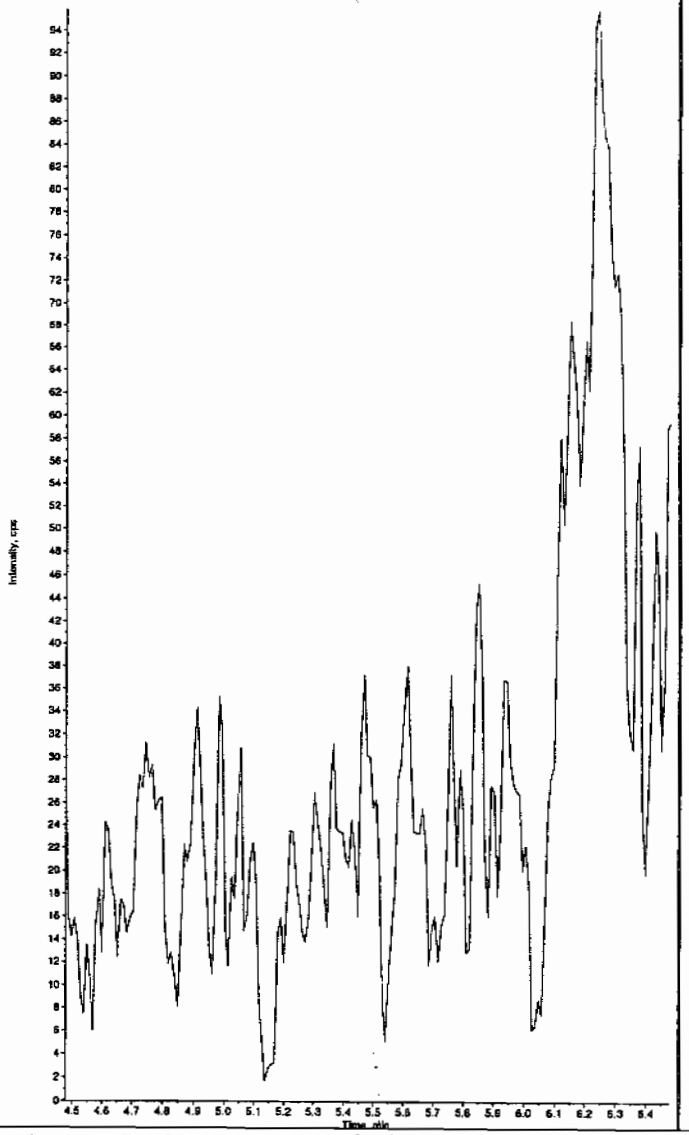
Sample Name: "245969010" Sample ID: "946575|2|LER" File: "EXS02220034.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

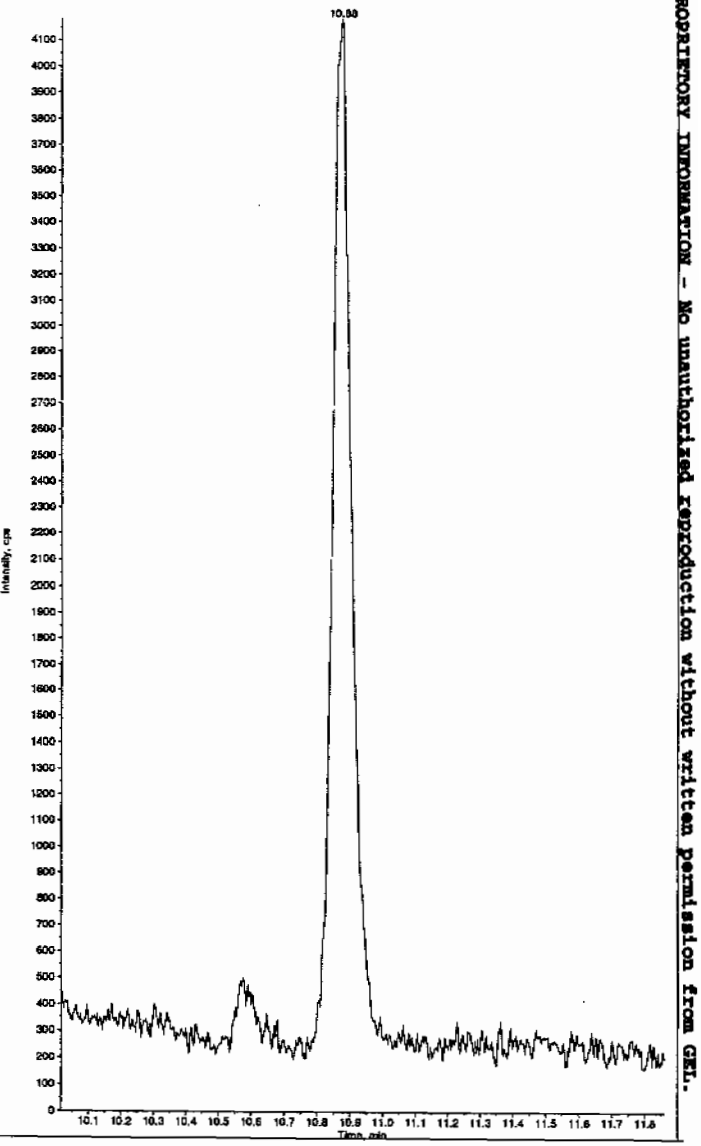
Modified: No




Sample Name: "245969010" Sample ID: "946575|2|LER" File: "EXS02220034.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7964

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969011

**Sample Amount** 2

**Moisture:** 10.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301072a

**Date Analyzed:** 03-MAR-10 02:34

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

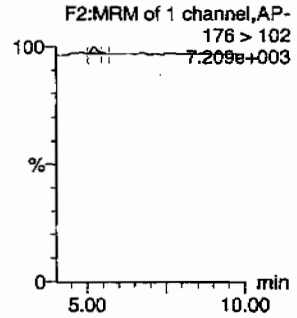
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301072a**
**Date: 03-Mar-2010**
**Time: 02:34:51**
**ID: 245969011** | LANL | 948575 | Solid | 2 |
**Vial: 2:4,D**

MAP 3/3/10

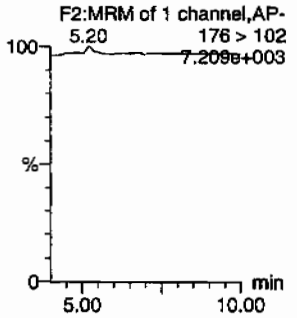
PDQ #2

Confirmed By EXP0301037a

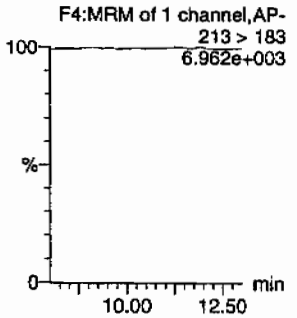
**HMX**



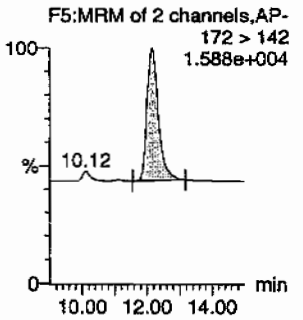

**RDX**



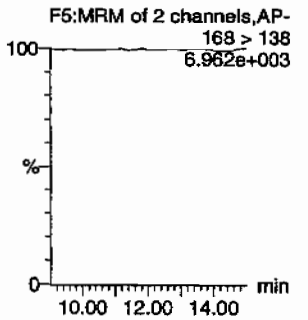

**135-Trinitrobenzene**



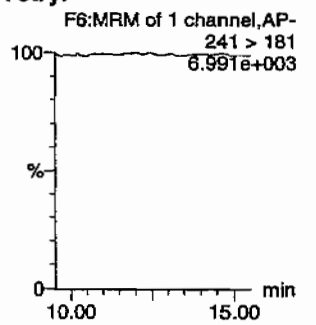

**13-Dinitrobenzene-d4**



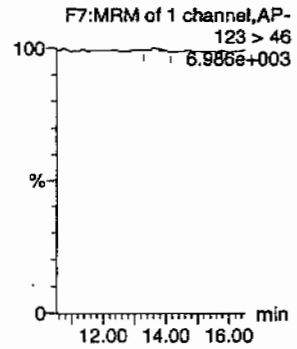

**13-Dinitrobenzene**



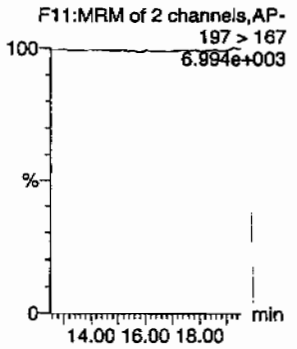

**Tetryl**



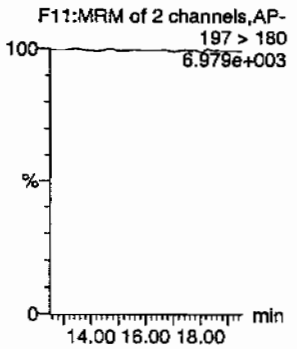

**Nitrobenzene**



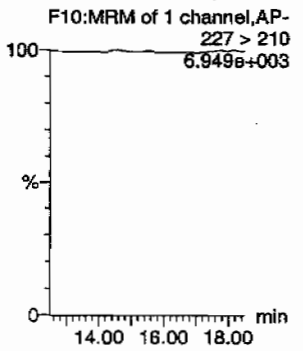

**4-Amino-26-dinitrotoluene**



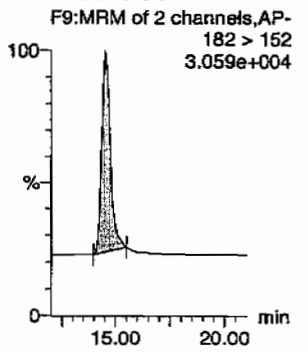

**2-Amino-46-dinitrotoluene**



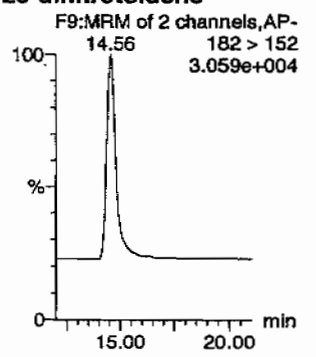

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**



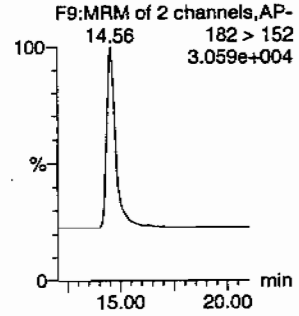

Hnm 03/04/10

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

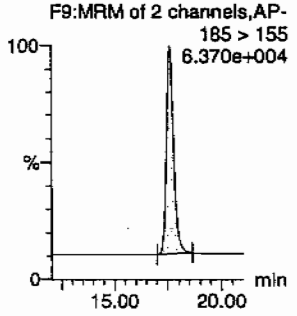


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

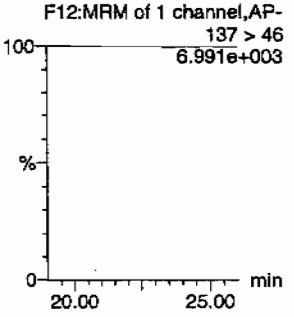
**24-dinitrotoluene**



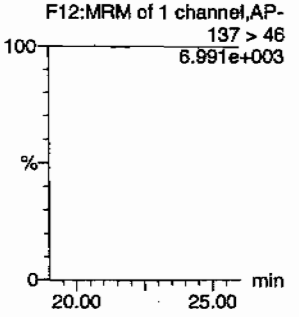

**26-dinitrotoluene-d3**



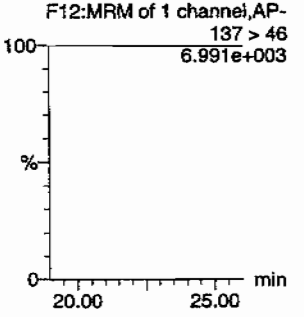

**2-Nitrotoluene**



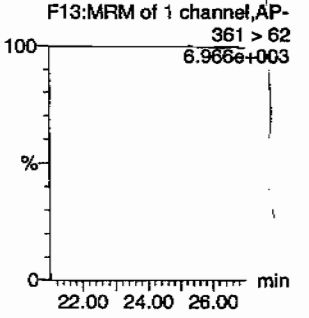

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969011 | HMX | 176 > 102 | 5.20 | 58.108 | 3690.864 | 58.108 | 7.872 | MM | 03-Mar-10 | 08:39:20 | 2.0635 | | | 9.3 |
| 245969011 | RDX | 176 > 102 | | | 3690.864 | | | | | | | | | |
| 245969011 | 135-Trinitrobenzene | 213 > 183 | | | 3690.864 | | | | | | | | | |
| 245969011 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3690.864 | | 3690.864 | 3690.864 | bb | | | 636.7783 | 127.4 | 27.4 | 93.1 |
| 245969011 | 13-Dinitrobenzene | 168 > 138 | | | 3690.864 | | | | | | | | | |
| 245969011 | Tetryl | 241 > 181 | | | 3690.864 | | | | | | | | | |
| 245969011 | Nitrobenzene | 123 > 46 | | | 3690.864 | | | MM- | 03-Mar-10 | 08:44:37 | | | | |
| 245969011 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 22118.084 | | | | | | | | | |
| 245969011 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 22118.084 | | | | | | | | | |
| 245969011 | 246-Trinitrotoluene | 227 > 210 | | | 22118.084 | | | | | | | | | |
| 245969011 | 34-dinitrotoluene | 182 > 152 | 14.56 | 10786.782 | 22118.084 | 10786.782 | 243.845 | bb | | | 246.1428 | 98.5 | -1.5 | 494.8 |
| 245969011 | 26-dinitrotoluene | 182 > 152 | | | 22118.084 | | | | | | | | | |
| 245969011 | 24-dinitrotoluene | 182 > 152 | | | 22118.084 | | | | | | | | | |
| 245969011 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 22118.084 | | 22118.084 | 22118.084 | bb | | | 687.5452 | 137.5 | 37.5 | 1351.8 |
| 245969011 | 2-Nitrotoluene | 137 > 46 | | | 22118.084 | | | | | | | | | |
| 245969011 | 4-Nitrotoluene | 137 > 46 | | | 22118.084 | | | | | | | | | |
| 245969011 | 3-Nitrotoluene | 137 > 46 | | | 22118.084 | | | | | | | | | |
| 245969011 | PETN | 361 > 62 | | | 22118.084 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7964

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969011

**Sample Amount** 2

**Moisture:** 10.7

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220035.wiff

**Date Analyzed:** 23-FEB-10 01:56

**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 |

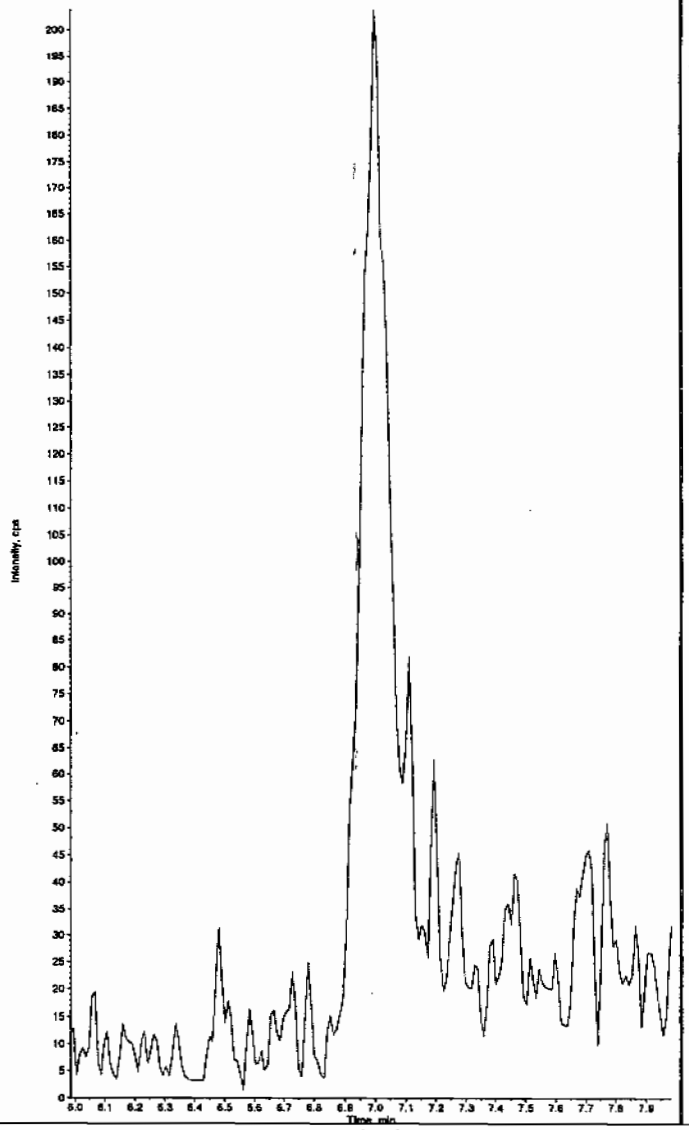
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcm 2/23/10

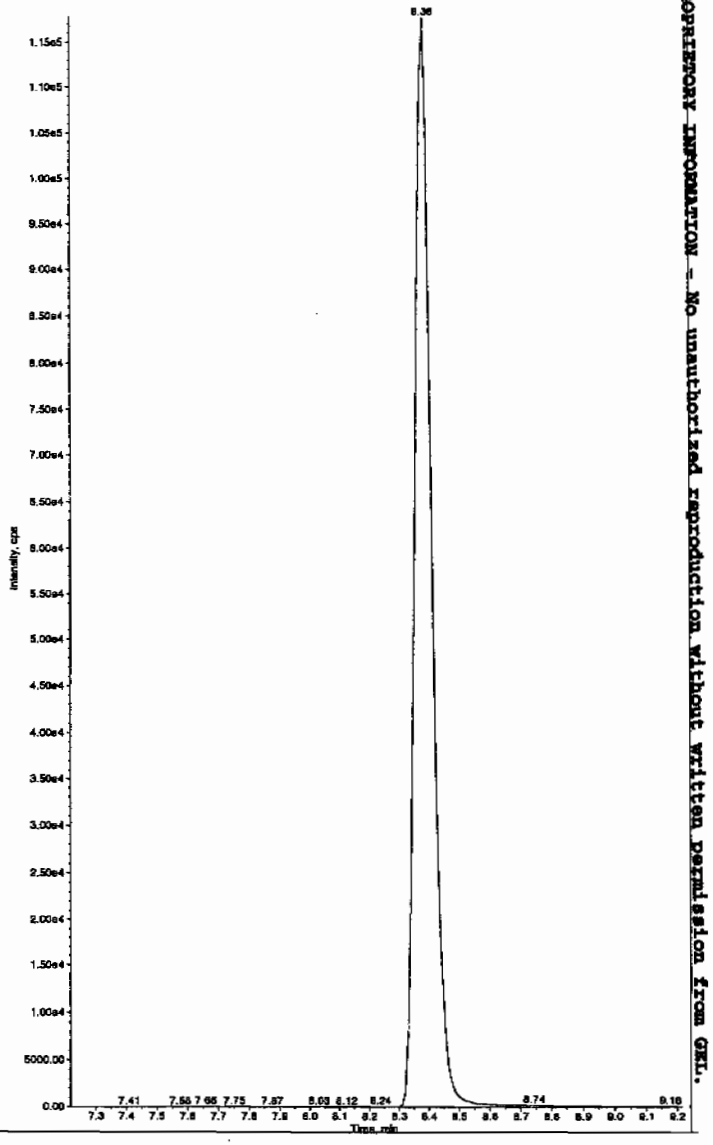
Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No




Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No




Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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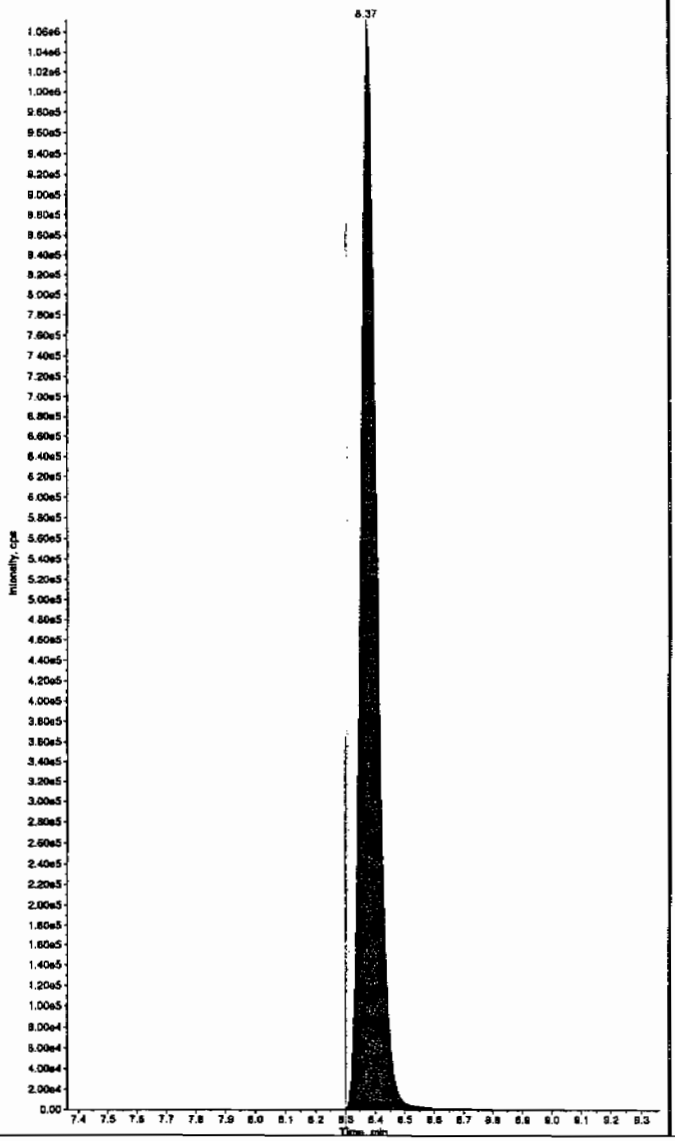
Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 316. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No
Proc. Algorithm: Intelliquan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

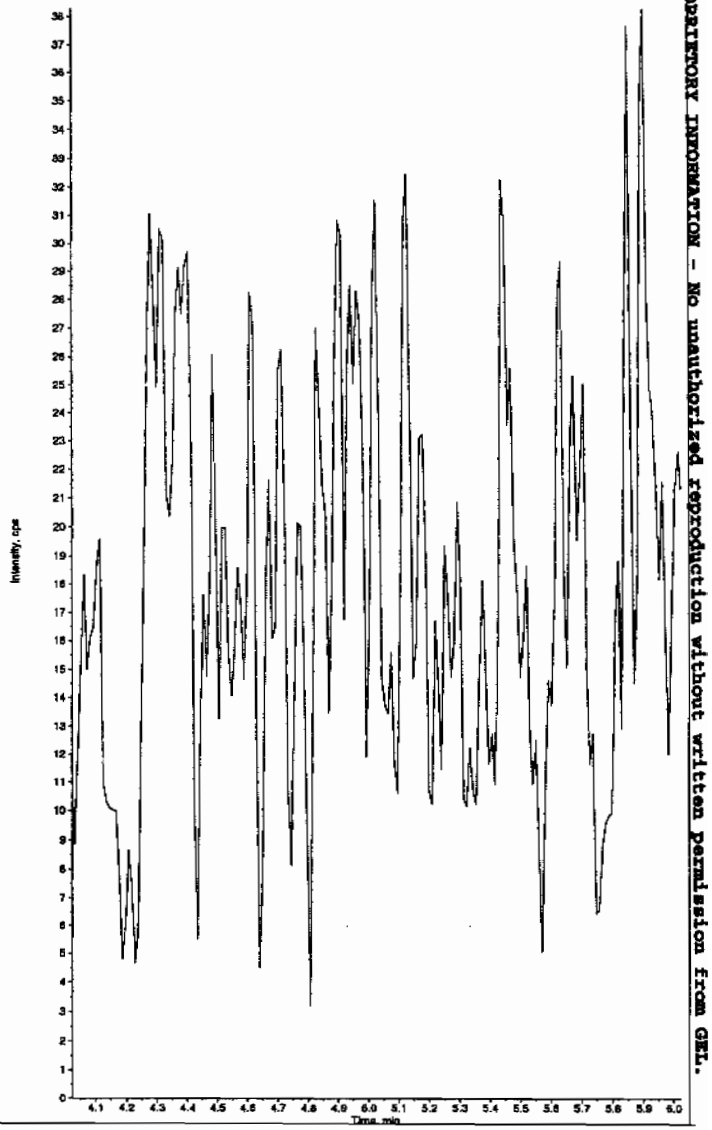
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.15e+006 counts
Height: 1071908.813 cps
Start Time: 8.26 min
End Time: 8.87 min




Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No

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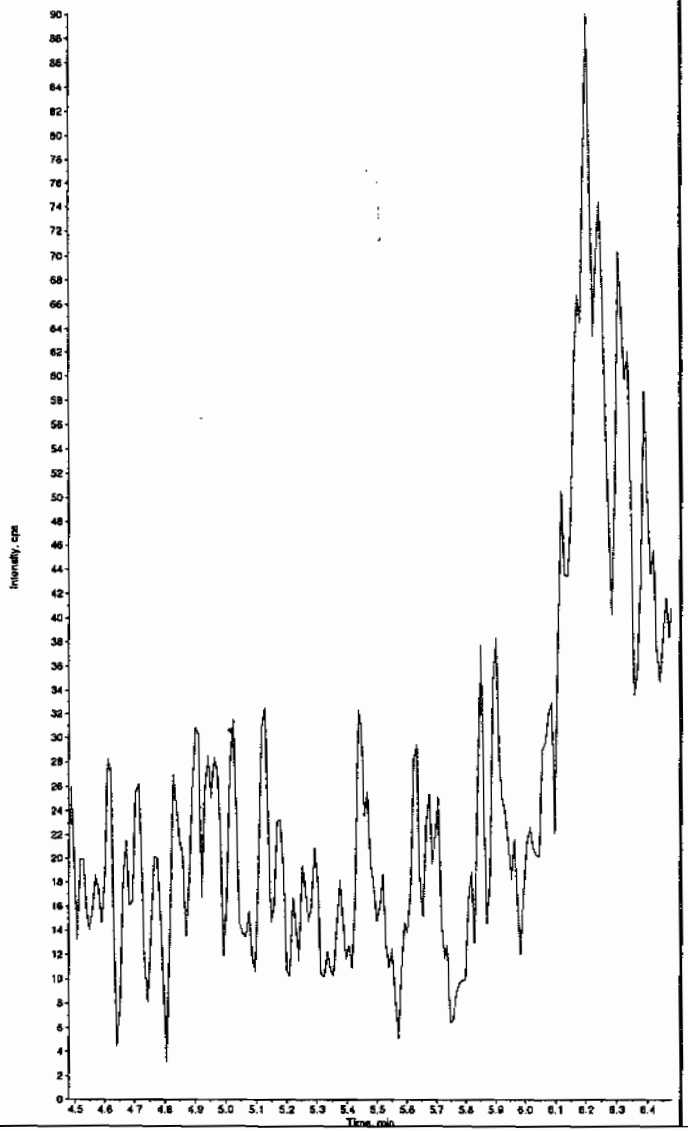
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

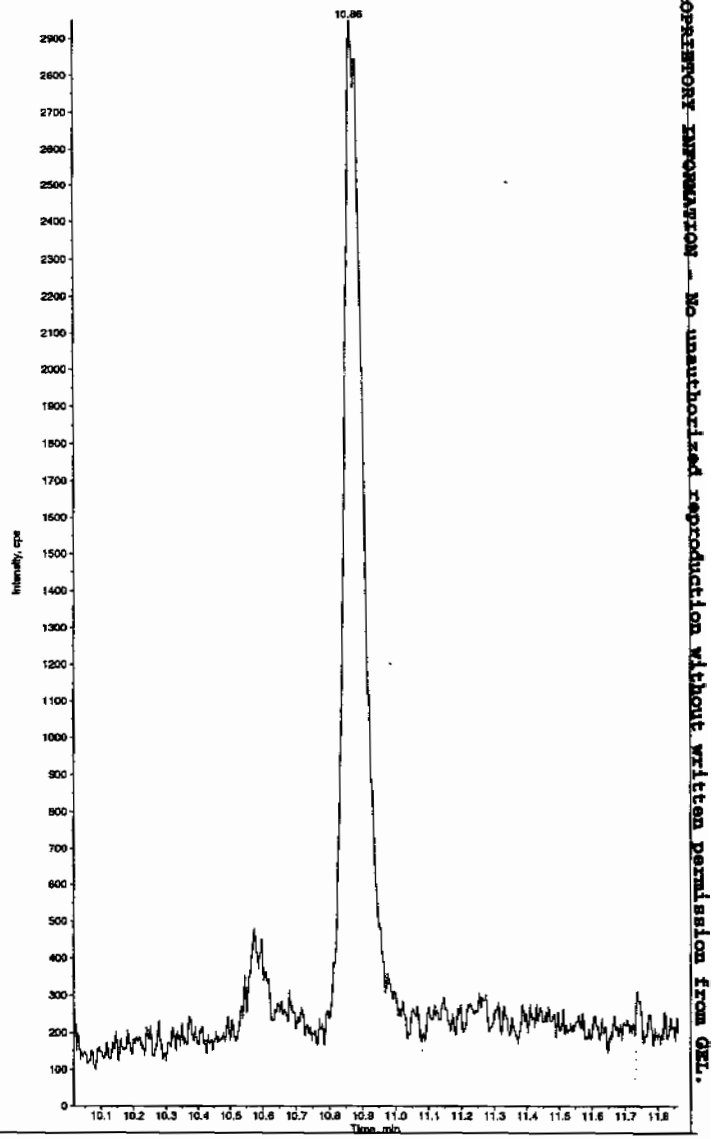
Modified: No




Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7973

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969012

**Sample Amount** 2

**Moisture:** 18.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301038a

**Date Analyzed:** 02-MAR-10 09:44

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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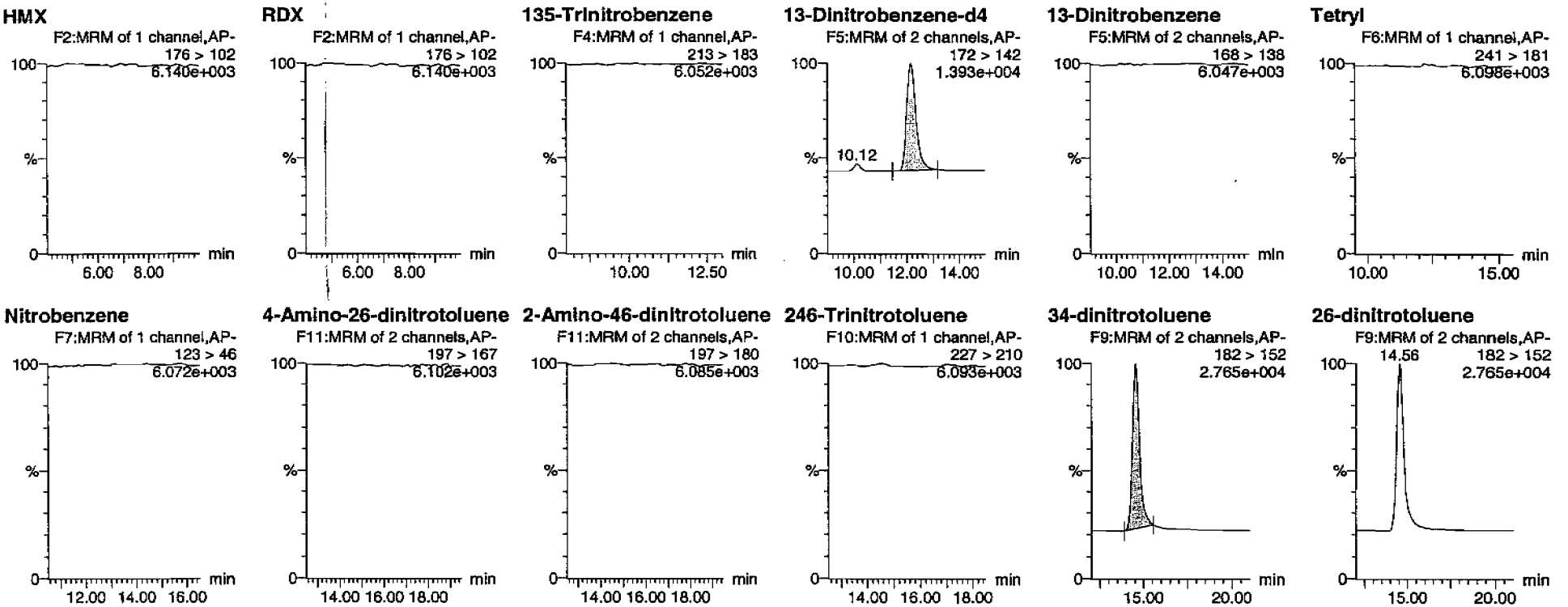
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301038a**
**Date: 02-Mar-2010**
**Time: 09:44:03**
**ID: 245969012** | LANL | 948575 | SOLID | 2 |
**Vial: 2:3,D**

MAP 3/3/10



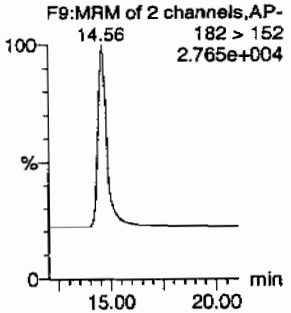

Hmm 03/04/10

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

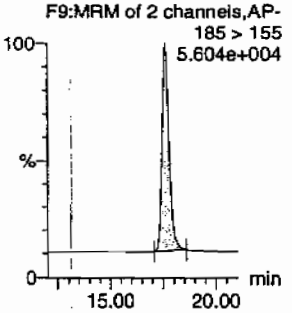


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

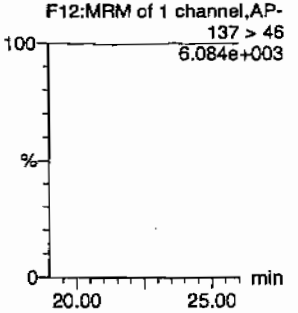
**24-dinitrotoluene**



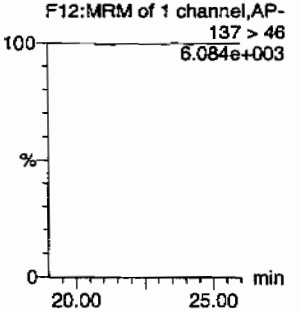

**26-dinitrotoluene-d3**



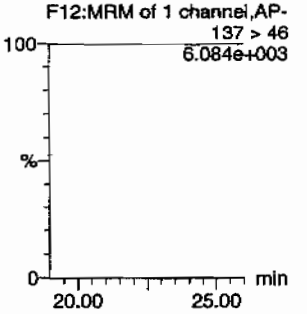

**2-Nitrotoluene**



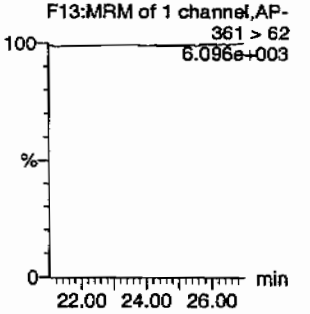

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969012 | HMX | 176 > 102 | | | 3285.488 | | | | | | | | | |
| 245969012 | RDX | 176 > 102 | | | 3285.488 | | | | | | | | | |
| 245969012 | 135-Trinitrobenzene | 213 > 183 | | | 3285.488 | | | | | | | | | |
| 245969012 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3285.488 | | 3285.488 | 3285.488 | bb | | | 566.8395 | 113.4 | 13.4 | 365.2 |
| 245969012 | 13-Dinitrobenzene | 168 > 138 | | | 3285.488 | | | | | | | | | |
| 245969012 | Tetryl | 241 > 181 | | | 3285.488 | | | | | | | | | |
| 245969012 | Nitrobenzene | 123 > 46 | | | 3285.488 | | | | | | | | | |
| 245969012 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 19737.643 | | | | | | | | | |
| 245969012 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 19737.643 | | | | | | | | | |
| 245969012 | 246-Trinitrotoluene | 227 > 210 | | | 19737.643 | | | | | | | | | |
| 245969012 | 34-dinitrotoluene | 182 > 152 | 14.56 | 10120.990 | 19737.643 | 10120.990 | 256.388 | bb | | | 258.8036 | 103.5 | 3.5 | 396.3 |
| 245969012 | 26-dinitrotoluene | 182 > 152 | | | 19737.643 | | | | | | | | | |
| 245969012 | 24-dinitrotoluene | 182 > 152 | | | 19737.643 | | | | | | | | | |
| 245969012 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 19737.643 | | 19737.643 | 19737.643 | bb | | | 613.5487 | 122.7 | 22.7 | 689.6 |
| 245969012 | 2-Nitrotoluene | 137 > 46 | | | 19737.643 | | | | | | | | | |
| 245969012 | 4-Nitrotoluene | 137 > 46 | | | 19737.643 | | | | | | | | | |
| 245969012 | 3-Nitrotoluene | 137 > 46 | | | 19737.643 | | | | | | | | | |
| 245969012 | PETN | 361 > 62 | | | 19737.643 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7973

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969012

**Sample Amount** 2

**Moisture:** 18.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220036.wiff

**Date Analyzed:** 23-FEB-10 02:11

**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 |

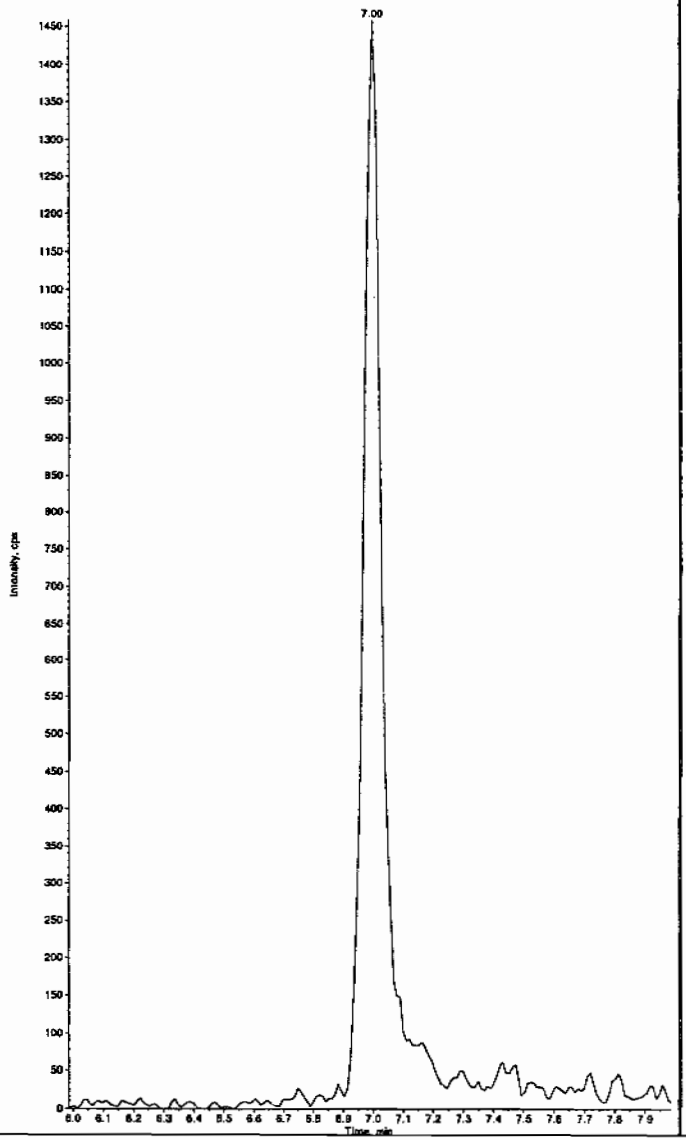
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/23/10

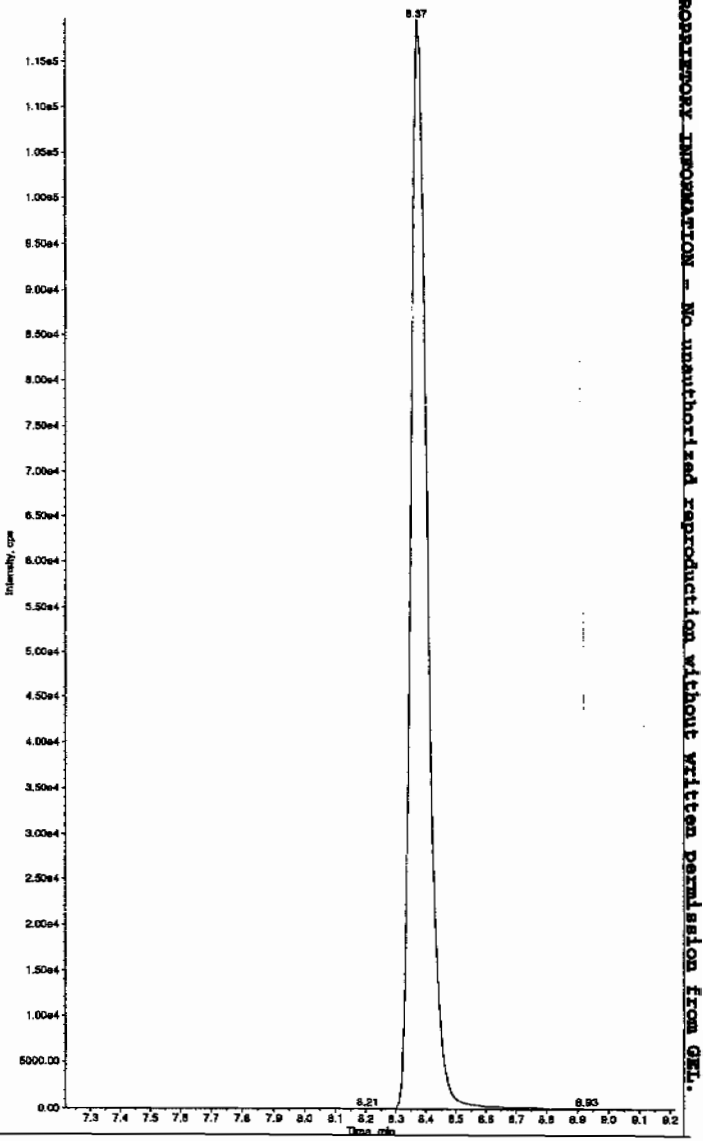
Sample Name: "245969012" Sample ID: "948575|2|LER" File: "EXS02220036.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No




Sample Name: "245969012" Sample ID: "948575|2|LER" File: "EXS02220036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No




Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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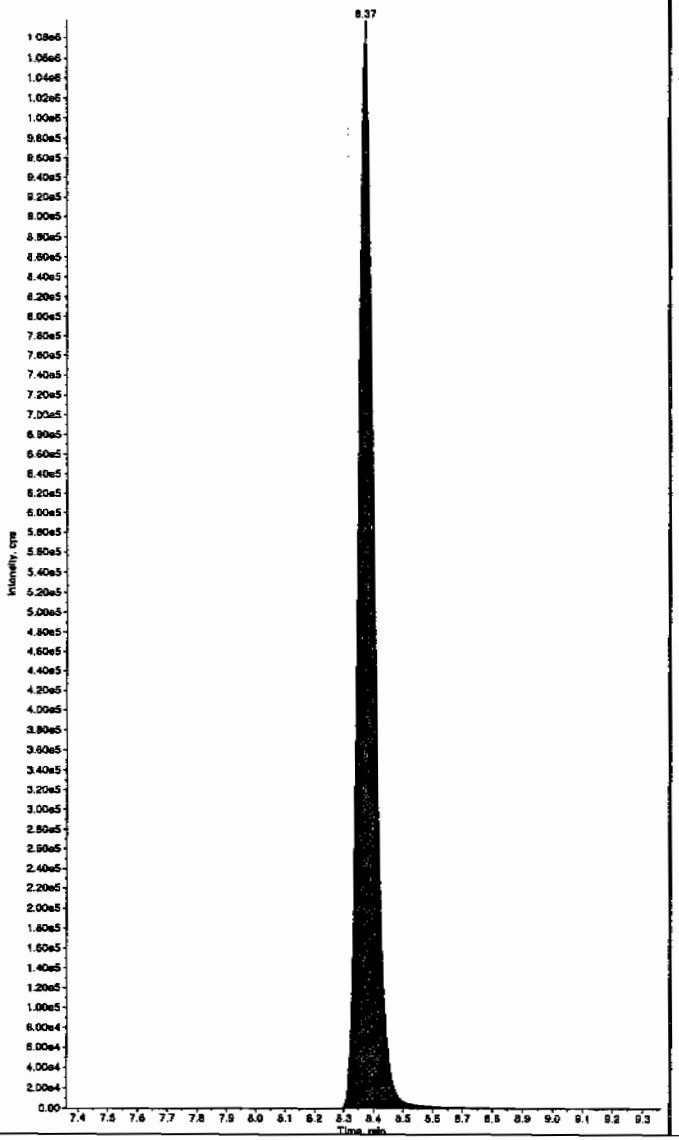
Sample Name: "245969012" Sample ID: "948575[2]LER" File: "EXS02220036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 325. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

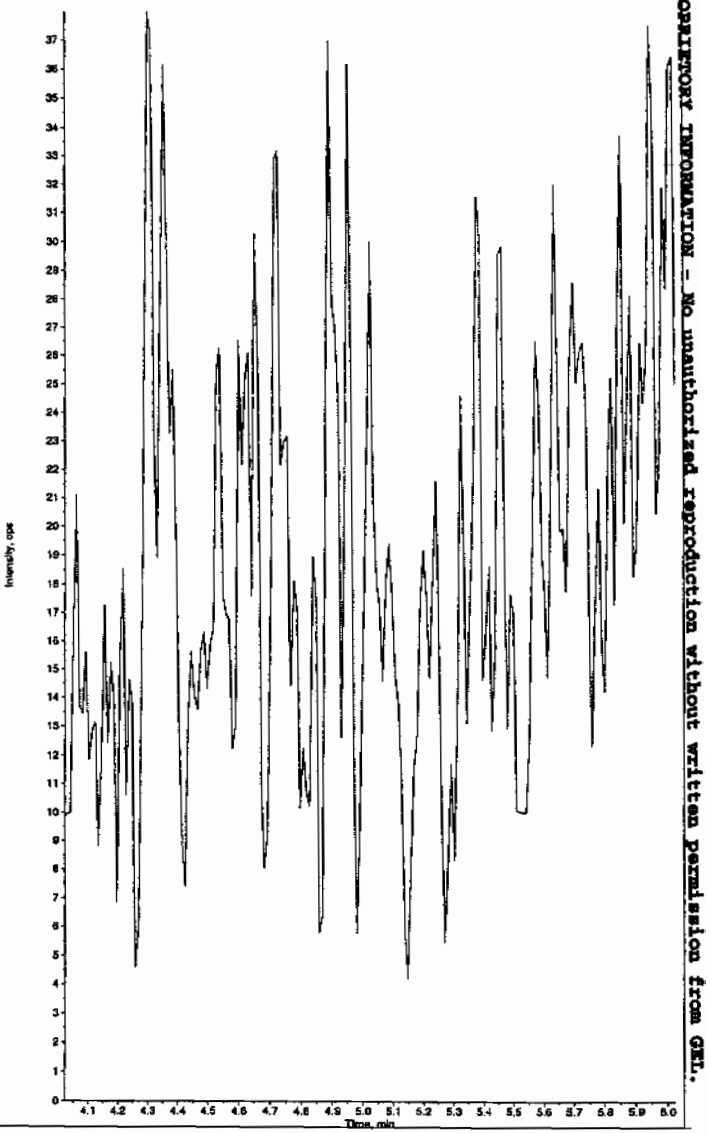
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.27e+006 counts
Height: 1097712.153 cps
Start Time: 8.28 min
End Time: 8.89 min




Sample Name: "245969012" Sample ID: "948575[2]LER" File: "EXS02220036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No

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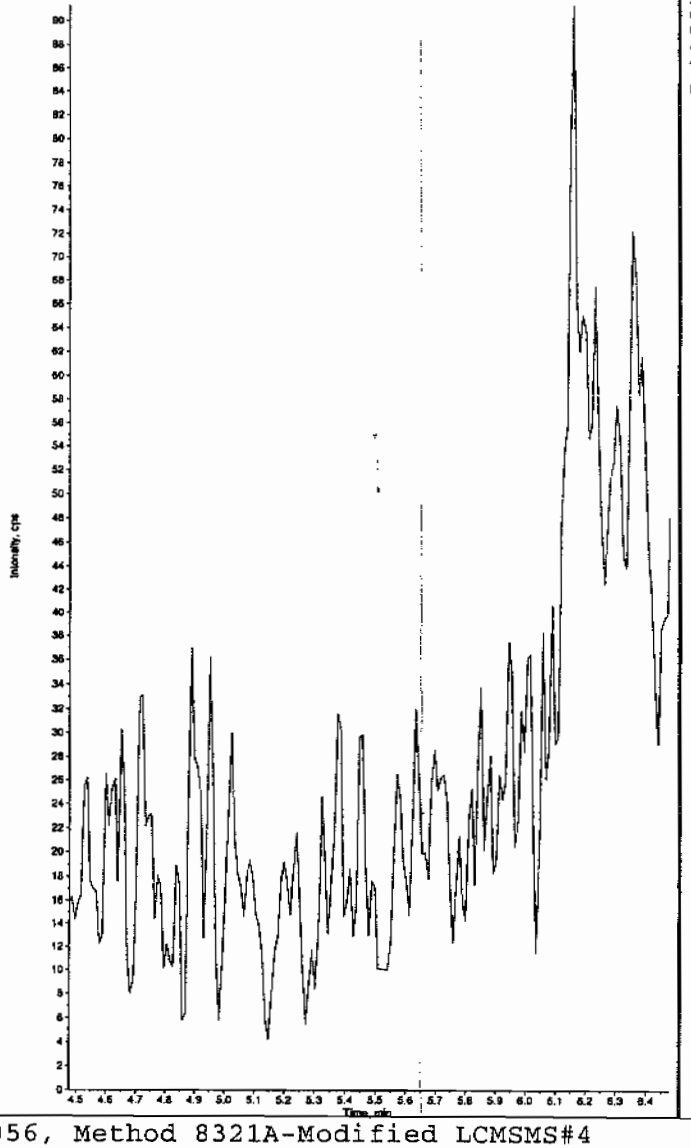
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969012" Sample ID: "948575|2|LER" File: "EXS02220036.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

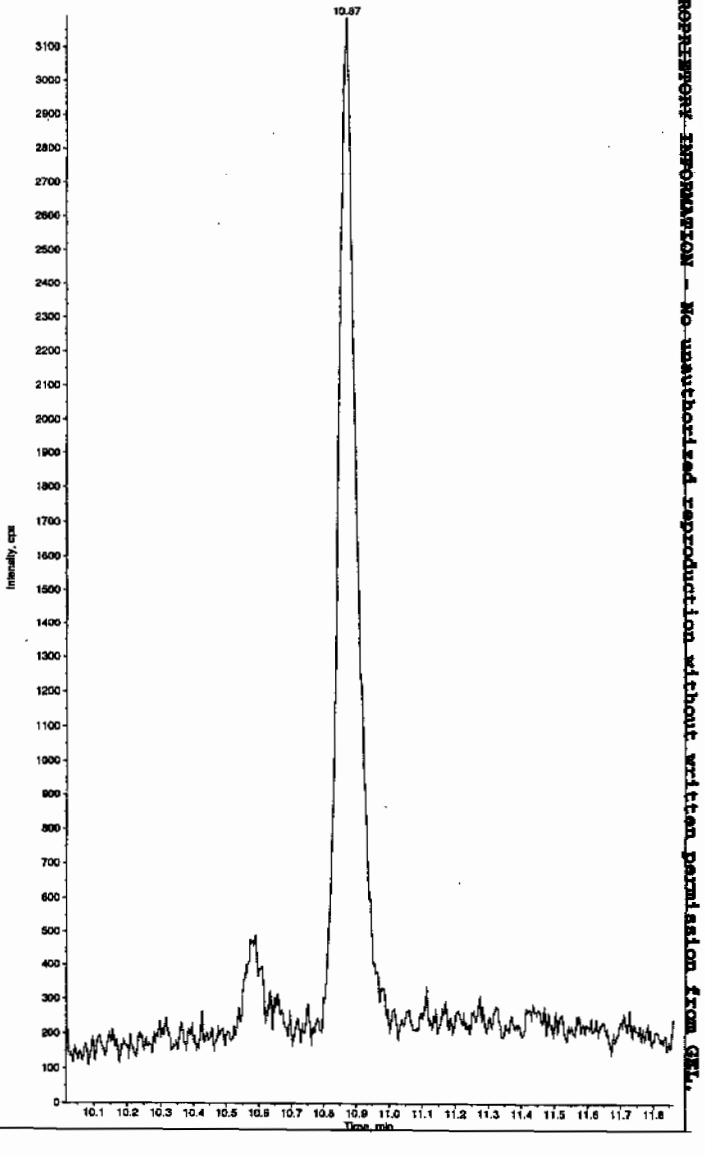
Modified: No




Sample Name: "245969012" Sample ID: "948575|2|LER" File: "EXS02220036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7962

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969013

**Sample Amount** 2

**Moisture:** 5.3

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301039a

**Date Analyzed:** 02-MAR-10 10:13

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

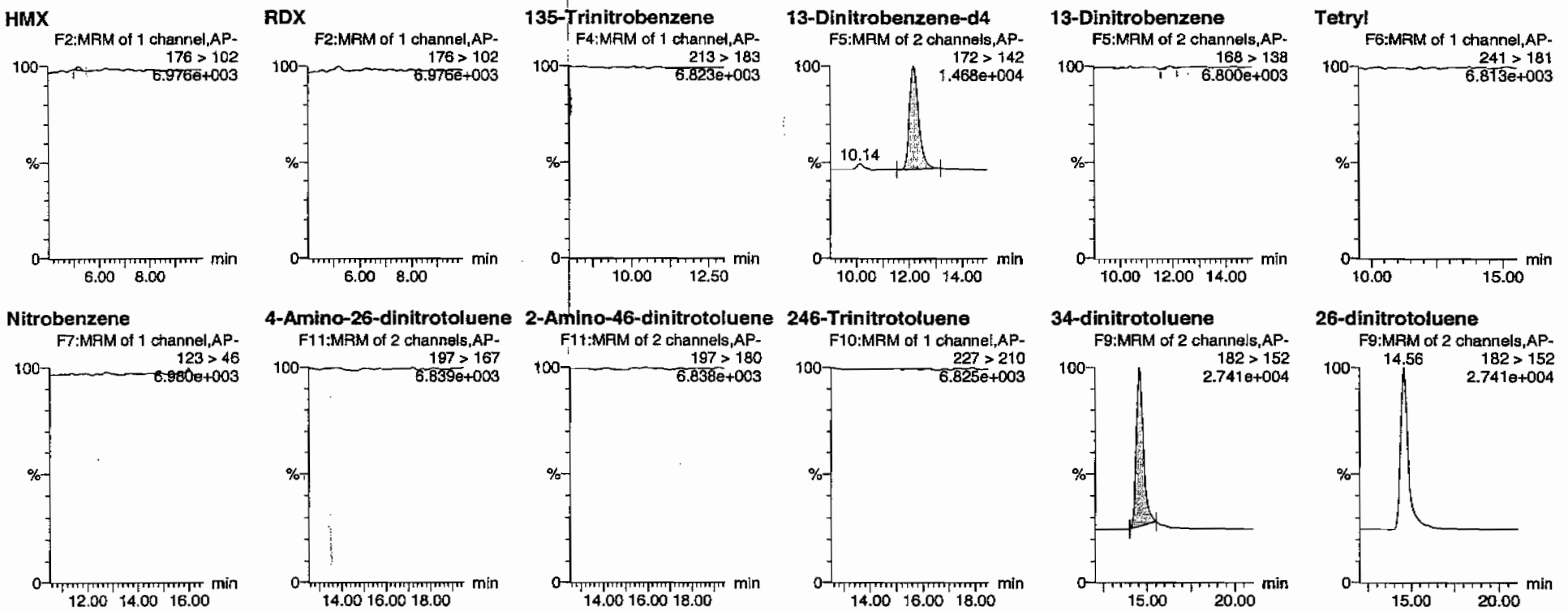
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301039a**
**Date: 02-Mar-2010**
**Time: 10:13:31**
**ID: 245969013** | LANL | 948575 | Soil | 2 |
**Vial: 2:3,E**

MAT 3/3/10




HMW 03/04/10

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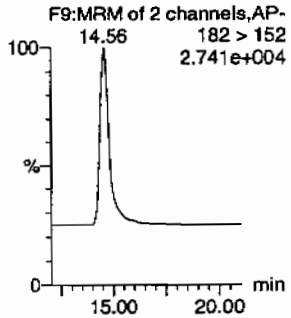
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

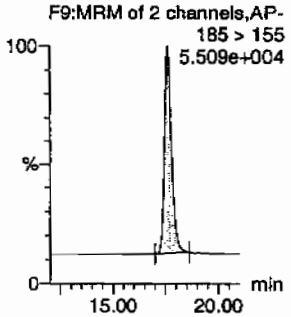


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

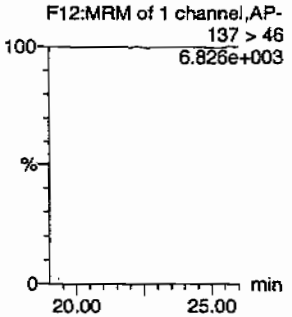
**24-dinitrotoluene**



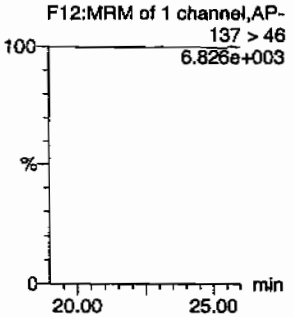

**26-dinitrotoluene-d3**



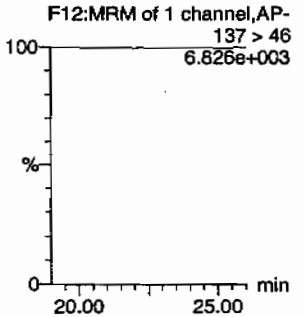

**2-Nitrotoluene**



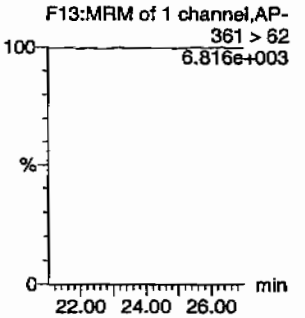

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969013 | HMX | 176 > 102 | 5.19 | 31.229 | 3270.320 | 31.229 | 4.775 | bb | | | 1.2516 | | | 5.3 |
| 245969013 | RDX | 176 > 102 | | | 3270.320 | | | | | | | | | |
| 245969013 | 135-Trinitrobenzene | 213 > 183 | | | 3270.320 | | | | | | | | | |
| 245969013 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3270.320 | | 3270.320 | 3270.320 | bb | | | 564.2226 | 112.8 | 12.8 | 340.2 |
| 245969013 | 13-Dinitrobenzene | 168 > 138 | | | 3270.320 | | | MM- | 03-Mar-10 | 08:43:33 | | | | |
| 245969013 | Tetryl | 241 > 181 | | | 3270.320 | | | | | | | | | |
| 245969013 | Nitrobenzene | 123 > 46 | | | 3270.320 | | | | | | | | | |
| 245969013 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 19188.160 | | | | | | | | | |
| 245969013 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 19188.160 | | | | | | | | | |
| 245969013 | 246-Trinitrotoluene | 227 > 210 | | | 19188.160 | | | | | | | | | |
| 245969013 | 34-dinitrotoluene | 182 > 152 | 14.56 | 9571.954 | 19188.160 | 9571.954 | 249.423 | bb | | | 251.7735 | 100.7 | 0.7 | 535.2 |
| 245969013 | 26-dinitrotoluene | 182 > 152 | | | 19188.160 | | | | | | | | | |
| 245969013 | 24-dinitrotoluene | 182 > 152 | | | 19188.160 | | | | | | | | | |
| 245969013 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 19188.160 | | 19188.160 | 19188.160 | bb | | | 596.4679 | 119.3 | 19.3 | 1567.9 |
| 245969013 | 2-Nitrotoluene | 137 > 46 | | | 19188.160 | | | | | | | | | |
| 245969013 | 4-Nitrotoluene | 137 > 46 | | | 19188.160 | | | | | | | | | |
| 245969013 | 3-Nitrotoluene | 137 > 46 | | | 19188.160 | | | | | | | | | |
| 245969013 | PETN | 361 > 62 | | | 19188.160 | | | | | | | | | |

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7962

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969013

**Sample Amount** 2

**Moisture:** 5.3

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220040.wiff

**Date Analyzed:** 23-FEB-10 03:14

**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 |

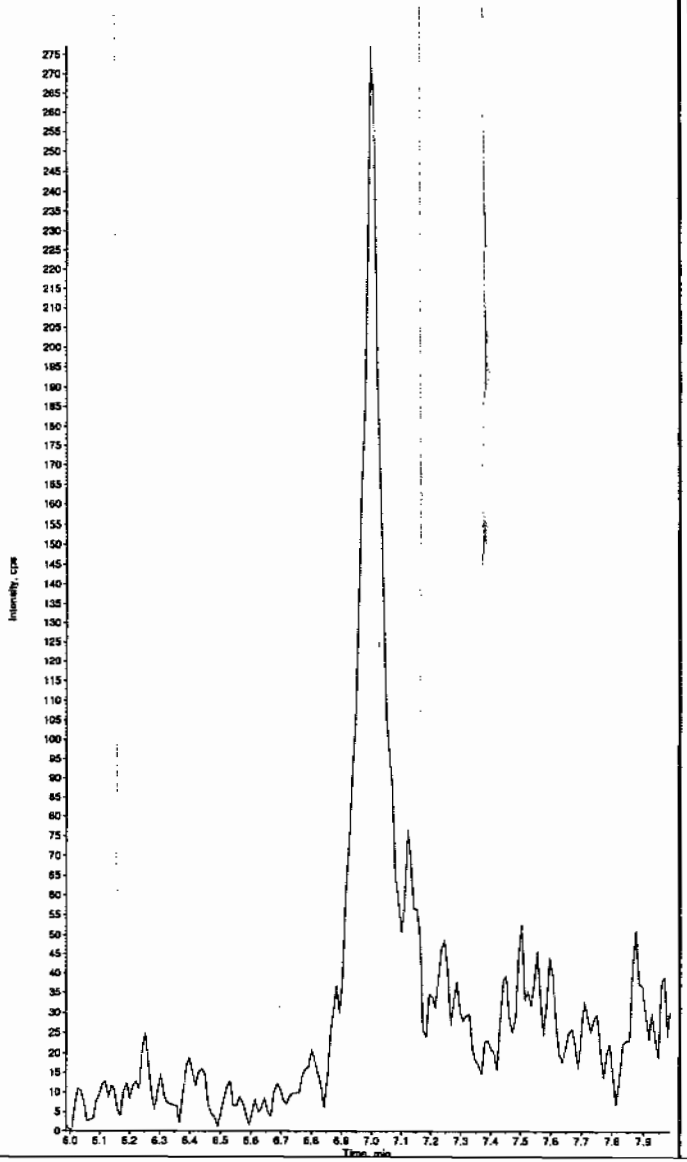
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "245969013" Sample ID: "948575|2|LER" File: "EXS02220040.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

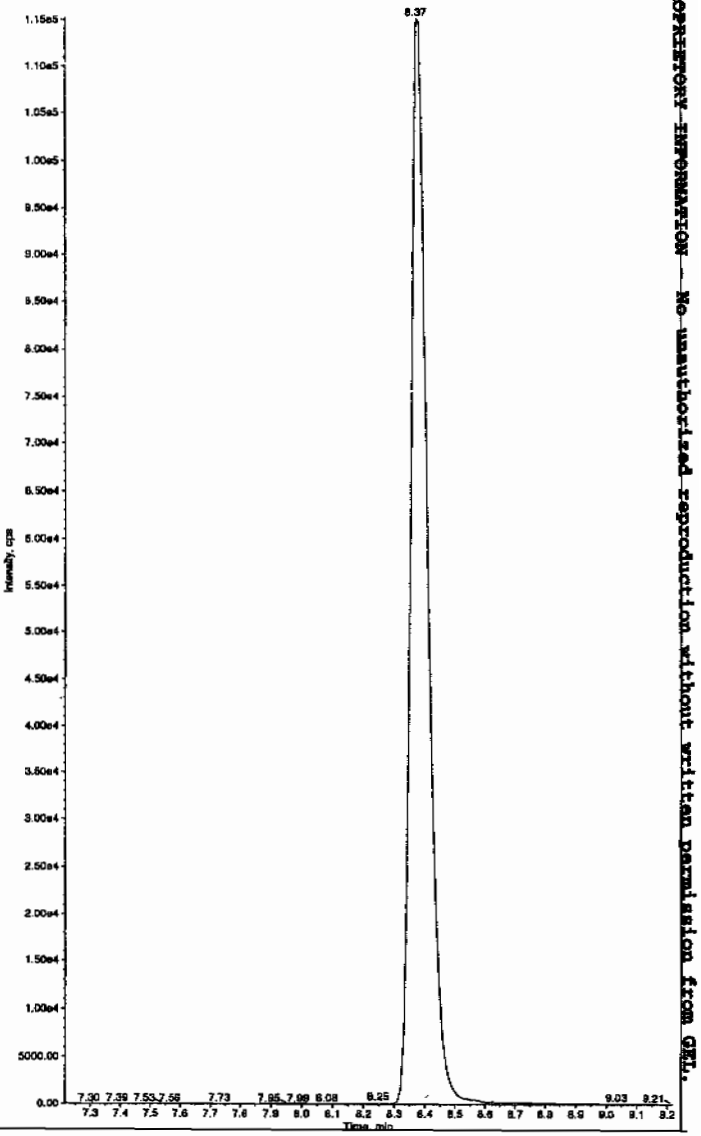
Modified: No




Sample Name: "245969013" Sample ID: "948575|2|LER" File: "EXS02220040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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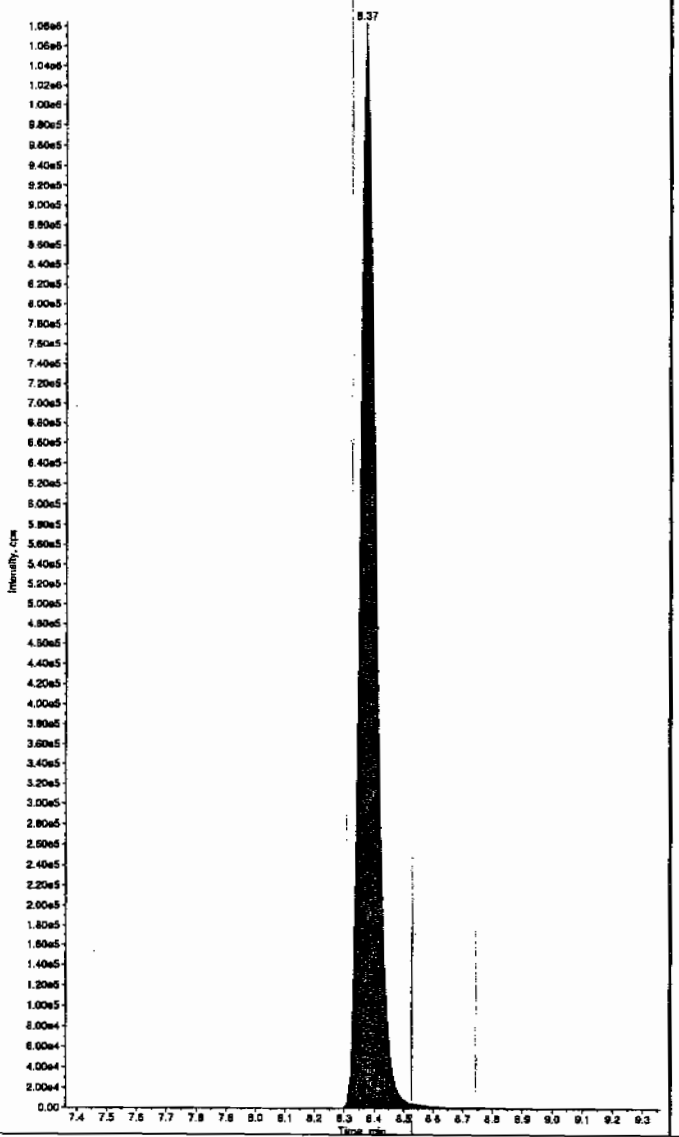
Sample Name: "245969013" Sample ID: "948575[2]LER" File: "EXS02220040.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 318. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

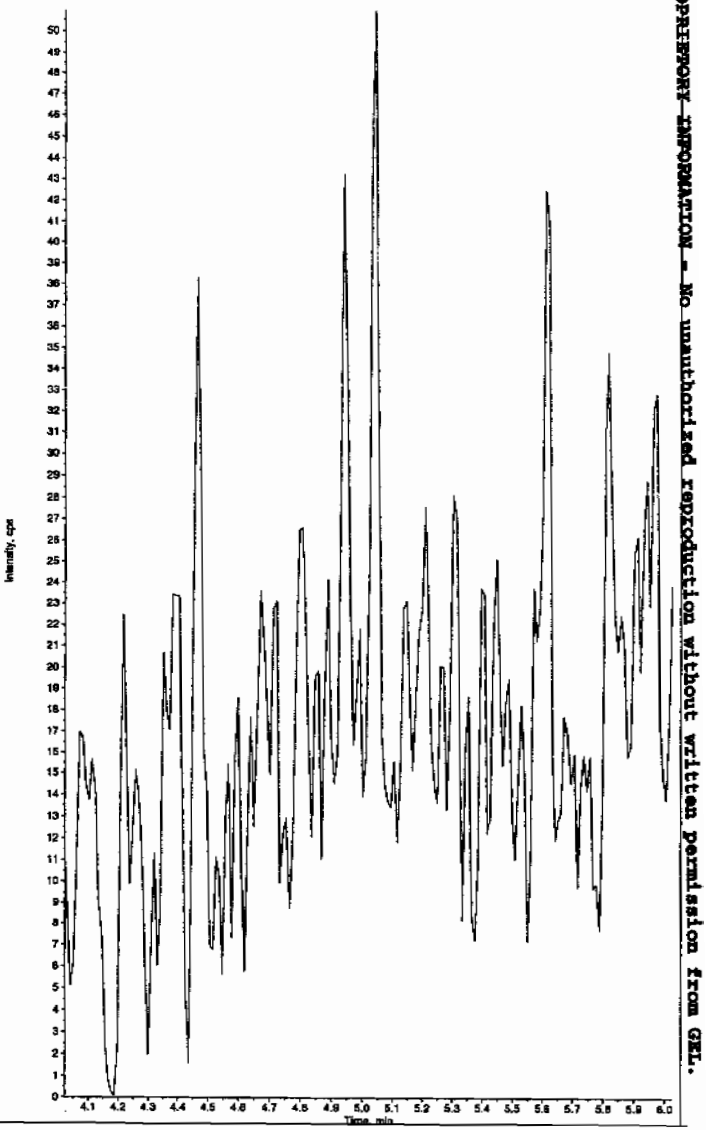
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.18e+006 counts
Height: 1085193.604 cps
Start Time: 8.25 min
End Time: 8.86 min




Sample Name: "245969013" Sample ID: "948575[2]LER" File: "EXS02220040.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No

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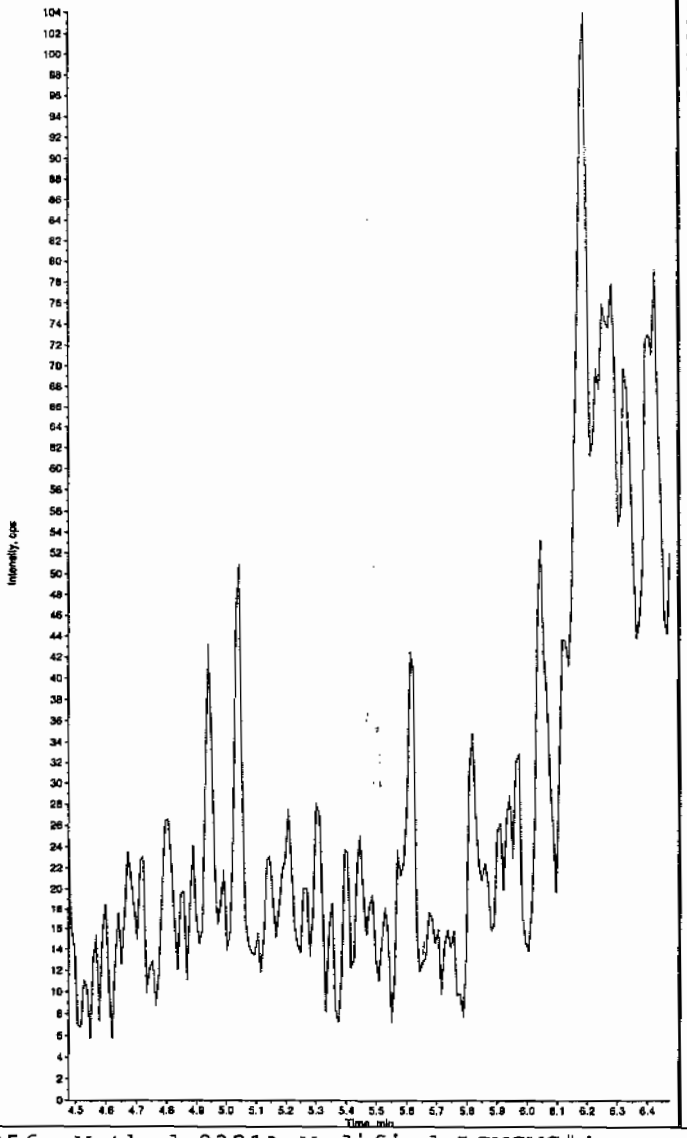
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969013" Sample ID: "948575|2|LER" File: "EXS02220040.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

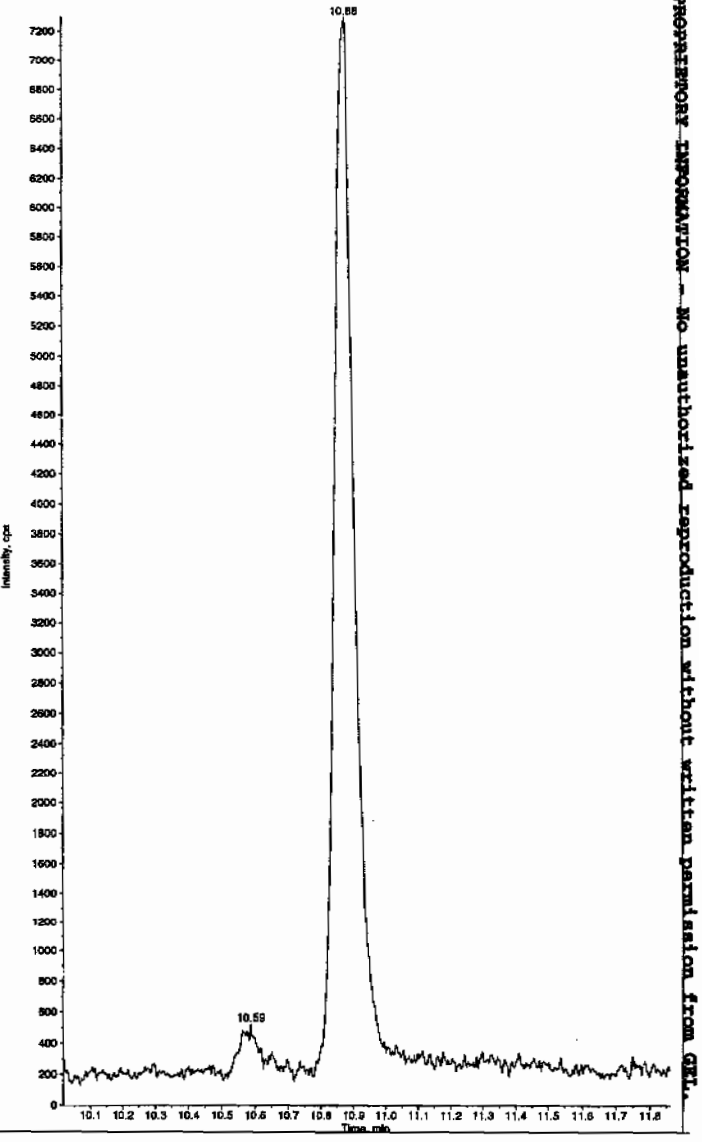
Modified: No




Sample Name: "245969013" Sample ID: "948575|2|LER" File: "EXS02220040.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7963

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969014

**Sample Amount** 2

**Moisture:** 20.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301040a

**Date Analyzed:** 02-MAR-10 10:42

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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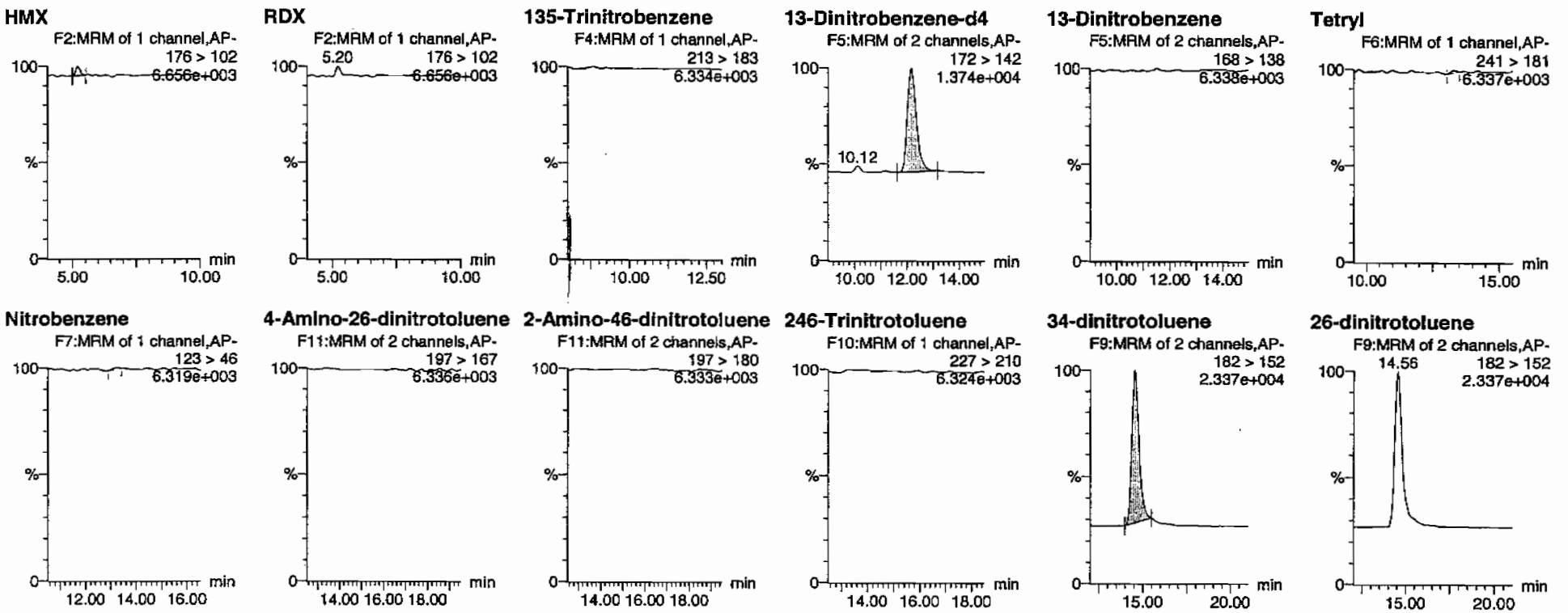
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301040a**
**Date: 02-Mar-2010**
**Time: 10:42:59**
**ID: 245969014** | LANL | 948575 | Solid | 2 |
**Vial: 2:3,F**

MAP 3/3/10




HMM 03/04/10

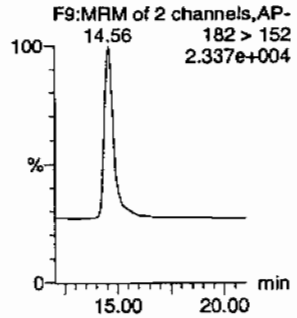
GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

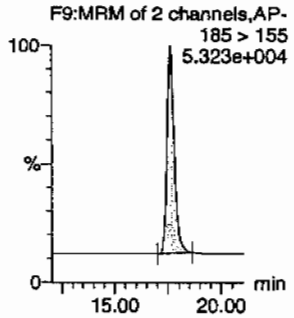


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

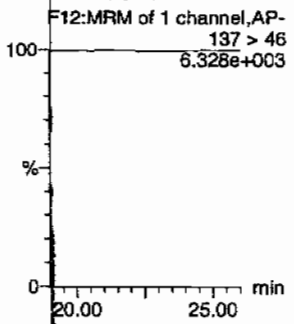
**24-dinitrotoluene**



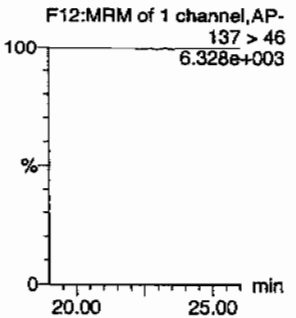

**26-dinitrotoluene-d3**



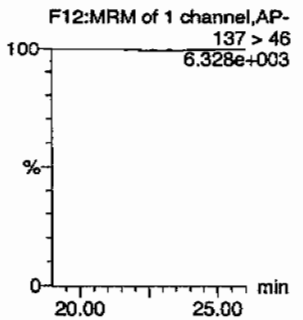

**2-Nitrotoluene**



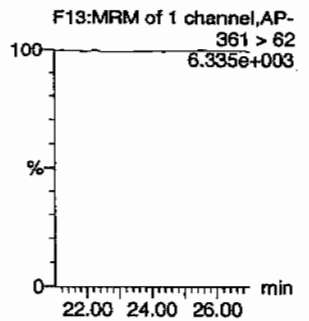

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | [] ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969014 | HMX | 176 > 102 | 5.20 | 69.933 | 3046.055 | 69.933 | 11.479 | bb | | | 3.0091 | | | 13.5 |
| 245969014 | RDX | 176 > 102 | | | 3046.055 | | | | | | | | | |
| 245969014 | 135-Trinitrobenzene | 213 > 183 | | | 3046.055 | | | | | | | | | |
| 245969014 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3046.055 | | 3046.055 | 3046.055 | bb | | | 525.5305 | 105.1 | 5.1 | 330.5 |
| 245969014 | 13-Dinitrobenzene | 168 > 138 | | | 3046.055 | | | | | | | | | |
| 245969014 | Tetryl | 241 > 181 | | | 3046.055 | | | MM- | 03-Mar-10 | 08:43:44 | | | | |
| 245969014 | Nitrobenzene | 123 > 46 | | | 3046.055 | | | MM- | 03-Mar-10 | 08:44:55 | | | | |
| 245969014 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 18821.217 | | | | | | | | | |
| 245969014 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 18821.217 | | | | | | | | | |
| 245969014 | 246-Trinitrotoluene | 227 > 210 | | | 18821.217 | | | | | | | | | |
| 245969014 | 34-dinitrotoluene | 182 > 152 | 14.56 | 7903.866 | 18821.217 | 7903.866 | 209.972 | bb | | | 211.9506 | 84.8 | -15.2 | 504.4 |
| 245969014 | 26-dinitrotoluene | 182 > 152 | | | 18821.217 | | | | | | | | | |
| 245969014 | 24-dinitrotoluene | 182 > 152 | | | 18821.217 | | | | | | | | | |
| 245969014 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18821.217 | | 18821.217 | 18821.217 | bb | | | 585.0614 | 117.0 | 17.0 | 1789.2 |
| 245969014 | 2-Nitrotoluene | 137 > 46 | | | 18821.217 | | | | | | | | | |
| 245969014 | 4-Nitrotoluene | 137 > 46 | | | 18821.217 | | | | | | | | | |
| 245969014 | 3-Nitrotoluene | 137 > 46 | | | 18821.217 | | | | | | | | | |
| 245969014 | PETN | 361 > 62 | | | 18821.217 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7963

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969014

**Sample Amount** 2

**Moisture:** 20.8

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220041.wiff

**Date Analyzed:** 23-FEB-10 03:30

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

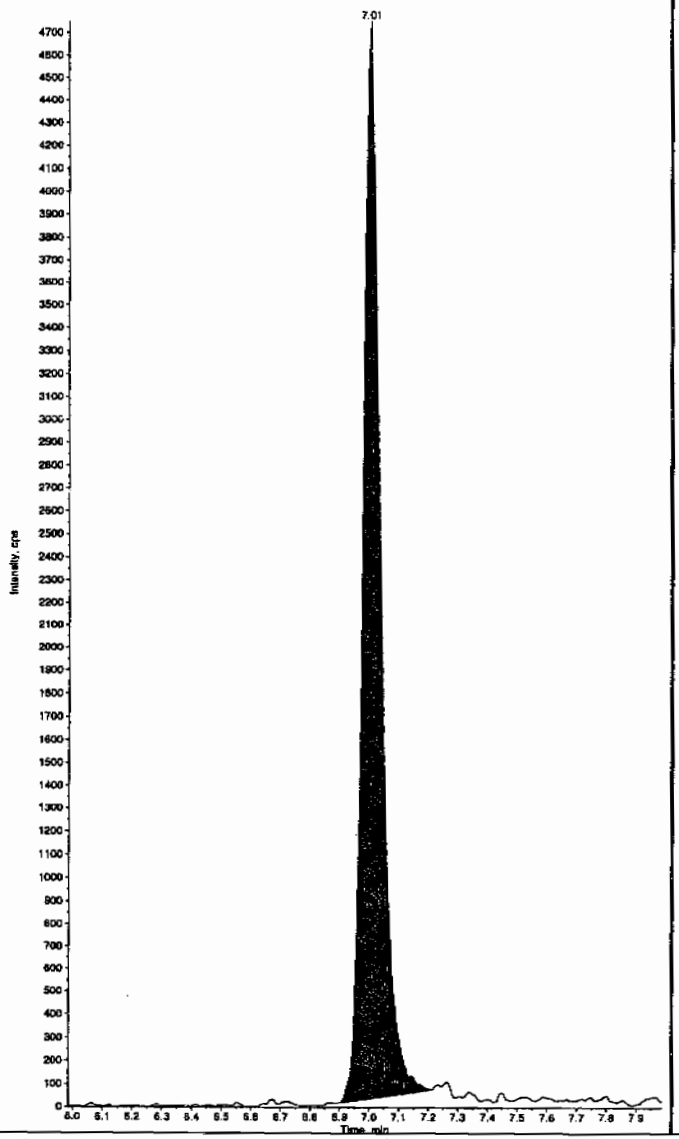
Jan 2/23/10

Sample Name: "245969014" Sample ID: "948575|2|LER" File: "EXS02220041.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 8.30 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

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: 6.99 min
Use Relative RT: No

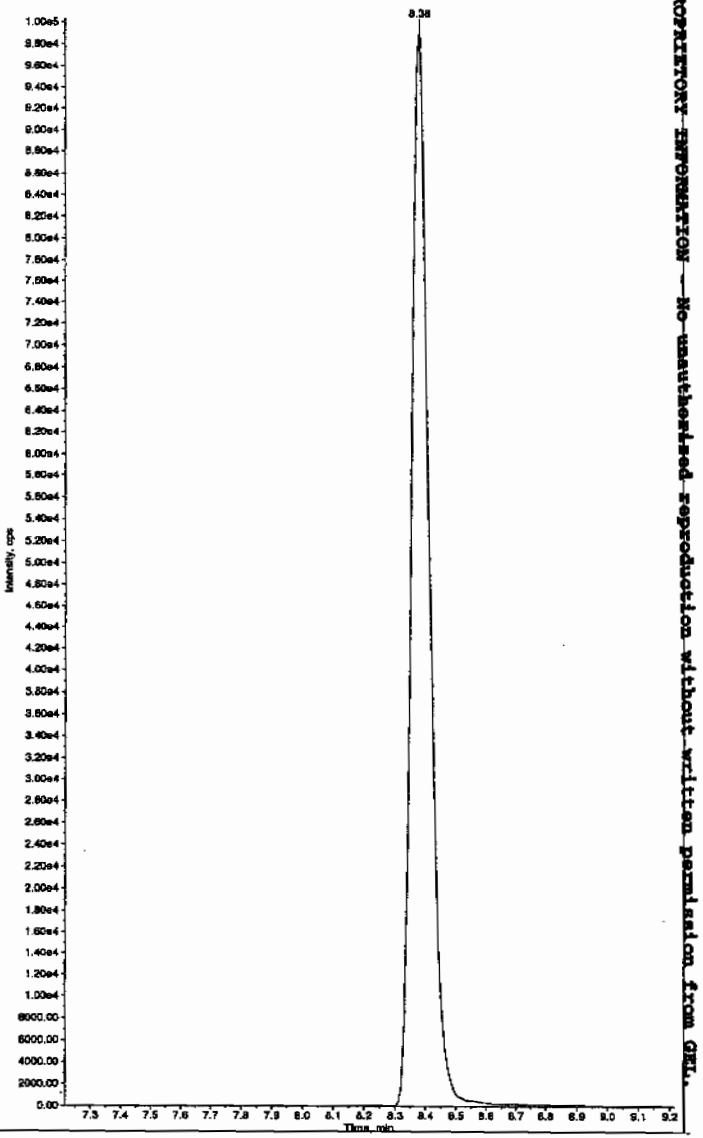
Int. Type: Valley
Retention Time: 7.01 min
Area: 2.02e+004 counts
Height: 4710.355 cps
Start Time: 6.89 min
End Time: 7.21 min




Sample Name: "245969014" Sample ID: "948575|2|LER" File: "EXS02220041.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No




HW 2/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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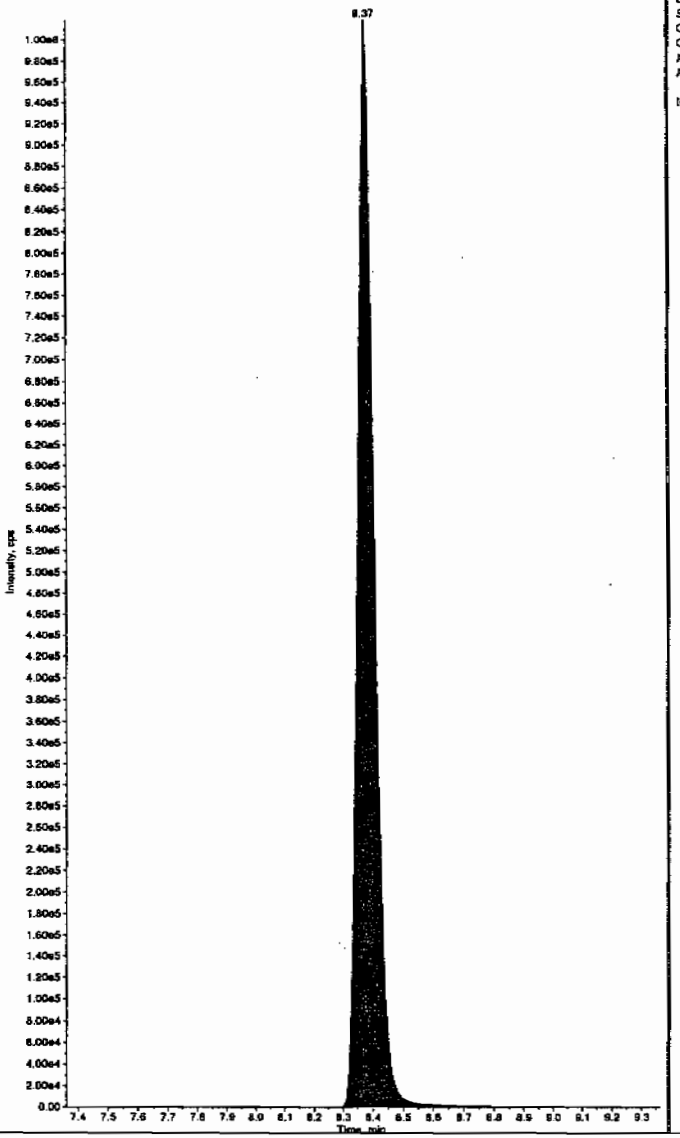
Sample Name: "245969014" Sample ID: "948575|2|LER" File: "EXS02220041.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 305. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

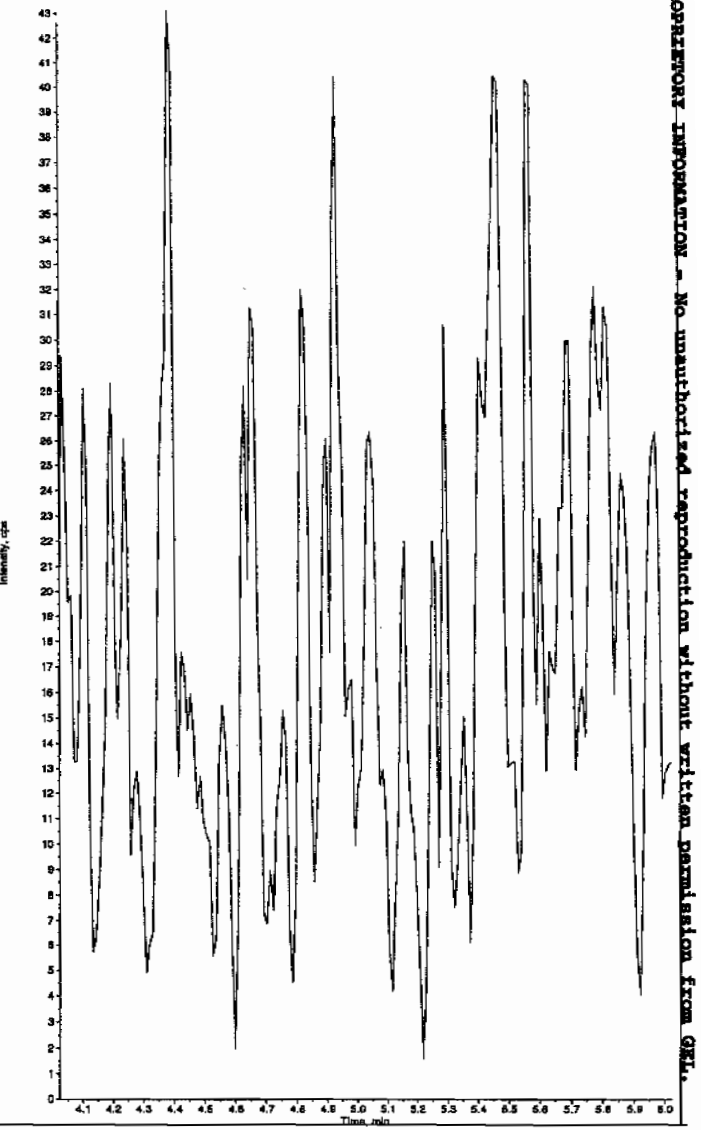
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.02e+006 counts
Height: 1019647.217 cps
Start Time: 8.25 min
End Time: 8.72 min




Sample Name: "245969014" Sample ID: "948575|2|LER" File: "EXS02220041.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No

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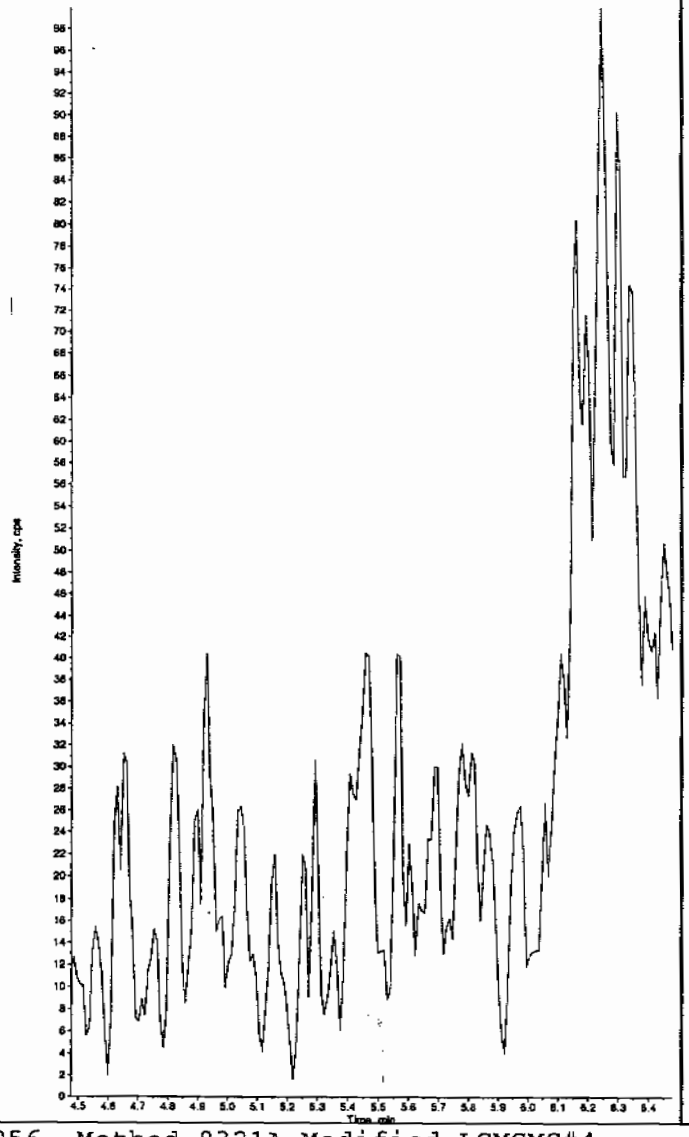
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969014" Sample ID: "946575|2|LER" File: "EXS02220041.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

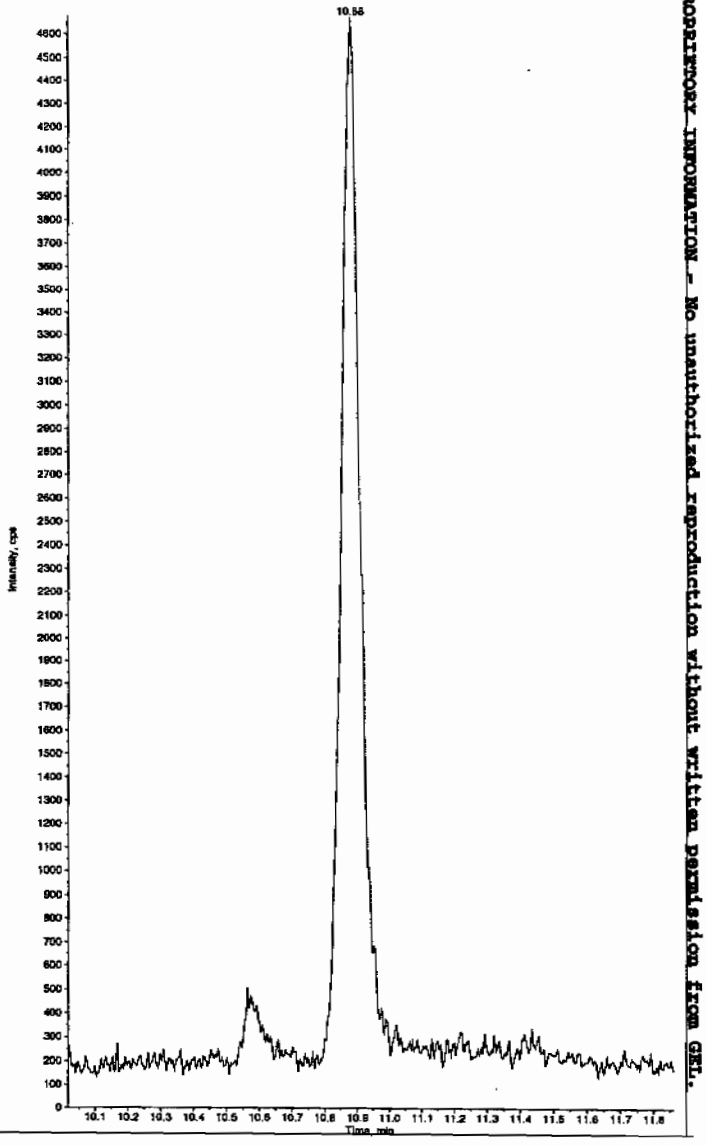
Modified: No




Sample Name: "245969014" Sample ID: "946575|2|LER" File: "EXS02220041.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7977

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969015

**Sample Amount** 2

**Moisture:** 36.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301041a

**Date Analyzed:** 02-MAR-10 11:12

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

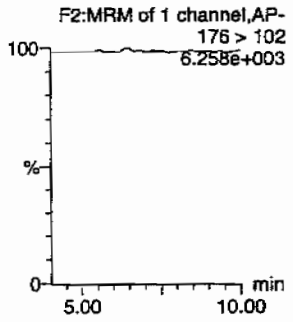


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

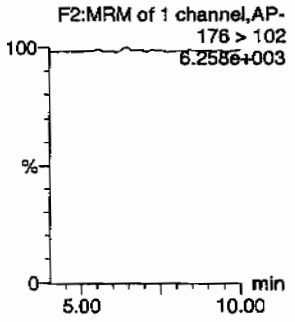
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301041a**
**Date: 02-Mar-2010**
**Time: 11:12:27**
**ID: 245969015** | LANL | 948575 | Soil | 2 |
**Vial: 2:4,A**

MM 3/3/10

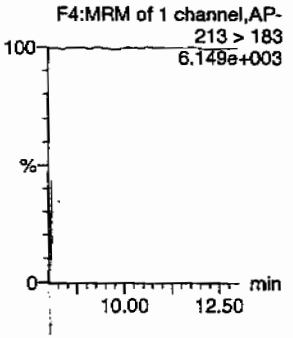
**HMX**



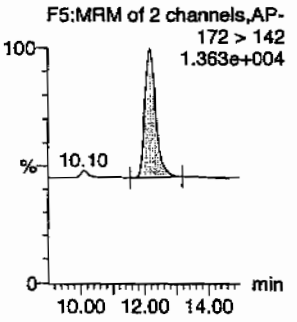

**RDX**



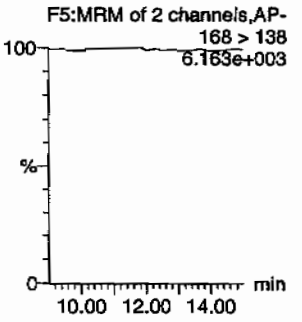

**135-Trinitrobenzene**



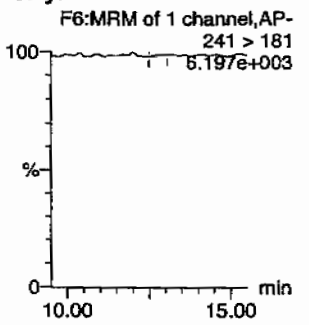

**13-Dinitrobenzene-d4**



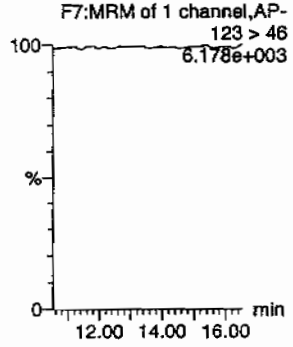

**13-Dinitrobenzene**



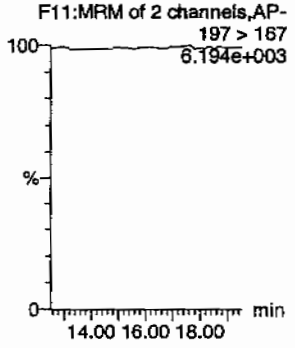

**Tetryl**



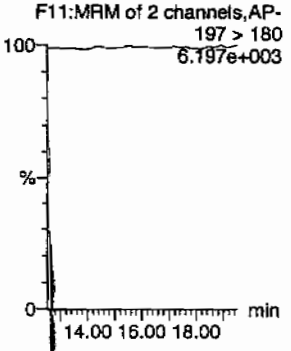

**Nitrobenzene**



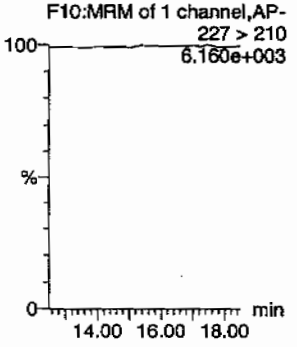

**4-Amino-26-dinitrotoluene**



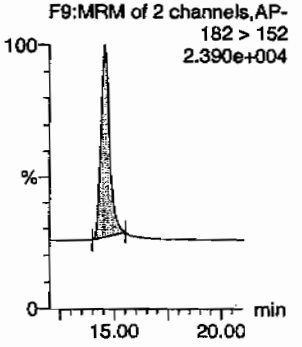

**2-Amino-46-dinitrotoluene**



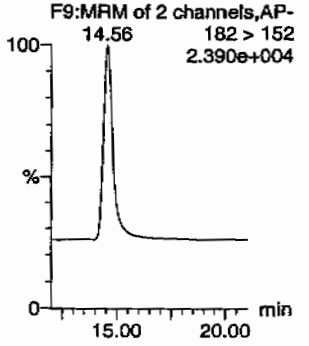

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**




Hmc 03/04/10

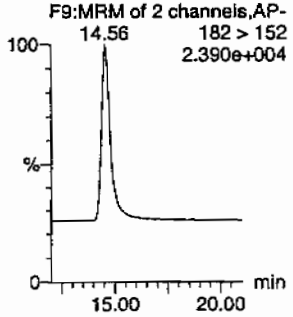
GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

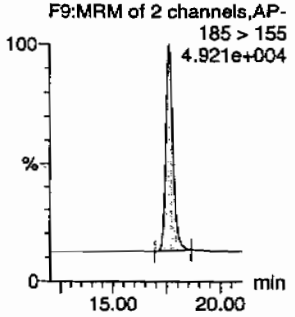


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

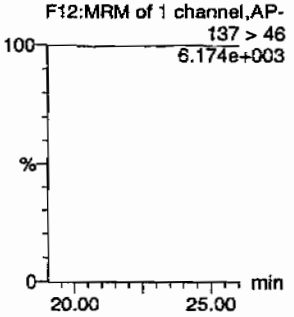
**24-dinitrotoluene**



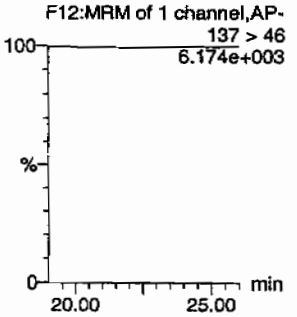

**26-dinitrotoluene-d3**



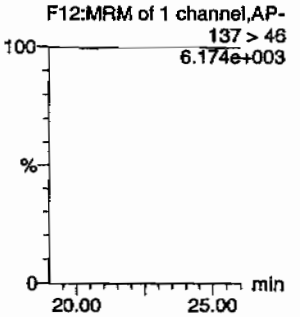

**2-Nitrotoluene**



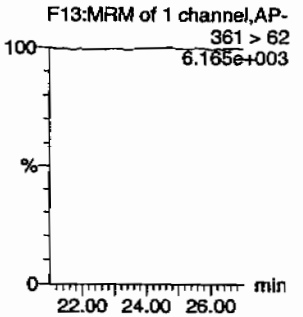

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969015 | HMX | 176 > 102 | | | 3054.025 | | | | | | | | | |
| 245969015 | RDX | 176 > 102 | | | 3054.025 | | | | | | | | | |
| 245969015 | 135-Trinitrobenzene | 213 > 183 | | | 3054.025 | | | | | | | | | |
| 245969015 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3054.025 | | 3054.025 | 3054.025 | bb | | | 526.9056 | 105.4 | 5.4 | 329.1 |
| 245969015 | 13-Dinitrobenzene | 168 > 138 | | | 3054.025 | | | | | | | | | |
| 245969015 | Tetryl | 241 > 181 | | | 3054.025 | | | MM- | 03-Mar-10 | 08:43:48 | | | | |
| 245969015 | Nitrobenzene | 123 > 46 | | | 3054.025 | | | | | | | | | |
| 245969015 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17111.732 | | | | | | | | | |
| 245969015 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17111.732 | | | | | | | | | |
| 245969015 | 246-Trinitrotoluene | 227 > 210 | | | 17111.732 | | | | | | | | | |
| 245969015 | 34-dinitrotoluene | 182 > 152 | 14.56 | 8191.717 | 17111.732 | 8191.717 | 239.360 | bb | | | 241.6149 | 96.6 | -3.4 | 651.0 |
| 245969015 | 26-dinitrotoluene | 182 > 152 | | | 17111.732 | | | | | | | | | |
| 245969015 | 24-dinitrotoluene | 182 > 152 | | | 17111.732 | | | | | | | | | |
| 245969015 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17111.732 | | 17111.732 | 17111.732 | bb | | | 531.9217 | 106.4 | 6.4 | 2096.5 |
| 245969015 | 2-Nitrotoluene | 137 > 46 | | | 17111.732 | | | | | | | | | |
| 245969015 | 4-Nitrotoluene | 137 > 46 | | | 17111.732 | | | | | | | | | |
| 245969015 | 3-Nitrotoluene | 137 > 46 | | | 17111.732 | | | | | | | | | |
| 245969015 | PETN | 361 > 62 | | | 17111.732 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7977

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 245969015

**Sample Amount** 2

**Moisture:** 36.2

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220042.wiff

**Date Analyzed:** 23-FEB-10 03:46

**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 |

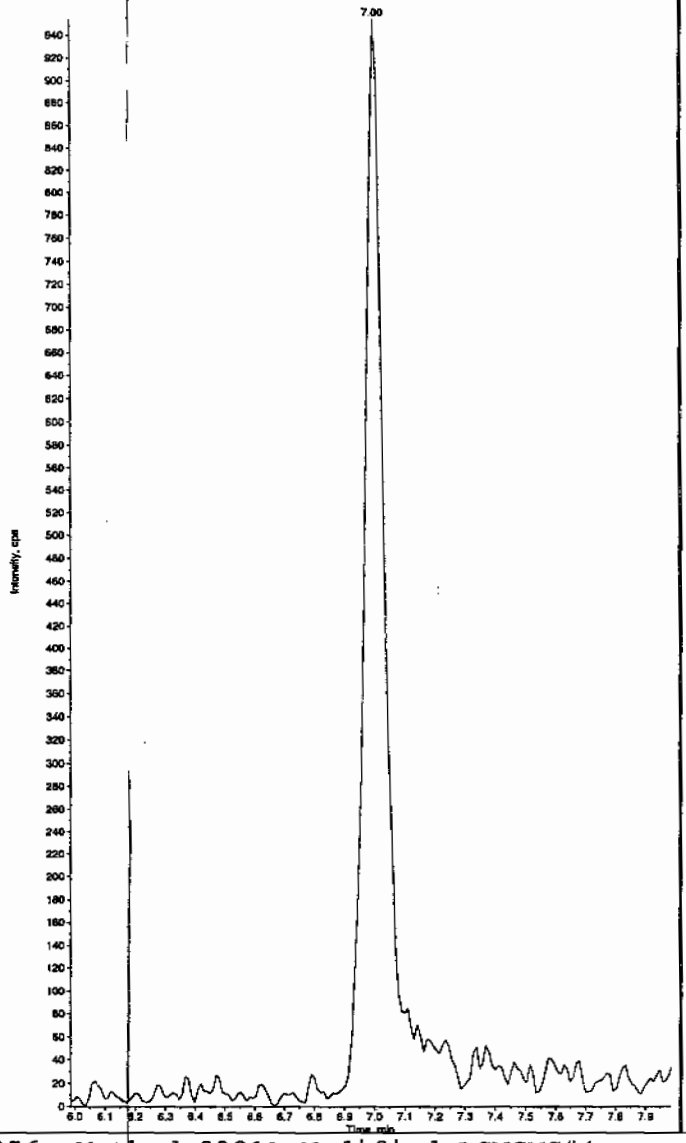
*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Run 2/23/10

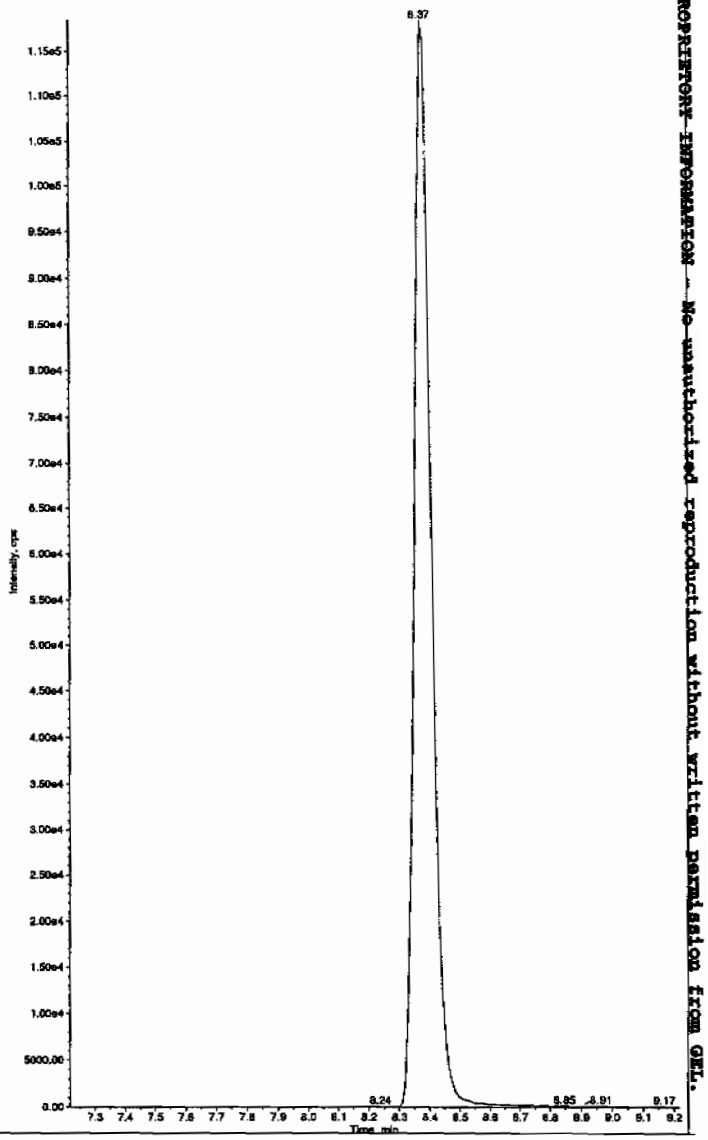
Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No




Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No




HMC 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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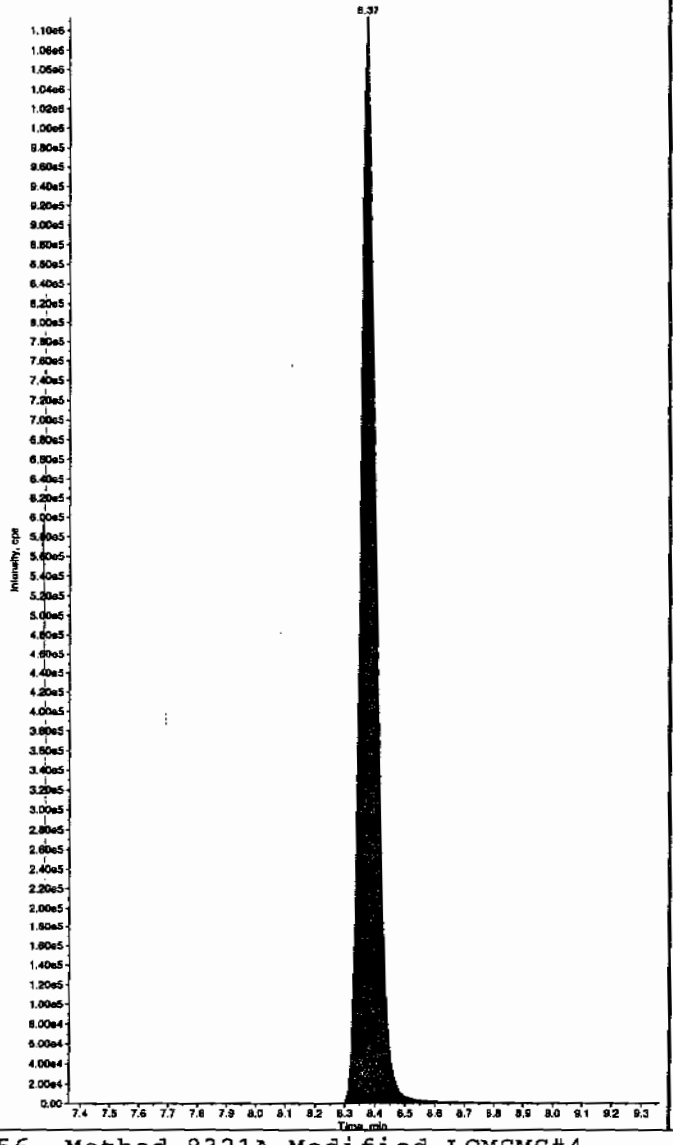
Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 322. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

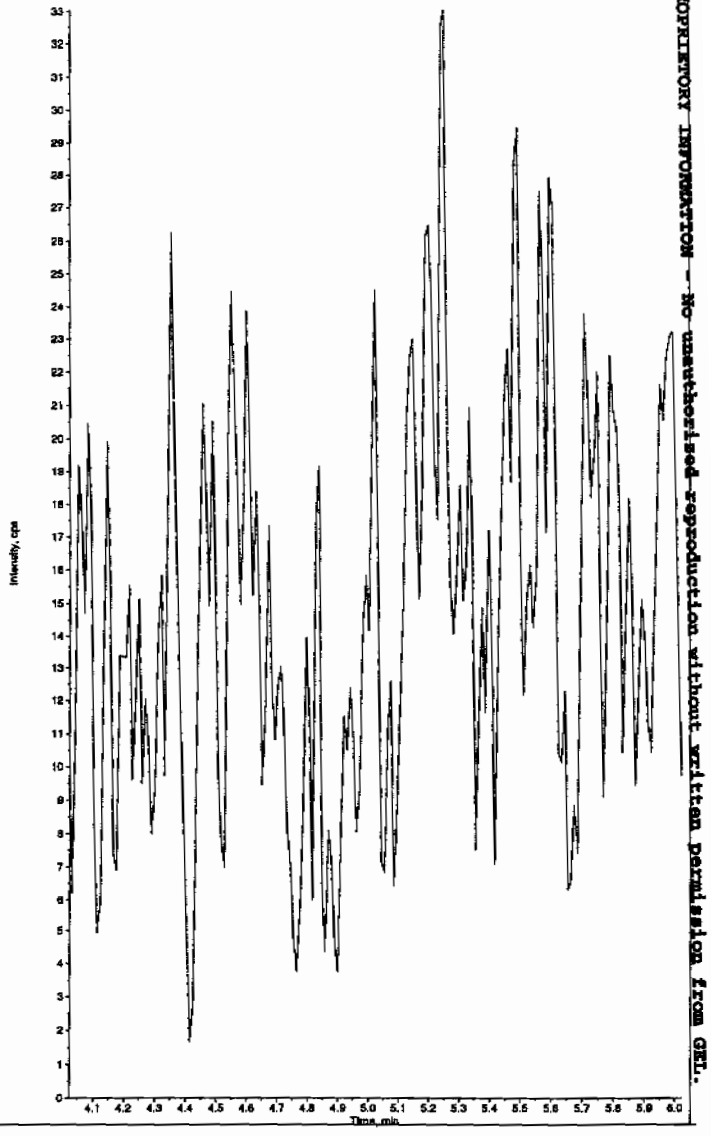
Int. Type: Valley
Retention Time: 8.37 min
Area: 4.23e+006 counts
Height: 1114277.954 cps
Start Time: 8.26 min
End Time: 8.89 min




Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No

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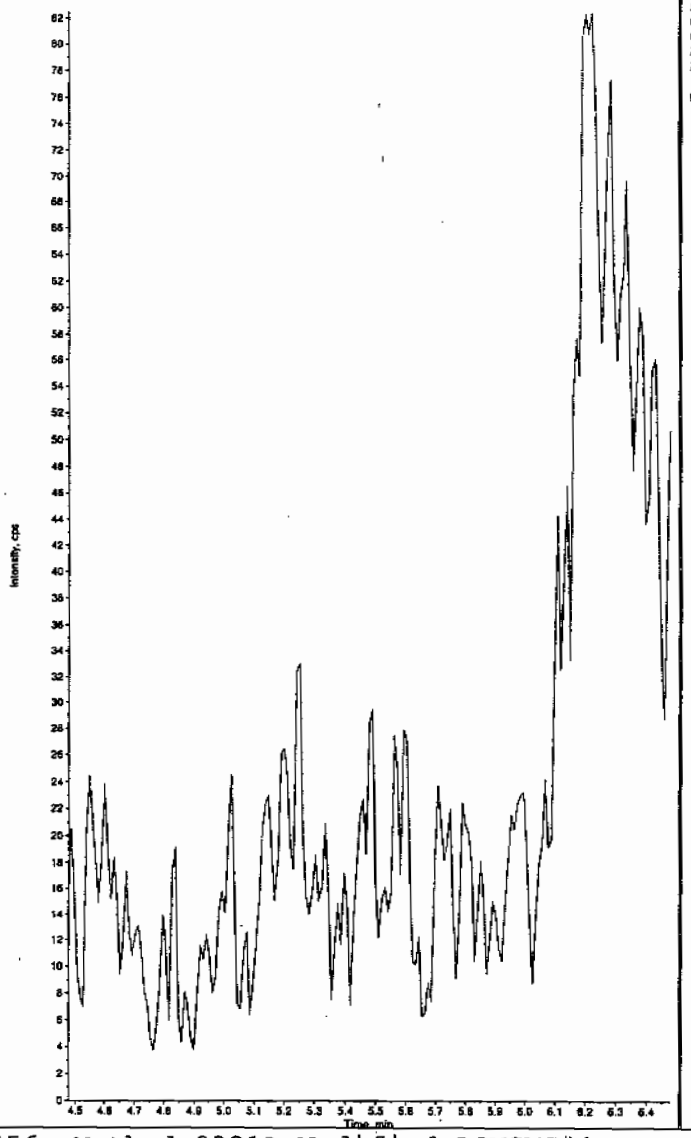
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

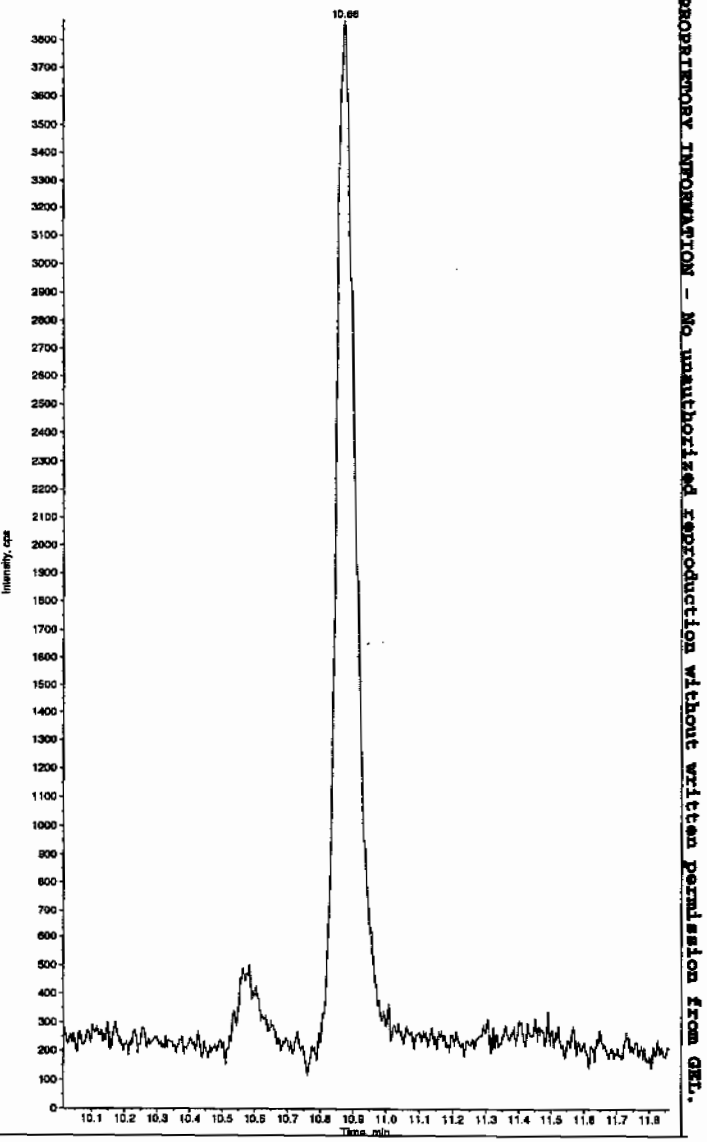
Modified: No




Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# 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 |
| **Primary Analytes** | | | | | | | | |
| 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 |
| MNX | 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 |
| **Secondary Analytes** | | | | | | | | |
| 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)



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# Explosives Initial Calibration

Form 6

**Lab Name:** GEL Laboratories LLC

**GEL Job No:** 10-1512

**Lab Code:** GEL

**Run Date:** 01-MAR-10,22-FEB-10

**LCMSMS Instrument ID:** LCMSMS

**Method:** 8321A Modified

**HPLC Column:** Phenomenex Ultracarb 5 ODS(20)

**Calibration Type: Average RF**

| Calibration Level: | 1 | 2 | 3 | 4 | 5 | 6 | Ave RF | RSD | Q |
|---|---|---|---|---|---|---|---|---|---|
| Data File: | EXP0301003a | EXP0301004a | EXP0301005a | EXP0301006a | EXP0301007a | EXP0301008a | | | |
| Parmname | | | | | | | | | |
| 1,3,5-Trinitrobenzene | 3.94 | 3.776 | 3.064 | 3.285 | 3.334 | 3.259 | 3.443 | 9.828 | |
| 1,3-Dinitrobenzene-d4 | 5.612 | 5.852 | 6.175 | 5.983 | 5.62 | 5.535 | 5.796 | 4.328 | |
| 2,4,6-Trinitrotoluene | .267 | .261 | .328 | .334 | .377 | .324 | 0.315 | 13.943 | |
| 2,4-Dinitrotoluene | .208 | .246 | .25 | .254 | .288 | .263 | 0.252 | 10.426 | |
| 2,6-Dinitrotoluene | 1.209 | 1.096 | 1.096 | 1.117 | 1.133 | 1.119 | 1.128 | 3.735 | |
| 2,6-Dinitrotoluene-d3 | 33.172 | 35.403 | 31.893 | 32.922 | 29.123 | 30.505 | 32.170 | 6.832 | |
| 2-Amino-4,6-dinitrotoluene | .315 | .372 | .358 | .403 | .402 | .411 | 0.377 | 9.673 | |
| 3,4-Dinitrotoluene | .839 | 1.005 | 1.146 | .983 | 1.067 | .904 | 0.991 | 11.122 | |
| 4-Amino-2,6-dinitrotoluene | .235 | .284 | .272 | .293 | .32 | .29 | 0.282 | 10.019 | |
| HMX | 3.849 | 3.259 | 3.73 | 4.343 | 4.56 | 3.148 | 3.815 | 14.813 | |
| Nitrobenzene | .876 | .868 | 1.079 | .879 | .84 | .791 | 0.889 | 11.103 | |
| RDX | 2.412 | 2.499 | 2.592 | 3.205 | 3.222 | 2.537 | 2.745 | 13.408 | |
| m-Dinitrobenzene | 1.471 | 1.362 | 1.238 | 1.234 | 1.361 | 1.205 | 1.312 | 7.875 | |
| m-Nitrotoluene | .123 | .1 | .094 | .091 | .094 | .087 | 0.098 | 13.106 | |
| o-Nitrotoluene | .16 | .185 | .191 | .153 | .156 | .151 | 0.166 | 10.588 | |
| p-Nitrotoluene | .067 | .081 | .106 | .072 | .076 | .073 | 0.079 | 17.87 | |

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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# Explosives Initial Calibration

Form 6

**Lab Name:** GEL Laboratories LLC

**GEL Job No:** 10-1512

**Lab Code:** GEL

**Run Date:** 01-MAR-10,22-FEB-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: | EXP0301003a | EXP0301004a | EXP0301005a | EXP0301006a | EXP0301007a | EXP0301008a | | | | | |
| Parmname: | | | | | | | | | | | |
| PETN | 2325.51 | 4729.22 | 15138.1 | 24668.9 | 39677.2 | 43783.1 | 2.313 | -.00087 | 17.184 | .9959 | |
| Tetryl | 191.472 | 392.536 | 1477.14 | 2445.29 | 4498.25 | 4869.09 | 1.206 | -.0003128 | 3.667 | .9968 | |

Quadradic 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

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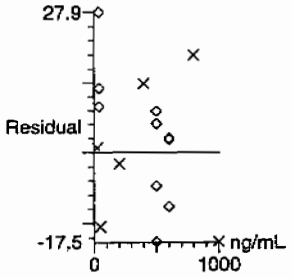
**Quantify Calibration Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

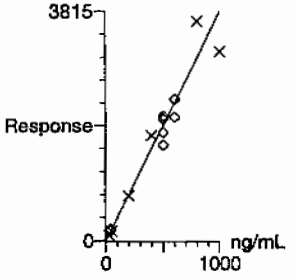


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

**Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010**
**Calibration: Untitled, Time: Tue Mar 02 09:59:16 2010**

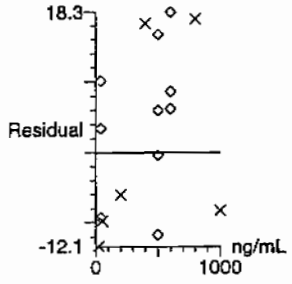
Compound name: HMX
Response Factor: 3.81482
RRF SD: 0.565071, % Relative SD: 14.8125
Response type: Internal Std ( Ref 4 ), Area * ( IS Conc. / IS Area )
Curve type: RF

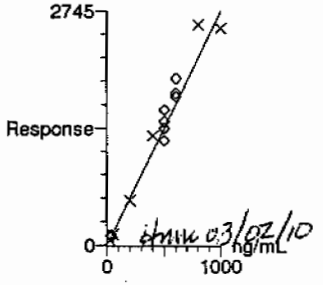



MM
3/2/10

Compound name: RDX
Response Factor: 2.74462
RRF SD: 0.368004, % Relative SD: 13.4082
Response type: Internal Std ( Ref 4 ), Area * ( IS Conc. / IS Area )
Curve type: RF




MM 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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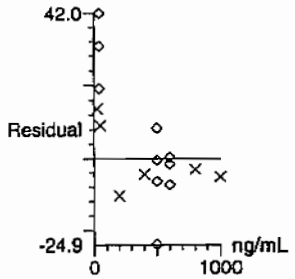
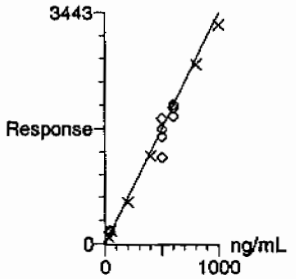
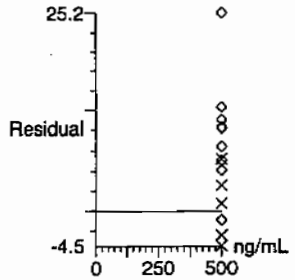
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

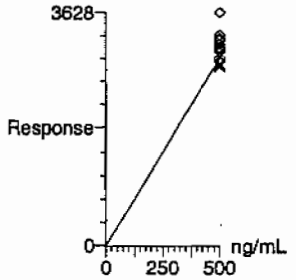
Compound name: 135-Trinitrobenzene
Response Factor: 3.44305
RRF SD: 0.338375, % Relative SD: 9.82776
Response type: Internal Std ( Ref 4 ), Area * ( IS Conc. / IS Area )
Curve type: RF




Compound name: 13-Dinitrobenzene-d4
Response Factor: 5.79615
RRF SD: 0.25088, % Relative SD: 4.32839
Response type: External Std, Area
Curve type: RF



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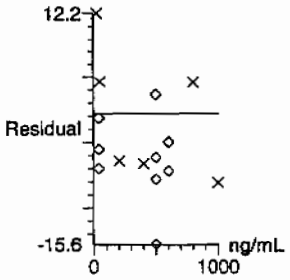
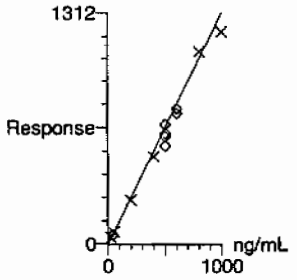
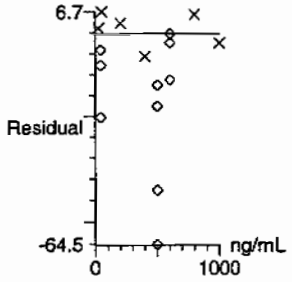
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

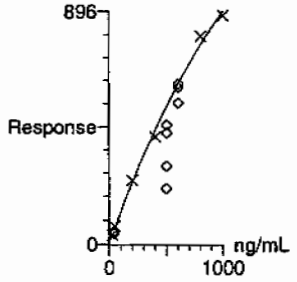
Compound name: 13-Dinitrobenzene
Response Factor: 1.31187
RRF SD: 0.103314, % Relative SD: 7.87531
Response type: Internal Std ( Ref 4 ), Area * ( IS Conc. / IS Area )
Curve type: RF




Compound name: Tetryl
Coefficient of Determination: 0.996770
Calibration curve: -0.000312791 * x^2 + 1.20554 * x + 3.66734
Response type: Internal Std ( Ref 4 ), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



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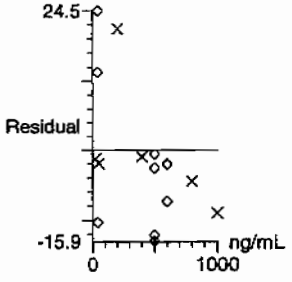
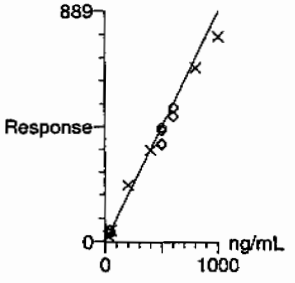
**Quantify Calibration Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



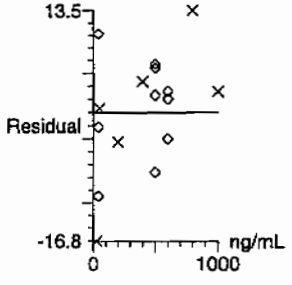
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

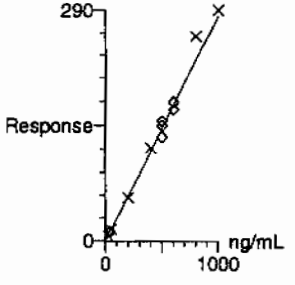
Compound name: Nitrobenzene
Response Factor: 0.888932
RRF SD: 0.0986941, % Relative SD: 11.1025
Response type: Internal Std ( Ref 4 ), Area * ( IS Conc. / IS Area )
Curve type: RF



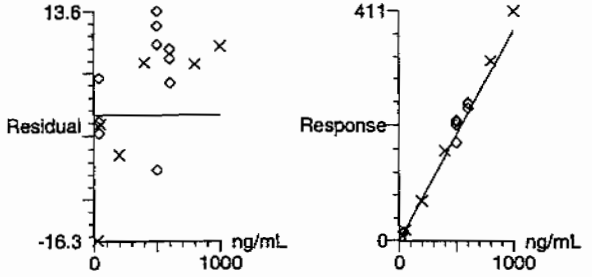

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.282269
RRF SD: 0.0282816, % Relative SD: 10.0194
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF



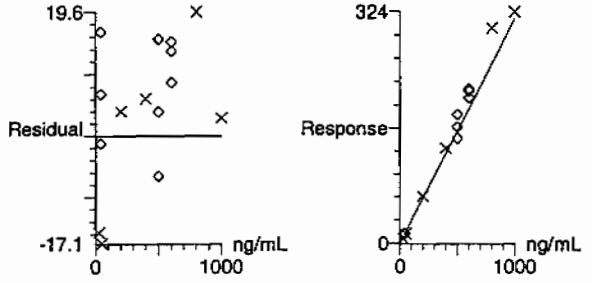



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.377019
RRF SD: 0.0364675, % Relative SD: 9.67257
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF




Compound name: 246-Trinitrotoluene
Response Factor: 0.31518
RRF SD: 0.0439443, % Relative SD: 13.9426
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF



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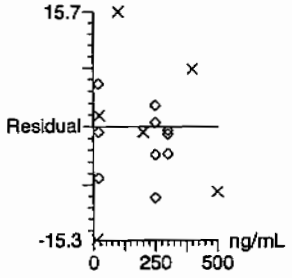
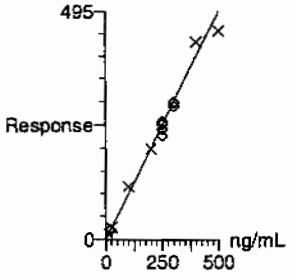
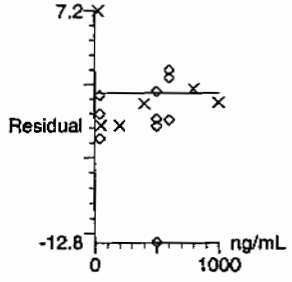
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

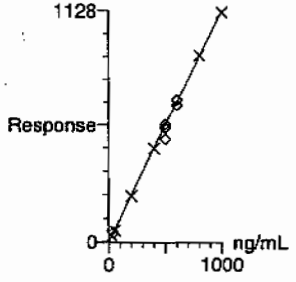
Compound name: 34-dinitrotoluene
Response Factor: 0.990666
RRF SD: 0.110182, % Relative SD: 11.122
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF




Compound name: 26-dinitrotoluene
Response Factor: 1.12824
RRF SD: 0.0421371, % Relative SD: 3.73478
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF



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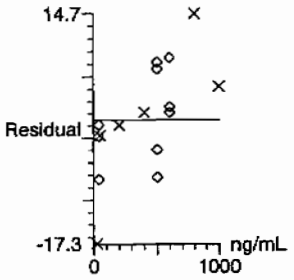
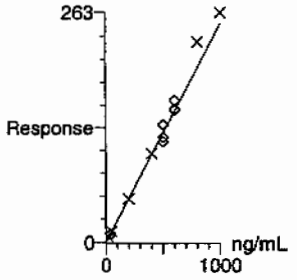
**Quantify Calibration Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



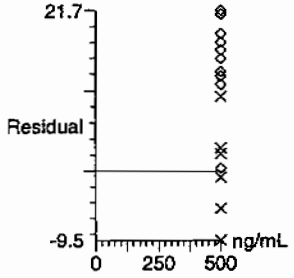
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

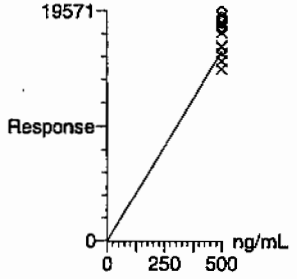
Compound name: 24-dinitrotoluene
Response Factor: 0.251541
RRF SD: 0.0262257, % Relative SD: 10.426
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF




Compound name: 26-dinitrotoluene-d3
Response Factor: 32.1696
RRF SD: 2.19789, % Relative SD: 6.83218
Response type: External Std, Area
Curve type: RF



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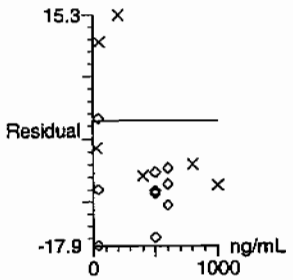
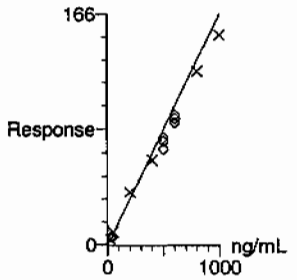
**Quantify Calibration Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



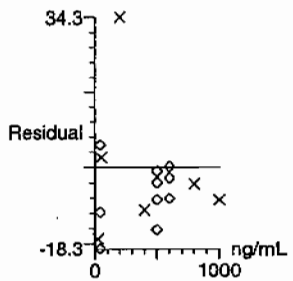
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

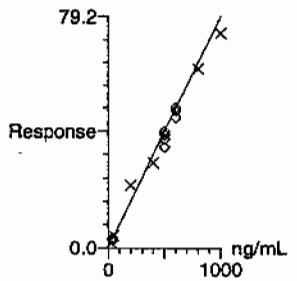
Compound name: 2-Nitrotoluene
Response Factor: 0.165882
RRF SD: 0.0175634, % Relative SD: 10.5879
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF




Compound name: 4-Nitrotoluene
Response Factor: 0.0792496
RRF SD: 0.014162, % Relative SD: 17.8701
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF



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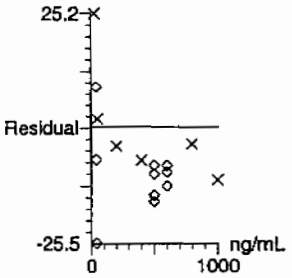
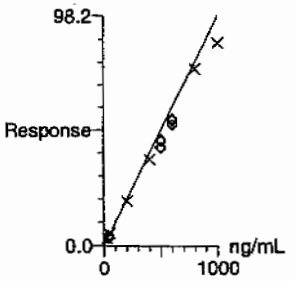
**Quantify Calibration Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



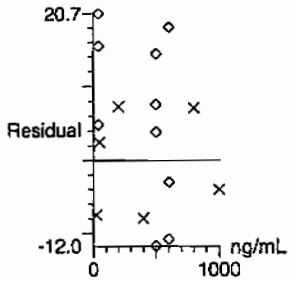
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

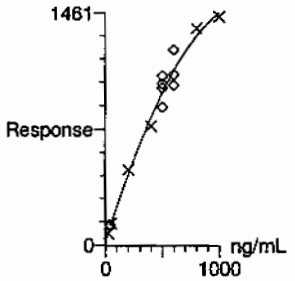
Compound name: 3-Nitrotoluene
Response Factor: 0.0982133
RRF SD: 0.0128718, % Relative SD: 13.106
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: RF




Compound name: PETN
Coefficient of Determination: 0.995946
Calibration curve: -0.000869973 * x^2 + 2.31341 * x + 17.1838
Response type: Internal Std ( Ref 14 ), Area * ( IS Conc. / IS Area )
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



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7

# Explosives Initial Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXICV

**GEL Data File** EXP0301010a

**Analysis Date:** 01-MAR-10 19:58

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| p-Nitrotoluene | 600 | 600.673 | 100 | |
| 1,3,5-Trinitrobenzene | 600 | 553.636 | 92 | |
| 1,3-Dinitrobenzene-d4 | 500 | 552.255 | 110 | |
| 2,4,6-Trinitrotoluene | 600 | 650.963 | 108 | |
| 2,4-Dinitrotoluene | 600 | 610.999 | 102 | |
| 2,6-Dinitrotoluene | 600 | 612.154 | 102 | |
| 2,6-Dinitrotoluene-d3 | 500 | 563.698 | 113 | |
| 2-Amino-4,6-dinitrotoluene | 600 | 644.551 | 107 | |
| 3,4-Dinitrotoluene | 300 | 296.974 | 99 | |
| 4-Amino-2,6-dinitrotoluene | 600 | 579.777 | 97 | |
| HMX | 600 | 536.335 | 89 | |
| Nitrobenzene | 600 | 585.727 | 98 | |
| PETN | 600 | 533.297 | 89 | |
| RDX | 600 | 709.645 | 118 | |
| Tetryl | 600 | 514.366 | 86 | |
| m-Dinitrobenzene | 600 | 559.17 | 93 | |
| m-Nitrotoluene | 600 | 522.296 | 87 | |
| o-Nitrotoluene | 600 | 546.617 | 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 70-130%
OtherTarget 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

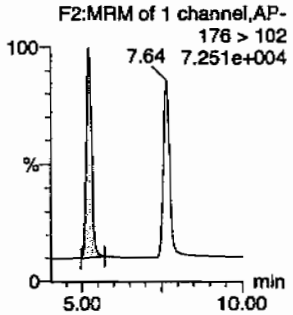


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

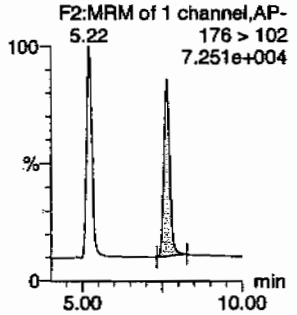
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301010a**
**Date: 01-Mar-2010**
**Time: 19:58:29**
**ID: WXX100301-07ICV**
**Vial: 1:1,B**

MAT 3/2/10

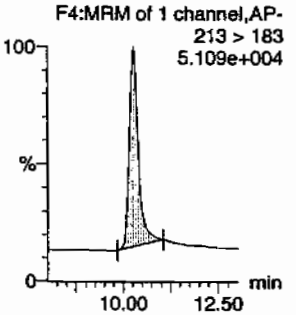
**HMX**



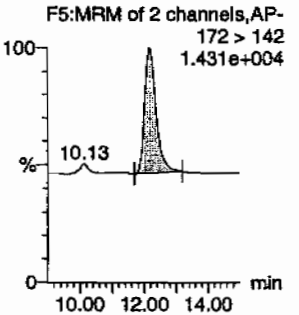

**RDX**



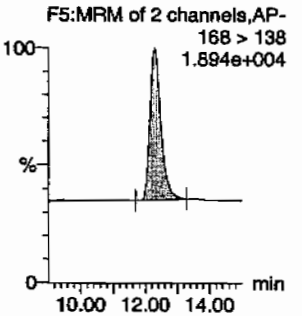

**135-Trinitrobenzene**



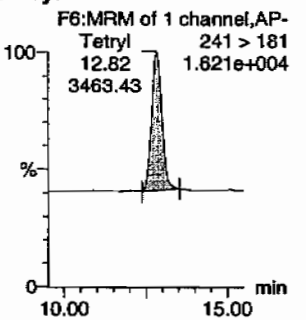

**13-Dinitrobenzene-d4**



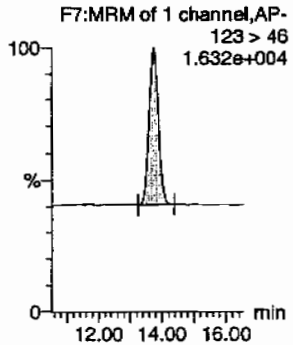

**13-Dinitrobenzene**



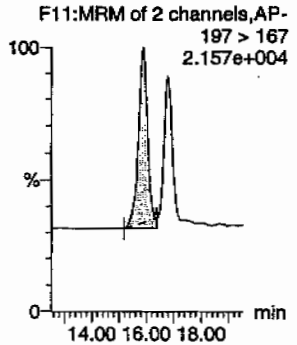

**Tetryl**



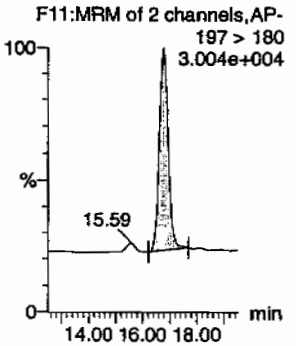

**Nitrobenzene**



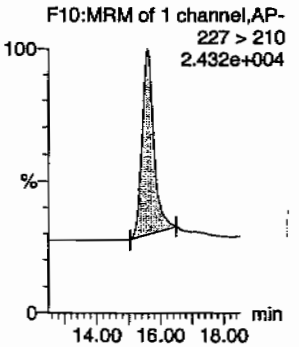

**4-Amino-26-dinitrotoluene**



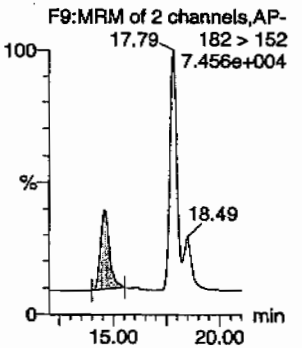

**2-Amino-46-dinitrotoluene**



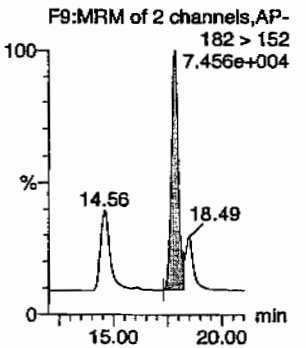

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**




Hmm 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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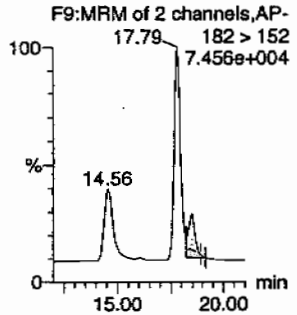
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

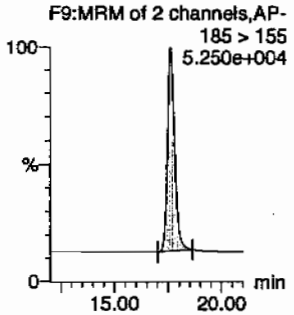


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

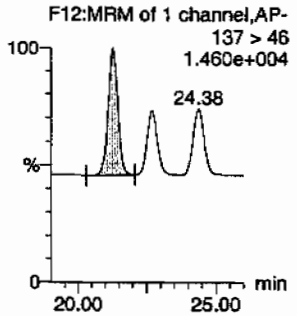
**24-dinitrotoluene**



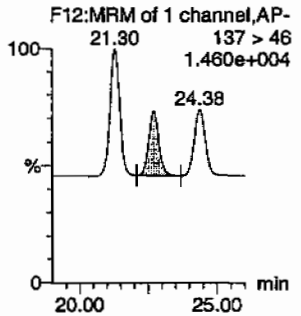

**26-dinitrotoluene-d3**



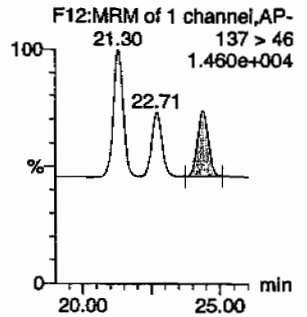

**2-Nitrotoluene**



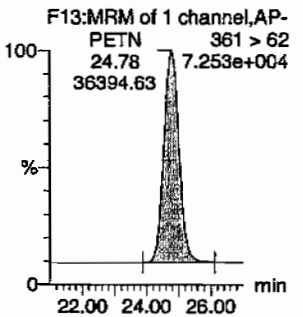

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | S Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-07ICV | HMX | 176 > 102 | 5.22 | 13098.474 | 3200.957 | 13098.474 | 2046.025 | bb | | | 536.3354 | 89.4 | -10.6 | 1184.6 |
| WXX100301-07ICV | RDX | 176 > 102 | 7.64 | 12469.034 | 3200.957 | 12469.034 | 1947.704 | bb | | | 709.6451 | 118.3 | 18.3 | 994.7 |
| WXX100301-07ICV | 135-Trinitrobenzene | 213 > 183 | 10.27 | 12203.332 | 3200.957 | 12203.332 | 1906.201 | bb | | | 553.6364 | 92.3 | -7.7 | 963.4 |
| WXX100301-07ICV | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3200.957 | | 3200.957 | 3200.957 | bb | | | 552.2555 | 110.5 | 10.5 | 294.2 |
| WXX100301-07ICV | 13-Dinitrobenzene | 168 > 138 | 12.31 | 4696.164 | 3200.957 | 4696.164 | 733.556 | bb | | | 559.1698 | 93.2 | -6.8 | 388.3 |
| WXX100301-07ICV | Tetryl | 241 > 181 | 12.82 | 3463.432 | 3200.957 | 3463.432 | 540.999 | bb | | | 514.3662 | 85.7 | -14.3 | 378.0 |
| WXX100301-07ICV | Nitrobenzene | 123 > 46 | 13.72 | 3333.296 | 3200.957 | 3333.296 | 520.672 | bb | | | 585.7272 | 97.6 | -2.4 | 362.0 |
| WXX100301-07ICV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.89 | 5935.360 | 18133.975 | 5935.360 | 163.653 | MM | 02-Mar-10 | 09:46:04 | 579.7767 | 96.6 | -3.4 | 265.0 |
| WXX100301-07ICV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79 | 8813.408 | 18133.975 | 8813.408 | 243.008 | bb | | | 644.5509 | 107.4 | 7.4 | 424.6 |
| WXX100301-07ICV | 246-Trinitrotoluene | 227 > 210 | 15.58 | 7441.112 | 18133.975 | 7441.112 | 205.170 | bb | | | 650.9626 | 108.5 | 8.5 | 640.1 |
| WXX100301-07ICV | 34-dinitrotoluene | 182 > 152 | 14.56 | 10670.113 | 18133.975 | 10670.113 | 294.202 | bb | | | 296.9742 | 99.0 | -1.0 | 440.7 |
| WXX100301-07ICV | 26-dinitrotoluene | 182 > 152 | 17.79 | 25048.648 | 18133.975 | 25048.648 | 690.655 | MM | 02-Mar-10 | 09:37:31 | 612.1544 | 102.0 | 2.0 | 1325.9 |
| WXX100301-07ICV | 24-dinitrotoluene | 182 > 152 | 18.49 | 5574.063 | 18133.975 | 5574.063 | 153.691 | MM | 02-Mar-10 | 09:28:46 | 610.9991 | 101.8 | 1.8 | 275.6 |
| WXX100301-07ICV | 26-dinitrotoluene-d3 | 185 > 155 | 17.64 | 18133.975 | | 18133.975 | 18133.975 | bb | | | 563.6984 | 112.7 | 12.7 | 1372.6 |
| WXX100301-07ICV | 2-Nitrotoluene | 137 > 46 | 21.30 | 3288.563 | 18133.975 | 3288.563 | 90.674 | bb | | | 546.6170 | 91.1 | -8.9 | 801.1 |
| WXX100301-07ICV | 4-Nitrotoluene | 137 > 46 | 22.71 | 1726.468 | 18133.975 | 1726.468 | 47.603 | bb | | | 600.6731 | 100.1 | 0.1 | 401.9 |
| WXX100301-07ICV | 3-Nitrotoluene | 137 > 46 | 24.38 | 1860.416 | 18133.975 | 1860.416 | 51.296 | bb | | | 522.2960 | 87.0 | -13.0 | 411.6 |
| WXX100301-07ICV | PETN | 361 > 62 | 24.78 | 36394.633 | 18133.975 | 36394.633 | 1003.493 | bb | | | 533.2968 | 88.9 | -11.1 | 2990.6 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/01/10
Time of Injection: 1958
Standard Number: WXX100301-07ICV
Data File: EXP0301010a

| | |
|---|---|
| HMX | 89.4 |
| RDX | 118.3 |
| 135-TNB | 92.3 |
| 13-DNB | 93.2 |
| Tetryl | 85.7 |
| Nitrobenzene | 97.6 |
| 4A-26-DNT | 96.6 |
| 2A-46-DNT | 107.4 |
| 246-TNT | 108.5 |
| 34-DNT(surr) | 99.0 |
| 26-DNT | 102.0 |
| 24-DNT | 101.8 |
| 2-NT | 91.1 |
| 4-NT | 100.1 |
| 3-NT | 87.0 |
| PETN | 88.9 |
| | |
| Total | 1558.9 |
| Average | 97.4 |

MTT 3/2/10

Hmc 03/02/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

# Explosives Initial Calibration

Form 6

**Lab Name:** GEL Laboratories LLC

**GEL Job No:** 10-1512

**Lab Code:** GEL

**Run Date:** 01-MAR-10,22-FEB-10

**LCMSMS Instrument ID:** LCMSMS4

**Method:** 8321A Modified

**HPLC Column:** YMC J-Sphere ODS-H8Q

**Calibration Type: 2nd Order**

| Calibration Level: | 19 | 20 | 21 | 22 | 23 | 24 | 25 | X | X^2 | Intercept | COD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Data File: | EXS02220003.wifl | EXS02220004.wifl | EXS02220005.wifl | EXS02220006.wifl | EXS02220007.wifl | EXS02220008.wifl | EXS02220009.wifl | | | | | |
| Parmname: | | | | | | | | | | | | |
| 3,4-Dinitrotoluene | 349000 | 660000 | 1640000 | 3130000 | 4800000 | 6040000 | 11400000 | -9720 | 14000 | -2.69 | .9977 | |
| 3,5-Dinitroaniline | 385000 | 817000 | 1720000 | 3510000 | 5180000 | 7210000 | 12200000 | -71000 | 7870 | -.865 | .9993 | |
| TATB | 100000 | 195000 | 464000 | 973000 | 1450000 | 1810000 | 3550000 | 4110 | 1940 | -.085 | .9997 | |
| tris(o-cresyl) phosphate | 1130000 | 2200000 | 5170000 | 9780000 | 14700000 | 18100000 | 29900000 | 43000 | 21500 | -3.29 | .9999 | |

Quadradic 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

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# Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1512

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Average RF

| Calibration Level: | 19 | 20 | 21 | 22 | 23 | 24 | 25 | Ave RF | RSD | Q |
|---|---|---|---|---|---|---|---|---|---|---|
| Data File: | EXS02220003.w | EXS02220004.w | EXS02220005.w | EXS02220006.w | EXS02220007.w | EXS02220008.w | EXS02220009.w | | | |
| Parmname | | | | | | | | | | |
| 2,6-Diamino-4-nitrotoluene | 1550 | 1760 | 1990 | 1780 | 2210 | 1890 | 2120 | 1900.000 | 12 | |

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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# Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1512

Lab Code: GEL

Run Date: 01-MAR-10.22-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Linear

| Calibration Level: | 19 | 20 | 21 | 22 | 23 | 24 | 25 | Slope | Intercept | COD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Data File: | 3XS02220003.w | 3XS02220004.w | 3XS02220005.w | 3XS02220006.w | 3XS02220007.w | 3XS02220008.w | 3XS02220009.w | | | | |
| Parmname | | | | | | | | | | | |
| 2,4-Diamino-6-nitrotoluene | 50600 | 96100 | 236000 | 641000 | 956000 | 1340000 | 2550000 | 1300 | -27000 | .999 | |

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

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

| Fit | Quadratic | Weighting | None | Iterate No |
|---|---|---|---|---|
| a0 | 4.11e+003 | | | |
| a1 | 1.94e+003 | | | |
| a2 | -0.0847 | | | |

Correlation coefficient 0.9997
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

| Fit | Quadratic | Weighting | None | Iterate No |
|---|---|---|---|---|
| a0 | -7.1e+004 | | | |
| a1 | 7.87e+003 | | | |
| a2 | -0.865 | | | |

Correlation coefficient 0.9993
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Lan
2/23/10

| Fit | Quadratic | Weighting | None | Iterate No |
|---|---|---|---|---|
| a0 | -9.72e+003 | | | |
| a1 | 1.4e+004 | | | |
| a2 | -2.69 | | | |

Correlation coefficient 0.9977
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Hmw 02/23/10

| Fit | Mean Response Factor | Weighting | None | Iterate No |
|---|---|---|---|---|
| Factor | 1.9e+003 | | | |
| Standard deviation | 228 | | | |
| %RSD | 12 | | | |

Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

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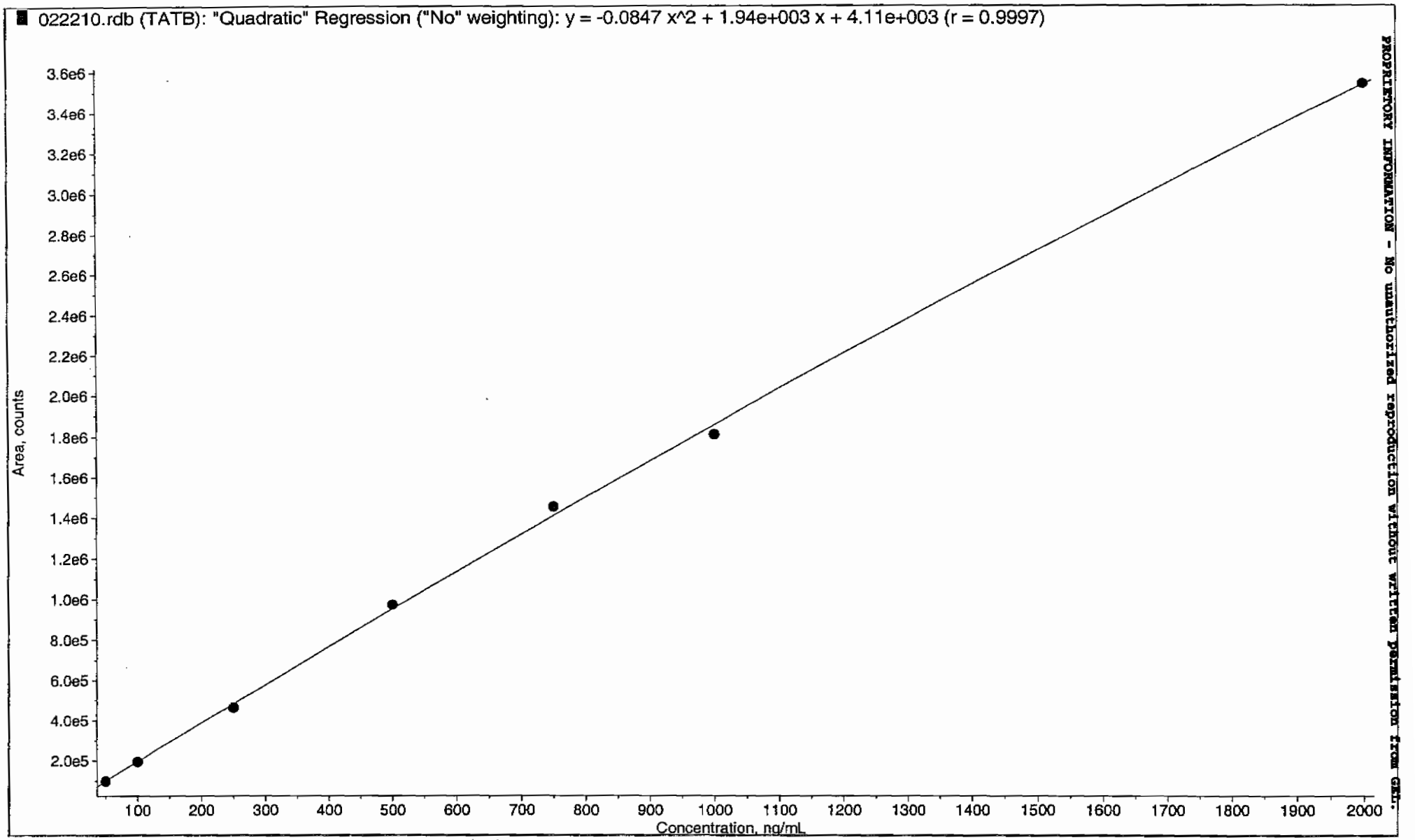
022210ICAL

Fit Linear Weighting None Iterate No
Intercept -2.7e+004
Slope 1.3e+003
Correlation coefficient 0.9990
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 4.3e+004
a1 2.15e+004
a2 -3.29
Correlation coefficient 0.9999
Use Area




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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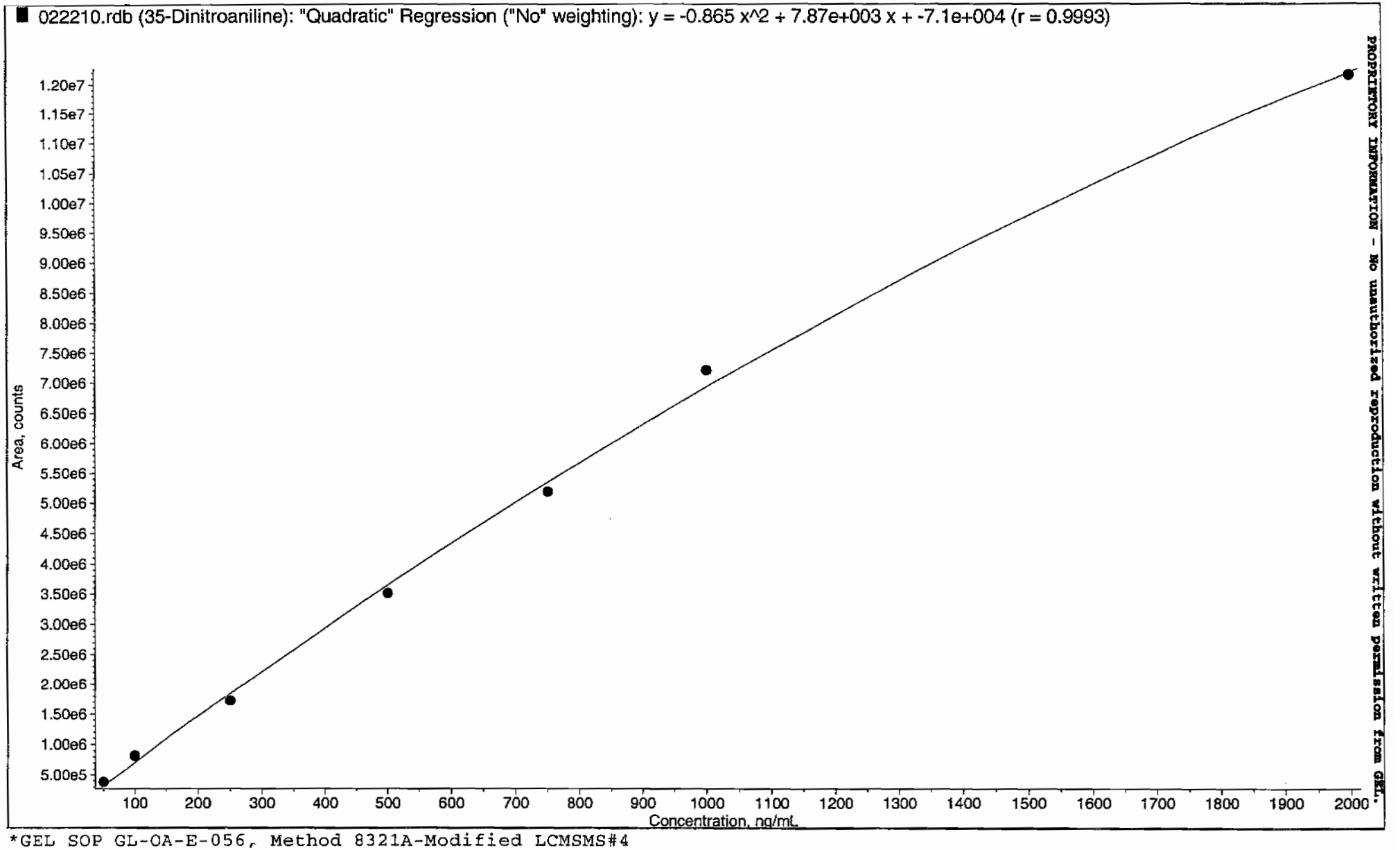


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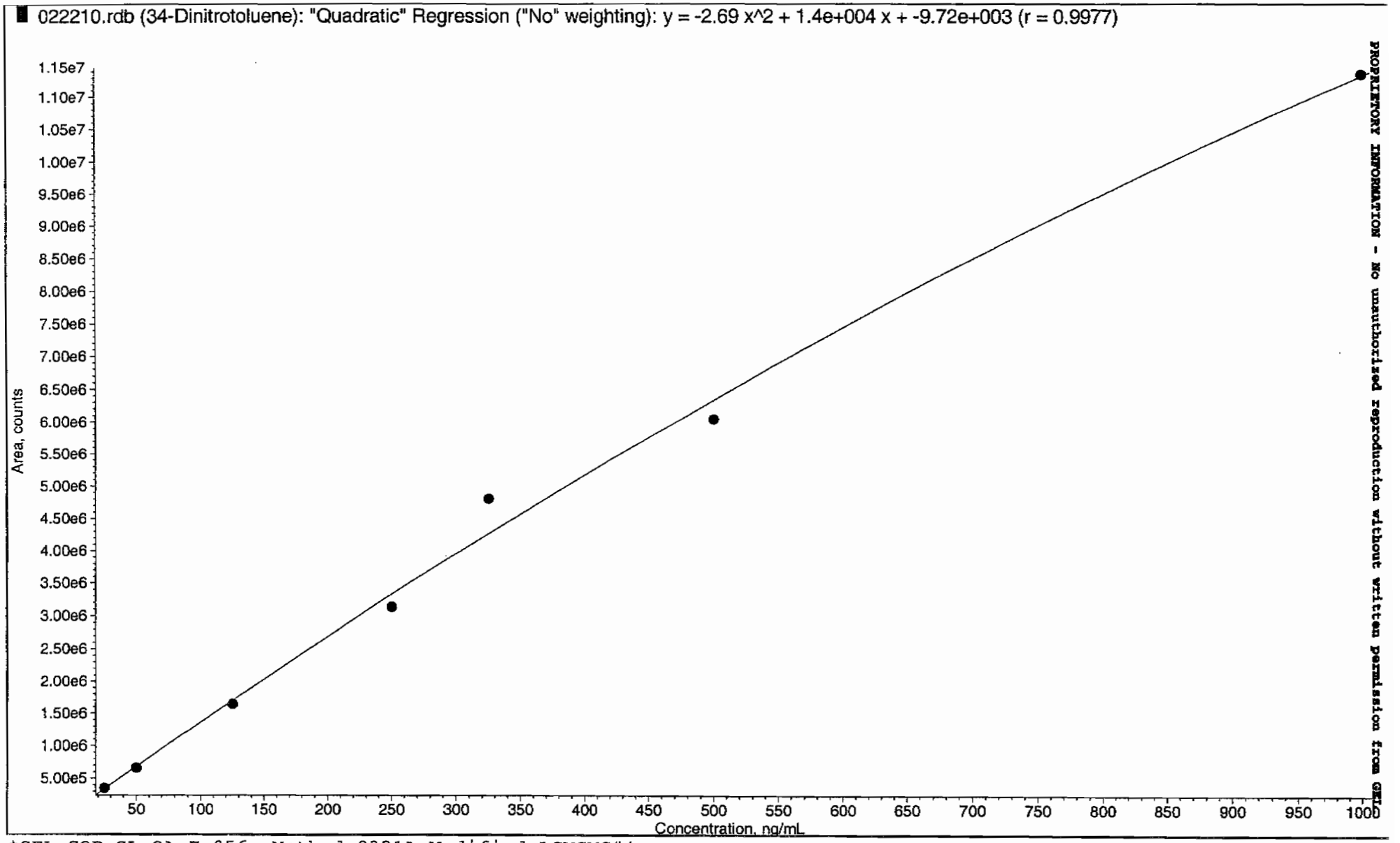
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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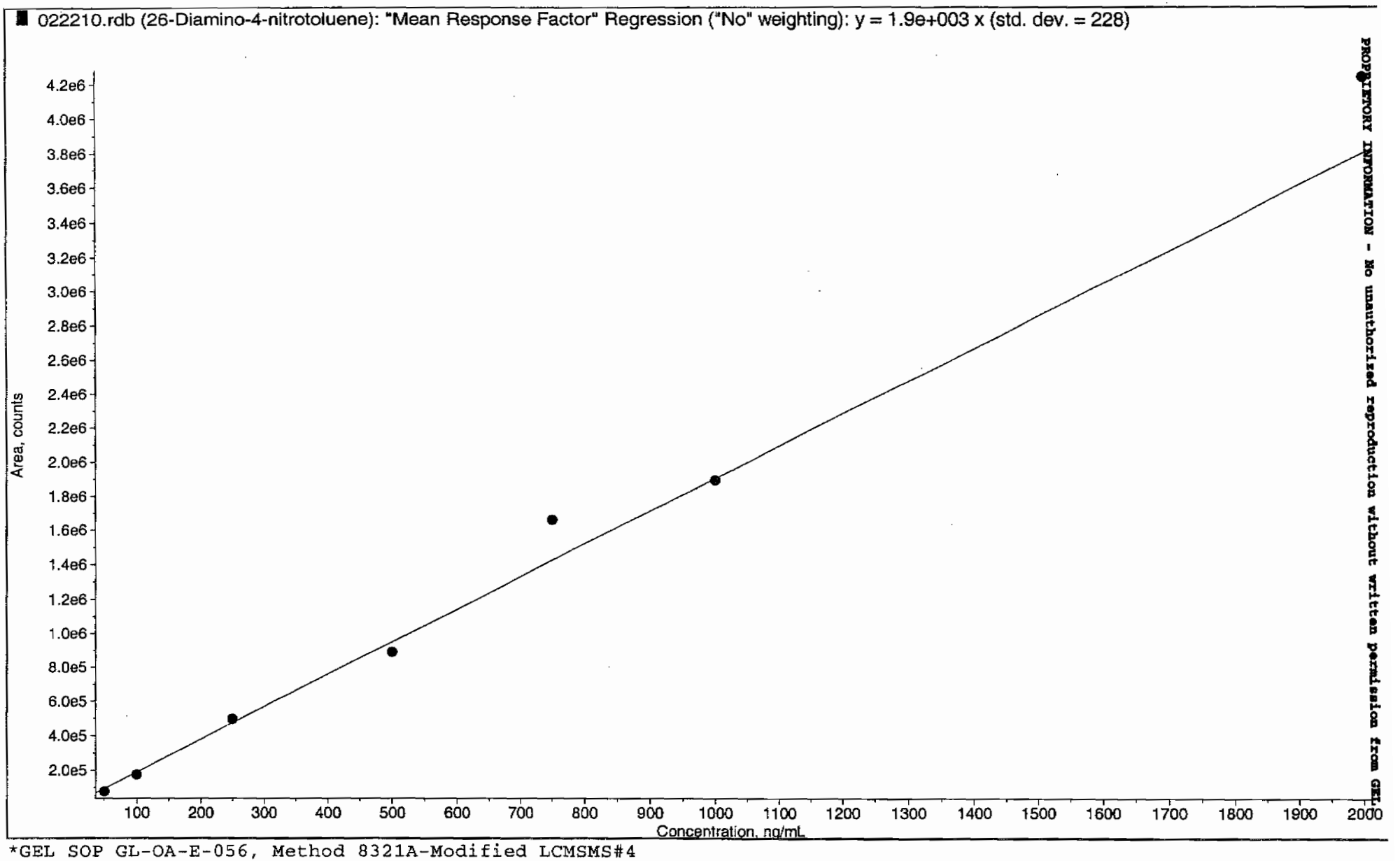


*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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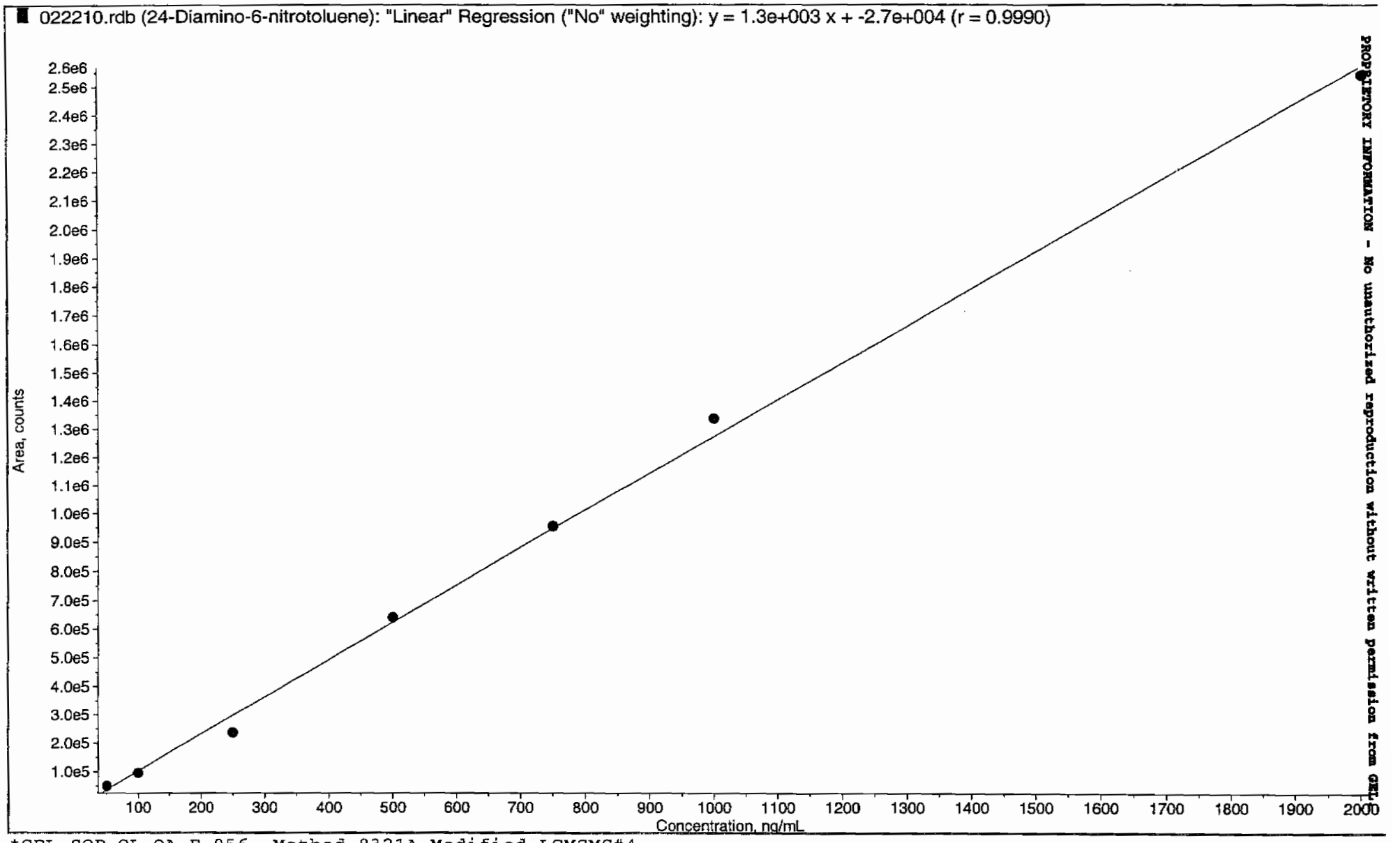


*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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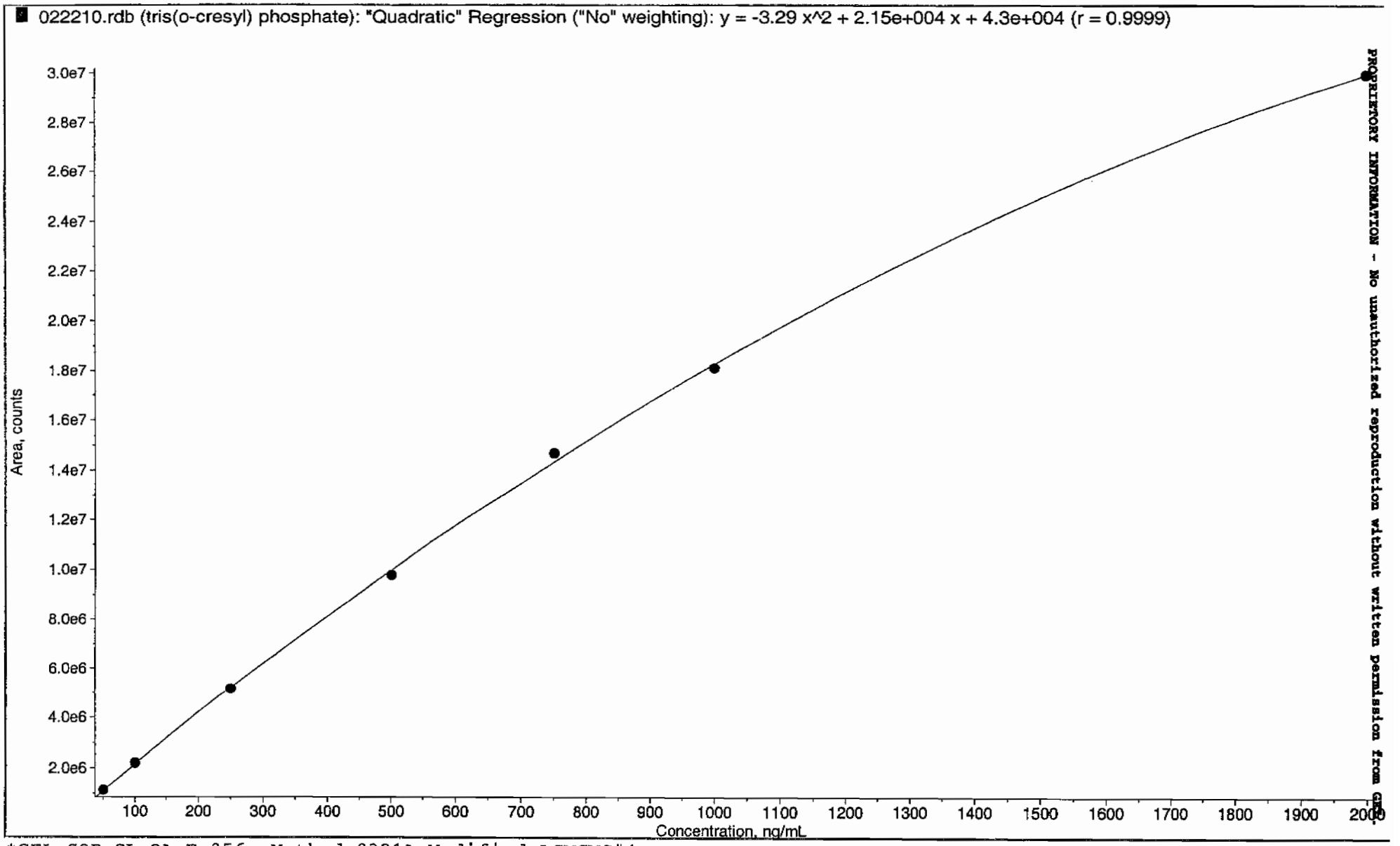


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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# Explosives Initial Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXICV

**GEL Data File** EXS02220011.wiff

**Analysis Date:** 22-FEB-10 19:38

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4-Diamino-6-nitrotoluene | 500 | 562 | 112 | |
| 2,6-Diamino-4-nitrotoluene | 500 | 578 | 116 | |
| 3,4-Dinitrotoluene | 250 | 228 | 91 | |
| 3,5-Dinitroaniline | 500 | 469 | 94 | |
| TATB | 500 | 461 | 92 | |
| tris(o-cresyl) phosphate | 500 | 492 | 98 | |

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

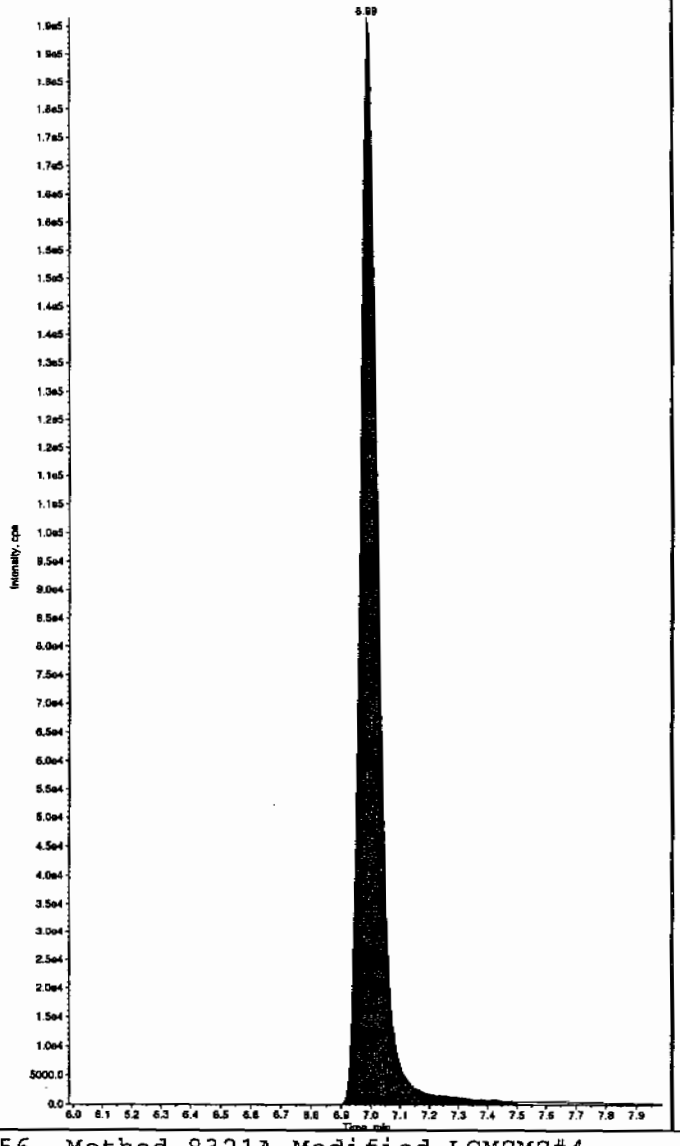
Before Scan 2/23/10

Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 461. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 8.79e+005 counts
Height: 191509.689 cps
Start Time: 6.87 min
End Time: 7.50 min

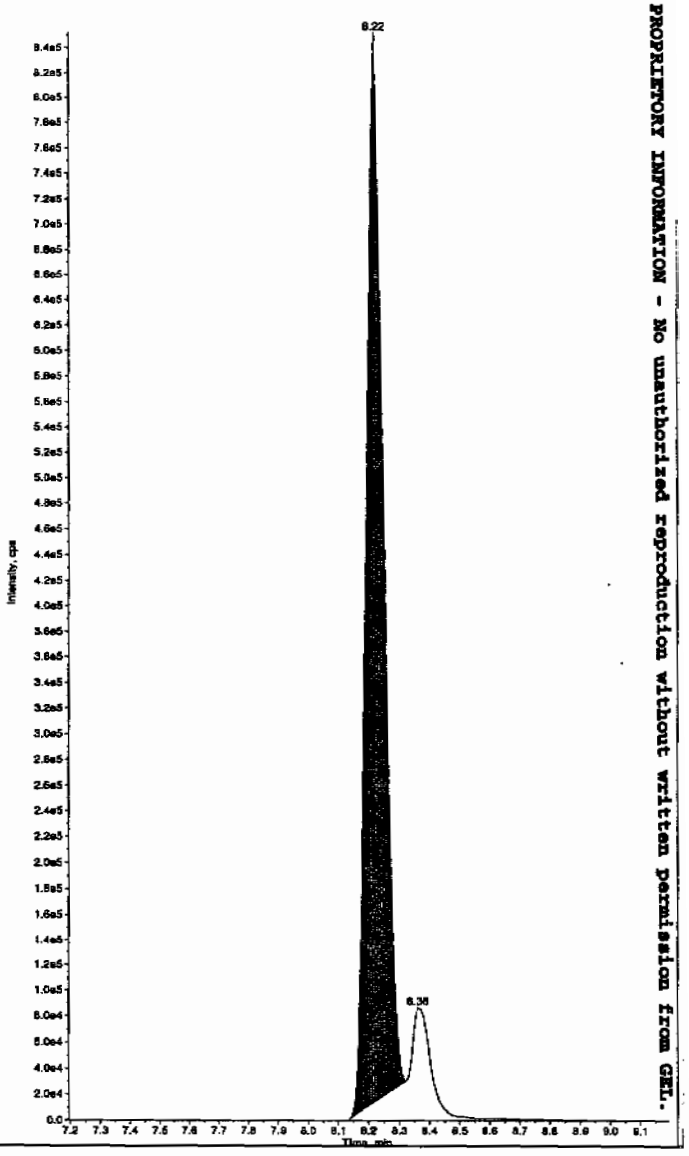



Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 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: 8.22 min
Area: 3.28e+006 counts
Height: 838502.686 cps
Start Time: 8.14 min
End Time: 8.32 min




Hmm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

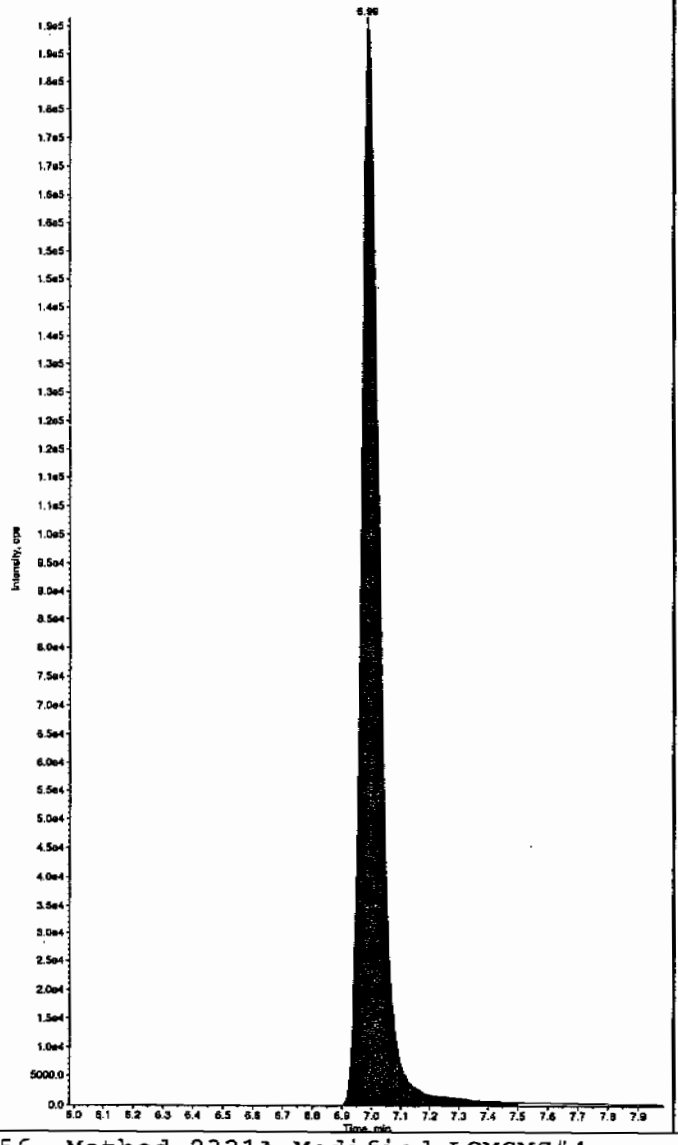
after Scan 2/23/10

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 461. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 8.79e+005 counts
Height: 191509.689 cps
Start Time: 6.87 min
End Time: 7.50 min

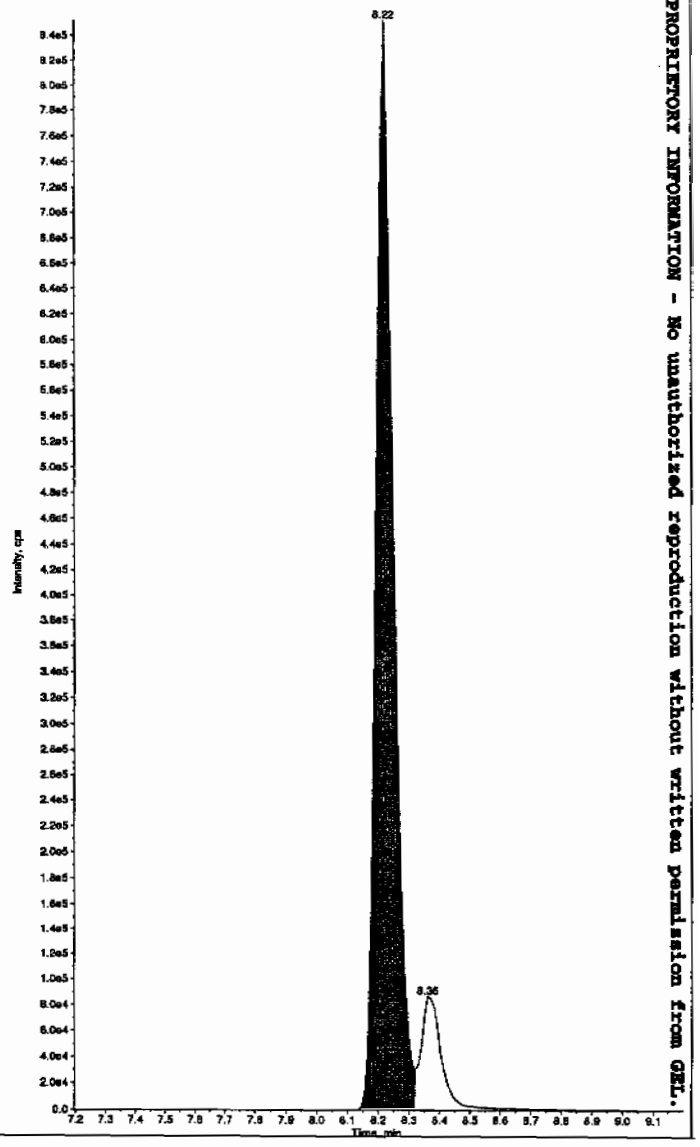



Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 469. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 3.43e+006 counts
Height: 850566.030 cps
Start Time: 8.14 min
End Time: 8.32 min

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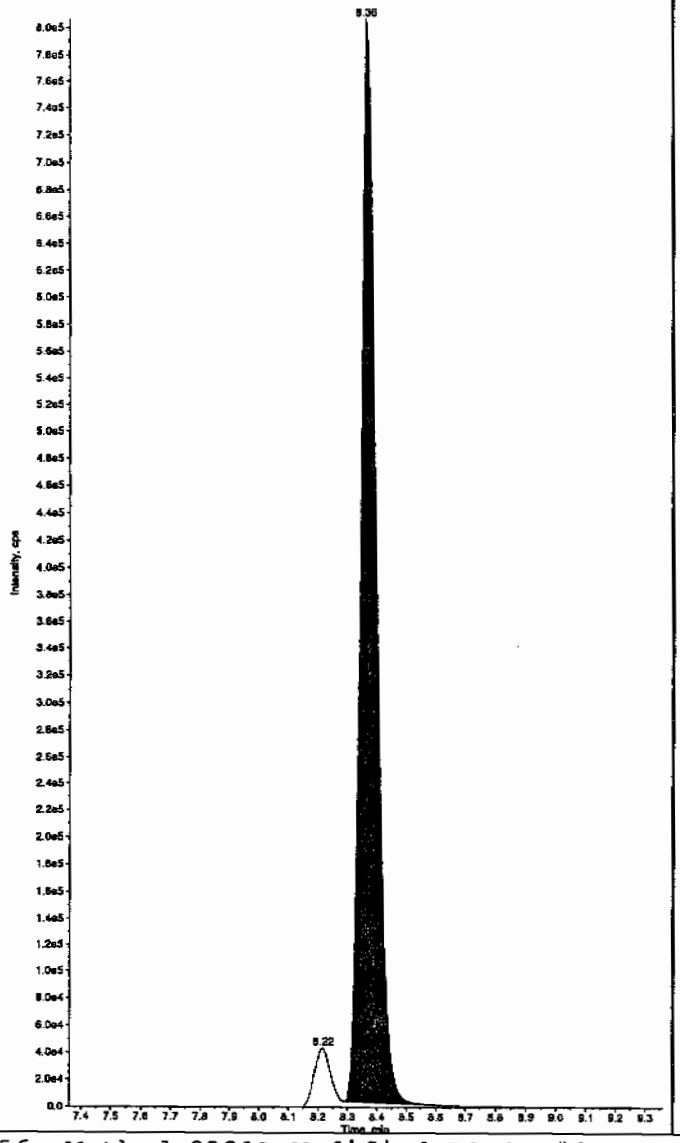
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "*"

```
Sample Index:          1
Sample Type:             QC
Concentration:         250.     ng/mL
Calculated Conc:       228.     ng/mL
Acq. Date:          2/22/2010
Acq. Time:          7:38:57 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:            15.0    sec
Expected RT:          8.36    min
Use Relative RT:      No

Int. Type:           Valley
Retention Time:       8.36    min
Area:            3.05e+006    counts
Height:            803488.770  cps
Start Time:           8.29    min
End Time:             8.64    min
```

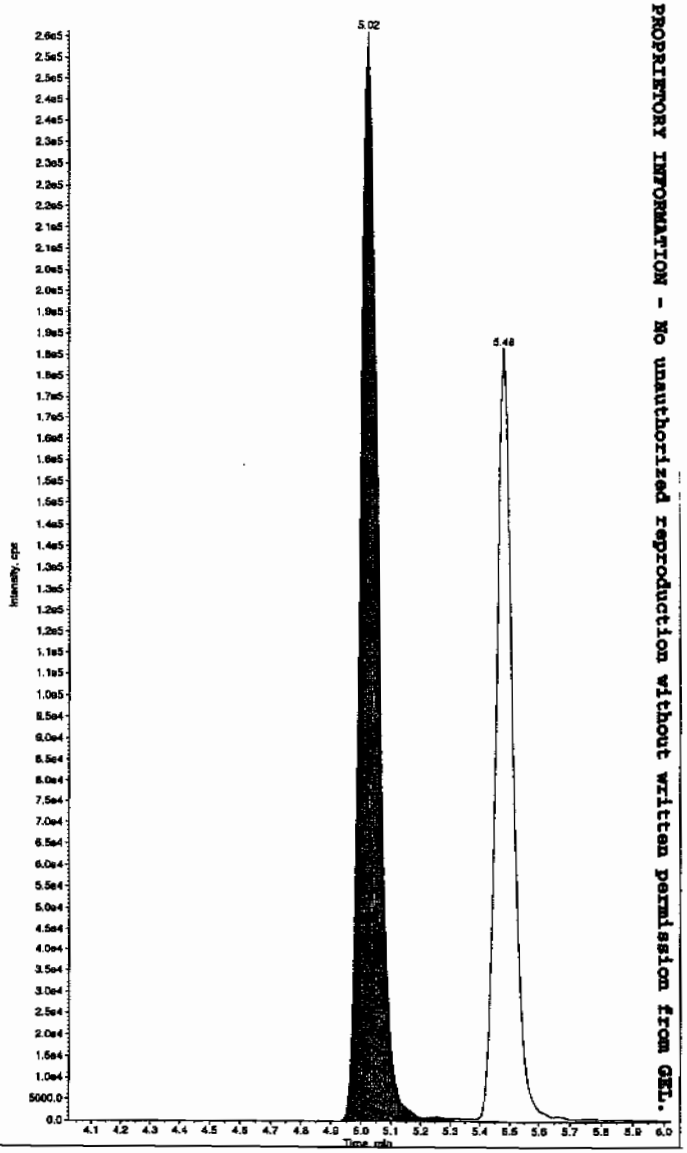



Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "*"

```
Sample Index:          1
Sample Type:             QC
Concentration:         500.     ng/mL
Calculated Conc:       578.     ng/mL
Acq. Date:          2/22/2010
Acq. Time:          7:38:57 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:       5.02    min
Area:            1.10e+006    counts
Height:            256377.838  cps
Start Time:           4.91    min
End Time:             5.31    min
```

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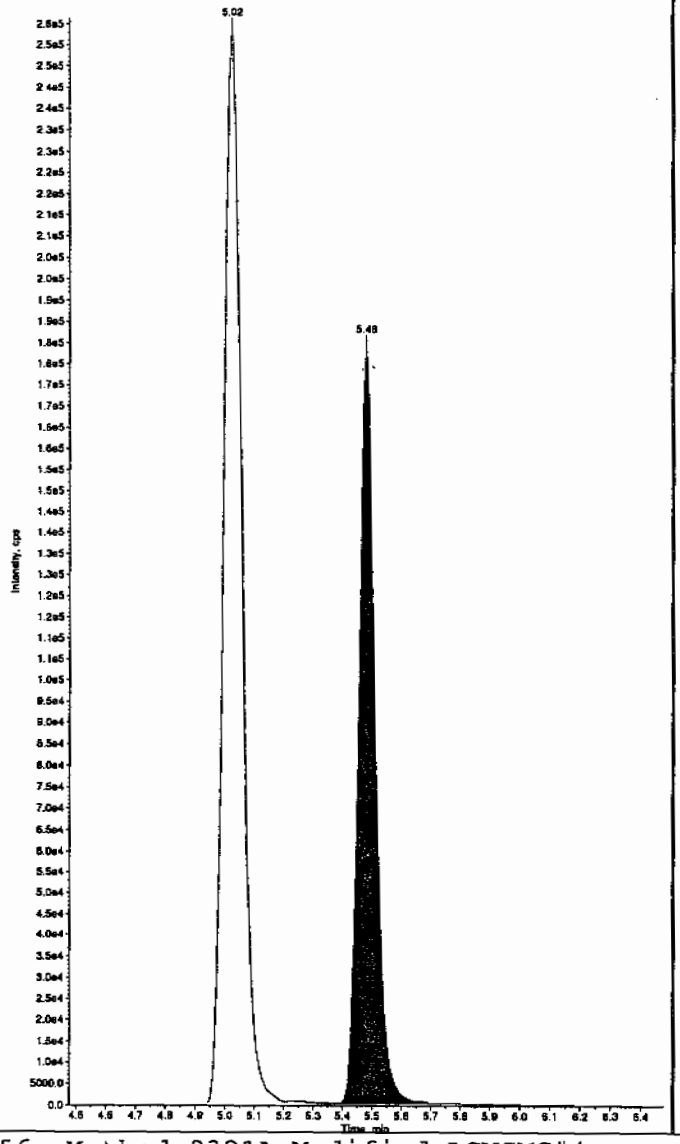
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 562. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 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: 5.48 min
Area: 7.04e+005 counts
Height: 181330.688 cps
Start Time: 5.38 min
End Time: 5.72 min

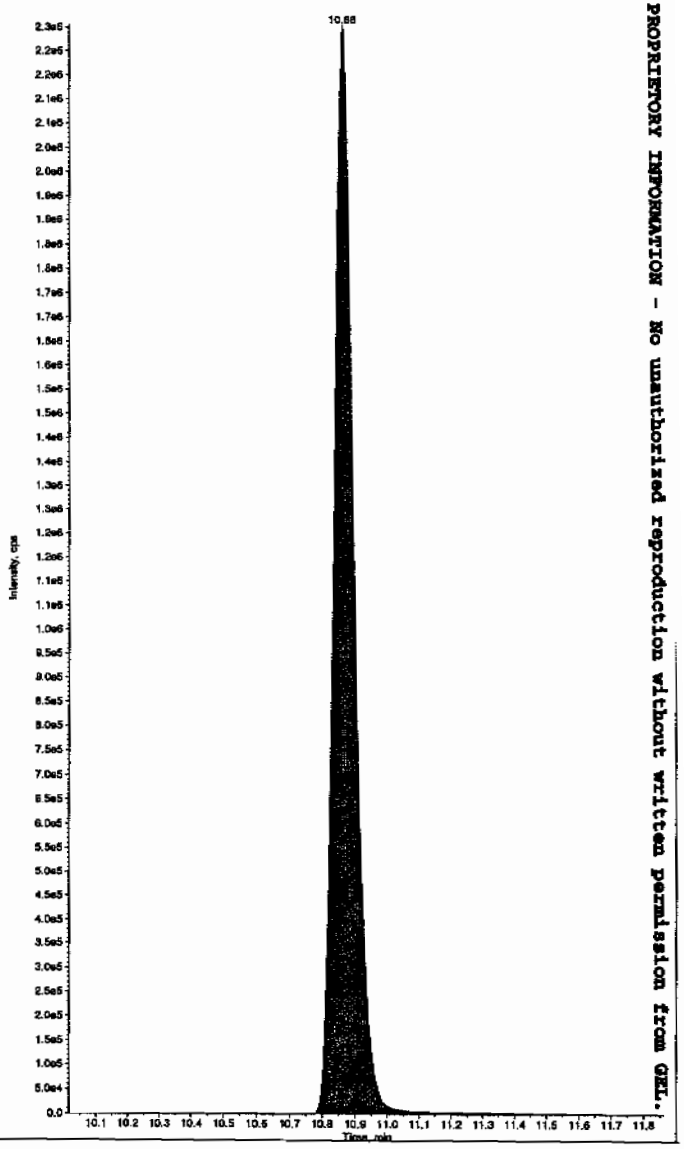



Sample Name: "WXX100222-25ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 492. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 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: 9.83e+006 counts
Height: 2255017.334 cps
Start Time: 10.8 min
End Time: 11.2 min

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0301012a

**Analysis Date:** 01-MAR-10 20:57

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2-Amino-4,6-dinitrotoluene | 40 | 39.044 | 98 | |
| 3,4-Dinitrotoluene | 20 | 21.135 | 106 | |
| 4-Amino-2,6-dinitrotoluene | 40 | 44.136 | 110 | |
| HMX | 40 | 43.681 | 109 | |
| Nitrobenzene | 40 | 34.954 | 87 | |
| PETN | 40 | 42.016 | 105 | |
| RDX | 40 | 36.598 | 91 | |
| Tetryl | 40 | 29.639 | 74 | |
| m-Dinitrobenzene | 40 | 37.394 | 93 | |
| m-Nitrotoluene | 40 | 29.818 | 75 | |
| o-Nitrotoluene | 40 | 36.123 | 90 | |
| p-Nitrotoluene | 40 | 42.037 | 105 | |
| 1,3,5-Trinitrobenzene | 40 | 48.081 | 120 | |
| 1,3-Dinitrobenzene-d4 | 500 | 625.96 | 125 | |
| 2,4,6-Trinitrotoluene | 40 | 39.523 | 99 | |
| 2,4-Dinitrotoluene | 40 | 39.691 | 99 | |
| 2,6-Dinitrotoluene | 40 | 39.923 | 100 | |
| 2,6-Dinitrotoluene-d3 | 500 | 592.475 | 118 | |

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%
OtherTarget 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

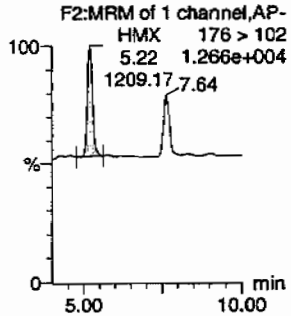


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

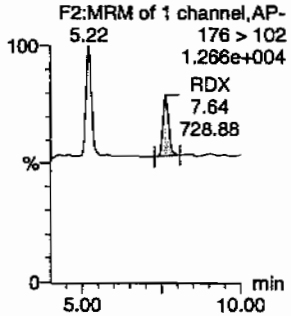
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301012a**
**Date: 01-Mar-2010**
**Time: 20:57:26**
**ID: WXX100301-08CRI**
**Vial: 1:1,C**

MATT 3/2/10

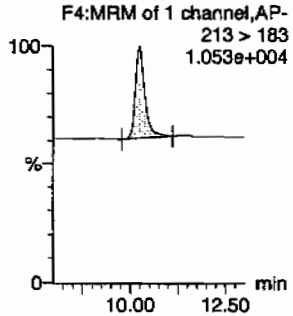
**HMX**



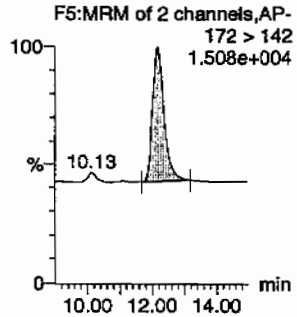

**RDX**



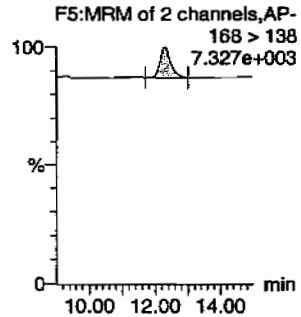

**135-Trinitrobenzene**



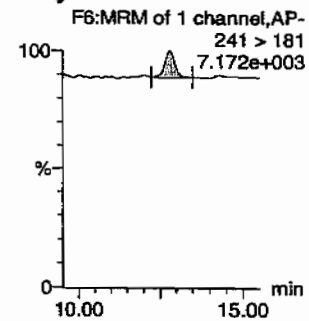

**13-Dinitrobenzene-d4**



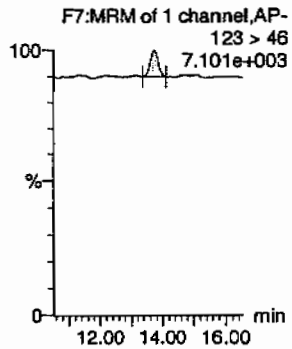

**13-Dinitrobenzene**



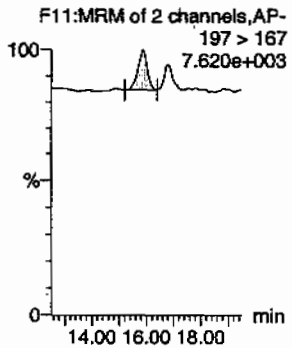

**Tetryl**



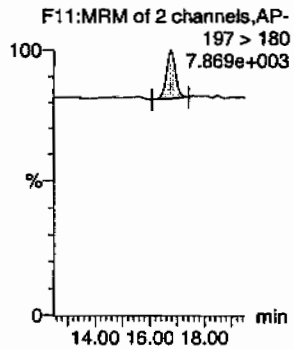

**Nitrobenzene**



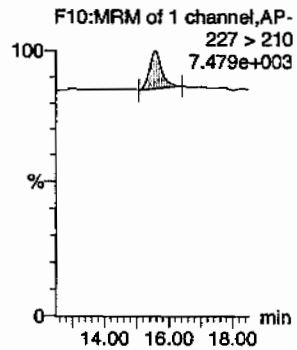

**4-Amino-26-dinitrotoluene**



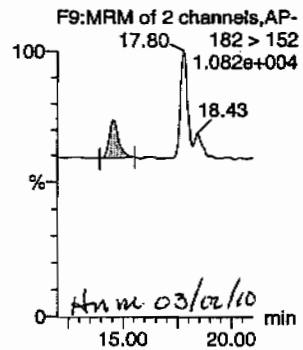

**2-Amino-46-dinitrotoluene**




**246-Trinitrotoluene**

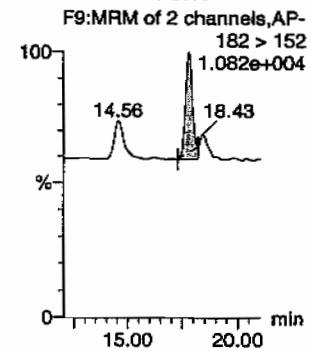



**34-dinitrotoluene**




Hnm 03/02/10

**26-dinitrotoluene**




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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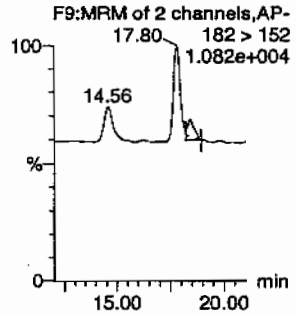
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

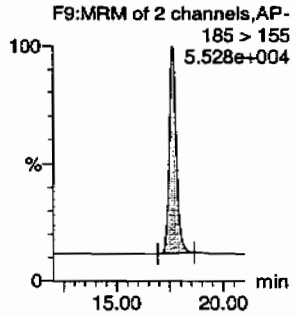


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

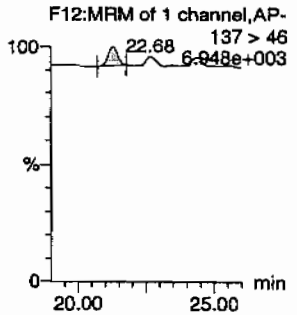
**24-dinitrotoluene**



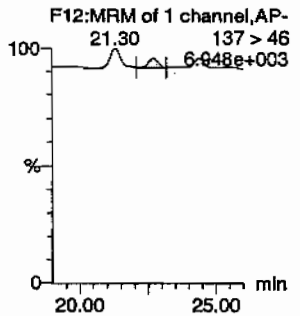

**26-dinitrotoluene-d3**



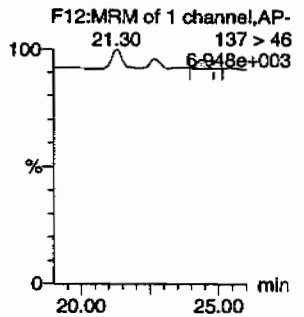

**2-Nitrotoluene**



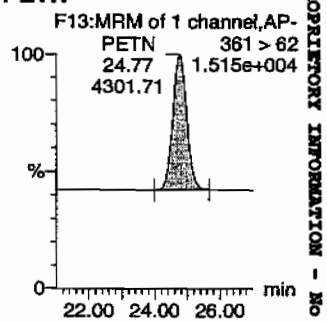

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/ml | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-08CRI | HMX | 176 > 102 | 5.22 | 1209.170 | 3628.160 | 1209.170 | 166.637 | bb | | | 43.6814 | 109.2 | 9.2 | 113.9 |
| WXX100301-08CRI | RDX | 176 > 102 | 7.64 | 728.884 | 3628.160 | 728.884 | 100.448 | bb | | | 36.5982 | 91.5 | -8.5 | 63.0 |
| WXX100301-08CRI | 135-Trinitrobenzene | 213 > 183 | 10.27 | 1201.239 | 3628.160 | 1201.239 | 165.544 | bb | | | 48.0805 | 120.2 | 20.2 | 248.5 |
| WXX100301-08CRI | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3628.160 | | 3628.160 | 3628.160 | bb | | | 625.9601 | 125.2 | 25.2 | 268.9 |
| WXX100301-08CRI | 13-Dinitrobenzene | 168 > 138 | 12.31 | 355.969 | 3628.160 | 355.969 | 49.056 | bb | | | 37.3944 | 93.5 | -6.5 | 37.6 |
| WXX100301-08CRI | Tetryl | 241 > 181 | 12.82 | 283.892 | 3628.160 | 283.892 | 39.123 | bb | | | 29.6389 | 74.1 | -25.9 | 28.1 |
| WXX100301-08CRI | Nitrobenzene | 123 > 46 | 13.72 | 225.469 | 3628.160 | 225.469 | 31.072 | bb | | | 34.9544 | 87.4 | -12.6 | 14.1 |
| WXX100301-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 474.895 | 19059.697 | 474.895 | 12.458 | MM | 02-Mar-10 | 09:46:12 | 44.1355 | 110.3 | 10.3 | 26.7 |
| WXX100301-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79 | 561.125 | 19059.697 | 561.125 | 14.720 | bb | | | 39.0436 | 97.6 | -2.4 | 75.2 |
| WXX100301-08CRI | 246-Trinitrotoluene | 227 > 210 | 15.58 | 474.848 | 19059.697 | 474.848 | 12.457 | bb | | | 39.5230 | 98.8 | -1.2 | 43.7 |
| WXX100301-08CRI | 34-dinitrotoluene | 182 > 152 | 14.56 | 798.141 | 19059.697 | 798.141 | 20.938 | bb | | | 21.1352 | 105.7 | 5.7 | 67.8 |
| WXX100301-08CRI | 26-dinitrotoluene | 182 > 152 | 17.80 | 1717.012 | 19059.697 | 1717.012 | 45.043 | MM | 02-Mar-10 | 09:37:38 | 39.9234 | 99.8 | -0.2 | 189.9 |
| WXX100301-08CRI | 24-dinitrotoluene | 182 > 152 | 18.43 | 380.581 | 19059.697 | 380.581 | 9.984 | MM | 02-Mar-10 | 09:28:55 | 39.6911 | 99.2 | -0.8 | 41.9 |
| WXX100301-08CRI | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 19059.697 | | 19059.697 | 19059.697 | bb | | | 592.4746 | 118.5 | 18.5 | 2157.9 |
| WXX100301-08CRI | 2-Nitrotoluene | 137 > 46 | 21.30 | 228.420 | 19059.697 | 228.420 | 5.992 | bb | | | 36.1234 | 90.3 | -9.7 | 52.1 |
| WXX100301-08CRI | 4-Nitrotoluene | 137 > 46 | 22.68 | 126.991 | 19059.697 | 126.991 | 3.331 | bb | | | 42.0368 | 105.1 | 5.1 | 27.3 |
| WXX100301-08CRI | 3-Nitrotoluene | 137 > 46 | 24.38 | 111.634 | 19059.697 | 111.634 | 2.929 | MM | 02-Mar-10 | 09:27:09 | 29.8181 | 74.5 | -25.5 | 24.7 |
| WXX100301-08CRI | PETN | 361 > 62 | 24.77 | 4301.707 | 19059.697 | 4301.707 | 112.848 | bb | | | 42.0160 | 105.0 | 5.0 | 1201.0 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

| | |
|---|---|
| Vendor: | UltraScientific |
| Date of Analysis | 03/01/10 |
| Time of Injection | 2057 |
| Standard Number | WXX100301-08CRI |
| Data File | EXP0301012a |

| | |
|---|---|
| HMX | 109.2 |
| RDX | 91.5 |
| 135-TNB | 120.2 |
| 13-DNB | 93.5 |
| Tetryl | 74.1 |
| Nitrobenzene | 87.4 |
| 4A-26-DNT | 110.3 |
| 2A-46-DNT | 97.6 |
| 246-TNT | 98.8 |
| 34-DNT(surr) | 105.7 |
| 26-DNT | 99.8 |
| 24-DNT | 99.2 |
| 2-NT | 90.3 |
| 4-NT | 105.1 |
| 3-NT | 74.5 |
| PETN | 105.0 |
| | |
| Total | 1562.2 |
| Average | 97.6 |

MATT 3/2/10

Hmc 03/02/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301017a

Analysis Date: 01-MAR-10 23:24

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| RDX | 600 | 647.393 | 108 | |
| Tetryl | 600 | 583.501 | 97 | |
| m-Dinitrobenzene | 600 | 579.417 | 97 | |
| m-Nitrotoluene | 600 | 540.344 | 90 | |
| o-Nitrotoluene | 600 | 527.736 | 88 | |
| p-Nitrotoluene | 600 | 558.211 | 93 | |
| 1,3,5-Trinitrobenzene | 600 | 590.293 | 98 | |
| 1,3-Dinitrobenzene-d4 | 500 | 531.866 | 106 | |
| 2,4,6-Trinitrotoluene | 600 | 689.425 | 115 | |
| 2,4-Dinitrotoluene | 600 | 651.929 | 109 | |
| 2,6-Dinitrotoluene | 600 | 585.717 | 98 | |
| 2,6-Dinitrotoluene-d3 | 500 | 566.557 | 113 | |
| 2-Amino-4,6-dinitrotoluene | 600 | 624.405 | 104 | |
| 3,4-Dinitrotoluene | 300 | 298.589 | 100 | |
| 4-Amino-2,6-dinitrotoluene | 600 | 616.104 | 103 | |
| HMX | 600 | 617.233 | 103 | |
| Nitrobenzene | 600 | 584.33 | 97 | |
| PETN | 600 | 581.43 | 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%
OtherTarget 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

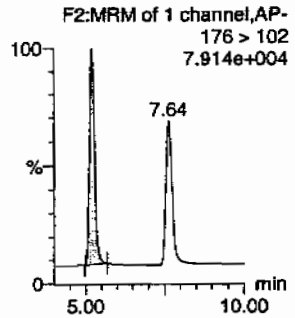


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

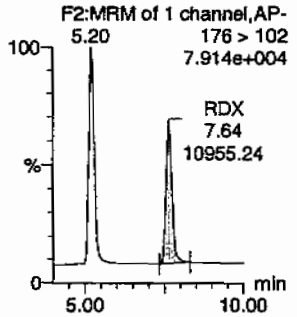
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301017a**
**Date: 01-Mar-2010**
**Time: 23:24:52**
**ID: WXX100301-07CCV**
**Vial: 1:1,B**

MEP 3/2/10

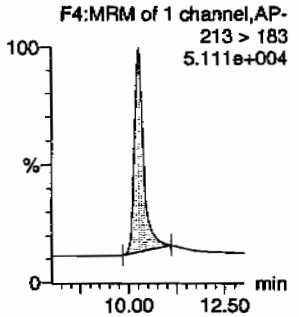
**HMX**



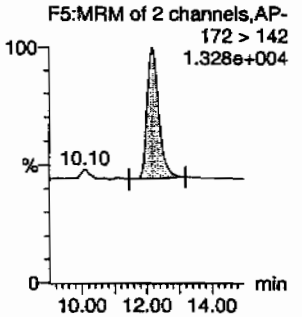

**RDX**



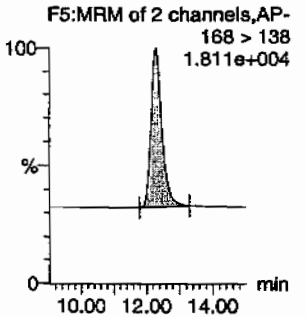

**135-Trinitrobenzene**



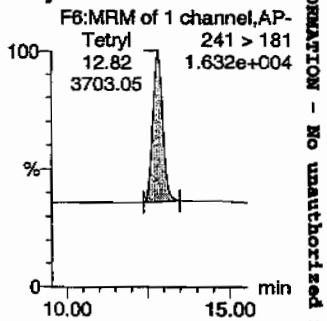

**13-Dinitrobenzene-d4**



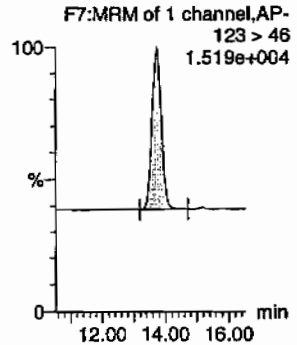

**13-Dinitrobenzene**



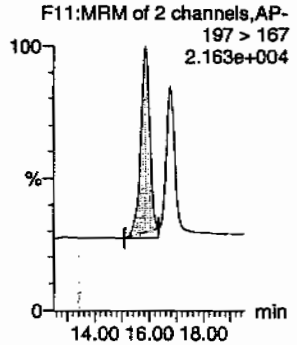

**Tetryl**



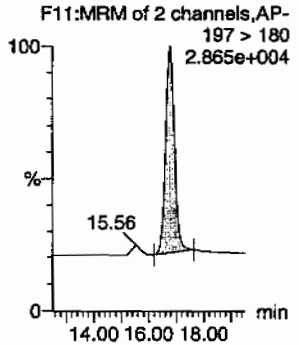

**Nitrobenzene**



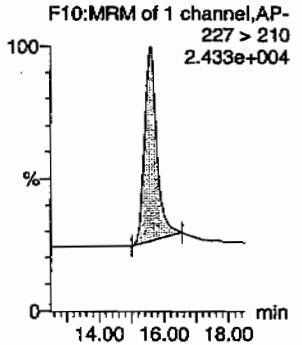

**4-Amino-26-dinitrotoluene**



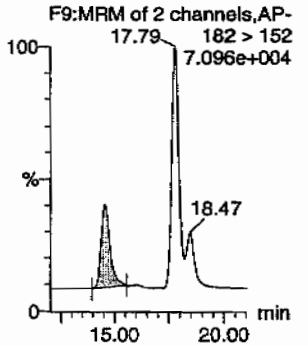

**2-Amino-46-dinitrotoluene**



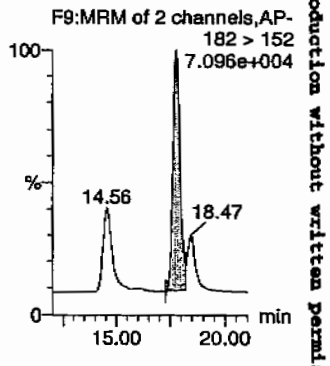

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**




Hnm 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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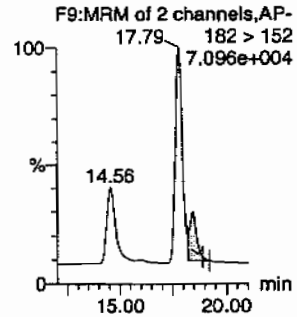
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

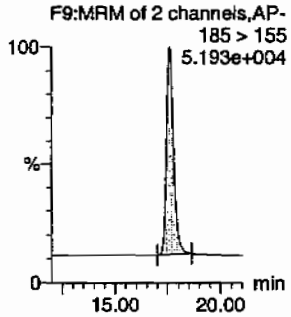


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

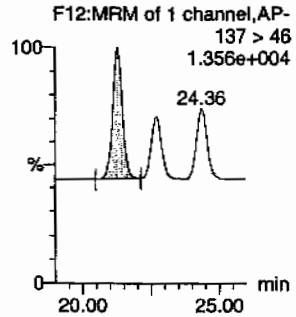
**24-dinitrotoluene**



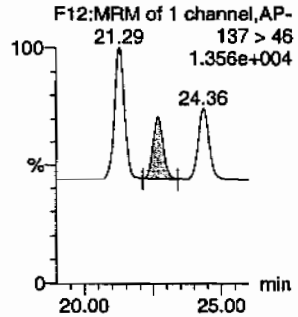

**26-dinitrotoluene-d3**



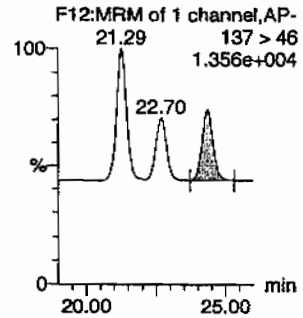

**2-Nitrotoluene**



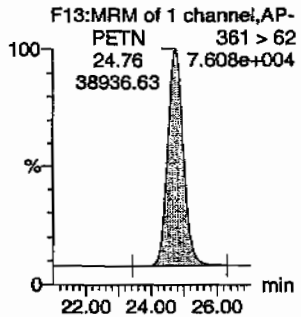

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/ml | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-07CCV | HMX | 176 > 102 | 5.20 | 14517.626 | 3082.776 | 14517.626 | 2354.635 | bb | | | 617.2332 | 102.9 | 2.9 | 1021.8 |
| WXX100301-07CCV | RDX | 176 > 102 | 7.64 | 10955.236 | 3082.776 | 10955.236 | 1776.846 | bb | | | 647.3930 | 107.9 | 7.9 | 676.8 |
| WXX100301-07CCV | 135-Trinitrobenzene | 213 > 183 | 10.27 | 12530.938 | 3082.776 | 12530.938 | 2032.411 | bb | | | 590.2931 | 98.4 | -1.6 | 1341.1 |
| WXX100301-07CCV | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3082.776 | | 3082.776 | 3082.776 | bb | | | 531.8659 | 106.4 | 6.4 | 261.7 |
| WXX100301-07CCV | 13-Dinitrobenzene | 168 > 138 | 12.31 | 4686.547 | 3082.776 | 4686.547 | 760.118 | bb | | | 579.4171 | 96.6 | -3.4 | 272.4 |
| WXX100301-07CCV | Tetryl | 241 > 181 | 12.82 | 3703.050 | 3082.776 | 3703.050 | 600.603 | bb | | | 583.5012 | 97.3 | -2.7 | 411.1 |
| WXX100301-07CCV | Nitrobenzene | 123 > 46 | 13.72 | 3202.571 | 3082.776 | 3202.571 | 519.430 | bb | | | 584.3299 | 97.4 | -2.6 | 338.7 |
| WXX100301-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 6339.237 | 18225.936 | 6339.237 | 173.907 | MM | 02-Mar-10 | 09:46:40 | 616.1038 | 102.7 | 2.7 | 695.4 |
| WXX100301-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 8581.235 | 18225.936 | 8581.235 | 235.413 | bb | | | 624.4049 | 104.1 | 4.1 | 418.3 |
| WXX100301-07CCV | 246-Trinitrotoluene | 227 > 210 | 15.58 | 7920.737 | 18225.936 | 7920.737 | 217.293 | bb | | | 689.4249 | 114.9 | 14.9 | 367.3 |
| WXX100301-07CCV | 34-dinitrotoluene | 182 > 152 | 14.56 | 10782.521 | 18225.936 | 10782.521 | 295.802 | bb | | | 298.5886 | 99.5 | -0.5 | 148.0 |
| WXX100301-07CCV | 26-dinitrotoluene | 182 > 152 | 17.79 | 24088.418 | 18225.936 | 24088.418 | 660.828 | MM | 02-Mar-10 | 09:37:53 | 585.7174 | 97.6 | -2.4 | 423.9 |
| WXX100301-07CCV | 24-dinitrotoluene | 182 > 152 | 18.47 | 5977.618 | 18225.936 | 5977.618 | 163.987 | MM | 02-Mar-10 | 09:29:15 | 651.9286 | 108.7 | 8.7 | 95.7 |
| WXX100301-07CCV | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18225.936 | | 18225.936 | 18225.936 | bb | | | 566.5570 | 113.3 | 13.3 | 1002.3 |
| WXX100301-07CCV | 2-Nitrotoluene | 137 > 46 | 21.29 | 3191.069 | 18225.936 | 3191.069 | 87.542 | bb | | | 527.7355 | 88.0 | -12.0 | 216.6 |
| WXX100301-07CCV | 4-Nitrotoluene | 137 > 46 | 22.70 | 1612.560 | 18225.936 | 1612.560 | 44.238 | bb | | | 558.2114 | 93.0 | -7.0 | 104.1 |
| WXX100301-07CCV | 3-Nitrotoluene | 137 > 46 | 24.36 | 1934.462 | 18225.936 | 1934.462 | 53.069 | bb | | | 540.3436 | 90.1 | -9.9 | 118.2 |
| WXX100301-07CCV | PETN | 361 > 62 | 24.76 | 38936.629 | 18225.936 | 38936.629 | 1068.165 | bb | | | 581.4295 | 96.9 | -3.1 | 5222.5 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/01/10
Time of Injection: 2324
Standard Number: WXX100301-07CCV
Data File: EXP0301017a

| | | |
|---|---|---|
| HMX | | 102.9 |
| RDX | | 107.9 |
| 135-TNB | | 98.4 |
| 13-DNB | | 96.6 |
| Tetryl | | 97.3 |
| Nitrobenzene | | 97.4 |
| 4A-26-DNT | | 102.7 |
| 2A-46-DNT | | 104.1 |
| 246-TNT | | 114.9 |
| 34-DNT(surr) | | 99.5 |
| 26-DNT | | 97.6 |
| 24-DNT | | 108.7 |
| 2-NT | | 88.0 |
| 4-NT | | 93.0 |
| 3-NT | | 90.1 |
| PETN | | 96.9 |
| | | |
| Total | | 1596.0 |
| Average | | 99.8 |

MATT 3/2/10

Hmm 03/02/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10–1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0301019a

**Analysis Date:** 02–MAR–10 00:23

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| p–Nitrotoluene | 40 | 35.984 | 90 | |
| 1,3,5–Trinitrobenzene | 40 | 52.926 | 132 | * |
| 1,3–Dinitrobenzene–d4 | 500 | 525.871 | 105 | |
| 2,4,6–Trinitrotoluene | 40 | 42.691 | 107 | |
| 2,4–Dinitrotoluene | 40 | 39.054 | 98 | |
| 2,6–Dinitrotoluene | 40 | 39.257 | 98 | |
| 2,6–Dinitrotoluene–d3 | 500 | 558.185 | 112 | |
| 2–Amino–4,6–dinitrotoluene | 40 | 39.63 | 99 | |
| 3,4–Dinitrotoluene | 20 | 19.858 | 99 | |
| 4–Amino–2,6–dinitrotoluene | 40 | 39.257 | 98 | |
| HMX | 40 | 51.161 | 128 | |
| Nitrobenzene | 40 | 45.545 | 114 | |
| PETN | 40 | 48.277 | 121 | |
| RDX | 40 | 41.262 | 103 | |
| Tetryl | 40 | 37.992 | 95 | |
| m–Dinitrobenzene | 40 | 38.309 | 96 | |
| m–Nitrotoluene | 40 | 43.591 | 109 | |
| o–Nitrotoluene | 40 | 32.824 | 82 | |

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%
OtherTarget 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

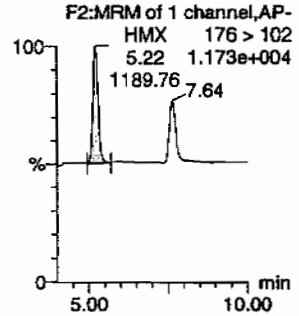


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

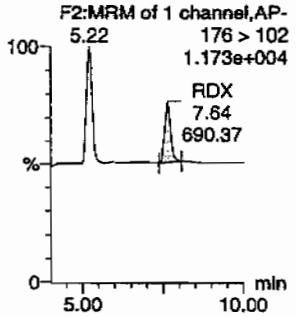
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301019a**
**Date: 02-Mar-2010**
**Time: 00:23:49**
**ID: WXX100301-08CRI**
**Vial: 1:1,C**

HMM 3/2/10

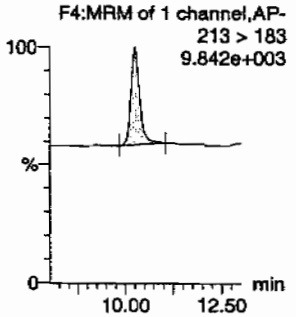
**HMX**



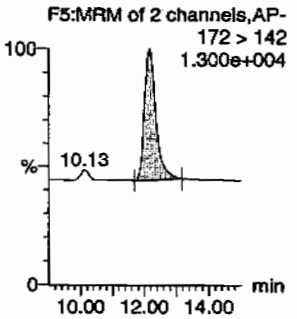

**RDX**



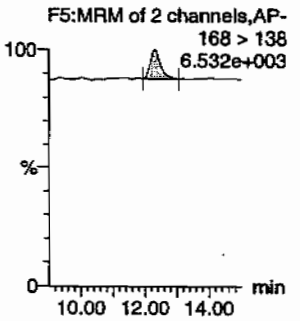

**135-Trinitrobenzene**



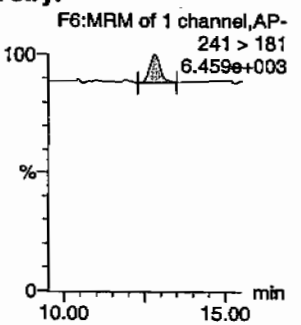

**13-Dinitrobenzene-d4**



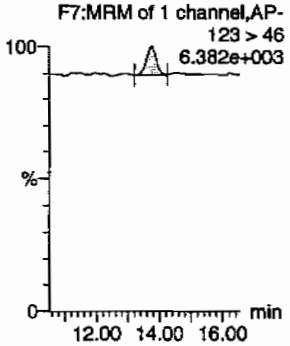

**13-Dinitrobenzene**



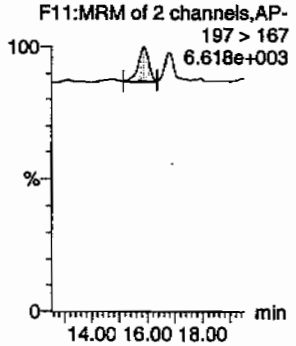

**Tetryl**



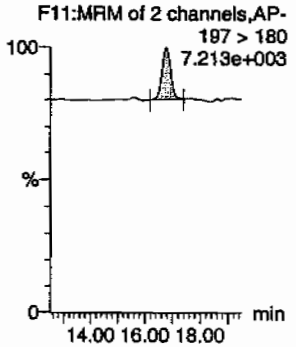

**Nitrobenzene**



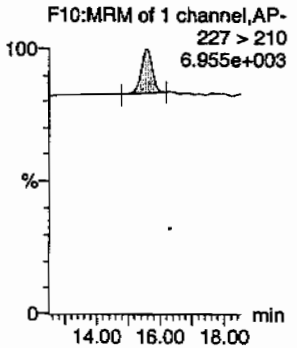

**4-Amino-26-dinitrotoluene**



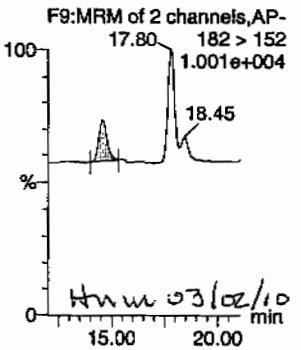

**2-Amino-46-dinitrotoluene**



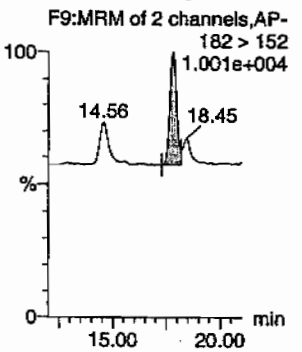

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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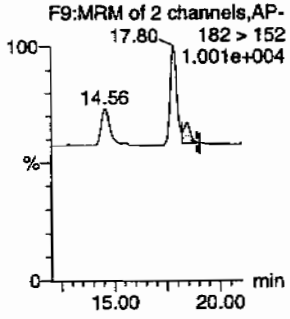
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

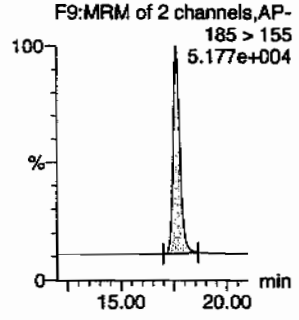


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

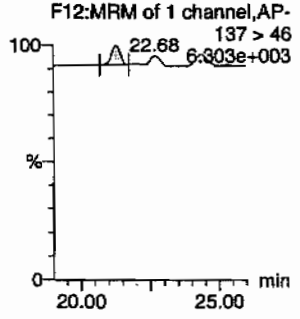
**24-dinitrotoluene**



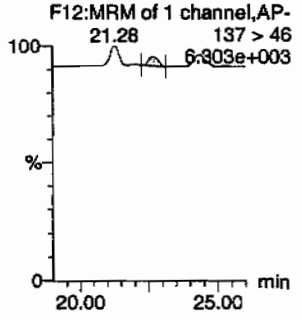

**26-dinitrotoluene-d3**



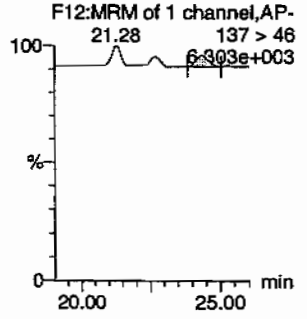

**2-Nitrotoluene**



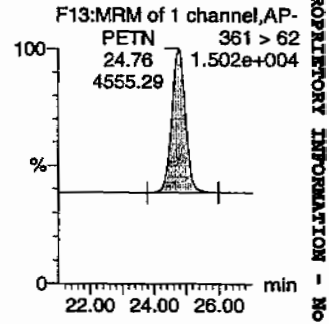

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-08CRI | HMX | 176 > 102 | 5.22 | 1189.756 | 3048.029 | 1189.756 | 195.168 | bb | | | 51.1605 | 127.9 | 27.9 | 142.9 |
| WXX100301-08CRI | RDX | 176 > 102 | 7.64 | 690.369 | 3048.029 | 690.369 | 113.248 | bb | | | 41.2620 | 103.2 | 3.2 | 75.1 |
| WXX100301-08CRI | 135-Trinitrobenzene | 213 > 183 | 10.27 | 1110.860 | 3048.029 | 1110.860 | 182.226 | bb | | | 52.9257 | 132.3 | 32.3 | 172.2 |
| WXX100301-08CRI | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3048.029 | | 3048.029 | 3048.029 | bb | | | 525.8711 | 105.2 | 5.2 | 119.6 |
| WXX100301-08CRI | 13-Dinitrobenzene | 168 > 138 | 12.31 | 306.363 | 3048.029 | 306.363 | 50.256 | bb | | | 38.3087 | 95.8 | -4.2 | 26.9 |
| WXX100301-08CRI | Tetryl | 241 > 181 | 12.82 | 298.811 | 3048.029 | 298.811 | 49.017 | bb | | | 37.9924 | 95.0 | -5.0 | 30.5 |
| WXX100301-08CRI | Nitrobenzene | 123 > 46 | 13.72 | 246.808 | 3048.029 | 246.808 | 40.486 | bb | | | 45.5451 | 113.9 | 13.9 | 15.3 |
| WXX100301-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 397.960 | 17956.605 | 397.960 | 11.081 | MM | 02-Mar-10 | 09:47:07 | 39.2574 | 98.1 | -1.9 | 21.8 |
| WXX100301-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 536.586 | 17956.605 | 536.586 | 14.941 | bb | | | 39.6298 | 99.1 | -0.9 | 69.5 |
| WXX100301-08CRI | 246-Trinitrotoluene | 227 > 210 | 15.58 | 483.222 | 17956.605 | 483.222 | 13.455 | bb | | | 42.6907 | 106.7 | 6.7 | 38.2 |
| WXX100301-08CRI | 34-dinitrotoluene | 182 > 152 | 14.56 | 706.510 | 17956.605 | 706.510 | 19.673 | bb | | | 19.8581 | 99.3 | -0.7 | 43.3 |
| WXX100301-08CRI | 26-dinitrotoluene | 182 > 152 | 17.80 | 1590.641 | 17956.605 | 1590.641 | 44.291 | MM | 02-Mar-10 | 09:38:00 | 39.2570 | 98.1 | -1.9 | 117.4 |
| WXX100301-08CRI | 24-dinitrotoluene | 182 > 152 | 18.45 | 352.801 | 17956.605 | 352.801 | 9.824 | MM | 02-Mar-10 | 09:29:27 | 39.0542 | 97.6 | -2.4 | 24.3 |
| WXX100301-08CRI | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17956.605 | | 17956.605 | 17956.605 | bb | | | 558.1848 | 111.6 | 11.6 | 1259.1 |
| WXX100301-08CRI | 2-Nitrotoluene | 137 > 46 | 21.28 | 195.546 | 17956.605 | 195.546 | 5.445 | bb | | | 32.8242 | 82.1 | -17.9 | 36.0 |
| WXX100301-08CRI | 4-Nitrotoluene | 137 > 46 | 22.68 | 102.414 | 17956.605 | 102.414 | 2.852 | bb | | | 35.9839 | 90.0 | -10.0 | 17.3 |
| WXX100301-08CRI | 3-Nitrotoluene | 137 > 46 | 24.35 | 153.752 | 17956.605 | 153.752 | 4.281 | bb | | | 43.5909 | 109.0 | 9.0 | 21.2 |
| WXX100301-08CRI | PETN | 361 > 62 | 24.76 | 4555.286 | 17956.605 | 4555.286 | 126.842 | bb | | | 48.2774 | 120.7 | 20.7 | 1918.3 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

| | |
|---|---|
| Vendor: | UltraScientific |
| Date of Analysis | 03/02/10 |
| Time of Injection | 0023 |
| Standard Number | WXX100301-08CRI |
| Data File | EXP0301019a |

| | |
|---|---|
| HMX | 127.9 |
| RDX | 103.2 |
| 135-TNB | 132.3 |
| 13-DNB | 95.8 |
| Tetryl | 95.0 |
| Nitrobenzene | 113.9 |
| 4A-26-DNT | 98.1 |
| 2A-46-DNT | 99.1 |
| 246-TNT | 106.7 |
| 34-DNT(surr) | 99.3 |
| 26-DNT | 98.1 |
| 24-DNT | 97.6 |
| 2-NT | 82.1 |
| 4-NT | 90.0 |
| 3-NT | 109.0 |
| PETN | 120.7 |
| Total | 1668.8 |
| Average | 104.3 |

MTT 3/2/10

Hnm 03/02/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

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# 7A
## Explosives Continuing Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10–1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCCV

**GEL Data File** EXP0301030a

**Analysis Date:** 02–MAR–10 05:48

**LCMSMS ID:** 903

**Column ID** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2–Amino–4,6–dinitrotoluene | 600 | 651.99 | 109 | |
| 3,4–Dinitrotoluene | 300 | 289.207 | 96 | |
| 4–Amino–2,6–dinitrotoluene | 600 | 610.451 | 102 | |
| HMX | 600 | 614.974 | 102 | |
| Nitrobenzene | 600 | 545.928 | 91 | |
| PETN | 600 | 712.654 | 119 | |
| RDX | 600 | 633.914 | 106 | |
| Tetryl | 600 | 599.969 | 100 | |
| m–Dinitrobenzene | 600 | 580.256 | 97 | |
| m–Nitrotoluene | 600 | 548.818 | 91 | |
| o–Nitrotoluene | 600 | 560.002 | 93 | |
| p–Nitrotoluene | 600 | 586.006 | 98 | |
| 1,3,5–Trinitrobenzene | 600 | 602.258 | 100 | |
| 1,3–Dinitrobenzene–d4 | 500 | 494.372 | 99 | |
| 2,4,6–Trinitrotoluene | 600 | 680.786 | 113 | |
| 2,4–Dinitrotoluene | 600 | 606.313 | 101 | |
| 2,6–Dinitrotoluene | 600 | 608.101 | 101 | |
| 2,6–Dinitrotoluene–d3 | 500 | 501.765 | 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%
OtherTarget 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

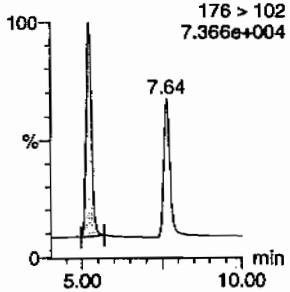


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

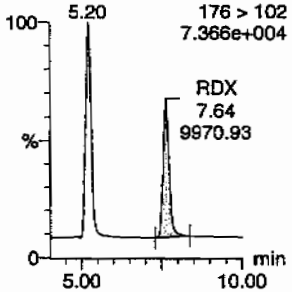
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301030a**
**Date: 02-Mar-2010**
**Time: 05:48:04**
**ID: WXX100301-07CCV**
**Vial: 1:1,B**

MAT 3/2/10

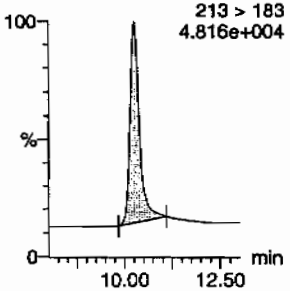
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
7.366e+004



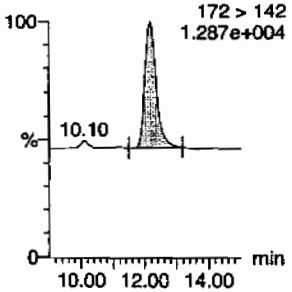

**RDX**
F2:MRM of 1 channel,AP-
5.20
176 > 102
7.366e+004



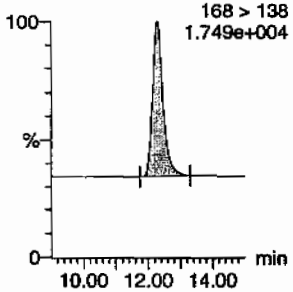

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
4.816e+004



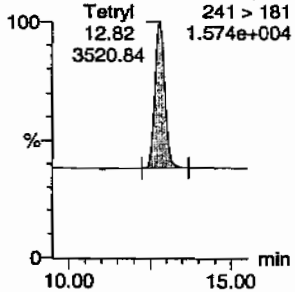

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.287e+004



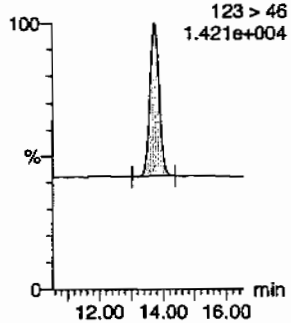

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
1.749e+004



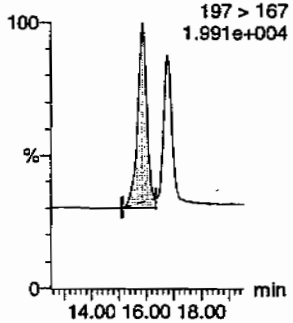

**Tetryl**
F6:MRM of 1 channel,AP-
Tetryl
12.82
3520.84
241 > 181
1.574e+004



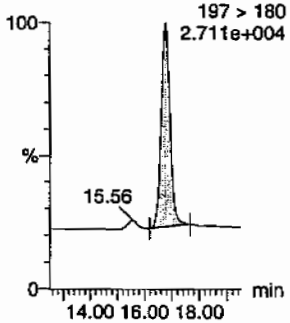

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
1.421e+004



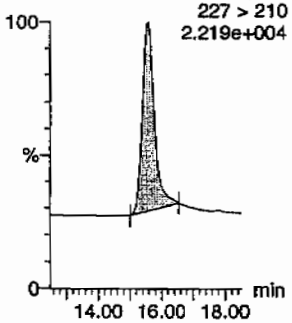

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
1.991e+004



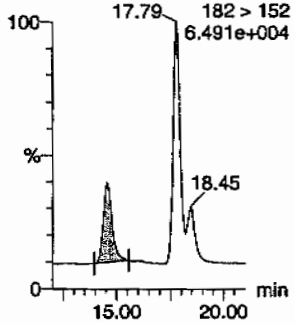

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
2.711e+004



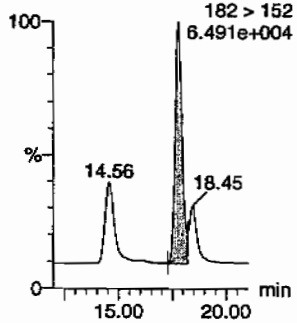

**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
2.219e+004




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
17.79
182 > 152
6.491e+004




**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.491e+004




Hmw 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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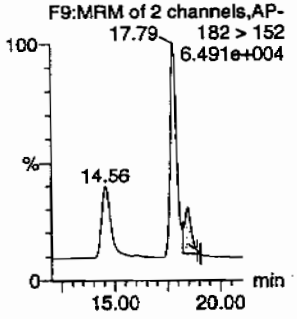
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

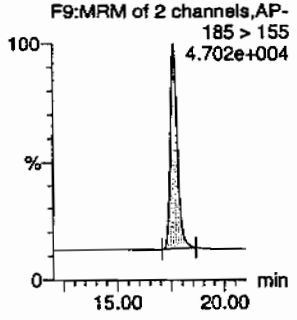


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

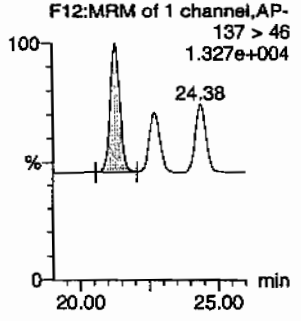
**24-dinitrotoluene**



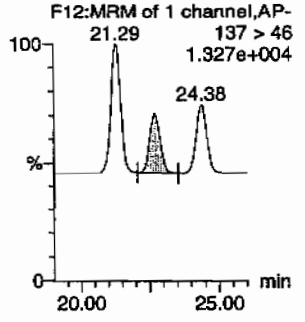

**26-dinitrotoluene-d3**



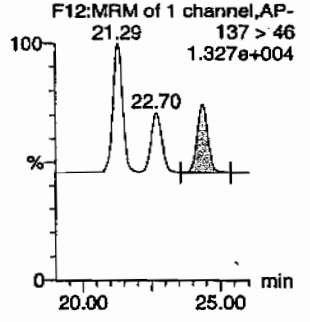

**2-Nitrotoluene**



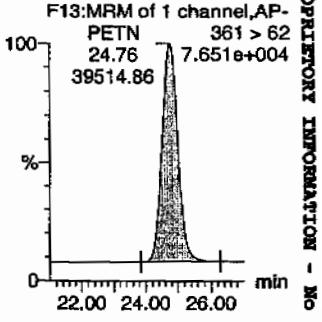

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-07CCV | HMX | 176 > 102 | 5.20 | 13444.806 | 2865.454 | 13444.806 | 2346.017 | bb | | | 614.9740 | 102.5 | 2.5 | 2571.7 |
| WXX100301-07CCV | RDX | 176 > 102 | 7.64 | 9970.935 | 2865.454 | 9970.935 | 1739.853 | bb | | | 633.9145 | 105.7 | 5.7 | 1663.7 |
| WXX100301-07CCV | 135-Trinitrobenzene | 213 > 183 | 10.27 | 11883.659 | 2865.454 | 11883.659 | 2073.608 | bb | | | 602.2583 | 100.4 | 0.4 | 192.1 |
| WXX100301-07CCV | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2865.454 | | 2865.454 | 2865.454 | bb | | | 494.3718 | 98.9 | -1.1 | 270.3 |
| WXX100301-07CCV | 13-Dinitrobenzene | 168 > 138 | 12.31 | 4362.471 | 2865.454 | 4362.471 | 761.218 | bb | | | 580.2557 | 96.7 | -3.3 | 110.3 |
| WXX100301-07CCV | Tetryl | 241 > 181 | 12.82 | 3520.838 | 2865.454 | 3520.838 | 614.360 | bb | | | 599.9689 | 100.0 | -0.0 | 333.0 |
| WXX100301-07CCV | Nitrobenzene | 123 > 46 | 13.72 | 2781.172 | 2865.454 | 2781.172 | 485.293 | bb | | | 545.9285 | 91.0 | -9.0 | 216.3 |
| WXX100301-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 5562.768 | 16141.602 | 5562.768 | 172.312 | MM | 02-Mar-10 | 09:47:59 | 610.4513 | 101.7 | 1.7 | 311.5 |
| WXX100301-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 7935.624 | 16141.602 | 7935.624 | 245.813 | bb | | | 651.9898 | 108.7 | 8.7 | 359.4 |
| WXX100301-07CCV | 246-Trinitrotoluene | 227 > 210 | 15.58 | 6927.009 | 16141.602 | 6927.009 | 214.570 | bb | | | 680.7856 | 113.5 | 13.5 | 252.6 |
| WXX100301-07CCV | 34-dinitrotoluene | 182 > 152 | 14.56 | 9249.384 | 16141.602 | 9249.384 | 286.508 | bb | | | 289.2070 | 96.4 | -3.6 | 565.8 |
| WXX100301-07CCV | 26-dinitrotoluene | 182 > 152 | 17.79 | 22148.932 | 16141.602 | 22148.932 | 686.082 | MM | 02-Mar-10 | 09:38:36 | 608.1012 | 101.4 | 1.4 | 1714.5 |
| WXX100301-07CCV | 24-dinitrotoluene | 182 > 152 | 18.45 | 4923.592 | 16141.602 | 4923.592 | 152.512 | MM | 02-Mar-10 | 09:30:10 | 606.3134 | 101.1 | 1.1 | 367.7 |
| WXX100301-07CCV | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 16141.602 | | 16141.602 | 16141.602 | bb | | | 501.7650 | 100.4 | 0.4 | 1182.6 |
| WXX100301-07CCV | 2-Nitrotoluene | 137 > 46 | 21.29 | 2998.927 | 16141.602 | 2998.927 | 92.894 | bb | | | 560.0016 | 93.3 | -6.7 | 1564.0 |
| WXX100301-07CCV | 4-Nitrotoluene | 137 > 46 | 22.70 | 1499.257 | 16141.602 | 1499.257 | 46.441 | bb | | | 586.0061 | 97.7 | -2.3 | 725.1 |
| WXX100301-07CCV | 3-Nitrotoluene | 137 > 46 | 24.38 | 1740.106 | 16141.602 | 1740.106 | 53.901 | bb | | | 548.8185 | 91.5 | -8.5 | 831.2 |
| WXX100301-07CCV | PETN | 361 > 62 | 24.76 | 39514.859 | 16141.602 | 39514.859 | 1224.007 | bb | | | 712.6541 | 118.8 | 18.8 | 12578.8 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 0548
Standard Number: WXX100301-07CCV
Data File: EXP0301030a

| | |
|---|---|
| HMX | 102.5 |
| RDX | 105.7 |
| 135-TNB | 100.4 |
| 13-DNB | 96.7 |
| Tetryl | 100.0 |
| Nitrobenzene | 91.0 |
| 4A-26-DNT | 101.7 |
| 2A-46-DNT | 108.7 |
| 246-TNT | 113.5 |
| 34-DNT(surr) | 96.4 |
| 26-DNT | 101.4 |
| 24-DNT | 101.1 |
| 2-NT | 93.3 |
| 4-NT | 97.7 |
| 3-NT | 91.5 |
| PETN | 118.8 |
| | |
| Total | 1620.4 |
| Average | 101.3 |

MTT 3/2/10

HMM 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0301032a

**Analysis Date:** 02-MAR-10 06:47

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 40 | 56.807 | 142 | * |
| 1,3-Dinitrobenzene-d4 | 500 | 493.808 | 99 | |
| 2,4,6-Trinitrotoluene | 40 | 46.587 | 116 | |
| 2,4-Dinitrotoluene | 40 | 36.621 | 92 | |
| 2,6-Dinitrotoluene | 40 | 38.39 | 96 | |
| 2,6-Dinitrotoluene-d3 | 500 | 575.349 | 115 | |
| 2-Amino-4,6-dinitrotoluene | 40 | 41.902 | 105 | |
| 3,4-Dinitrotoluene | 20 | 18.621 | 93 | |
| 4-Amino-2,6-dinitrotoluene | 40 | 35.659 | 89 | |
| HMX | 40 | 45.151 | 113 | |
| Nitrobenzene | 40 | 49.82 | 125 | |
| PETN | 40 | 46.402 | 116 | |
| RDX | 40 | 43.703 | 109 | |
| Tetryl | 40 | 36.051 | 90 | |
| m-Dinitrobenzene | 40 | 39.792 | 99 | |
| m-Nitrotoluene | 40 | 37.14 | 93 | |
| o-Nitrotoluene | 40 | 40.127 | 100 | |
| p-Nitrotoluene | 40 | 32.699 | 82 | |

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%
OtherTarget 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

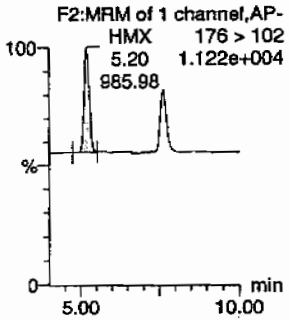


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

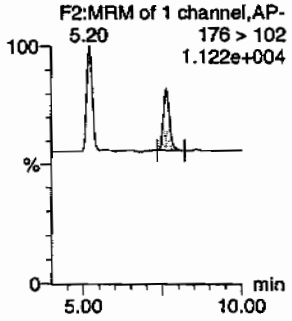
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301032a**
**Date: 02-Mar-2010**
**Time: 06:47:09**
**ID: WXX100301-08CRI**
**Vial: 1:1,C**

MMT 3/2/10

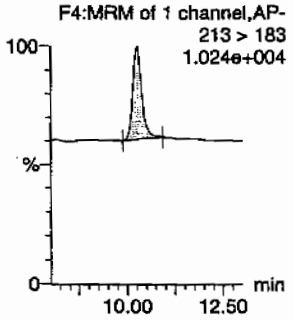
**HMX**



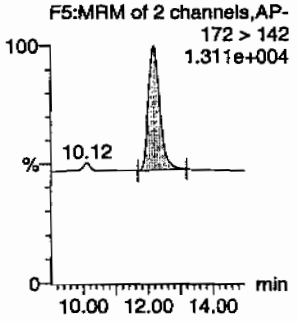

**RDX**



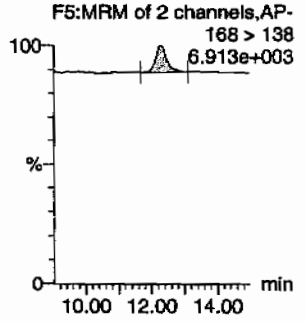

**135-Trinitrobenzene**



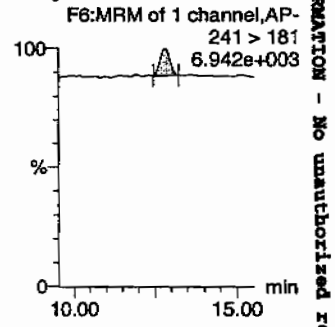

**13-Dinitrobenzene-d4**



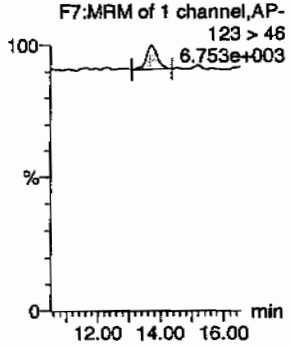

**13-Dinitrobenzene**



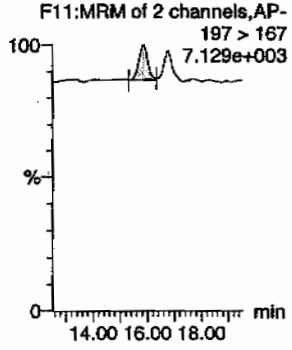

**Tetryl**



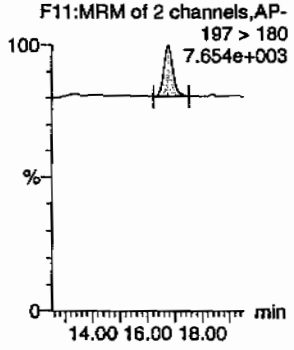

**Nitrobenzene**



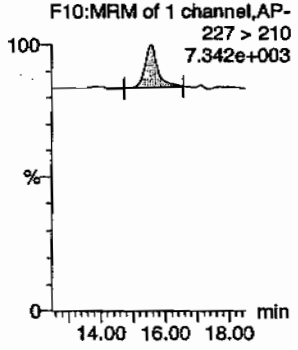

**4-Amino-26-dinitrotoluene**



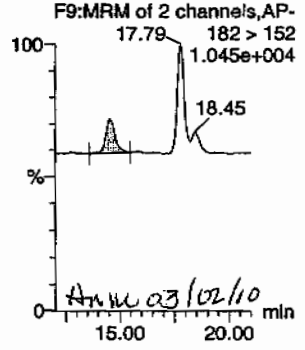

**2-Amino-46-dinitrotoluene**




**246-Trinitrotoluene**

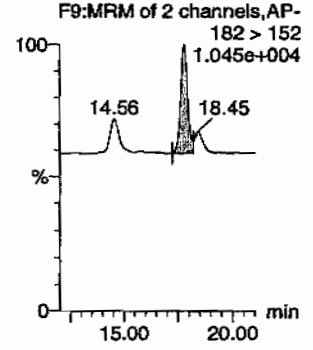



**34-dinitrotoluene**




AMW 03/02/10

**26-dinitrotoluene**




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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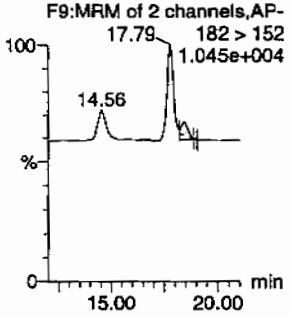
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

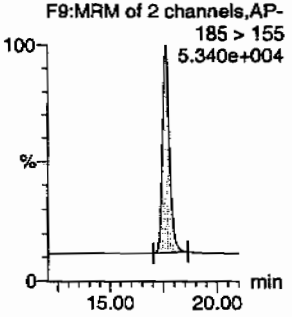


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

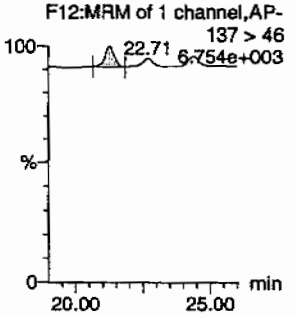
**24-dinitrotoluene**



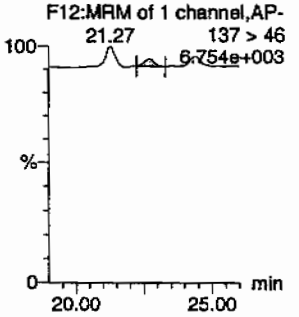

**26-dinitrotoluene-d3**



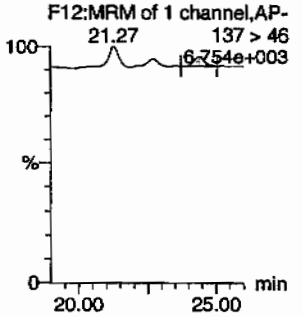

**2-Nitrotoluene**



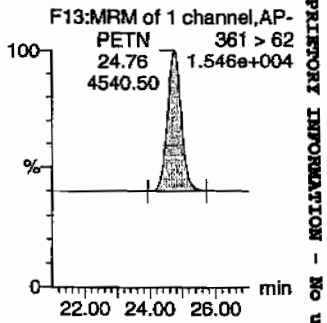

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/ml | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-08CRI | HMX | 176 > 102 | 5.20 | 985.979 | 2862.189 | 985.979 | 172.242 | bb | | | 45.1508 | 112.9 | 12.9 | 191.8 |
| WXX100301-08CRI | RDX | 176 > 102 | 7.64 | 686.625 | 2862.189 | 686.625 | 119.948 | bb | | | 43.7028 | 109.3 | 9.3 | 115.5 |
| WXX100301-08CRI | 135-Trinitrobenzene | 213 > 183 | 10.25 | 1119.636 | 2862.189 | 1119.636 | 195.591 | bb | | | 56.8074 | 142.0 | 42.0 | 145.8 |
| WXX100301-08CRI | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2862.189 | | 2862.189 | 2862.189 | bb | | | 493.8085 | 98.8 | -1.2 | 676.0 |
| WXX100301-08CRI | 13-Dinitrobenzene | 168 > 138 | 12.27 | 298.819 | 2862.189 | 298.819 | 52.201 | bb | | | 39.7915 | 99.5 | -0.5 | 28.1 |
| WXX100301-08CRI | Tetryl | 241 > 181 | 12.82 | 267.449 | 2862.189 | 267.449 | 46.721 | bb | | | 36.0505 | 90.1 | -9.9 | 36.1 |
| WXX100301-08CRI | Nitrobenzene | 123 > 46 | 13.72 | 253.513 | 2862.189 | 253.513 | 44.287 | bb | | | 49.8199 | 124.5 | 24.5 | 18.3 |
| WXX100301-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 372.598 | 18508.766 | 372.598 | 10.065 | MM | 02-Mar-10 | 09:48:09 | 35.6591 | 89.1 | -10.9 | 31.0 |
| WXX100301-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 584.791 | 18508.766 | 584.791 | 15.798 | bb | | | 41.9015 | 104.8 | 4.8 | 54.6 |
| WXX100301-08CRI | 246-Trinitrotoluene | 227 > 210 | 15.55 | 543.539 | 18508.766 | 543.539 | 14.683 | bb | | | 46.5870 | 116.5 | 16.5 | 34.9 |
| WXX100301-08CRI | 34-dinitrotoluene | 182 > 152 | 14.56 | 682.884 | 18508.766 | 682.884 | 18.448 | bb | | | 18.6214 | 93.1 | -6.9 | 50.9 |
| WXX100301-08CRI | 26-dinitrotoluene | 182 > 152 | 17.79 | 1603.357 | 18508.766 | 1603.357 | 43.313 | MM | 02-Mar-10 | 09:38:44 | 38.3904 | 96.0 | -4.0 | 158.3 |
| WXX100301-08CRI | 24-dinitrotoluene | 182 > 152 | 18.45 | 340.997 | 18508.766 | 340.997 | 9.212 | MM | 02-Mar-10 | 09:30:20 | 36.6214 | 91.6 | -8.4 | 30.3 |
| WXX100301-08CRI | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18508.766 | | 18508.766 | 18508.766 | bb | | | 575.3488 | 115.1 | 15.1 | 766.4 |
| WXX100301-08CRI | 2-Nitrotoluene | 137 > 46 | 21.27 | 246.403 | 18508.766 | 246.403 | 6.656 | bb | | | 40.1272 | 100.3 | 0.3 | 65.8 |
| WXX100301-08CRI | 4-Nitrotoluene | 137 > 46 | 22.71 | 95.927 | 18508.766 | 95.927 | 2.591 | bb | | | 32.6991 | 81.7 | -18.3 | 24.5 |
| WXX100301-08CRI | 3-Nitrotoluene | 137 > 46 | 24.40 | 135.025 | 18508.766 | 135.025 | 3.648 | bb | | | 37.1395 | 92.8 | -7.2 | 32.5 |
| WXX100301-08CRI | PETN | 361 > 62 | 24.76 | 4540.501 | 18508.766 | 4540.501 | 122.658 | bb | | | 46.4023 | 116.0 | 16.0 | 1315.9 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

| | |
|---|---|
| Vendor: | UltraScientific |
| Date of Analysis | 03/02/10 |
| Time of Injection | 0647 |
| Standard Number | WXX100301-08CRI |
| Data File | EXP0301032a |

| | |
|---|---|
| HMX | 112.9 |
| RDX | 109.3 |
| 135-TNB | 142.0 |
| 13-DNB | 99.5 |
| Tetryl | 90.1 |
| Nitrobenzene | 124.5 |
| 4A-26-DNT | 89.1 |
| 2A-46-DNT | 104.8 |
| 246-TNT | 116.5 |
| 34-DNT(surr) | 93.1 |
| 26-DNT | 96.0 |
| 24-DNT | 91.6 |
| 2-NT | 100.3 |
| 4-NT | 81.7 |
| 3-NT | 92.8 |
| PETN | 116.0 |
| Total | 1660.2 |
| Average | 103.8 |

MATP 3/2/10

Hmw 03/02/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A

# Explosives Continuing Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCCV

**GEL Data File** EXP0301043a

**Analysis Date:** 02-MAR-10 12:12

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| m-Dinitrobenzene | 600 | 583.866 | 97 | |
| m-Nitrotoluene | 600 | 483.41 | 81 | |
| o-Nitrotoluene | 600 | 523.965 | 87 | |
| p-Nitrotoluene | 600 | 533.33 | 89 | |
| 1,3,5-Trinitrobenzene | 600 | 588.95 | 98 | |
| 1,3-Dinitrobenzene-d4 | 500 | 488.117 | 98 | |
| 2,4,6-Trinitrotoluene | 600 | 582.004 | 97 | |
| 2,4-Dinitrotoluene | 600 | 656.909 | 109 | |
| 2,6-Dinitrotoluene | 600 | 614.349 | 102 | |
| 2,6-Dinitrotoluene-d3 | 500 | 563.804 | 113 | |
| 2-Amino-4,6-dinitrotoluene | 600 | 721.579 | 120 | * |
| 3,4-Dinitrotoluene | 300 | 252.075 | 84 | |
| 4-Amino-2,6-dinitrotoluene | 600 | 528.132 | 88 | |
| HMX | 600 | 750.903 | 125 | * |
| Nitrobenzene | 600 | 564.338 | 94 | |
| PETN | 600 | 561.884 | 94 | |
| RDX | 600 | 599.348 | 100 | |
| Tetryl | 600 | 539.471 | 90 | |

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

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

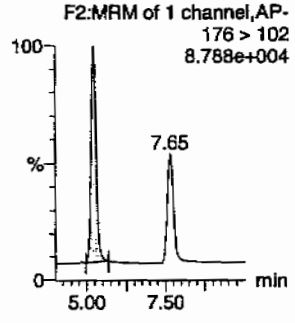


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

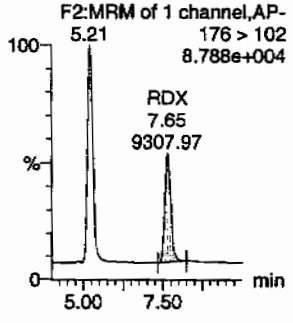
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301043a**
**Date: 02-Mar-2010**
**Time: 12:12:16**
**ID: WXX100301-07CCV**
**Vial: 1:1,B**

MATT 3/3/10

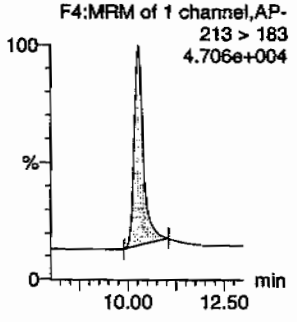
**HMX**



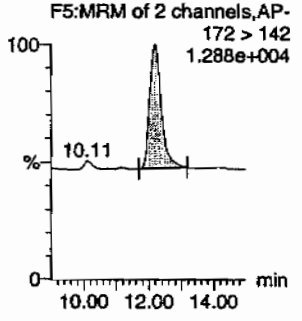

**RDX**



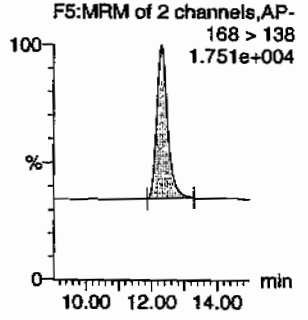

**135-Trinitrobenzene**



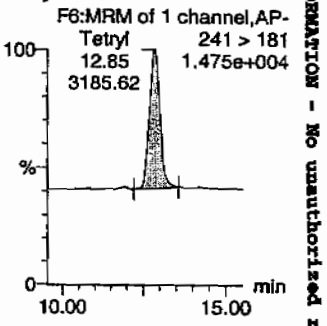

**13-Dinitrobenzene-d4**



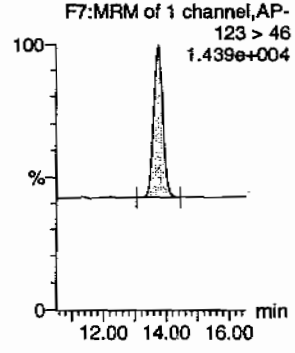

**13-Dinitrobenzene**



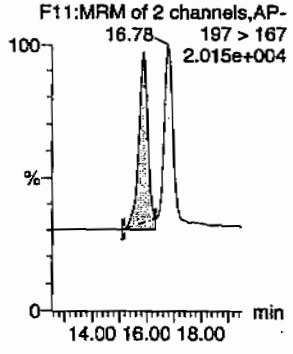

**Tetryl**



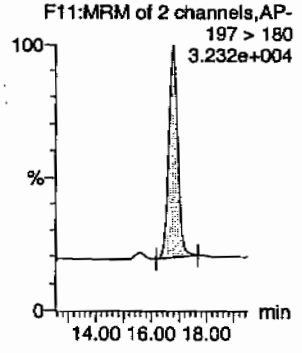

**Nitrobenzene**



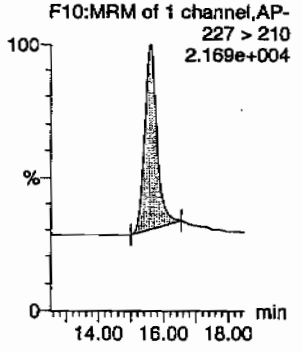

**4-Amino-26-dinitrotoluene**



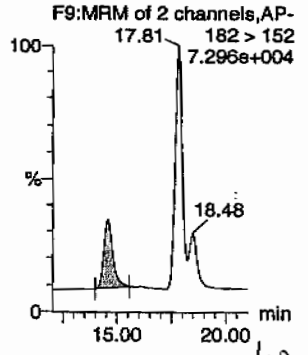

**2-Amino-46-dinitrotoluene**




**246-Trinitrotoluene**

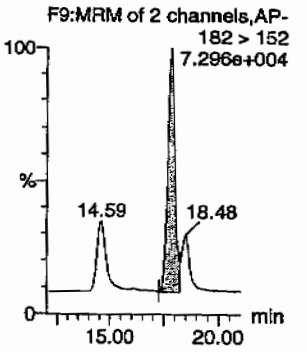



**34-dinitrotoluene**




Hmc 03/04/10

**26-dinitrotoluene**



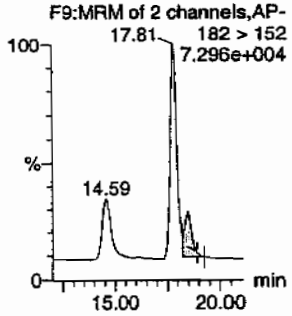

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

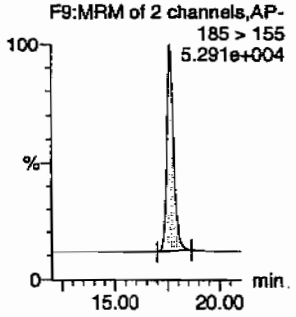


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

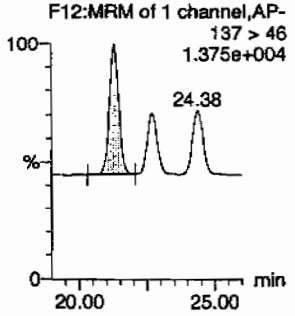
**24-dinitrotoluene**



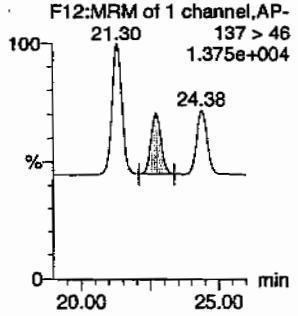

**26-dinitrotoluene-d3**



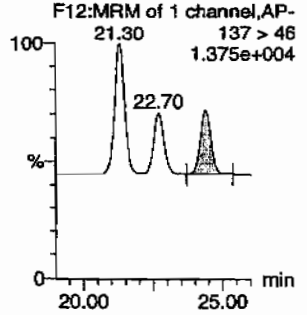

**2-Nitrotoluene**



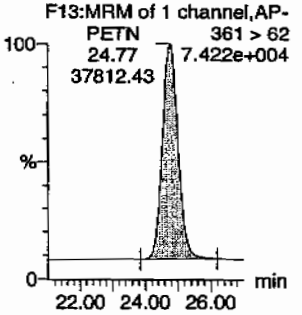

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-07CCV | HMX | 176 > 102 | 5.21 | 16208.861 | 2829.203 | 16208.861 | 2864.563 | bb | | | 750.9033 | 125.2 | 25.2 | 2295.4 |
| WXX100301-07CCV | RDX | 176 > 102 | 7.65 | 9307.974 | 2829.203 | 9307.974 | 1644.982 | bb | | | 599.3483 | 99.9 | -0.1 | 1159.0 |
| WXX100301-07CCV | 135-Trinitrobenzene | 213 > 183 | 10.26 | 11474.052 | 2829.203 | 11474.052 | 2027.789 | bb | | | 588.9505 | 98.2 | -1.8 | 790.1 |
| WXX100301-07CCV | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 2829.203 | | 2829.203 | 2829.203 | bb | | | 488.1174 | 97.6 | -2.4 | 347.7 |
| WXX100301-07CCV | 13-Dinitrobenzene | 168 > 138 | 12.31 | 4334.083 | 2829.203 | 4334.083 | 765.955 | bb | | | 583.8663 | 97.3 | -2.7 | 278.1 |
| WXX100301-07CCV | Tetryl | 241 > 181 | 12.85 | 3185.622 | 2829.203 | 3185.622 | 562.989 | bb | | | 539.4714 | 89.9 | -10.1 | 301.9 |
| WXX100301-07CCV | Nitrobenzene | 123 > 46 | 13.74 | 2838.587 | 2829.203 | 2838.587 | 501.658 | bb | | | 564.3382 | 94.1 | -5.9 | 216.0 |
| WXX100301-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.88 | 5407.666 | 18137.371 | 5407.666 | 149.075 | MM | 03-Mar-10 | 08:45:19 | 528.1317 | 88.0 | -12.0 | 671.8 |
| WXX100301-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.78 | 9868.511 | 18137.371 | 9868.511 | 272.049 | bb | | | 721.5786 | 120.3 | 20.3 | 701.2 |
| WXX100301-07CCV | 246-Trinitrotoluene | 227 > 210 | 15.57 | 6654.099 | 18137.371 | 6654.099 | 183.436 | bb | | | 582.0043 | 97.0 | -3.0 | 270.5 |
| WXX100301-07CCV | 34-dinitrotoluene | 182 > 152 | 14.59 | 9058.592 | 18137.371 | 9058.592 | 249.722 | bb | | | 252.0746 | 84.0 | -16.0 | 344.6 |
| WXX100301-07CCV | 26-dinitrotoluene | 182 > 152 | 17.81 | 25143.154 | 18137.371 | 25143.154 | 693.131 | MM | 03-Mar-10 | 08:56:41 | 614.3490 | 102.4 | 2.4 | 1225.3 |
| WXX100301-07CCV | 24-dinitrotoluene | 182 > 152 | 18.48 | 5994.011 | 18137.371 | 5994.011 | 165.239 | MM | 03-Mar-10 | 08:57:01 | 656.9086 | 109.5 | 9.5 | 264.3 |
| WXX100301-07CCV | 26-dinitrotoluene-d3 | 185 > 155 | 17.63 | 18137.371 | | 18137.371 | 18137.371 | bb | | | 563.8039 | 112.8 | 12.8 | 1665.1 |
| WXX100301-07CCV | 2-Nitrotoluene | 137 > 46 | 21.30 | 3152.875 | 18137.371 | 3152.875 | 86.917 | bb | | | 523.9652 | 87.3 | -12.7 | 426.3 |
| WXX100301-07CCV | 4-Nitrotoluene | 137 > 46 | 22.70 | 1533.195 | 18137.371 | 1533.195 | 42.266 | bb | | | 533.3297 | 88.9 | -11.1 | 199.5 |
| WXX100301-07CCV | 3-Nitrotoluene | 137 > 46 | 24.38 | 1722.228 | 18137.371 | 1722.228 | 47.477 | bb | | | 483.4104 | 80.6 | -19.4 | 209.6 |
| WXX100301-07CCV | PETN | 361 > 62 | 24.77 | 37812.434 | 18137.371 | 37812.434 | 1042.390 | bb | | | 561.8844 | 93.6 | -6.4 | 3954.4 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 1212
Standard Number: WXX100301-07CCV
Data File: EXP0301043a

| | | |
|---|---|---|
| HMX | | 125.2 |
| RDX | | 99.9 |
| 135-TNB | | 98.2 |
| 13-DNB | | 97.3 |
| Tetryl | | 89.9 |
| Nitrobenzene | | 94.1 |
| 4A-26-DNT | | 88.0 |
| 2A-46-DNT | | 120.3 |
| 246-TNT | | 97.0 |
| 34-DNT(surr) | | 84.0 |
| 26-DNT | | 102.4 |
| 24-DNT | | 109.5 |
| 2-NT | | 87.3 |
| 4-NT | | 88.9 |
| 3-NT | | 80.6 |
| PETN | | 93.6 |
| | | |
| Total | | 1556.2 |
| Average | | 97.3 |

3/3/10

4mm-03/04/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

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# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0301045a

**Analysis Date:** 02-MAR-10 13:11

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| HMX | 40 | 44.598 | 111 | |
| Nitrobenzene | 40 | 33.284 | 83 | |
| PETN | 40 | 44.336 | 111 | |
| RDX | 40 | 40.437 | 101 | |
| Tetryl | 40 | 37.348 | 93 | |
| m-Dinitrobenzene | 40 | 41.99 | 105 | |
| m-Nitrotoluene | 40 | 45.416 | 114 | |
| o-Nitrotoluene | 40 | 39.436 | 99 | |
| p-Nitrotoluene | 40 | 37.7 | 94 | |
| 1,3,5-Trinitrobenzene | 40 | 52.342 | 131 | * |
| 1,3-Dinitrobenzene-d4 | 500 | 567.192 | 113 | |
| 2,4,6-Trinitrotoluene | 40 | 43.217 | 108 | |
| 2,4-Dinitrotoluene | 40 | 40.629 | 102 | |
| 2,6-Dinitrotoluene | 40 | 39.638 | 99 | |
| 2,6-Dinitrotoluene-d3 | 500 | 584.534 | 117 | |
| 2-Amino-4,6-dinitrotoluene | 40 | 44.683 | 112 | |
| 3,4-Dinitrotoluene | 20 | 18.858 | 94 | |
| 4-Amino-2,6-dinitrotoluene | 40 | 41.968 | 105 | |

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%
OtherTarget 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

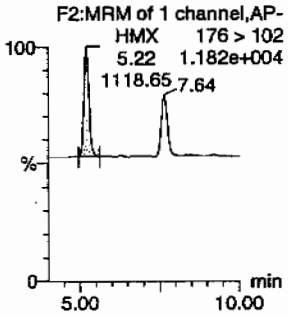


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

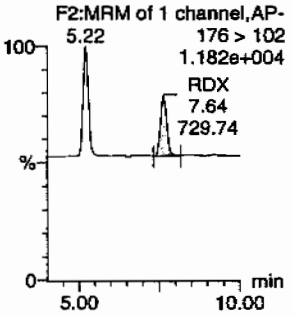
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301045a**
**Date: 02-Mar-2010**
**Time: 13:11:21**
**ID: WXX100301-08CRI**
**Vial: 1:1,C**

MM 3/3/10

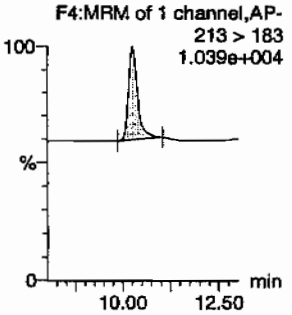
**HMX**



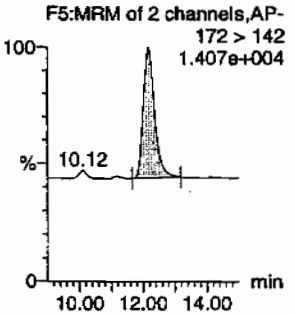

**RDX**



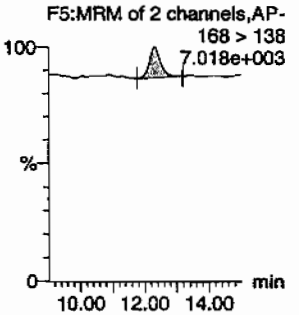

**135-Trinitrobenzene**



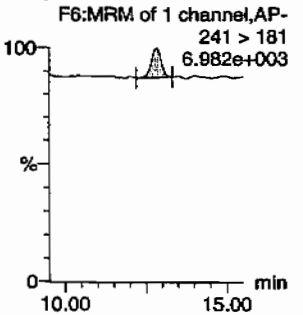

**13-Dinitrobenzene-d4**



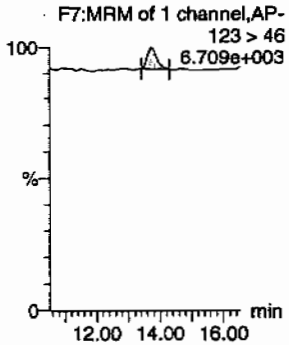

**13-Dinitrobenzene**



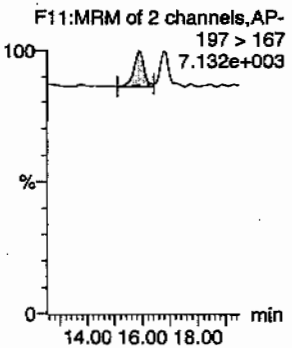

**Tetryl**



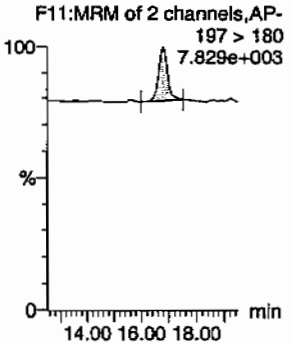

**Nitrobenzene**



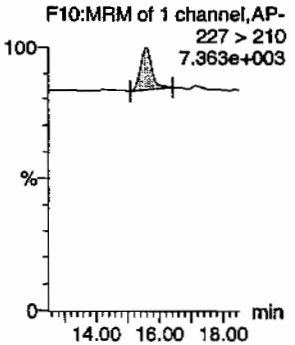

**4-Amino-26-dinitrotoluene**



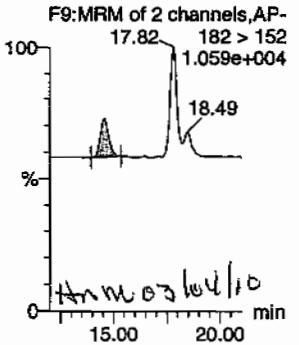

**2-Amino-46-dinitrotoluene**



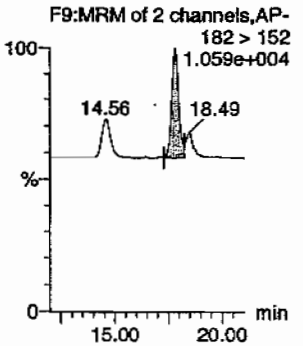

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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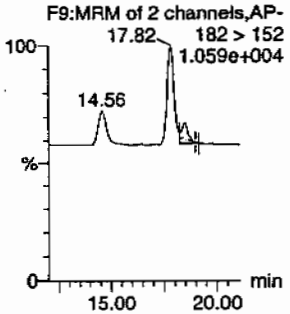
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

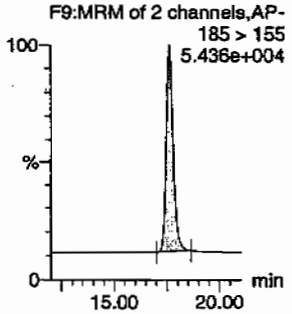


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

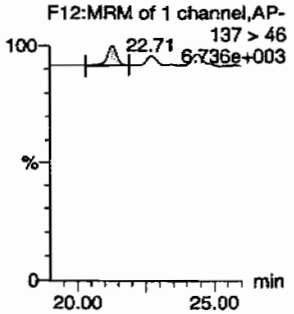
**24-dinitrotoluene**



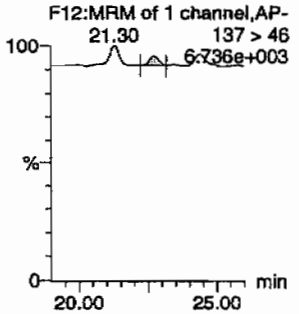

**26-dinitrotoluene-d3**



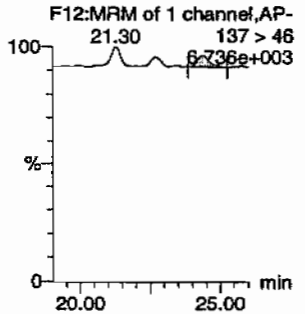

**2-Nitrotoluene**



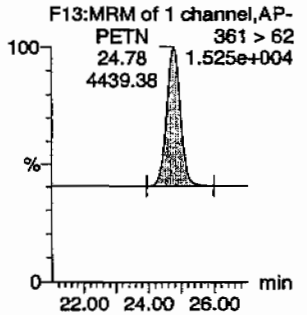

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-08CRI | HMX | 176 > 102 | 5.22 | 1118.648 | 3287.534 | 1118.648 | 170.135 | bb | | | 44.5984 | 111.5 | 11.5 | 229.0 |
| WXX100301-08CRI | RDX | 176 > 102 | 7.64 | 729.735 | 3287.534 | 729.735 | 110.985 | bb | | | 40.4374 | 101.1 | 1.1 | 127.8 |
| WXX100301-08CRI | 135-Trinitrobenzene | 213 > 183 | 10.27 | 1184.930 | 3287.534 | 1184.930 | 180.216 | bb | | | 52.3418 | 130.9 | 30.9 | 176.0 |
| WXX100301-08CRI | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3287.534 | | 3287.534 | 3287.534 | bb | | | 567.1925 | 113.4 | 13.4 | 252.1 |
| WXX100301-08CRI | 13-Dinitrobenzene | 168 > 138 | 12.31 | 362.192 | 3287.534 | 362.192 | 55.086 | bb | | | 41.9903 | 105.0 | 5.0 | 39.5 |
| WXX100301-08CRI | Tetryl | 241 > 181 | 12.82 | 317.284 | 3287.534 | 317.284 | 48.256 | bb | | | 37.3481 | 93.4 | -6.6 | 24.4 |
| WXX100301-08CRI | Nitrobenzene | 123 > 46 | 13.72 | 194.537 | 3287.534 | 194.537 | 29.587 | bb | | | 33.2838 | 83.2 | -16.8 | 18.3 |
| WXX100301-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.89 | 445.521 | 18804.244 | 445.521 | 11.846 | MM | 03-Mar-10 | 08:45:25 | 41.9681 | 104.9 | 4.9 | 22.0 |
| WXX100301-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79 | 633.568 | 18804.244 | 633.568 | 16.846 | bb | | | 44.6831 | 111.7 | 11.7 | 75.5 |
| WXX100301-08CRI | 246-Trinitrotoluene | 227 > 210 | 15.58 | 512.274 | 18804.244 | 512.274 | 13.621 | bb | | | 43.2173 | 108.0 | 8.0 | 102.3 |
| WXX100301-08CRI | 34-dinitrotoluene | 182 > 152 | 14.56 | 702.612 | 18804.244 | 702.612 | 18.682 | bb | | | 18.8583 | 94.3 | -5.7 | 23.2 |
| WXX100301-08CRI | 26-dinitrotoluene | 182 > 152 | 17.82 | 1681.909 | 18804.244 | 1681.909 | 44.722 | MM | 03-Mar-10 | 08:56:34 | 39.6384 | 99.1 | -0.9 | 67.1 |
| WXX100301-08CRI | 24-dinitrotoluene | 182 > 152 | 18.49 | 384.351 | 18804.244 | 384.351 | 10.220 | MM | 03-Mar-10 | 08:57:13 | 40.6288 | 101.6 | 1.6 | 14.2 |
| WXX100301-08CRI | 26-dinitrotoluene-d3 | 185 > 155 | 17.64 | 18804.244 | | 18804.244 | 18804.244 | bb | | | 584.5338 | 116.9 | 16.9 | 1585.0 |
| WXX100301-08CRI | 2-Nitrotoluene | 137 > 46 | 21.30 | 246.023 | 18804.244 | 246.023 | 6.542 | bb | | | 39.4357 | 98.6 | -1.4 | 83.2 |
| WXX100301-08CRI | 4-Nitrotoluene | 137 > 46 | 22.71 | 112.363 | 18804.244 | 112.363 | 2.988 | bb | | | 37.6999 | 94.2 | -5.8 | 40.4 |
| WXX100301-08CRI | 3-Nitrotoluene | 137 > 46 | 24.39 | 167.752 | 18804.244 | 167.752 | 4.460 | bb | | | 45.4163 | 113.5 | 13.5 | 49.2 |
| WXX100301-08CRI | PETN | 361 > 62 | 24.78 | 4439.381 | 18804.244 | 4439.381 | 118.042 | bb | | | 44.3364 | 110.8 | 10.8 | 1079.6 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

| | |
|---|---|
| Vendor: | UltraScientific |
| Date of Analysis | 03/02/10 |
| Time of Injection | 1311 |
| Standard Number | WXX100301-08CRI |
| Data File | EXP0301045a |

| | |
|---|---|
| HMX | 111.5 |
| RDX | 101.1 |
| 135-TNB | 130.9 |
| 13-DNB | 105.0 |
| Tetryl | 93.4 |
| Nitrobenzene | 83.2 |
| 4A-26-DNT | 104.9 |
| 2A-46-DNT | 111.7 |
| 246-TNT | 108.0 |
| 34-DNT(surr) | 94.3 |
| 26-DNT | 99.1 |
| 24-DNT | 101.6 |
| 2-NT | 98.6 |
| 4-NT | 94.2 |
| 3-NT | 113.5 |
| PETN | 110.8 |
| | |
| Total | 1661.8 |
| Average | 103.9 |

HMM 03/04/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

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# 7A
## Explosives Continuing Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCCV

**GEL Data File** EXP0301056a

**Analysis Date:** 02-MAR-10 18:42

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 600 | 663.068 | 111 | |
| 1,3-Dinitrobenzene-d4 | 500 | 453.09 | 91 | |
| 2,4,6-Trinitrotoluene | 600 | 691.385 | 115 | |
| 2,4-Dinitrotoluene | 600 | 651.233 | 109 | |
| 2,6-Dinitrotoluene | 600 | 612.072 | 102 | |
| 2,6-Dinitrotoluene-d3 | 500 | 486.839 | 97 | |
| 2-Amino-4,6-dinitrotoluene | 600 | 682.306 | 114 | |
| 3,4-Dinitrotoluene | 300 | 294.085 | 98 | |
| 4-Amino-2,6-dinitrotoluene | 600 | 628.379 | 105 | |
| HMX | 600 | 655.741 | 109 | |
| Nitrobenzene | 600 | 593.858 | 99 | |
| PETN | 600 | 708.678 | 118 | |
| RDX | 600 | 661.836 | 110 | |
| Tetryl | 600 | 576.331 | 96 | |
| m-Dinitrobenzene | 600 | 617.22 | 103 | |
| m-Nitrotoluene | 600 | 550.813 | 92 | |
| o-Nitrotoluene | 600 | 566.894 | 94 | |
| p-Nitrotoluene | 600 | 589.286 | 98 | |

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

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

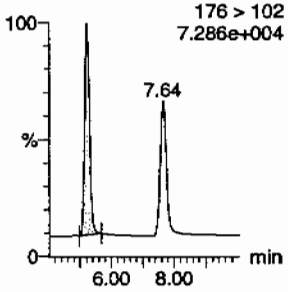


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

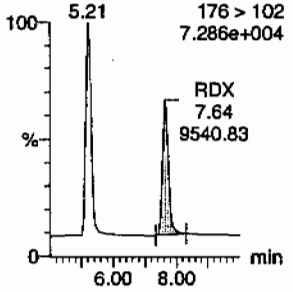
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301056a**
**Date: 02-Mar-2010**
**Time: 18:42:39**
**ID: WXX100301-07CCV**
**Vial: 1:1,B**

3/3/10

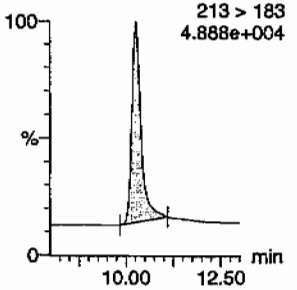
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
7.286e+004



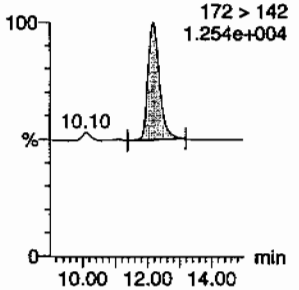

**RDX**
F2:MRM of 1 channel,AP-
5.21
176 > 102
7.286e+004



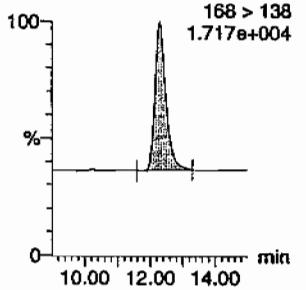

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
4.888e+004



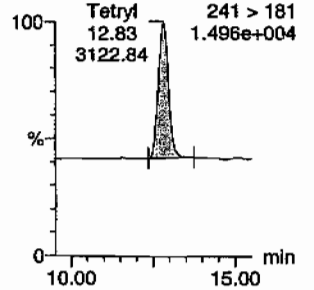

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.254e+004



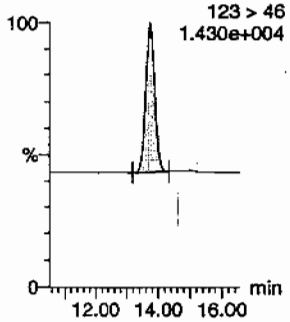

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
1.717e+004



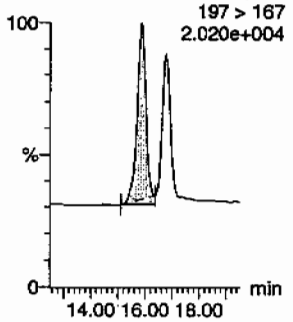

**Tetryl**
F6:MRM of 1 channel,AP-
Tetryl
12.83
3122.84
241 > 181
1.496e+004



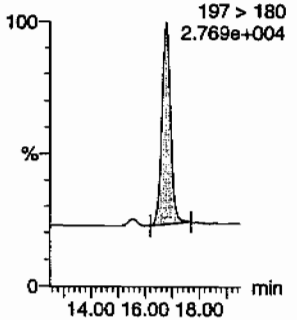

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
1.430e+004



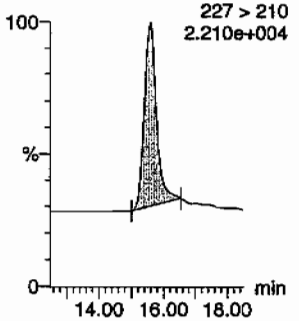

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
2.020e+004



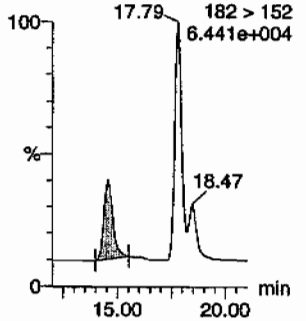

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
2.769e+004



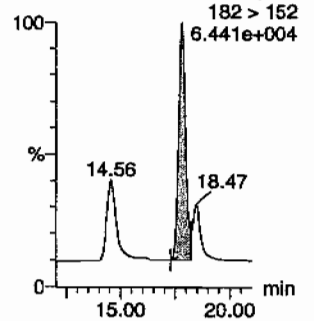

**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
2.210e+004




**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
17.79
182 > 152
6.441e+004




**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
6.441e+004




03/04/10



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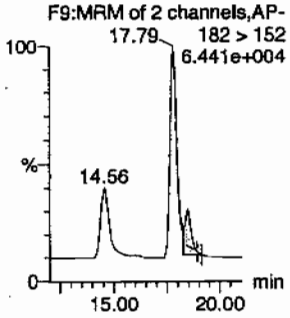
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

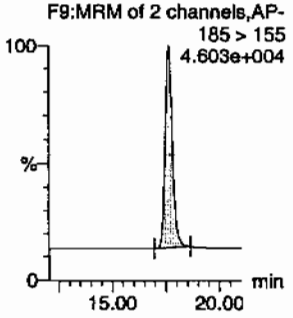


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

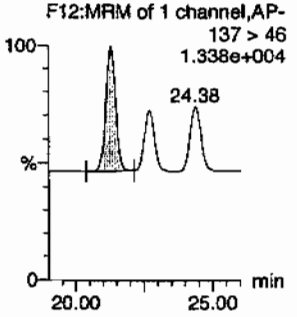
**24-dinitrotoluene**



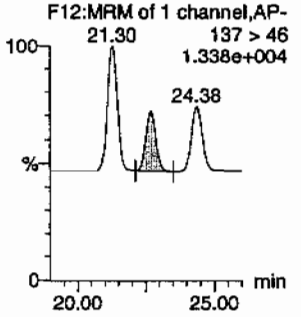

**26-dinitrotoluene-d3**



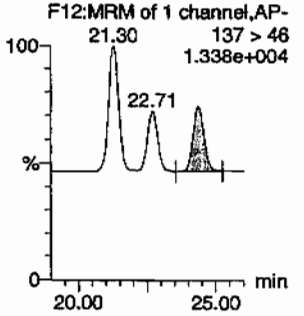

**2-Nitrotoluene**



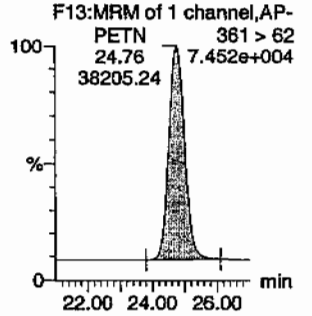

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-07CCV | HMX | 176 > 102 | 5.21 | 13138.960 | 2626.177 | 13138.960 | 2501.537 | bb | | | 655.7414 | 109.3 | 9.3 | 970.9 |
| WXX100301-07CCV | RDX | 176 > 102 | 7.64 | 9540.825 | 2626.177 | 9540.825 | 1816.486 | bb | | | 661.8357 | 110.3 | 10.3 | 613.2 |
| WXX100301-07CCV | 135-Trinitrobenzene | 213 > 183 | 10.27 | 11991.019 | 2626.177 | 11991.019 | 2282.980 | bb | | | 663.0682 | 110.5 | 10.5 | 615.6 |
| WXX100301-07CCV | 13-Dinitrobenzene-d4 | 172 > 142 | 12.18 | 2626.177 | | 2626.177 | 2626.177 | bb | | | 453.0897 | 90.6 | -9.4 | 344.9 |
| WXX100301-07CCV | 13-Dinitrobenzene | 168 > 138 | 12.31 | 4252.885 | 2626.177 | 4252.885 | 809.710 | bb | | | 617.2199 | 102.9 | 2.9 | 361.1 |
| WXX100301-07CCV | Tetryl | 241 > 181 | 12.83 | 3122.841 | 2626.177 | 3122.841 | 594.560 | bb | | | 576.3308 | 96.1 | -3.9 | 412.3 |
| WXX100301-07CCV | Nitrobenzene | 123 > 46 | 13.71 | 2772.714 | 2626.177 | 2772.714 | 527.899 | bb | | | 593.8577 | 99.0 | -1.0 | 141.0 |
| WXX100301-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 5555.793 | 15661.421 | 5555.793 | 177.372 | MM | 03-Mar-10 | 08:45:58 | 628.3789 | 104.7 | 4.7 | 323.6 |
| WXX100301-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79 | 8057.564 | 15661.421 | 8057.564 | 257.242 | bb | | | 682.3056 | 113.7 | 13.7 | 383.5 |
| WXX100301-07CCV | 246-Trinitrotoluene | 227 > 210 | 15.58 | 6825.581 | 15661.421 | 6825.581 | 217.911 | bb | | | 691.3846 | 115.2 | 15.2 | 242.5 |
| WXX100301-07CCV | 34-dinitrotoluene | 182 > 152 | 14.56 | 9125.598 | 15661.421 | 9125.598 | 291.340 | bb | | | 294.0850 | 98.0 | -2.0 | 291.2 |
| WXX100301-07CCV | 26-dinitrotoluene | 182 > 152 | 17.79 | 21630.381 | 15661.421 | 21630.381 | 690.563 | MM | 03-Mar-10 | 08:55:54 | 612.0723 | 102.0 | 2.0 | 870.9 |
| WXX100301-07CCV | 24-dinitrotoluene | 182 > 152 | 18.47 | 5131.042 | 15661.421 | 5131.042 | 163.812 | MM | 03-Mar-10 | 08:58:11 | 651.2326 | 108.5 | 8.5 | 191.7 |
| WXX100301-07CCV | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 15661.421 | | 15661.421 | 15661.421 | bb | | | 486.8385 | 97.4 | -2.6 | 1427.6 |
| WXX100301-07CCV | 2-Nitrotoluene | 137 > 46 | 21.30 | 2945.527 | 15661.421 | 2945.527 | 94.038 | bb | | | 566.8940 | 94.5 | -5.5 | 256.2 |
| WXX100301-07CCV | 4-Nitrotoluene | 137 > 46 | 22.71 | 1462.799 | 15661.421 | 1462.799 | 46.701 | bb | | | 589.2861 | 98.2 | -1.8 | 121.3 |
| WXX100301-07CCV | 3-Nitrotoluene | 137 > 46 | 24.38 | 1694.477 | 15661.421 | 1694.477 | 54.097 | bb | | | 550.8130 | 91.8 | -8.2 | 131.0 |
| WXX100301-07CCV | PETN | 361 > 62 | 24.76 | 38205.238 | 15661.421 | 38205.238 | 1219.725 | bb | | | 708.6776 | 118.1 | 18.1 | 8165.8 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 1842
Standard Number: WXX100301-07CCV
Data File: EXP0301056a

| | | |
|---|---|---|
| HMX | | 109.3 |
| RDX | | 110.3 |
| 135-TNB | | 110.5 |
| 13-DNB | | 102.9 |
| Tetryl | | 96.1 |
| Nitrobenzene | | 99.0 |
| 4A-26-DNT | | 104.7 |
| 2A-46-DNT | | 113.7 |
| 246-TNT | | 115.2 |
| 34-DNT(surr) | | 98.0 |
| 26-DNT | | 102.0 |
| 24-DNT | | 108.5 |
| 2-NT | | 94.5 |
| 4-NT | | 98.2 |
| 3-NT | | 91.8 |
| PETN | | 118.1 |
| | | |
| Total | | 1672.8 |
| Average | | 104.6 |

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

3/3/10

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0301058a

**Analysis Date:** 02-MAR-10 19:41

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 40 | 54.949 | 137 | * |
| 1,3-Dinitrobenzene-d4 | 500 | 526.73 | 105 | |
| 2,4,6-Trinitrotoluene | 40 | 42.619 | 107 | |
| 2,4-Dinitrotoluene | 40 | 40.949 | 102 | |
| 2,6-Dinitrotoluene | 40 | 39.716 | 99 | |
| 2,6-Dinitrotoluene-d3 | 500 | 543.465 | 109 | |
| 2-Amino-4,6-dinitrotoluene | 40 | 45.865 | 115 | |
| 3,4-Dinitrotoluene | 20 | 20.539 | 103 | |
| 4-Amino-2,6-dinitrotoluene | 40 | 39.394 | 98 | |
| HMX | 40 | 47.031 | 118 | |
| Nitrobenzene | 40 | 43.335 | 108 | |
| PETN | 40 | 52.803 | 132 | * |
| RDX | 40 | 40.001 | 100 | |
| Tetryl | 40 | 39.676 | 99 | |
| m-Dinitrobenzene | 40 | 30.191 | 75 | |
| m-Nitrotoluene | 40 | 44.578 | 111 | |
| o-Nitrotoluene | 40 | 40.684 | 102 | |
| p-Nitrotoluene | 40 | 40.786 | 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 50-150%
OtherTarget 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

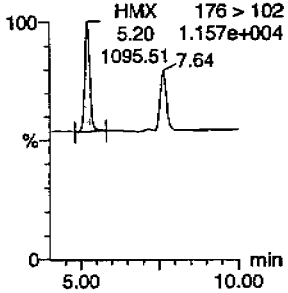


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

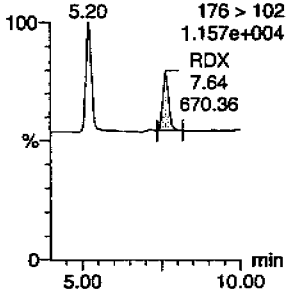
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301058a**
**Date: 02-Mar-2010**
**Time: 19:41:43**
**ID: WXX100301-08CRI**
**Vial: 1:1,C**

MATT 3/3/10

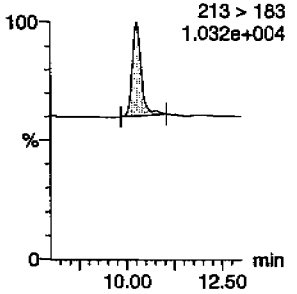
**HMX**
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 1.157e+004
1095.51 7.64



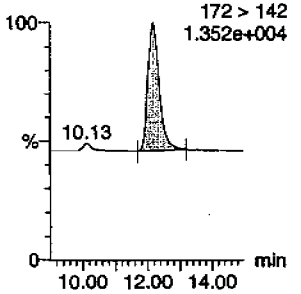

**RDX**
F2:MRM of 1 channel,AP-
5.20 176 > 102
1.157e+004
RDX
7.64
670.36



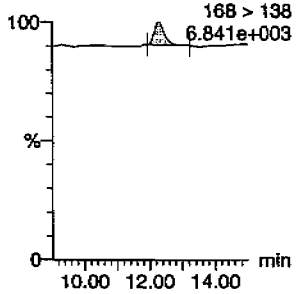

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
1.032e+004



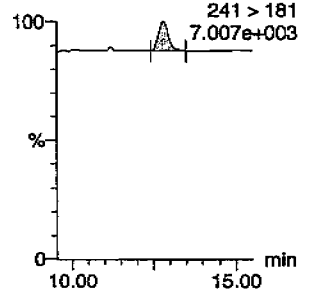

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.352e+004



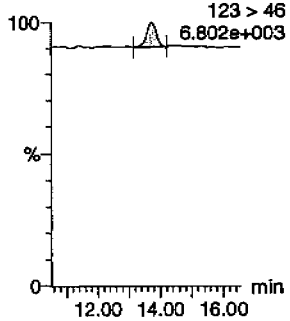

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
6.841e+003



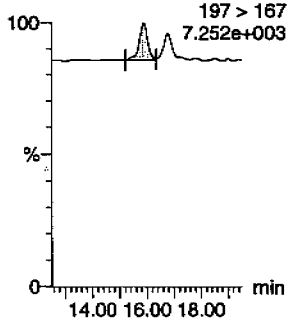

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
7.007e+003



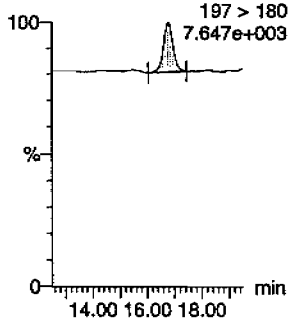

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
6.802e+003



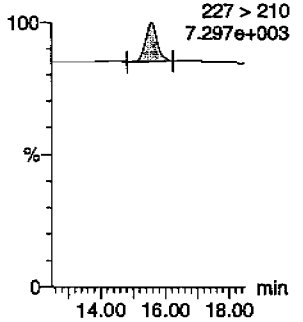

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
7.252e+003



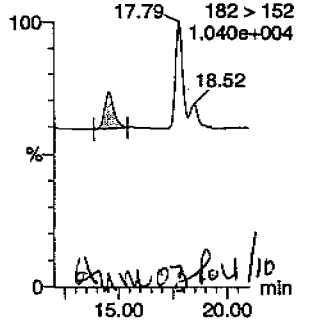

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
7.647e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
7.297e+003

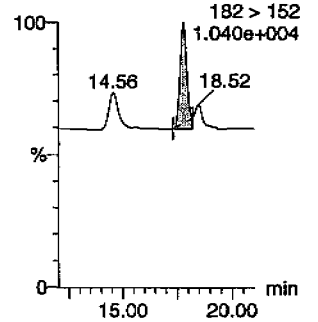



**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
17.79 182 > 152
1.040e+004
18.52




Anm 03/04/10

**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
1.040e+004
14.56
18.52




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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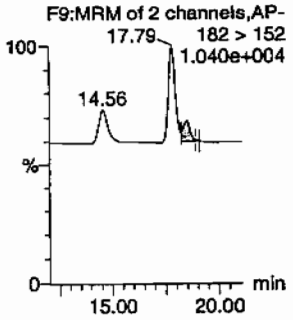
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

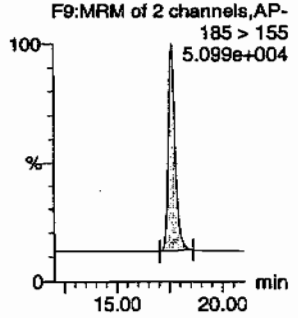


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

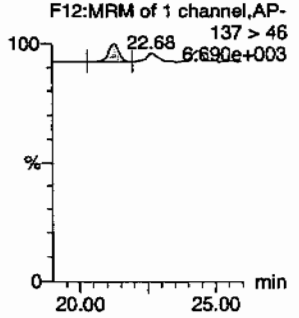
**24-dinitrotoluene**



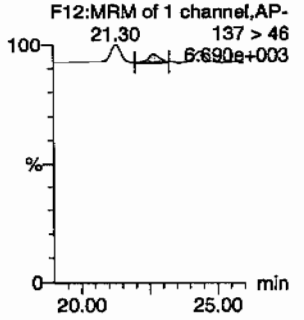

**26-dinitrotoluene-d3**



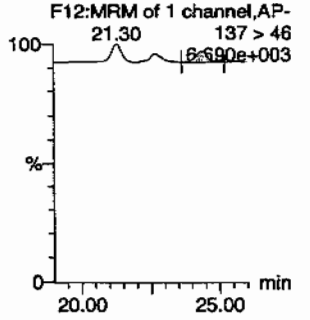

**2-Nitrotoluene**



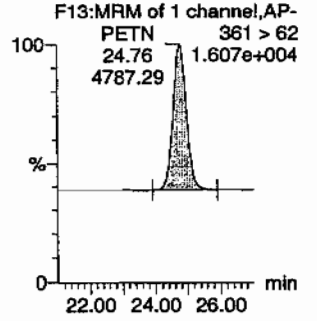

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-08CRI | HMX | 176 > 102 | 5.20 | 1095.506 | 3053.009 | 1095.506 | 179.414 | bb | | | 47.0308 | 117.6 | 17.6 | 153.7 |
| WXX100301-08CRI | RDX | 176 > 102 | 7.64 | 670.361 | 3053.009 | 670.361 | 109.787 | bb | | | 40.0008 | 100.0 | 0.0 | 84.2 |
| WXX100301-08CRI | 135-Trinitrobenzene | 213 > 183 | 10.27 | 1155.212 | 3053.009 | 1155.212 | 189.192 | bb | | | 54.9490 | 137.4 | 37.4 | 160.1 |
| WXX100301-08CRI | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3053.009 | | 3053.009 | 3053.009 | bb | | | 526.7303 | 105.3 | 5.3 | 171.3 |
| WXX100301-08CRI | 13-Dinitrobenzene | 168 > 138 | 12.31 | 241.838 | 3053.009 | 241.838 | 39.606 | bb | | | 30.1909 | 75.5 | -24.5 | 29.4 |
| WXX100301-08CRI | Tetryl | 241 > 181 | 12.82 | 311.444 | 3053.009 | 311.444 | 51.006 | bb | | | 39.6762 | 99.2 | -0.8 | 31.1 |
| WXX100301-08CRI | Nitrobenzene | 123 > 46 | 13.72 | 235.215 | 3053.009 | 235.215 | 38.522 | bb | | | 43.3349 | 108.3 | 8.3 | 31.8 |
| WXX100301-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.89 | 388.816 | 17483.064 | 388.816 | 11.120 | MM | 03-Mar-10 | 08:46:06 | 39.3943 | 98.5 | -1.5 | 28.5 |
| WXX100301-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79 | 604.638 | 17483.064 | 604.638 | 17.292 | bb | | | 45.8653 | 114.7 | 14.7 | 73.5 |
| WXX100301-08CRI | 246-Trinitrotoluene | 227 > 210 | 15.58 | 469.685 | 17483.064 | 469.685 | 13.433 | bb | | | 42.6187 | 106.5 | 6.5 | 49.4 |
| WXX100301-08CRI | 34-dinitrotoluene | 182 > 152 | 14.56 | 711.467 | 17483.064 | 711.467 | 20.347 | bb | | | 20.5390 | 102.7 | 2.7 | 53.9 |
| WXX100301-08CRI | 26-dinitrotoluene | 182 > 152 | 17.79 | 1566.794 | 17483.064 | 1566.794 | 44.809 | MM | 03-Mar-10 | 08:55:43 | 39.7159 | 99.3 | -0.7 | 159.0 |
| WXX100301-08CRI | 24-dinitrotoluene | 182 > 152 | 18.52 | 360.159 | 17483.064 | 360.159 | 10.300 | MM | 03-Mar-10 | 08:58:23 | 40.9485 | 102.4 | 2.4 | 33.8 |
| WXX100301-08CRI | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17483.064 | | 17483.064 | 17483.064 | bb | | | 543.4647 | 108.7 | 8.7 | 1571.5 |
| WXX100301-08CRI | 2-Nitrotoluene | 137 > 46 | 21.30 | 235.979 | 17483.064 | 235.979 | 6.749 | bb | | | 40.6842 | 101.7 | 1.7 | 103.7 |
| WXX100301-08CRI | 4-Nitrotoluene | 137 > 46 | 22.68 | 113.019 | 17483.064 | 113.019 | 3.232 | bb | | | 40.7856 | 102.0 | 2.0 | 47.3 |
| WXX100301-08CRI | 3-Nitrotoluene | 137 > 46 | 24.38 | 153.088 | 17483.064 | 153.088 | 4.378 | bb | | | 44.5783 | 111.4 | 11.4 | 61.5 |
| WXX100301-08CRI | PETN | 361 > 62 | 24.76 | 4787.289 | 17483.064 | 4787.289 | 136.912 | bb | | | 52.8026 | 132.0 | 32.0 | 1269.3 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

| | |
|---|---|
| Vendor: | UltraScientific |
| Date of Analysis | 03/02/10 |
| Time of Injection | 1941 |
| Standard Number | WXX100301-08CRI |
| Data File | EXP0301058a |

| | |
|---|---|
| HMX | 117.6 |
| RDX | 100.0 |
| 135-TNB | 137.4 |
| 13-DNB | 75.5 |
| Tetryl | 99.2 |
| Nitrobenzene | 108.3 |
| 4A-26-DNT | 98.5 |
| 2A-46-DNT | 114.7 |
| 246-TNT | 106.5 |
| 34-DNT(surr) | 102.7 |
| 26-DNT | 99.3 |
| 24-DNT | 102.4 |
| 2-NT | 101.7 |
| 4-NT | 102.0 |
| 3-NT | 111.4 |
| PETN | 132.0 |
| Total | 1709.2 |
| Average | 106.8 |

MAP 3/3/10

Hmx 02/04/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

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# 7A
## Explosives Continuing Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCCV

**GEL Data File** EXP0301068a

**Analysis Date:** 03-MAR-10 00:36

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,6-Dinitrotoluene | 600 | 618.87 | 103 | |
| 2,6-Dinitrotoluene-d3 | 500 | 562.762 | 113 | |
| 2-Amino-4,6-dinitrotoluene | 600 | 672.055 | 112 | |
| 3,4-Dinitrotoluene | 300 | 301.113 | 100 | |
| 4-Amino-2,6-dinitrotoluene | 600 | 621.473 | 104 | |
| HMX | 600 | 594.011 | 99 | |
| Nitrobenzene | 600 | 603.396 | 101 | |
| PETN | 600 | 563.001 | 94 | |
| RDX | 600 | 653.924 | 109 | |
| Tetryl | 600 | 574.954 | 96 | |
| m-Dinitrobenzene | 600 | 607.15 | 101 | |
| m-Nitrotoluene | 600 | 622 | 104 | |
| o-Nitrotoluene | 600 | 561.005 | 94 | |
| p-Nitrotoluene | 600 | 634.214 | 106 | |
| 1,3,5-Trinitrobenzene | 600 | 625.261 | 104 | |
| 1,3-Dinitrobenzene-d4 | 500 | 521.037 | 104 | |
| 2,4,6-Trinitrotoluene | 600 | 703.496 | 117 | |
| 2,4-Dinitrotoluene | 600 | 657.764 | 110 | |

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

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**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

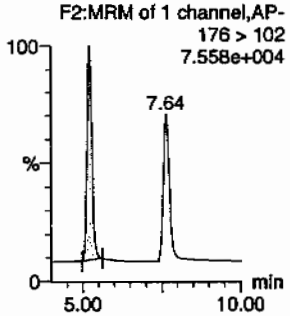


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

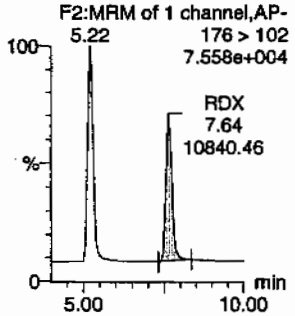
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301068a**
**Date: 03-Mar-2010**
**Time: 00:36:45**
**ID: WXX100301-07CCV**
**Vial: 1:1,B**

3/3/10

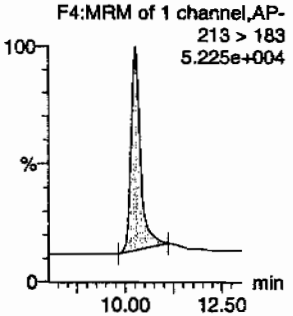
**HMX**



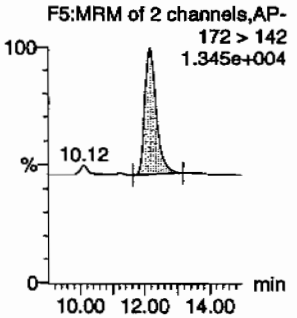

**RDX**



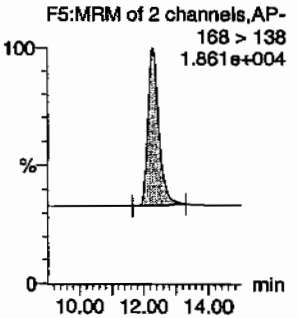

**135-Trinitrobenzene**



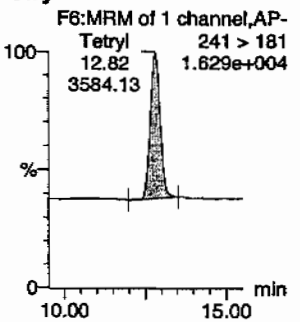

**13-Dinitrobenzene-d4**



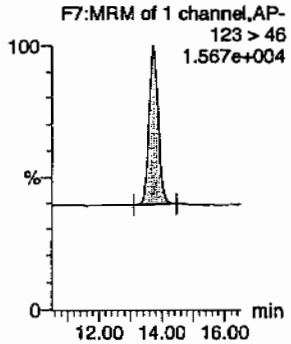

**13-Dinitrobenzene**



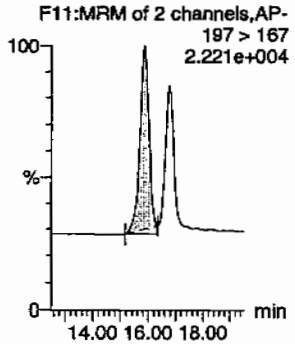

**Tetryl**



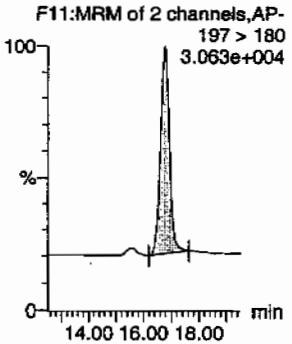

**Nitrobenzene**



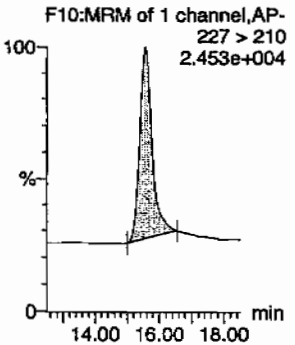

**4-Amino-26-dinitrotoluene**



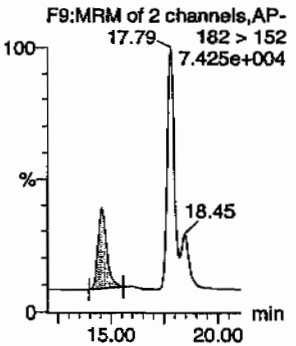

**2-Amino-46-dinitrotoluene**



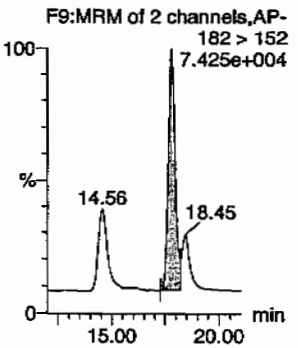

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**



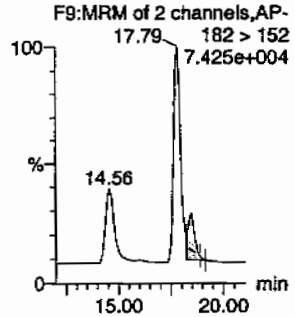

03/04/10

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

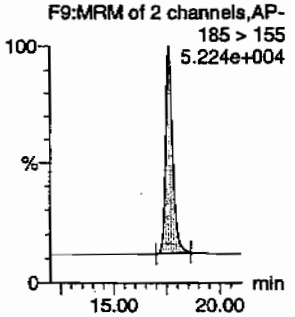


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

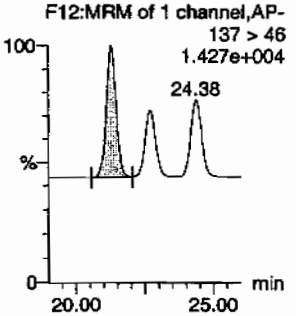
**24-dinitrotoluene**



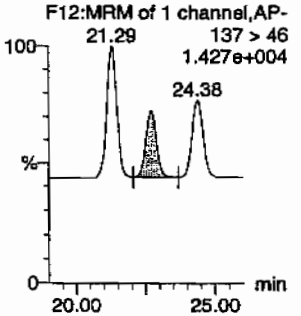

**26-dinitrotoluene-d3**



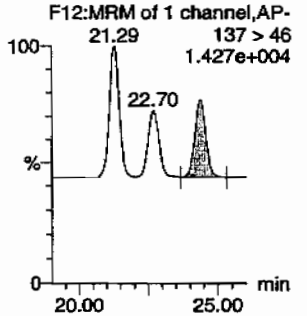

**2-Nitrotoluene**



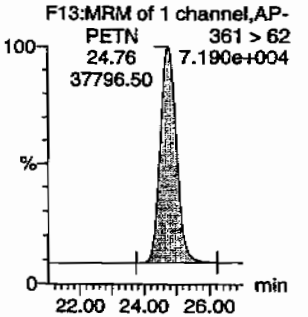

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-07CCV | HMX | 176 > 102 | 5.22 | 13686.972 | 3020.010 | 13686.972 | 2266.047 | bb | | | 594.0112 | 99.0 | -1.0 | 2017.6 |
| WXX100301-07CCV | RDX | 176 > 102 | 7.64 | 10840.460 | 3020.010 | 10840.460 | 1794.772 | bb | | | 653.9244 | 109.0 | 9.0 | 1378.6 |
| WXX100301-07CCV | 135-Trinitrobenzene | 213 > 183 | 10.27 | 13002.997 | 3020.010 | 13002.997 | 2152.807 | bb | | | 625.2607 | 104.2 | 4.2 | 504.6 |
| WXX100301-07CCV | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3020.010 | | 3020.010 | 3020.010 | bb | | | 521.0370 | 104.2 | 4.2 | 355.7 |
| WXX100301-07CCV | 13-Dinitrobenzene | 168 > 138 | 12.31 | 4810.877 | 3020.010 | 4810.877 | 796.500 | bb | | | 607.1502 | 101.2 | 1.2 | 395.0 |
| WXX100301-07CCV | Tetryl | 241 > 181 | 12.82 | 3584.126 | 3020.010 | 3584.126 | 593.396 | bb | | | 574.9541 | 95.8 | -4.2 | 310.5 |
| WXX100301-07CCV | Nitrobenzene | 123 > 46 | 13.72 | 3239.733 | 3020.010 | 3239.733 | 536.378 | bb | | | 603.3957 | 100.6 | 0.6 | 203.6 |
| WXX100301-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 6351.652 | 18103.846 | 6351.652 | 175.423 | MM | 03-Mar-10 | 08:46:33 | 621.4735 | 103.6 | 3.6 | 444.3 |
| WXX100301-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 9174.229 | 18103.846 | 9174.229 | 253.378 | bb | | | 672.0554 | 112.0 | 12.0 | 280.1 |
| WXX100301-07CCV | 246-Trinitrotoluene | 227 > 210 | 15.58 | 8028.257 | 18103.846 | 8028.257 | 221.728 | bb | | | 703.4960 | 117.2 | 17.2 | 371.1 |
| WXX100301-07CCV | 34-dinitrotoluene | 182 > 152 | 14.56 | 10800.842 | 18103.846 | 10800.842 | 298.302 | bb | | | 301.1130 | 100.4 | 0.4 | 490.4 |
| WXX100301-07CCV | 26-dinitrotoluene | 182 > 152 | 17.79 | 25281.350 | 18103.846 | 25281.350 | 698.231 | MM | 03-Mar-10 | 08:55:30 | 618.8696 | 103.1 | 3.1 | 1467.1 |
| WXX100301-07CCV | 24-dinitrotoluene | 182 > 152 | 18.45 | 5990.723 | 18103.846 | 5990.723 | 165.454 | MM | 03-Mar-10 | 08:58:38 | 657.7640 | 109.6 | 9.6 | 310.3 |
| WXX100301-07CCV | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18103.846 | | 18103.846 | 18103.846 | bb | | | 562.7618 | 112.6 | 12.6 | 1275.0 |
| WXX100301-07CCV | 2-Nitrotoluene | 137 > 46 | 21.29 | 3369.519 | 18103.846 | 3369.519 | 93.061 | bb | | | 561.0054 | 93.5 | -6.5 | 348.8 |
| WXX100301-07CCV | 4-Nitrotoluene | 137 > 46 | 22.70 | 1819.844 | 18103.846 | 1819.844 | 50.261 | bb | | | 634.2143 | 105.7 | 5.7 | 177.8 |
| WXX100301-07CCV | 3-Nitrotoluene | 137 > 46 | 24.38 | 2211.880 | 18103.846 | 2211.880 | 61.089 | bb | | | 622.0000 | 103.7 | 3.7 | 205.2 |
| WXX100301-07CCV | PETN | 361 > 62 | 24.76 | 37796.500 | 18103.846 | 37796.500 | 1043.880 | bb | | | 563.0009 | 93.8 | -6.2 | 4013.8 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/03/10
Time of Injection: 0036
Standard Number: WXX100301-07CCV
Data File: EXP0301068a

| | |
|---|---|
| HMX | 99.0 |
| RDX | 109.0 |
| 135-TNB | 104.2 |
| 13-DNB | 101.2 |
| Tetryl | 95.8 |
| Nitrobenzene | 100.6 |
| 4A-26-DNT | 103.6 |
| 2A-46-DNT | 112.0 |
| 246-TNT | 117.2 |
| 34-DNT(surr) | 100.4 |
| 26-DNT | 103.1 |
| 24-DNT | 109.6 |
| 2-NT | 93.5 |
| 4-NT | 105.7 |
| 3-NT | 103.7 |
| PETN | 93.8 |
| | |
| Total | 1652.4 |
| Average | 103.3 |

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0301070a

**Analysis Date:** 03-MAR-10 01:35

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4,6-Trinitrotoluene | 40 | 42.921 | 107 | |
| 2,4-Dinitrotoluene | 40 | 44.869 | 112 | |
| 2,6-Dinitrotoluene | 40 | 39.409 | 99 | |
| 2,6-Dinitrotoluene-d3 | 500 | 621.51 | 124 | |
| 2-Amino-4,6-dinitrotoluene | 40 | 47.604 | 119 | |
| 3,4-Dinitrotoluene | 20 | 18.932 | 95 | |
| 4-Amino-2,6-dinitrotoluene | 40 | 42.217 | 106 | |
| HMX | 40 | 49.129 | 123 | |
| Nitrobenzene | 40 | 36.502 | 91 | |
| PETN | 40 | 47.635 | 119 | |
| RDX | 40 | 42.752 | 107 | |
| Tetryl | 40 | 36.156 | 90 | |
| m-Dinitrobenzene | 40 | 43.178 | 108 | |
| m-Nitrotoluene | 40 | 41.745 | 104 | |
| o-Nitrotoluene | 40 | 37.385 | 93 | |
| p-Nitrotoluene | 40 | 41.194 | 103 | |
| 1,3,5-Trinitrobenzene | 40 | 50.024 | 125 | |
| 1,3-Dinitrobenzene-d4 | 500 | 599.39 | 120 | |

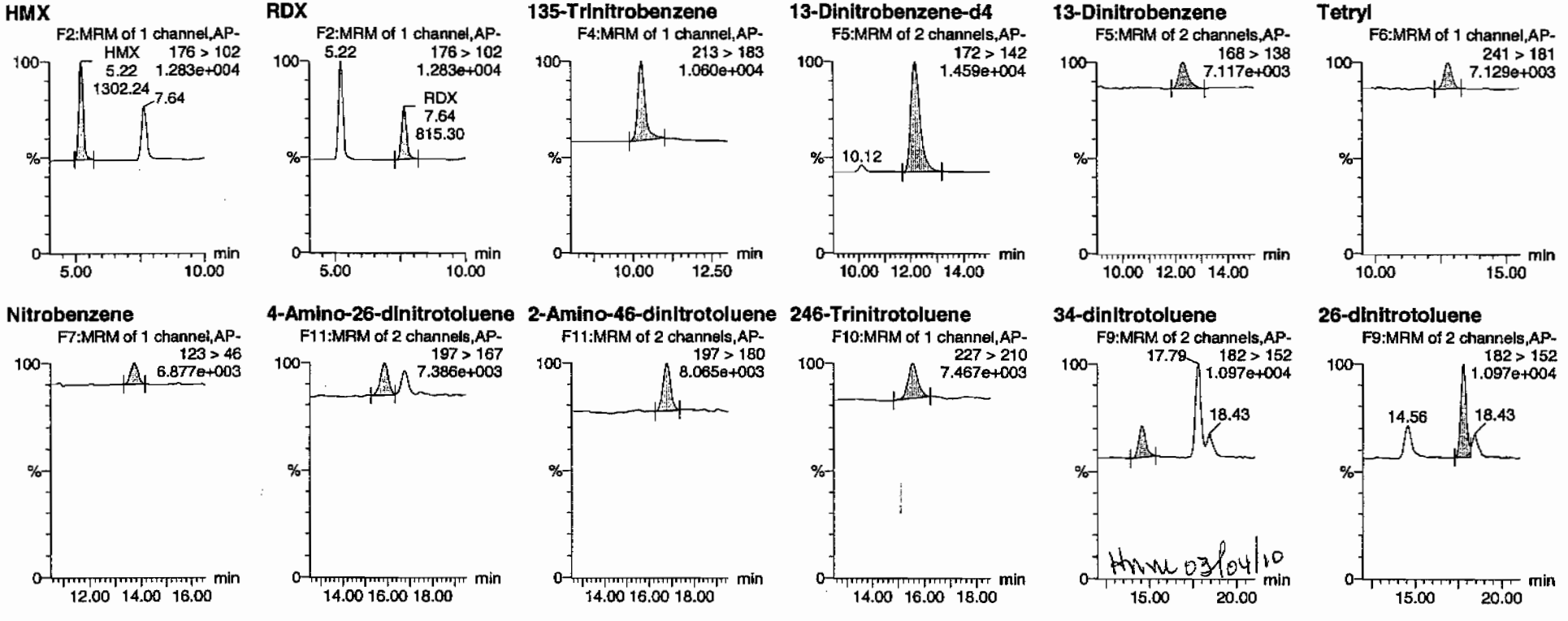
Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
# Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301070a**
**Date: 03-Mar-2010**
**Time: 01:35:49**
**ID: WXX100301-08CRI**
**Vial: 1:1,C**




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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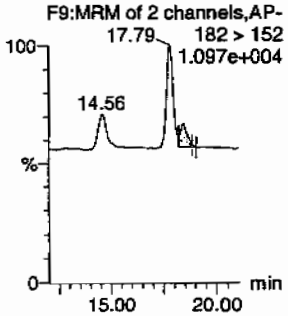
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

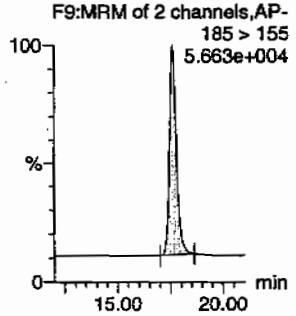


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

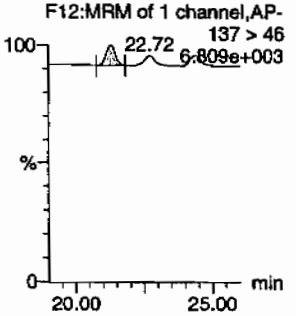
**24-dinitrotoluene**



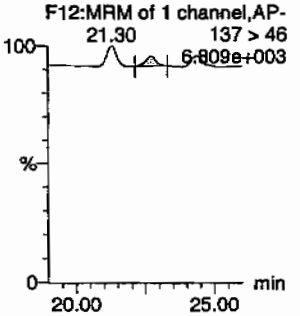

**26-dinitrotoluene-d3**



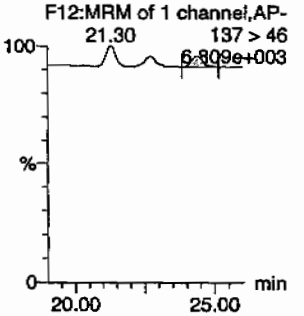

**2-Nitrotoluene**



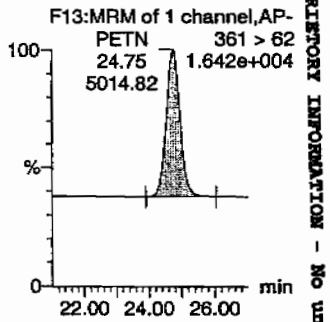

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/ml | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-08CRI | HMX | 176 > 102 | 5.22 | 1302.244 | 3474.158 | 1302.244 | 187.419 | bb | | | 49.1291 | 122.8 | 22.8 | 190.8 |
| WXX100301-08CRI | RDX | 176 > 102 | 7.64 | 815.297 | 3474.158 | 815.297 | 117.337 | bb | | | 42.7518 | 106.9 | 6.9 | 102.4 |
| WXX100301-08CRI | 135-Trinitrobenzene | 213 > 183 | 10.27 | 1196.755 | 3474.158 | 1196.755 | 172.237 | bb | | | 50.0244 | 125.1 | 25.1 | 250.0 |
| WXX100301-08CRI | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3474.158 | | 3474.158 | 3474.158 | bb | | | 599.3904 | 119.9 | 19.9 | 657.7 |
| WXX100301-08CRI | 13-Dinitrobenzene | 168 > 138 | 12.31 | 393.580 | 3474.158 | 393.580 | 56.644 | bb | | | 43.1781 | 107.9 | 7.9 | 53.6 |
| WXX100301-08CRI | Tetryl | 241 > 181 | 12.82 | 325.501 | 3474.158 | 325.501 | 46.846 | bb | | | 36.1561 | 90.4 | -9.6 | 25.8 |
| WXX100301-08CRI | Nitrobenzene | 123 > 46 | 13.76 | 225.458 | 3474.158 | 225.458 | 32.448 | bb | | | 36.5021 | 91.3 | -8.7 | 24.8 |
| WXX100301-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 476.509 | 19993.752 | 476.509 | 11.916 | MM | 03-Mar-10 | 08:46:42 | 42.2166 | 105.5 | 5.5 | 58.7 |
| WXX100301-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 717.676 | 19993.752 | 717.676 | 17.948 | bb | | | 47.6037 | 119.0 | 19.0 | 66.5 |
| WXX100301-08CRI | 246-Trinitrotoluene | 227 > 210 | 15.55 | 540.942 | 19993.752 | 540.942 | 13.528 | bb | | | 42.9208 | 107.3 | 7.3 | 54.8 |
| WXX100301-08CRI | 34-dinitrotoluene | 182 > 152 | 14.56 | 749.975 | 19993.752 | 749.975 | 18.755 | bb | | | 18.9319 | 94.7 | -5.3 | 51.3 |
| WXX100301-08CRI | 26-dinitrotoluene | 182 > 152 | 17.79 | 1777.950 | 19993.752 | 1777.950 | 44.463 | MM | 03-Mar-10 | 08:55:19 | 39.4090 | 98.5 | -1.5 | 150.3 |
| WXX100301-08CRI | 24-dinitrotoluene | 182 > 152 | 18.43 | 451.310 | 19993.752 | 451.310 | 11.286 | MM | 03-Mar-10 | 08:58:49 | 44.8686 | 112.2 | 12.2 | 35.6 |
| WXX100301-08CRI | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 19993.752 | | 19993.752 | 19993.752 | bb | | | 621.5099 | 124.3 | 24.3 | 3720.8 |
| WXX100301-08CRI | 2-Nitrotoluene | 137 > 46 | 21.30 | 247.985 | 19993.752 | 247.985 | 6.202 | bb | | | 37.3853 | 93.5 | -6.5 | 85.9 |
| WXX100301-08CRI | 4-Nitrotoluene | 137 > 46 | 22.72 | 130.542 | 19993.752 | 130.542 | 3.265 | bb | | | 41.1935 | 103.0 | 3.0 | 42.2 |
| WXX100301-08CRI | 3-Nitrotoluene | 137 > 46 | 24.38 | 163.944 | 19993.752 | 163.944 | 4.100 | bb | | | 41.7447 | 104.4 | 4.4 | 47.7 |
| WXX100301-08CRI | PETN | 361 > 62 | 24.75 | 5014.823 | 19993.752 | 5014.823 | 125.410 | bb | | | 47.6353 | 119.1 | 19.1 | 1827.7 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

| | |
|---|---|
| Vendor: | UltraScientific |
| Date of Analysis | 03/03/10 |
| Time of Injection | 0135 |
| Standard Number | WXX100301-08CRI |
| Data File | EXP0301070a |

| | |
|---|---|
| HMX | 122.8 |
| RDX | 106.9 |
| 135-TNB | 125.1 |
| 13-DNB | 107.9 |
| Tetryl | 90.4 |
| Nitrobenzene | 91.3 |
| 4A-26-DNT | 105.5 |
| 2A-46-DNT | 119.0 |
| 246-TNT | 107.3 |
| 34-DNT(surr) | 94.7 |
| 26-DNT | 98.5 |
| 24-DNT | 112.2 |
| 2-NT | 93.5 |
| 4-NT | 103.0 |
| 3-NT | 104.4 |
| PETN | 119.1 |
| Total | 1701.6 |
| Average | 106.4 |

MTP 3/3/10

Hmm 03/04/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301081a

Analysis Date: 03-MAR-10 07:00

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 600 | 597.421 | 100 | |
| 1,3-Dinitrobenzene-d4 | 500 | 541.498 | 108 | |
| 2,4,6-Trinitrotoluene | 600 | 710.046 | 118 | |
| 2,4-Dinitrotoluene | 600 | 678.751 | 113 | |
| 2,6-Dinitrotoluene | 600 | 618.273 | 103 | |
| 2,6-Dinitrotoluene-d3 | 500 | 564.163 | 113 | |
| 2-Amino-4,6-dinitrotoluene | 600 | 652.34 | 109 | |
| 3,4-Dinitrotoluene | 300 | 313.63 | 105 | |
| 4-Amino-2,6-dinitrotoluene | 600 | 563.974 | 94 | |
| HMX | 600 | 654.039 | 109 | |
| Nitrobenzene | 600 | 549.595 | 92 | |
| PETN | 600 | 494.993 | 82 | |
| RDX | 600 | 611.075 | 102 | |
| Tetryl | 600 | 521.429 | 87 | |
| m-Dinitrobenzene | 600 | 581.641 | 97 | |
| m-Nitrotoluene | 600 | 494.415 | 82 | |
| o-Nitrotoluene | 600 | 483.022 | 81 | |
| p-Nitrotoluene | 600 | 520.182 | 87 | |

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

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

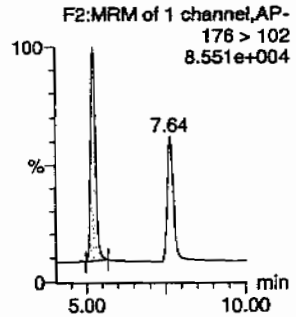


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

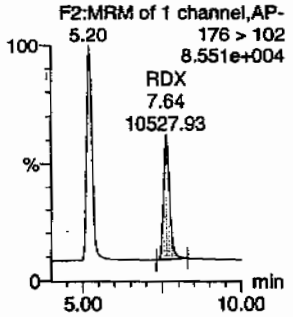
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301081a**
**Date: 03-Mar-2010**
**Time: 07:00:23**
**ID: WXX100301-07CCV**
**Vial: 1:1,B**

MM 3/3/10

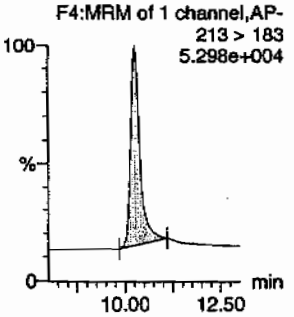
**HMX**



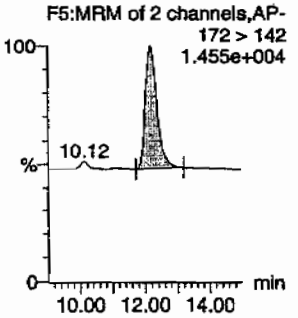

**RDX**



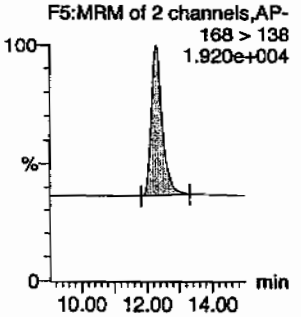

**135-Trinitrobenzene**



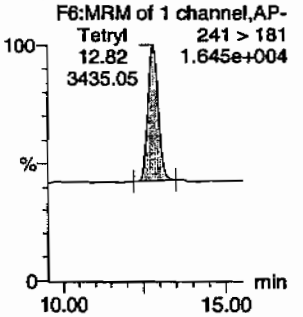

**13-Dinitrobenzene-d4**



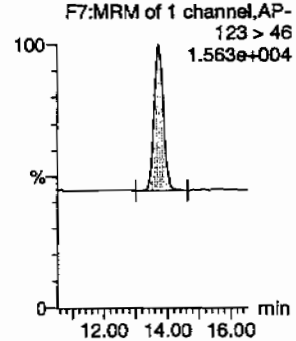

**13-Dinitrobenzene**



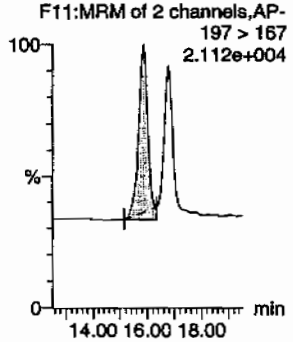

**Tetryl**



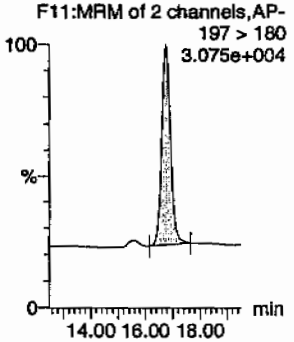

**Nitrobenzene**



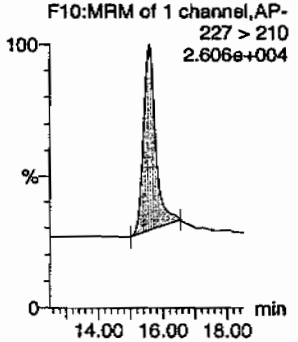

**4-Amino-26-dinitrotoluene**



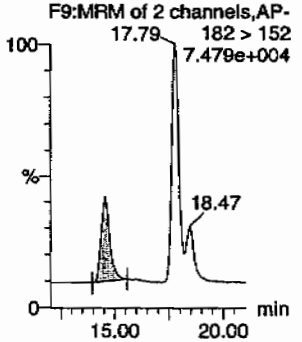

**2-Amino-46-dinitrotoluene**




**246-Trinitrotoluene**

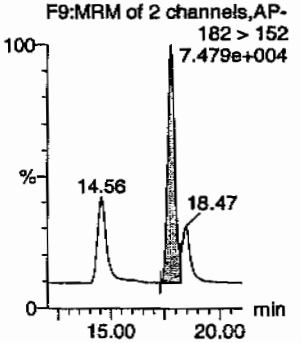



**34-dinitrotoluene**




MM 03/04/10

**26-dinitrotoluene**




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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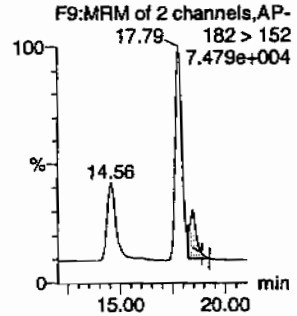
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

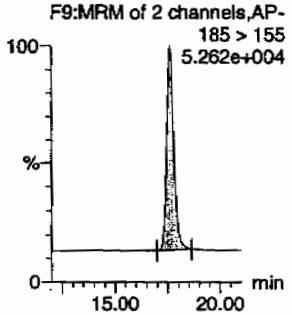


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

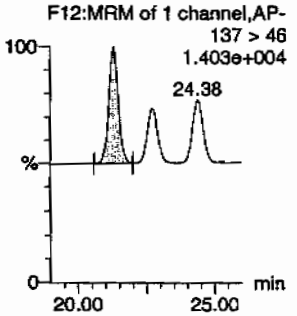
**24-dinitrotoluene**



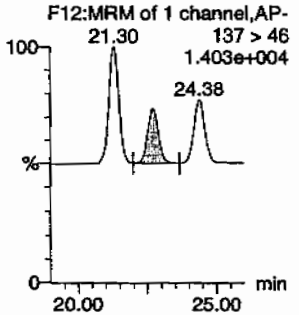

**26-dinitrotoluene-d3**



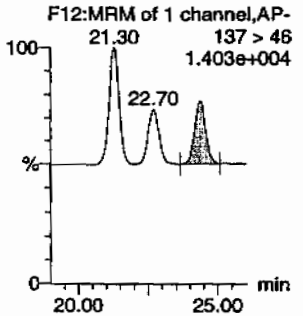

**2-Nitrotoluene**



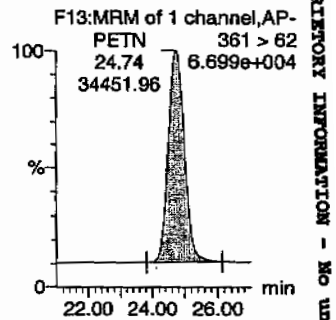

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-07CCV | HMX | 176 > 102 | 5.20 | 15661.918 | 3138.605 | 15661.918 | 2495.044 | bb | | | 654.0394 | 109.0 | 9.0 | 3102.5 |
| WXX100301-07CCV | RDX | 176 > 102 | 7.64 | 10527.930 | 3138.605 | 10527.930 | 1677.167 | bb | | | 611.0751 | 101.8 | 1.8 | 1822.8 |
| WXX100301-07CCV | 135-Trinitrobenzene | 213 > 183 | 10.27 | 12911.929 | 3138.605 | 12911.929 | 2056.953 | bb | | | 597.4211 | 99.6 | -0.4 | 1467.1 |
| WXX100301-07CCV | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3138.605 | | 3138.605 | 3138.605 | bb | | | 541.4980 | 108.3 | 8.3 | 166.7 |
| WXX100301-07CCV | 13-Dinitrobenzene | 168 > 138 | 12.31 | 4789.737 | 3138.605 | 4789.737 | 763.036 | bb | | | 581.6414 | 96.9 | -3.1 | 257.6 |
| WXX100301-07CCV | Tetryl | 241 > 181 | 12.82 | 3435.049 | 3138.605 | 3435.049 | 547.225 | bb | | | 521.4288 | 86.9 | -13.1 | 219.6 |
| WXX100301-07CCV | Nitrobenzene | 123 > 46 | 13.72 | 3066.749 | 3138.605 | 3066.749 | 488.553 | bb | | | 549.5952 | 91.6 | -8.4 | 340.0 |
| WXX100301-07CCV | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 5778.337 | 18148.918 | 5778.337 | 159.192 | MM | 03-Mar-10 | 08:47:27 | 563.9737 | 94.0 | -6.0 | 205.9 |
| WXX100301-07CCV | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 8927.271 | 18148.918 | 8927.271 | 245.945 | bb | | | 652.3405 | 108.7 | 8.7 | 535.8 |
| WXX100301-07CCV | 246-Trinitrotoluene | 227 > 210 | 15.58 | 8123.173 | 18148.918 | 8123.173 | 223.792 | bb | | | 710.0455 | 118.3 | 18.3 | 153.9 |
| WXX100301-07CCV | 34-dinitrotoluene | 182 > 152 | 14.56 | 11277.819 | 18148.918 | 11277.819 | 310.702 | bb | | | 313.6296 | 104.5 | 4.5 | 278.4 |
| WXX100301-07CCV | 26-dinitrotoluene | 182 > 152 | 17.79 | 25319.865 | 18148.918 | 25319.865 | 697.559 | MM | 03-Mar-10 | 08:54:25 | 618.2731 | 103.0 | 3.0 | 783.2 |
| WXX100301-07CCV | 24-dinitrotoluene | 182 > 152 | 18.47 | 6197.255 | 18148.918 | 6197.255 | 170.733 | MM | 03-Mar-10 | 09:00:43 | 678.7508 | 113.1 | 13.1 | 175.4 |
| WXX100301-07CCV | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18148.918 | | 18148.918 | 18148.918 | bb | | | 564.1629 | 112.8 | 12.8 | 1480.8 |
| WXX100301-07CCV | 2-Nitrotoluene | 137 > 46 | 21.30 | 2908.356 | 18148.918 | 2908.356 | 80.125 | bb | | | 483.0219 | 80.5 | -19.5 | 479.2 |
| WXX100301-07CCV | 4-Nitrotoluene | 137 > 46 | 22.70 | 1496.350 | 18148.918 | 1496.350 | 41.224 | bb | | | 520.1818 | 86.7 | -13.3 | 228.8 |
| WXX100301-07CCV | 3-Nitrotoluene | 137 > 46 | 24.38 | 1762.555 | 18148.918 | 1762.555 | 48.558 | bb | | | 494.4149 | 82.4 | -17.6 | 262.9 |
| WXX100301-07CCV | PETN | 361 > 62 | 24.74 | 34451.961 | 18148.918 | 34451.961 | 949.146 | bb | | | 494.9929 | 82.5 | -17.5 | 509.3 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/03/10
Time of Injection: 0700
Standard Number: WXX100301-07CCV
Data File: EXP0301081a

| | | |
|---|---|---|
| HMX | | 109.0 |
| RDX | | 101.8 |
| 135-TNB | | 99.6 |
| 13-DNB | | 96.9 |
| Tetryl | | 86.9 |
| Nitrobenzene | | 91.6 |
| 4A-26-DNT | | 94.0 |
| 2A-46-DNT | | 108.7 |
| 246-TNT | | 118.3 |
| 34-DNT(surr) | | 104.5 |
| 26-DNT | | 103.0 |
| 24-DNT | | 113.1 |
| 2-NT | | 80.5 |
| 4-NT | | 86.7 |
| 3-NT | | 82.4 |
| PETN | | 82.5 |
| | | |
| Total | | 1559.5 |
| Average | | 97.5 |

MHT 3/3/10

Hmm 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0301083a

**Analysis Date:** 03-MAR-10 07:59

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| RDX | 40 | 30.064 | 75 | |
| Tetryl | 40 | 29.332 | 73 | |
| m-Dinitrobenzene | 40 | 42.74 | 107 | |
| m-Nitrotoluene | 40 | 29.241 | 73 | |
| o-Nitrotoluene | 40 | 36.839 | 92 | |
| p-Nitrotoluene | 40 | 41.871 | 105 | |
| 1,3,5-Trinitrobenzene | 40 | 49.866 | 125 | |
| 1,3-Dinitrobenzene-d4 | 500 | 643.486 | 129 | |
| 2,4,6-Trinitrotoluene | 40 | 47.216 | 118 | |
| 2,4-Dinitrotoluene | 40 | 42.604 | 107 | |
| 2,6-Dinitrotoluene | 40 | 40.372 | 101 | |
| 2,6-Dinitrotoluene-d3 | 500 | 642.665 | 129 | |
| 2-Amino-4,6-dinitrotoluene | 40 | 41.73 | 104 | |
| 3,4-Dinitrotoluene | 20 | 17.556 | 88 | |
| 4-Amino-2,6-dinitrotoluene | 40 | 40.477 | 101 | |
| HMX | 40 | 36.066 | 90 | |
| Nitrobenzene | 40 | 30.414 | 76 | |
| PETN | 40 | 46.771 | 117 | |

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%
OtherTarget 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

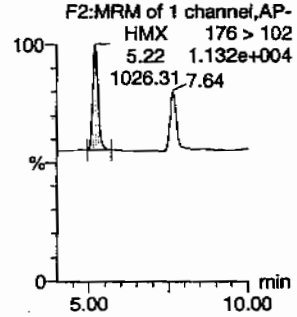


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

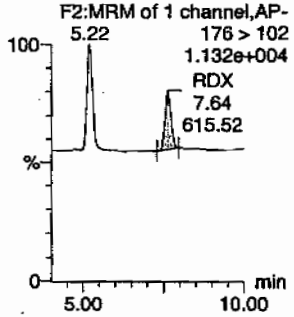
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301083a**
**Date: 03-Mar-2010**
**Time: 07:59:21**
**ID: WXX100301-08CRI**
**Vial: 1:1,C**

MAP 3/3/10

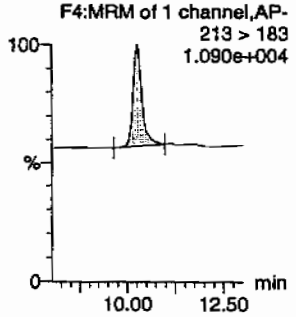
**HMX**



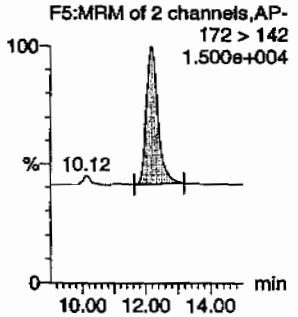

**RDX**



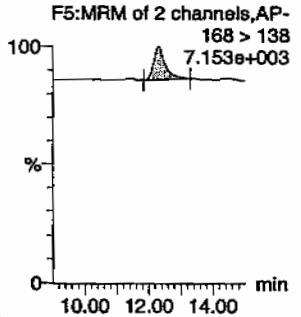

**135-Trinitrobenzene**



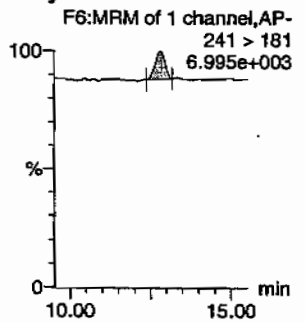

**13-Dinitrobenzene-d4**



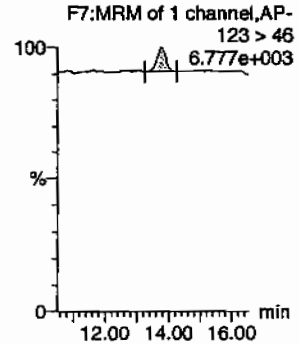

**13-Dinitrobenzene**



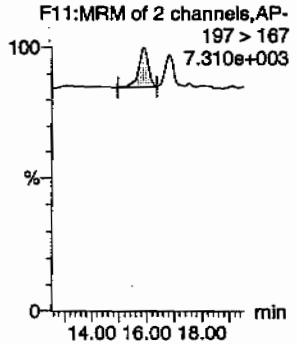

**Tetryl**



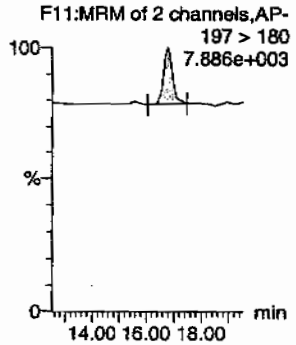

**Nitrobenzene**



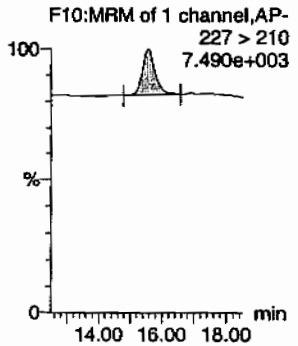

**4-Amino-26-dinitrotoluene**



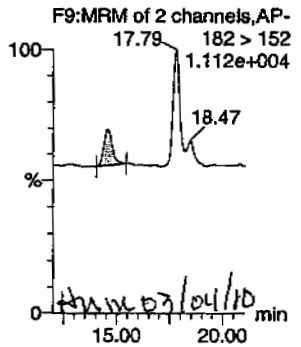

**2-Amino-46-dinitrotoluene**



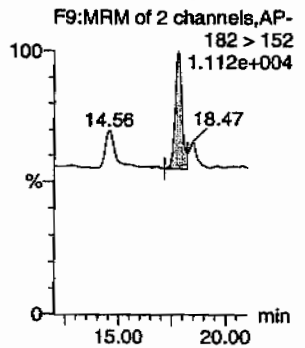

**246-Trinitrotoluene**




**34-dinitrotoluene**




**26-dinitrotoluene**




GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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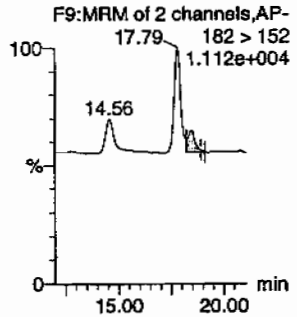
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

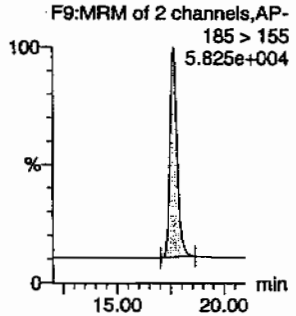


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

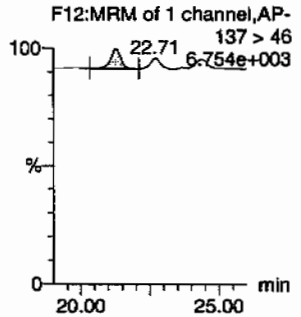
**24-dinitrotoluene**



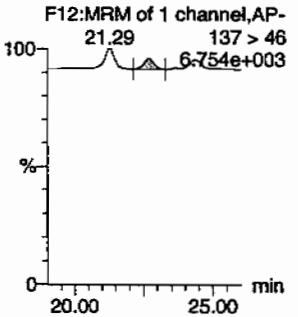

**26-dinitrotoluene-d3**



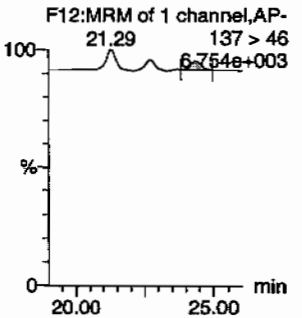

**2-Nitrotoluene**



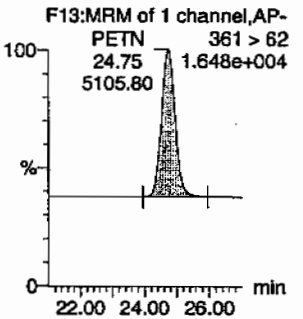

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs Resp | Response | Flags | Mod Date | Mod Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WXX100301-08CRI | HMX | 176 > 102 | 5.22 | 1026.314 | 3729.741 | 1026.314 | 137.585 | bb | | | 36.0659 | 90.2 | -9.8 | 161.9 |
| WXX100301-08CRI | RDX | 176 > 102 | 7.64 | 615.518 | 3729.741 | 615.518 | 82.515 | bb | | | 30.0642 | 75.2 | -24.8 | 89.5 |
| WXX100301-08CRI | 135-Trinitrobenzene | 213 > 183 | 10.25 | 1280.718 | 3729.741 | 1280.718 | 171.690 | bb | | | 49.8656 | 124.7 | 24.7 | 150.7 |
| WXX100301-08CRI | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3729.741 | | 3729.741 | 3729.741 | bb | | | 643.4857 | 128.7 | 28.7 | 565.7 |
| WXX100301-08CRI | 13-Dinitrobenzene | 168 > 138 | 12.31 | 418.249 | 3729.741 | 418.249 | 56.069 | bb | | | 42.7402 | 106.9 | 6.9 | 44.2 |
| WXX100301-08CRI | Tetryl | 241 > 181 | 12.82 | 289.126 | 3729.741 | 289.126 | 38.760 | bb | | | 29.3324 | 73.3 | -26.7 | 24.6 |
| WXX100301-08CRI | Nitrobenzene | 123 > 46 | 13.76 | 201.672 | 3729.741 | 201.672 | 27.036 | bb | | | 30.4136 | 76.0 | -24.0 | 25.4 |
| WXX100301-08CRI | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 472.425 | 20674.299 | 472.425 | 11.425 | MM | 03-Mar-10 | 08:47:36 | 40.4770 | 101.2 | 1.2 | 36.8 |
| WXX100301-08CRI | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 650.540 | 20674.299 | 650.540 | 15.733 | bb | | | 41.7301 | 104.3 | 4.3 | 75.3 |
| WXX100301-08CRI | 246-Trinitrotoluene | 227 > 210 | 15.58 | 615.329 | 20674.299 | 615.329 | 14.881 | bb | | | 47.2159 | 118.0 | 18.0 | 69.2 |
| WXX100301-08CRI | 34-dinitrotoluene | 182 > 152 | 14.56 | 719.132 | 20674.299 | 719.132 | 17.392 | bb | | | 17.5558 | 87.8 | -12.2 | 34.6 |
| WXX100301-08CRI | 26-dinitrotoluene | 182 > 152 | 17.79 | 1883.394 | 20674.299 | 1883.394 | 45.549 | MM | 03-Mar-10 | 08:49:29 | 40.3720 | 100.9 | 0.9 | 109.4 |
| WXX100301-08CRI | 24-dinitrotoluene | 182 > 152 | 18.47 | 443.117 | 20674.299 | 443.117 | 10.717 | MM | 03-Mar-10 | 09:00:13 | 42.6039 | 106.5 | 6.5 | 23.7 |
| WXX100301-08CRI | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 20674.299 | | 20674.299 | 20674.299 | bb | | | 642.6649 | 128.5 | 28.5 | 1440.0 |
| WXX100301-08CRI | 2-Nitrotoluene | 137 > 46 | 21.29 | 252.676 | 20674.299 | 252.676 | 6.111 | bb | | | 36.8386 | 92.1 | -7.9 | 51.1 |
| WXX100301-08CRI | 4-Nitrotoluene | 137 > 46 | 22.71 | 137.205 | 20674.299 | 137.205 | 3.318 | bb | | | 41.8709 | 104.7 | 4.7 | 27.4 |
| WXX100301-08CRI | 3-Nitrotoluene | 137 > 46 | 24.37 | 118.745 | 20674.299 | 118.745 | 2.872 | bb | | | 29.2405 | 73.1 | -26.9 | 22.9 |
| WXX100301-08CRI | PETN | 361 > 62 | 24.75 | 5105.803 | 20674.299 | 5105.803 | 123.482 | bb | | | 46.7713 | 116.9 | 16.9 | 557.7 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

| | |
|---|---|
| Vendor: | UltraScientific |
| Date of Analysis | 03/03/10 |
| Time of Injection | 0759 |
| Standard Number | WXX100301-08CRI |
| Data File | EXP0301083a |

| | | |
|---|---|---|
| HMX | | 90.2 |
| RDX | | 75.2 |
| 135-TNB | | 124.7 |
| 13-DNB | | 106.9 |
| Tetryl | | 73.3 |
| Nitrobenzene | | 76.0 |
| 4A-26-DNT | | 101.2 |
| 2A-46-DNT | | 104.3 |
| 246-TNT | | 118.0 |
| 34-DNT(surr) | | 87.8 |
| 26-DNT | | 100.9 |
| 24-DNT | | 106.5 |
| 2-NT | | 92.1 |
| 4-NT | | 104.7 |
| 3-NT | | 73.1 |
| PETN | | 116.9 |
| | | |
| | Total | 1551.8 |
| | Average | 97.0 |

MAP 3/3/10

HMM 03/04/10

| |
|---|
| ICV Limits 85-115% |
| CRI Limits 70-130% |
| CCV Limits 85-115% |
| No single analyte > +/- 60% |

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# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS02220013.wiff

**Analysis Date:** 22-FEB-10 20:10

**LCMSMS ID:** 1358

**Column ID** JSphere ODS-H80

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4-Diamino-6-nitrotoluene | 100 | 144 | 144 | |
| 2,6-Diamino-4-nitrotoluene | 100 | 138 | 138 | |
| 3,4-Dinitrotoluene | 50 | 46.4 | 93 | |
| 3,5-Dinitroaniline | 100 | 100 | 100 | |
| TATB | 100 | 92.4 | 92 | |
| tris(o-cresyl) phosphate | 100 | 102 | 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 50-150%
OtherTarget Analytes 70-130%
# Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

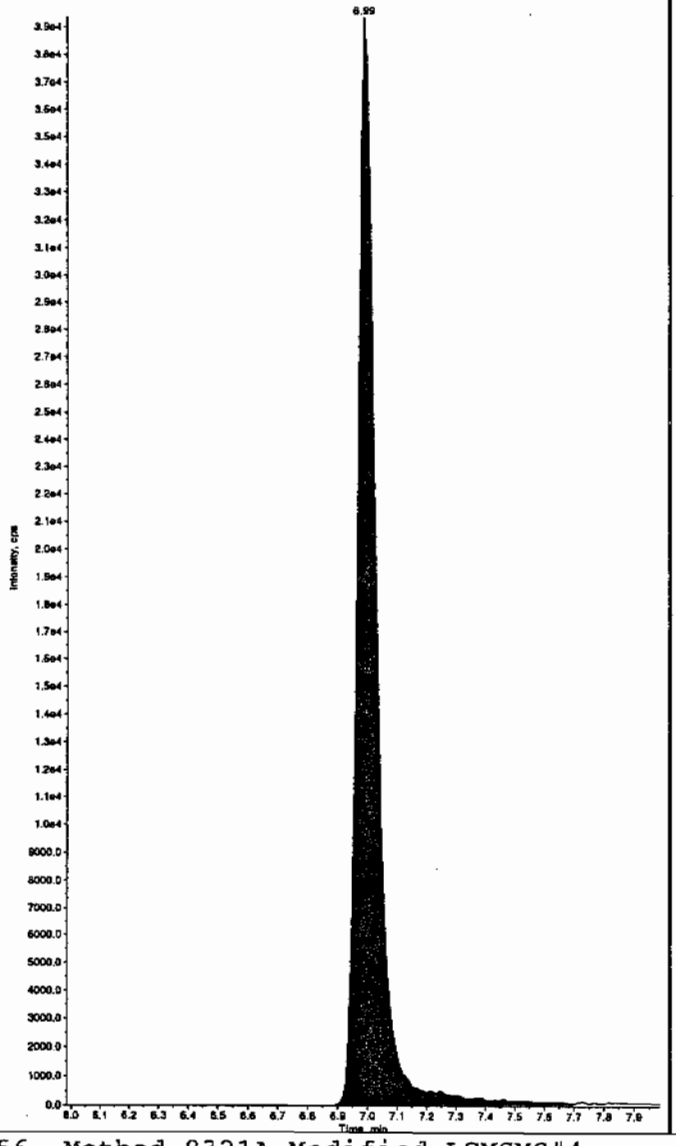
Scan 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.83e+005 counts
Height: 39346.195 cps
Start Time: 6.87 min
End Time: 7.70 min

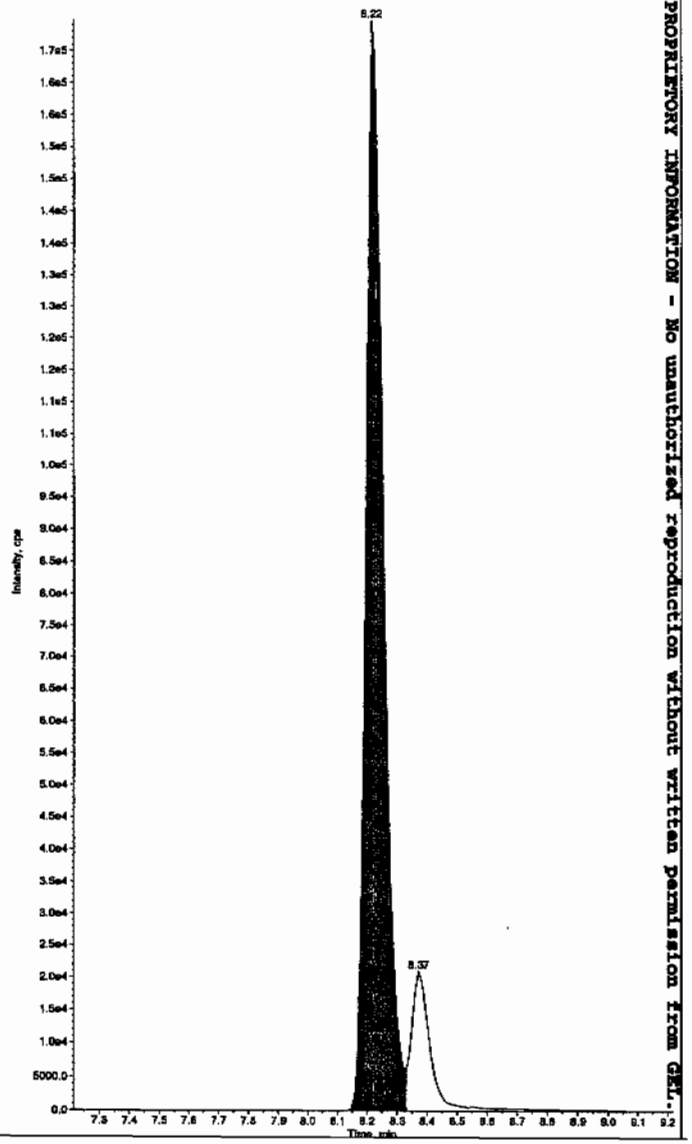



Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 7.08e+005 counts
Height: 169761.169 cps
Start Time: 8.10 min
End Time: 8.33 min




Hmm 02/23/10

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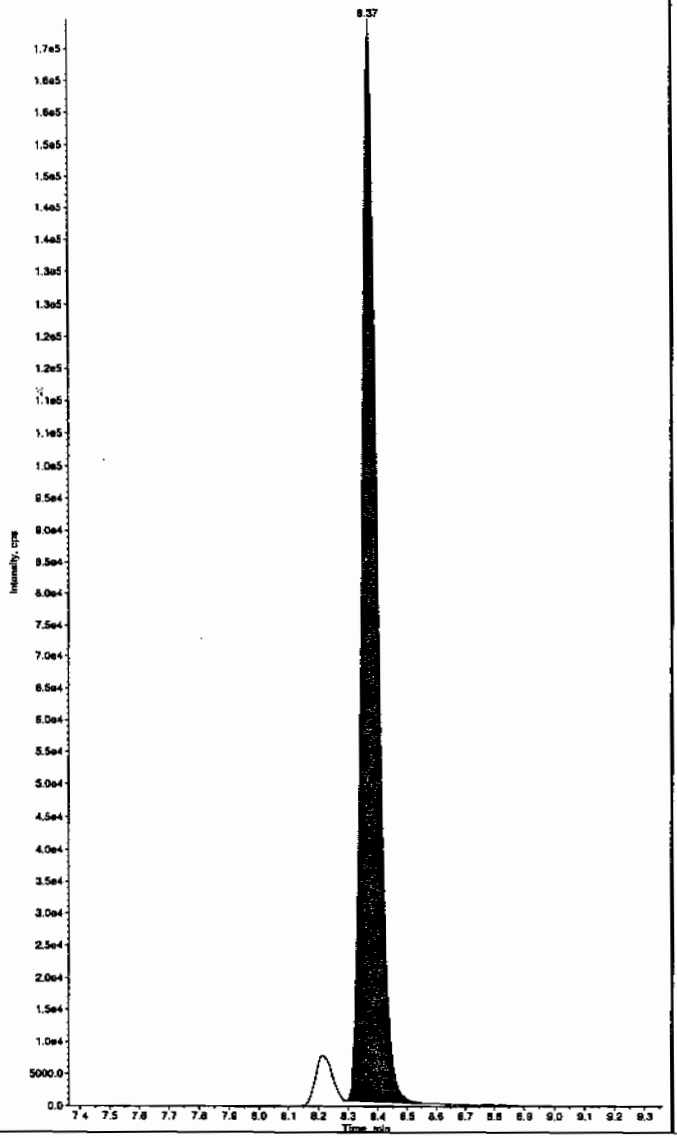
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 46.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.36e+005 counts
Height: 169130.783 cps
Start Time: 8.29 min
End Time: 8.57 min

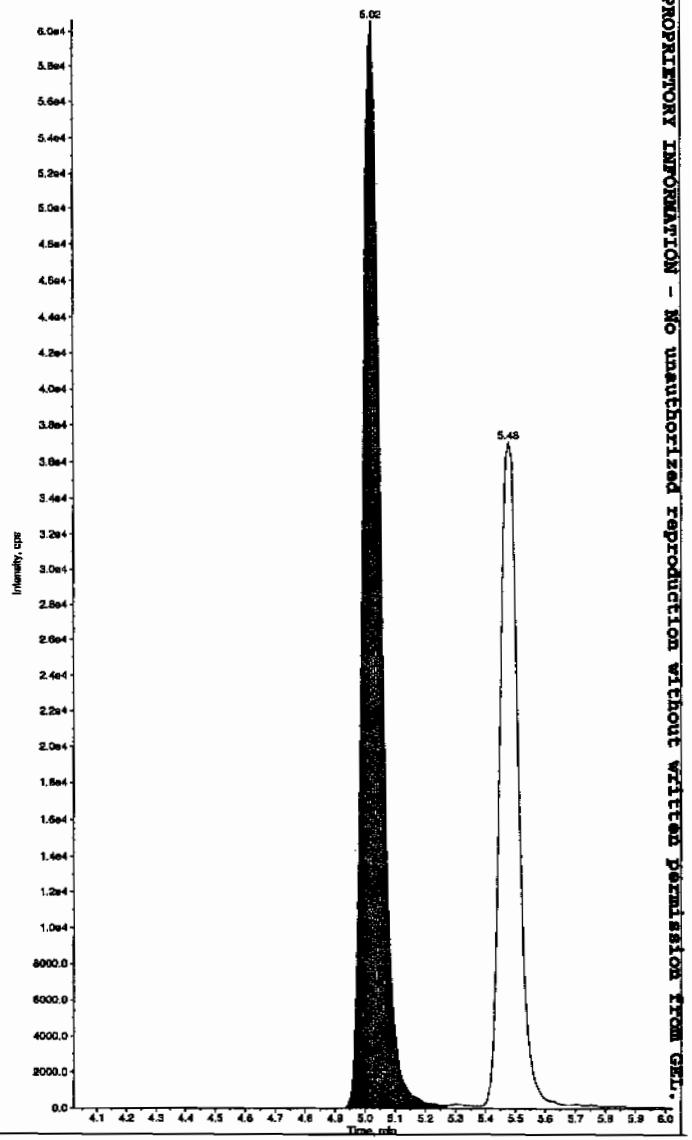



Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 138. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 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: 5.02 min
Area: 2.63e+005 counts
Height: 60650.684 cps
Start Time: 4.89 min
End Time: 5.27 min

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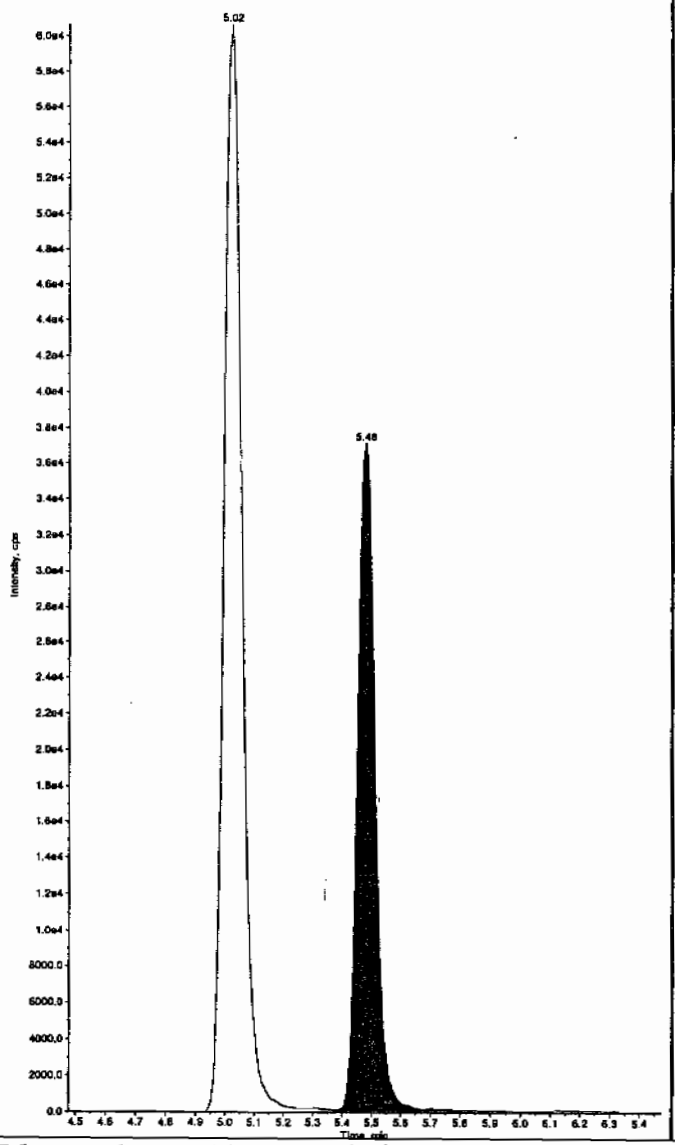
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 144. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 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: 5.48 min
Area: 1.61e+005 counts
Height: 37082.989 cps
Start Time: 5.37 min
End Time: 5.83 min

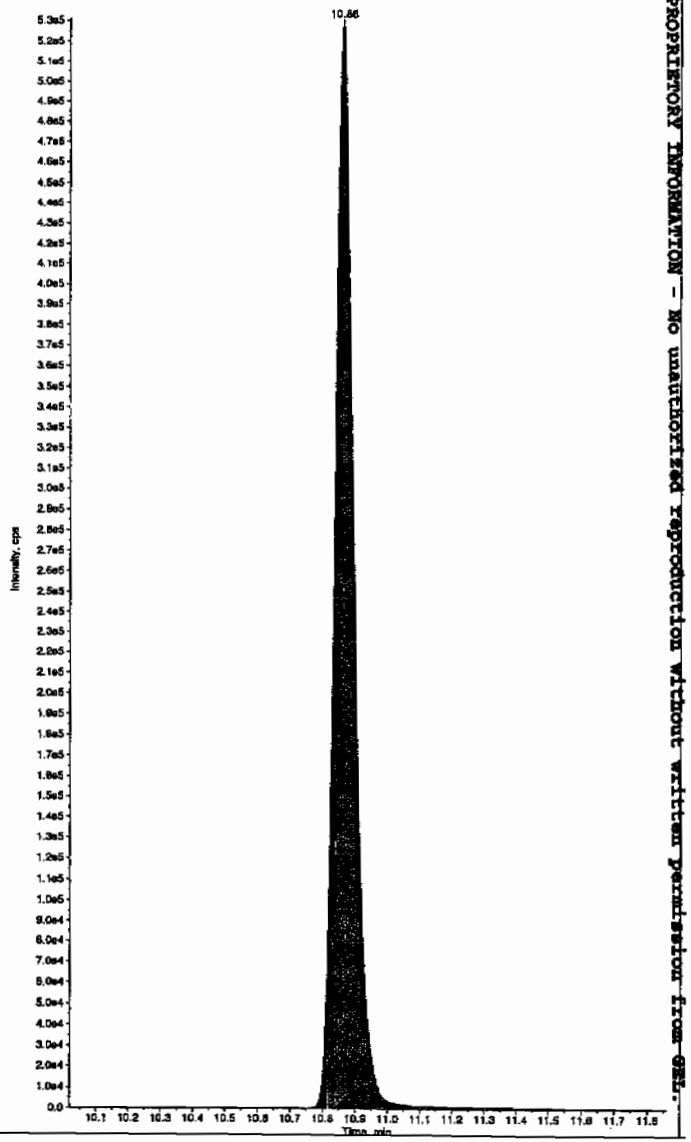



Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 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: 2.20e+006 counts
Height: 530816.833 cps
Start Time: 10.8 min
End Time: 11.2 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# 7A
## Explosives Continuing Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCCV

**GEL Data File** EXS02220024.wiff

**Analysis Date:** 22-FEB-10 23:03

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4-Diamino-6-nitrotoluene | 500 | 608 | 122 | |
| 2,6-Diamino-4-nitrotoluene | 500 | 589 | 118 | |
| 3,4-Dinitrotoluene | 250 | 240 | 96 | |
| 3,5-Dinitroaniline | 500 | 502 | 100 | |
| TATB | 500 | 434 | 87 | |
| tris(o-cresyl) phosphate | 500 | 474 | 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%
OtherTarget Analytes 80-120%
# Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

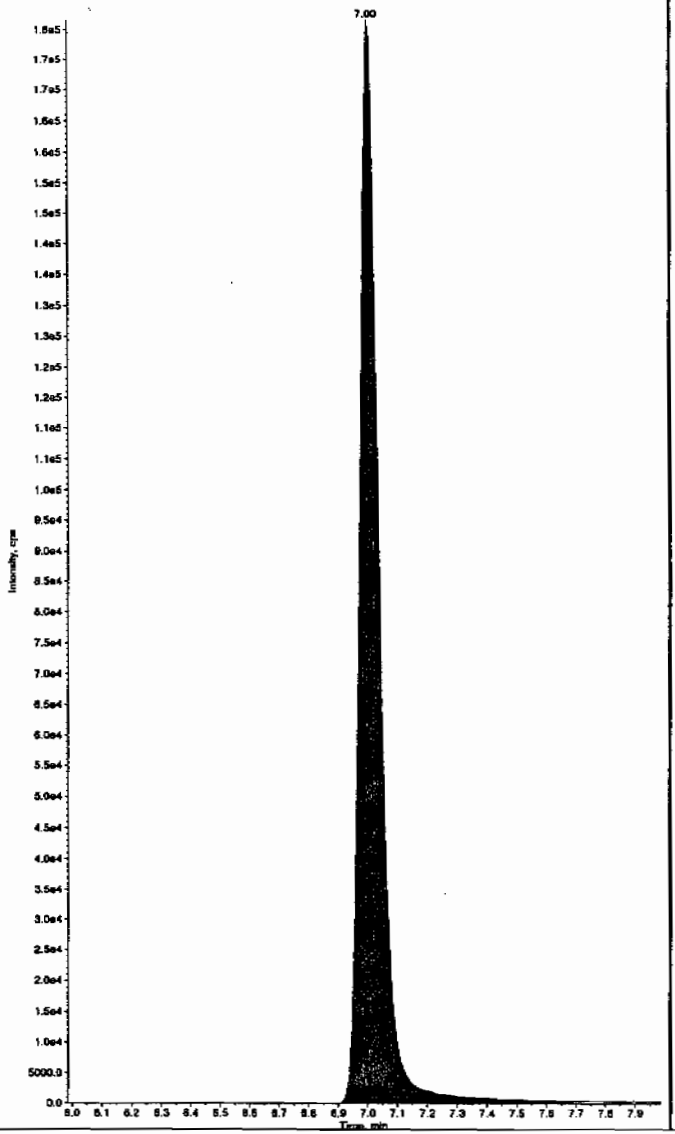
Lan 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 434. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.29e+005 counts
Height: 176679.764 cps
Start Time: 6.88 min
End Time: 7.69 min

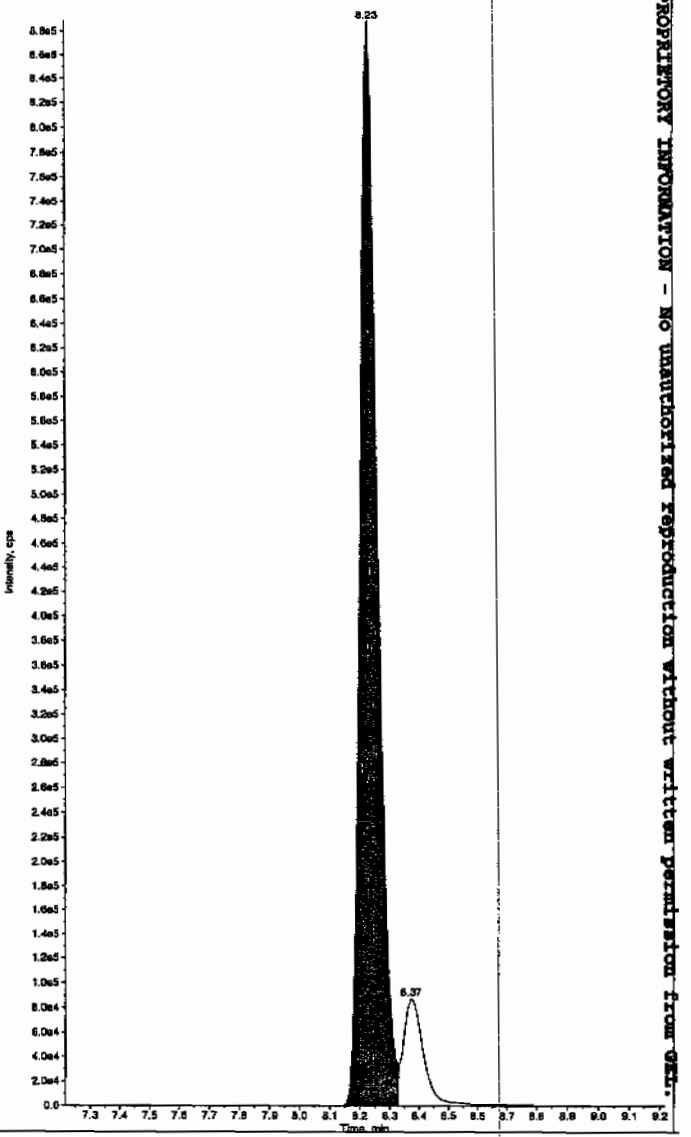



Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.66e+006 counts
Height: 888949.829 cps
Start Time: 8.13 min
End Time: 8.33 min




HMM 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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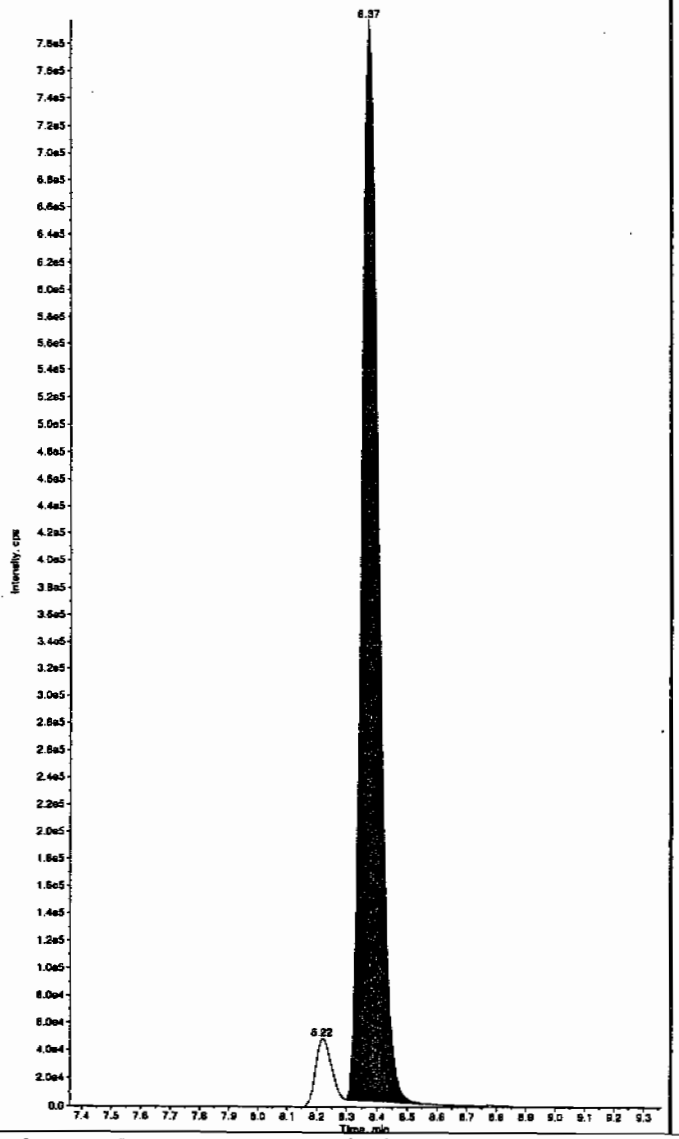
Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 240. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.21e+006 counts
Height: 793470.642 cps
Start Time: 8.30 min
End Time: 8.60 min

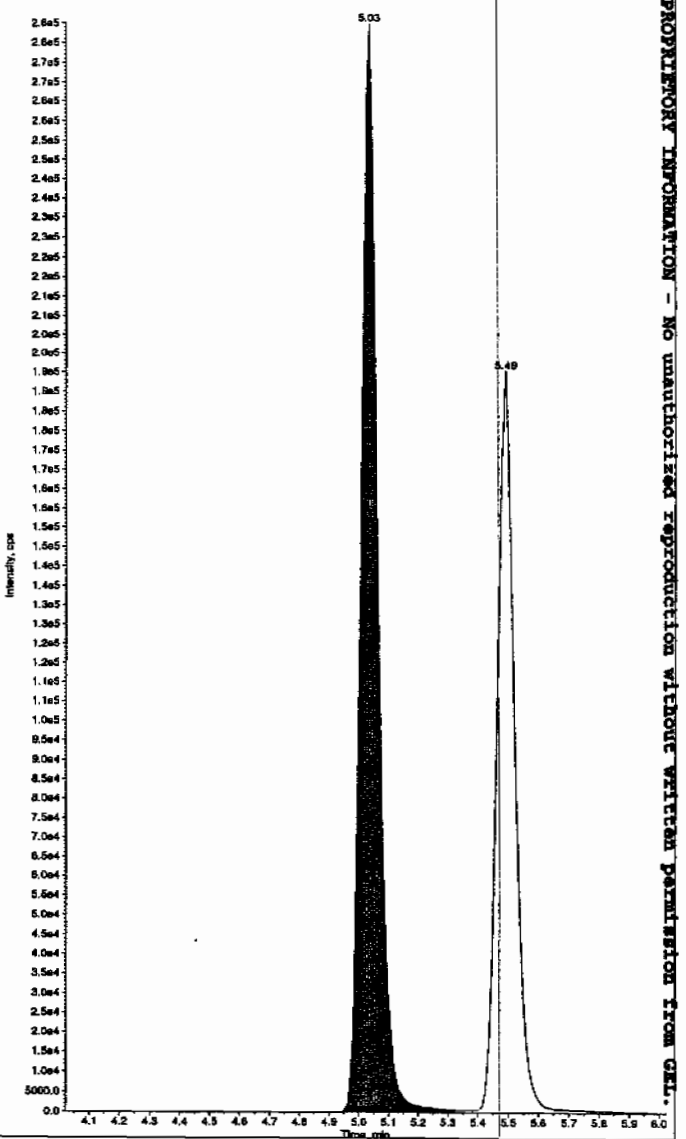



Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 589. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 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: 5.03 min
Area: 1.12e+006 counts
Height: 280152.069 cps
Start Time: 4.92 min
End Time: 5.32 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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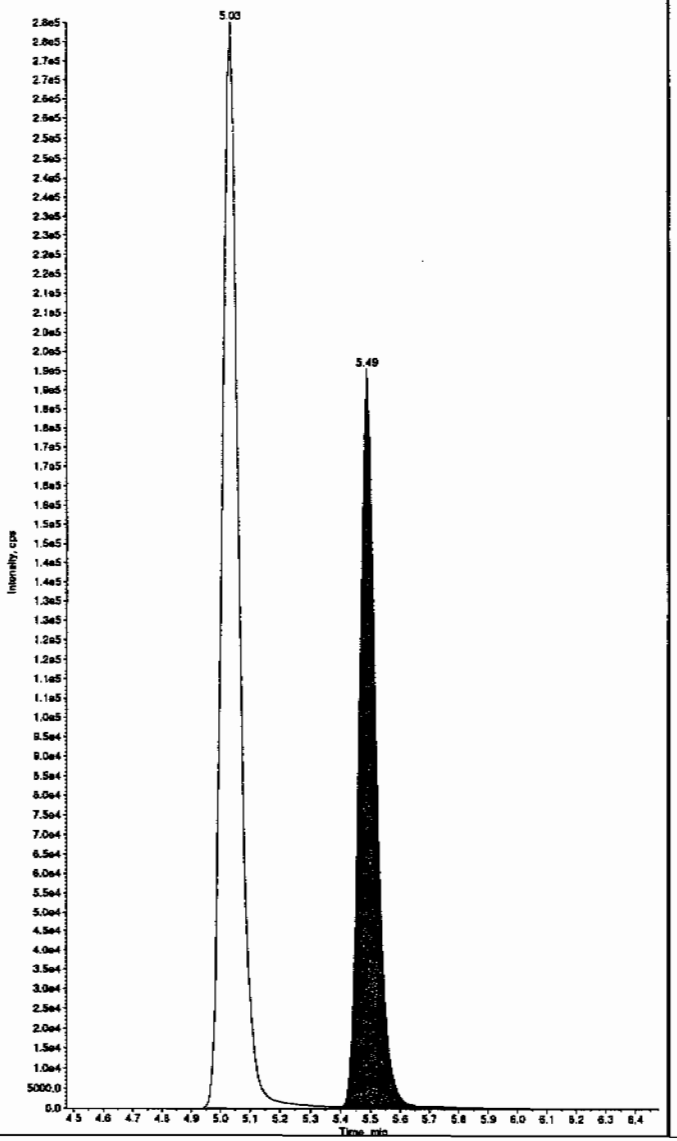
Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.    ng/mL
Calculated Conc:     608.    ng/mL
Acq. Date:        2/22/2010
Acq. Time:        11:03:13 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:     5.49   min
Area:          7.64e+005   counts
Height:        190601.074  cps
Start Time:         5.36   min
End Time:           5.93   min
```

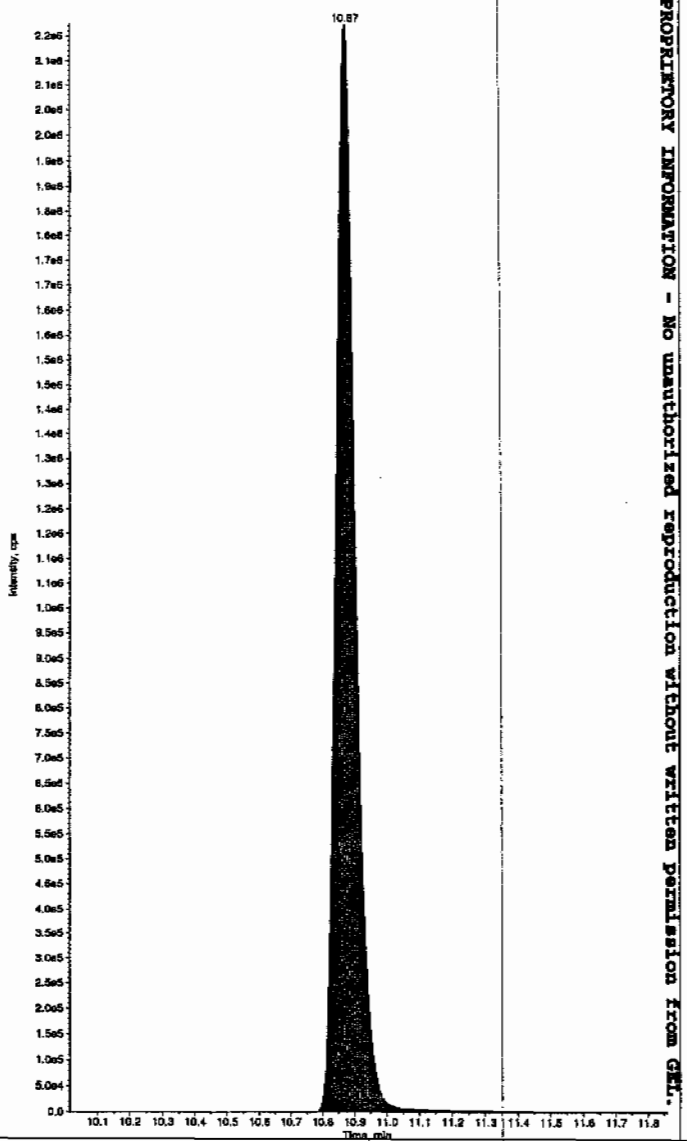



Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.    ng/mL
Calculated Conc:     474.    ng/mL
Acq. Date:        2/22/2010
Acq. Time:        11:03:13 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:          9.50e+006   counts
Height:        2173984.131 cps
Start Time:         10.8   min
End Time:           11.2   min
```

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10–1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS02220026.wiff

**Analysis Date:** 22–FEB–10 23:34

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS–H80

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4–Diamino–6–nitrotoluene | 100 | 125 | 125 | |
| 2,6–Diamino–4–nitrotoluene | 100 | 106 | 106 | |
| 3,4–Dinitrotoluene | 50 | 47.3 | 95 | |
| 3,5–Dinitroaniline | 100 | 103 | 103 | |
| TATB | 100 | 87.6 | 88 | |
| tris(o–cresyl) phosphate | 100 | 99.4 | 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%
OtherTarget Analytes 70–130%
# Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

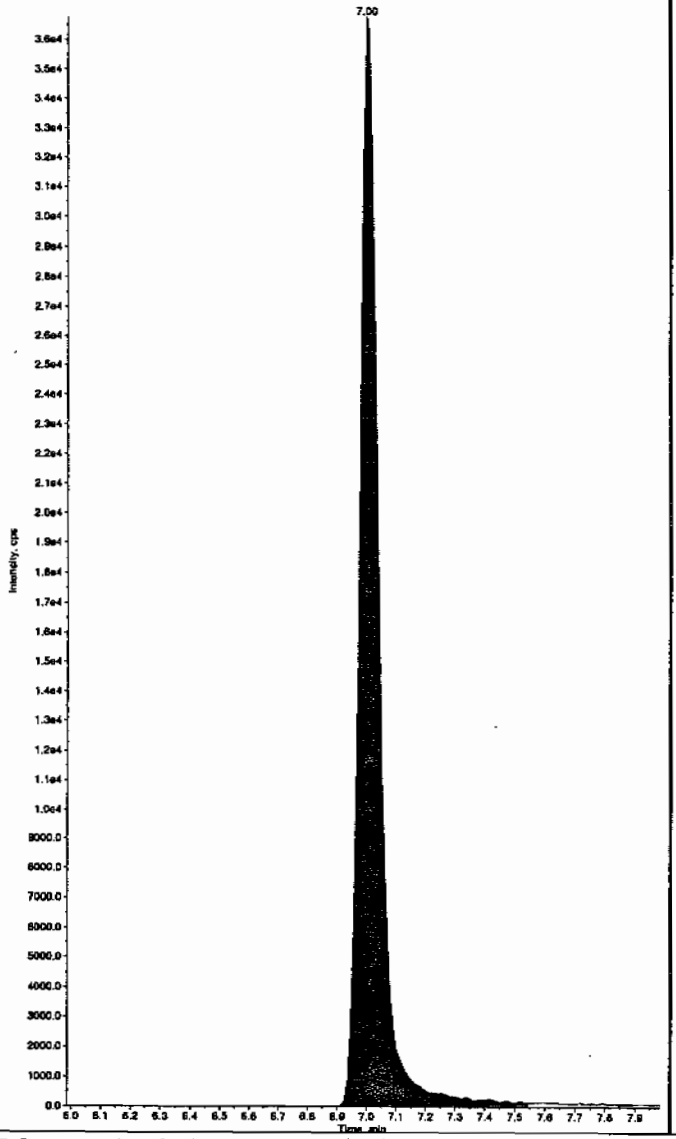
Ken 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.6 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.73e+005 counts
Height: 36736.000 cps
Start Time: 6.89 min
End Time: 7.54 min

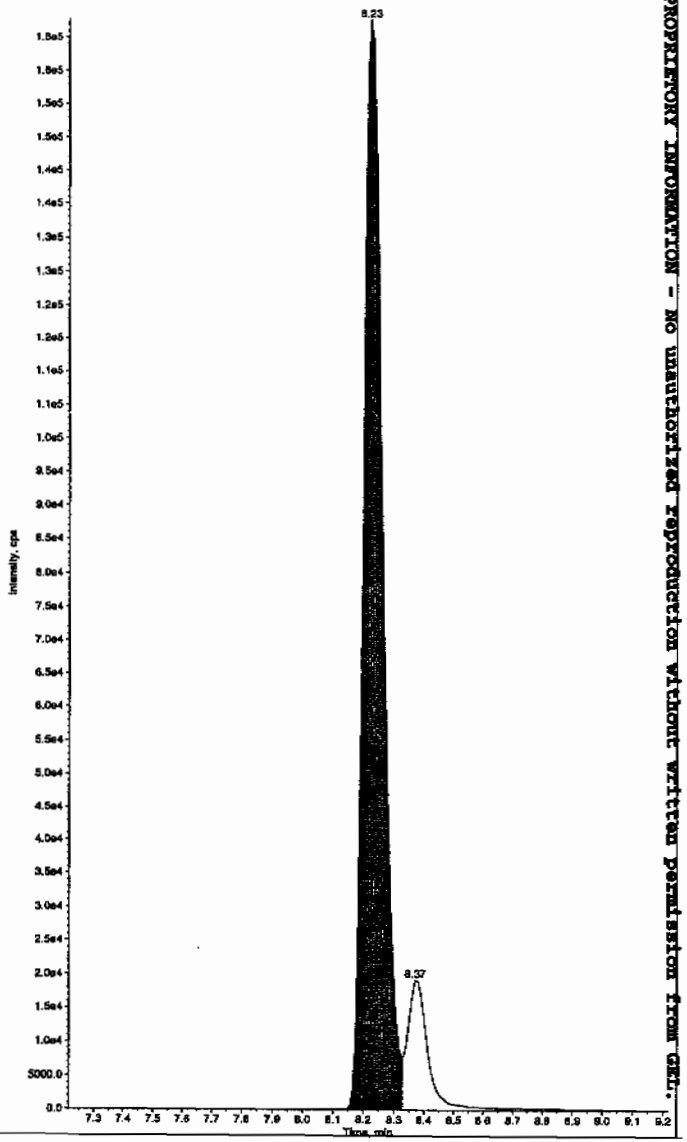



Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 7.34e+005 counts
Height: 162769.363 cps
Start Time: 8.11 min
End Time: 8.33 min




Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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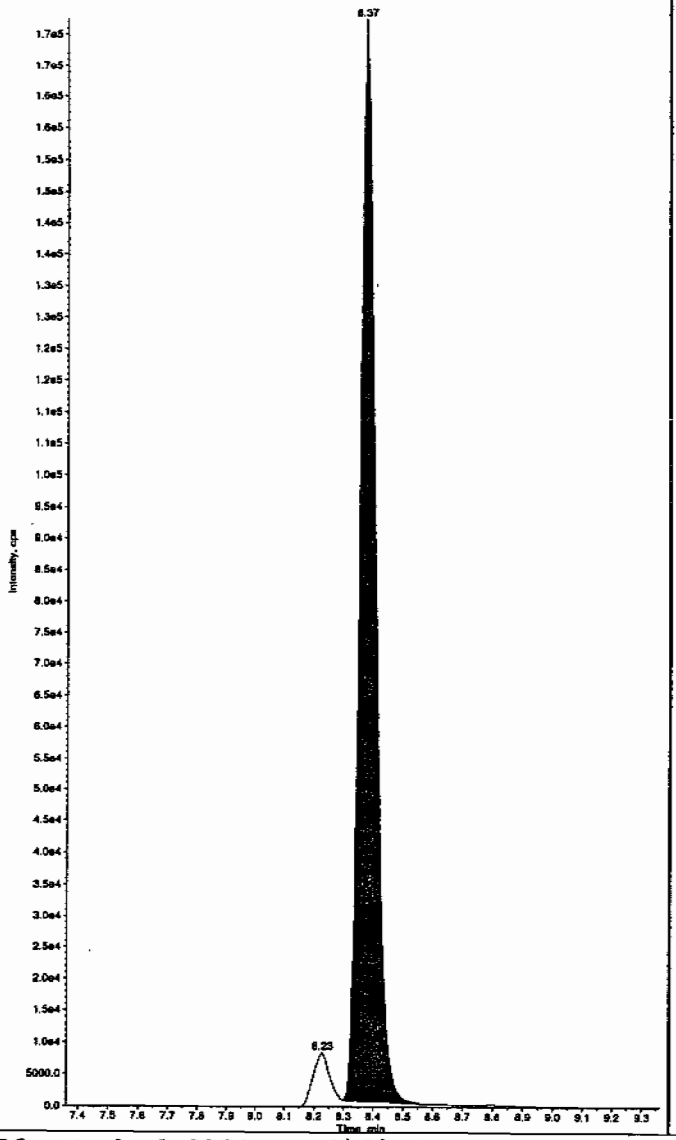
Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "162.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 47.3 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.48e+005 counts
Height: 171754.425 cps
Start Time: 8.30 min
End Time: 8.57 min

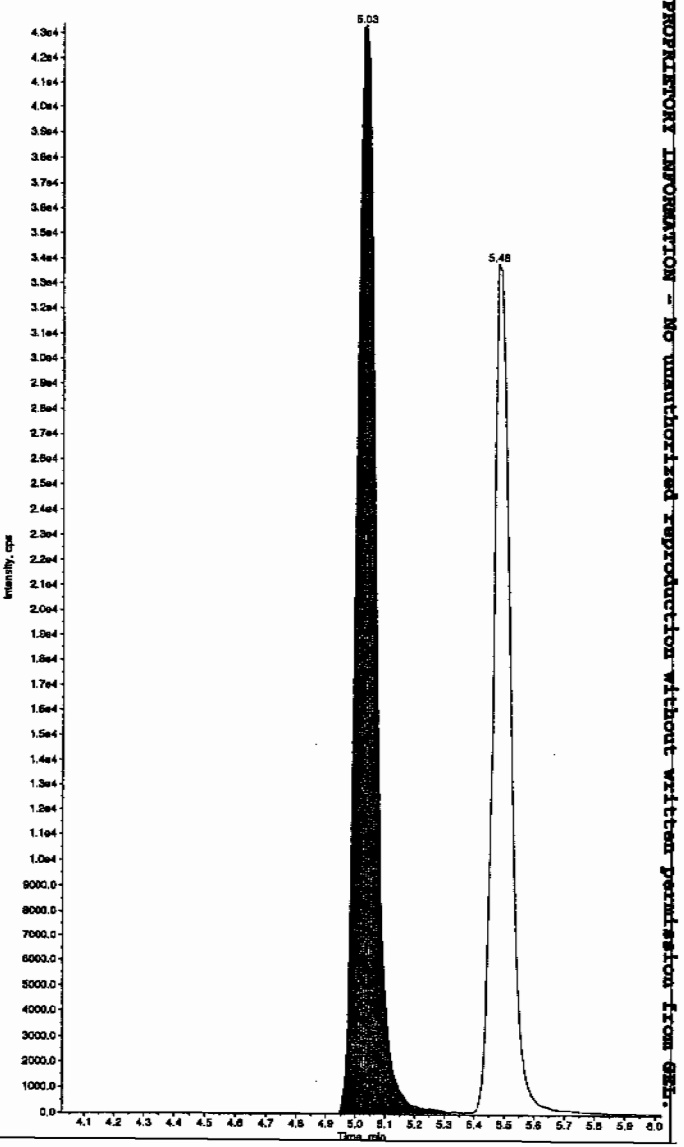



Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 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: 5.03 min
Area: 2.02e+005 counts
Height: 43339.493 cps
Start Time: 4.91 min
End Time: 5.32 min

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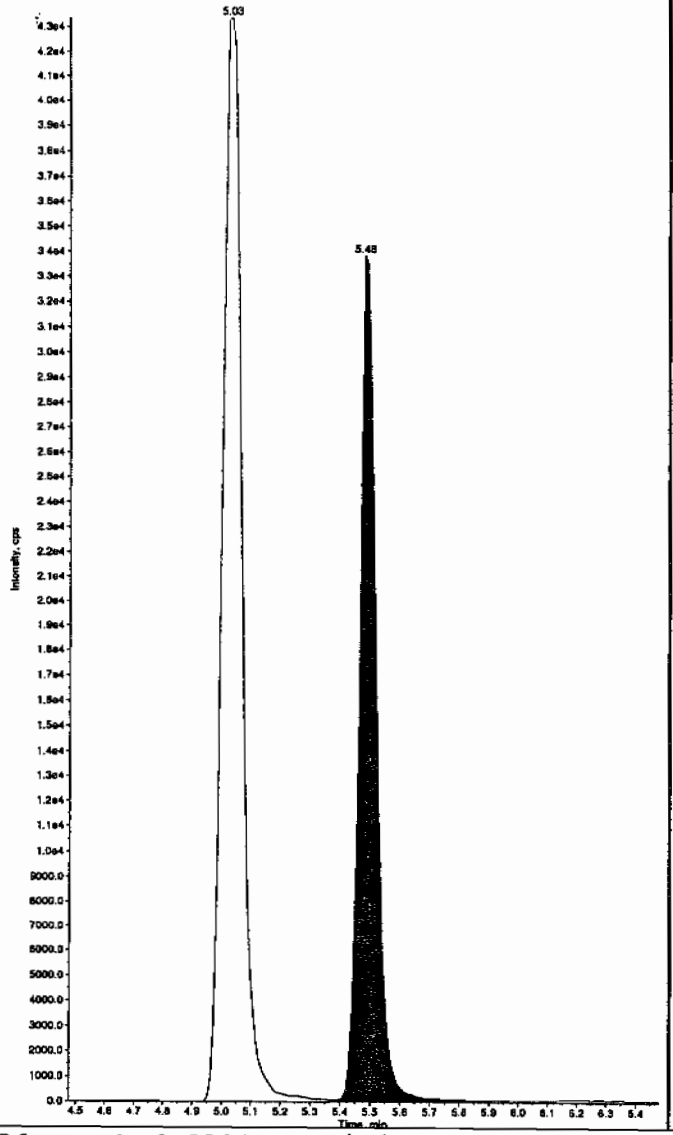
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 125. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 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: 5.48 min
Area: 1.36e+005 counts
Height: 33829.556 cps
Start Time: 5.36 min
End Time: 5.87 min

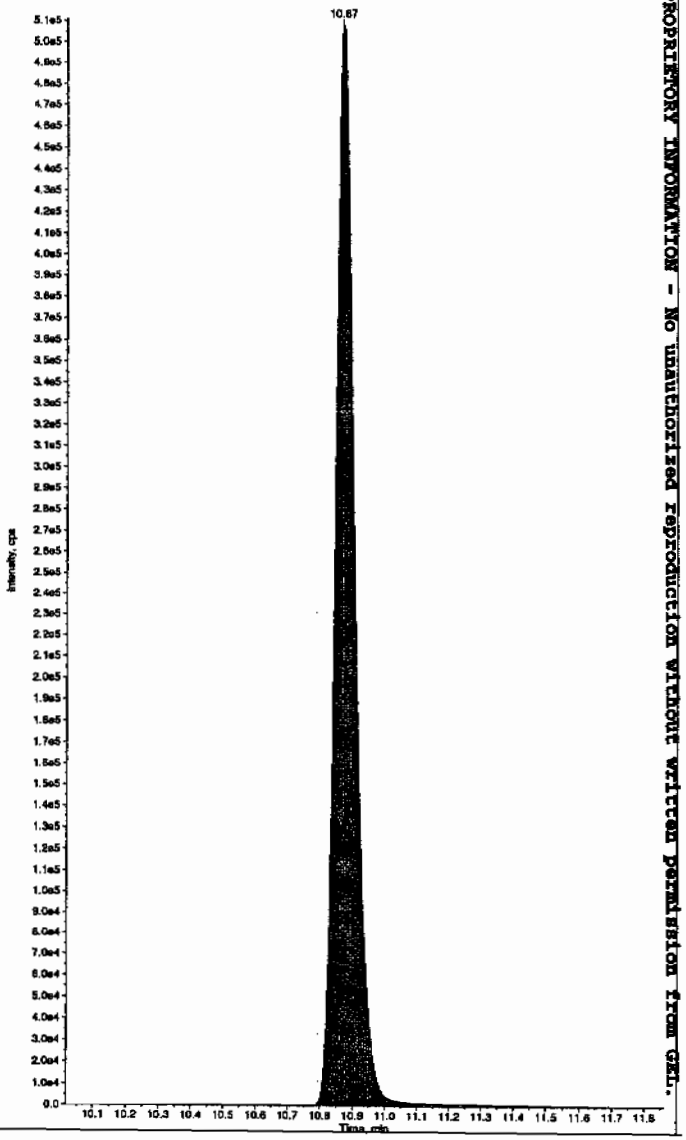



Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 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: 2.15e+006 counts
Height: 510783.722 cps
Start Time: 10.8 min
End Time: 11.2 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# 7A
## Explosives Continuing Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCCV

**GEL Data File** EXS02220037.wiff

**Analysis Date:** 23-FEB-10 02:27

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4-Diamino-6-nitrotoluene | 500 | 599 | 120 | |
| 2,6-Diamino-4-nitrotoluene | 500 | 568 | 114 | |
| 3,4-Dinitrotoluene | 250 | 263 | 105 | |
| 3,5-Dinitroaniline | 500 | 547 | 109 | |
| TATB | 500 | 445 | 89 | |
| tris(o-cresyl) phosphate | 500 | 485 | 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%
OtherTarget Analytes 80-120%
# Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

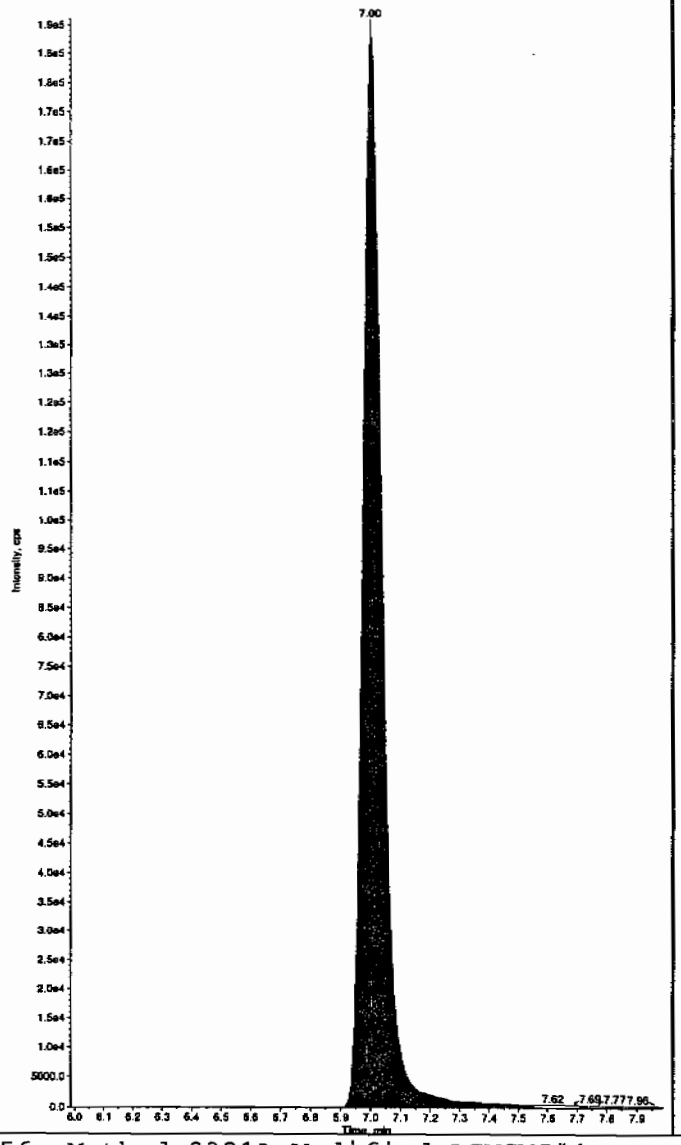
Ken 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 445. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.50e+005 counts
Height: 186114.761 cps
Start Time: 6.87 min
End Time: 7.55 min

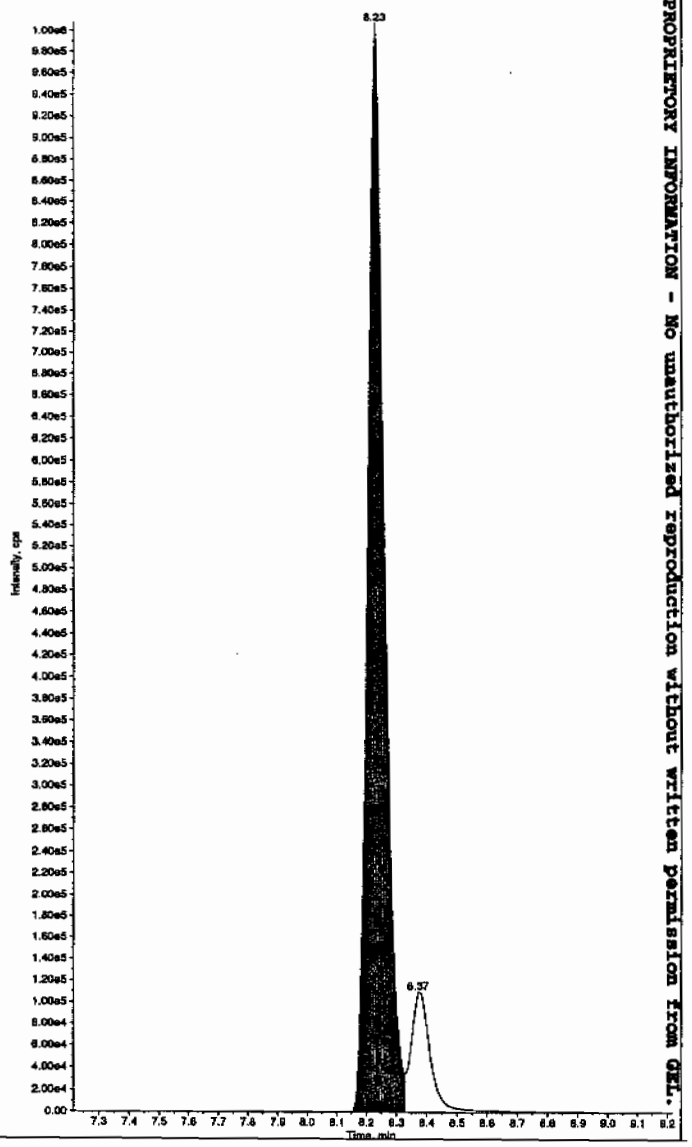



Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 547. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.97e+006 counts
Height: 1008123.047 cps
Start Time: 8.13 min
End Time: 8.33 min




Hmm 02/23/10

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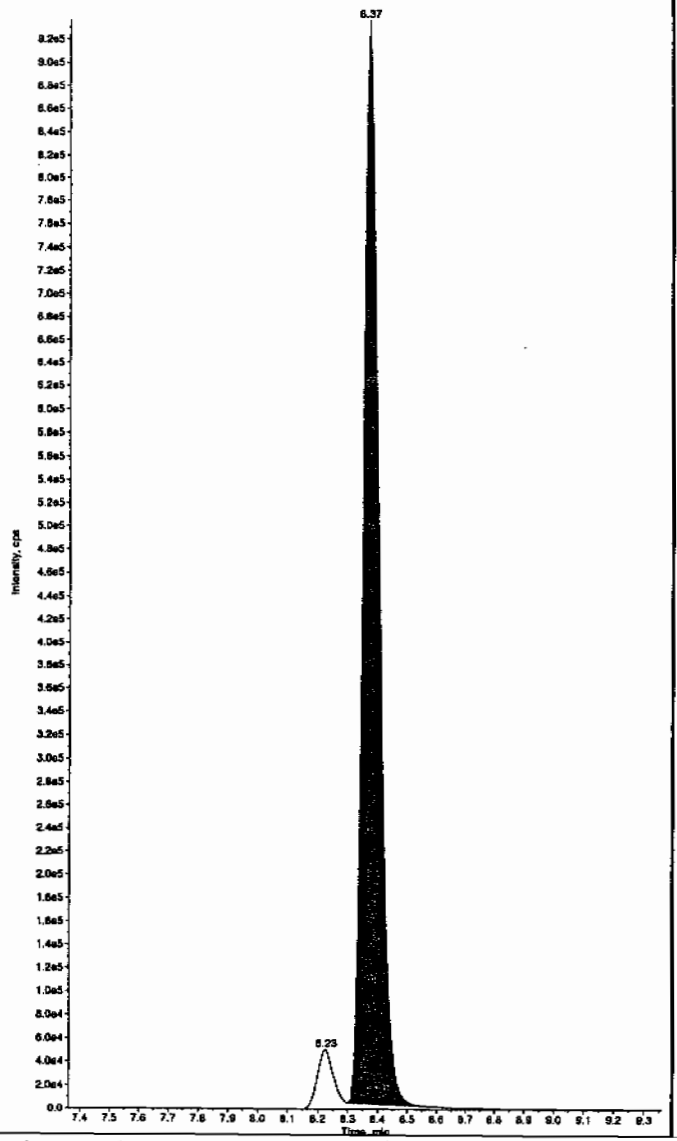
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-25CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 261. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.49e+006 counts
Height: 933031.006 cps
Start Time: 8.30 min
End Time: 8.59 min

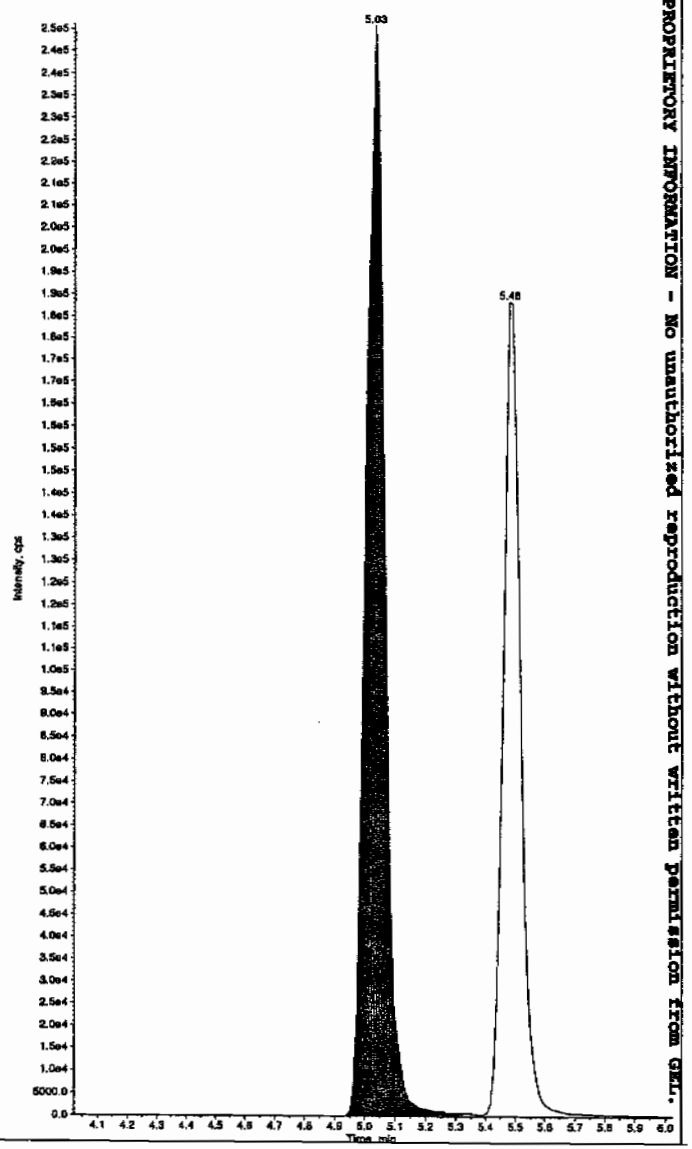



Sample Name: "WXX100222-25CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 568. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

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: 5.03 min
Area: 1.08e+006 counts
Height: 245930.420 cps
Start Time: 4.92 min
End Time: 5.32 min

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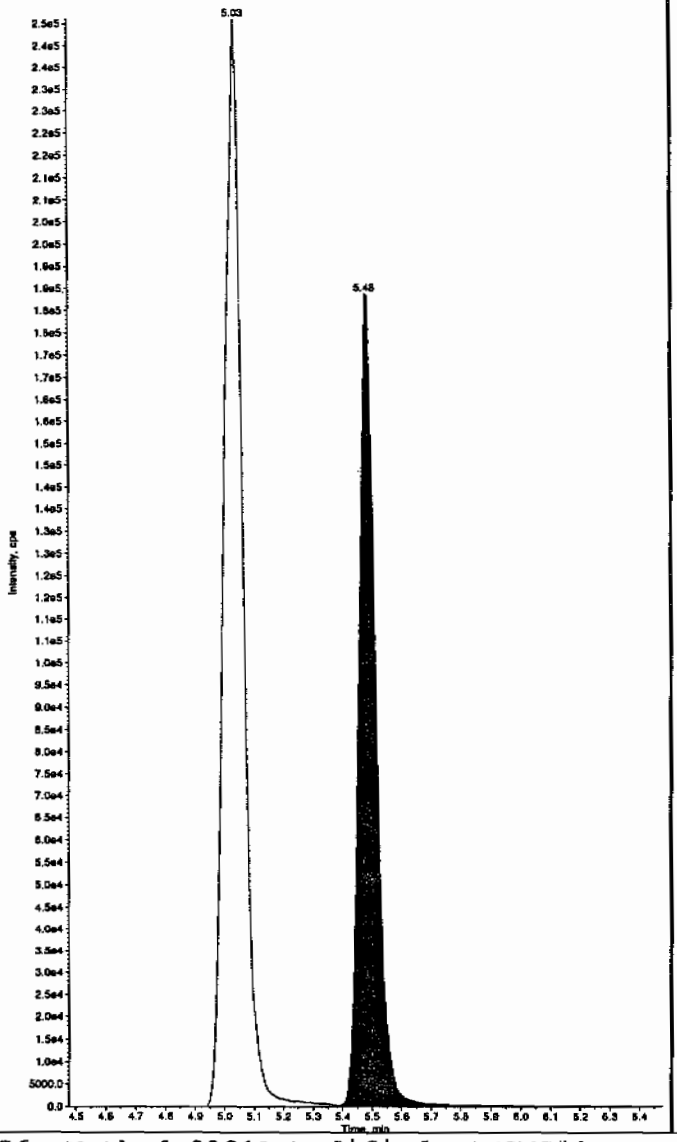
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-25CCV" Sample ID: "|1|LER" File: "EXS02220037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 599. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

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: 5.48 min
Area: 7.53e+005 counts
Height: 183671.036 cps
Start Time: 5.38 min
End Time: 6.04 min

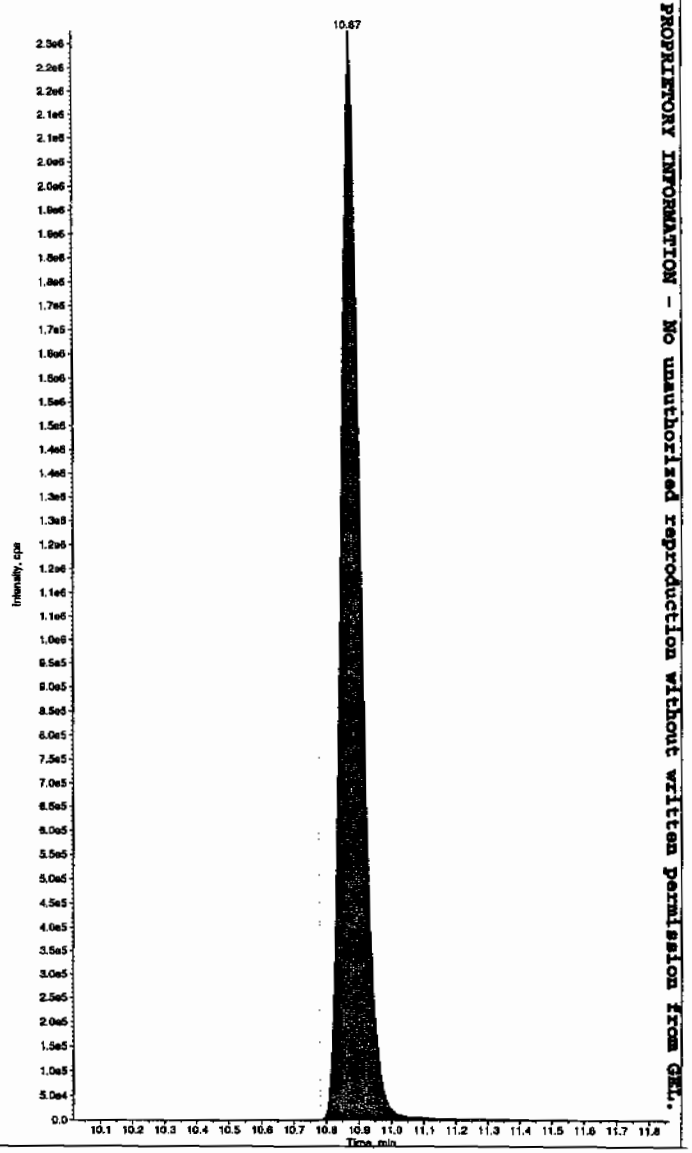



Sample Name: "WXX100222-25CCV" Sample ID: "|1|LER" File: "EXS02220037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 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: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.71e+006 counts
Height: 2276301.025 cps
Start Time: 10.8 min
End Time: 11.2 min

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS02220039.wiff

**Analysis Date:** 23-FEB-10 02:59

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS--H80

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4-Diamino-6-nitrotoluene | 100 | 120 | 120 | |
| 2,6-Diamino-4-nitrotoluene | 100 | 125 | 125 | |
| 3,4-Dinitrotoluene | 50 | 53.4 | 107 | |
| 3,5-Dinitroaniline | 100 | 114 | 114 | |
| TATB | 100 | 91.3 | 91 | |
| 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%
OtherTarget Analytes 70-130%
# Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

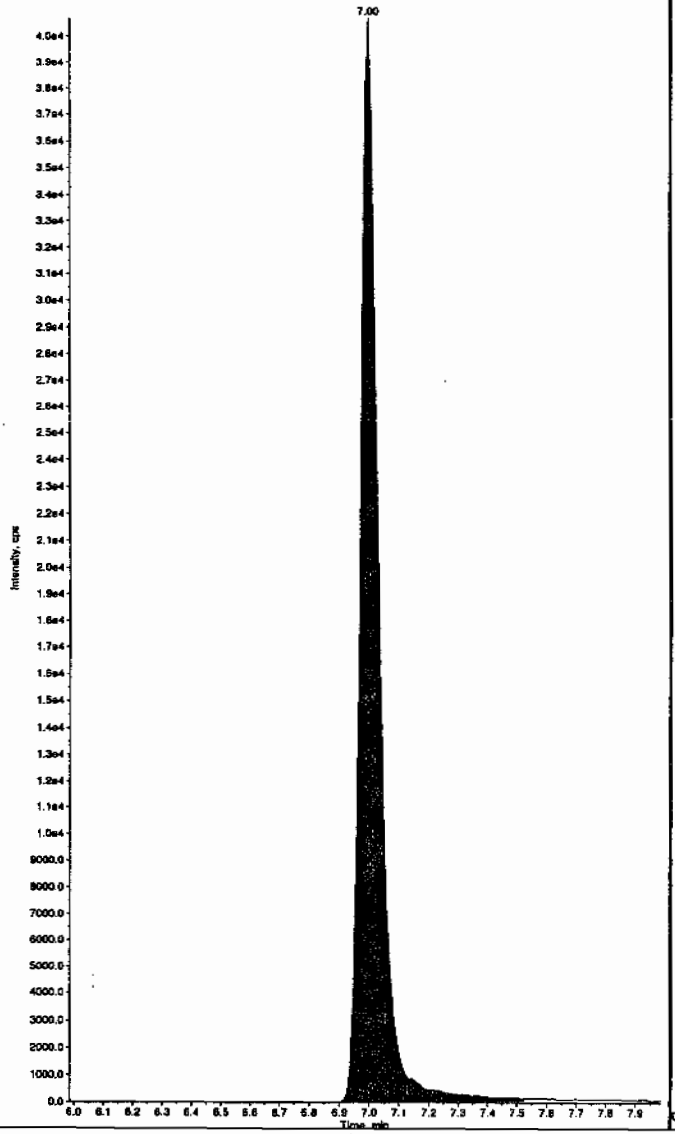
Ken 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.3 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.80e+005 counts
Height: 40684.280 cps
Start Time: 6.85 min
End Time: 7.52 min

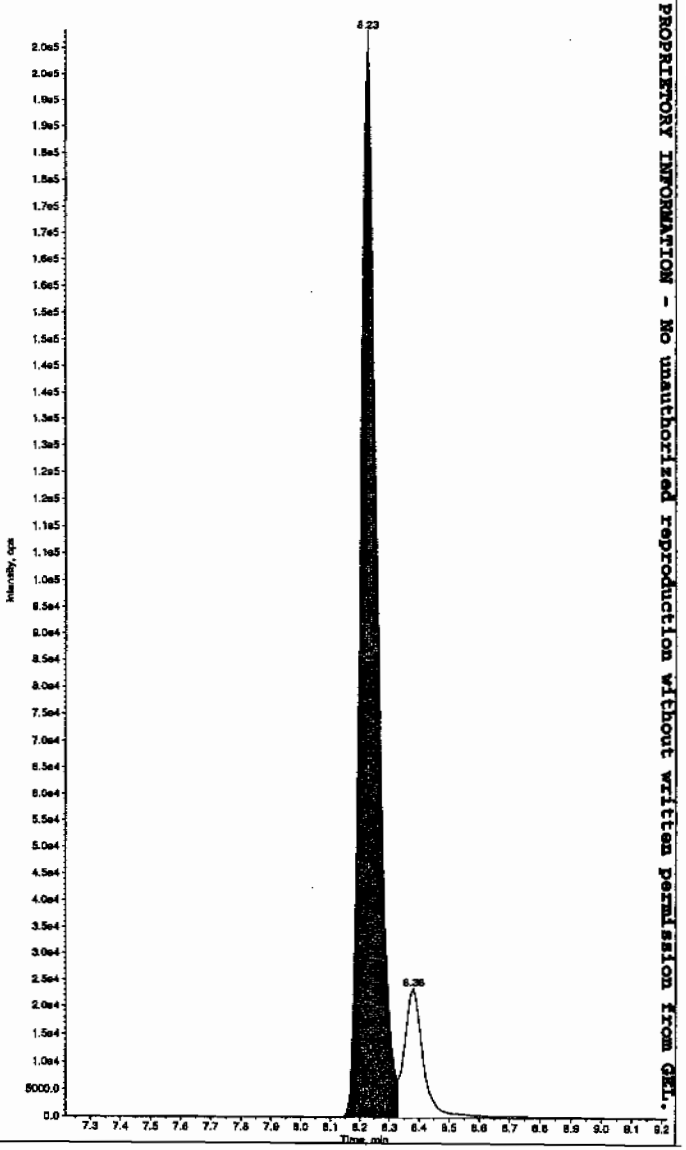



Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 8.16e+005 counts
Height: 203416.260 cps
Start Time: 8.12 min
End Time: 8.33 min




HMM 02/23/10

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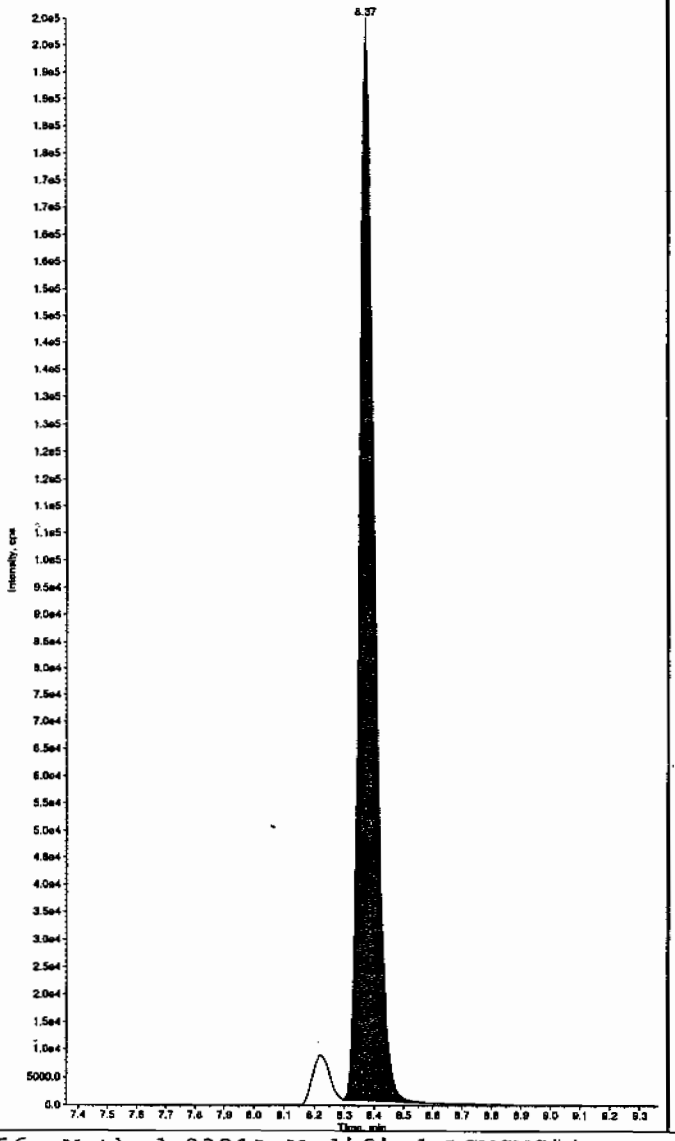
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       50.0     ng/mL
Calculated Conc:     53.4     ng/mL
Acq. Date:       2/23/2010
Acq. Time:       2:59:14 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          15.0     sec
Expected RT:         8.36    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.37    min
Area:        7.31e+005    counts
Height:        199268.600   cps
Start Time:          8.30    min
End Time:            8.61    min
```

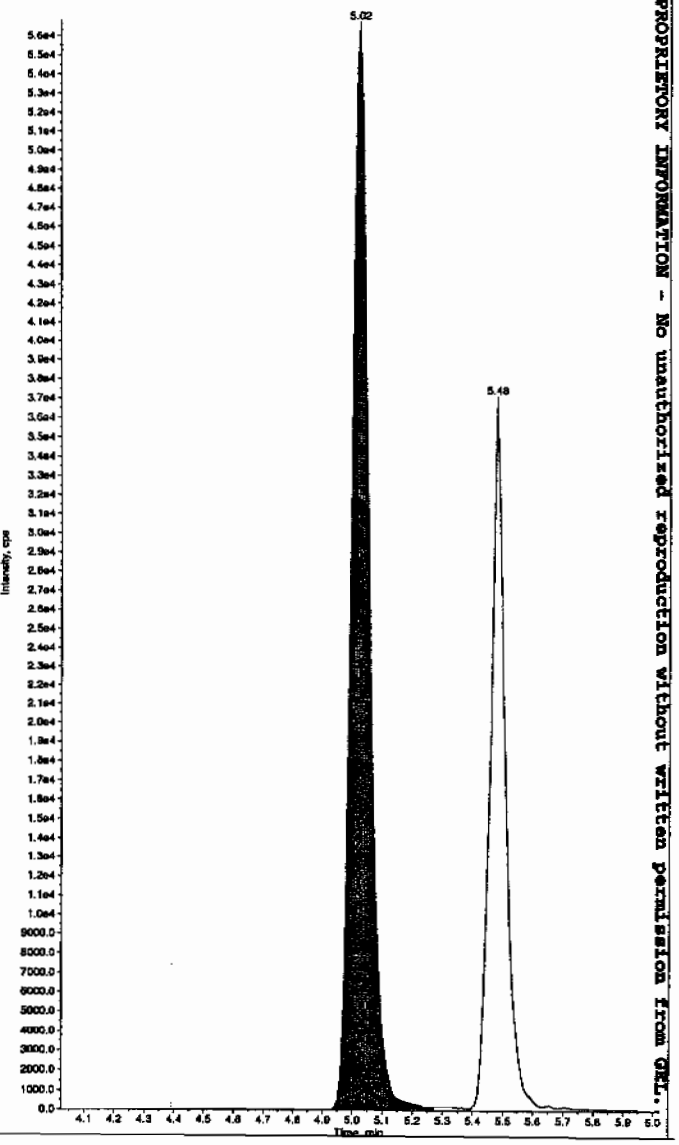



Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.     ng/mL
Calculated Conc:     125.     ng/mL
Acq. Date:       2/23/2010
Acq. Time:       2:59:14 AM

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:      5.02    min
Area:        2.37e+005    counts
Height:        56829.735    cps
Start Time:          4.92    min
End Time:            5.27    min
```

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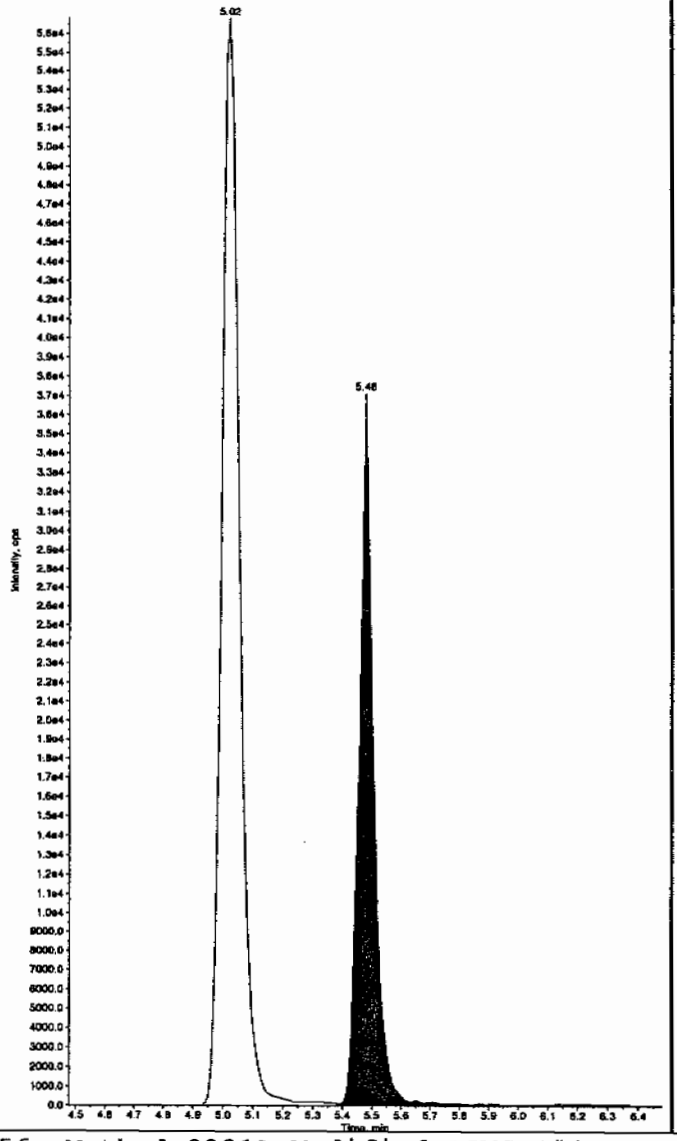
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 120. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

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: 5.48 min
Area: 1.29e+005 counts
Height: 37130.470 cps
Start Time: 5.38 min
End Time: 5.85 min

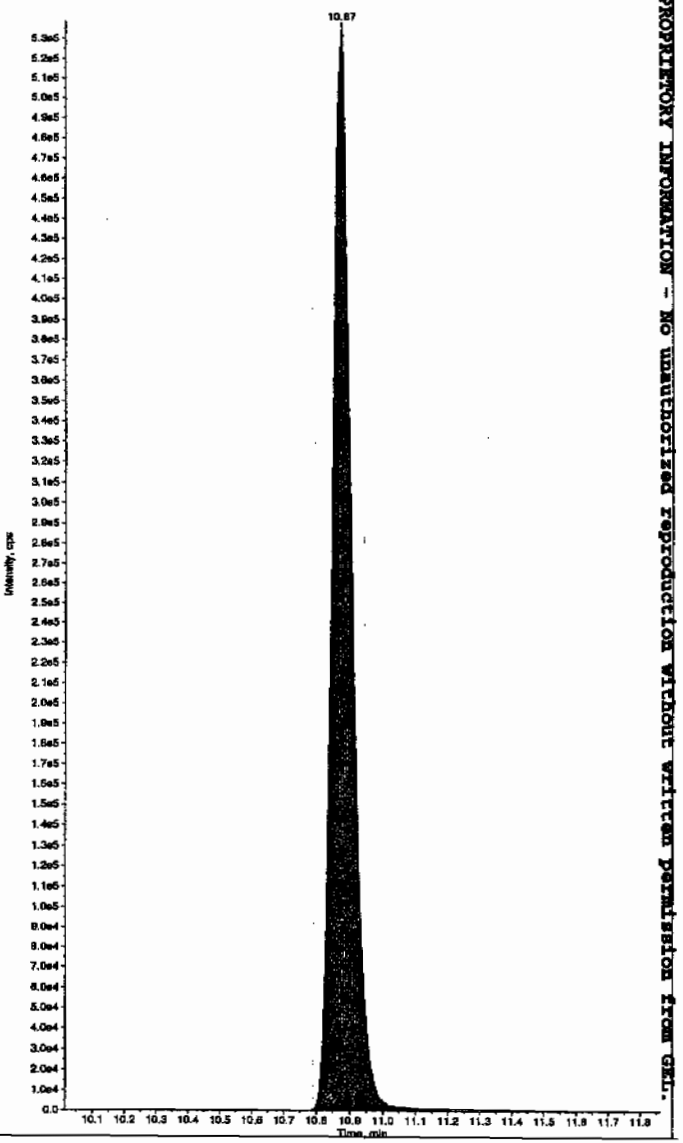



Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 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: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.23e+006 counts
Height: 538292.603 cps
Start Time: 10.6 min
End Time: 11.2 min

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
## Explosives Continuing Calibration Verification

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCCV

**GEL Data File** EXS02220050.wiff

**Analysis Date:** 23-FEB-10 05:52

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4-Diamino-6-nitrotoluene | 500 | 590 | 118 | |
| 2,6-Diamino-4-nitrotoluene | 500 | 623 | 125 | |
| 3,4-Dinitrotoluene | 250 | 250 | 100 | |
| 3,5-Dinitroaniline | 500 | 530 | 106 | |
| TATB | 500 | 448 | 90 | |
| tris(o-cresyl) phosphate | 500 | 493 | 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%
OtherTarget Analytes 80-120%
# Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

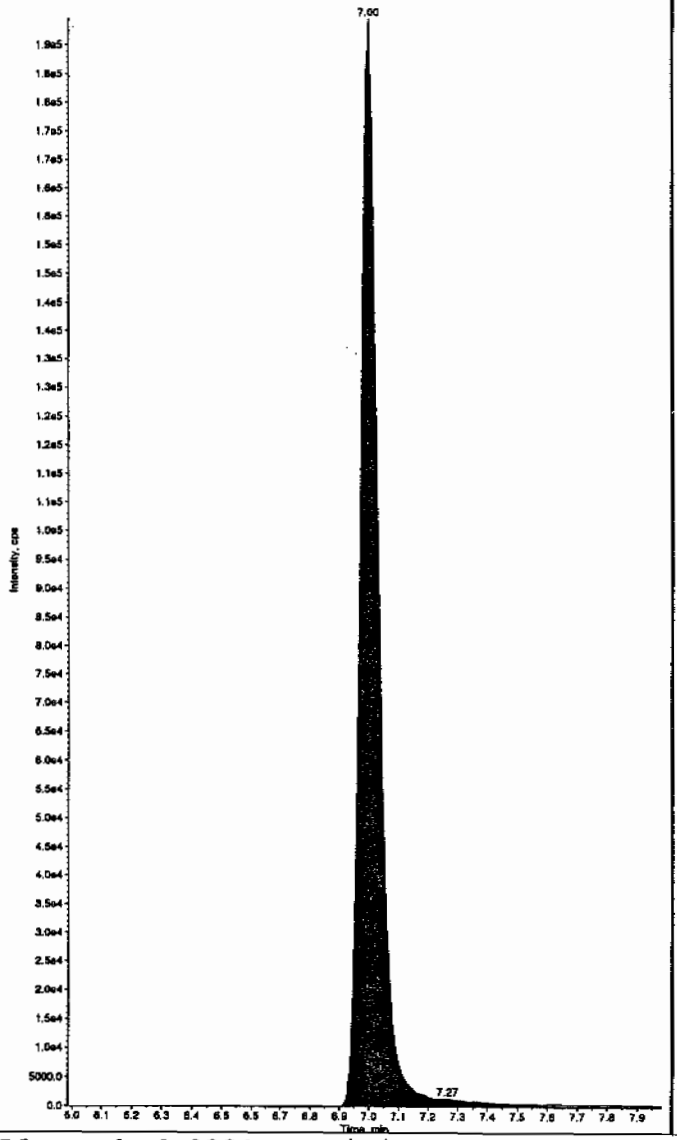
Ken 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "|1|LER" File: "EXS02220050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.55e+005 counts
Height: 189822.083 cps
Start Time: 6.88 min
End Time: 7.59 min

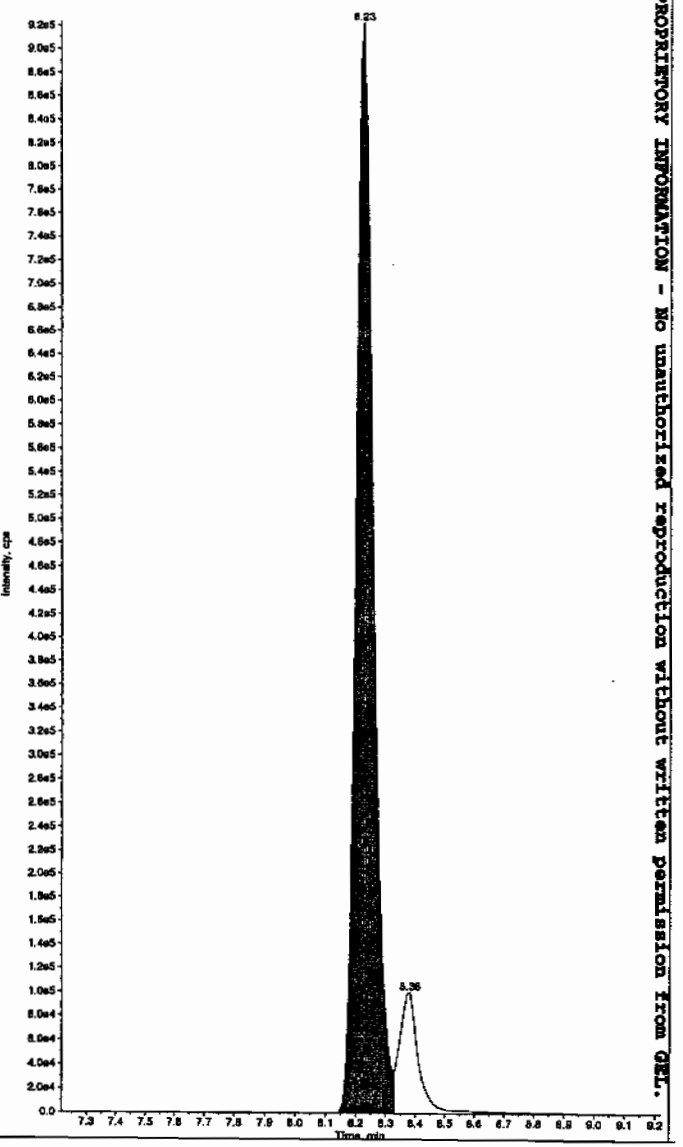



Sample Name: "WXX100222-26CCV" Sample ID: "|1|LER" File: "EXS02220050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 530. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.86e+006 counts
Height: 923200.134 cps
Start Time: 8.12 min
End Time: 8.33 min

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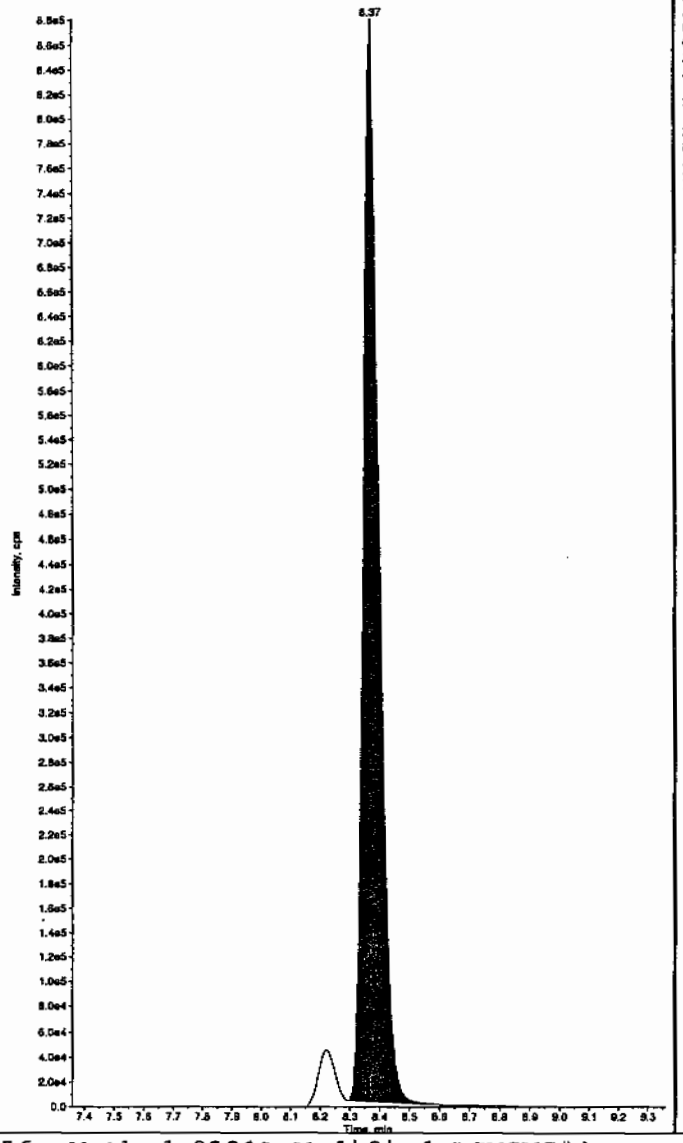
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 250. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.34e+006 counts
Height: 877578.186 cps
Start Time: 8.30 min
End Time: 8.60 min

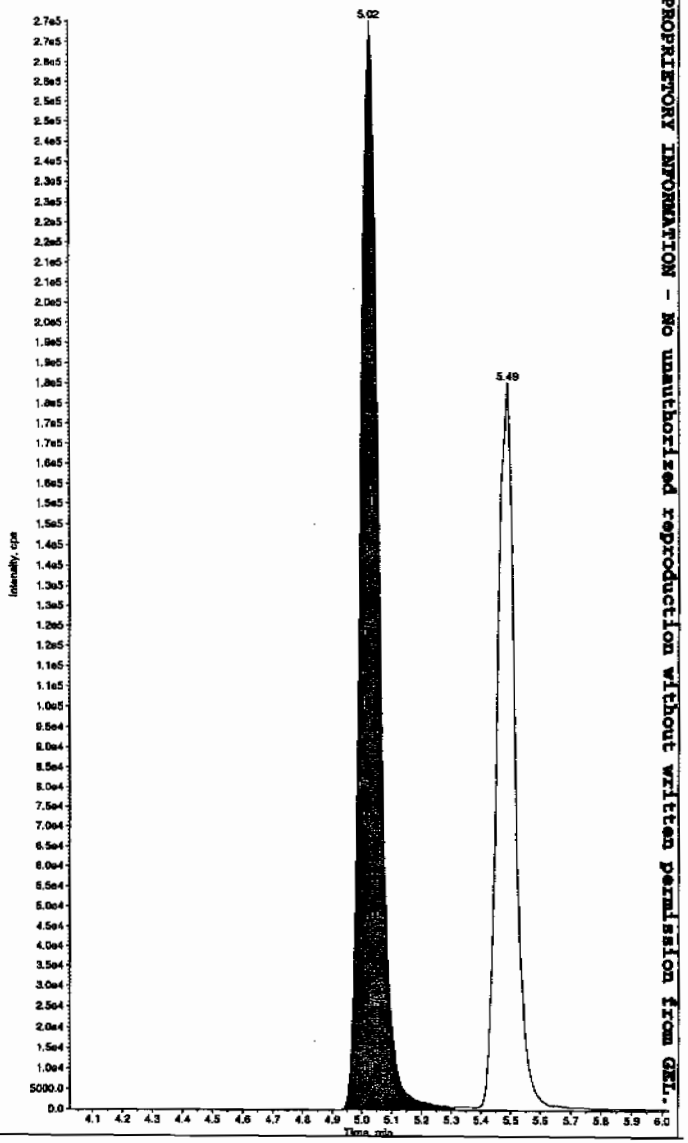



Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 623. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

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: 5.02 min
Area: 1.19e+006 counts
Height: 270338.470 cps
Start Time: 4.88 min
End Time: 5.31 min

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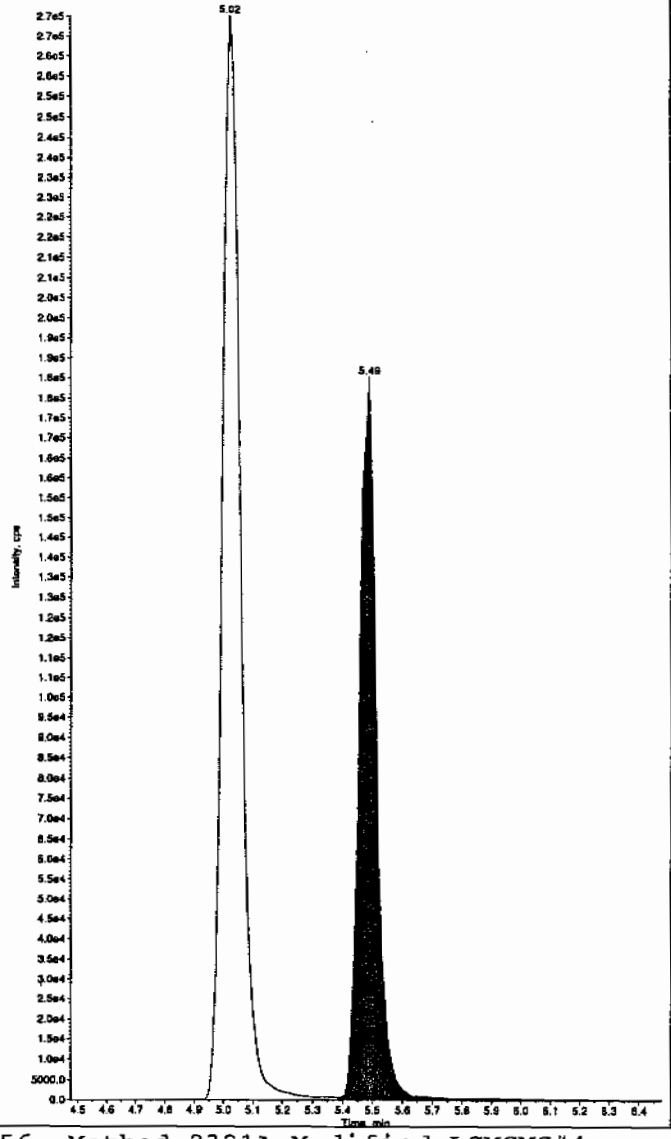
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 590. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

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: 5.49 min
Area: 7.42e+005 counts
Height: 180096.237 cps
Start Time: 5.38 min
End Time: 5.79 min

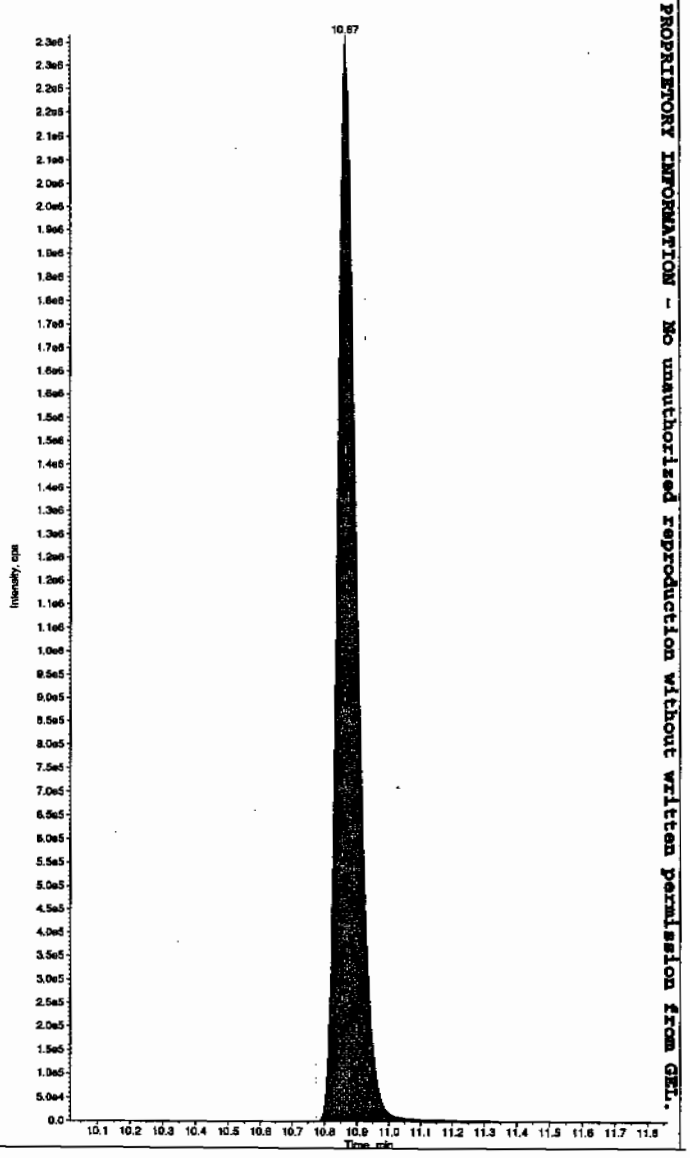



Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 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: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.86e+006 counts
Height: 2315829.346 cps
Start Time: 10.8 min
End Time: 11.2 min

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

# 7B
## Explosives CRI Standard

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-1512

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS02220052.wiff

**Analysis Date:** 23-FEB-10 06:24

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

| Compound | True | Found | Recovery | Q |
|---|---|---|---|---|
| 2,4-Diamino-6-nitrotoluene | 100 | 129 | 129 | |
| 2,6-Diamino-4-nitrotoluene | 100 | 140 | 140 | |
| 3,4-Dinitrotoluene | 50 | 50.5 | 101 | |
| 3,5-Dinitroaniline | 100 | 111 | 111 | |
| TATB | 100 | 95.9 | 96 | |
| tris(o-cresyl) phosphate | 100 | 107 | 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%
OtherTarget Analytes 70-130%
# Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

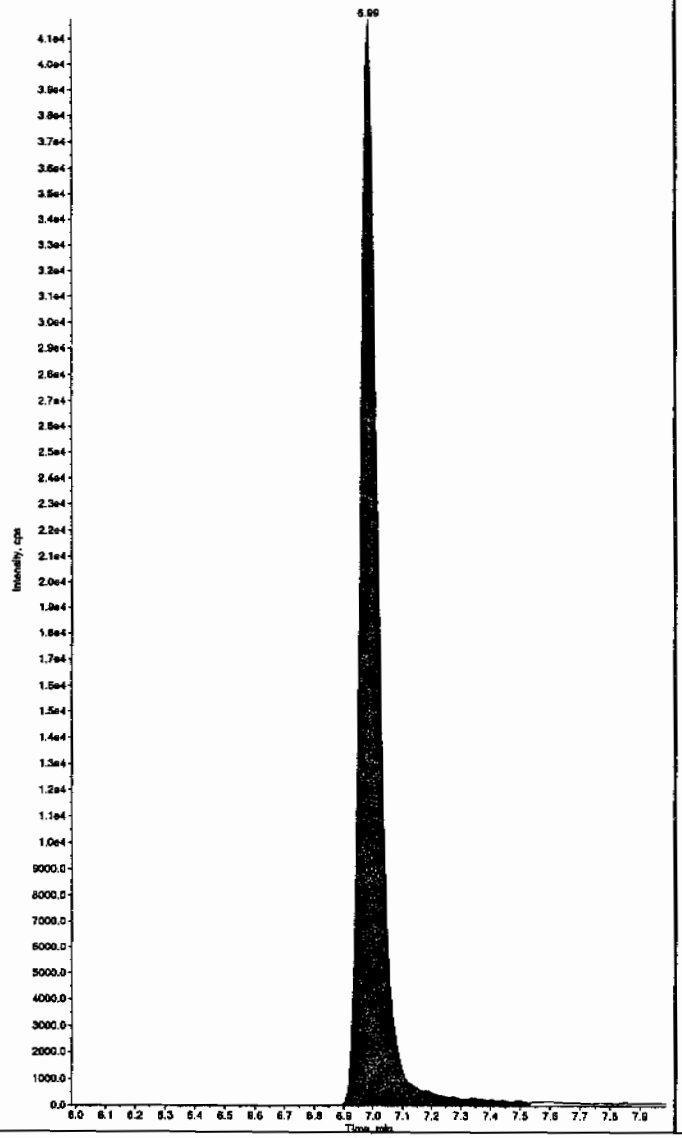
Dan 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.9 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.89e+005 counts
Height: 41713.528 cps
Start Time: 6.86 min
End Time: 7.53 min

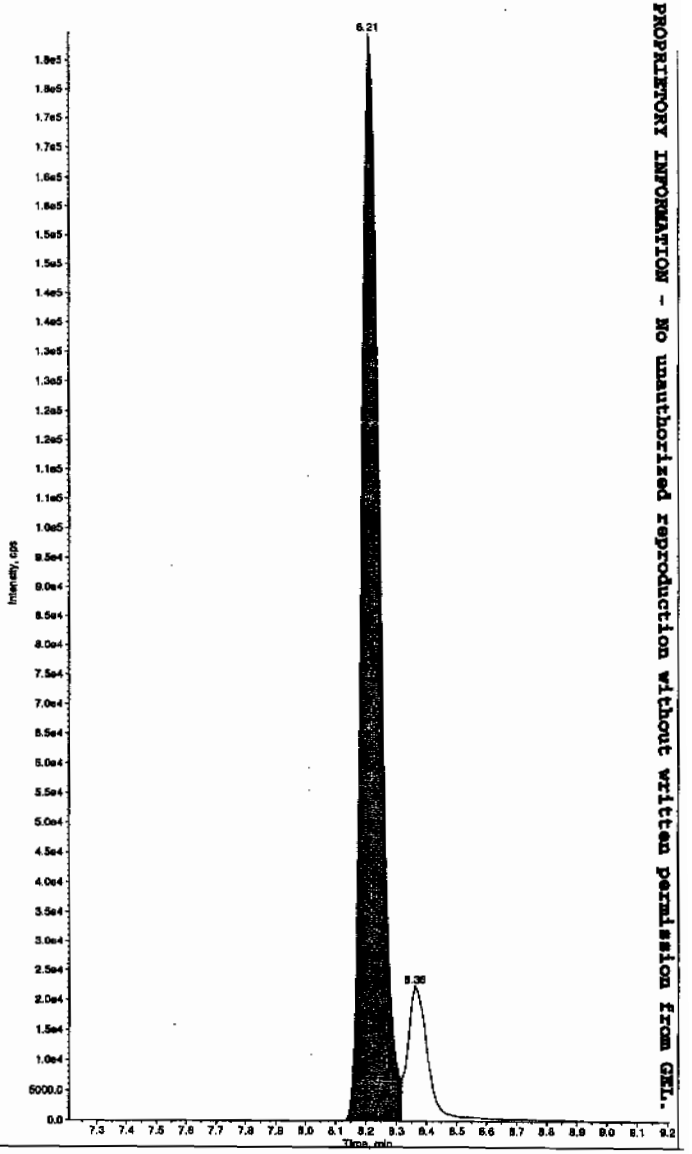



Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

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: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 7.89e+005 counts
Height: 184727.554 cps
Start Time: 8.11 min
End Time: 8.32 min




HJM 02/23/10

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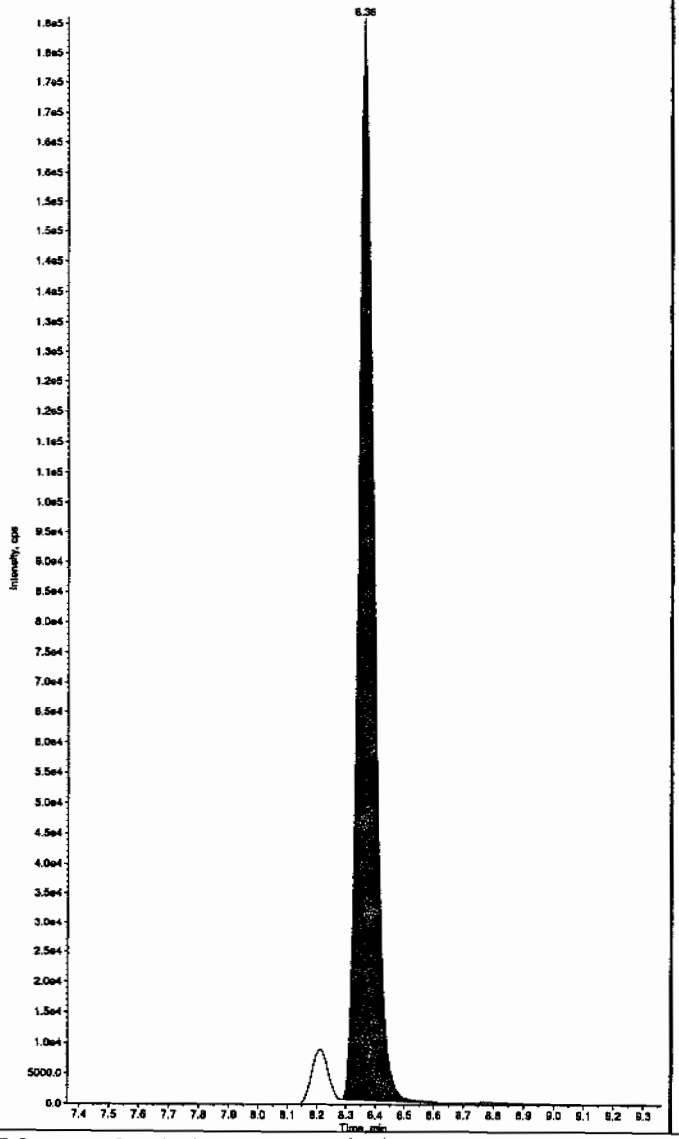
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 50.5 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 6.92e+005 counts
Height: 180392.654 cps
Start Time: 8.28 min
End Time: 8.66 min

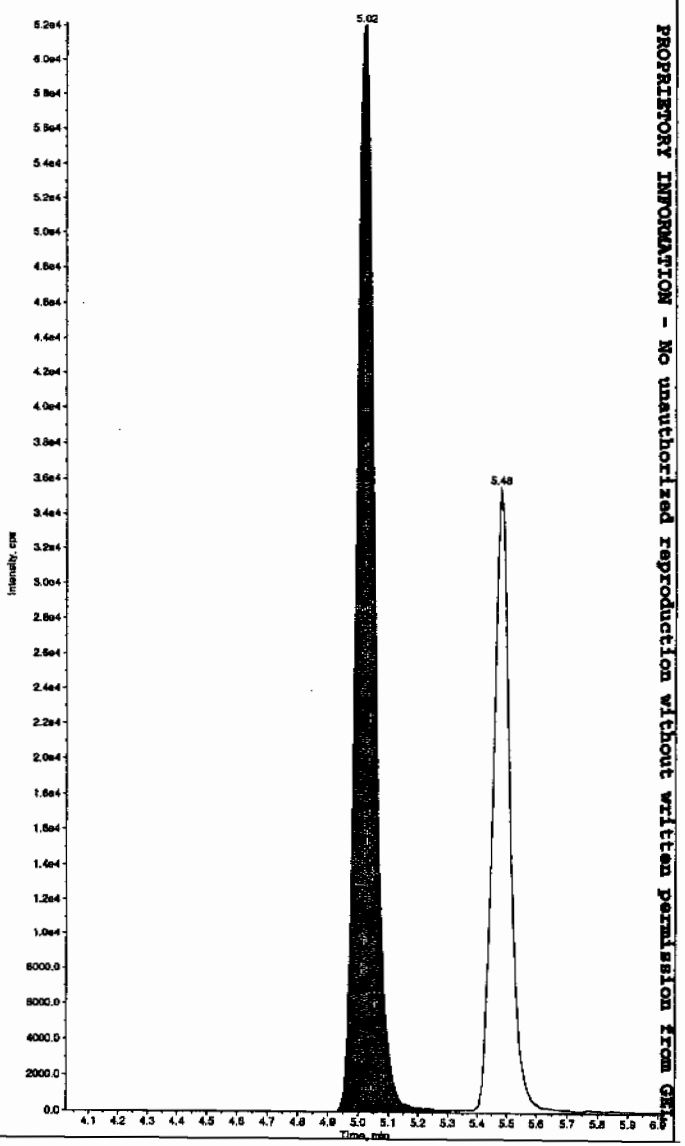



Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 140. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

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: 5.02 min
Area: 2.66e+005 counts
Height: 62152.336 cps
Start Time: 4.86 min
End Time: 5.31 min

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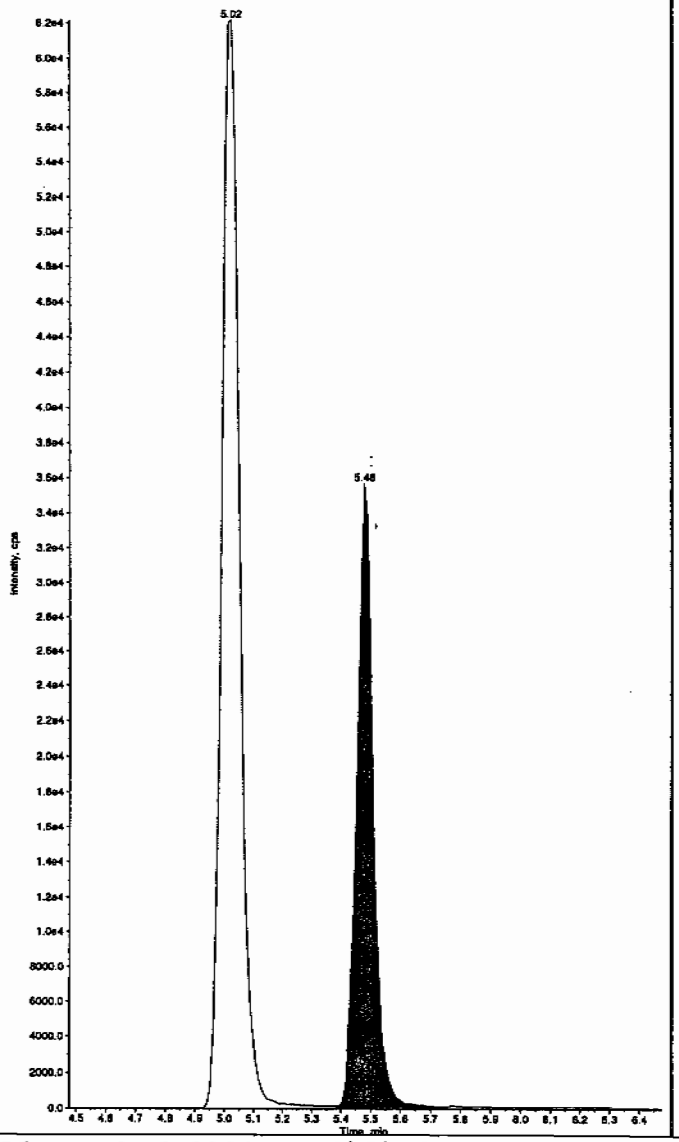
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 129. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

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: 5.48 min
Area: 1.41e+005 counts
Height: 35624.271 cps
Start Time: 5.38 min
End Time: 5.74 min

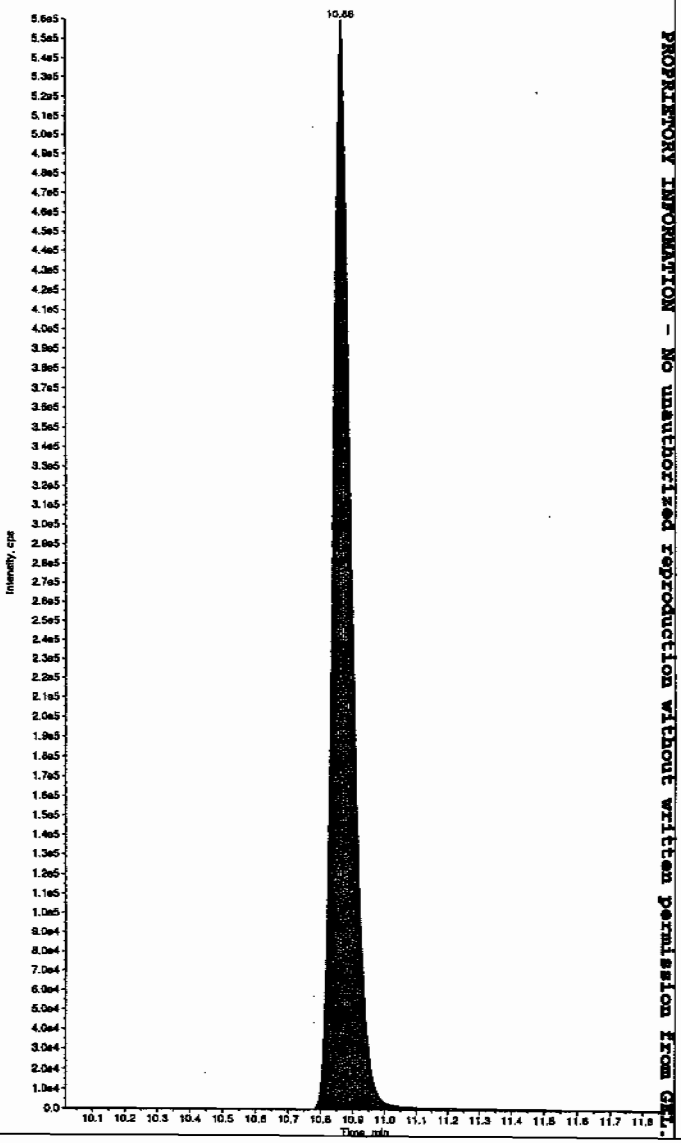



Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 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: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.31e+006 counts
Height: 560037.781 cps
Start Time: 10.8 min
End Time: 11.2 min

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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# QUALITY CONTROL DATA

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** MB for batch 948574

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 1202032101

**Sample Amount** 2

**Moisture:**

**Amount Units** g

**Date Received:** 03-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301020a

**Date Analyzed:** 02-MAR-10 00:53

**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 =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

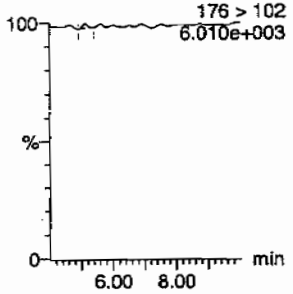


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

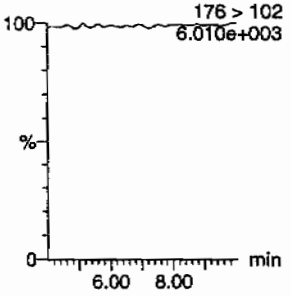
**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301020a**
**Date: 02-Mar-2010**
**Time: 00:53:19**
**ID: 1202032101** | LANL | 940575 | SOLID | MB | 2 |
**Vial: 2:1,A**

MAT 3/2/10

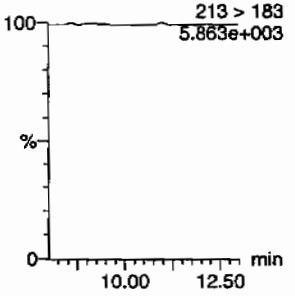
**HMX**
F2:MRM of 1 channel,AP-
176 > 102
6.010e+003



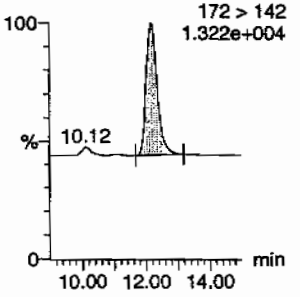

**RDX**
F2:MRM of 1 channel,AP-
176 > 102
6.010e+003



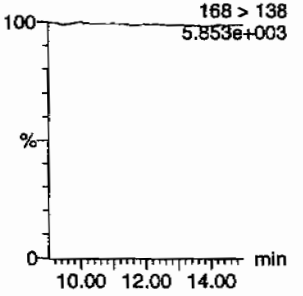

**135-Trinitrobenzene**
F4:MRM of 1 channel,AP-
213 > 183
5.863e+003



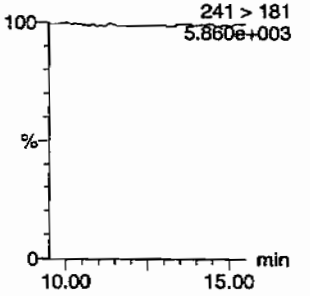

**13-Dinitrobenzene-d4**
F5:MRM of 2 channels,AP-
172 > 142
1.322e+004



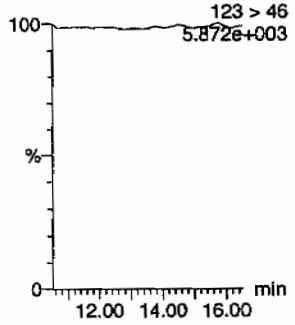

**13-Dinitrobenzene**
F5:MRM of 2 channels,AP-
168 > 138
5.853e+003



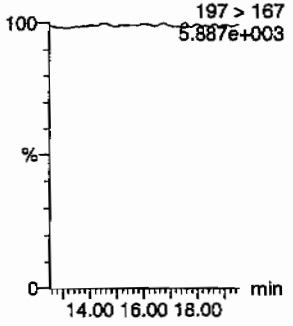

**Tetryl**
F6:MRM of 1 channel,AP-
241 > 181
5.860e+003



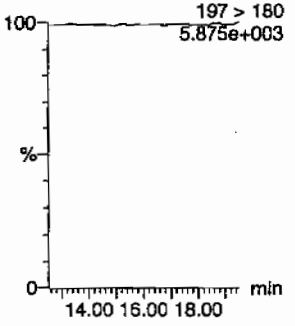

**Nitrobenzene**
F7:MRM of 1 channel,AP-
123 > 46
5.872e+003



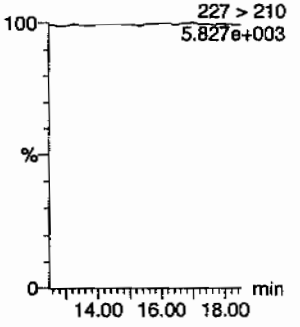

**4-Amino-26-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 167
5.887e+003



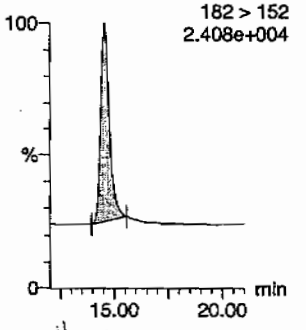

**2-Amino-46-dinitrotoluene**
F11:MRM of 2 channels,AP-
197 > 180
5.875e+003




**246-Trinitrotoluene**
F10:MRM of 1 channel,AP-
227 > 210
5.827e+003

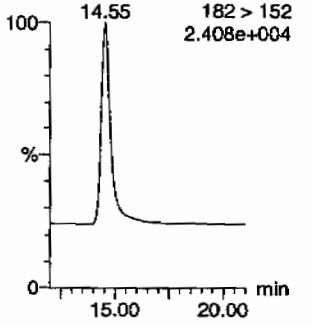



**34-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
2.408e+004




Hmk 03/04/10

**26-dinitrotoluene**
F9:MRM of 2 channels,AP-
182 > 152
2.408e+004



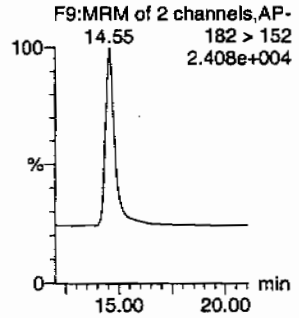

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

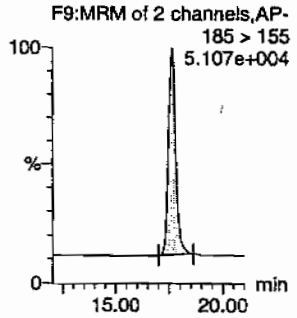


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

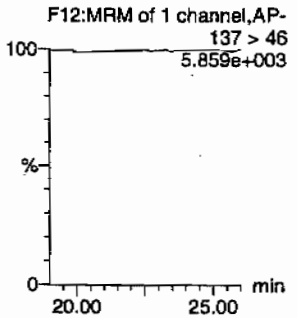
**24-dinitrotoluene**



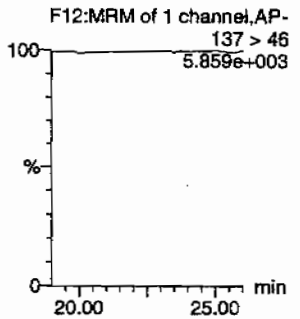

**26-dinitrotoluene-d3**



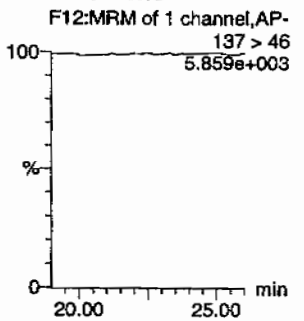

**2-Nitrotoluene**



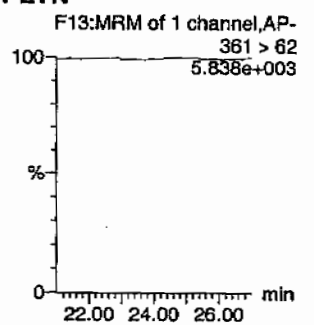

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202032101 | HMX | 176 > 102 | | | 3031.689 | | | MM- | 02-Mar-10 | 09:58:36 | | | | |
| 1202032101 | RDX | 176 > 102 | | | 3031.689 | | | | | | | | | |
| 1202032101 | 135-Trinitrobenzene | 213 > 183 | | | 3031.689 | | | | | | | | | |
| 1202032101 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3031.689 | | 3031.689 | 3031.689 | bb | | | 523.0520 | 104.6 | 4.6 | 247.4 |
| 1202032101 | 13-Dinitrobenzene | 168 > 138 | | | 3031.689 | | | | | | | | | |
| 1202032101 | Tetryl | 241 > 181 | | | 3031.689 | | | | | | | | | |
| 1202032101 | Nitrobenzene | 123 > 46 | | | 3031.689 | | | | | | | | | |
| 1202032101 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 17820.910 | | | | | | | | | |
| 1202032101 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 17820.910 | | | | | | | | | |
| 1202032101 | 246-Trinitrotoluene | 227 > 210 | | | 17820.910 | | | | | | | | | |
| 1202032101 | 34-dinitrotoluene | 182 > 152 | 14.55 | 8445.984 | 17820.910 | 8445.984 | 236.968 | bb | | | 239.2010 | 95.7 | -4.3 | 510.7 |
| 1202032101 | 26-dinitrotoluene | 182 > 152 | | | 17820.910 | | | | | | | | | |
| 1202032101 | 24-dinitrotoluene | 182 > 152 | | | 17820.910 | | | | | | | | | |
| 1202032101 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 17820.910 | | 17820.910 | 17820.910 | bb | | | 553.9667 | 110.8 | 10.8 | 2577.0 |
| 1202032101 | 2-Nitrotoluene | 137 > 46 | | | 17820.910 | | | | | | | | | |
| 1202032101 | 4-Nitrotoluene | 137 > 46 | | | 17820.910 | | | | | | | | | |
| 1202032101 | 3-Nitrotoluene | 137 > 46 | | | 17820.910 | | | | | | | | | |
| 1202032101 | PETN | 361 > 62 | | | 17820.910 | | | | | | | | | |

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** MB for batch 948574

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 1202032101

**Sample Amount** 2

**Moisture:**

**Amount Units** g

**Date Received:** 03-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220018.wiff

**Date Analyzed:** 22-FEB-10 21:28

**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 =

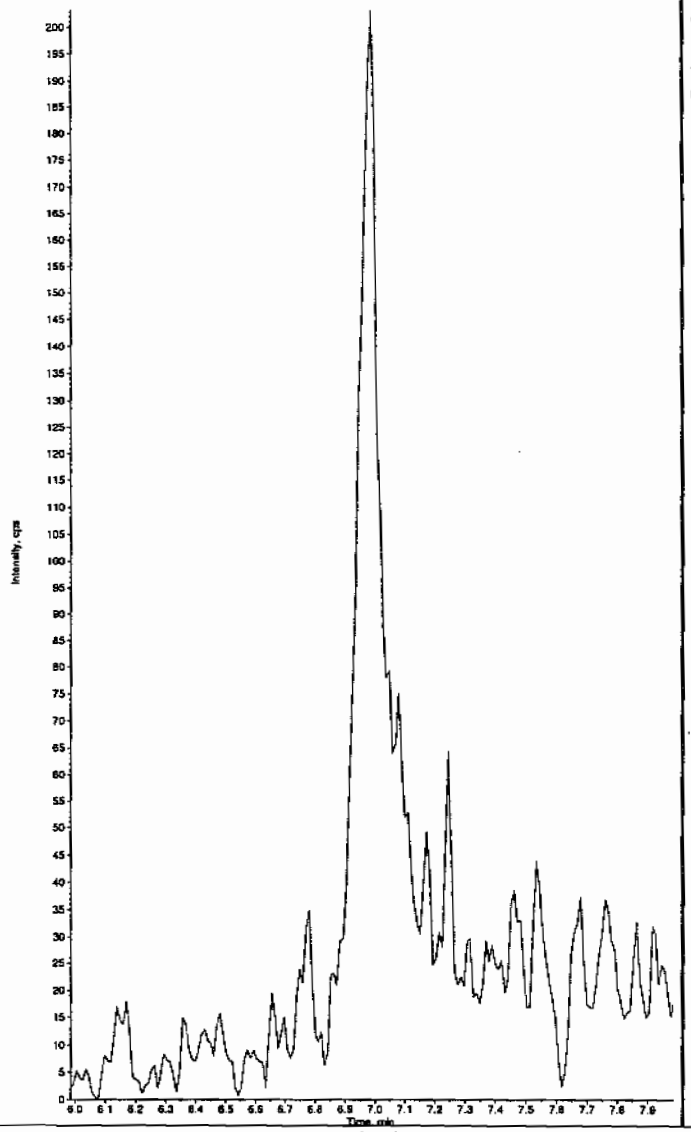
$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 2/23/10

Sample Name: "1202032101" Sample ID: "948575|2|LER" File: "EXS02220018.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

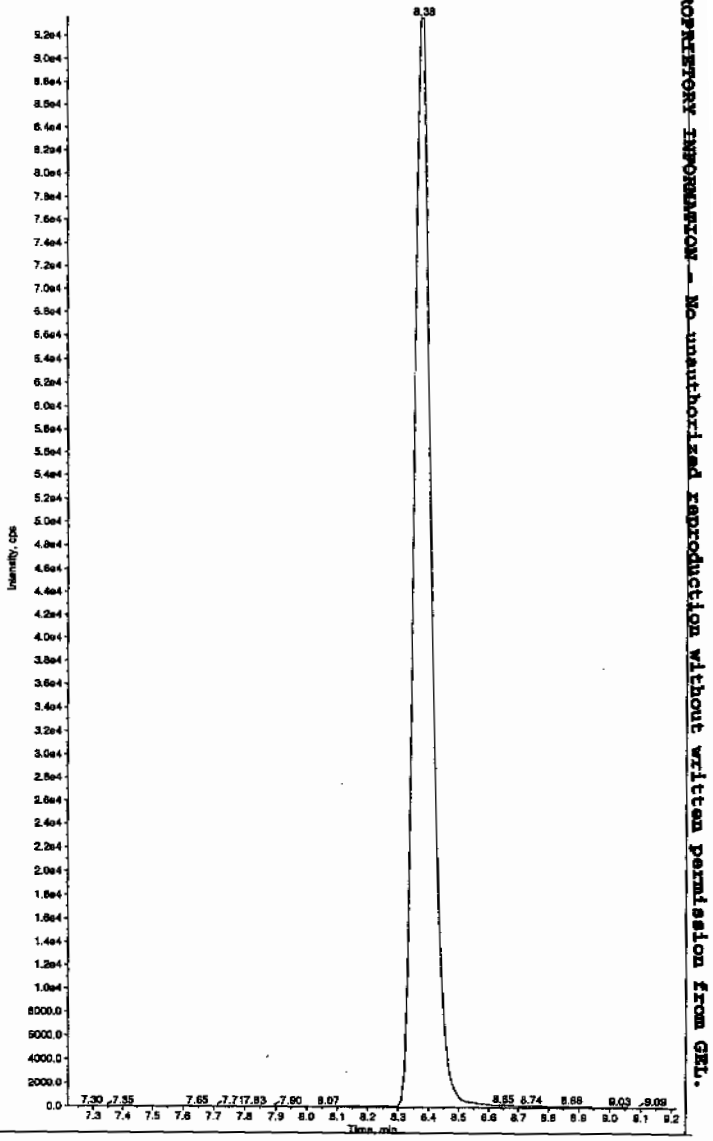
Modified: No




Sample Name: "1202032101" Sample ID: "948575|2|LER" File: "EXS02220018.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No




HMC 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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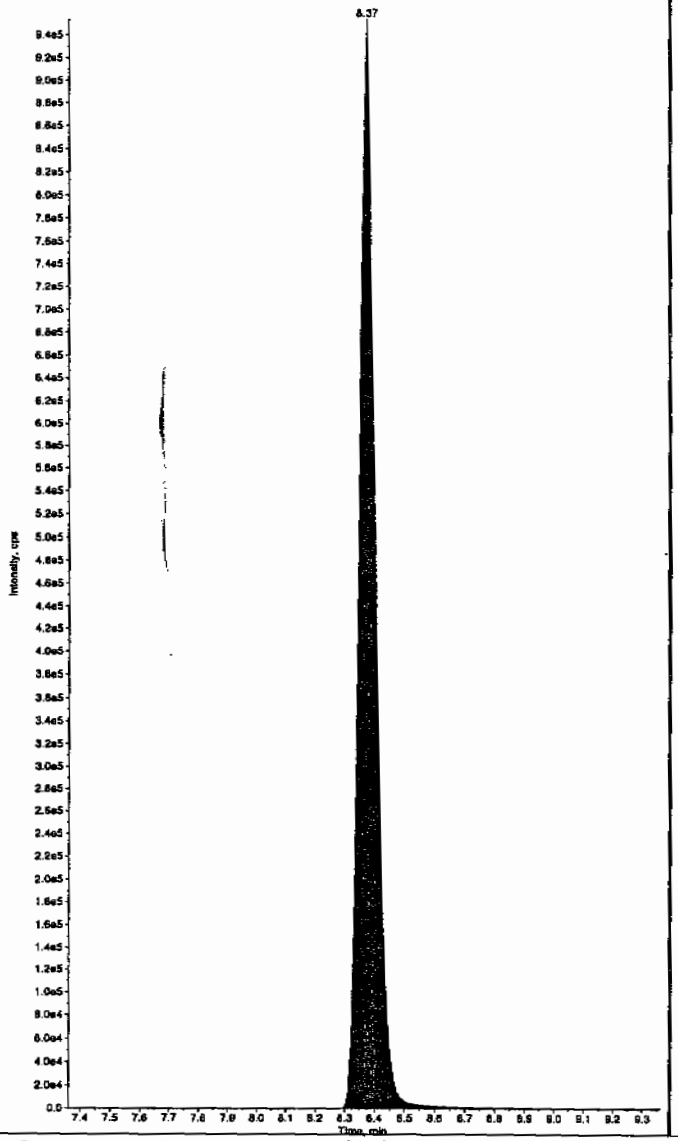
Sample Name: "1202032101" Sample ID: "948575[2]LER" File: "EXS02220018.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 276. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

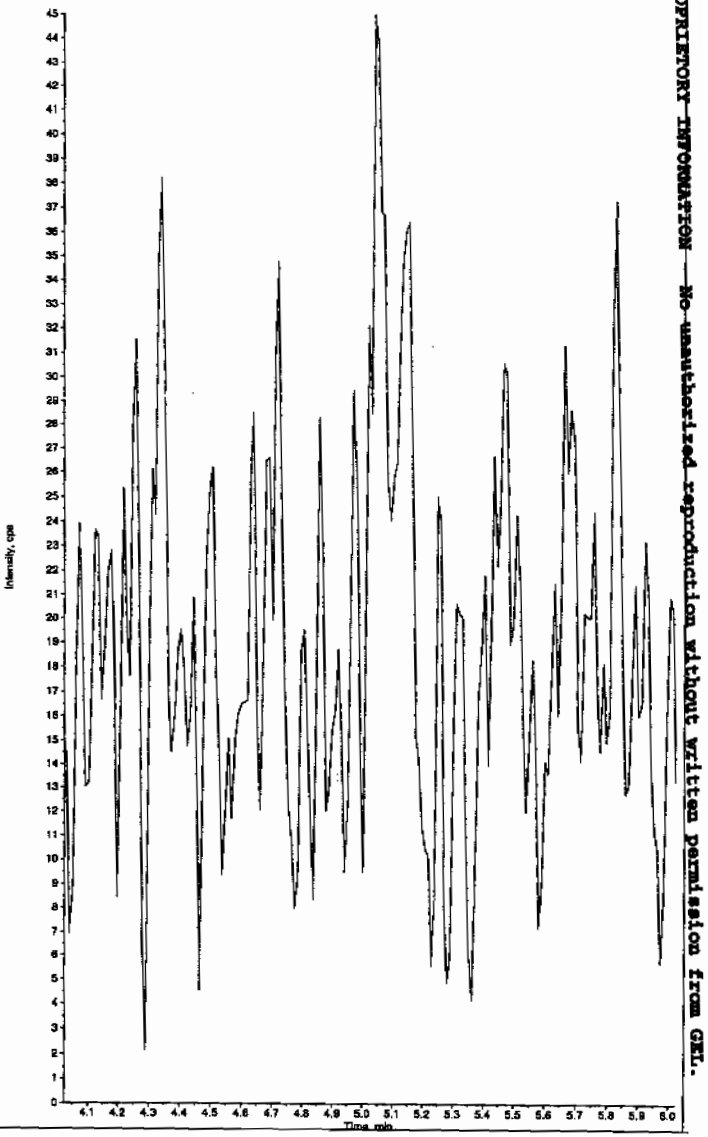
Int. Type: Valley
Retention Time: 8.37 min
Area: 3.66e+006 counts
Height: 953784.973 cps
Start Time: 8.26 min
End Time: 8.90 min




Sample Name: "1202032101" Sample ID: "948575[2]LER" File: "EXS02220018.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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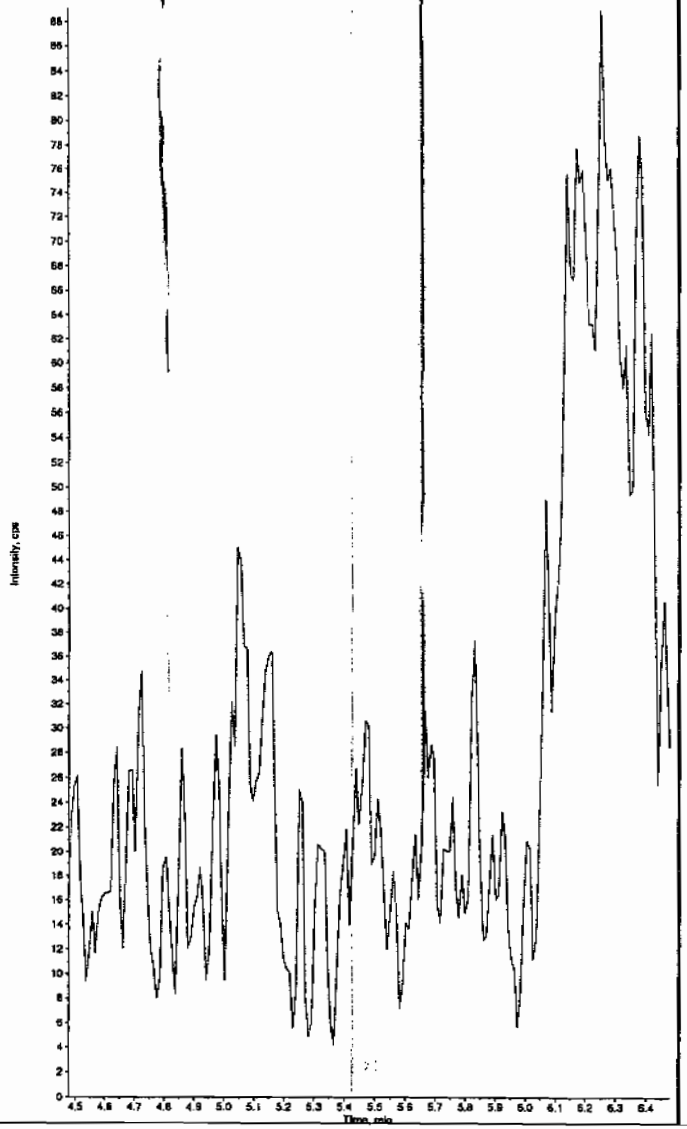
Sample Name: "1202032101" Sample ID: "948575[2]LER" File: "EXS02220018.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration:. N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

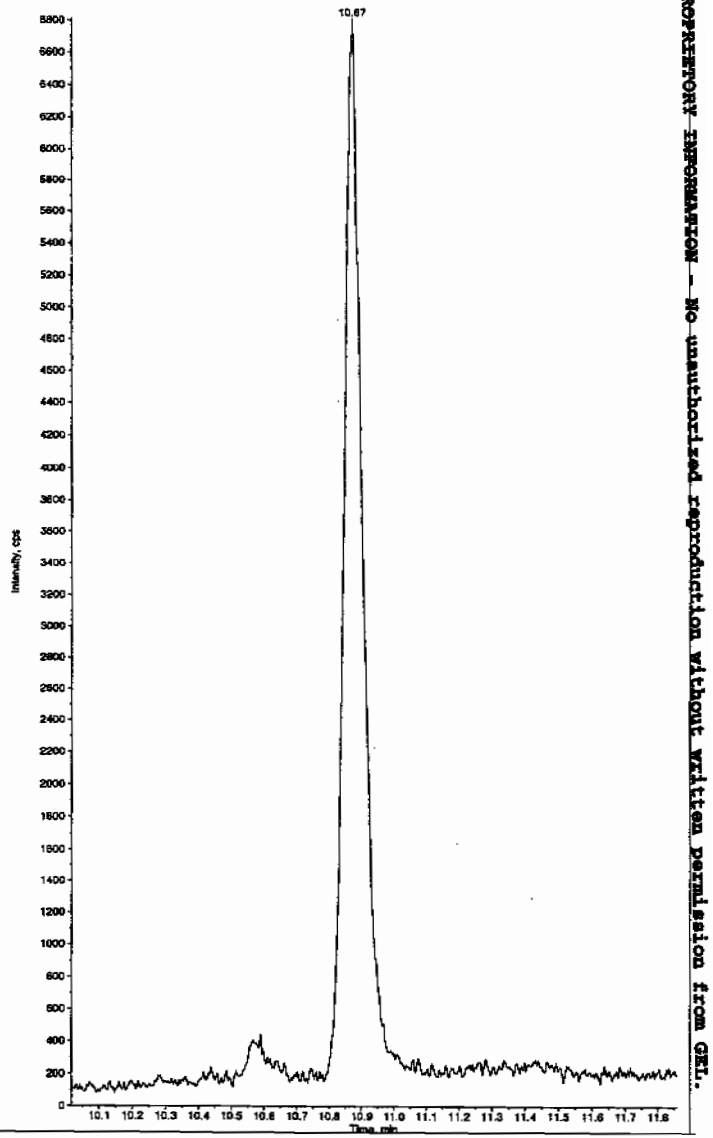
Modified: No




Sample Name: "1202032101" Sample ID: "948575[2]LER" File: "EXS02220018.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** LCS for batch 948574

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 1202032102

**Sample Amount** 2

**Moisture:**

**Amount Units** g

**Date Received:** 03-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301021a

**Date Analyzed:** 02-MAR-10 01:22

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 118-96-7 | 2,4,6-Trinitrotoluene | 5190 | |
| 121-14-2 | 2,4-Dinitrotoluene | 5360 | |
| 121-82-4 | RDX | 4980 | |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 5110 | |
| 2691-41-0 | HMX | 4670 | |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 5460 | |
| 479-45-8 | Tetryl | 2580 | |
| 606-20-2 | 2,6-Dinitrotoluene | 4850 | |
| 78-11-5 | PETN | 5390 | |
| 88-72-2 | o-Nitrotoluene | 4510 | |
| 98-95-3 | Nitrobenzene | 4970 | |
| 99-08-1 | m-Nitrotoluene | 4180 | |
| 99-35-4 | 1,3,5-Trinitrobenzene | 4670 | |
| 99-65-0 | m-Dinitrobenzene | 4610 | |
| 99-99-0 | p-Nitrotoluene | 4640 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

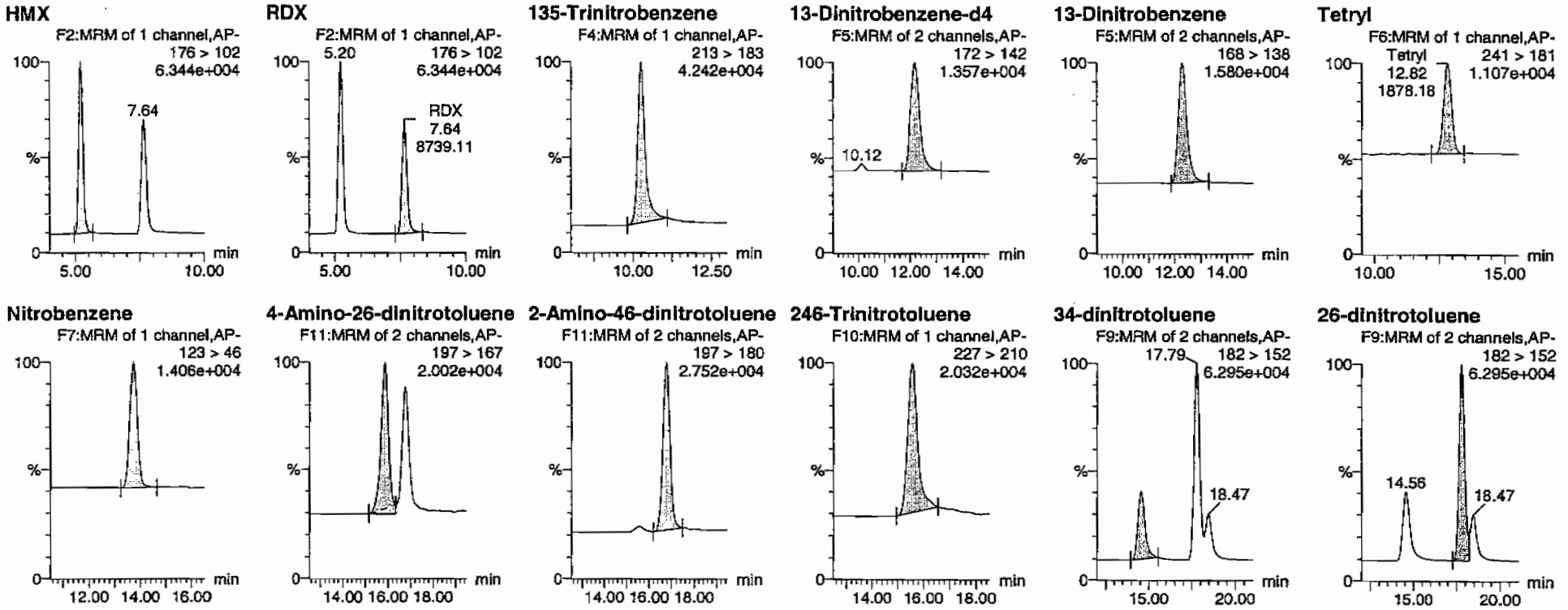
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301021a**
**Date: 02-Mar-2010**
**Time: 01:22:51**
**ID: 1202032102** | LANU | 948575 | Soil | LCS | 2 |
**Vial: 2:1,B**

MM 3/2/10




HMM 03/04/10

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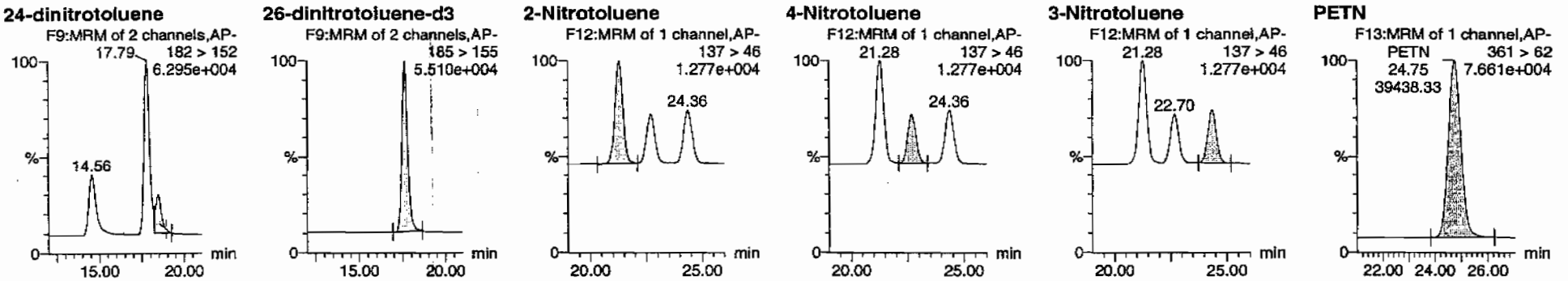
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202032102 | HMX | 176 > 102 | 5.20 | 11394.322 | 3195.654 | 11394.322 | 1782.784 | bb | | | 467.3308 | 93.5 | -6.5 | 1678.0 |
| 1202032102 | RDX | 176 > 102 | 7.64 | 8739.109 | 3195.654 | 8739.109 | 1367.343 | bb | | | 498.1907 | 99.6 | -0.4 | 1117.0 |
| 1202032102 | 135-Trinitrobenzene | 213 > 183 | 10.27 | 10265.632 | 3195.654 | 10265.632 | 1606.186 | bb | | | 466.5004 | 93.3 | -6.7 | 1506.7 |
| 1202032102 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3195.654 | | 3195.654 | 3195.654 | bb | | | 551.3406 | 110.3 | 10.3 | 324.5 |
| 1202032102 | 13-Dinitrobenzene | 168 > 138 | 12.31 | 3865.627 | 3195.654 | 3865.627 | 604.826 | bb | | | 461.0420 | 92.2 | -7.8 | 570.0 |
| 1202032102 | Tetryl | 241 > 181 | 12.82 | 1878.180 | 3195.654 | 1878.180 | 293.865 | bb | | | 257.9896 | 51.6 | -48.4 | 140.5 |
| 1202032102 | Nitrobenzene | 123 > 46 | 13.72 | 2821.921 | 3195.654 | 2821.921 | 441.525 | bb | | | 496.6912 | 99.3 | -0.7 | 315.1 |
| 1202032102 | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 5622.575 | 19489.529 | 5622.575 | 144.246 | MM | 02-Mar-10 | 09:47:16 | 511.0232 | 102.2 | 2.2 | 141.7 |
| 1202032102 | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.79 | 8026.065 | 19489.529 | 8026.065 | 205.907 | bb | | | 546.1446 | 109.2 | 9.2 | 676.3 |
| 1202032102 | 246-Trinitrotoluene | 227 > 210 | 15.58 | 6378.817 | 19489.529 | 6378.817 | 163.647 | bb | | | 519.2184 | 103.8 | 3.8 | 517.1 |
| 1202032102 | 34-dinitrotoluene | 182 > 152 | 14.56 | 9293.979 | 19489.529 | 9293.979 | 238.435 | bb | | | 240.6817 | 96.3 | -3.7 | 464.6 |
| 1202032102 | 26-dinitrotoluene | 182 > 152 | 17.79 | 21342.297 | 19489.529 | 21342.297 | 547.532 | MM | 02-Mar-10 | 09:38:13 | 485.2992 | 97.1 | -2.9 | 1357.2 |
| 1202032102 | 24-dinitrotoluene | 182 > 152 | 18.47 | 5250.836 | 19489.529 | 5250.836 | 134.709 | MM | 02-Mar-10 | 09:29:36 | 535.5362 | 107.1 | 7.1 | 297.8 |
| 1202032102 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 19489.529 | | 19489.529 | 19489.529 | bb | | | 605.8360 | 121.2 | 21.2 | 1483.3 |
| 1202032102 | 2-Nitrotoluene | 137 > 46 | 21.28 | 2913.165 | 19489.529 | 2913.165 | 74.737 | bb | | | 450.5404 | 90.1 | -9.9 | 804.0 |
| 1202032102 | 4-Nitrotoluene | 137 > 46 | 22.70 | 1432.241 | 19489.529 | 1432.241 | 36.744 | bb | | | 463.6470 | 92.7 | -7.3 | 382.8 |
| 1202032102 | 3-Nitrotoluene | 137 > 46 | 24.36 | 1600.967 | 19489.529 | 1600.967 | 41.072 | bb | | | 418.1968 | 83.6 | -16.4 | 415.5 |
| 1202032102 | PETN | 361 > 62 | 24.75 | 39438.332 | 19489.529 | 39438.332 | 1011.783 | bb | | | 539.3026 | 107.9 | 7.9 | 7048.1 |

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** LCS for batch 948574

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 1202032102

**Sample Amount** 2

**Moisture:**

**Amount Units** g

**Date Received:** 03-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220019.wiff

**Date Analyzed:** 22-FEB-10 21:44

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 6400 | |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 7390 | |
| 618-87-1 | 3,5-Dinitroaniline | 5110 | |
| 6629-29-4 | 2,4-Diamino-6-nitrotoluene | 5870 | |
| 78-30-8 | tris(o-cresyl) phosphate | 4930 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

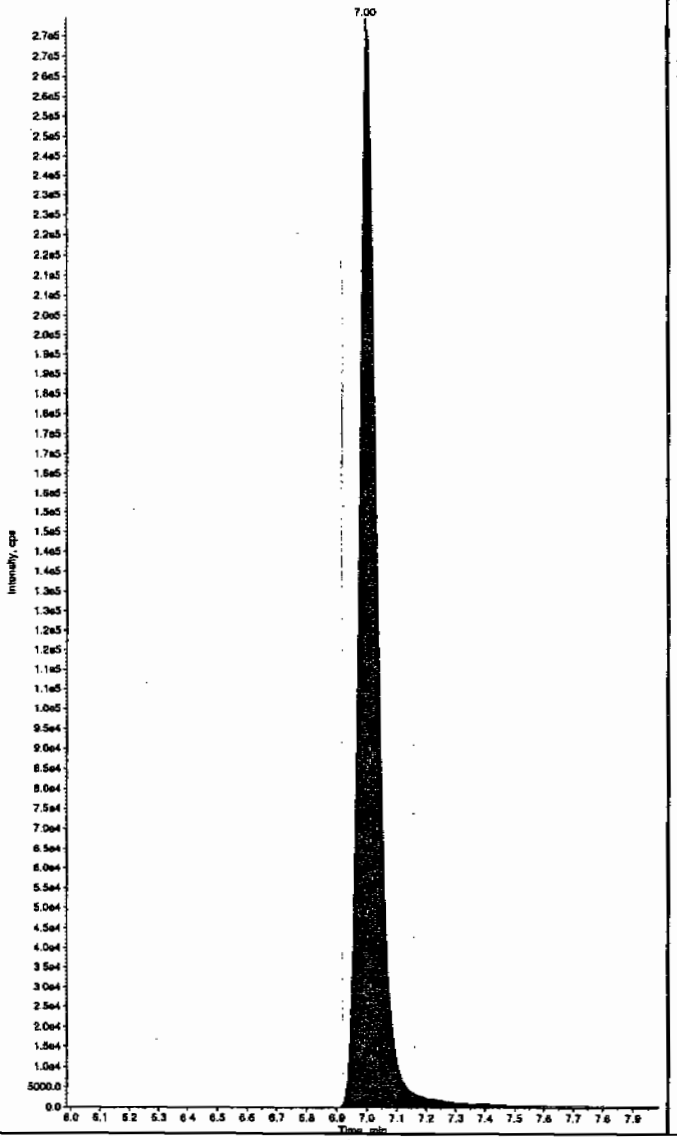
Before Ran 2/23/10

Sample Name: "1202032102" Sample ID: "948575[2]LER" File: "EXS02220019.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 640. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.21e+006 counts
Height: 274630.432 cps
Start Time: 6.85 min
End Time: 7.59 min

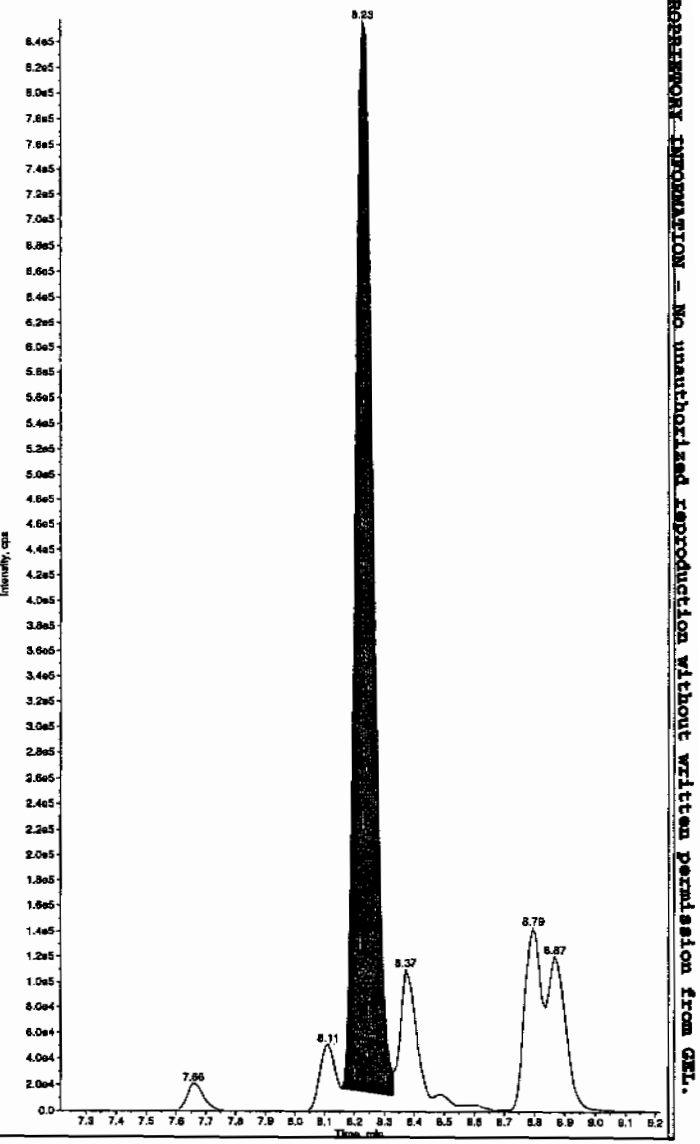



Sample Name: "1202032102" Sample ID: "948575[2]LER" File: "EXS02220019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 492. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.59e+006 counts
Height: 841992.432 cps
Start Time: 8.15 min
End Time: 8.33 min




HMM 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

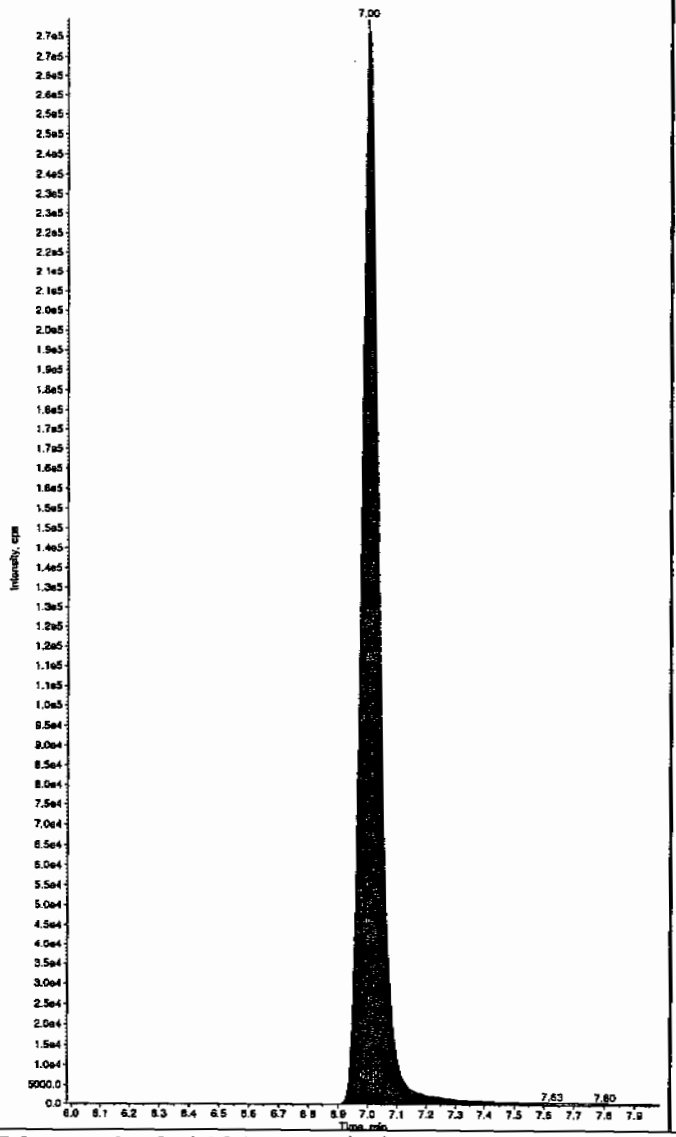
after Lan 2/23/10

Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 640. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.21e+006 counts
Height: 274630.432 cps
Start Time: 6.85 min
End Time: 7.59 min

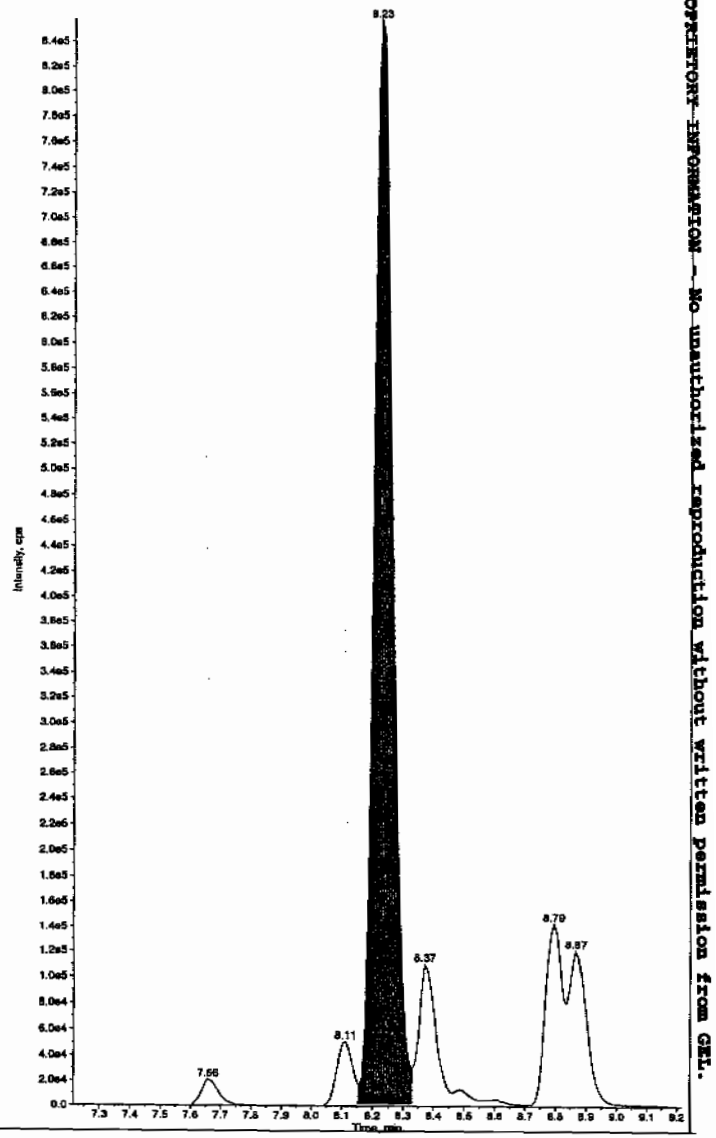



Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 511. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.73e+006 counts
Height: 859921.244 cps
Start Time: 8.15 min
End Time: 8.33 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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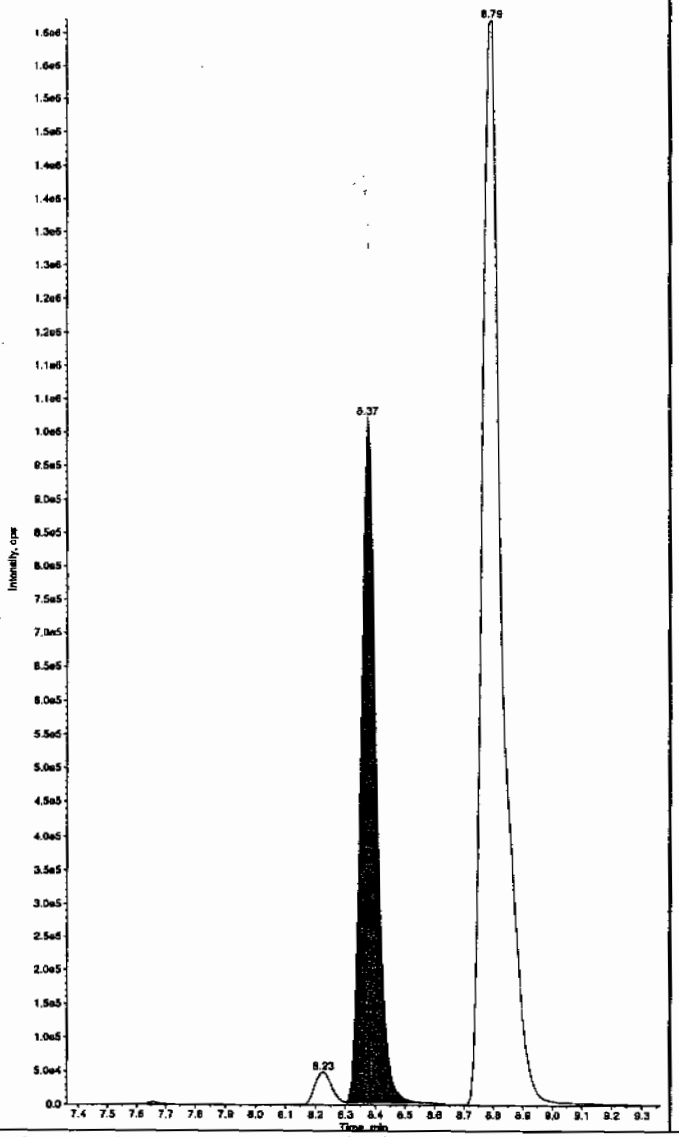
Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 285. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.77e+006 counts
Height: 1020063.599 cps
Start Time: 8.30 min
End Time: 8.59 min

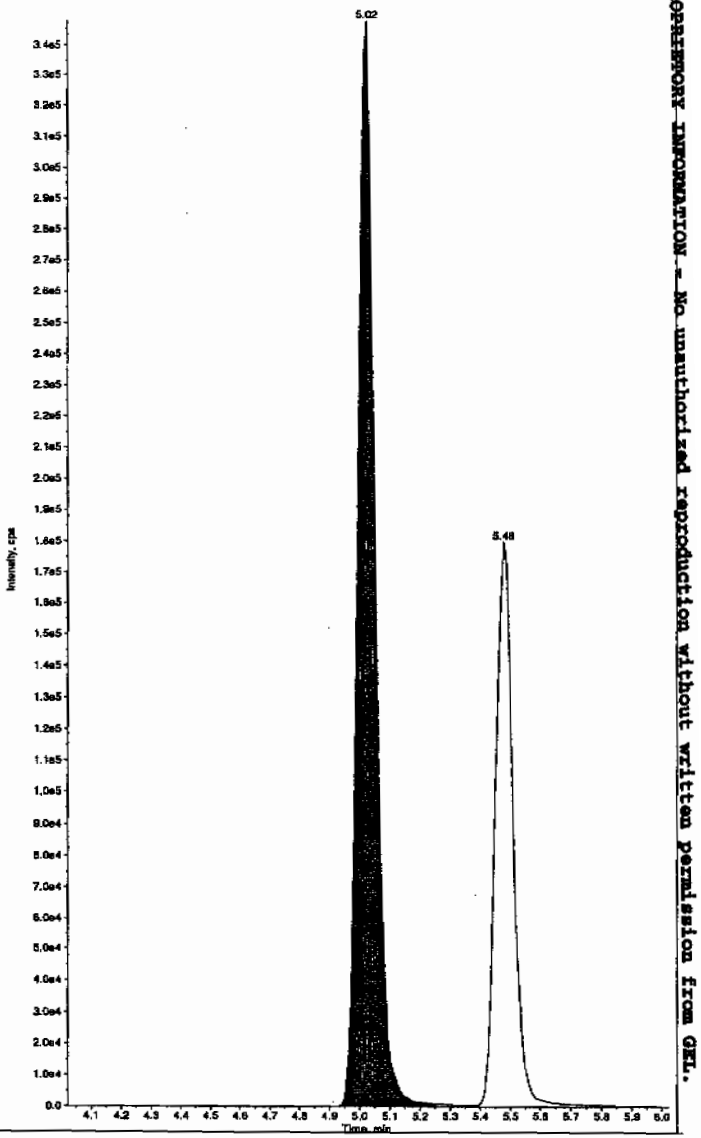



Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 739. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 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: 5.02 min
Area: 1.41e+006 counts
Height: 347869.385 cps
Start Time: 4.91 min
End Time: 5.25 min

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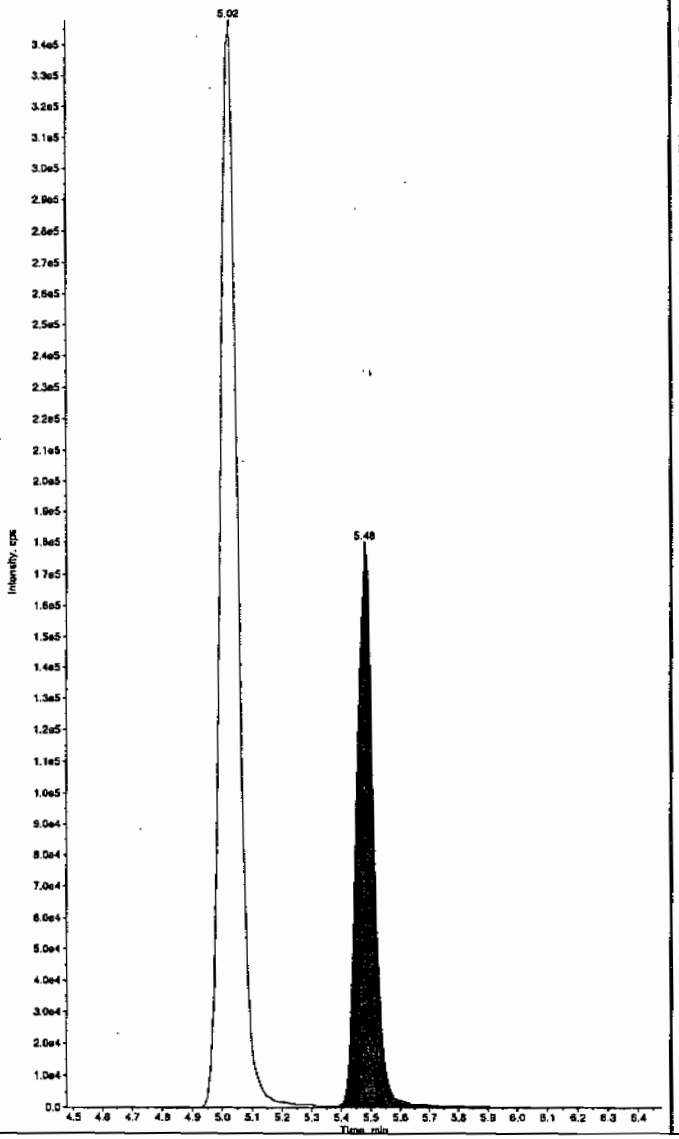
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 587. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 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: 5.43 min
Area: 7.37e+005 counts
Height: 179965.256 cps
Start Time: 5.32 min
End Time: 5.87 min

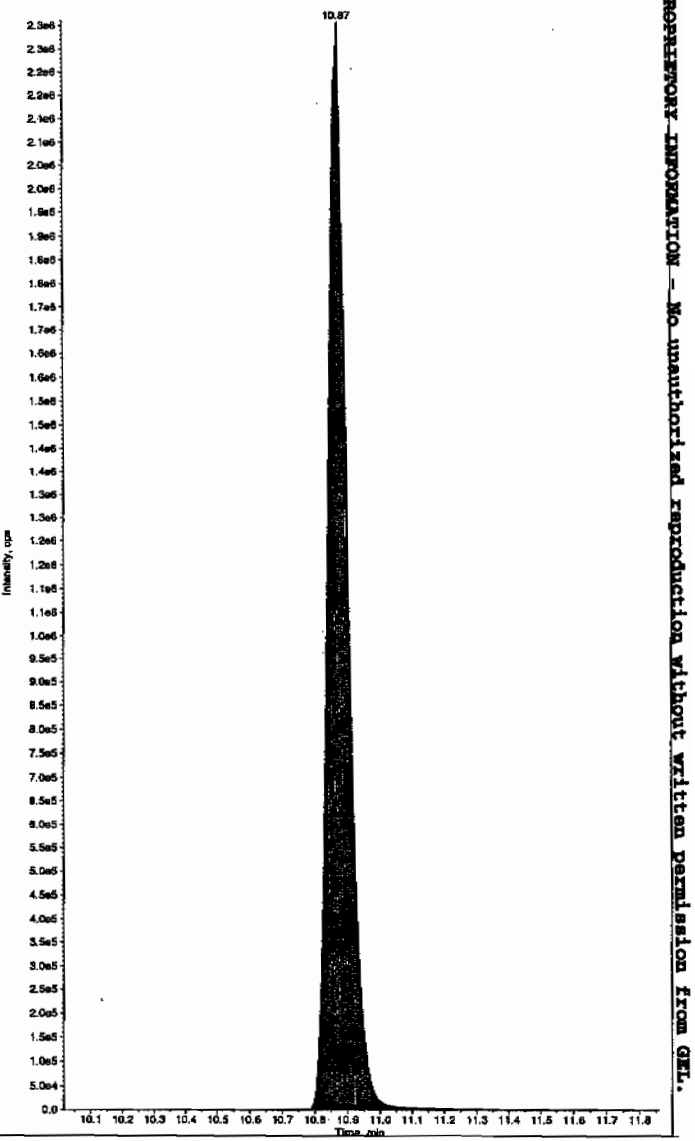



Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 493. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 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: 9.84e+006 counts
Height: 2309523.926 cps
Start Time: 10.8 min
End Time: 11.2 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880(245969001MS)

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 1202032103

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301023a

**Date Analyzed:** 02-MAR-10 02:21

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 118-96-7 | 2,4,6-Trinitrotoluene | 5760 | |
| 121-14-2 | 2,4-Dinitrotoluene | 5400 | |
| 121-82-4 | RDX | 5760 | |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 5310 | |
| 2691-41-0 | HMX | 5410 | |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 5680 | |
| 479-45-8 | Tetryl | 3880 | |
| 606-20-2 | 2,6-Dinitrotoluene | 5010 | |
| 78-11-5 | PETN | 5750 | |
| 88-72-2 | o-Nitrotoluene | 4640 | |
| 98-95-3 | Nitrobenzene | 4840 | |
| 99-08-1 | m-Nitrotoluene | 4480 | |
| 99-35-4 | 1,3,5-Trinitrobenzene | 4980 | |
| 99-65-0 | m-Dinitrobenzene | 4740 | |
| 99-99-0 | p-Nitrotoluene | 4830 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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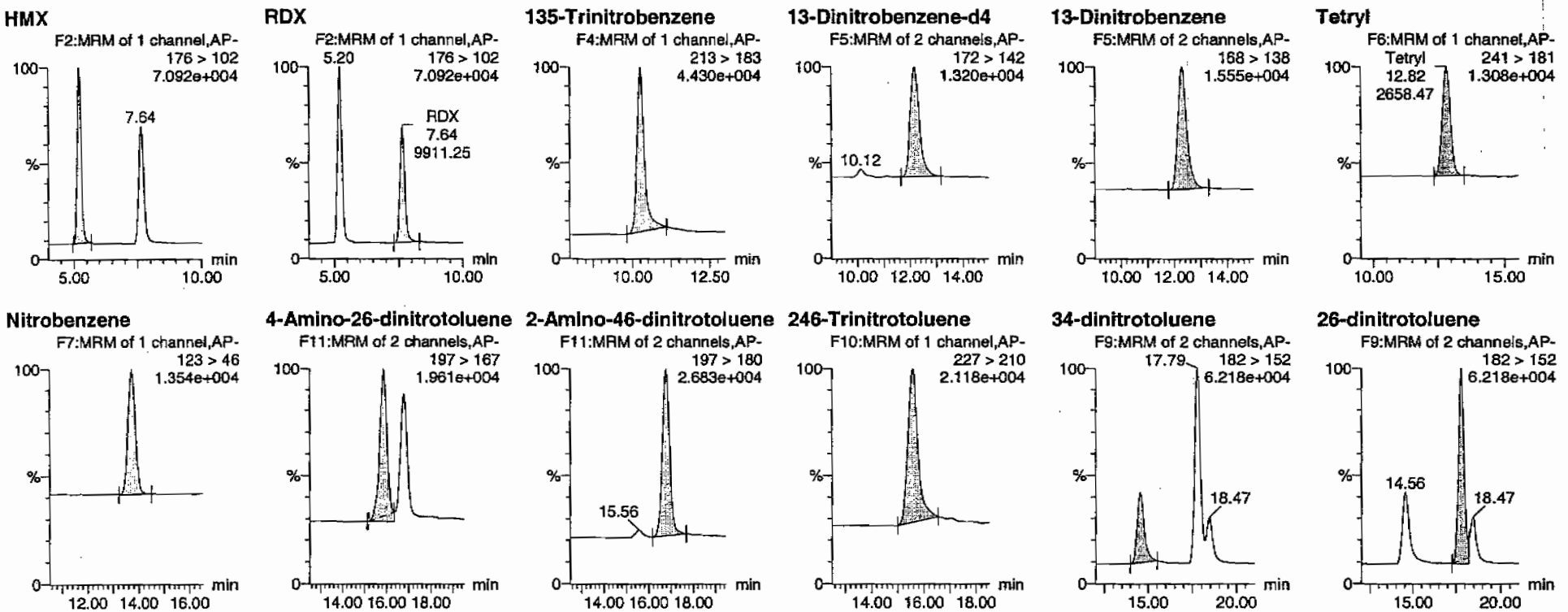
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301023a**
**Date: 02-Mar-2010**
**Time: 02:21:47**
**ID: 1202032103** | LANL | 948575 | Solid | 245969001MS | 2 |
**Vial: 2:1,D**

MAP 3/2/10




Hmm 03/04/10

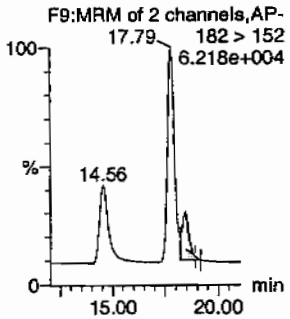
GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

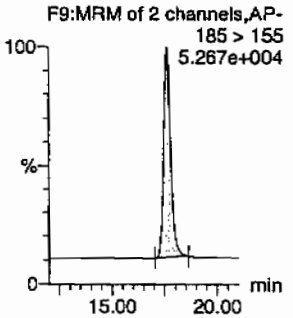


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

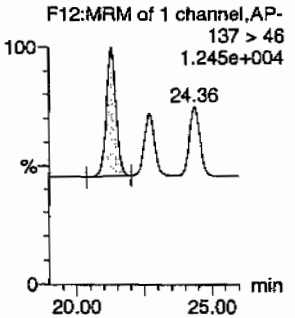
**24-dinitrotoluene**



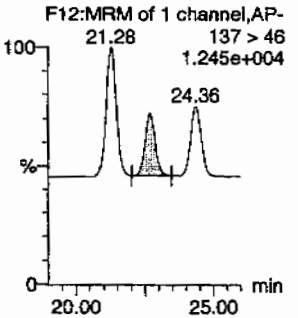

**26-dinitrotoluene-d3**



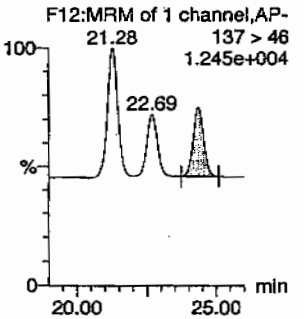

**2-Nitrotoluene**



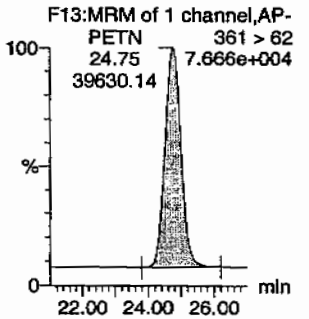

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace? | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202032103 | HMX | 176 > 102 | 5.20 | 12940.093 | 3132.861 | 12940.093 | 2065.220 | bb | | | 541.3671 | 108.3 | 8.3 | 1789.3 |
| 1202032103 | RDX | 176 > 102 | 7.64 | 9911.247 | 3132.861 | 9911.247 | 1581.820 | bb | | | 576.3355 | 115.3 | 15.3 | 1195.3 |
| 1202032103 | 135-Trinitrobenzene | 213 > 183 | 10.27 | 10739.134 | 3132.861 | 10739.134 | 1713.950 | bb | | | 497.7992 | 99.6 | -0.4 | 1545.1 |
| 1202032103 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3132.861 | | 3132.861 | 3132.861 | bb | | | 540.5070 | 108.1 | 8.1 | 447.8 |
| 1202032103 | 13-Dinitrobenzene | 168 > 138 | 12.31 | 3896.040 | 3132.861 | 3896.040 | 621.802 | bb | | | 473.9828 | 94.8 | -5.2 | 469.1 |
| 1202032103 | Tetryl | 241 > 181 | 12.82 | 2658.474 | 3132.861 | 2658.474 | 424.289 | bb | | | 387.9597 | 77.6 | -22.4 | 149.7 |
| 1202032103 | Nitrobenzene | 123 > 46 | 13.72 | 2696.619 | 3132.861 | 2696.619 | 430.376 | bb | | | 484.1498 | 96.8 | -3.2 | 370.8 |
| 1202032103 | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 5610.943 | 18707.076 | 5610.943 | 149.968 | MM | 02-Mar-10 | 09:47:34 | 531.2962 | 106.3 | 6.3 | 246.6 |
| 1202032103 | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 8011.845 | 18707.076 | 8011.845 | 214.139 | bb | | | 567.9799 | 113.6 | 13.6 | 827.0 |
| 1202032103 | 246-Trinitrotoluene | 227 > 210 | 15.58 | 6795.883 | 18707.076 | 6795.883 | 181.639 | bb | | | 576.3035 | 115.3 | 15.3 | 393.6 |
| 1202032103 | 34-dinitrotoluene | 182 > 152 | 14.56 | 9526.818 | 18707.076 | 9526.818 | 254.631 | bb | | | 257.0305 | 102.8 | 2.8 | 173.1 |
| 1202032103 | 26-dinitrotoluene | 182 > 152 | 17.79 | 21134.502 | 18707.076 | 21134.502 | 564.880 | MM | 02-Mar-10 | 09:38:18 | 500.6749 | 100.1 | 0.1 | 480.9 |
| 1202032103 | 24-dinitrotoluene | 182 > 152 | 18.47 | 5082.194 | 18707.076 | 5082.194 | 135.836 | MM | 02-Mar-10 | 09:29:47 | 540.0165 | 108.0 | 8.0 | 107.6 |
| 1202032103 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 18707.076 | | 18707.076 | 18707.076 | bb | | | 581.5133 | 116.3 | 16.3 | 560.7 |
| 1202032103 | 2-Nitrotoluene | 137 > 46 | 21.28 | 2877.472 | 18707.076 | 2877.472 | 76.909 | bb | | | 463.6339 | 92.7 | -7.3 | 361.0 |
| 1202032103 | 4-Nitrotoluene | 137 > 46 | 22.69 | 1433.065 | 18707.076 | 1433.065 | 38.303 | bb | | | 483.3177 | 96.7 | -3.3 | 174.4 |
| 1202032103 | 3-Nitrotoluene | 137 > 46 | 24.36 | 1647.396 | 18707.076 | 1647.396 | 44.031 | bb | | | 448.3237 | 89.7 | -10.3 | 194.4 |
| 1202032103 | PETN | 361 > 62 | 24.75 | 39630.141 | 18707.076 | 39630.141 | 1059.229 | bb | | | 574.5955 | 114.9 | 14.9 | 7906.7 |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880(245969001MS)

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 1202032103

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220021.wiff

**Date Analyzed:** 22-FEB-10 22:16

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 7500 | |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 7220 | |
| 618-87-1 | 3,5-Dinitroaniline | 5130 | |
| 6629-29-4 | 2,4-Diamino-6-nitrotoluene | 6060 | |
| 78-30-8 | tris(o-cresyl) phosphate | 4960 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

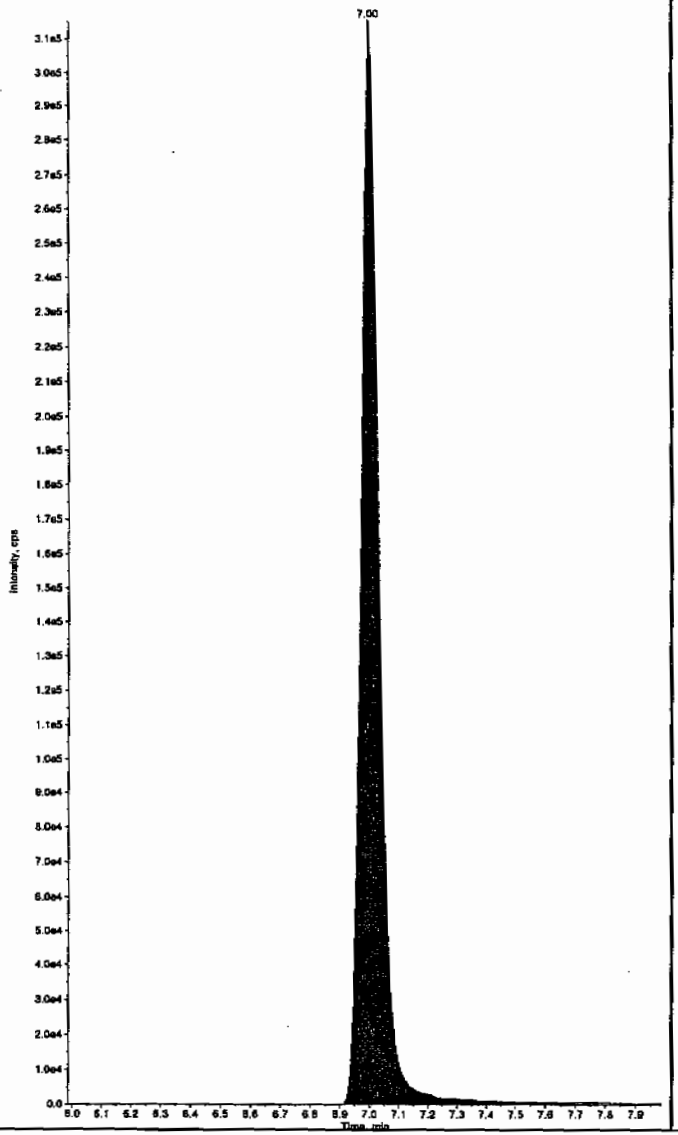
Before Scan 2/23/10

Sample Name: "1202032103" Sample ID: "948575|2|LER" File: "EXS02220021.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 750. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.41e+006 counts
Height: 315534.302 cps
Start Time: 6.86 min
End Time: 7.64 min

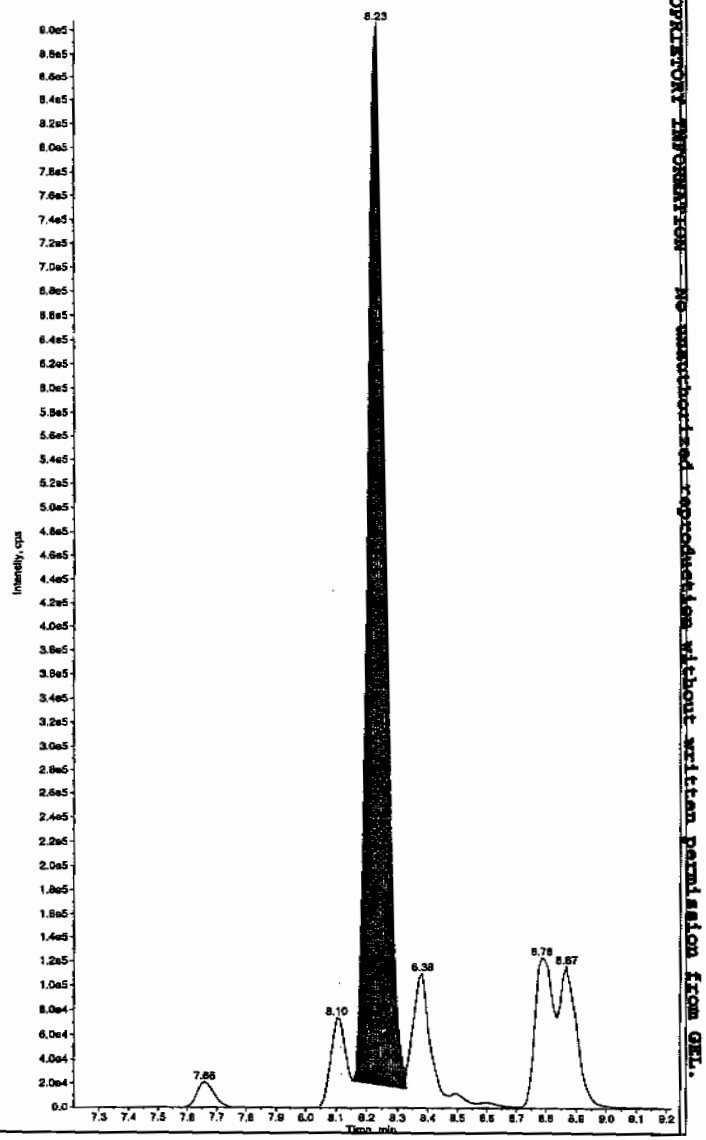



Sample Name: "1202032103" Sample ID: "948575|2|LER" File: "EXS02220021.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 488. ng/mL
Acq. Date: 3/22/2010
Acq. Time: 10:16:09 PM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.56e+006 counts
Height: 887927.612 cps
Start Time: 8.15 min
End Time: 8.33 min




Hmc 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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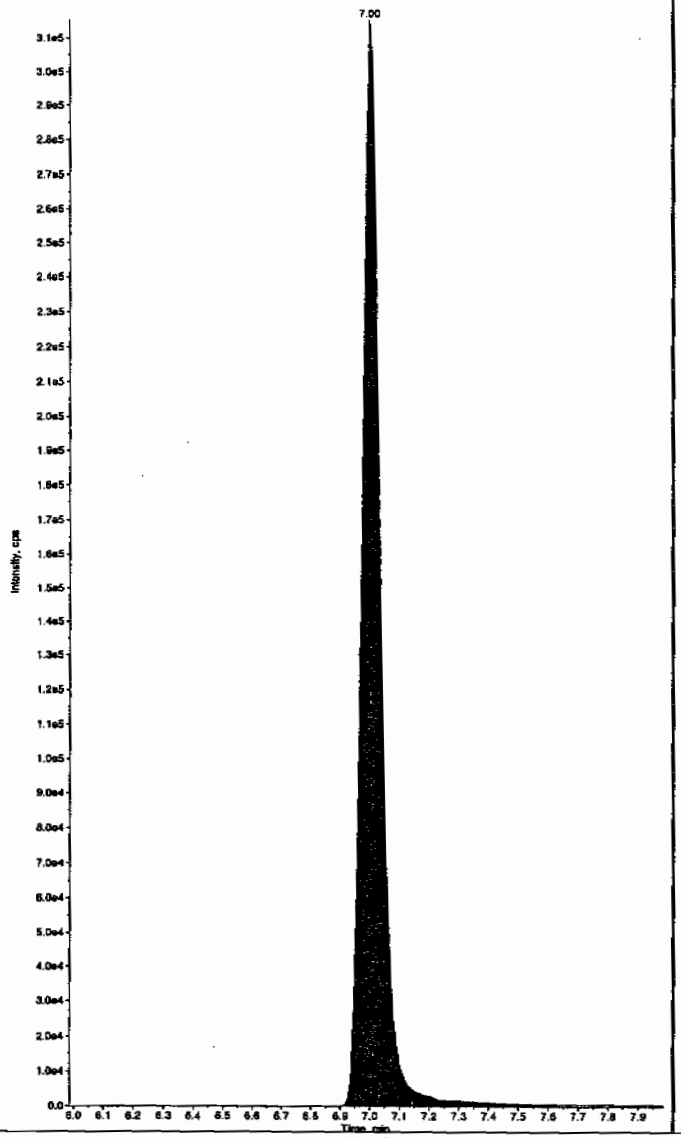
after Lan 2/23/10

Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 750. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.41e+006 counts
Height: 315534.302 cps
Start Time: 6.88 min
End Time: 7.64 min

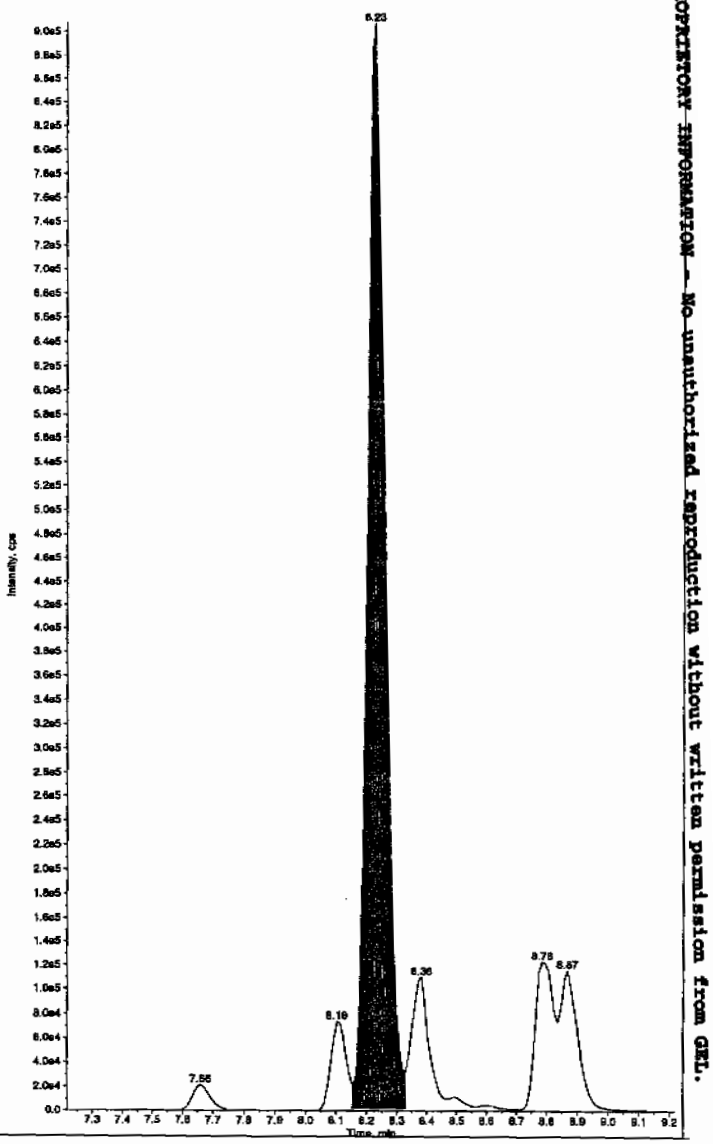



Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 513. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 3.74e+006 counts
Height: 911883.083 cps
Start Time: 8.15 min
End Time: 8.33 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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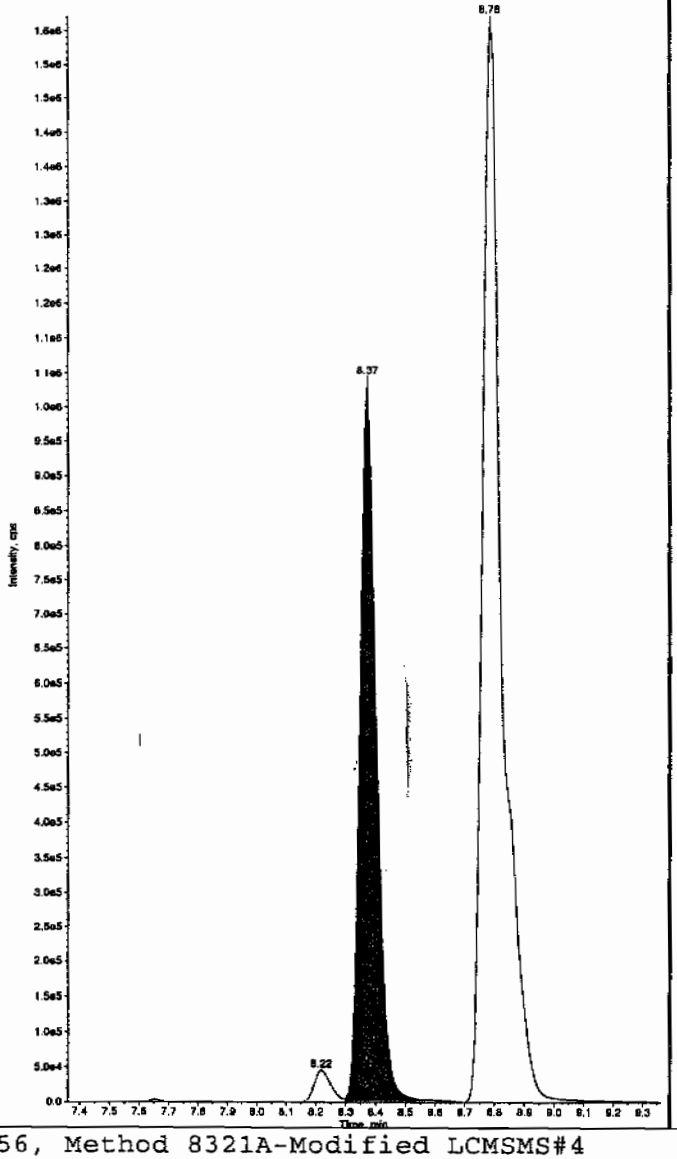
Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 306. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.03e+006 counts
Height: 1043250.732 cps
Start Time: 8.30 min
End Time: 8.62 min

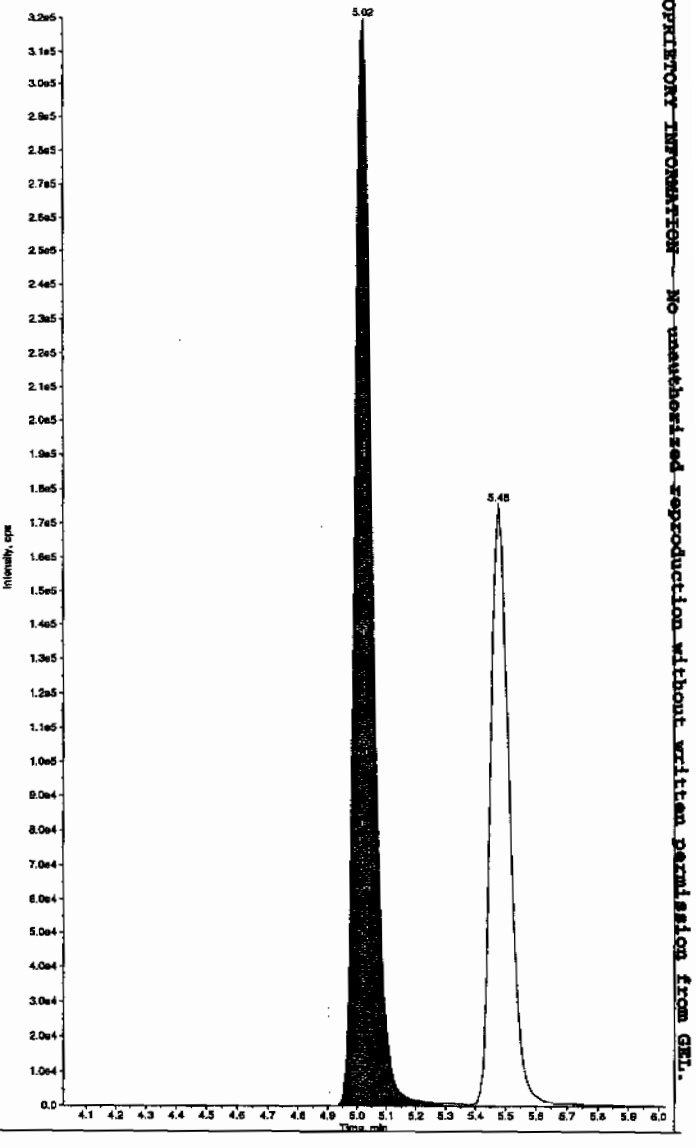



Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 722. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 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: 5.02 min
Area: 1.37e+006 counts
Height: 319889.038 cps
Start Time: 4.92 min
End Time: 5.29 min

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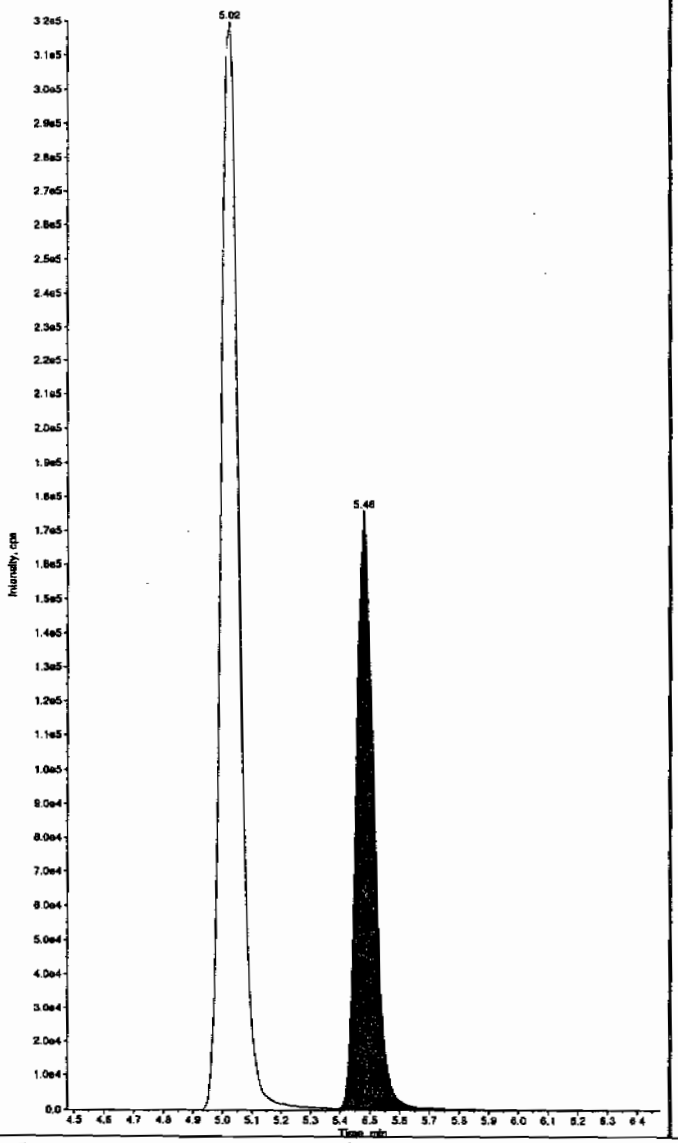
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 606. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 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: 5.48 min
Area: 7.61e+005 counts
Height: 175936.920 cps
Start Time: 5.38 min
End Time: 6.03 min

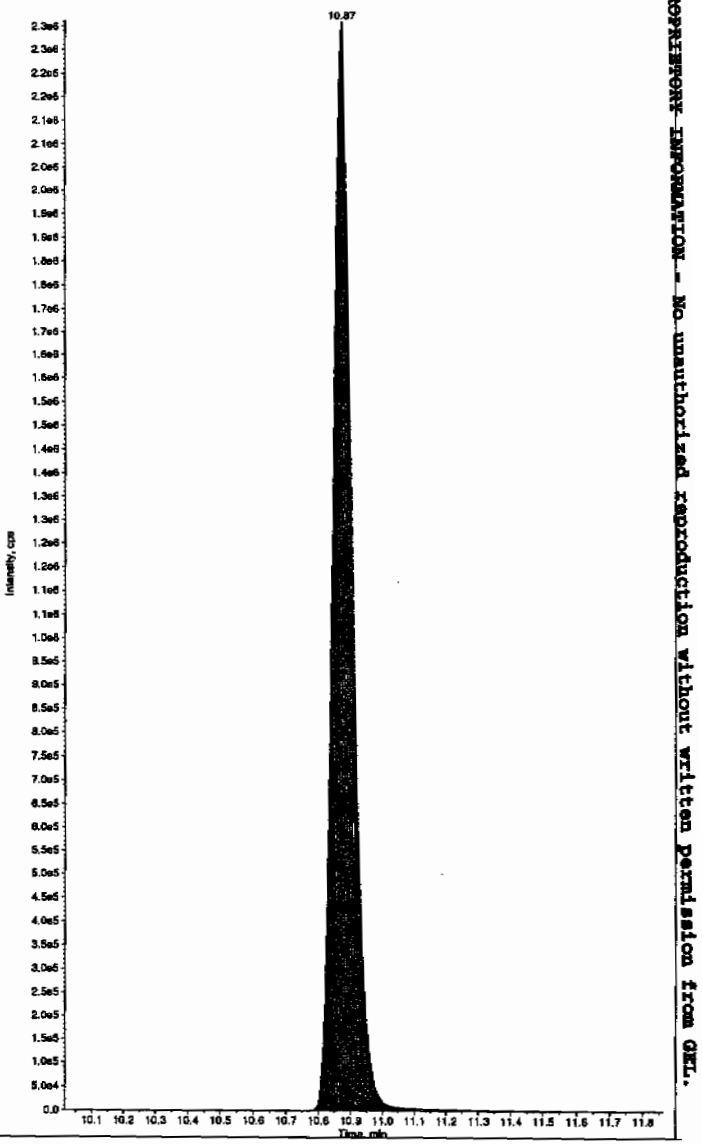



Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 496. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 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: 9.91e+006 counts
Height: 2312869.141 cps
Start Time: 10.8 min
End Time: 11.2 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880(245969001MSD)

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 1202032104

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXP0301024a

**Date Analyzed:** 02-MAR-10 02:51

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 118-96-7 | 2,4,6-Trinitrotoluene | 5770 | |
| 121-14-2 | 2,4-Dinitrotoluene | 4590 | |
| 121-82-4 | RDX | 5270 | |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 5290 | |
| 2691-41-0 | HMX | 5280 | |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 5590 | |
| 479-45-8 | Tetryl | 4210 | |
| 606-20-2 | 2,6-Dinitrotoluene | 4890 | |
| 78-11-5 | PETN | 5200 | |
| 88-72-2 | o-Nitrotoluene | 4480 | |
| 98-95-3 | Nitrobenzene | 4200 | |
| 99-08-1 | m-Nitrotoluene | 4580 | |
| 99-35-4 | 1,3,5-Trinitrobenzene | 5440 | |
| 99-65-0 | m-Dinitrobenzene | 5110 | |
| 99-99-0 | p-Nitrotoluene | 4960 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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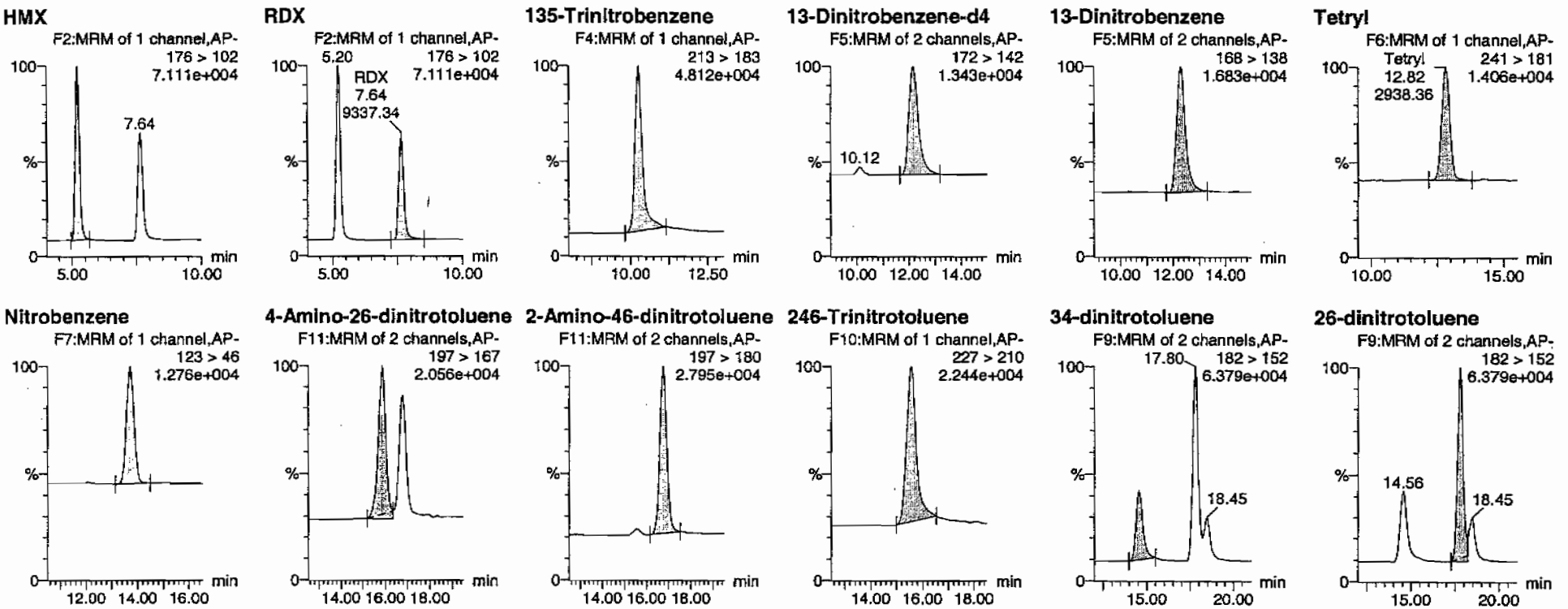
**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301024a**
**Date: 02-Mar-2010**
**Time: 02:51:15**
**ID: 1202032104** | LANL | 948575 | SOLED | 245969001MSD | 2 |
**Vial: 2:1,E**

MAP 3/2/10




HMM 03/04/10

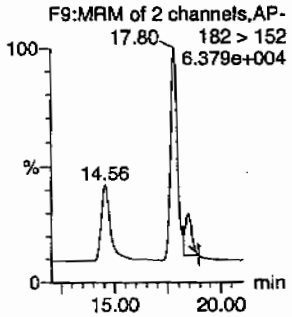
GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

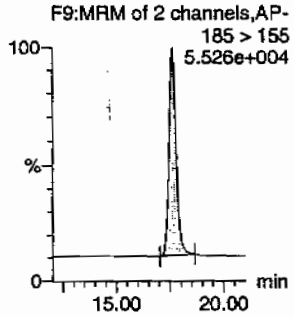


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

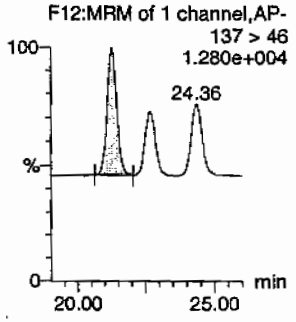
**24-dinitrotoluene**



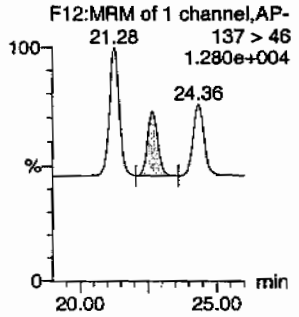

**26-dinitrotoluene-d3**



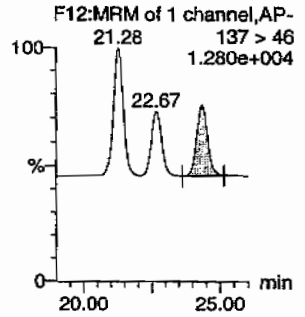

**2-Nitrotoluene**



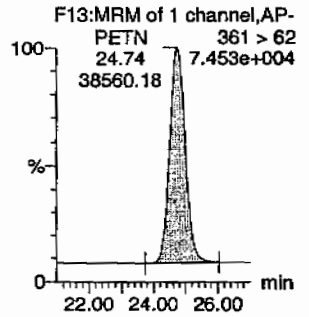

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202032104 | HMX | 176 > 102 | 5.20 | 13010.215 | 3226.557 | 13010.215 | 2016.114 | bb | | | 528.4948 | 105.7 | 5.7 | 1832.0 |
| 1202032104 | RDX | 176 > 102 | 7.64 | 9337.340 | 3226.557 | 9337.340 | 1446.951 | bb | | | 527.1959 | 105.4 | 5.4 | 1132.2 |
| 1202032104 | 135-Trinitrobenzene | 213 > 183 | 10.27 | 12083.594 | 3226.557 | 12083.594 | 1872.521 | bb | | | 543.8547 | 108.8 | 8.8 | 957.2 |
| 1202032104 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3226.557 | | 3226.557 | 3226.557 | bb | | | 556.6722 | 111.3 | 11.3 | 351.9 |
| 1202032104 | 13-Dinitrobenzene | 168 > 138 | 12.27 | 4327.925 | 3226.557 | 4327.925 | 670.672 | bb | | | 511.2351 | 102.2 | 2.2 | 464.8 |
| 1202032104 | Tetryl | 241 > 181 | 12.82 | 2938.358 | 3226.557 | 2938.358 | 455.340 | bb | | | 420.5544 | 84.1 | -15.9 | 231.6 |
| 1202032104 | Nitrobenzene | 123 > 46 | 13.72 | 2411.343 | 3226.557 | 2411.343 | 373.671 | bb | | | 420.3596 | 84.1 | -15.9 | 282.3 |
| 1202032104 | 4-Amino-26-dinitrotoluene | 197 > 167 | 15.86 | 5839.637 | 19570.504 | 5839.637 | 149.195 | MM | 02-Mar-10 | 09:47:48 | 528.5555 | 105.7 | 5.7 | 251.9 |
| 1202032104 | 2-Amino-46-dinitrotoluene | 197 > 180 | 16.76 | 8242.811 | 19570.504 | 8242.811 | 210.593 | bb | | | 558.5727 | 111.7 | 11.7 | 749.6 |
| 1202032104 | 246-Trinitrotoluene | 227 > 210 | 15.58 | 7116.040 | 19570.504 | 7116.040 | 181.805 | bb | | | 576.8297 | 115.4 | 15.4 | 400.9 |
| 1202032104 | 34-dinitrotoluene | 182 > 152 | 14.56 | 9749.124 | 19570.504 | 9749.124 | 249.077 | bb | | | 251.4237 | 100.6 | 0.6 | 578.8 |
| 1202032104 | 26-dinitrotoluene | 182 > 152 | 17.80 | 21572.969 | 19570.504 | 21572.969 | 551.160 | MM | 02-Mar-10 | 09:38:25 | 488.5147 | 97.7 | -2.3 | 1600.9 |
| 1202032104 | 24-dinitrotoluene | 182 > 152 | 18.45 | 4521.657 | 19570.504 | 4521.657 | 115.522 | MM | 02-Mar-10 | 09:29:55 | 459.2586 | 91.9 | -8.1 | 325.1 |
| 1202032104 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 19570.504 | | 19570.504 | 19570.504 | bb | | | 608.3532 | 121.7 | 21.7 | 1305.3 |
| 1202032104 | 2-Nitrotoluene | 137 > 46 | 21.28 | 2911.315 | 19570.504 | 2911.315 | 74.380 | bb | | | 448.3913 | 89.7 | -10.3 | 194.7 |
| 1202032104 | 4-Nitrotoluene | 137 > 46 | 22.67 | 1537.434 | 19570.504 | 1537.434 | 39.279 | bb | | | 495.6409 | 99.1 | -0.9 | 97.3 |
| 1202032104 | 3-Nitrotoluene | 137 > 46 | 24.36 | 1760.025 | 19570.504 | 1760.025 | 44.966 | bb | | | 457.8429 | 91.6 | -8.4 | 107.6 |
| 1202032104 | PETN | 361 > 62 | 24.74 | 38560.184 | 19570.504 | 38560.184 | 985.161 | bb | | | 520.1735 | 104.0 | 4.0 | 10453.7 |

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# High Explosives Analysis Data Sheet

**Lab Name:** GEL Laboratories LLC

**Client Sample ID:** RE15-10-7880(245969001MSD)

**Lab Code:** GEL

**GEL Job No (SDG)** 10-1512

**Matrix:** SOIL

**GEL Sample ID:** 1202032104

**Sample Amount** 2

**Moisture:** 7.5

**Amount Units** g

**Date Received:** 02-FEB-10

**Extraction Type** Sonication

**Extraction Batch ID:** 948574

**Concentrated Extract Volume (mL)** 10

**Date Extracted:** 09-FEB-10

**Dilution Factor:** 2

**Injection Volume (uL):** 50

**GEL data file:** EXS02220022.wiff

**Date Analyzed:** 22-FEB-10 22:31

**Units:** ug/kg

| Cas No. | Compound | Concentration* | Q |
|---|---|---|---|
| 3058-38-6 | TATB | 8590 | |
| 59229-75-3 | 2,6-Diamino-4-nitrotoluene | 6520 | |
| 618-87-1 | 3,5-Dinitroaniline | 5170 | |
| 6629-29-4 | 2,4-Diamino-6-nitrotoluene | 5970 | |
| 78-30-8 | tris(o-cresyl) phosphate | 4900 | |

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

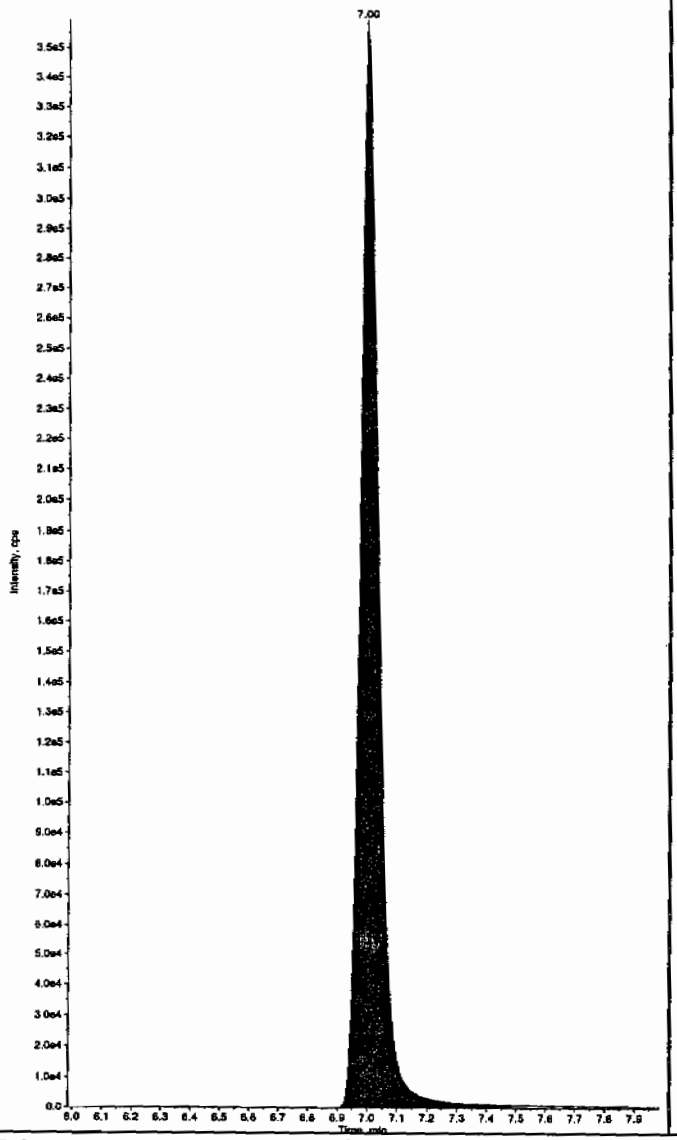
Before Clar 2/23/10

Sample Name: "1202032104" Sample ID: "948575|2|LER" File: "EXS02220022.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 859. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.61e+006 counts
Height: 359192.444 cps
Start Time: 6.89 min
End Time: 7.48 min

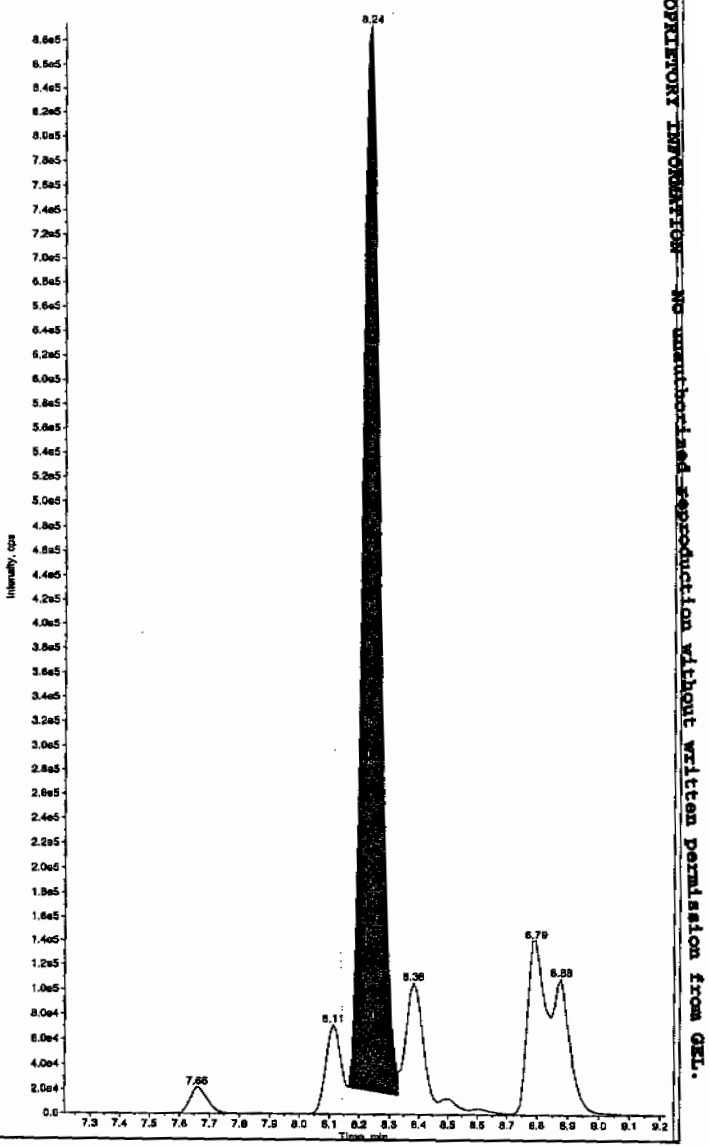



Sample Name: "1202032104" Sample ID: "948575|2|LER" File: "EXS02220022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 493. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: No
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: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 3.60e+006 counts
Height: 873784.790 cps
Start Time: 8.16 min
End Time: 8.33 min




Hmm, 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

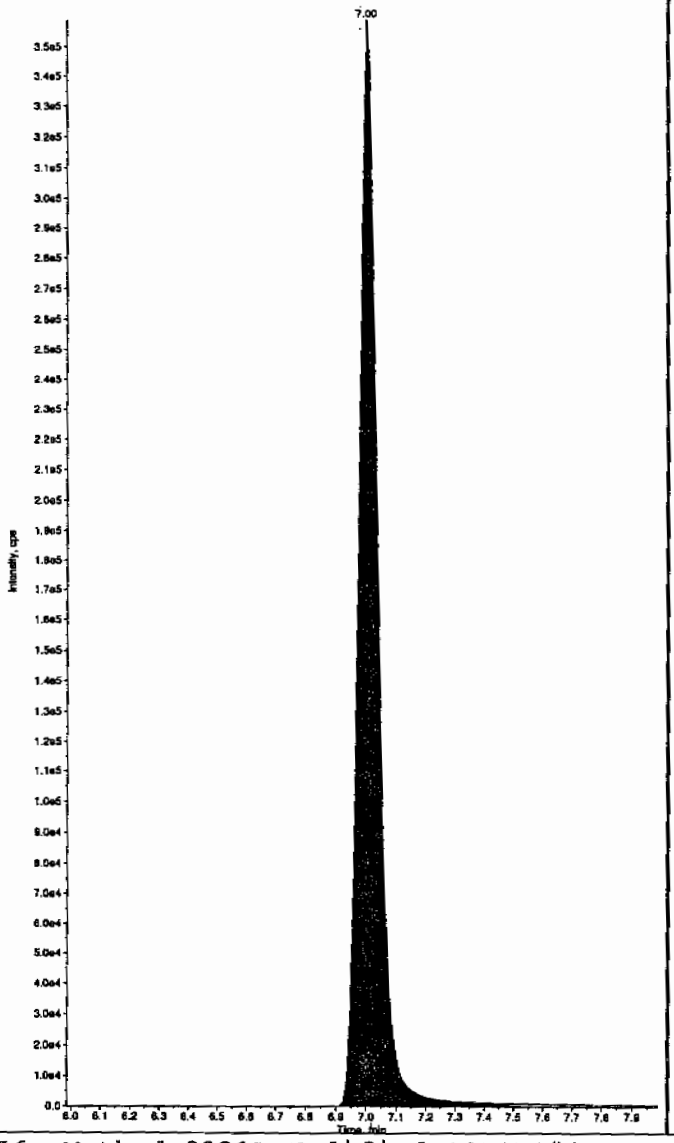
after Ran 2/23/10

Sample Name: "1202032104" Sample ID: "948575|2|LER" File: "EXS02220022.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 859. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 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: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.61e+006 counts
Height: 359192.444 cps
Start Time: 6.89 min
End Time: 7.48 min

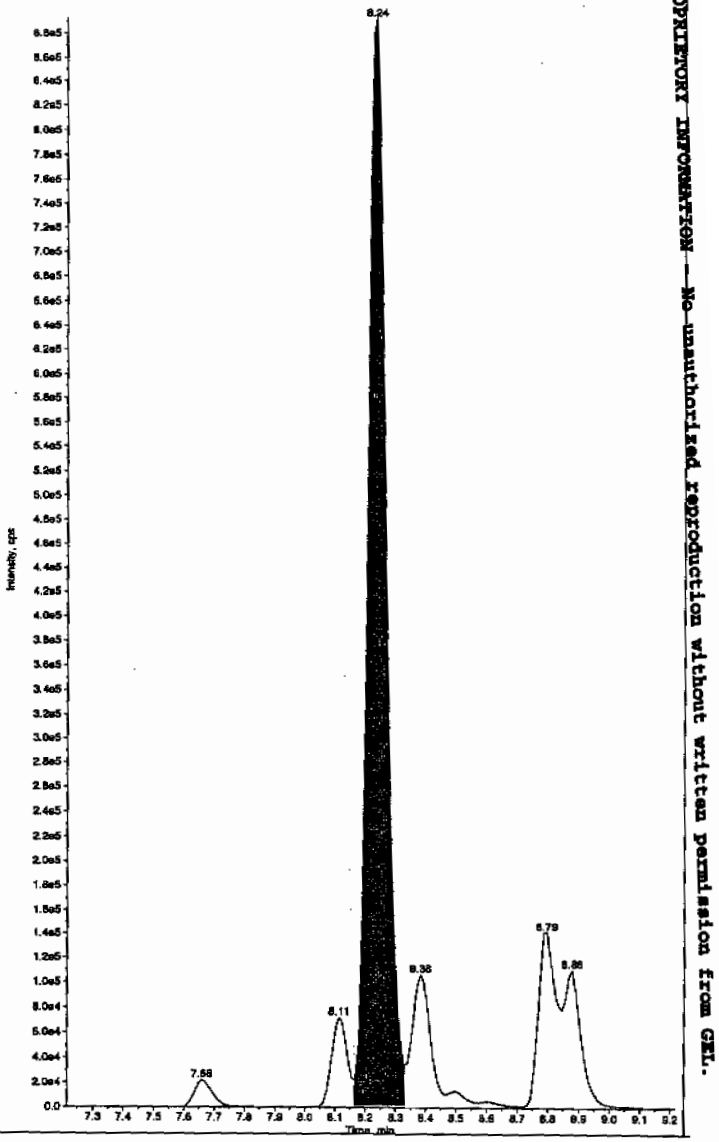



Sample Name: "1202032104" Sample ID: "948575|2|LER" File: "EXS02220022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 517. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.77e+006 counts
Height: 897055.203 cps
Start Time: 8.16 min
End Time: 8.33 min

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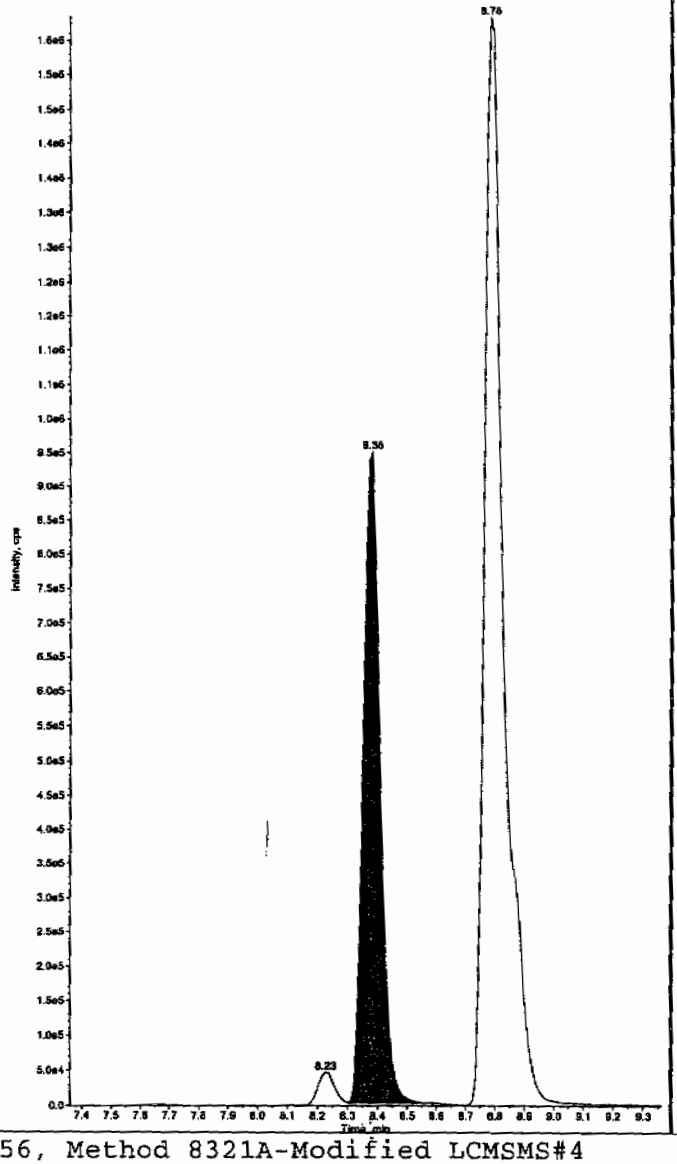
*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032104" Sample ID: "948575[2]LER" File: "EXS02220022.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 288. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 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: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 3.80e+006 counts
Height: 949209.656 cps
Start Time: 8.30 min
End Time: 8.57 min

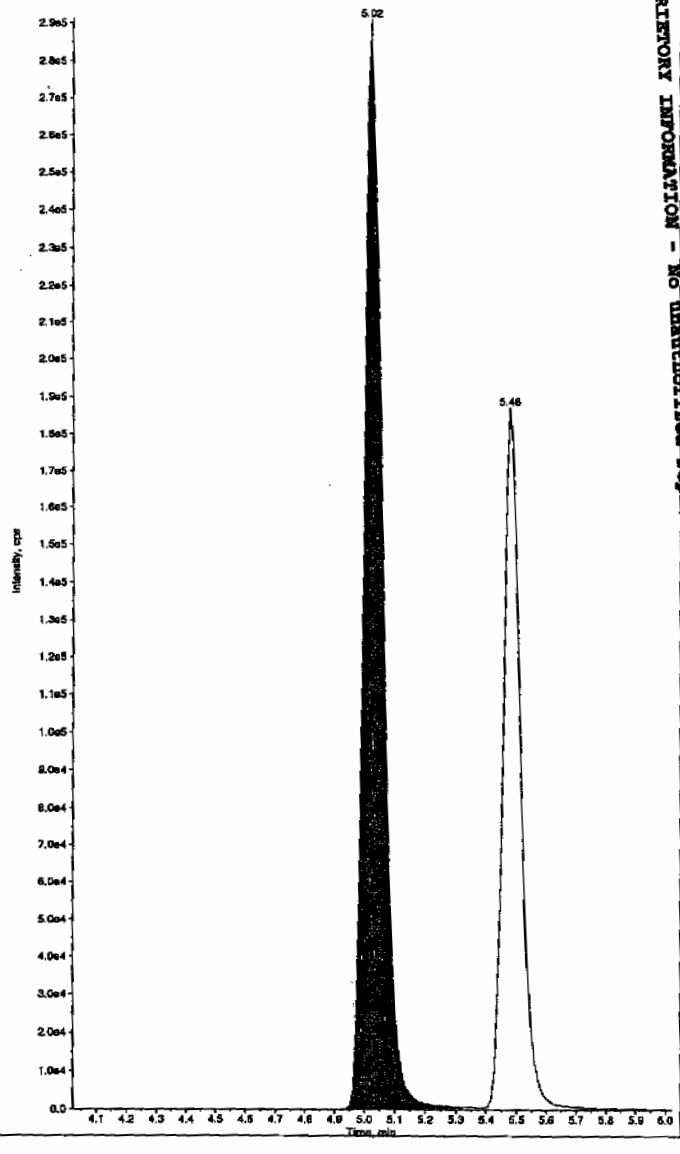



Sample Name: "1202032104" Sample ID: "948575[2]LER" File: "EXS02220022.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 652. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 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: 5.02 min
Area: 1.24e+006 counts
Height: 291128.540 cps
Start Time: 4.92 min
End Time: 5.32 min




*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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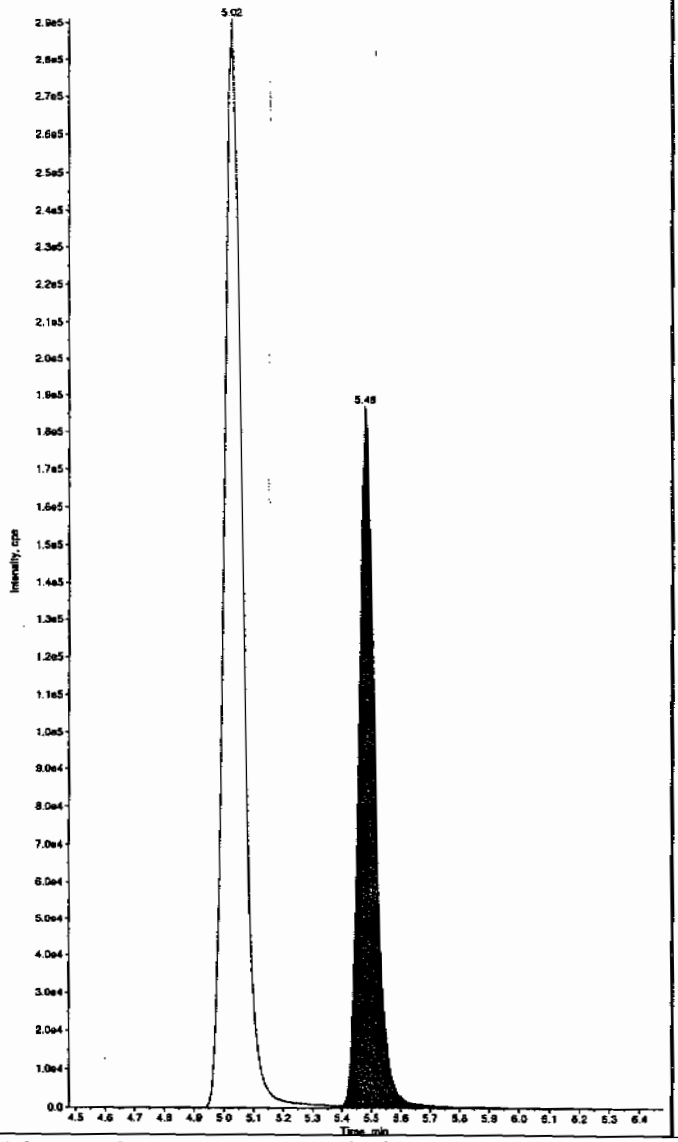
Sample Name: "1202032104" Sample ID: "946575[2]LER" File: "EXS02220022.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 597. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 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: 5.48 min
Area: 7.50e+005 counts
Height: 187111.496 cps
Start Time: 5.37 min
End Time: 5.90 min

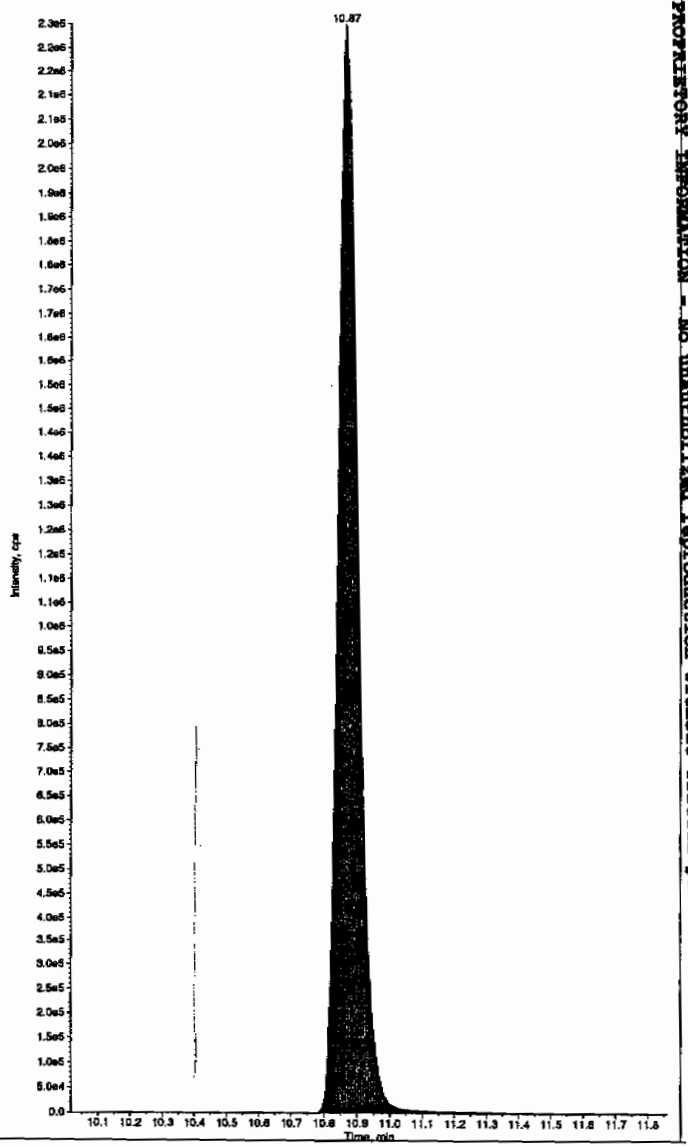



Sample Name: "1202032104" Sample ID: "946575[2]LER" File: "EXS02220022.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 490. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 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: 9.80e+006 counts
Height: 2251750.732 cps
Start Time: 10.8 min
End Time: 11.2 min

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# MISCELLANEOUS DATA

# Prep Logbook

## Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

**Batch ID:** 948574 **Verified by:** _____

**Analyst:** Sirena White

**Method:** SW846 8330 PREP

**Lab SOP:** GL-OA-E-033 REV# 17

**Instrument:** Semi-Volatiles Manual

| Sample ID | Run Date | Aliquot (g) | Prepped Aliquot (mL) | Prepped Factor (mL/g) |
|---|---|---|---|---|
| 1202032101 MB | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 1202032102 LCS | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969001 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 1202032103 MS (245969001) | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 1202032104 MSD (245969001) | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969002 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969003 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969004 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969005 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969006 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969007 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969008 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969009 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969010 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969011 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969012 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969013 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969014 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |
| 245969015 | 09-FEB-2010 18:24:00 | 2 | 10 | 5 |

| Type | Sample Id | Description | Serial Number | Spike Amt | Units |
|---|---|---|---|---|---|
| LCS | 1202032102 | 8321 Explosives LCS | IXX100125-03 | .1 | mL |
| LCS | 1202032102 | 8321 LANL Explosives Mix 10mg/L | UXX100122-01.2 | 1 | mL |
| MS | 1202032103 | 8321 Explosives LCS | IXX100125-03 | .1 | mL |
| MS | 1202032103 | 8321 LANL Explosives Mix 10mg/L | UXX100122-01.2 | 1 | mL |
| MSD | 1202032104 | 8321 Explosives LCS | IXX100125-03 | .1 | mL |
| MSD | 1202032104 | 8321 LANL Explosives Mix 10mg/L | UXX100122-01.2 | 1 | mL |
| SURR | All | 3,4-Dinitrotoluene (8330 Surr.) 100ppm | IXP100204-02 | .05 | mL |

**Comments:**

Final Solvent: ACN



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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date:03/01/10
Extr. Injection Volume: 50uL
Sequence Number: 030110expA
Initial Calibration Date: 03/01/10

Method: SW846 8321A-Modified
Int. Std.: UXX1000220-01
Mobile Phase Lot#: 1277087, 1268566
Standard-Samp Reagent Lot#: 1274562, 1271949

Reviewed BY: [illegible]
Date: 03/04/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100301-07

| DataFile | Sample | Analyst | Injection Date | Batch | SDG | Dilution | Client | Comments | QC_Flag |
|---|---|---|---|---|---|---|---|---|---|
| EXP0301001a | XIBLK01 | MAP | 3/1/10 15:33 | | | 1 | | USE | B |
| EXP0301002a | XIBLK01 | MAP | 3/1/10 16:02 | | | 1 | | USE | B |
| EXP0301003a | WXXICAL-01 | MAP | 3/1/10 16:32 | | | 1 | | USE | I |
| EXP0301004a | WXXICAL-02 | MAP | 3/1/10 17:01 | | | 1 | | USE | I |
| EXP0301005a | WXXICAL-03 | MAP | 3/1/10 17:31 | | | 1 | | USE | I |
| EXP0301006a | WXXICAL-04 | MAP | 3/1/10 18:00 | | | 1 | | USE | I |
| EXP0301007a | WXXICAL-05 | MAP | 3/1/10 18:30 | | | 1 | | USE | I |
| EXP0301008a | WXXICAL-06 | MAP | 3/1/10 18:59 | | | 1 | | USE | I |
| EXP0301009a | XIBLK02 | MAP | 3/1/10 19:28 | | | 1 | | USE | B |
| EXP0301010a | WXXICV | MAP | 3/1/10 19:58 | | | 1 | | USE | C |
| EXP0301011a | XIBLK03 | MAP | 3/1/10 20:27 | | | 1 | | USE | B |
| EXP0301012a | WXXCRI | MAP | 3/1/10 20:57 | | | 1 | | USE | C |
| EXP0301013a | 1202035702 | MAP | 3/1/10 21:26 | 950093 | 10-1637 | 2 | LANL | USE | S |
| EXP0301014a | 1202035703 | MAP | 3/1/10 21:56 | 950093 | 10-1637 | 2 | LANL | USE | S |
| EXP0301015a | 246469004 | MAP | 3/1/10 22:25 | 950093 | 10-1637 | 2 | LANL | USE | S |
| EXP0301016a | 246469009 | MAP | 3/1/10 22:55 | 950093 | 10-1637 | 2 | LANL | USE | S |
| EXP0301017a | WXXCCV | MAP | 3/1/10 23:24 | | | 1 | | USE | C |
| EXP0301018a | XIBLK04 | MAP | 3/1/10 23:54 | | | 1 | | USE | B |
| EXP0301019a | WXXCRI | MAP | 3/2/10 0:23 | | | 1 | | USE | C |
| EXP0301020a | 1202032101 | MAP | 3/2/10 0:53 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301021a | 1202032102 | MAP | 3/2/10 1:22 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301022a | 245969001 | MAP | 3/2/10 1:52 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301023a | 1202032103 | MAP | 3/2/10 2:21 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301024a | 1202032104 | MAP | 3/2/10 2:51 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301025a | 245969002 | MAP | 3/2/10 3:20 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301026a | 245969003 | MAP | 3/2/10 3:50 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301027a | 245969004 | MAP | 3/2/10 4:19 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301028a | 245969005 | MAP | 3/2/10 4:49 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301029a | 245969006 | MAP | 3/2/10 5:18 | 948575 | 10-1512 | 2 | LANL | USE | S |

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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EXP0301030a | WXXCCV | MAP | 3/2/10 5:48 | | | 1 | | USE | C |
| EXP0301031a | XIBLK05 | MAP | 3/2/10 6:17 | | | 1 | | USE | B |
| EXP0301032a | WXXCRI | MAP | 3/2/10 6:47 | | | 1 | | USE | C |
| EXP0301033a | 245969007 | MAP | 3/2/10 7:16 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301034a | 245969008 | MAP | 3/2/10 7:46 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301035a | 245969009 | MAP | 3/2/10 8:15 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301036a | 245969010 | MAP | 3/2/10 8:45 | 948575 | 10-1512 | 2 | LANL | DUSE-RA | S |
| EXP0301037a | 245969011 | MAP | 3/2/10 9:14 | 948575 | 10-1512 | 2 | LANL | DUSE-RA | S |
| EXP0301038a | 245969012 | MAP | 3/2/10 9:44 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301039a | 245969013 | MAP | 3/2/10 10:13 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301040a | 245969014 | MAP | 3/2/10 10:42 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301041a | 245969015 | MAP | 3/2/10 11:12 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301042a | 245969007 | MAP | 3/2/10 11:42 | 948575 | 10-1512 | 10 | LANL | USE | S |
| EXP0301043a | WXXCCV | MAP | 3/2/10 12:12 | | | 1 | | USE | C |
| EXP0301044a | XIBLK06 | MAP | 3/2/10 12:41 | | | 1 | | USE | B |
| EXP0301045a | WXXCRI | MAP | 3/2/10 13:11 | | | 1 | | USE | C |
| EXP0301046a | 1202032105 | MAP | 3/2/10 13:47 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301047a | 1202032106 | MAP | 3/2/10 14:17 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301048a | 245979001 | MAP | 3/2/10 14:46 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301049a | 1202032107 | MAP | 3/2/10 15:16 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301050a | 1202032108 | MAP | 3/2/10 15:45 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301051a | 245979002 | MAP | 3/2/10 16:15 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301052a | 245979003 | MAP | 3/2/10 16:44 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301053a | 245979004 | MAP | 3/2/10 17:14 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301054a | 245979005 | MAP | 3/2/10 17:43 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301055a | 245979006 | MAP | 3/2/10 18:13 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301056a | WXXCCV | MAP | 3/2/10 18:42 | | | 1 | | USE | C |
| EXP0301057a | XIBLK07 | MAP | 3/2/10 19:12 | | | 1 | | USE | B |
| EXP0301058a | WXXCRI | MAP | 3/2/10 19:41 | | | 1 | | USE | C |
| EXP0301059a | 245979007 | MAP | 3/2/10 20:11 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301060a | 245979008 | MAP | 3/2/10 20:40 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301061a | 245979009 | MAP | 3/2/10 21:10 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301062a | 245979010 | MAP | 3/2/10 21:39 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301063a | 245979011 | MAP | 3/2/10 22:09 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301064a | 245979012 | MAP | 3/2/10 22:38 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXP0301065a | 245979013 | MAP | 3/2/10 23:08 | 948577 | 10-1514 | 2 | LANL | DUSE-RA | S |
| EXP0301066a | 245979014 | MAP | 3/2/10 23:37 | 948577 | 10-1514 | 2 | LANL | USE | S |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EXP0301067a | 245979015 | MAP | 3/3/10 0:07 | 948577 | 10-1514 | 2 | LANL | DUSE-RA | S |
| EXP0301068a | WXXCCV | MAP | 3/3/10 0:36 | | | 1 | | USE | C |
| EXP0301069a | XIBLK08 | MAP | 3/3/10 1:06 | | | 1 | | USE | B |
| EXP0301070a | WXXCRI | MAP | 3/3/10 1:35 | | | 1 | | USE | C |
| EXP0301071a | 245969010 | MAP | 3/3/10 2:05 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301072a | 245969011 | MAP | 3/3/10 2:34 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXP0301073a | 1202032038 | MAP | 3/3/10 3:04 | 948588 | Various | 2 | LANL | USE | S |
| EXP0301074a | 1202032039 | MAP | 3/3/10 3:33 | 948588 | Various | 2 | LANL | DUSE-RA | S |
| EXP0301075a | 1202032154 | MAP | 3/3/10 4:03 | 948588 | Various | 2 | LANL | USE | S |
| EXP0301076a | 245928018 | MAP | 3/3/10 4:32 | 948588 | 10-1495 | 2 | LANL | DUSE-RA | S |
| EXP0301077a | 245928025 | MAP | 3/3/10 5:02 | 948588 | 10-1495 | 2 | LANL | DUSE-RA | S |
| EXP0301078a | 245932006 | MAP | 3/3/10 5:31 | 948588 | 10-1501 | 2 | LANL | DUSE-RA | S |
| EXP0301079a | 1202032040 | MAP | 3/3/10 6:01 | 948588 | 10-1501 | 2 | LANL | DUSE-RA | S |
| EXP0301080a | 1202032041 | MAP | 3/3/10 6:30 | 948588 | 10-1501 | 2 | LANL | DUSE-RA | S |
| EXP0301081a | WXXCCV | MAP | 3/3/10 7:00 | | | 1 | | USE | C |
| EXP0301082a | XIBLK09 | MAP | 3/3/10 7:29 | | | 1 | | USE | B |
| EXP0301083a | WXXCRI | MAP | 3/3/10 7:59 | | | 1 | | USE | C |

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/22/10 Method: 8321A-Modified Reviewed By: HMK
Extr. Injection Volume: 10uL Int. Std.: N/A Date: 02/23/10
Sequence Number: 022210exs Mobile Phase Lot#:1263794, 1258141 SOP: GL-OA-E-056 Rev.12
Initial Calibration Date: 022210 Standard-Samp Reagent Lot# :1260901, 1261217 Alt Check Std. ID: WXX100222-26

| DataFile | Sample | Analyst | Injection Date | Batch | SDG | Dilution | Client | Comments | QC Flag |
|---|---|---|---|---|---|---|---|---|---|
| EXS02220001.wiff | XIBLK01 | LER | 2/22/2010 17:01 | | | 1 | | USE | B |
| EXS02220002.wiff | XIBLK01 | LER | 2/22/2010 17:17 | | | 1 | | USE | B |
| EXS02220003.wiff | WXXICAL-19 | LER | 2/22/2010 17:33 | | | 1 | | USE | I |
| EXS02220004.wiff | WXXICAL-20 | LER | 2/22/2010 17:49 | | | 1 | | USE | I |
| EXS02220005.wiff | WXXICAL-21 | LER | 2/22/2010 18:04 | | | 1 | | USE | I |
| EXS02220006.wiff | WXXICAL-22 | LER | 2/22/2010 18:20 | | | 1 | | USE | I |
| EXS02220007.wiff | WXXICAL-23 | LER | 2/22/2010 18:36 | | | 1 | | USE | I |
| EXS02220008.wiff | WXXICAL-24 | LER | 2/22/2010 18:51 | | | 1 | | USE | I |
| EXS02220009.wiff | WXXICAL-25 | LER | 2/22/2010 19:07 | | | 1 | | USE | I |
| EXS02220010.wiff | XIBLK02 | LER | 2/22/2010 19:23 | | | 1 | | USE | B |
| EXS02220011.wiff | WXXICV | LER | 2/22/2010 19:38 | | | 1 | | USE | C |
| EXS02220012.wiff | XIBLK03 | LER | 2/22/2010 19:54 | | | 1 | | USE | B |
| EXS02220013.wiff | WXXCRI | LER | 2/22/2010 20:10 | | | 1 | | USE | C |
| EXS02220014.wiff | 246469007 | LER | 2/22/2010 20:26 | 950093 | 10-1637 | 2 | LANL | USE | S |
| EXS02220015.wiff | 246469008 | LER | 2/22/2010 20:41 | 950093 | 10-1637 | 2 | LANL | USE | S |
| EXS02220016.wiff | 246469009 | LER | 2/22/2010 20:57 | 950093 | 10-1637 | 2 | LANL | USE | S |
| EXS02220017.wiff | XIBLK04 | LER | 2/22/2010 21:13 | | | 1 | | USE | B |
| EXS02220018.wiff | 1202032101 | LER | 2/22/2010 21:28 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220019.wiff | 1202032102 | LER | 2/22/2010 21:44 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220020.wiff | 245969001 | LER | 2/22/2010 22:00 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220021.wiff | 1202032103 | LER | 2/22/2010 22:16 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220022.wiff | 1202032104 | LER | 2/22/2010 22:31 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220023.wiff | 245969002 | LER | 2/22/2010 22:47 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220024.wiff | WXXCCV | LER | 2/22/2010 23:03 | | | 1 | | USE | C |
| EXS02220025.wiff | XIBLK05 | LER | 2/22/2010 23:19 | | | 1 | | USE | B |
| EXS02220026.wiff | WXXCRI | LER | 2/22/2010 23:34 | | | 1 | | USE | C |
| EXS02220027.wiff | 245969003 | LER | 2/22/2010 23:50 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220028.wiff | 245969004 | LER | 2/23/2010 0:06 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220029.wiff | 245969005 | LER | 2/23/2010 0:22 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220030.wiff | 245969006 | LER | 2/23/2010 0:37 | 948575 | 10-1512 | 2 | LANL | USE | S |

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| EXS02220031.wiff | 245969007 | LER | 2/23/2010 0:53 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220032.wiff | 245969008 | LER | 2/23/2010 1:09 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220033.wiff | 245969009 | LER | 2/23/2010 1:24 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220034.wiff | 245969010 | LER | 2/23/2010 1:40 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220035.wiff | 245969011 | LER | 2/23/2010 1:56 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220036.wiff | 245969012 | LER | 2/23/2010 2:11 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220037.wiff | WXXCCV | LER | 2/23/2010 2:27 | | | 1 | | USE | C |
| EXS02220038.wiff | XIBLK06 | LER | 2/23/2010 2:43 | | | 1 | | USE | B |
| EXS02220039.wiff | WXXCRI | LER | 2/23/2010 2:59 | | | 1 | | USE | C |
| EXS02220040.wiff | 245969013 | LER | 2/23/2010 3:14 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220041.wiff | 245969014 | LER | 2/23/2010 3:30 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220042.wiff | 245969015 | LER | 2/23/2010 3:46 | 948575 | 10-1512 | 2 | LANL | USE | S |
| EXS02220043.wiff | XIBLK07 | LER | 2/23/2010 4:02 | | | 1 | | USE | B |
| EXS02220044.wiff | 1202032105 | LER | 2/23/2010 4:18 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXS02220045.wiff | 1202032106 | LER | 2/23/2010 4:33 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXS02220046.wiff | 245979001 | LER | 2/23/2010 4:49 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXS02220047.wiff | 1202032107 | LER | 2/23/2010 5:05 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXS02220048.wiff | 1202032108 | LER | 2/23/2010 5:21 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXS02220049.wiff | 245979002 | LER | 2/23/2010 5:36 | 948577 | 10-1514 | 2 | LANL | USE | S |
| EXS02220050.wiff | WXXCCV | LER | 2/23/2010 5:52 | | | 1 | | USE | C |
| EXS02220051.wiff | XIBLK08 | LER | 2/23/2010 6:08 | | | 1 | | USE | B |
| EXS02220052.wiff | WXXCRI | LER | 2/23/2010 6:24 | | | 1 | | USE | C |

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**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny



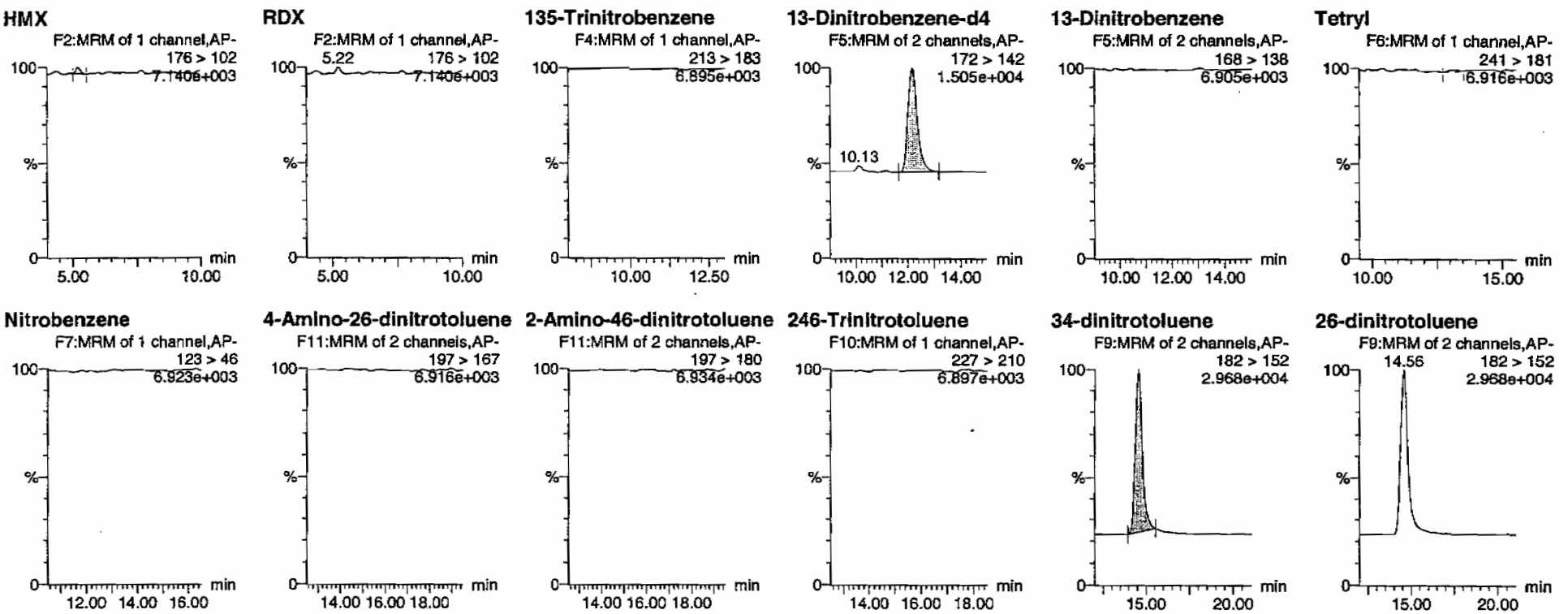
Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

**Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301037a**
**Date: 02-Mar-2010**
**Time: 09:14:34**
**ID: 245969011** | LANL | 948575 | SOLID | 2 |
**Vial: 2:3,C**

MAP 3/3/10

SUSE/RA - P IS #2

CONFIRMS EXP0301072a




Hume 03/04/10

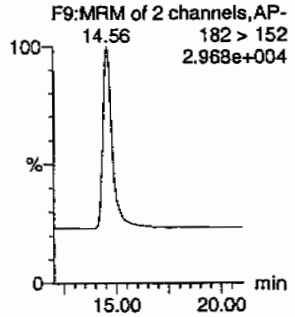
GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

**Quantify Sample Report**
GEL Laboratories, LLC / Analyst : Michael A. Penny

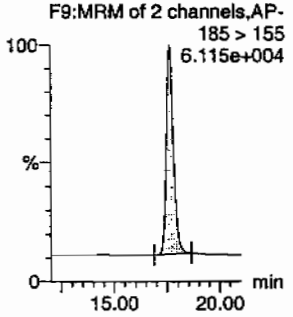


Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qid, Time: Wed Mar 03 09:00:43 2010

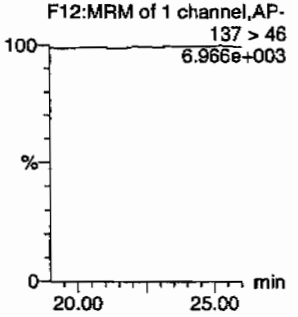
**24-dinitrotoluene**



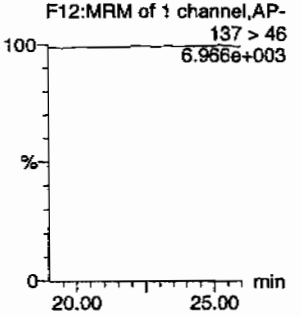

**26-dinitrotoluene-d3**



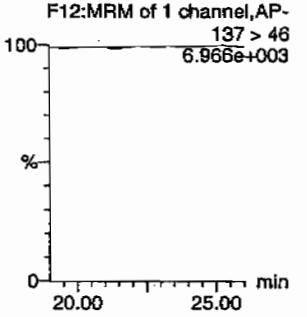

**2-Nitrotoluene**



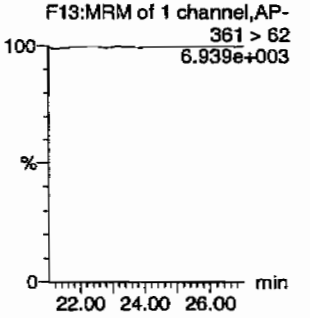

**4-Nitrotoluene**




**3-Nitrotoluene**




**PETN**




| ID | Name | Trace | RT | Area | IS Area | Abs.Resp | Response | Flags | Mod.Date | Mod.Time | ng/mL | %Rec | %Dev | S/N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 245969011 | HMX | 176 > 102 | 5.22 | 47.429 | 3437.149 | 47.429 | 6.899 | bb | | | 1.8086 | | | 9.3 |
| 245969011 | RDX | 176 > 102 | | | 3437.149 | | | | | | | | | |
| 245969011 | 135-Trinitrobenzene | 213 > 183 | | | 3437.149 | | | | | | | | | |
| 245969011 | 13-Dinitrobenzene-d4 | 172 > 142 | 12.17 | 3437.149 | | 3437.149 | 3437.149 | bb | | | 593.0053 | 118.6 | 18.6 | 325.4 |
| 245969011 | 13-Dinitrobenzene | 168 > 138 | | | 3437.149 | | | | | | | | | |
| 245969011 | Tetryl | 241 > 181 | | | 3437.149 | | | MM- | 03-Mar-10 | 08:43:38 | | | | |
| 245969011 | Nitrobenzene | 123 > 46 | | | 3437.149 | | | | | | | | | |
| 245969011 | 4-Amino-26-dinitrotoluene | 197 > 167 | | | 21307.240 | | | | | | | | | |
| 245969011 | 2-Amino-46-dinitrotoluene | 197 > 180 | | | 21307.240 | | | | | | | | | |
| 245969011 | 246-Trinitrotoluene | 227 > 210 | | | 21307.240 | | | | | | | | | |
| 245969011 | 34-dinitrotoluene | 182 > 152 | 14.56 | 10610.395 | 21307.240 | 10610.395 | 248.986 | bb | | | 251.3316 | 100.5 | 0.5 | 764.9 |
| 245969011 | 26-dinitrotoluene | 182 > 152 | | | 21307.240 | | | | | | | | | |
| 245969011 | 24-dinitrotoluene | 182 > 152 | | | 21307.240 | | | | | | | | | |
| 245969011 | 26-dinitrotoluene-d3 | 185 > 155 | 17.62 | 21307.240 | | 21307.240 | 21307.240 | bb | | | 662.3400 | 132.5 | 32.5 | 1307.8 |
| 245969011 | 2-Nitrotoluene | 137 > 46 | | | 21307.240 | | | | | | | | | |
| 245969011 | 4-Nitrotoluene | 137 > 46 | | | 21307.240 | | | | | | | | | |
| 245969011 | 3-Nitrotoluene | 137 > 46 | | | 21307.240 | | | | | | | | | |
| 245969011 | PETN | 361 > 62 | | | 21307.240 | | | | | | | | | |

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 798580
Revision No.: 1

# DATA EXCEPTION REPORT

| Mo.Day Yr. | Division: | Quality Criteria: | Type: |
|---|---|---|---|
| 03-MAR-10 | Federal | Specifications | Process |
| **Instrument Type:** | **Test / Method:** | **Matrix Type:** | **Client Code:** |
| LC-MS/MS | SW846 8321A Modified | Solid | LANL |
| **Batch ID:** | **Sample Numbers:** | | |
| 948575 | See Below | | |

**Potentially affected work order(s)(SDG): 245969(10-1512)**

**Application Issues:**

Other

Failed Recovery for MSD/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MS/PS

| Specification and Requirements Exception Description: | DER Disposition: |
|---|---|
| 1. The Laboratory Control Sample (1202032102) did not meet spike recovery limits for 2,4-Diamino-6-nitrotoluene at 117% with recovery limits of 52-114% and 2,6-Diamino-4-nitrotoluene at 148% with recovery limits of 64-122%.<br><br>2. The Matrix Spike (1202032103) did not meet spike recovery limits for 2,6-Diamino-4-nitrotoluene at 144%. The recovery limits are 55-130%.<br><br>3. The Matrix Spike Duplicate (1202032104) did not meet spike recovery limits for 2,6-Diamino-4-nitrotoluene at 130.4%. The recovery limits are 55-130%. | 1., 2. & 3. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported with the appropriate DER. The discrepancies are noted in the case narrative. |
| 4. The internal standard responses were outside of the acceptance criteria in the following sample: 245969011. Please see the Form 8 in the data package for the exact recoveries. | 4. The sample was re-analyzed and similar recoveries were observed. The re-analysis data are reported with the appropriate DER. The discrepancy is noted in the case narrative. The confirmation raw data are located in the Miscellaneous Section of the data package. |

**Originator's Name:**
Michael Penny 03-MAR-10

**Data Validator/Group Leader:**
Herbert Maier 04-MAR-10

# GC SEMIVOLATILE PCB ANALYSIS

**PCB Case Narrative**
**Los Alamos National Laboratory (LANL)**
**SDG 10-1512**

## Method/Analysis Information

| | |
|---|---|
| **Procedure:** | **Analysis of Polychlorinated Biphenyls by ECD** |
| Analytical Method: | SW846 8082 |
| Prep Method: | SW846 3550B |
| Analytical Batch Number: | 949033, 950898 |
| Prep Batch Number: | 949031, 950897 |

## Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

| Sample ID | Client ID |
|---|---|
| 245969002 | RE15-10-7891 |
| 245969003 | RE15-10-7892 |
| 1202033246 | Method Blank (MB) (Batch 949033) |
| 1202033247 | Laboratory Control Sample (LCS) (Batch 949033) |
| 245969001 | RE15-10-7880 |
| 1202037813 | Method Blank (MB) (Batch 950898) |
| 1202037814 | Laboratory Control Sample (LCS) (Batch 950898) |
| 1202037815 | 245969001(RE15-10-7880) Matrix Spike (MS) (Batch 950898) |
| 1202037816 | 245969001(RE15-10-7880) Matrix Spike Duplicate (MSD) (Batch 950898) |

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-040 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 23.0.

## 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.

### Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

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.

**Continuing Calibration Verification (CCV) Requirements**
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

One or more of the five quantified peaks did not meet the acceptance criteria in Aroclor-1254 and Aroclor-1268 standards analyzed for this SDG; however the average concentration of the five peaks met the acceptance criteria.

## Quality Control (QC) Information

**Method Blank (MB) Statement**
The MB(s) analyzed with this SDG met the acceptance criteria.

**Surrogate Recoveries**
All surrogate recoveries were within the established acceptance criteria for this SDG.

**Laboratory Control Sample (LCS) Recovery**
The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**
Sample 245969001(RE15-10-7880) was selected for the matrix spike and matrix spike duplicate analysis in both batches 949033 and 950898. However the MS and MSD in batch 949033 were not reportable. The MS and MSD results in batch 950898 were reported in this data package.

**Matrix Spike (MS) Recovery Statement**
The MS recoveries for this SDG were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**
The MSD recoveries for this SDG were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**
The RPD between the MS and MSD met the acceptance limits.

## Technical Information

**Holding Time Specifications**
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. All samples in this SDG met the specified holding time.

**Preparation/Analytical Method Verification**
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

**Sample Dilutions**
The samples in this SDG did not require dilutions.

**Sample Re-extraction/Re-analysis**
Sample 245969001(RE15-10-7880) was re-extracted and re-analyzed. The second analysis was reported.

## Miscellaneous Information

**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.

**Data Exception (DER) Documentation**
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

**Manual Integration**
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

**Additional Comments**
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

**System Configuration**

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

| Instrument ID | Instrument | System Configuration | Column ID | Column Description |
|---|---|---|---|---|
| ECD1A.I_1 | HP Gas Chromatograph | HP6890 Series ECD | Rtx-CLP I | 30m x 0.25mm, 0.25um (Rtx-CLPesticide) |
| ECD1A.I_2 | HP Gas Chromatograph | HP6890 Series ECD | Rtx-CLP II | 30m x 0.25mm, 0.20um (Rtx-CLPesticideII) |

**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: Jimmi Cao Date: 3/1/10

# Roadmap for LANL 10-1512 PCB

This roadmap was analyzed by yip00818 on 02-12-2010, 13:50.
This roadmap was reviewed by jim01140 on 02-16-2010, 09:13.
This roadmap was packaged by yml on 02-27-2010, 07:54.
This roadmap was validated by jim01140 on 03-01-2010, 09:56.

Front Sample Column

| exclude | manual | datafile | smpid | sampletype | injdate | injtime | sublist | clientid | dilution | prepbatchid | comment |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ■ | N | /chem/ecd1a.i/020510.b/033f3301.d | 245969001 | sample | 05-FEB-2010 | 13:01 | 10-1512.sub | RE15-10-7880 | 1.00000 | 949033 | RE RESULT DID NOT MATCH WITH MS/MSD |
| □ | N | /chem/ecd1a.i/021010b.b/021f2101.d | 245969001 | sample | 10-FEB-2010 | 16:51 | 10-1512.sub | RE15-10-7880 | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |
| ■ | N | /chem/ecd1a.i/021010b.b/024f2401.d | 245969002 | sample | 10-FEB-2010 | 17:29 | 10-1512.sub | RE15-10-7891 | 1.00000 | 950898 | DUSE CONFIRMATION FOR AR1268 HIT |
| □ | N | /chem/ecd1a.i/020510.b/036f3601.d | 245969002 | sample | 05-FEB-2010 | 13:39 | 10-1512.sub | RE15-10-7891 | 1.00000 | 949033 | AR1268 RE TO CONFIRM |
| □ | N | /chem/ecd1a.i/020510.b/037f3701.d | 245969003 | sample | 05-FEB-2010 | 13:52 | 10-1512.sub | RE15-10-7892 | 1.00000 | 949033 | UPLOAD BOTH COLUMNS ,USE HIGHER |

Back Sample Column

| exclude | manual | datafile | smpid | sampletype | injdate | injtime | sublist | clientid | dilution | prepbatchid | comment |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ■ | N | /chem/ecd1a.i/020510.b/033b3301.d | 245969001 | sample | 05-FEB-2010 | 13:01 | 10-1512.sub | RE15-10-7880 | 1.00000 | 949033 | RE RESULT DID NOT MATCH WITH MS/MSD |
| □ | N | /chem/ecd1a.i/021010b.b/021b2101.d | 245969001 | sample | 10-FEB-2010 | 16:51 | 10-1512.sub | RE15-10-7880 | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |
| ■ | N | /chem/ecd1a.i/021010b.b/024b2401.d | 245969002 | sample | 10-FEB-2010 | 17:29 | 10-1512.sub | RE15-10-7891 | 1.00000 | 950898 | DUSE CONFIRMATION FOR AR1268 HIT |
| □ | N | /chem/ecd1a.i/020510.b/036b3601.d | 245969002 | sample | 05-FEB-2010 | 13:39 | 10-1512.sub | RE15-10-7891 | 1.00000 | 949033 | AR1268 RE TO CONFIRM |
| □ | N | /chem/ecd1a.i/020510.b/037b3701.d | 245969003 | sample | 05-FEB-2010 | 13:52 | 10-1512.sub | RE15-10-7892 | 1.00000 | 949033 | UPLOAD BOTH COLUMNS ,USE HIGHER |

Front QC Sample Column

| exclude | manual | datafile | smpid | sampletype | injdate | injtime | sublist | clientid | dilution | prepbatchid | comment |
|---|---|---|---|---|---|---|---|---|---|---|---|
| □ | N | /chem/ecd1a.i/020510.b/012f1201-4.d | 1202033246 | mb | 05-FEB-2010 | 08:52 | 10-1512.sub | PBLK01 | 1.00000 | 949033 | |
| □ | N | /chem/ecd1a.i/021010b.b/015f1501.d | 1202037813 | mb | 10-FEB-2010 | 15:36 | 10-1512.sub | PBLK02 | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |
| □ | N | /chem/ecd1a.i/020510.b/013f1301-4.d | 1202033247 | lcs | 05-FEB-2010 | 09:02 | 10-1512.sub | PBLK01LCS | 1.00000 | 949033 | |
| □ | N | /chem/ecd1a.i/021010b.b/016f1601.d | 1202037814 | lcs | 10-FEB-2010 | 15:48 | 10-1512.sub | PBLK02LCS | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |
| ■ | N | /chem/ecd1a.i/020510.b/034f3401.d | 1202033248 | ms | 05-FEB-2010 | 13:14 | 10-1512.sub | RE15-10-7880MS | 1.00000 | 949033 | DUSE |
| □ | N | /chem/ecd1a.i/021010b.b/022f2201.d | 1202037815 | ms | 10-FEB-2010 | 17:04 | 10-1512.sub | RE15-10-7880MS | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |
| ■ | N | /chem/ecd1a.i/020510.b/035f3501.d | 1202033249 | msd | 05-FEB-2010 | 13:27 | 10-1512.sub | RE15-10-7880MSD | 1.00000 | 949033 | DUSE |
| □ | N | /chem/ecd1a.i/021010b.b/023f2301.d | 1202037816 | msd | 10-FEB-2010 | 17:17 | 10-1512.sub | RE15-10-7880MSD | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |

Back QC Sample Column

| exclude | manual | datafile | smpid | sampletype | injdate | injtime | sublist | clientid | dilution | prepbatchid | comment |
|---|---|---|---|---|---|---|---|---|---|---|---|
| □ | N | /chem/ecd1a.i/020510.b/012b1201-4.d | 1202033246 | mb | 05-FEB-2010 | 08:52 | 10-1512.sub | PBLK01 | 1.00000 | 949033 | |
| □ | N | /chem/ecd1a.i/021010b.b/015b1501.d | 1202037813 | mb | 10-FEB-2010 | 15:36 | 10-1512.sub | PBLK02 | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ☐ | N | /chem/ecd1a.i/020510.b/013b1301-4.d | 1202033247 | lcs | 05-FEB-2010 | 09:02 | 10-1512.sub | PBLK01LCS | 1.00000 | 949033 | |
| ☐ | N | /chem/ecd1a.i/021010b.b/016b1601.d | 1202037814 | lcs | 10-FEB-2010 | 15:48 | 10-1512.sub | PBLK02LCS | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |
| ■ | N | /chem/ecd1a.i/020510.b/034b3401.d | 1202033248 | ms | 05-FEB-2010 | 13:14 | 10-1512.sub | RE15-10-7880MS | 1.00000 | 949033 | DUSE |
| ☐ | N | /chem/ecd1a.i/021010b.b/022b2201.d | 1202037815 | ms | 10-FEB-2010 | 17:04 | 10-1512.sub | RE15-10-7880MS | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |
| ☐ | N | /chem/ecd1a.i/021010b.b/023b2301.d | 1202037816 | msd | 10-FEB-2010 | 17:17 | 10-1512.sub | RE15-10-7880MSD | 1.00000 | 950898 | UPLOAD BOTH COLUMNS, USE HIGHER |

# SAMPLE DATA SUMMARY

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | 10–1512 | **Date Collected:** | 01/27/2010 12:00 | **Matrix:** | R |
| **Lab Sample ID:** | 245969001 | **Date Received:** | 02/02/2010 09:10 | **%Moisture:** | 7.5 |
| | | **Client:** | LANL010 | **Project:** | LANL01004 |
| **Client ID:** | RE15–10–7880 | **Method:** | SW846 8082 | **SOP Ref:** | GL–OA–E–040 |
| **Batch ID:** | 950898 | **Inst:** | ECD1A.I | **Dilution:** | 1 |
| **Run Date:** | 02/10/2010 16:51 | **Analyst:** | YS1 | **Inj. Vol:** | 1 uL |
| **Prep Date:** | 02/09/2010 21:07 | **Aliquot:** | 30.01 g | **Final Volume:** | 1 mL |
| **Data File:** | 021f2101.d | **Column:** | 1 CLP1 | **Level:** | LOW |
| | 021b2101.d | | 2 CLP2 | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674–11–2 | Aroclor–1016 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11104–28–2 | Aroclor–1221 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11141–16–5 | Aroclor–1232 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 53469–21–9 | Aroclor–1242 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 12672–29–6 | Aroclor–1248 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11097–69–1 | Aroclor–1254 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11096–82–5 | Aroclor–1260 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | 10-1512 | **Date Collected:** | 01/27/2010 12:00 | **Matrix:** | R |
| **Lab Sample ID:** | 245969002 | **Date Received:** | 02/02/2010 09:10 | **%Moisture:** | 26 |
| | | **Client:** | LANL010 | **Project:** | LANL01004 |
| **Client ID:** | RE15-10-7891 | **Method:** | SW846 8082 | **SOP Ref:** | GL-OA-E-040 |
| **Batch ID:** | 949033 | **Inst:** | ECD1A.I | **Dilution:** | 1 |
| **Run Date:** | 02/05/2010 13:39 | **Analyst:** | YS1 | **Inj. Vol:** | 1 uL |
| **Prep Date:** | 02/04/2010 20:32 | **Aliquot:** | 30.21 g | **Final Volume:** | 1 mL |
| **Data File:** | 036f3601.d | **Column:** | 1 CLP1 | **Level:** | LOW |
| | 036b3601.d | | 2 CLP2 | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11104-28-2 | Aroclor-1221 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11141-16-5 | Aroclor-1232 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 53469-21-9 | Aroclor-1242 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 12672-29-6 | Aroclor-1248 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11097-69-1 | Aroclor-1254 | | 11.1 | ug/kg | 1.49 | 4.47 | 1 |
| 11096-82-5 | Aroclor-1260 | | 8.30 | ug/kg | 1.49 | 4.47 | 2 |
| 11100-14-4 | Aroclor-1268 | | 7.90 | ug/kg | 1.49 | 4.47 | 2 |

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | **10–1512** | **Date Collected:** | **01/27/2010 12:00** | **Matrix:** | **R** |
| **Lab Sample ID:** | **245969003** | **Date Received:** | **02/02/2010 09:10** | **%Moisture:** | **7** |
| | | **Client:** | **LANL010** | **Project:** | **LANL01004** |
| **Client ID:** | **RE15–10–7892** | **Method:** | **SW846 8082** | **SOP Ref:** | **GL–OA–E–040** |
| **Batch ID:** | **949033** | **Inst:** | **ECD1A.I** | **Dilution:** | **1** |
| **Run Date:** | **02/05/2010 13:52** | **Analyst:** | **YS1** | **Inj. Vol:** | **1 uL** |
| **Prep Date:** | **02/04/2010 20:32** | **Aliquot:** | **30.11 g** | **Final Volume:** | **1 mL** |
| **Data File:** | **037f3701.d** | **Column:** | **1 CLP1** | **Level:** | **LOW** |
| | **037b3701.d** | | **2 CLP2** | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674–11–2 | Aroclor–1016 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11104–28–2 | Aroclor–1221 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11141–16–5 | Aroclor–1232 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 53469–21–9 | Aroclor–1242 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 12672–29–6 | Aroclor–1248 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11097–69–1 | Aroclor–1254 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11096–82–5 | Aroclor–1260 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |

# QUALITY CONTROL SUMMARY

**PCB**

**Surrogate Recovery Report**

**SDG Number: 10–1512**

**Matrix Type: SOLID**

**CAP Column (1) : CLP1** **CAP Column (2) : CLP2**

| Sample ID | Client ID | 4CMX 1 %REC # | 4CMX 2 %REC # | DCB 1 %REC # | DCB 2 %REC # |
|---|---|---|---|---|---|
| 1202033246 | MB for batch 949031 | 61 | 61 | 56 | 67 |
| 1202033247 | LCS for batch 949031 | 63 | 62 | 61 | 67 |
| 245969002 | RE15–10–7891 | 72 | 70 | 83 | 83 |
| 245969003 | RE15–10–7892 | 66 | 65 | 58 | 75 |
| 1202037813 | MB for batch 950897 | 70 | 62 | 58 | 67 |
| 1202037814 | LCS for batch 950897 | 69 | 61 | 55 | 67 |
| 245969001 | RE15–10–7880 | 51 | 47 | 54 | 52 |
| 1202037815 | RE15–10–7880MS | 68 | 61 | 67 | 65 |
| 1202037816 | RE15–10–7880MSD | 72 | 65 | 71 | 68 |

| Surrogate | Acceptance Limits |
|---|---|
| 4CMX = 4cmx | (32%–120%) |
| DCB = Decachlorobiphenyl | (30%–116%) |

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

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

**SDG Number:** 10-1512
**Client ID:** LCS for batch 949031
**Lab Sample ID:** 1202033247
**Instrument:** ECD1A.I
**Analyst:** YS1
**Inj. Vol:** 1 uL

**Sample Type:** Laboratory Control Sample
**Matrix:** SOIL
**Analysis Date:** 02/05/2010 09:02
**Dilution:** 1
**Prep Batch ID:** 949031
**Batch ID:** 949033

| CAS No | | Parmname | Amount Added ug/kg | Sample Conc. ug/kg | Spike Conc. ug/kg | Recovery % | Acceptance Limits |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | LCS | Aroclor-1016 | 33.3 | 0.0 | 20.2 | 61 | 39-102 |
| 11096-82-5 | LCS | Aroclor-1260 | 33.3 | 0.0 | 23.7 | 71 | 45-118 |

PCB

## Quality Control Summary
## Spike Recovery Report

**SDG Number:** 10-1512
**Client ID:** LCS for batch 950897
**Lab Sample ID:** 1202037814
**Instrument:** ECD1A.I
**Analyst:** YS1
**Inj. Vol:** 1 uL

**Sample Type:** Laboratory Control Sample
**Matrix:** SOIL
**Analysis Date:** 02/10/2010 15:48
**Dilution:** 1
**Prep Batch ID:** 950897
**Batch ID:** 950898

| CAS No | | Parmname | Amount Added ug/kg | Sample Conc. ug/kg | Spike Conc. ug/kg | Recovery % | Acceptance Limits |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | LCS | Aroclor-1016 | 33.3 | 0.0 | 23.8 | 71 | 39-102 |
| 11096-82-5 | LCS | Aroclor-1260 | 33.3 | 0.0 | 26.2 | 79 | 45-118 |

PCB

## Quality Control Summary
## Spike Recovery Report

**SDG Number:** 10-1512
**Client ID:** RE15-10-7880MS
**Lab Sample ID:** 1202037815
**Instrument:** ECD1A.I
**Analyst:** YS1
**Inj. Vol:** 1 uL

**Sample Type:** Matrix Spike
**Matrix:** R
**%Moisture:** 7.5
**Analysis Date:** 02/10/2010 17:04
**Prep Batch ID:** 950897
**Batch ID:** 950898

**Dilution:** 1

| CAS No | | Parmname | Amount Added ug/kg | Sample Conc. ug/kg | | Spike Conc. ug/kg | Recovery % | Acceptance Limits |
|---|---|---|---|---|---|---|---|---|
| 12674-11-2 | MS | Aroclor-1016 | 36.0 | 0.00 | U | 24.0 | 67 | 23-119 |
| 11096-82-5 | MS | Aroclor-1260 | 36.0 | 0.00 | U | 28.0 | 78 | 28-124 |

PCB

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

| | | | |
|---|---|---|---|
| **SDG Number:** | **10–1512** | **Sample Type:** | **Matrix Spike Duplicate** |
| **Client ID:** | **RE15–10–7880MSD** | **Matrix:** | **R** |
| **Lab Sample ID:** | **1202037816** | **%Moisture:** | **7.5** |
| **Instrument:** | **ECD1A.I** | **Analysis Date:** | **02/10/2010 17:17** |
| **Analyst:** | **YS1** | **Prep Batch ID:** | **950897** |
| **Inj. Vol:** | **1 uL** | **Batch ID:** | **950898** |

**Dilution: 1**

| CAS No | Parmname | Amount Added ug/kg | Sample Conc. ug/kg | | Spike Conc. ug/kg | Recovery % | Acceptance Limits | RPD % | Acceptance Limits |
|---|---|---|---|---|---|---|---|---|---|
| 12674–11–2 | MSD Aroclor–1016 | 36.0 | 0.00 | U | 26.1 | 72 | 23–119 | 8 | 0–28 |
| 11096–82–5 | MSD Aroclor–1260 | 36.0 | 0.00 | U | 30.1 | 84 | 28–124 | 7 | 0–30 |

## Method Blank Summary



| | | | | | |
|---|---|---|---|---|---|
| SDG Number: | 10-1512 | Client: | LANL010 | Matrix: | SOIL |
| Client ID: | MB for batch 949031 | Instrument ID: | ECD1A.I_2<br>ECD1A.I_1 | Data File: | 012b1201-1.d<br>012f1201-1.d |
| Lab Sample ID: | 1202033246 | | | | |
| Column: | CLP2<br>CLP1 | Prep Date: | 02/04/2010 20:32 | Analyzed: | 02/05/10 08:52 |
| | | 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 949031 | 1202033247 | 013f1301-1.d<br>013b1301-1.d | 02/05/10 | 0902 |
| 02 RE15-10-7891 | 245969002 | 036f3601.d<br>036b3601.d | 02/05/10 | 1339 |
| 03 RE15-10-7892 | 245969003 | 037f3701.d<br>037b3701.d | 02/05/10 | 1352 |

## Method Blank Summary



| | | | | | |
|---|---|---|---|---|---|
| SDG Number: | 10-1512 | Client: | LANL010 | Matrix: | SOIL |
| Client ID: | MB for batch 950897 | Instrument ID: | ECD1A.I_2<br>ECD1A.I_1 | Data File: | 015b1501.d<br>015f1501.d |
| Lab Sample ID: | 1202037813 | | | | |
| Column: | CLP2<br>CLP1 | Prep Date: | 02/09/2010 21:07 | Analyzed: | 02/10/10 15:36 |
| | | 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 950897 | 1202037814 | 016f1601.d<br>016b1601.d | 02/10/10 | 1548 |
| 02 | RE15-10-7880 | 245969001 | 021f2101.d<br>021b2101.d | 02/10/10 | 1651 |
| 03 | RE15-10-7880MS | 1202037815 | 022f2201.d<br>022b2201.d | 02/10/10 | 1704 |
| 04 | RE15-10-7880MSD | 1202037816 | 023f2301.d<br>023b2301.d | 02/10/10 | 1717 |

SAMPLE
DATA

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | 10–1512 | **Date Collected:** | 01/27/2010 12:00 | **Matrix:** | R |
| **Lab Sample ID:** | 245969001 | **Date Received:** | 02/02/2010 09:10 | **%Moisture:** | 7.5 |
| | | **Client:** | LANL010 | **Project:** | LANL01004 |
| **Client ID:** | RE15–10–7880 | **Method:** | SW846 8082 | **SOP Ref:** | GL–OA–E–040 |
| **Batch ID:** | 950898 | **Inst:** | ECD1A.I | **Dilution:** | 1 |
| **Run Date:** | 02/10/2010 16:51 | **Analyst:** | YS1 | **Inj. Vol:** | 1 uL |
| **Prep Date:** | 02/09/2010 21:07 | **Aliquot:** | 30.01 g | **Final Volume:** | 1 mL |
| **Data File:** | 021f2101.d | **Column:** | 1 CLP1 | **Level:** | LOW |
| | 021b2101.d | | 2 CLP2 | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674–11–2 | Aroclor–1016 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11104–28–2 | Aroclor–1221 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11141–16–5 | Aroclor–1232 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 53469–21–9 | Aroclor–1242 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 12672–29–6 | Aroclor–1248 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11097–69–1 | Aroclor–1254 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11096–82–5 | Aroclor–1260 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/021f2101.d
Lab Smp Id: 245969001 Client Smp ID: RE15-10-7880
Inj Date : 10-FEB-2010 16:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969001|1|
Misc Info : |ECD82P_1S|950898|2|SVA|LANL|SOIL|RE15-10-7880|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 16-Feb-2010 08:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.01000 | Weight of sample extracted (g) |
| M | 7.50240 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.963 | 1.962 | 0.001 | 40988824 | 102.819 | 3.7 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.274 | 5.278 | -0.004 | 35117768 | 108.617 | 3.9 | 80.00- 120.00 | 100.00 |

Data File: /chem/ecd1a.i/021010b.b/021f2101.d

Date : 10-FEB-2010 16:51

Client ID: RE15-10-7880

Sample Info: |245969001|1|

Volume Injected (uL): 1.0

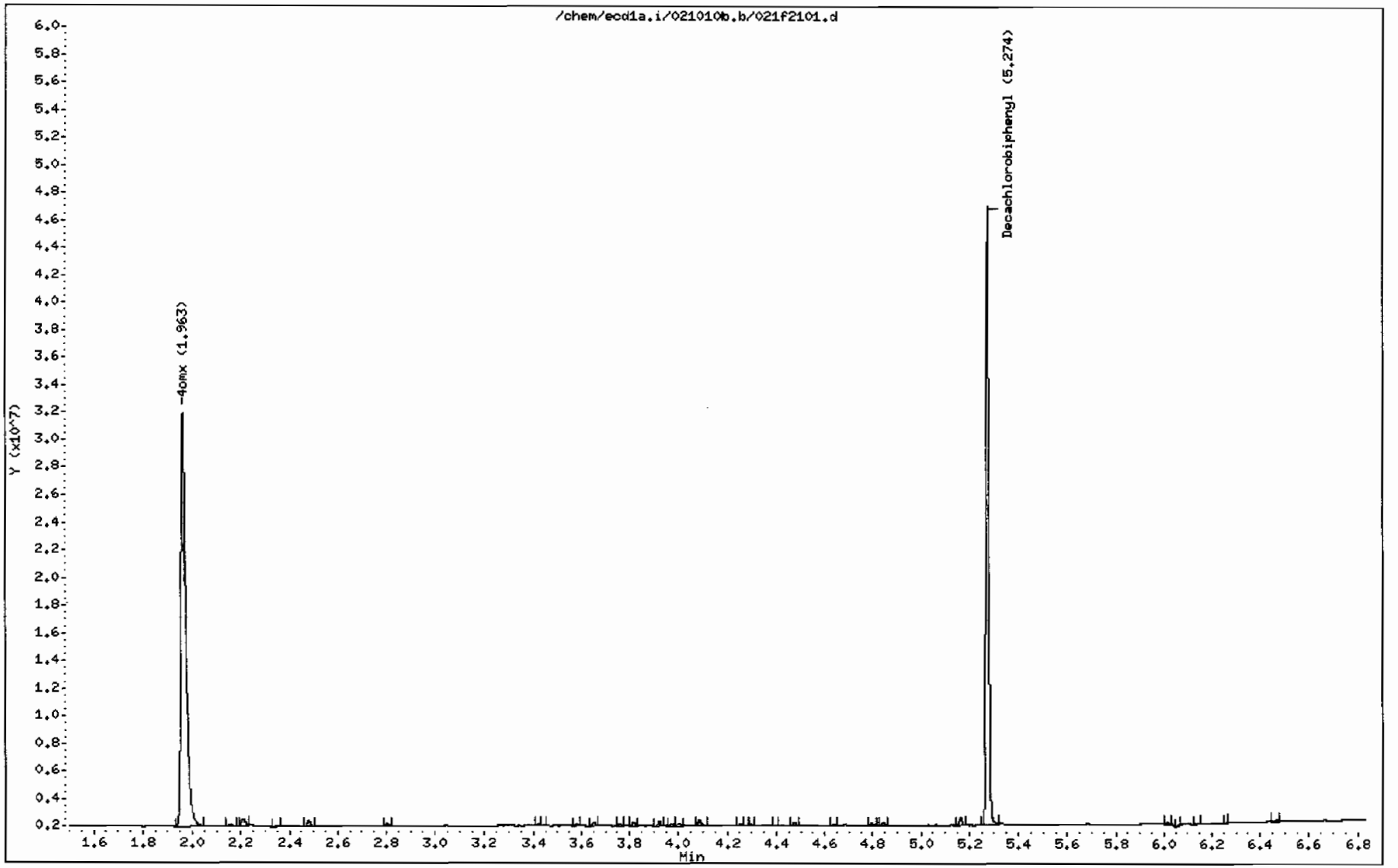
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/021b2101.d
Lab Smp Id: 245969001 Client Smp ID: RE15-10-7880
Inj Date : 10-FEB-2010 16:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969001|1|
Misc Info : |ECD82P_1S|950898|2|SVA|LANL|SOIL|RE15-10-7880|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.01000 | Weight of sample extracted (g) |
| M | 7.50240 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.295 | 2.294 | 0.001 | 26734405 | 93.0723 | 3.4 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.943 | -0.002 | 22497812 | 103.377 | 3.7 | 80.00- 120.00 | 100.00 |

Data File: /chem/ecd1a.i/021010b.b/021b2101.d

Date : 10-FEB-2010 16:51

Client ID: RE15-10-7880

Sample Info: |245969001|1|

Volume Injected (uL): 1.0

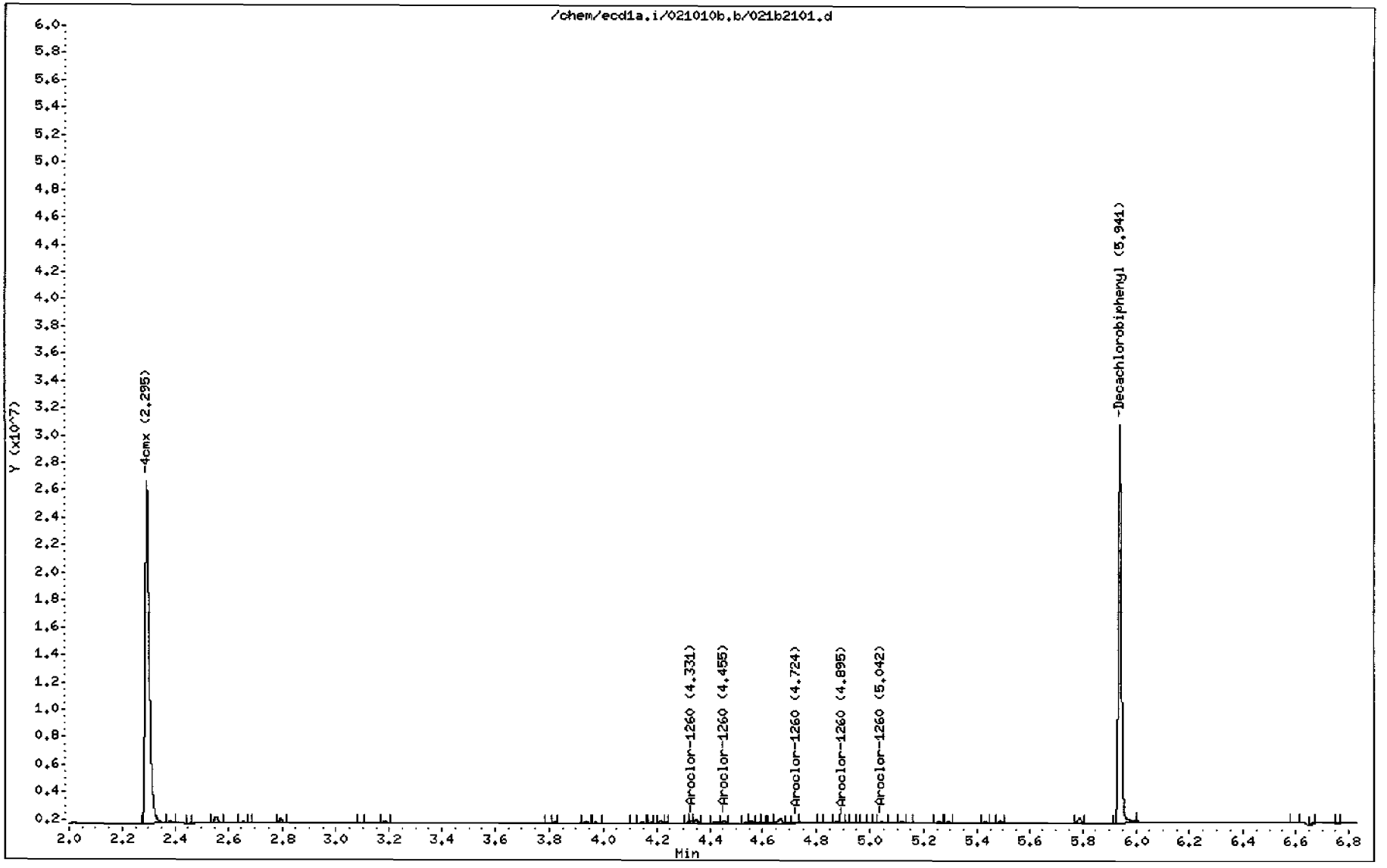
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | 10–1512 | **Date Collected:** | 01/27/2010 12:00 | **Matrix:** | R |
| **Lab Sample ID:** | 245969002 | **Date Received:** | 02/02/2010 09:10 | **%Moisture:** | 26 |
| | | **Client:** | LANL010 | **Project:** | LANL01004 |
| **Client ID:** | RE15–10–7891 | **Method:** | SW846 8082 | **SOP Ref:** | GL–OA–E–040 |
| **Batch ID:** | 949033 | **Inst:** | ECD1A.I | **Dilution:** | 1 |
| **Run Date:** | 02/05/2010 13:39 | **Analyst:** | YS1 | **Inj. Vol:** | 1 uL |
| **Prep Date:** | 02/04/2010 20:32 | **Aliquot:** | 30.21 g | **Final Volume:** | 1 mL |
| **Data File:** | 036f3601.d | **Column:** | 1 CLP1 | **Level:** | LOW |
| | 036b3601.d | | 2 CLP2 | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674–11–2 | Aroclor–1016 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11104–28–2 | Aroclor–1221 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11141–16–5 | Aroclor–1232 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 53469–21–9 | Aroclor–1242 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 12672–29–6 | Aroclor–1248 | U | 4.47 | ug/kg | 1.49 | 4.47 | 1 |
| 11097–69–1 | Aroclor–1254 | | 11.1 | ug/kg | 1.49 | 4.47 | 1 |
| 11096–82–5 | Aroclor–1260 | | 8.30 | ug/kg | 1.49 | 4.47 | 2 |
| 11100–14–4 | Aroclor–1268 | | 7.90 | ug/kg | 1.49 | 4.47 | 2 |

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/036f3601.d
Lab Smp Id: 245969002 Client Smp ID: RE15-10-7891
Inj Date : 05-FEB-2010 13:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969002|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7891|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.21000 | Weight of sample extracted (g) |
| M | 26.00050 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.965 | 1.965 | 0.000 | 57651001 | 144.616 | 6.5 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.274 | 5.275 | -0.001 | 53443236 | 165.297 | 7.4 | 80.00- 120.00 | 100.00 |
| 6 Aroclor-1254 | | | | | CAS #: 11097-69-1 | | |
| 3.264 | 3.266 | -0.002 | 2542920 | 203.670 | 9.1 | 80.00- 120.00 | 100.00 |
| 3.419 | 3.421 | -0.002 | 4071367 | 243.475 | 10.9 | 118.05- 158.05 | 160.11 |
| 3.652 | 3.655 | -0.003 | 4874285 | 235.314 | 10.5 | 160.50- 200.50 | 191.68 |
| 3.816 | 3.818 | -0.002 | 2786580 | 177.555 | 7.9 | 116.88- 156.88 | 109.58 |

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254 (continued) | | | | | | | |
| 3.923 | 3.926 | -0.003 | 5827029 | 384.052 | 17.2 | 110.22- 150.22 | 229.15 |
| Average of Peak Concentrations = | | | | | 11.1 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.760 | 3.762 | -0.002 | 3818677 | 216.521 | 9.7 | 80.00- 120.00 | 100.00 |
| 3.923 | 3.925 | -0.002 | 5827029 | 218.552 | 9.8 | 132.59- 172.59 | 152.59 |
| 4.153 | 4.155 | -0.002 | 2525856 | 158.643 | 7.1 | 71.05- 111.05 | 66.14 |
| 4.295 | 4.297 | -0.002 | 2819707 | 170.368 | 7.6 | 74.81- 114.81 | 73.84 |
| 4.475 | 4.477 | -0.002 | 3241638 | 87.2924 | 3.9 | 197.56- 237.56 | 84.89 |
| Average of Peak Concentrations = | | | | | 7.6 | | |
| 9 Aroclor-1268 | | | | | CAS #: 11100-14-4 | | |
| 4.660 | 4.663 | -0.003 | 7403225 | 141.054 | 6.3 | 80.00- 120.00 | 100.00 |
| 4.682 | 4.686 | -0.004 | 7162874 | 148.860 | 6.6 | 74.24- 114.24 | 96.75 |
| 4.796 | 4.799 | -0.003 | 5444950 | 147.051 | 6.6 | 54.84- 94.84 | 73.55 |
| 4.999 | 5.001 | -0.002 | 3070874 | 188.464 | 8.4 | 17.12- 57.12 | 41.48 |
| 5.164 | 5.167 | -0.003 | 22549297 | 208.255 | 9.3 | 228.13- 268.13 | 304.59 |
| Average of Peak Concentrations = | | | | | 7.4 | | |

Data File: /chem/ecd1a.i/020510.b/036f3601.d

Date : 05-FEB-2010 13:39

Client ID: RE15-10-7891

Sample Info: |245969002|1|

Volume Injected (uL): 1.0

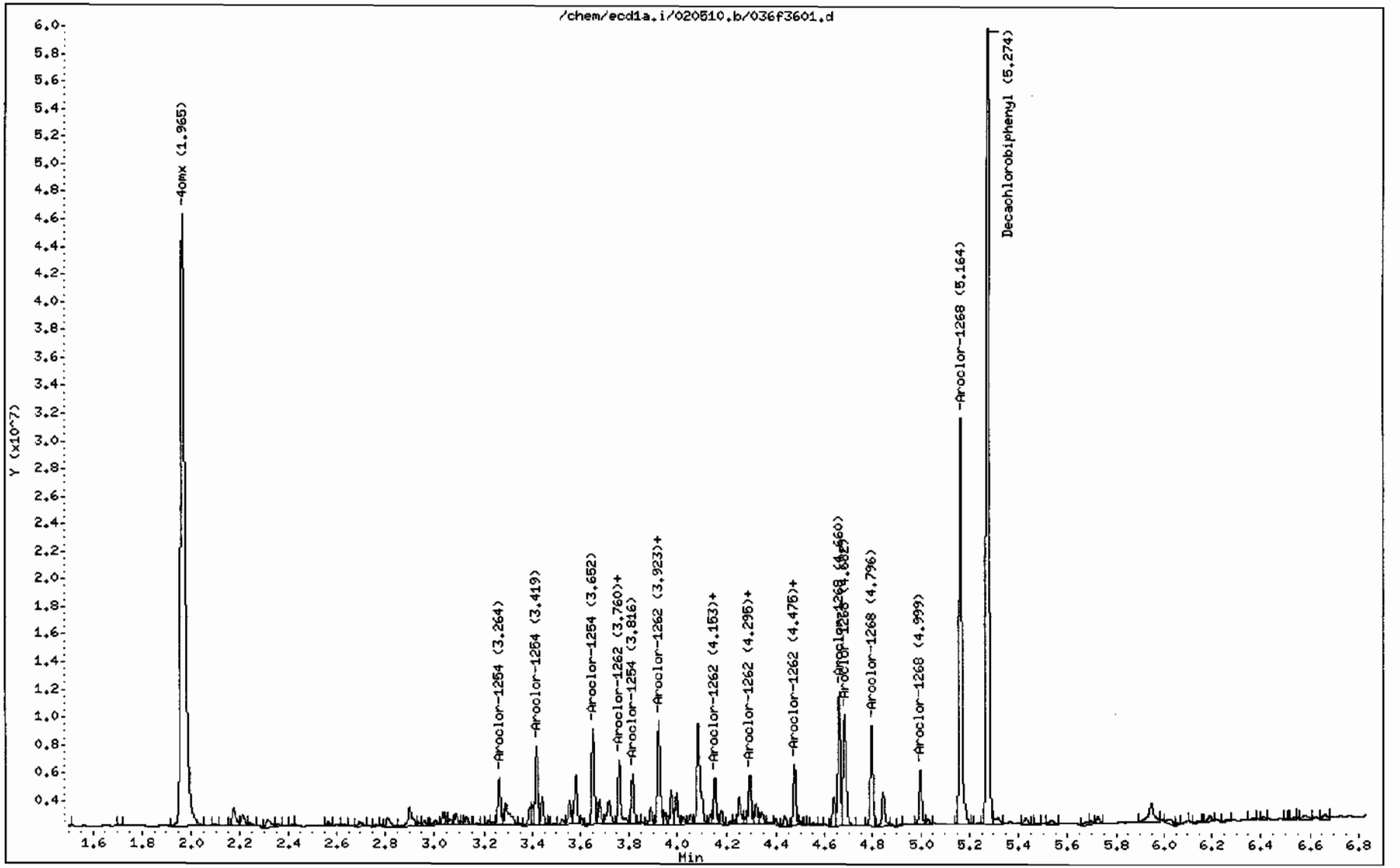
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/036b3601.d
Lab Smp Id: 245969002 Client Smp ID: RE15-10-7891
Inj Date : 05-FEB-2010 13:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969002|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7891|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.21000 | Weight of sample extracted (g) |
| M | 26.00050 | % Moisture |

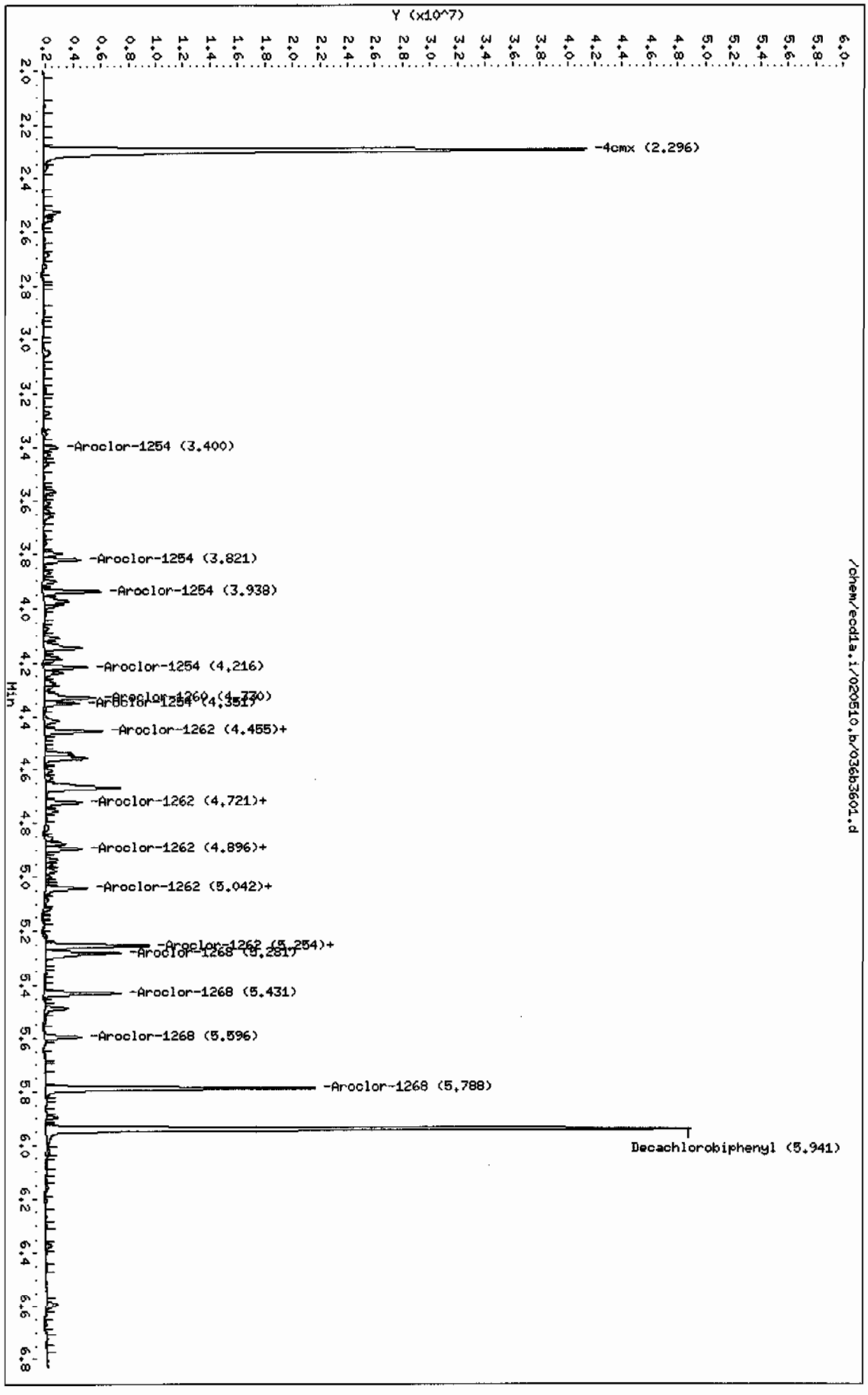
Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.296 | 2.296 | 0.000 | 40346548 | 140.461 | 6.3 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.942 | -0.001 | 36244959 | 166.545 | 7.4 | 80.00- 120.00 | 100.00 |
| 6 Aroclor-1254 | | | | | CAS #: 11097-69-1 | | |
| 3.400 | 3.401 | -0.001 | 846216 | 131.497 | 5.9 | 80.00- 120.00 | 100.00 |
| 3.821 | 3.824 | -0.003 | 2037402 | 176.256 | 7.9 | 160.72- 200.72 | 240.77 |
| 3.938 | 3.940 | -0.002 | 3078644 | 247.653 | 11.1 | 179.44- 219.44 | 363.81 |
| 4.216 | 4.216 | 0.000 | 2245310 | 133.016 | 6.0 | 255.74- 295.74 | 265.34 |

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254 (continued) | | | | | | | |
| 4.351 | 4.353 | -0.002 | 1971991 | 158.578 | 7.1 | 176.59- 216.59 | 233.04 |
| Average of Peak Concentrations = | | | | | 7.6 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.330 | 4.332 | -0.002 | 3382089 | 267.479 | 12.0 | 80.00- 120.00 | 100.00 |
| 4.455 | 4.457 | -0.002 | 3139755 | 206.290 | 9.2 | 101.42- 141.42 | 92.83 |
| 4.721 | 4.722 | -0.001 | 2175987 | 186.772 | 8.4 | 72.62- 112.62 | 64.34 |
| 4.896 | 4.896 | 0.000 | 2096555 | 173.937 | 7.8 | 76.48- 116.48 | 61.99 |
| 5.042 | 5.043 | -0.001 | 2474857 | 94.9371 | 4.2 | 194.90- 234.90 | 73.18 |
| Average of Peak Concentrations = | | | | | 8.3 | | |
| 9 Aroclor-1268 | | | | | CAS #: 11100-14-4 | | |
| 5.254 | 5.255 | -0.001 | 5934474 | 163.685 | 7.3 | 80.00- 120.00 | 100.00 |
| 5.281 | 5.283 | -0.002 | 5124554 | 152.596 | 6.8 | 75.81- 115.81 | 86.35 |
| 5.431 | 5.433 | -0.002 | 4207532 | 161.938 | 7.2 | 55.31- 95.31 | 70.90 |
| 5.596 | 5.598 | -0.002 | 2057263 | 181.310 | 8.1 | 17.23- 57.23 | 34.67 |
| 5.788 | 5.790 | -0.002 | 14836775 | 221.193 | 9.9 | 217.43- 257.43 | 250.01 |
| Average of Peak Concentrations = | | | | | 7.9 | | |

Data File: /chem/ecd1a.i/020510.b/036b3601.d
Date : 05-FEB-2010 13:39
Client ID: RE15-10-7891
Sample Info: 1245969002|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25



# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | **10-1512** | **Date Collected:** | **01/27/2010 12:00** | **Matrix:** | **R** |
| **Lab Sample ID:** | **245969003** | **Date Received:** | **02/02/2010 09:10** | **%Moisture:** | **7** |
| | | **Client:** | **LANL010** | **Project:** | **LANL01004** |
| **Client ID:** | **RE15-10-7892** | **Method:** | **SW846 8082** | **SOP Ref:** | **GL-OA-E-040** |
| **Batch ID:** | **949033** | **Inst:** | **ECD1A.I** | **Dilution:** | **1** |
| **Run Date:** | **02/05/2010 13:52** | **Analyst:** | **YS1** | **Inj. Vol:** | **1 uL** |
| **Prep Date:** | **02/04/2010 20:32** | **Aliquot:** | **30.11 g** | **Final Volume:** | **1 mL** |
| **Data File:** | **037f3701.d** | **Column:** | **1 CLP1** | **Level:** | **LOW** |
| | **037b3701.d** | | **2 CLP2** | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11104-28-2 | Aroclor-1221 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11141-16-5 | Aroclor-1232 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 53469-21-9 | Aroclor-1242 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 12672-29-6 | Aroclor-1248 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11097-69-1 | Aroclor-1254 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |
| 11096-82-5 | Aroclor-1260 | U | 3.57 | ug/kg | 1.19 | 3.57 | 1 |

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/037f3701.d
Lab Smp Id: 245969003 Client Smp ID: RE15-10-7892
Inj Date : 05-FEB-2010 13:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969003|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7892|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

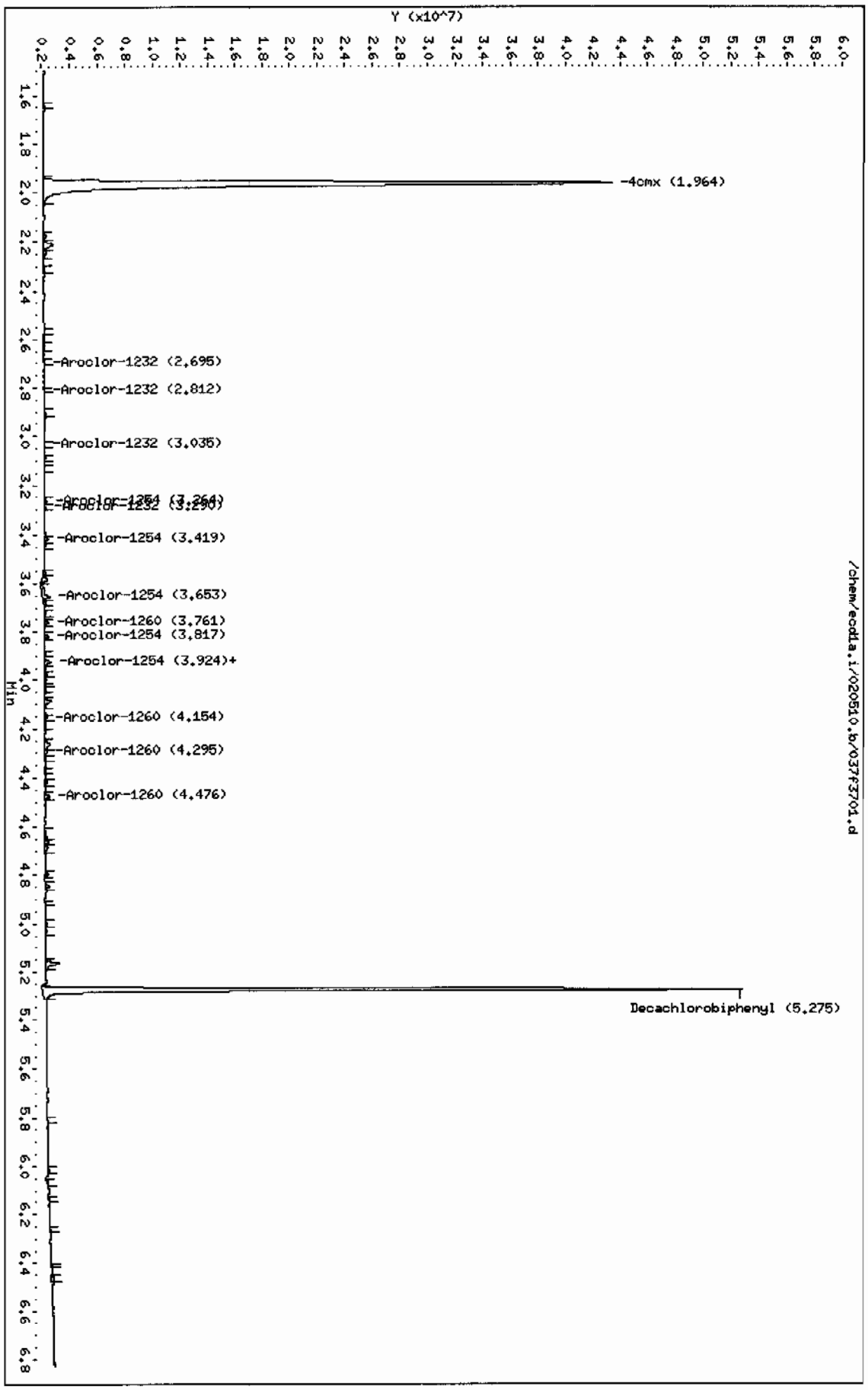
| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.11000 | Weight of sample extracted (g) |
| M | 6.96360 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.964 | 1.965 | -0.001 | 52765754 | 132.361 | 4.7 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.275 | 5.275 | 0.000 | 37800391 | 116.915 | 4.2 | 80.00- 120.00 | 100.00 |

Data File: /chem/ecdia.i/020510.b/037f3701.d
Date : 05-FEB-2010 13:52
Client ID: RE15-10-7892
Sample Info: 1245969003|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25




Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/037b3701.d
Lab Smp Id: 245969003 Client Smp ID: RE15-10-7892
Inj Date : 05-FEB-2010 13:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969003|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7892|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.11000 | Weight of sample extracted (g) |
| M | 6.96360 | % Moisture |

Cpnd Variable Local Compound Variable

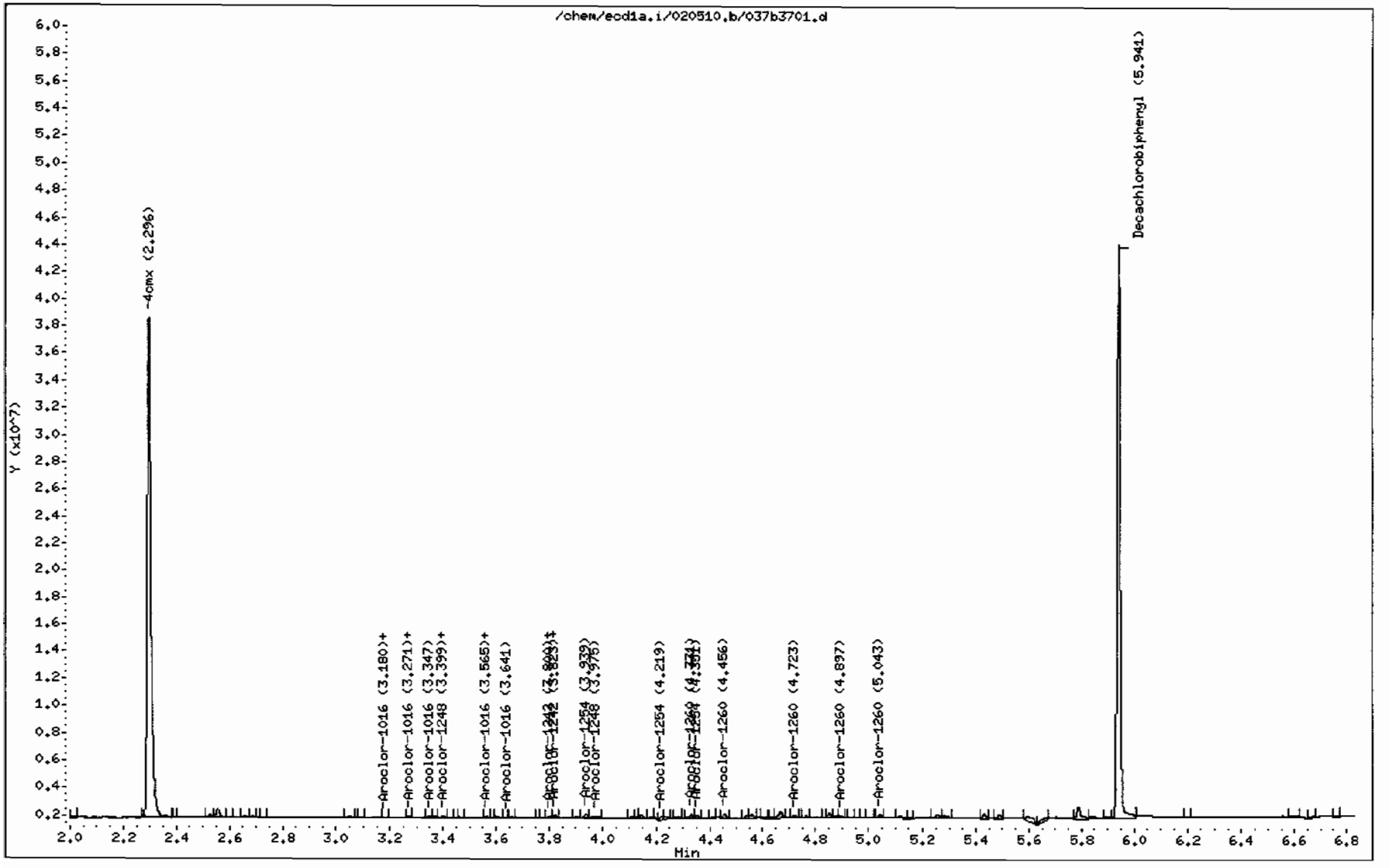
| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.296 | 2.296 | 0.000 | 37406607 | 130.226 | 4.6 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.942 | -0.001 | 32842253 | 150.910 | 5.4 | 80.00- 120.00 | 100.00 |

Data File: /chem/ecd1a.i/020510.b/037b3701.d
Date : 05-FEB-2010 13:52
Client ID: RE15-10-7892
Sample Info: |245969003|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





# STANDARDS DATA

Report Date: 08-Feb-2010 09:31

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 1 , Cal Amount: 100.00000 | | |
| 22-JAN-2010 08:01 | AR1262 | /chem/ecd1a.i/012210.b/013f1301.d |
| 22-JAN-2010 06:48 | AR1232 | /chem/ecd1a.i/012210.b/006f0601.d |
| 28-JAN-2010 12:18 | AR1268 | /chem/ecd1a.i/012810a.b/018f1801.d |
| 14-DEC-2009 09:28 | AR1248 | /chem/ecd1a.i/121409.b/028f2801.d |
| 14-DEC-2009 08:25 | AR1242 | /chem/ecd1a.i/121409.b/022f2201.d |
| 14-DEC-2009 07:22 | AR1254 | /chem/ecd1a.i/121409.b/016f1601.d |
| 29-JAN-2010 07:46 | AR1660 | /chem/ecd1a.i/012910.b/010f1001.d |
| Cal Level: 2 , Cal Amount: 250.00000 | | |
| 22-JAN-2010 08:12 | AR1262 | /chem/ecd1a.i/012210.b/014f1401.d |
| 22-JAN-2010 06:58 | AR1232 | /chem/ecd1a.i/012210.b/007f0701.d |
| 28-JAN-2010 12:29 | AR1268 | /chem/ecd1a.i/012810a.b/019f1901.d |
| 14-DEC-2009 09:38 | AR1248 | /chem/ecd1a.i/121409.b/029f2901.d |
| 14-DEC-2009 08:35 | AR1242 | /chem/ecd1a.i/121409.b/023f2301.d |
| 14-DEC-2009 07:32 | AR1254 | /chem/ecd1a.i/121409.b/017f1701.d |
| 29-JAN-2010 07:57 | AR1660 | /chem/ecd1a.i/012910.b/011f1101.d |
| Cal Level: 3 , Cal Amount: 500.00000 | | |
| 22-JAN-2010 08:22 | AR1262 | /chem/ecd1a.i/012210.b/015f1501.d |
| 22-JAN-2010 07:09 | AR1232 | /chem/ecd1a.i/012210.b/008f0801.d |
| 28-JAN-2010 12:39 | AR1268 | /chem/ecd1a.i/012810a.b/020f2001.d |
| 14-DEC-2009 09:49 | AR1248 | /chem/ecd1a.i/121409.b/030f3001.d |
| 14-DEC-2009 08:46 | AR1242 | /chem/ecd1a.i/121409.b/024f2401.d |
| 14-DEC-2009 07:43 | AR1254 | /chem/ecd1a.i/121409.b/018f1801.d |
| 29-JAN-2010 08:07 | AR1660 | /chem/ecd1a.i/012910.b/012f1201.d |
| Cal Level: 4 , Cal Amount: 1000.00000 | | |
| 14-DEC-2009 12:37 | DDTANALOGSTD | /chem/ecd1a.i/121409.b/046f4601.d |
| 14-DEC-2009 09:59 | AR1248 | /chem/ecd1a.i/121409.b/031f3101.d |
| 14-DEC-2009 08:56 | AR1242 | /chem/ecd1a.i/121409.b/025f2501.d |
| 14-DEC-2009 07:53 | AR1254 | /chem/ecd1a.i/121409.b/019f1901.d |
| 29-JAN-2010 08:18 | AR1660 | /chem/ecd1a.i/012910.b/013f1301.d |
| 28-JAN-2010 12:50 | AR1268 | /chem/ecd1a.i/012810a.b/021f2101.d |
| 22-JAN-2010 08:36 | AR1262 | /chem/ecd1a.i/012210.b/016f1601.d |
| 14-DEC-2009 05:47 | AR1221 | /chem/ecd1a.i/121409.b/007f0701.d |
| 22-JAN-2010 07:19 | AR1232 | /chem/ecd1a.i/012210.b/009f0901.d |
| Cal Level: 5 , Cal Amount: 4000.00000 | | |

| | | |
|---|---|---|
| 22-JAN-2010 08:47 | AR1262 | /chem/ecd1a.i/012210.b/017f1701.d |
| 22-JAN-2010 07:30 | AR1232 | /chem/ecd1a.i/012210.b/010f1001.d |
| 28-JAN-2010 13:00 | AR1268 | /chem/ecd1a.i/012810a.b/022f2201.d |
| 14-DEC-2009 10:10 | AR1248 | /chem/ecd1a.i/121409.b/032f3201.d |
| 14-DEC-2009 09:07 | AR1242 | /chem/ecd1a.i/121409.b/026f2601.d |
| 14-DEC-2009 08:04 | AR1254 | /chem/ecd1a.i/121409.b/020f2001.d |
| 29-JAN-2010 08:59 | AR1660 | /chem/ecd1a.i/012910.b/014f1401.d |

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| | | |
|---|---|---|
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 15:29 | AR1660 | /chem/ecd1a.i/020510.b/046f4601.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 14:05 | AR1660 | /chem/ecd1a.i/020510.b/038f3801.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 12:40 | AR1660 | /chem/ecd1a.i/020510.b/031f3101.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 10:51 | AR1660 | /chem/ecd1a.i/020510.b/022f2201.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 08:20 | AR1268 | /chem/ecd1a.i/020510.b/009f0901.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:59 | AR1221 | /chem/ecd1a.i/020510.b/007f0701.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:48 | AR1232 | /chem/ecd1a.i/020510.b/006f0601.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:38 | AR1248 | /chem/ecd1a.i/020510.b/005f0501.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:27 | AR1242 | /chem/ecd1a.i/020510.b/004f0401.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:17 | AR1254 | /chem/ecd1a.i/020510.b/003f0301.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:06 | AR1660 | /chem/ecd1a.i/020510.b/002f0201.d |

Report Date: 08-Feb-2010 09:45

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 1 , Cal Amount: 100.00000 | | |
| 22-JAN-2010 08:01 | AR1262 | /chem/ecd1a.i/012210.b/013b1301.d |
| 22-JAN-2010 06:48 | AR1232 | /chem/ecd1a.i/012210.b/006b0601.d |
| 28-JAN-2010 12:18 | AR1268 | /chem/ecd1a.i/012810a.b/018b1801.d |
| 14-DEC-2009 09:28 | AR1248 | /chem/ecd1a.i/121409.b/028b2801.d |
| 14-DEC-2009 08:25 | AR1242 | /chem/ecd1a.i/121409.b/022b2201.d |
| 14-DEC-2009 07:22 | AR1254 | /chem/ecd1a.i/121409.b/016b1601.d |
| 29-JAN-2010 07:46 | AR1660 | /chem/ecd1a.i/012910.b/010b1001.d |
| Cal Level: 2 , Cal Amount: 250.00000 | | |
| 22-JAN-2010 08:12 | AR1262 | /chem/ecd1a.i/012210.b/014b1401.d |
| 22-JAN-2010 06:58 | AR1232 | /chem/ecd1a.i/012210.b/007b0701.d |
| 28-JAN-2010 12:29 | AR1268 | /chem/ecd1a.i/012810a.b/019b1901.d |
| 14-DEC-2009 09:38 | AR1248 | /chem/ecd1a.i/121409.b/029b2901.d |
| 14-DEC-2009 08:35 | AR1242 | /chem/ecd1a.i/121409.b/023b2301.d |
| 14-DEC-2009 07:32 | AR1254 | /chem/ecd1a.i/121409.b/017b1701.d |
| 29-JAN-2010 07:57 | AR1660 | /chem/ecd1a.i/012910.b/011b1101.d |
| Cal Level: 3 , Cal Amount: 500.00000 | | |
| 22-JAN-2010 08:22 | AR1262 | /chem/ecd1a.i/012210.b/015b1501.d |
| 22-JAN-2010 07:09 | AR1232 | /chem/ecd1a.i/012210.b/008b0801.d |
| 28-JAN-2010 12:39 | AR1268 | /chem/ecd1a.i/012810a.b/020b2001.d |
| 14-DEC-2009 09:49 | AR1248 | /chem/ecd1a.i/121409.b/030b3001.d |
| 14-DEC-2009 08:46 | AR1242 | /chem/ecd1a.i/121409.b/024b2401.d |
| 14-DEC-2009 07:43 | AR1254 | /chem/ecd1a.i/121409.b/018b1801.d |
| 29-JAN-2010 08:07 | AR1660 | /chem/ecd1a.i/012910.b/012b1201.d |
| Cal Level: 4 , Cal Amount: 1000.00000 | | |
| 14-DEC-2009 12:37 | DDTANALOGSTD | /chem/ecd1a.i/121409.b/046b4601.d |
| 28-JAN-2010 12:50 | AR1268 | /chem/ecd1a.i/012810a.b/021b2101.d |
| 22-JAN-2010 08:36 | AR1262 | /chem/ecd1a.i/012210.b/016b1601.d |
| 14-DEC-2009 05:47 | AR1221 | /chem/ecd1a.i/121409.b/007b0701.d |
| 22-JAN-2010 07:19 | AR1232 | /chem/ecd1a.i/012210.b/009b0901.d |
| 14-DEC-2009 09:59 | AR1248 | /chem/ecd1a.i/121409.b/031b3101.d |
| 14-DEC-2009 08:56 | AR1242 | /chem/ecd1a.i/121409.b/025b2501.d |
| 14-DEC-2009 07:53 | AR1254 | /chem/ecd1a.i/121409.b/019b1901.d |
| 29-JAN-2010 08:18 | AR1660 | /chem/ecd1a.i/012910.b/013b1301.d |
| Cal Level: 5 , Cal Amount: 4000.00000 | | |
| 22-JAN-2010 08:47 | AR1262 | /chem/ecd1a.i/012210.b/017b1701.d |
| 22-JAN-2010 07:30 | AR1232 | /chem/ecd1a.i/012210.b/010b1001.d |
| 28-JAN-2010 13:00 | AR1268 | /chem/ecd1a.i/012810a.b/022b2201.d |
| 14-DEC-2009 10:10 | AR1248 | /chem/ecd1a.i/121409.b/032b3201.d |
| 14-DEC-2009 09:07 | AR1242 | /chem/ecd1a.i/121409.b/026b2601.d |

| | | |
|---|---|---|
| 14-DEC-2009 08:04 | AR1254 | /chem/ecd1a.i/121409.b/020b2001.d |
| 29-JAN-2010 08:59 | AR1660 | /chem/ecd1a.i/012910.b/014b1401.d |

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| | | |
|---|---|---|
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 15:29 | AR1660 | /chem/ecd1a.i/020510.b/046b4601.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 14:05 | AR1660 | /chem/ecd1a.i/020510.b/038b3801.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 12:40 | AR1660 | /chem/ecd1a.i/020510.b/031b3101.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 10:51 | AR1660 | /chem/ecd1a.i/020510.b/022b2201.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:38 | AR1248 | /chem/ecd1a.i/020510.b/005b0501.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 08:20 | AR1268 | /chem/ecd1a.i/020510.b/009b0901.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:59 | AR1221 | /chem/ecd1a.i/020510.b/007b0701.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:48 | AR1232 | /chem/ecd1a.i/020510.b/006b0601.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 08:09 | AR1262 | /chem/ecd1a.i/020510.b/008b0801.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:27 | AR1242 | /chem/ecd1a.i/020510.b/004b0401.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:17 | AR1254 | /chem/ecd1a.i/020510.b/003b0301.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 05-FEB-2010 07:06 | AR1660 | /chem/ecd1a.i/020510.b/002b0201.d |

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

| Chromat Events | Values |
|---|---|
| Initial:Start Threshold | 12031.000000 |
| Initial:End Threshold | 6015.500000 |
| Initial:Area Threshold | 15489.000000 |
| Initial:P-P Resolution | 1.000000 |
| Initial:Bunch Factor | 2.000000 |
| Initial:Negative Peaks | OFF |
| Initial:Tension | 0.500000 |

| Compound | RT | RT Window | RF |
|---|---|---|---|
| 1 Aroclor-1016 | 2.419 | 2.389-2.449 | 1.466e+04 |
| | 2.707 | 2.677-2.737 | 1.832e+04 |
| | 2.788 | 2.758-2.818 | 1.202e+04 |
| | 2.826 | 2.796-2.856 | 7.180e+03 |
| | 3.036 | 3.006-3.066 | 9.290e+03 |
| 63 4,4-DDD | 3.953 | 3.933-3.973 | 3.938e+05 |
| 64 4,4-DDE | 3.603 | 3.583-3.623 | 4.795e+05 |
| 62 4,4-DDT | 4.118 | 4.098-4.138 | 3.238e+05 |
| 2 Aroclor-1221 | 2.077 | 2.047-2.107 | 4.301e+03 |
| | 2.170 | 2.140-2.200 | 2.440e+03 |
| | 2.195 | 2.165-2.225 | 1.027e+04 |
| 3 Aroclor-1232 | 2.421 | 2.391-2.451 | 6.849e+03 |
| | 2.709 | 2.679-2.739 | 8.426e+03 |
| | 2.789 | 2.759-2.819 | 5.627e+03 |
| | 3.038 | 3.008-3.068 | 3.983e+03 |
| | 3.291 | 3.261-3.321 | 3.858e+03 |
| 4 Aroclor-1242 | 2.420 | 2.390-2.450 | 1.166e+04 |
| | 2.708 | 2.678-2.738 | 1.345e+04 |
| | 2.826 | 2.796-2.856 | 5.506e+03 |
| | 3.037 | 3.007-3.067 | 7.245e+03 |
| | 3.290 | 3.260-3.320 | 6.811e+03 |

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COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m

| Compound | RT | RT Window | RF |
|---|---|---|---|
| 5 Aroclor-1248 | 3.088 | 3.058-3.118 | 7.848e+03 |
| | 3.240 | 3.210-3.270 | 6.870e+03 |
| | 3.291 | 3.261-3.321 | 1.331e+04 |
| | 3.422 | 3.392-3.452 | 1.101e+04 |
| | 3.655 | 3.625-3.685 | 7.455e+03 |
| 6 Aroclor-1254 | 3.266 | 3.236-3.296 | 1.249e+04 |
| | 3.421 | 3.391-3.451 | 1.672e+04 |
| | 3.655 | 3.625-3.685 | 2.071e+04 |
| | 3.818 | 3.788-3.848 | 1.569e+04 |
| | 3.926 | 3.896-3.956 | 1.517e+04 |
| 7 Aroclor-1260 | 3.762 | 3.732-3.792 | 1.764e+04 |
| | 3.925 | 3.895-3.955 | 2.666e+04 |
| | 4.155 | 4.125-4.185 | 1.592e+04 |
| | 4.297 | 4.267-4.327 | 1.655e+04 |
| | 4.477 | 4.447-4.507 | 3.714e+04 |
| 8 Aroclor-1262 | 3.763 | 3.733-3.793 | 1.500e+04 |
| | 3.926 | 3.896-3.956 | 2.038e+04 |
| | 4.156 | 4.126-4.186 | 2.520e+04 |
| | 4.299 | 4.269-4.329 | 2.299e+04 |
| | 4.478 | 4.448-4.508 | 4.717e+04 |
| 9 Aroclor-1268 | 4.663 | 4.633-4.693 | 5.248e+04 |
| | 4.686 | 4.656-4.716 | 4.812e+04 |
| | 4.799 | 4.769-4.829 | 3.703e+04 |
| | 5.001 | 4.971-5.031 | 1.629e+04 |
| | 5.167 | 5.137-5.197 | 1.083e+05 |
| M 10 Aroclor-Total | 1.000 | 0.980-1.020 | |
| $ 11 4cmx | 1.965 | 1.935-1.995 | 3.986e+05 |
| $ 12 Decachlorobiphenyl | 5.275 | 5.245-5.305 | 3.233e+05 |

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COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

| Chromat Events | Values |
|---|---|
| Initial:Start Threshold | 7222.000000 |
| Initial:End Threshold | 3611.000000 |
| Initial:Area Threshold | 6833.000000 |
| Initial:P-P Resolution | 0.000000 |
| Initial:Bunch Factor | 2.000000 |
| Initial:Negative Peaks | OFF |
| Initial:Tension | 0.500000 |

| Compound | RT | RT Window | RF |
|---|---|---|---|
| 1 Aroclor-1016 | 3.192 | 3.162-3.222 | 1.248e+04 |
| | 3.275 | 3.245-3.305 | 8.547e+03 |
| | 3.339 | 3.309-3.369 | 5.291e+03 |
| | 3.565 | 3.535-3.595 | 6.814e+03 |
| | 3.641 | 3.611-3.671 | 6.405e+03 |
| 62 4,4-DDT | 4.670 | 4.650-4.690 | 2.436e+05 |
| 63 4,4-DDE | 4.139 | 4.119-4.159 | 3.580e+05 |
| 64 4,4-DDD | 4.483 | 4.463-4.503 | 2.893e+05 |
| 2 Aroclor-1221 | 2.492 | 2.462-2.522 | 3.640e+03 |
| | 2.586 | 2.556-2.616 | 2.329e+03 |
| | 2.627 | 2.597-2.657 | 8.119e+03 |
| 3 Aroclor-1232 | 2.895 | 2.865-2.925 | 5.892e+03 |
| | 3.193 | 3.163-3.223 | 6.222e+03 |
| | 3.276 | 3.246-3.306 | 4.345e+03 |
| | 3.567 | 3.537-3.597 | 3.111e+03 |
| | 3.800 | 3.770-3.830 | 3.193e+03 |
| 4 Aroclor-1242 | 3.192 | 3.162-3.222 | 1.059e+04 |
| | 3.275 | 3.245-3.305 | 8.054e+03 |
| | 3.566 | 3.536-3.596 | 5.962e+03 |
| | 3.800 | 3.770-3.830 | 6.057e+03 |
| | 3.828 | 3.798-3.858 | 6.701e+03 |

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m

| Compound | RT | RT Window | RF |
|---|---|---|---|
| 5 Aroclor-1248 | 3.401 | 3.371-3.431 | 8.054e+03 |
| | 3.566 | 3.536-3.596 | 9.874e+03 |
| | 3.800 | 3.770-3.830 | 1.122e+04 |
| | 3.827 | 3.797-3.857 | 1.248e+04 |
| | 3.965 | 3.935-3.995 | 1.210e+04 |
| 6 Aroclor-1254 | 3.401 | 3.371-3.431 | 6.435e+03 |
| | 3.824 | 3.794-3.854 | 1.156e+04 |
| | 3.940 | 3.910-3.970 | 1.243e+04 |
| | 4.216 | 4.186-4.246 | 1.688e+04 |
| | 4.353 | 4.323-4.383 | 1.244e+04 |
| 7 Aroclor-1260 | 4.332 | 4.302-4.362 | 1.264e+04 |
| | 4.457 | 4.427-4.487 | 1.522e+04 |
| | 4.722 | 4.692-4.752 | 1.165e+04 |
| | 4.896 | 4.866-4.926 | 1.205e+04 |
| | 5.043 | 5.013-5.073 | 2.607e+04 |
| 8 Aroclor-1262 | 4.457 | 4.427-4.487 | 1.356e+04 |
| | 4.723 | 4.693-4.753 | 1.889e+04 |
| | 4.897 | 4.867-4.927 | 1.747e+04 |
| | 5.044 | 5.014-5.074 | 3.453e+04 |
| | 5.257 | 5.227-5.287 | 2.487e+04 |
| 9 Aroclor-1268 | 5.255 | 5.225-5.285 | 3.626e+04 |
| | 5.283 | 5.253-5.313 | 3.358e+04 |
| | 5.433 | 5.403-5.463 | 2.598e+04 |
| | 5.598 | 5.568-5.628 | 1.135e+04 |
| | 5.790 | 5.760-5.820 | 6.708e+04 |
| M 10 Aroclor-Total | 1.000 | 0.980-1.020 | |
| $ 11 4cmx | 2.296 | 2.266-2.326 | 2.872e+05 |
| $ 12 Decachlorobiphenyl | 5.942 | 5.912-5.972 | 2.176e+05 |

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INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

| Compound | 100.000 Level 1 | 250.000 Level 2 | 500.000 Level 3 | 1000.000 Level 4 | 4000.000 Level 5 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016(1) | 17274 | 15624 | 14668 | 13618 | 12110 | 14659 | 13.365 |
| (2) | 20414 | 18506 | 18422 | 17664 | 16607 | 18323 | 7.617 |
| (3) | 13811 | 12507 | 11857 | 11466 | 10478 | 12024 | 10.320 |
| (4) | 8094 | 7393 | 7100 | 6874 | 6439 | 7180 | 8.612 |
| (5) | 10520 | 9736 | 9158 | 8813 | 8222 | 9290 | 9.475 |
| 63 4,4-DDD | +++++ | +++++ | +++++ | 393799 | +++++ | 393799 | 0.000 |
| 64 4,4-DDE | +++++ | +++++ | +++++ | 479509 | +++++ | 479509 | 0.000 |
| 62 4,4-DDT | +++++ | +++++ | +++++ | 323817 | +++++ | 323817 | 0.000 |
| 2 Aroclor-1221(1) | +++++ | +++++ | +++++ | 4301 | +++++ | 4301 | 0.000 |
| (2) | +++++ | +++++ | +++++ | 2440 | +++++ | 2440 | 0.000 |
| (3) | +++++ | +++++ | +++++ | 10272 | +++++ | 10272 | 0.000 |
| 3 Aroclor-1232(1) | 8031 | 7459 | 6765 | 6313 | 5679 | 6849 | 13.524 |
| (2) | 9246 | 8871 | 8229 | 8095 | 7686 | 8426 | 7.427 |
| (3) | 6376 | 6076 | 5599 | 5256 | 4827 | 5627 | 11.031 |
| (4) | 4642 | 4328 | 3905 | 3655 | 3384 | 3983 | 12.710 |
| (5) | 4445 | 4061 | 3757 | 3587 | 3443 | 3858 | 10.378 |
| 4 Aroclor-1242(1) | 13692 | 12467 | 11522 | 10819 | 9798 | 11660 | 12.846 |
| (2) | 14782 | 14429 | 13236 | 12555 | 12263 | 13453 | 8.301 |
| (3) | 6076 | 5890 | 5423 | 5191 | 4949 | 5506 | 8.563 |
| (4) | 8395 | 7578 | 7079 | 6747 | 6426 | 7245 | 10.645 |
| (5) | 7587 | 7189 | 6604 | 6378 | 6296 | 6811 | 8.178 |
| 5 Aroclor-1248(1) | 9070 | 8103 | 7743 | 7247 | 7078 | 7848 | 10.119 |
| (2) | 7785 | 7181 | 6827 | 6444 | 6114 | 6870 | 9.456 |
| (3) | 15108 | 13267 | 13037 | 12915 | 12225 | 13310 | 8.094 |
| (4) | 12682 | 11331 | 10815 | 10392 | 9852 | 11015 | 9.799 |
| (5) | 8605 | 7806 | 7405 | 7124 | 6336 | 7455 | 11.244 |

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

| Compound | 100.000 Level 1 | 250.000 Level 2 | 500.000 Level 3 | 1000.000 Level 4 | 4000.000 Level 5 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254(1) | 14281 | 12975 | 12313 | 11911 | 10947 | 12485 | 9.963 |
| (2) | 18803 | 17181 | 16666 | 15949 | 15010 | 16722 | 8.494 |
| (3) | 22492 | 20906 | 20786 | 20326 | 19059 | 20714 | 5.957 |
| (4) | 16753 | 15627 | 15809 | 15513 | 14770 | 15694 | 4.535 |
| (5) | 16595 | 15169 | 15433 | 15075 | 13591 | 15172 | 7.071 |
| 7 Aroclor-1260(1) | 19303 | 18084 | 17596 | 17320 | 15881 | 17637 | 7.037 |
| (2) | 28906 | 27177 | 26621 | 26372 | 24235 | 26662 | 6.298 |
| (3) | 17466 | 16264 | 15774 | 15593 | 14511 | 15922 | 6.750 |
| (4) | 17694 | 16895 | 16482 | 16357 | 15325 | 16551 | 5.206 |
| (5) | 38673 | 37803 | 37114 | 37178 | 34909 | 37135 | 3.753 |
| 8 Aroclor-1262(1) | 16796 | 15375 | 14585 | 14470 | 13775 | 15000 | 7.687 |
| (2) | 22563 | 20964 | 19865 | 19587 | 18936 | 20383 | 6.975 |
| (3) | 27641 | 25661 | 24522 | 24605 | 23554 | 25197 | 6.179 |
| (4) | 25041 | 23378 | 22465 | 22352 | 21708 | 22989 | 5.624 |
| (5) | 49563 | 47861 | 46825 | 46728 | 44852 | 47166 | 3.655 |
| 9 Aroclor-1268(1) | 55111 | 53385 | 52967 | 52495 | 48466 | 52485 | 4.676 |
| (2) | 51014 | 48609 | 47960 | 48222 | 44786 | 48118 | 4.620 |
| (3) | 39244 | 37391 | 36973 | 36968 | 34562 | 37028 | 4.505 |
| (4) | 17802 | 16531 | 16072 | 16029 | 15038 | 16294 | 6.158 |
| (5) | 113064 | 109648 | 108755 | 109096 | 100824 | 108277 | 4.162 |
| M 10 Aroclor-Total | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ 11 4cmx | 416570 | 402663 | 398822 | 398666 | 376523 | 398649 | 3.607 |
| $ 12 Decachlorobiphenyl | 349811 | 330143 | 318231 | 316573 | 301823 | 323316 | 5.537 |

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

| Compound | 100.000 Level 1 | 250.000 Level 2 | 500.000 Level 3 | 1000.000 Level 4 | 4000.000 Level 5 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016(1) | 14228 | 12876 | 12485 | 11870 | 10964 | 12485 | 9.713 |
| (2) | 10308 | 9112 | 8344 | 7935 | 7035 | 8547 | 14.474 |
| (3) | 6330 | 5599 | 5139 | 4929 | 4456 | 5291 | 13.452 |
| (4) | 8280 | 7111 | 6551 | 6409 | 5718 | 6814 | 14.062 |
| (5) | 7890 | 6662 | 6193 | 5904 | 5375 | 6405 | 14.872 |
| 62 4,4-DDT | +++++ | +++++ | +++++ | 243613 | +++++ | 243613 | 0.000 |
| 63 4,4-DDE | +++++ | +++++ | +++++ | 357996 | +++++ | 357996 | 0.000 |
| 64 4,4-DDD | +++++ | +++++ | +++++ | 289343 | +++++ | 289343 | 0.000 |
| 2 Aroclor-1221(1) | +++++ | +++++ | +++++ | 3640 | +++++ | 3640 | 0.000 |
| (2) | +++++ | +++++ | +++++ | 2329 | +++++ | 2329 | 0.000 |
| (3) | +++++ | +++++ | +++++ | 8119 | +++++ | 8119 | 0.000 |
| 3 Aroclor-1232(1) | 7405 | 6518 | 5773 | 5260 | 4504 | 5892 | 19.017 |
| (2) | 7294 | 6687 | 6058 | 5769 | 5299 | 6222 | 12.576 |
| (3) | 5336 | 4800 | 4249 | 3912 | 3427 | 4345 | 17.180 |
| (4) | 3854 | 3418 | 3039 | 2783 | 2462 | 3111 | 17.466 |
| (5) | 3940 | 3492 | 3102 | 2870 | 2562 | 3193 | 16.853 |
| 4 Aroclor-1242(1) | 12348 | 11309 | 9989 | 9755 | 9542 | 10589 | 11.338 |
| (2) | 9730 | 8628 | 7875 | 7358 | 6677 | 8054 | 14.627 |
| (3) | 7163 | 6326 | 5763 | 5452 | 5107 | 5962 | 13.534 |
| (4) | 7183 | 6468 | 5900 | 5548 | 5185 | 6057 | 12.997 |
| (5) | 7820 | 7123 | 6589 | 6229 | 5746 | 6701 | 11.977 |
| 5 Aroclor-1248(1) | 9914 | 8542 | 7972 | 7289 | 6553 | 8054 | 15.880 |
| (2) | 11996 | 10356 | 9798 | 9046 | 8173 | 9874 | 14.605 |
| (3) | 13306 | 11756 | 11119 | 10365 | 9555 | 11220 | 12.723 |
| (4) | 14720 | 13121 | 12480 | 11577 | 10516 | 12483 | 12.732 |
| (5) | 14361 | 12633 | 11977 | 11210 | 10342 | 12104 | 12.596 |

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

| Compound | 100.000 Level 1 | 250.000 Level 2 | 500.000 Level 3 | 1000.000 Level 4 | 4000.000 Level 5 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254(1) | 7857 | 6938 | 6317 | 5878 | 5185 | 6435 | 15.850 |
| (2) | 13759 | 12316 | 11389 | 10708 | 9625 | 11559 | 13.615 |
| (3) | 14674 | 13172 | 12243 | 11576 | 10492 | 12431 | 12.786 |
| (4) | 19102 | 17554 | 16808 | 16165 | 14771 | 16880 | 9.533 |
| (5) | 14276 | 12708 | 12612 | 11843 | 10739 | 12435 | 10.425 |
| 7 Aroclor-1260(1) | 14858 | 13325 | 12348 | 11932 | 10758 | 12644 | 12.198 |
| (2) | 17461 | 15979 | 14935 | 14482 | 13243 | 15220 | 10.456 |
| (3) | 13572 | 12242 | 11423 | 10976 | 10040 | 11651 | 11.471 |
| (4) | 14023 | 12666 | 11806 | 11380 | 10392 | 12054 | 11.383 |
| (5) | 28927 | 27037 | 25880 | 25311 | 23188 | 26068 | 8.140 |
| 8 Aroclor-1262(1) | 15849 | 14211 | 13033 | 12748 | 11945 | 13557 | 11.192 |
| (2) | 21776 | 19630 | 18382 | 17939 | 16725 | 18890 | 10.157 |
| (3) | 20222 | 18124 | 16968 | 16542 | 15497 | 17471 | 10.323 |
| (4) | 38743 | 35618 | 34053 | 33297 | 30946 | 34532 | 8.384 |
| (5) | 28740 | 25266 | 23755 | 23937 | 22633 | 24866 | 9.485 |
| 9 Aroclor-1268(1) | 40076 | 37508 | 36193 | 35765 | 31736 | 36256 | 8.369 |
| (2) | 36699 | 34342 | 33454 | 33223 | 30195 | 33583 | 6.968 |
| (3) | 29294 | 26633 | 25688 | 25340 | 22957 | 25982 | 8.826 |
| (4) | 12990 | 11609 | 11161 | 10996 | 9978 | 11347 | 9.656 |
| (5) | 67306 | 67058 | 67598 | 69416 | 64002 | 67076 | 2.911 |
| M 10 Aroclor-Total | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ 11 4cmx | 314910 | 295845 | 285456 | 280701 | 259306 | 287244 | 7.105 |
| $ 12 Decachlorobiphenyl | 251054 | 227132 | 210476 | 206848 | 192632 | 217628 | 10.274 |

Report Date: 11-Feb-2010 08:48

Calibration History

Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 09-FEB-2010 09:18

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 1 , Cal Amount: 100.00000 | | |
| 22-JAN-2010 08:01 | AR1262 | /chem/ecd1a.i/012210.b/013f1301.d |
| 22-JAN-2010 06:48 | AR1232 | /chem/ecd1a.i/012210.b/006f0601.d |
| 28-JAN-2010 12:18 | AR1268 | /chem/ecd1a.i/012810a.b/018f1801.d |
| 14-DEC-2009 09:28 | AR1248 | /chem/ecd1a.i/121409.b/028f2801.d |
| 14-DEC-2009 08:25 | AR1242 | /chem/ecd1a.i/121409.b/022f2201.d |
| 09-FEB-2010 08:36 | AR1254 | /chem/ecd1a.i/020910.b/011f1101.d |
| 29-JAN-2010 07:46 | AR1660 | /chem/ecd1a.i/012910.b/010f1001.d |
| Cal Level: 2 , Cal Amount: 250.00000 | | |
| 22-JAN-2010 08:12 | AR1262 | /chem/ecd1a.i/012210.b/014f1401.d |
| 22-JAN-2010 06:58 | AR1232 | /chem/ecd1a.i/012210.b/007f0701.d |
| 28-JAN-2010 12:29 | AR1268 | /chem/ecd1a.i/012810a.b/019f1901.d |
| 14-DEC-2009 09:38 | AR1248 | /chem/ecd1a.i/121409.b/029f2901.d |
| 14-DEC-2009 08:35 | AR1242 | /chem/ecd1a.i/121409.b/023f2301.d |
| 09-FEB-2010 08:47 | AR1254 | /chem/ecd1a.i/020910.b/012f1201.d |
| 29-JAN-2010 07:57 | AR1660 | /chem/ecd1a.i/012910.b/011f1101.d |
| Cal Level: 3 , Cal Amount: 500.00000 | | |
| 22-JAN-2010 08:22 | AR1262 | /chem/ecd1a.i/012210.b/015f1501.d |
| 22-JAN-2010 07:09 | AR1232 | /chem/ecd1a.i/012210.b/008f0801.d |
| 28-JAN-2010 12:39 | AR1268 | /chem/ecd1a.i/012810a.b/020f2001.d |
| 14-DEC-2009 09:49 | AR1248 | /chem/ecd1a.i/121409.b/030f3001.d |
| 14-DEC-2009 08:46 | AR1242 | /chem/ecd1a.i/121409.b/024f2401.d |
| 09-FEB-2010 08:57 | AR1254 | /chem/ecd1a.i/020910.b/013f1301.d |
| 29-JAN-2010 08:07 | AR1660 | /chem/ecd1a.i/012910.b/012f1201.d |
| Cal Level: 4 , Cal Amount: 1000.00000 | | |
| 14-DEC-2009 12:37 | DDTANALOGSTD | /chem/ecd1a.i/121409.b/046f4601.d |
| 14-DEC-2009 09:59 | AR1248 | /chem/ecd1a.i/121409.b/031f3101.d |
| 14-DEC-2009 08:56 | AR1242 | /chem/ecd1a.i/121409.b/025f2501.d |
| 09-FEB-2010 09:08 | AR1254 | /chem/ecd1a.i/020910.b/014f1401.d |
| 29-JAN-2010 08:18 | AR1660 | /chem/ecd1a.i/012910.b/013f1301.d |
| 28-JAN-2010 12:50 | AR1268 | /chem/ecd1a.i/012810a.b/021f2101.d |
| 22-JAN-2010 08:36 | AR1262 | /chem/ecd1a.i/012210.b/016f1601.d |
| 14-DEC-2009 05:47 | AR1221 | /chem/ecd1a.i/121409.b/007f0701.d |
| 22-JAN-2010 07:19 | AR1232 | /chem/ecd1a.i/012210.b/009f0901.d |
| Cal Level: 5 , Cal Amount: 4000.00000 | | |
| 22-JAN-2010 08:47 | AR1262 | /chem/ecd1a.i/012210.b/017f1701.d |
| 22-JAN-2010 07:30 | AR1232 | /chem/ecd1a.i/012210.b/010f1001.d |
| 28-JAN-2010 13:00 | AR1268 | /chem/ecd1a.i/012810a.b/022f2201.d |
| 14-DEC-2009 10:10 | AR1248 | /chem/ecd1a.i/121409.b/032f3201.d |
| 14-DEC-2009 09:07 | AR1242 | /chem/ecd1a.i/121409.b/026f2601.d |

| | | |
|---|---|---|
| 09-FEB-2010 09:18 | AR1254 | /chem/ecd1a.i/020910.b/015f1501.d |
| 29-JAN-2010 08:59 | AR1660 | /chem/ecd1a.i/012910.b/014f1401.d |

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| | | |
|---|---|---|
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 11-FEB-2010 06:46 | AR1242 | /chem/ecd1a.i/021110.b/004f0401.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 17:42 | AR1660 | /chem/ecd1a.i/021010b.b/025f2501.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 15:15 | AR1660 | /chem/ecd1a.i/021010b.b/013f1301.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:05 | AR1660 | /chem/ecd1a.i/021010b.b/002f0201.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:05 | AR1660 | /chem/ecd1a.i/021010b.b/002f0201.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 14:01 | AR1232 | /chem/ecd1a.i/021010b.b/006f0601.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 14:32 | AR1268 | /chem/ecd1a.i/021010b.b/009f0901.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 14:22 | AR1262 | /chem/ecd1a.i/021010b.b/008f0801.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 14:11 | AR1221 | /chem/ecd1a.i/021010b.b/007f0701.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:37 | AR1248 | /chem/ecd1a.i/021010b.b/005f0501.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:27 | AR1242 | /chem/ecd1a.i/021010b.b/004f0401.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:16 | AR1254 | /chem/ecd1a.i/021010b.b/003f0301.d |

Report Date: 11-Feb-2010 08:48

Calibration History

Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 09-FEB-2010 09:18

Initial Calibration

| Injection Date | Sublist | Calibration File |
|---|---|---|
| Cal Level: 1 , Cal Amount: 100.00000 | | |
| 22-JAN-2010 08:01 | AR1262 | /chem/ecd1a.i/012210.b/013b1301.d |
| 22-JAN-2010 06:48 | AR1232 | /chem/ecd1a.i/012210.b/006b0601.d |
| 28-JAN-2010 12:18 | AR1268 | /chem/ecd1a.i/012810a.b/018b1801.d |
| 14-DEC-2009 09:28 | AR1248 | /chem/ecd1a.i/121409.b/028b2801.d |
| 14-DEC-2009 08:25 | AR1242 | /chem/ecd1a.i/121409.b/022b2201.d |
| 09-FEB-2010 08:36 | AR1254 | /chem/ecd1a.i/020910.b/011b1101.d |
| 29-JAN-2010 07:46 | AR1660 | /chem/ecd1a.i/012910.b/010b1001.d |
| Cal Level: 2 , Cal Amount: 250.00000 | | |
| 22-JAN-2010 08:12 | AR1262 | /chem/ecd1a.i/012210.b/014b1401.d |
| 22-JAN-2010 06:58 | AR1232 | /chem/ecd1a.i/012210.b/007b0701.d |
| 28-JAN-2010 12:29 | AR1268 | /chem/ecd1a.i/012810a.b/019b1901.d |
| 14-DEC-2009 09:38 | AR1248 | /chem/ecd1a.i/121409.b/029b2901.d |
| 14-DEC-2009 08:35 | AR1242 | /chem/ecd1a.i/121409.b/023b2301.d |
| 09-FEB-2010 08:47 | AR1254 | /chem/ecd1a.i/020910.b/012b1201.d |
| 29-JAN-2010 07:57 | AR1660 | /chem/ecd1a.i/012910.b/011b1101.d |
| Cal Level: 3 , Cal Amount: 500.00000 | | |
| 22-JAN-2010 08:22 | AR1262 | /chem/ecd1a.i/012210.b/015b1501.d |
| 22-JAN-2010 07:09 | AR1232 | /chem/ecd1a.i/012210.b/008b0801.d |
| 28-JAN-2010 12:39 | AR1268 | /chem/ecd1a.i/012810a.b/020b2001.d |
| 14-DEC-2009 09:49 | AR1248 | /chem/ecd1a.i/121409.b/030b3001.d |
| 14-DEC-2009 08:46 | AR1242 | /chem/ecd1a.i/121409.b/024b2401.d |
| 09-FEB-2010 08:57 | AR1254 | /chem/ecd1a.i/020910.b/013b1301.d |
| 29-JAN-2010 08:07 | AR1660 | /chem/ecd1a.i/012910.b/012b1201.d |
| Cal Level: 4 , Cal Amount: 1000.00000 | | |
| 14-DEC-2009 12:37 | DDTANALOGSTD | /chem/ecd1a.i/121409.b/046b4601.d |
| 28-JAN-2010 12:50 | AR1268 | /chem/ecd1a.i/012810a.b/021b2101.d |
| 22-JAN-2010 08:36 | AR1262 | /chem/ecd1a.i/012210.b/016b1601.d |
| 14-DEC-2009 05:47 | AR1221 | /chem/ecd1a.i/121409.b/007b0701.d |
| 22-JAN-2010 07:19 | AR1232 | /chem/ecd1a.i/012210.b/009b0901.d |
| 14-DEC-2009 09:59 | AR1248 | /chem/ecd1a.i/121409.b/031b3101.d |
| 14-DEC-2009 08:56 | AR1242 | /chem/ecd1a.i/121409.b/025b2501.d |
| 09-FEB-2010 09:08 | AR1254 | /chem/ecd1a.i/020910.b/014b1401.d |
| 29-JAN-2010 08:18 | AR1660 | /chem/ecd1a.i/012910.b/013b1301.d |
| Cal Level: 5 , Cal Amount: 4000.00000 | | |
| 22-JAN-2010 08:47 | AR1262 | /chem/ecd1a.i/012210.b/017b1701.d |
| 22-JAN-2010 07:30 | AR1232 | /chem/ecd1a.i/012210.b/010b1001.d |
| 28-JAN-2010 13:00 | AR1268 | /chem/ecd1a.i/012810a.b/022b2201.d |
| 14-DEC-2009 10:10 | AR1248 | /chem/ecd1a.i/121409.b/032b3201.d |
| 14-DEC-2009 09:07 | AR1242 | /chem/ecd1a.i/121409.b/026b2601.d |

| | | |
|---|---|---|
| 09-FEB-2010 09:18 | AR1254 | /chem/ecd1a.i/020910.b/015b1501.d |
| 29-JAN-2010 08:59 | AR1660 | /chem/ecd1a.i/012910.b/014b1401.d |

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| | | |
|---|---|---|
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 17:42 | AR1660 | /chem/ecd1a.i/021010b.b/025b2501.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 15:15 | AR1660 | /chem/ecd1a.i/021010b.b/013b1301.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 14:32 | AR1268 | /chem/ecd1a.i/021010b.b/009b0901.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 14:22 | AR1262 | /chem/ecd1a.i/021010b.b/008b0801.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 14:11 | AR1221 | /chem/ecd1a.i/021010b.b/007b0701.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 14:01 | AR1232 | /chem/ecd1a.i/021010b.b/006b0601.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:27 | AR1242 | /chem/ecd1a.i/021010b.b/004b0401.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:37 | AR1248 | /chem/ecd1a.i/021010b.b/005b0501.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:16 | AR1254 | /chem/ecd1a.i/021010b.b/003b0301.d |
| Ccal Level: 4 , Ccal Amount: 1000 | | |
| 10-FEB-2010 13:05 | AR1660 | /chem/ecd1a.i/021010b.b/002b0201.d |

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COMPOUND LISTING

Method file : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 11-Feb-2010 07:52 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

| Chromat Events | Values |
|---|---|
| Initial:Start Threshold | 12031.000000 |
| Initial:End Threshold | 6015.500000 |
| Initial:Area Threshold | 15489.000000 |
| Initial:P-P Resolution | 1.000000 |
| Initial:Bunch Factor | 2.000000 |
| Initial:Negative Peaks | OFF |
| Initial:Tension | 0.500000 |

| Compound | RT | RT Window | RF |
|---|---|---|---|
| 1 Aroclor-1016 | 2.418 | 2.388-2.448 | 1.466e+04 |
| | 2.706 | 2.676-2.736 | 1.832e+04 |
| | 2.787 | 2.757-2.817 | 1.202e+04 |
| | 2.825 | 2.795-2.855 | 7.180e+03 |
| | 3.036 | 3.006-3.066 | 9.290e+03 |
| 63 4,4-DDD | 3.953 | 3.933-3.973 | 3.938e+05 |
| 64 4,4-DDE | 3.603 | 3.583-3.623 | 4.795e+05 |
| 62 4,4-DDT | 4.118 | 4.098-4.138 | 3.238e+05 |
| 2 Aroclor-1221 | 2.076 | 2.046-2.106 | 4.301e+03 |
| | 2.169 | 2.139-2.199 | 2.440e+03 |
| | 2.195 | 2.165-2.225 | 1.027e+04 |
| 3 Aroclor-1232 | 2.421 | 2.391-2.451 | 6.849e+03 |
| | 2.710 | 2.680-2.740 | 8.426e+03 |
| | 2.791 | 2.761-2.821 | 5.627e+03 |
| | 3.040 | 3.010-3.070 | 3.983e+03 |
| | 3.295 | 3.265-3.325 | 3.858e+03 |
| 4 Aroclor-1242 | 2.417 | 2.387-2.447 | 1.166e+04 |
| | 2.706 | 2.676-2.736 | 1.345e+04 |
| | 2.825 | 2.795-2.855 | 5.506e+03 |
| | 3.035 | 3.005-3.065 | 7.245e+03 |
| | 3.289 | 3.259-3.319 | 6.811e+03 |

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COMPOUND LISTING

Method file : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m

| Compound | RT | RT Window | RF |
|---|---|---|---|
| 5 Aroclor-1248 | 3.087 | 3.057-3.117 | 7.848e+03 |
| | 3.238 | 3.208-3.268 | 6.870e+03 |
| | 3.289 | 3.259-3.319 | 1.331e+04 |
| | 3.421 | 3.391-3.451 | 1.101e+04 |
| | 3.654 | 3.624-3.684 | 7.455e+03 |
| 6 Aroclor-1254 | 3.264 | 3.234-3.294 | 1.578e+04 |
| | 3.419 | 3.389-3.449 | 2.135e+04 |
| | 3.653 | 3.623-3.683 | 2.726e+04 |
| | 3.816 | 3.786-3.846 | 2.062e+04 |
| | 3.925 | 3.895-3.955 | 1.959e+04 |
| 7 Aroclor-1260 | 3.762 | 3.732-3.792 | 1.764e+04 |
| | 3.926 | 3.896-3.956 | 2.666e+04 |
| | 4.156 | 4.126-4.186 | 1.592e+04 |
| | 4.299 | 4.269-4.329 | 1.655e+04 |
| | 4.478 | 4.448-4.508 | 3.714e+04 |
| 8 Aroclor-1262 | 3.763 | 3.733-3.793 | 1.500e+04 |
| | 3.925 | 3.895-3.955 | 2.038e+04 |
| | 4.156 | 4.126-4.186 | 2.520e+04 |
| | 4.299 | 4.269-4.329 | 2.299e+04 |
| | 4.478 | 4.448-4.508 | 4.717e+04 |
| 9 Aroclor-1268 | 4.662 | 4.632-4.692 | 5.248e+04 |
| | 4.685 | 4.655-4.715 | 4.812e+04 |
| | 4.798 | 4.768-4.828 | 3.703e+04 |
| | 5.001 | 4.971-5.031 | 1.629e+04 |
| | 5.167 | 5.137-5.197 | 1.083e+05 |
| M 10 Aroclor-Total | 1.000 | 0.980-1.020 | |
| $ 11 4cmx | 1.962 | 1.932-1.992 | 3.986e+05 |
| $ 12 Decachlorobiphenyl | 5.278 | 5.248-5.308 | 3.233e+05 |

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COMPOUND LISTING

Method file : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 11-Feb-2010 06:54 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

| Chromat Events | Values |
|---|---|
| Initial:Start Threshold | 7222.000000 |
| Initial:End Threshold | 3611.000000 |
| Initial:Area Threshold | 6833.000000 |
| Initial:P-P Resolution | 0.000000 |
| Initial:Bunch Factor | 2.000000 |
| Initial:Negative Peaks | OFF |
| Initial:Tension | 0.500000 |

| Compound | RT | RT Window | RF |
|---|---|---|---|
| 1 Aroclor-1016 | 3.191 | 3.161-3.221 | 1.248e+04 |
| | 3.274 | 3.244-3.304 | 8.547e+03 |
| | 3.337 | 3.307-3.367 | 5.291e+03 |
| | 3.565 | 3.535-3.595 | 6.814e+03 |
| | 3.640 | 3.610-3.670 | 6.405e+03 |
| 62 4,4-DDT | 4.670 | 4.650-4.690 | 2.436e+05 |
| 63 4,4-DDE | 4.139 | 4.119-4.159 | 3.580e+05 |
| 64 4,4-DDD | 4.483 | 4.463-4.503 | 2.893e+05 |
| 2 Aroclor-1221 | 2.491 | 2.461-2.521 | 3.640e+03 |
| | 2.586 | 2.556-2.616 | 2.329e+03 |
| | 2.626 | 2.596-2.656 | 8.119e+03 |
| 3 Aroclor-1232 | 2.895 | 2.865-2.925 | 5.892e+03 |
| | 3.194 | 3.164-3.224 | 6.222e+03 |
| | 3.277 | 3.247-3.307 | 4.345e+03 |
| | 3.568 | 3.538-3.598 | 3.111e+03 |
| | 3.802 | 3.772-3.832 | 3.193e+03 |
| 4 Aroclor-1242 | 3.191 | 3.161-3.221 | 1.059e+04 |
| | 3.274 | 3.244-3.304 | 8.054e+03 |
| | 3.565 | 3.535-3.595 | 5.962e+03 |
| | 3.799 | 3.769-3.829 | 6.057e+03 |
| | 3.826 | 3.796-3.856 | 6.701e+03 |

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m

| Compound | RT | RT Window | RF |
|---|---|---|---|
| 5 Aroclor-1248 | 3.399 | 3.369-3.429 | 8.054e+03 |
| | 3.565 | 3.535-3.595 | 9.874e+03 |
| | 3.799 | 3.769-3.829 | 1.122e+04 |
| | 3.826 | 3.796-3.856 | 1.248e+04 |
| | 3.964 | 3.934-3.994 | 1.210e+04 |
| 6 Aroclor-1254 | 3.399 | 3.369-3.429 | 6.631e+03 |
| | 3.821 | 3.791-3.851 | 1.170e+04 |
| | 3.938 | 3.908-3.968 | 1.289e+04 |
| | 4.215 | 4.185-4.245 | 1.768e+04 |
| | 4.351 | 4.321-4.381 | 1.318e+04 |
| 7 Aroclor-1260 | 4.331 | 4.301-4.361 | 1.264e+04 |
| | 4.457 | 4.427-4.487 | 1.522e+04 |
| | 4.723 | 4.693-4.753 | 1.165e+04 |
| | 4.896 | 4.866-4.926 | 1.205e+04 |
| | 5.044 | 5.014-5.074 | 2.607e+04 |
| 8 Aroclor-1262 | 4.457 | 4.427-4.487 | 1.356e+04 |
| | 4.723 | 4.693-4.753 | 1.889e+04 |
| | 4.896 | 4.866-4.926 | 1.747e+04 |
| | 5.044 | 5.014-5.074 | 3.453e+04 |
| | 5.257 | 5.227-5.287 | 2.487e+04 |
| 9 Aroclor-1268 | 5.255 | 5.225-5.285 | 3.626e+04 |
| | 5.283 | 5.253-5.313 | 3.358e+04 |
| | 5.433 | 5.403-5.463 | 2.598e+04 |
| | 5.597 | 5.567-5.627 | 1.135e+04 |
| | 5.790 | 5.760-5.820 | 6.708e+04 |
| M 10 Aroclor-Total | 1.000 | 0.980-1.020 | |
| $ 11 4cmx | 2.294 | 2.264-2.324 | 2.872e+05 |
| $ 12 Decachlorobiphenyl | 5.943 | 5.913-5.973 | 2.176e+05 |

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INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 09-FEB-2010 09:18
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Cal Date : 11-Feb-2010 07:52 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

| Compound | 100.000 Level 1 | 250.000 Level 2 | 500.000 Level 3 | 1000.000 Level 4 | 4000.000 Level 5 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016(1) | 17274 | 15624 | 14668 | 13618 | 12110 | 14659 | 13.365 |
| (2) | 20414 | 18506 | 18422 | 17664 | 16607 | 18323 | 7.617 |
| (3) | 13811 | 12507 | 11857 | 11466 | 10478 | 12024 | 10.320 |
| (4) | 8094 | 7393 | 7100 | 6874 | 6439 | 7180 | 8.612 |
| (5) | 10520 | 9736 | 9158 | 8813 | 8222 | 9290 | 9.475 |
| 63 4,4-DDD | +++++ | +++++ | +++++ | 393799 | +++++ | 393799 | 0.000 |
| 64 4,4-DDE | +++++ | +++++ | +++++ | 479509 | +++++ | 479509 | 0.000 |
| 62 4,4-DDT | +++++ | +++++ | +++++ | 323817 | +++++ | 323817 | 0.000 |
| 2 Aroclor-1221(1) | +++++ | +++++ | +++++ | 4301 | +++++ | 4301 | 0.000 |
| (2) | +++++ | +++++ | +++++ | 2440 | +++++ | 2440 | 0.000 |
| (3) | +++++ | +++++ | +++++ | 10272 | +++++ | 10272 | 0.000 |
| 3 Aroclor-1232(1) | 8031 | 7459 | 6765 | 6313 | 5679 | 6849 | 13.524 |
| (2) | 9246 | 8871 | 8229 | 8095 | 7686 | 8426 | 7.427 |
| (3) | 6376 | 6076 | 5599 | 5256 | 4827 | 5627 | 11.031 |
| (4) | 4642 | 4328 | 3905 | 3655 | 3384 | 3983 | 12.710 |
| (5) | 4445 | 4061 | 3757 | 3587 | 3443 | 3858 | 10.378 |
| 4 Aroclor-1242(1) | 13692 | 12467 | 11522 | 10819 | 9798 | 11660 | 12.846 |
| (2) | 14782 | 14429 | 13236 | 12555 | 12263 | 13453 | 8.301 |
| (3) | 6076 | 5890 | 5423 | 5191 | 4949 | 5506 | 8.563 |
| (4) | 8395 | 7578 | 7079 | 6747 | 6426 | 7245 | 10.645 |
| (5) | 7587 | 7189 | 6604 | 6378 | 6296 | 6811 | 8.178 |
| 5 Aroclor-1248(1) | 9070 | 8103 | 7743 | 7247 | 7078 | 7848 | 10.119 |
| (2) | 7785 | 7181 | 6827 | 6444 | 6114 | 6870 | 9.456 |
| (3) | 15108 | 13267 | 13037 | 12915 | 12225 | 13310 | 8.094 |
| (4) | 12682 | 11331 | 10815 | 10392 | 9852 | 11015 | 9.799 |
| (5) | 8605 | 7806 | 7405 | 7124 | 6336 | 7455 | 11.244 |

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 09-FEB-2010 09:18
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Cal Date : 11-Feb-2010 07:52 yip00818
Curve Type : Average

| Compound | 100.000 Level 1 | 250.000 Level 2 | 500.000 Level 3 | 1000.000 Level 4 | 4000.000 Level 5 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254(1) | 18218 | 16468 | 15766 | 15064 | 13404 | 15784 | 11.233 |
| (2) | 24302 | 22248 | 21155 | 20648 | 18377 | 21346 | 10.182 |
| (3) | 29883 | 28006 | 27625 | 26757 | 24011 | 27256 | 7.865 |
| (4) | 22385 | 20901 | 20953 | 20353 | 18513 | 20621 | 6.778 |
| (5) | 21764 | 19914 | 20167 | 19029 | 17098 | 19594 | 8.725 |
| 7 Aroclor-1260(1) | 19303 | 18084 | 17596 | 17320 | 15881 | 17637 | 7.037 |
| (2) | 28906 | 27177 | 26621 | 26372 | 24235 | 26662 | 6.298 |
| (3) | 17466 | 16264 | 15774 | 15593 | 14511 | 15922 | 6.750 |
| (4) | 17694 | 16895 | 16482 | 16357 | 15325 | 16551 | 5.206 |
| (5) | 38673 | 37803 | 37114 | 37178 | 34909 | 37135 | 3.753 |
| 8 Aroclor-1262(1) | 16796 | 15375 | 14585 | 14470 | 13775 | 15000 | 7.687 |
| (2) | 22563 | 20964 | 19865 | 19587 | 18936 | 20383 | 6.975 |
| (3) | 27641 | 25661 | 24522 | 24605 | 23554 | 25197 | 6.179 |
| (4) | 25041 | 23378 | 22465 | 22352 | 21708 | 22989 | 5.624 |
| (5) | 49563 | 47861 | 46825 | 46728 | 44852 | 47166 | 3.655 |
| 9 Aroclor-1268(1) | 55111 | 53385 | 52967 | 52495 | 48466 | 52485 | 4.676 |
| (2) | 51014 | 48609 | 47960 | 48222 | 44786 | 48118 | 4.620 |
| (3) | 39244 | 37391 | 36973 | 36968 | 34562 | 37028 | 4.505 |
| (4) | 17802 | 16531 | 16072 | 16029 | 15038 | 16294 | 6.158 |
| (5) | 113064 | 109648 | 108755 | 109096 | 100824 | 108277 | 4.162 |
| M 10 Aroclor-Total | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ |
| $ 11 4cmx | 416570 | 402663 | 398822 | 398666 | 376523 | 398649 | 3.607 |
| $ 12 Decachlorobiphenyl | 349811 | 330143 | 318231 | 316573 | 301823 | 323316 | 5.537 |

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 09-FEB-2010 09:18
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Cal Date : 11-Feb-2010 06:54 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

| Compound | 100.000 Level 1 | 250.000 Level 2 | 500.000 Level 3 | 1000.000 Level 4 | 4000.000 Level 5 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016(1) | 14228 | 12876 | 12485 | 11870 | 10964 | 12485 | 9.713 |
| (2) | 10308 | 9112 | 8344 | 7935 | 7035 | 8547 | 14.474 |
| (3) | 6330 | 5599 | 5139 | 4929 | 4456 | 5291 | 13.452 |
| (4) | 8280 | 7111 | 6551 | 6409 | 5718 | 6814 | 14.062 |
| (5) | 7890 | 6662 | 6193 | 5904 | 5375 | 6405 | 14.872 |
| 62 4,4-DDT | +++++ | +++++ | +++++ | 243613 | +++++ | 243613 | 0.000 |
| 63 4,4-DDE | +++++ | +++++ | +++++ | 357996 | +++++ | 357996 | 0.000 |
| 64 4,4-DDD | +++++ | +++++ | +++++ | 289343 | +++++ | 289343 | 0.000 |
| 2 Aroclor-1221(1) | +++++ | +++++ | +++++ | 3640 | +++++ | 3640 | 0.000 |
| (2) | +++++ | +++++ | +++++ | 2329 | +++++ | 2329 | 0.000 |
| (3) | +++++ | +++++ | +++++ | 8119 | +++++ | 8119 | 0.000 |
| 3 Aroclor-1232(1) | 7405 | 6518 | 5773 | 5260 | 4504 | 5892 | 19.017 |
| (2) | 7294 | 6687 | 6058 | 5769 | 5299 | 6222 | 12.576 |
| (3) | 5336 | 4800 | 4249 | 3912 | 3427 | 4345 | 17.180 |
| (4) | 3854 | 3418 | 3039 | 2783 | 2462 | 3111 | 17.466 |
| (5) | 3940 | 3492 | 3102 | 2870 | 2562 | 3193 | 16.853 |
| 4 Aroclor-1242(1) | 12348 | 11309 | 9989 | 9755 | 9542 | 10589 | 11.338 |
| (2) | 9730 | 8628 | 7875 | 7358 | 6677 | 8054 | 14.627 |
| (3) | 7163 | 6326 | 5763 | 5452 | 5107 | 5962 | 13.534 |
| (4) | 7183 | 6468 | 5900 | 5548 | 5185 | 6057 | 12.997 |
| (5) | 7820 | 7123 | 6589 | 6229 | 5746 | 6701 | 11.977 |
| 5 Aroclor-1248(1) | 9914 | 8542 | 7972 | 7289 | 6553 | 8054 | 15.880 |
| (2) | 11996 | 10356 | 9798 | 9046 | 8173 | 9874 | 14.605 |
| (3) | 13306 | 11756 | 11119 | 10365 | 9555 | 11220 | 12.723 |
| (4) | 14720 | 13121 | 12480 | 11577 | 10516 | 12483 | 12.732 |
| (5) | 14361 | 12633 | 11977 | 11210 | 10342 | 12104 | 12.596 |

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 09-FEB-2010 09:18
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Cal Date : 11-Feb-2010 06:54 yip00818
Curve Type : Average

| Compound | 100.000 Level 1 | 250.000 Level 2 | 500.000 Level 3 | 1000.000 Level 4 | 4000.000 Level 5 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254(1) | 8119 | 7134 | 6511 | 6102 | 5288 | 6631 | 16.115 |
| (2) | 13835 | 12411 | 11575 | 10994 | 9701 | 11703 | 13.219 |
| (3) | 15198 | 13631 | 12780 | 12111 | 10729 | 12890 | 12.960 |
| (4) | 20285 | 18437 | 17626 | 16945 | 15125 | 17683 | 10.740 |
| (5) | 15441 | 13882 | 13241 | 12228 | 11123 | 13183 | 12.432 |
| 7 Aroclor-1260(1) | 14858 | 13325 | 12348 | 11932 | 10758 | 12644 | 12.198 |
| (2) | 17461 | 15979 | 14935 | 14482 | 13243 | 15220 | 10.456 |
| (3) | 13572 | 12242 | 11423 | 10976 | 10040 | 11651 | 11.471 |
| (4) | 14023 | 12666 | 11806 | 11380 | 10392 | 12054 | 11.383 |
| (5) | 28927 | 27037 | 25880 | 25311 | 23188 | 26068 | 8.140 |
| 8 Aroclor-1262(1) | 15849 | 14211 | 13033 | 12748 | 11945 | 13557 | 11.192 |
| (2) | 21776 | 19630 | 18382 | 17939 | 16725 | 18890 | 10.157 |
| (3) | 20222 | 18124 | 16968 | 16542 | 15497 | 17471 | 10.323 |
| (4) | 38743 | 35618 | 34053 | 33297 | 30946 | 34532 | 8.384 |
| (5) | 28740 | 25266 | 23755 | 23937 | 22633 | 24866 | 9.485 |
| 9 Aroclor-1268(1) | 40076 | 37508 | 36193 | 35765 | 31736 | 36256 | 8.369 |
| (2) | 36699 | 34342 | 33454 | 33223 | 30195 | 33583 | 6.968 |
| (3) | 29294 | 26633 | 25688 | 25340 | 22957 | 25982 | 8.826 |
| (4) | 12990 | 11609 | 11161 | 10996 | 9978 | 11347 | 9.656 |
| (5) | 67306 | 67058 | 67598 | 69416 | 64002 | 67076 | 2.911 |
| M 10 Aroclor-Total | ##### | ##### | ##### | ##### | ##### | ##### | ##### |
| $ 11 4cmx | 314910 | 295845 | 285456 | 280701 | 259306 | 287244 | 7.105 |
| $ 12 Decachlorobiphenyl | 251054 | 227132 | 210476 | 206848 | 192632 | 217628 | 10.274 |

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002F0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | $\overline{RRF}$ | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 14658.821 | 12837.588 | 0.01 | -12.4 | 15.0 |
| (2) | 18322.626 | 16881.446 | 0.01 | -7.9 | 15.0 |
| (3) | 12023.655 | 10579.542 | 0.01 | -12.0 | 15.0 |
| (4) | 7180.129 | 6340.762 | 0.01 | -11.7 | 15.0 |
| (5) | 9289.783 | 8310.417 | 0.01 | -10.5 | 15.0 |
| Aroclor-1260 | 17636.550 | 17492.483 | 0.01 | -0.8 | 15.0 |
| (2) | 26662.025 | 26719.248 | 0.01 | 0.2 | 15.0 |
| (3) | 15921.638 | 15874.558 | 0.01 | -0.3 | 15.0 |
| (4) | 16550.665 | 16698.516 | 0.01 | 0.9 | 15.0 |
| (5) | 37135.384 | 38229.555 | 0.01 | 2.9 | 15.0 |
| 4cmx | 398648.98 | 371361.76 | 0.01 | -6.8 | 15.0 |
| Decachlorobiphenyl | 323316.27 | 306305.72 | 0.01 | -5.3 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002B0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 12484.762 | 11513.111 | 0.01 | -7.8 | 15.0 |
| (2) | 8546.824 | 7680.091 | 0.01 | -10.1 | 15.0 |
| (3) | 5290.741 | 4732.691 | 0.01 | -10.5 | 15.0 |
| (4) | 6813.513 | 6037.895 | 0.01 | -11.4 | 15.0 |
| (5) | 6404.782 | 5752.367 | 0.01 | -10.2 | 15.0 |
| Aroclor-1260 | 12644.310 | 12622.486 | 0.01 | -0.2 | 15.0 |
| (2) | 15220.096 | 15319.189 | 0.01 | 0.6 | 15.0 |
| (3) | 11650.528 | 11665.669 | 0.01 | 0.1 | 15.0 |
| (4) | 12053.523 | 12022.139 | 0.01 | -0.3 | 15.0 |
| (5) | 26068.381 | 27036.683 | 0.01 | 3.7 | 15.0 |
| 4cmx | 287243.52 | 273128.74 | 0.01 | -4.9 | 15.0 |
| Decachlorobiphenyl | 217628.16 | 208183.20 | 0.01 | -4.3 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0717

Lab File ID: 003F0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | $\overline{RRF}$ | RRF 1000 | MIN RRF | %D | MAX %D | |
|---|---|---|---|---|---|---|
| Aroclor-1254 | 12485.476 | 13316.408 | 0.01 | 6.6 | 15.0 | |
| (2) | 16721.938 | 18383.138 | 0.01 | 9.9 | 15.0 | |
| (3) | 20713.923 | 24035.597 | 0.01 | 16.0 | 15.0 | <- |
| (4) | 15694.205 | 18227.087 | 0.01 | 16.1 | 15.0 | <- |
| (5) | 15172.491 | 17340.088 | 0.01 | 14.3 | 15.0 | |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0717

Lab File ID: 003B0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1254 | 6435.255 | 6210.292 | 0.01 | -3.5 | 15.0 |
| (2) | 11559.316 | 11223.428 | 0.01 | -2.9 | 15.0 |
| (3) | 12431.285 | 12385.662 | 0.01 | -0.4 | 15.0 |
| (4) | 16880.060 | 17124.358 | 0.01 | 1.4 | 15.0 |
| (5) | 12435.475 | 12208.508 | 0.01 | -1.8 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0820

Lab File ID: 009F0901 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1268 | 52484.978 | 48680.194 | 0.01 | -7.2 | 15.0 |
| (2) | 48118.088 | 45876.697 | 0.01 | -4.6 | 15.0 |
| (3) | 37027.541 | 36431.401 | 0.01 | -1.6 | 15.0 |
| (4) | 16294.262 | 18070.217 | 0.01 | 10.9 | 15.0 |
| (5) | 108277.36 | 120791.94 | 0.01 | 11.6 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0820

Lab File ID: 009B0901 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D | |
|---|---|---|---|---|---|---|
| Aroclor-1268 | 36255.530 | 33206.637 | 0.01 | -8.4 | 15.0 | |
| (2) | 33582.584 | 31815.832 | 0.01 | -5.3 | 15.0 | |
| (3) | 25982.381 | 25007.382 | 0.01 | -3.8 | 15.0 | |
| (4) | 11346.665 | 12362.596 | 0.01 | 9.0 | 15.0 | |
| (5) | 67076.083 | 78842.117 | 0.01 | 17.5 | 15.0 | <- |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022F2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 14658.821 | 14089.870 | 0.01 | -3.9 | 15.0 |
| (2) | 18322.626 | 18254.738 | 0.01 | -0.4 | 15.0 |
| (3) | 12023.655 | 11539.563 | 0.01 | -4.0 | 15.0 |
| (4) | 7180.129 | 6922.359 | 0.01 | -3.6 | 15.0 |
| (5) | 9289.783 | 8923.226 | 0.01 | -3.9 | 15.0 |
| Aroclor-1260 | 17636.550 | 19002.908 | 0.01 | 7.7 | 15.0 |
| (2) | 26662.025 | 28995.739 | 0.01 | 8.8 | 15.0 |
| (3) | 15921.638 | 17302.329 | 0.01 | 8.7 | 15.0 |
| (4) | 16550.665 | 18016.442 | 0.01 | 8.8 | 15.0 |
| (5) | 37135.384 | 41342.662 | 0.01 | 11.3 | 15.0 |
| 4cmx | 398648.98 | 405041.02 | 0.01 | 1.6 | 15.0 |
| Decachlorobiphenyl | 323316.27 | 329068.95 | 0.01 | 1.8 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022B2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 12484.762 | 12553.097 | 0.01 | 0.5 | 15.0 |
| (2) | 8546.824 | 8166.106 | 0.01 | -4.4 | 15.0 |
| (3) | 5290.741 | 5045.053 | 0.01 | -4.6 | 15.0 |
| (4) | 6813.513 | 6628.314 | 0.01 | -2.7 | 15.0 |
| (5) | 6404.782 | 6123.430 | 0.01 | -4.4 | 15.0 |
| Aroclor-1260 | 12644.310 | 13388.386 | 0.01 | 5.9 | 15.0 |
| (2) | 15220.096 | 16291.509 | 0.01 | 7.0 | 15.0 |
| (3) | 11650.528 | 12420.565 | 0.01 | 6.6 | 15.0 |
| (4) | 12053.523 | 12892.266 | 0.01 | 7.0 | 15.0 |
| (5) | 26068.381 | 28894.660 | 0.01 | 10.8 | 15.0 |
| 4cmx | 287243.52 | 289912.86 | 0.01 | 0.9 | 15.0 |
| Decachlorobiphenyl | 217628.16 | 222287.65 | 0.01 | 2.1 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031F3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 14658.821 | 14012.608 | 0.01 | -4.4 | 15.0 |
| (2) | 18322.626 | 18319.018 | 0.01 | -0.0 | 15.0 |
| (3) | 12023.655 | 11547.801 | 0.01 | -4.0 | 15.0 |
| (4) | 7180.129 | 6929.943 | 0.01 | -3.5 | 15.0 |
| (5) | 9289.783 | 8939.715 | 0.01 | -3.8 | 15.0 |
| Aroclor-1260 | 17636.550 | 18972.127 | 0.01 | 7.6 | 15.0 |
| (2) | 26662.025 | 28835.947 | 0.01 | 8.2 | 15.0 |
| (3) | 15921.638 | 17204.186 | 0.01 | 8.0 | 15.0 |
| (4) | 16550.665 | 18148.577 | 0.01 | 9.6 | 15.0 |
| (5) | 37135.384 | 41262.622 | 0.01 | 11.1 | 15.0 |
| 4cmx | 398648.98 | 404599.75 | 0.01 | 1.5 | 15.0 |
| Decachlorobiphenyl | 323316.27 | 326299.17 | 0.01 | 0.9 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031B3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 12484.762 | 12359.615 | 0.01 | -1.0 | 15.0 |
| (2) | 8546.824 | 8069.931 | 0.01 | -5.6 | 15.0 |
| (3) | 5290.741 | 4988.684 | 0.01 | -5.7 | 15.0 |
| (4) | 6813.513 | 6345.906 | 0.01 | -6.9 | 15.0 |
| (5) | 6404.782 | 6017.327 | 0.01 | -6.0 | 15.0 |
| Aroclor-1260 | 12644.310 | 13242.341 | 0.01 | 4.7 | 15.0 |
| (2) | 15220.096 | 16223.303 | 0.01 | 6.6 | 15.0 |
| (3) | 11650.528 | 12301.397 | 0.01 | 5.6 | 15.0 |
| (4) | 12053.523 | 12694.909 | 0.01 | 5.3 | 15.0 |
| (5) | 26068.381 | 28307.638 | 0.01 | 8.6 | 15.0 |
| 4cmx | 287243.52 | 286907.88 | 0.01 | -0.1 | 15.0 |
| Decachlorobiphenyl | 217628.16 | 219266.81 | 0.01 | 0.8 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1405

Lab File ID: 038F3801 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 14658.821 | 14172.898 | 0.01 | -3.3 | 15.0 |
| (2) | 18322.626 | 18691.498 | 0.01 | 2.0 | 15.0 |
| (3) | 12023.655 | 11643.904 | 0.01 | -3.2 | 15.0 |
| (4) | 7180.129 | 7005.692 | 0.01 | -2.4 | 15.0 |
| (5) | 9289.783 | 8940.138 | 0.01 | -3.8 | 15.0 |
| Aroclor-1260 | 17636.550 | 18974.874 | 0.01 | 7.6 | 15.0 |
| (2) | 26662.025 | 28991.130 | 0.01 | 8.7 | 15.0 |
| (3) | 15921.638 | 17263.530 | 0.01 | 8.4 | 15.0 |
| (4) | 16550.665 | 18206.068 | 0.01 | 10.0 | 15.0 |
| (5) | 37135.384 | 41419.819 | 0.01 | 11.5 | 15.0 |
| 4cmx | 398648.98 | 407669.94 | 0.01 | 2.3 | 15.0 |
| Decachlorobiphenyl | 323316.27 | 326596.68 | 0.01 | 1.0 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1405

Lab File ID: 038B3801 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 12484.762 | 12213.804 | 0.01 | -2.2 | 15.0 |
| (2) | 8546.824 | 8148.079 | 0.01 | -4.7 | 15.0 |
| (3) | 5290.741 | 5044.334 | 0.01 | -4.6 | 15.0 |
| (4) | 6813.513 | 6398.182 | 0.01 | -6.1 | 15.0 |
| (5) | 6404.782 | 5872.077 | 0.01 | -8.3 | 15.0 |
| Aroclor-1260 | 12644.310 | 13353.624 | 0.01 | 5.6 | 15.0 |
| (2) | 15220.096 | 16258.936 | 0.01 | 6.8 | 15.0 |
| (3) | 11650.528 | 12402.697 | 0.01 | 6.4 | 15.0 |
| (4) | 12053.523 | 12828.373 | 0.01 | 6.4 | 15.0 |
| (5) | 26068.381 | 28683.670 | 0.01 | 10.0 | 15.0 |
| 4cmx | 287243.52 | 288262.96 | 0.01 | 0.4 | 15.0 |
| Decachlorobiphenyl | 217628.16 | 222901.40 | 0.01 | 2.4 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1305

Lab File ID: 002F0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 14658.821 | 14776.277 | 0.01 | 0.8 | 15.0 |
| (2) | 18322.626 | 19013.408 | 0.01 | 3.8 | 15.0 |
| (3) | 12023.655 | 12098.804 | 0.01 | 0.6 | 15.0 |
| (4) | 7180.129 | 7274.798 | 0.01 | 1.3 | 15.0 |
| (5) | 9289.783 | 9316.562 | 0.01 | 0.3 | 15.0 |
| Aroclor-1260 | 17636.550 | 19413.373 | 0.01 | 10.1 | 15.0 |
| (2) | 26662.025 | 29174.461 | 0.01 | 9.4 | 15.0 |
| (3) | 15921.638 | 17296.560 | 0.01 | 8.6 | 15.0 |
| (4) | 16550.665 | 18262.385 | 0.01 | 10.3 | 15.0 |
| (5) | 37135.384 | 40605.322 | 0.01 | 9.3 | 15.0 |
| 4cmx | 398648.98 | 428397.18 | 0.01 | 7.5 | 15.0 |
| Decachlorobiphenyl | 323316.27 | 314726.32 | 0.01 | -2.6 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1305

Lab File ID: 002B0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 12484.762 | 11735.725 | 0.01 | -6.0 | 15.0 |
| (2) | 8546.824 | 7689.432 | 0.01 | -10.0 | 15.0 |
| (3) | 5290.741 | 4730.507 | 0.01 | -10.6 | 15.0 |
| (4) | 6813.513 | 6232.074 | 0.01 | -8.5 | 15.0 |
| (5) | 6404.782 | 5765.135 | 0.01 | -10.0 | 15.0 |
| Aroclor-1260 | 12644.310 | 12439.224 | 0.01 | -1.6 | 15.0 |
| (2) | 15220.096 | 15036.431 | 0.01 | -1.2 | 15.0 |
| (3) | 11650.528 | 11433.819 | 0.01 | -1.9 | 15.0 |
| (4) | 12053.523 | 11827.307 | 0.01 | -1.9 | 15.0 |
| (5) | 26068.381 | 26195.852 | 0.01 | 0.5 | 15.0 |
| 4cmx | 287243.52 | 274495.70 | 0.01 | -4.4 | 15.0 |
| Decachlorobiphenyl | 217628.16 | 198120.56 | 0.01 | -9.0 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1515

Lab File ID: 013F1301 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 14658.821 | 15595.706 | 0.01 | 6.4 | 15.0 |
| (2) | 18322.626 | 19738.894 | 0.01 | 7.7 | 15.0 |
| (3) | 12023.655 | 12462.762 | 0.01 | 3.6 | 15.0 |
| (4) | 7180.129 | 7532.736 | 0.01 | 4.9 | 15.0 |
| (5) | 9289.783 | 9639.403 | 0.01 | 3.8 | 15.0 |
| Aroclor-1260 | 17636.550 | 19867.936 | 0.01 | 12.6 | 15.0 |
| (2) | 26662.025 | 29816.672 | 0.01 | 11.8 | 15.0 |
| (3) | 15921.638 | 17778.957 | 0.01 | 11.7 | 15.0 |
| (4) | 16550.665 | 18563.902 | 0.01 | 12.2 | 15.0 |
| (5) | 37135.384 | 41518.291 | 0.01 | 11.8 | 15.0 |
| 4cmx | 398648.98 | 439389.22 | 0.01 | 10.2 | 15.0 |
| Decachlorobiphenyl | 323316.27 | 323231.43 | 0.01 | -0.0 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1515

Lab File ID: 013B1301 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 12484.762 | 12169.689 | 0.01 | -2.5 | 15.0 |
| (2) | 8546.824 | 7824.979 | 0.01 | -8.4 | 15.0 |
| (3) | 5290.741 | 4842.342 | 0.01 | -8.5 | 15.0 |
| (4) | 6813.513 | 6075.793 | 0.01 | -10.8 | 15.0 |
| (5) | 6404.782 | 5779.567 | 0.01 | -9.8 | 15.0 |
| Aroclor-1260 | 12644.310 | 12584.029 | 0.01 | -0.5 | 15.0 |
| (2) | 15220.096 | 15266.696 | 0.01 | 0.3 | 15.0 |
| (3) | 11650.528 | 11631.343 | 0.01 | -0.2 | 15.0 |
| (4) | 12053.523 | 12041.627 | 0.01 | -0.1 | 15.0 |
| (5) | 26068.381 | 26770.404 | 0.01 | 2.7 | 15.0 |
| 4cmx | 287243.52 | 279677.92 | 0.01 | -2.6 | 15.0 |
| Decachlorobiphenyl | 217628.16 | 201352.01 | 0.01 | -7.5 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1742

Lab File ID: 025F2501 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

| COMPOUND | RRF | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 14658.821 | 14818.779 | 0.01 | 1.1 | 15.0 |
| (2) | 18322.626 | 20050.915 | 0.01 | 9.4 | 15.0 |
| (3) | 12023.655 | 12428.854 | 0.01 | 3.4 | 15.0 |
| (4) | 7180.129 | 7458.975 | 0.01 | 3.9 | 15.0 |
| (5) | 9289.783 | 9526.714 | 0.01 | 2.6 | 15.0 |
| Aroclor-1260 | 17636.550 | 18433.263 | 0.01 | 4.5 | 15.0 |
| (2) | 26662.025 | 27635.610 | 0.01 | 3.6 | 15.0 |
| (3) | 15921.638 | 16532.015 | 0.01 | 3.8 | 15.0 |
| (4) | 16550.665 | 17311.603 | 0.01 | 4.6 | 15.0 |
| (5) | 37135.384 | 38637.628 | 0.01 | 4.0 | 15.0 |
| 4cmx | 398648.98 | 438525.20 | 0.01 | 10.0 | 15.0 |
| Decachlorobiphenyl | 323316.27 | 321926.14 | 0.01 | -0.4 | 15.0 |

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1742

Lab File ID: 025B2501 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

| COMPOUND | $\overline{RRF}$ | RRF 1000 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Aroclor-1016 | 12484.762 | 12038.249 | 0.01 | -3.6 | 15.0 |
| (2) | 8546.824 | 7854.497 | 0.01 | -8.1 | 15.0 |
| (3) | 5290.741 | 4834.706 | 0.01 | -8.6 | 15.0 |
| (4) | 6813.513 | 6155.126 | 0.01 | -9.7 | 15.0 |
| (5) | 6404.782 | 5773.190 | 0.01 | -9.9 | 15.0 |
| Aroclor-1260 | 12644.310 | 11824.429 | 0.01 | -6.5 | 15.0 |
| (2) | 15220.096 | 14326.865 | 0.01 | -5.9 | 15.0 |
| (3) | 11650.528 | 10885.542 | 0.01 | -6.6 | 15.0 |
| (4) | 12053.523 | 11330.069 | 0.01 | -6.0 | 15.0 |
| (5) | 26068.381 | 24982.184 | 0.01 | -4.2 | 15.0 |
| 4cmx | 287243.52 | 280560.43 | 0.01 | -2.3 | 15.0 |
| Decachlorobiphenyl | 217628.16 | 205023.37 | 0.01 | -5.8 | 15.0 |

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.965 | 1.965 | 0.000 | 37136176 | 100.000 | 93.2 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.275 | 5.275 | 0.000 | 30630572 | 100.000 | 94.7 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.419 | 2.419 | 0.000 | 12837588 | 1000.00 | 876 | 80.00- 120.00 | 100.00 |
| 2.707 | 2.707 | 0.000 | 16881446 | 1000.00 | 921 | 111.50- 151.50 | 131.50 |
| 2.788 | 2.788 | 0.000 | 10579542 | 1000.00 | 880 | 62.41- 102.41 | 82.41 |
| 2.826 | 2.826 | 0.000 | 6340762 | 1000.00 | 883 | 29.39- 69.39 | 49.39 |
| 3.036 | 3.036 | 0.000 | 8310417 | 1000.00 | 894 | 44.74- 84.74 | 64.74 |
| Average of Peak Amounts = | | | | | 891 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.762 | 3.762 | 0.000 | 17492483 | 1000.00 | 992 | 80.00- 120.00 | 100.00 |
| 3.925 | 3.925 | 0.000 | 26719248 | 1000.00 | 1000 | 132.75- 172.75 | 152.75 |
| 4.155 | 4.155 | 0.000 | 15874558 | 1000.00 | 997 | 70.75- 110.75 | 90.75 |
| 4.297 | 4.297 | 0.000 | 16698516 | 1000.00 | 1010 | 75.46- 115.46 | 95.46 |
| 4.477 | 4.477 | 0.000 | 38229555 | 1000.00 | 1030 | 198.55- 238.55 | 218.55 |
| Average of Peak Amounts = | | | | | 1.01e+03 | | |

Data File: /chem/ecd1a.i/020510.b/002f0201.d

Date : 05-FEB-2010 07:06

Client ID: AR166001

Sample Info: IWAR100203-60 01

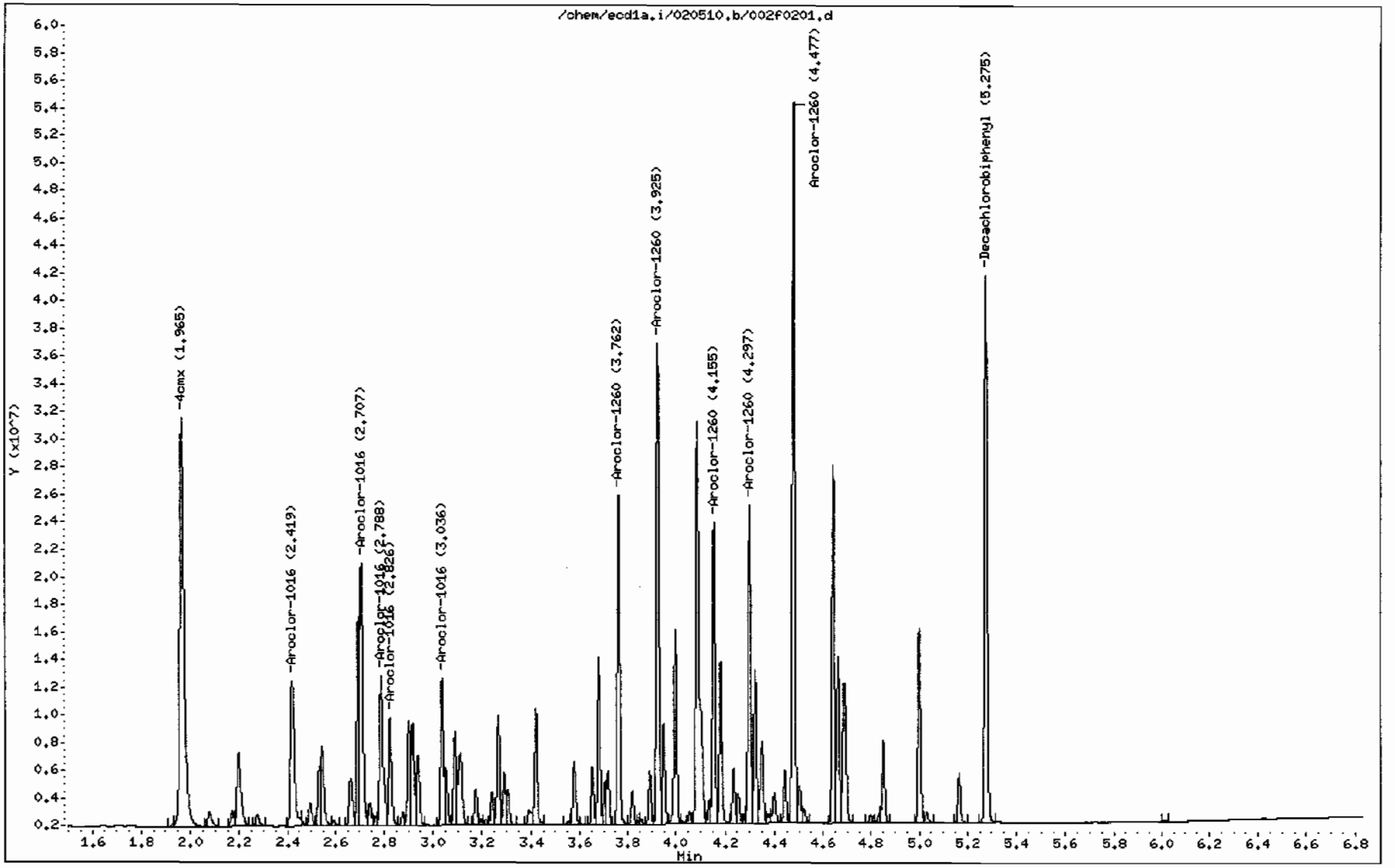
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.296 | 2.296 | 0.000 | 27312874 | 100.000 | 95.1 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.942 | 5.942 | 0.000 | 20818320 | 100.000 | 95.7 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.192 | 3.192 | 0.000 | 11513111 | 1000.00 | 922 | 80.00- 120.00 | 100.00(M) |
| 3.275 | 3.275 | 0.000 | 7680091 | 1000.00 | 898 | 46.71- 86.71 | 66.71 |
| 3.339 | 3.339 | 0.000 | 4732691 | 1000.00 | 894 | 21.11- 61.11 | 41.11 |
| 3.565 | 3.565 | 0.000 | 6037895 | 1000.00 | 886 | 32.44- 72.44 | 52.44 |
| 3.641 | 3.641 | 0.000 | 5752367 | 1000.00 | 898 | 29.96- 69.96 | 49.96 |
| Average of Peak Amounts = | | | | | 900 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.332 | 4.332 | 0.000 | 12622486 | 1000.00 | 998 | 80.00- 120.00 | 100.00 |
| 4.457 | 4.457 | 0.000 | 15319189 | 1000.00 | 1010 | 101.36- 141.36 | 121.36 |
| 4.722 | 4.722 | 0.000 | 11665669 | 1000.00 | 1000 | 72.42- 112.42 | 92.42 |
| 4.896 | 4.896 | 0.000 | 12022139 | 1000.00 | 997 | 75.24- 115.24 | 95.24 |
| 5.043 | 5.043 | 0.000 | 27036683 | 1000.00 | 1040 | 194.19- 234.19 | 214.19 |
| Average of Peak Amounts = | | | | | 1.01e+03 | | |

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/002b0201.d

Date : 05-FEB-2010 07:06

Client ID: AR166001

Sample Info: IWAR100203-60 01

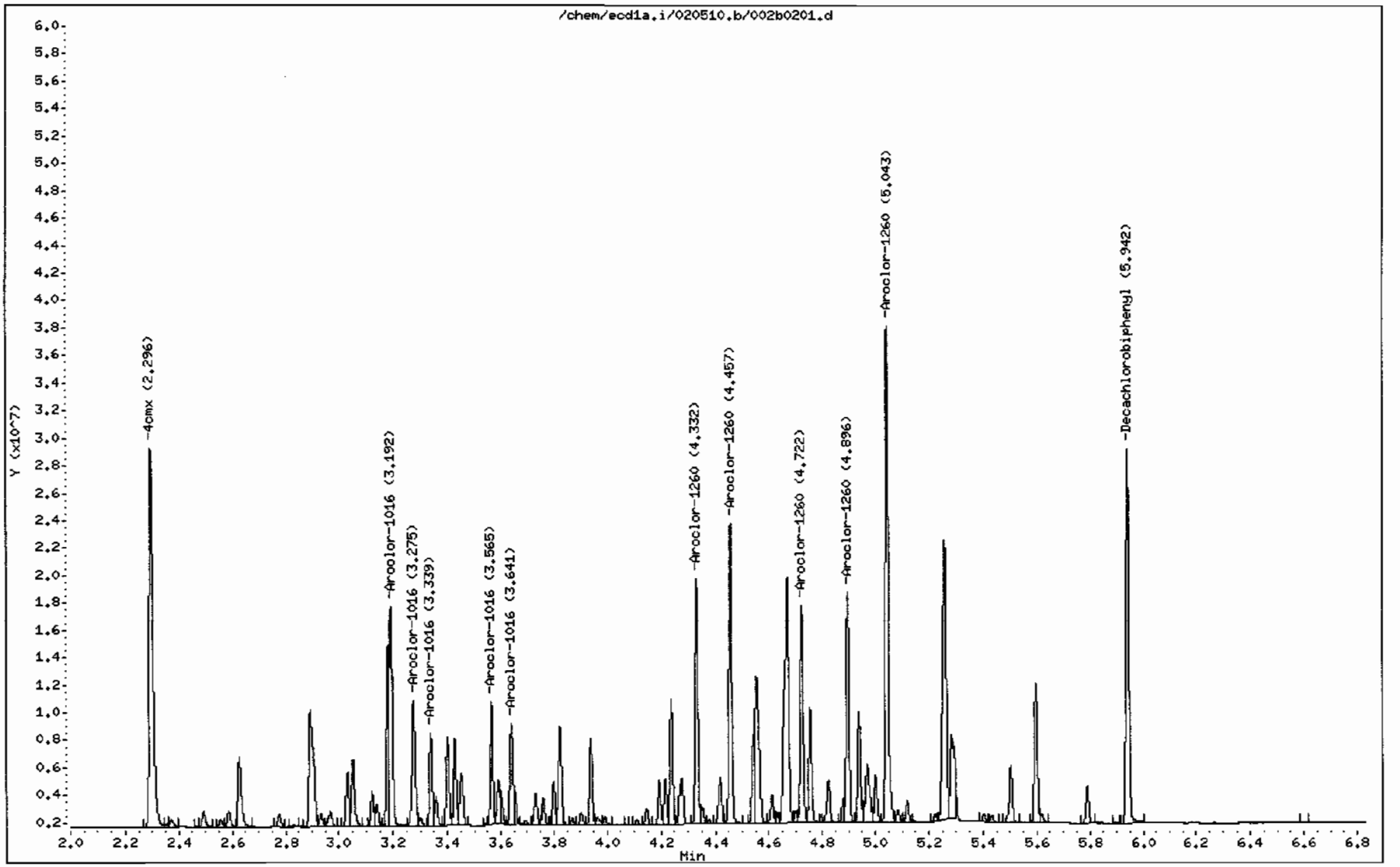
Column phase: CLP2

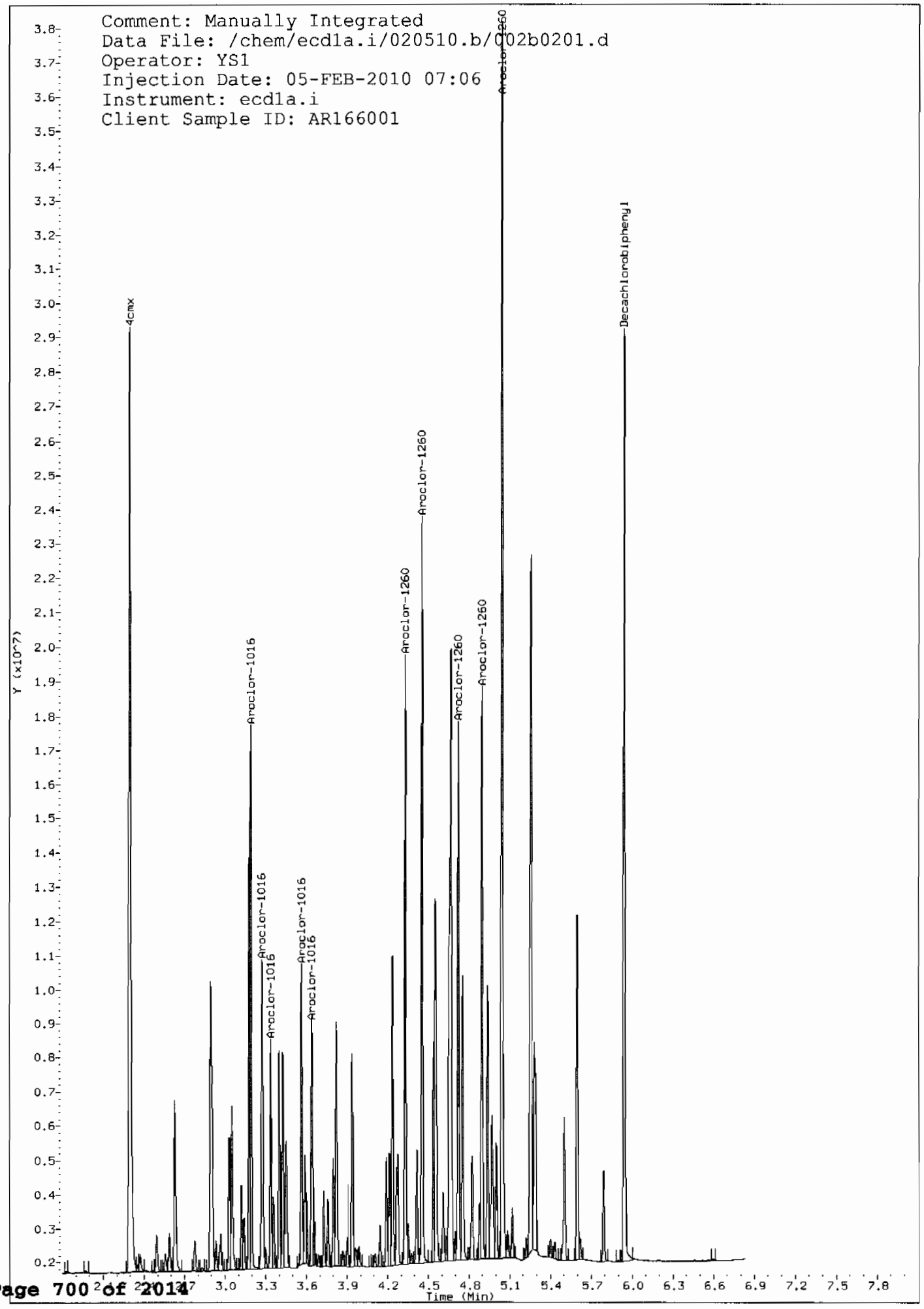
Instrument: ecd1a.i

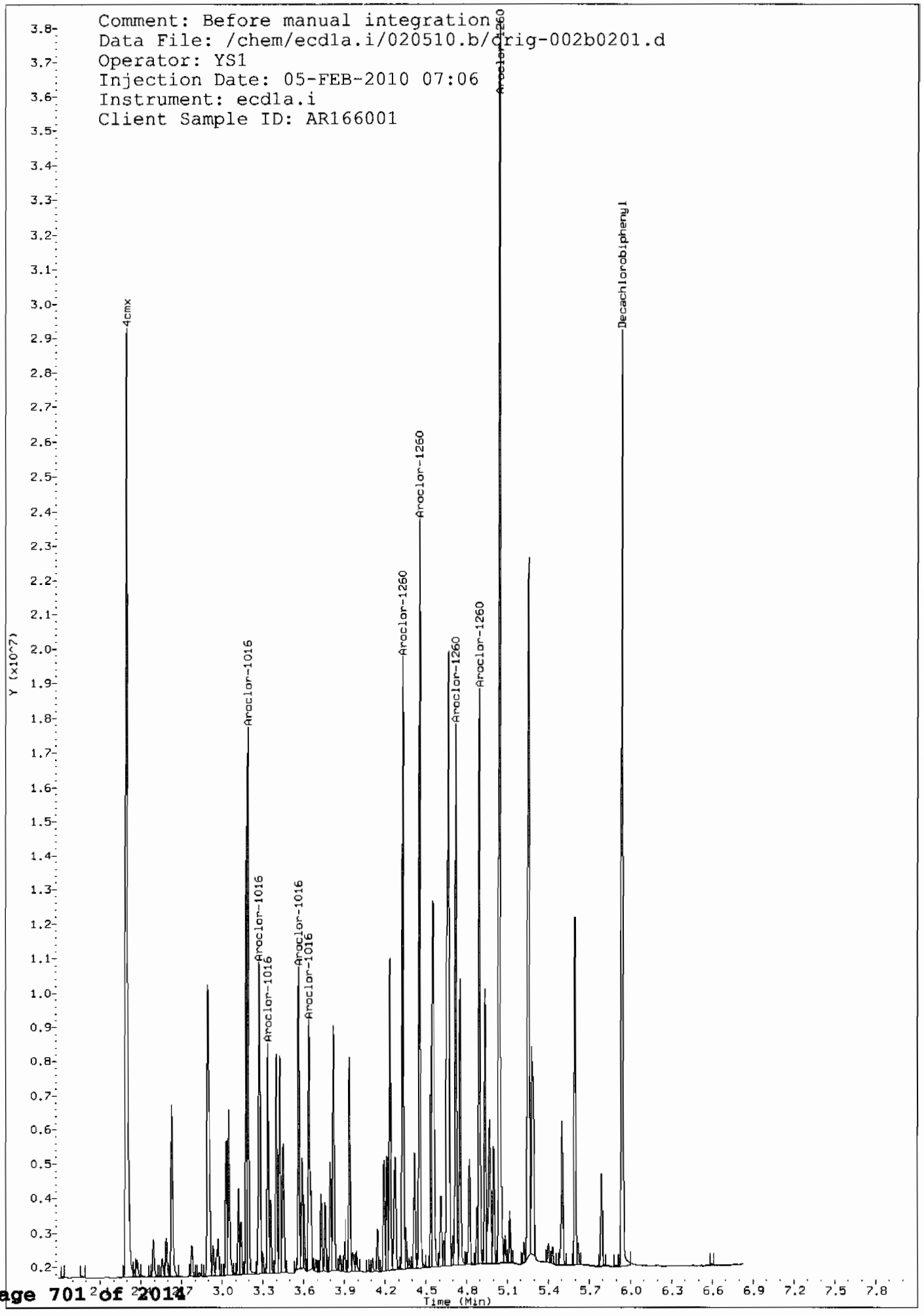
Operator: YS1

Column diameter: 0.25






Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/drig-002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254 | | | | | CAS #: 11097-69-1 | | |
| 3.266 | 3.266 | 0.000 | 13316408 | 1000.00 | 1070 | 80.00- 120.00 | 100.00 |
| 3.421 | 3.421 | 0.000 | 18383138 | 1000.00 | 1100 | 118.05- 158.05 | 138.05 |
| 3.655 | 3.655 | 0.000 | 24035597 | 1000.00 | 1160 | 160.50- 200.50 | 180.50 |
| 3.818 | 3.818 | 0.000 | 18227087 | 1000.00 | 1160 | 116.88- 156.88 | 136.88 |
| 3.926 | 3.926 | 0.000 | 17340088 | 1000.00 | 1140 | 110.22- 150.22 | 130.22 |

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/020510.b/003f0301.d

Date : 05-FEB-2010 07:17

Client ID: AR125401

Sample Info: IWAR091216-54

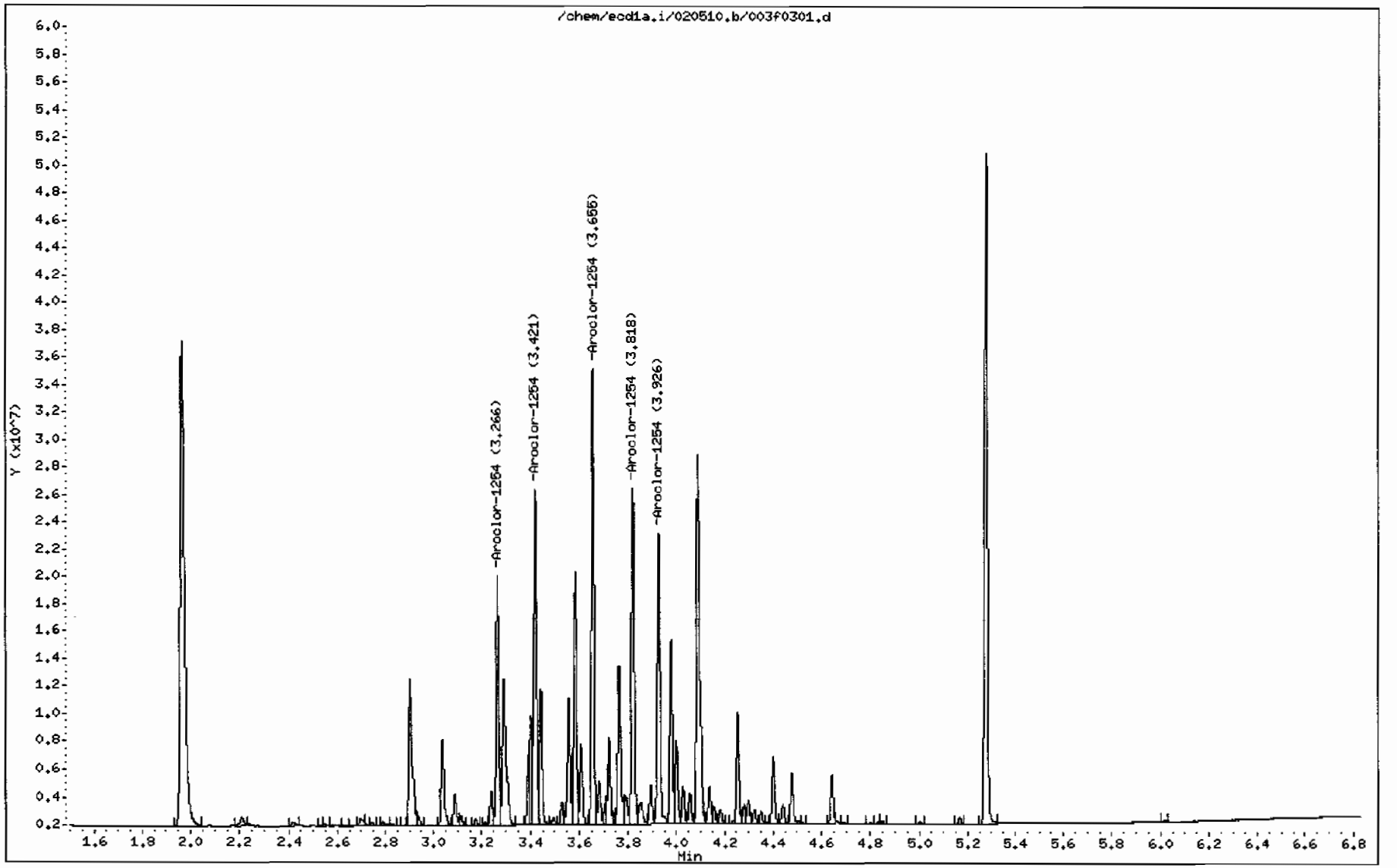
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254 | | | | | CAS #: 11097-69-1 | | |
| 3.401 | 3.401 | 0.000 | 6210292 | 1000.00 | 965 | 80.00- 120.00 | 100.00 |
| 3.824 | 3.824 | 0.000 | 11223428 | 1000.00 | 971 | 160.72- 200.72 | 180.72 |
| 3.940 | 3.940 | 0.000 | 12385662 | 1000.00 | 996 | 179.44- 219.44 | 199.44 |
| 4.216 | 4.216 | 0.000 | 17124358 | 1000.00 | 1010 | 255.74- 295.74 | 275.74 |
| 4.353 | 4.353 | 0.000 | 12208508 | 1000.00 | 982 | 176.59- 216.59 | 196.59 |
| Average of Peak Amounts = | | | | | 986 | | |

Data File: /chem/ecd1a.i/020510.b/003b0301.d

Date : 05-FEB-2010 07:17

Client ID: AR125401

Sample Info: IWAR091216-54

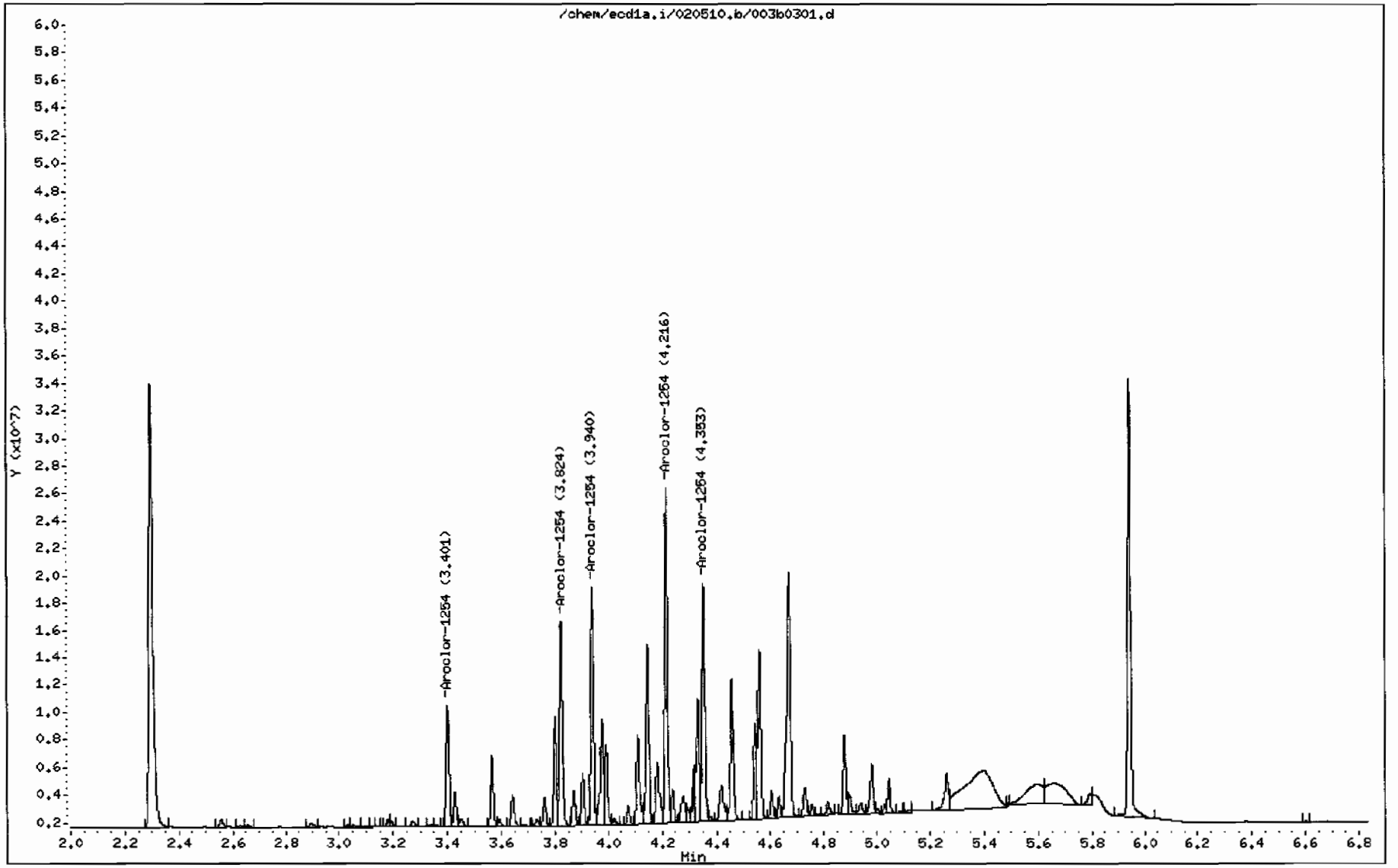
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 4 Aroclor-1242 | | | | | CAS #: 53469-21-9 | | |
| 2.420 | 2.420 | 0.000 | 11255044 | 1000.00 | 965 | 80.00- 120.00 | 100.00 |
| 2.708 | 2.708 | 0.000 | 14293317 | 1000.00 | 1060 | 106.99- 146.99 | 126.99 |
| 2.826 | 2.826 | 0.000 | 5433097 | 1000.00 | 987 | 28.27- 68.27 | 48.27 |
| 3.037 | 3.037 | 0.000 | 7156483 | 1000.00 | 988 | 43.58- 83.58 | 63.58 |
| 3.290 | 3.290 | 0.000 | 6999007 | 1000.00 | 1030 | 42.19- 82.19 | 62.19 |

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/004f0401.d

Page 1

Date : 05-FEB-2010 07:27

Client ID: AR124201

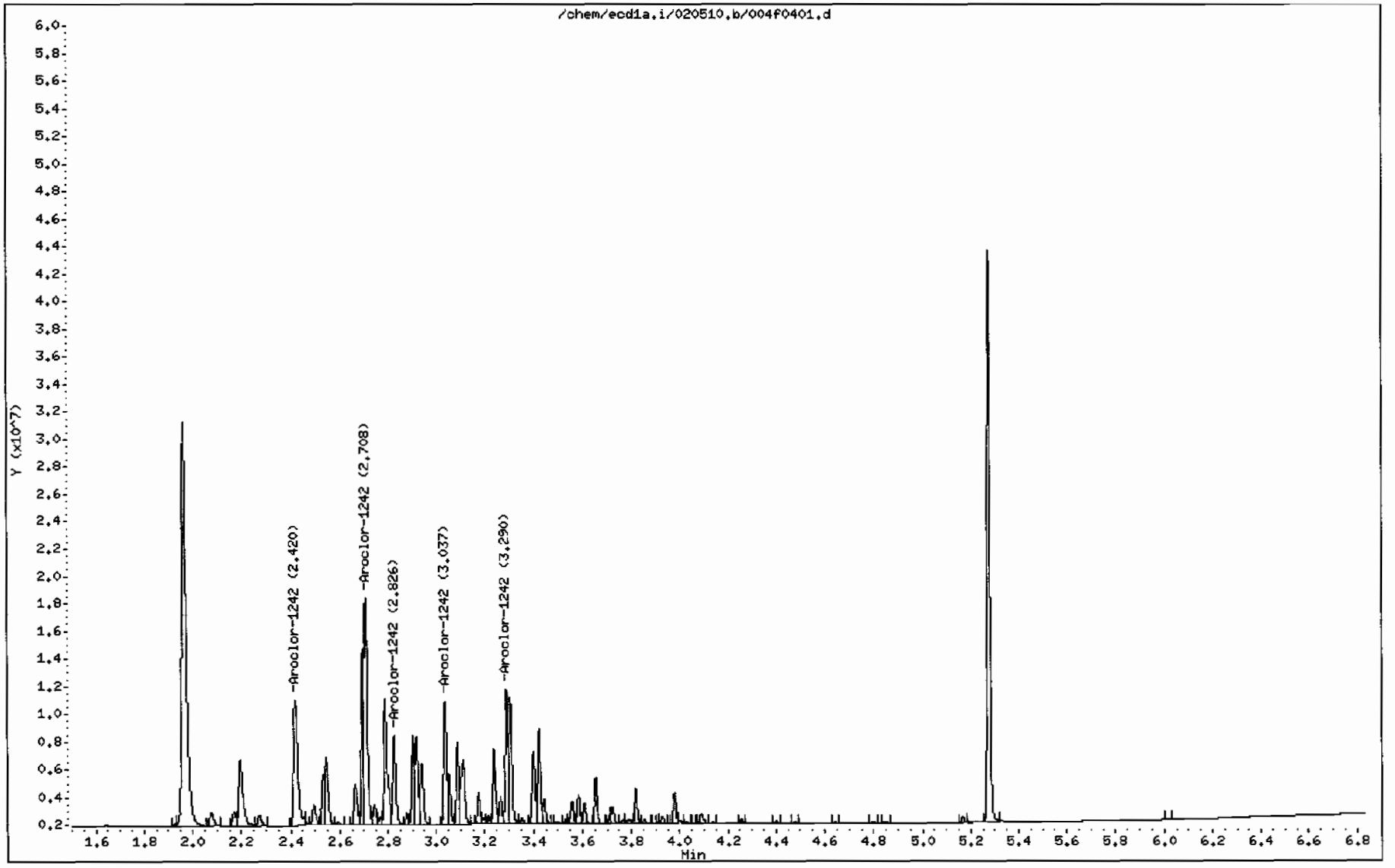
Instrument: ecd1a.i

Sample Info: IWAR091217-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 4 Aroclor-1242 | | | | | CAS #: 53469-21-9 | | |
| 3.192 | 3.192 | 0.000 | 10109273 | 1000.00 | 955 | 80.00- 120.00 | 100.00 |
| 3.275 | 3.275 | 0.000 | 6573360 | 1000.00 | 816 | 45.02- 85.02 | 65.02 |
| 3.566 | 3.566 | 0.000 | 5197092 | 1000.00 | 872 | 31.41- 71.41 | 51.41 |
| 3.800 | 3.800 | 0.000 | 5378692 | 1000.00 | 888 | 33.21- 73.21 | 53.21 |
| 3.828 | 3.828 | 0.000 | 6016980 | 1000.00 | 898 | 39.52- 79.52 | 59.52 |
| Average of Peak Amounts = | | | | | 886 | | |

Data File: /chem/ecd1a.i/020510.b/004b0401.d

Page 1

Date : 05-FEB-2010 07:27

Client ID: AR124201

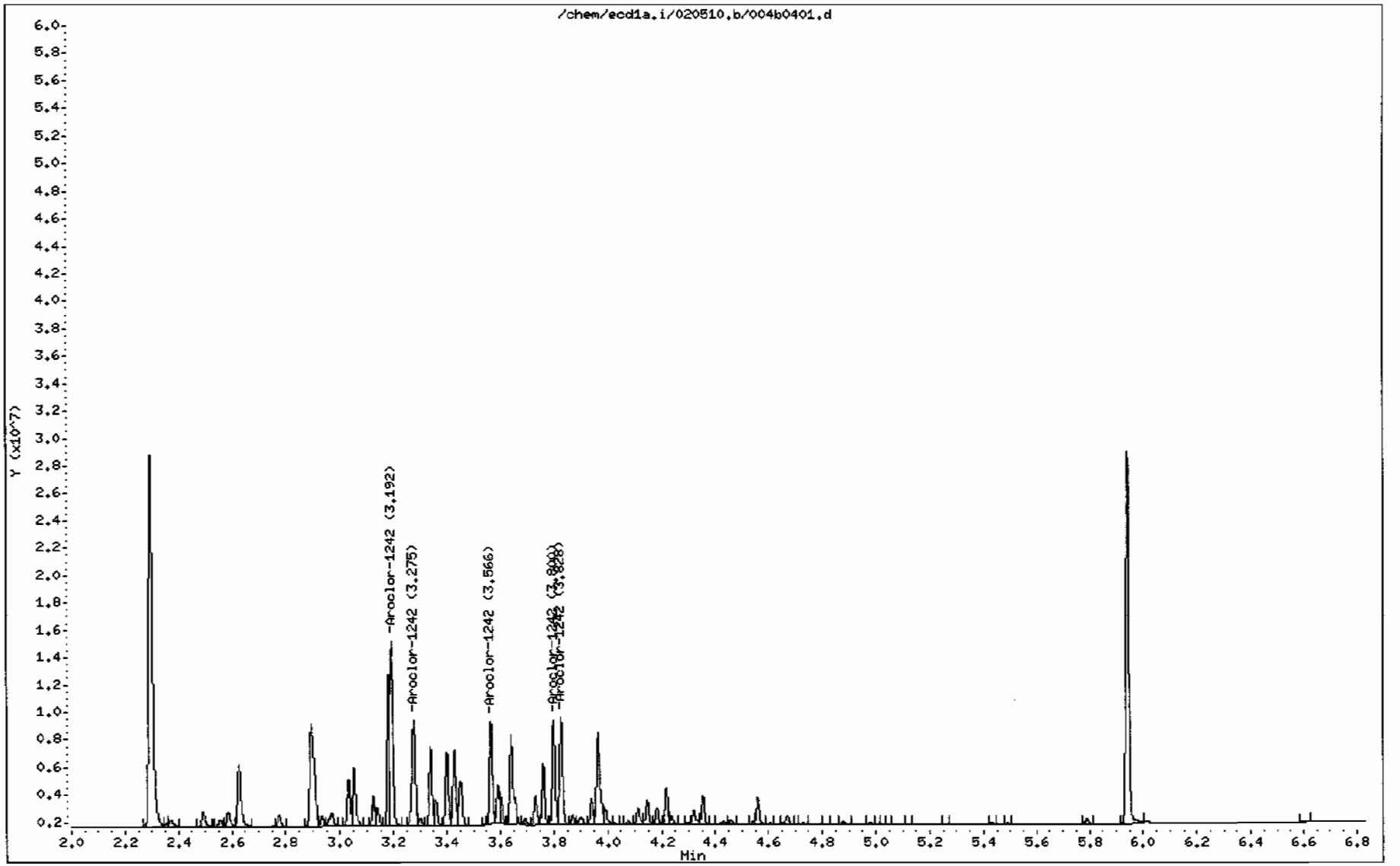
Instrument: ecd1a.i

Sample Info: IWAR091217-42

Operator: YS1

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Aroclor-1248 | | | | | CAS #: 12672-29-6 | | |
| 3.088 | 3.088 | 0.000 | 8241247 | 1000.00 | 1050 | 80.00- 120.00 | 100.00 |
| 3.240 | 3.240 | 0.000 | 7125731 | 1000.00 | 1040 | 66.46- 106.46 | 86.46 |
| 3.291 | 3.291 | 0.000 | 14052338 | 1000.00 | 1060 | 150.51- 190.51 | 170.51 |
| 3.422 | 3.422 | 0.000 | 11222456 | 1000.00 | 1020 | 116.17- 156.17 | 136.17 |
| 3.655 | 3.655 | 0.000 | 7182031 | 1000.00 | 963 | 67.15- 107.15 | 87.15 |

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/020510.b/005f0501.d

Page 1

Date : 05-FEB-2010 07:38

Client ID: AR124801

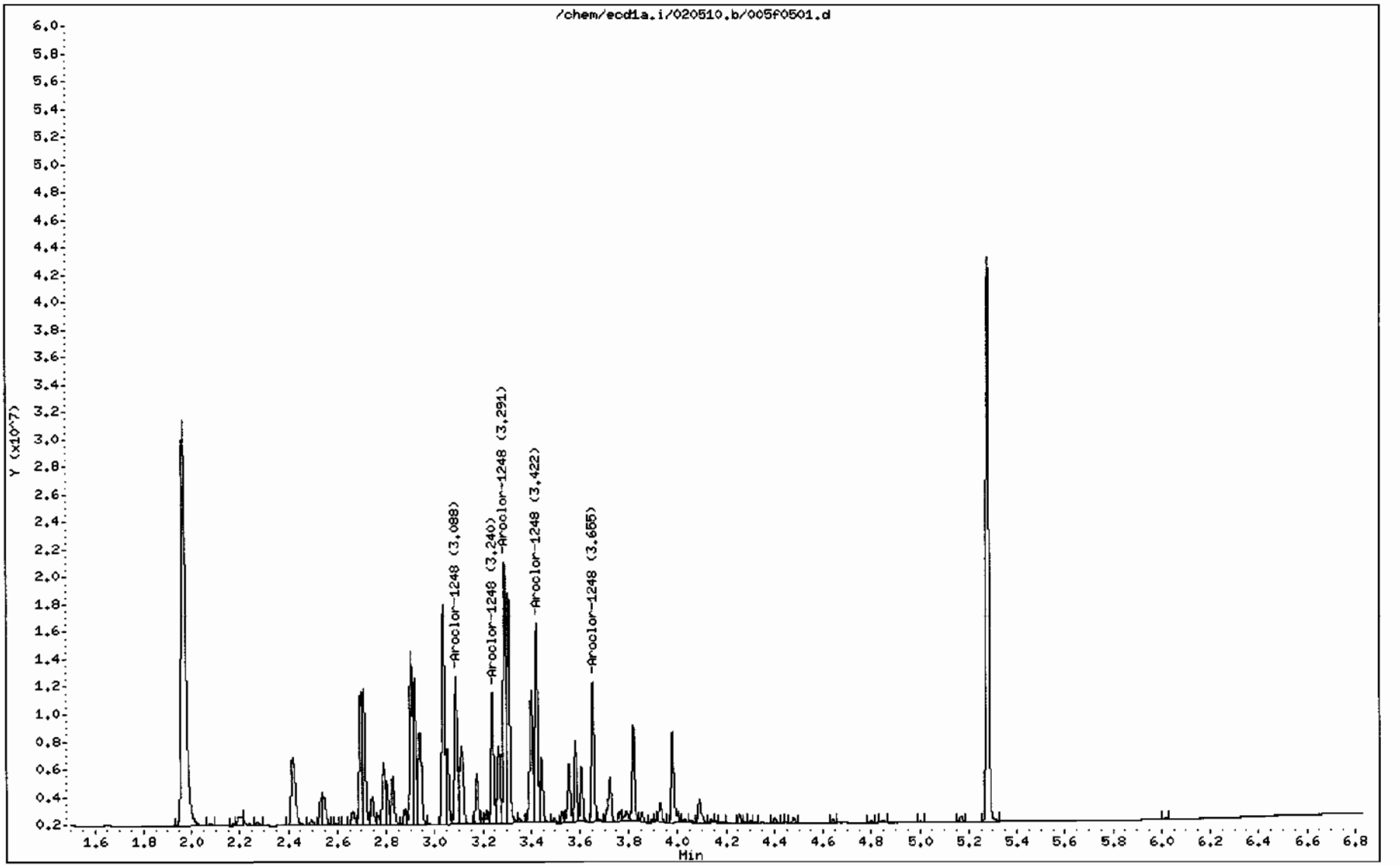
Instrument: ecd1a.i

Sample Info: IWAR091217-48

Operator: YS1

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Aroclor-1248 | | | | | CAS #: 12672-29-6 | | |
| 3.401 | 3.401 | 0.000 | 7358985 | 1000.00 | 914 | 80.00- 120.00 | 100.00 |
| 3.566 | 3.566 | 0.000 | 9216148 | 1000.00 | 933 | 105.24- 145.24 | 125.24 |
| 3.800 | 3.800 | 0.000 | 10436092 | 1000.00 | 930 | 121.81- 161.81 | 141.81 |
| 3.827 | 3.827 | 0.000 | 11626532 | 1000.00 | 931 | 137.99- 177.99 | 157.99 |
| 3.965 | 3.965 | 0.000 | 11178442 | 1000.00 | 924 | 131.90- 171.90 | 151.90 |
| Average of Peak Amounts = | | | | | 926 | | |

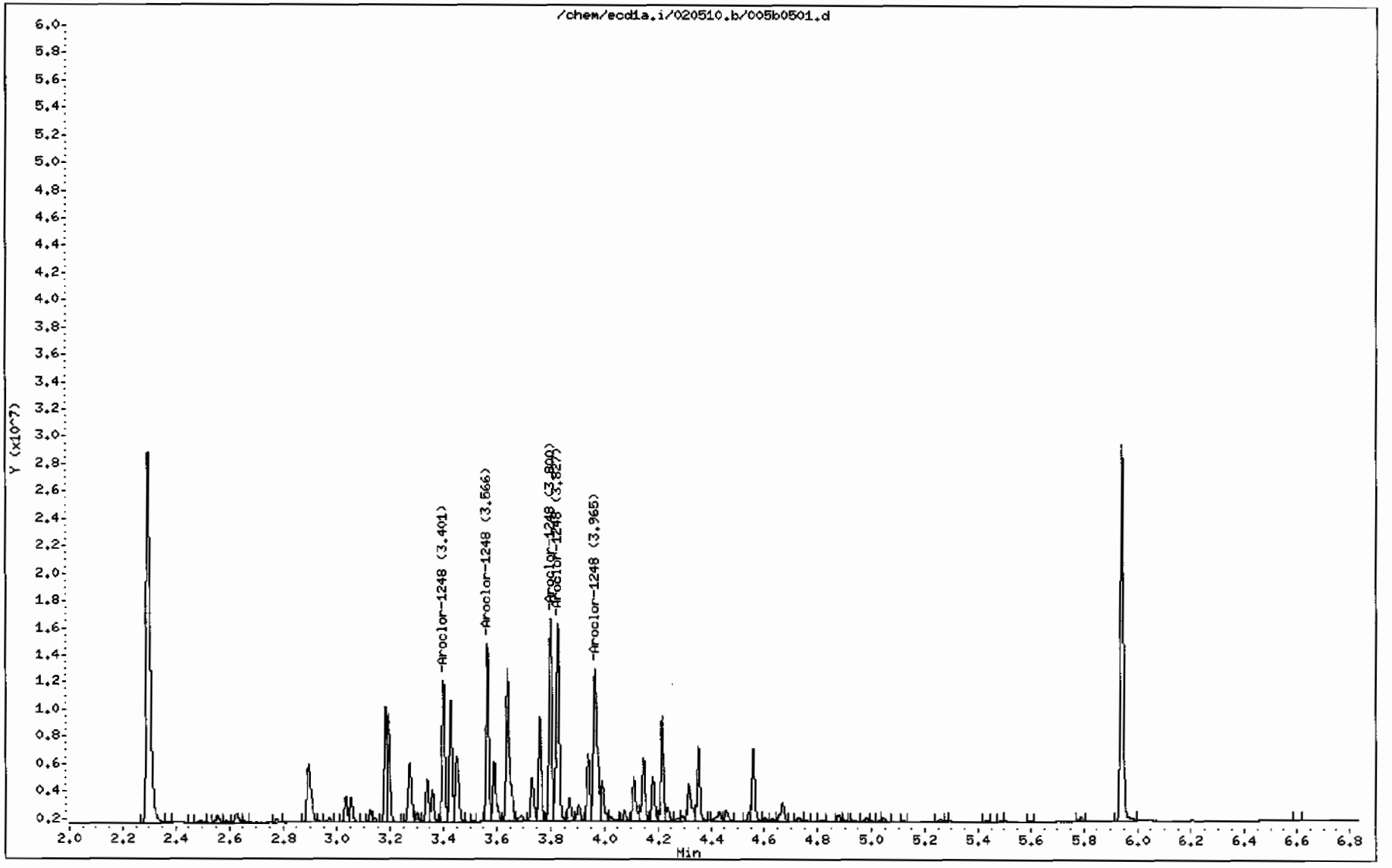
Data File: /chem/ecd1a.i/020510.b/005b0501.d
Date : 05-FEB-2010 07:38
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 3 Aroclor-1232 | | | | | CAS #: 11141-16-5 | | |
| 2.421 | 2.421 | 0.000 | 6684520 | 1000.00 | 976 | 80.00- 120.00 | 100.00 |
| 2.709 | 2.709 | 0.000 | 8973672 | 1000.00 | 1060 | 114.25- 154.25 | 134.25 |
| 2.789 | 2.789 | 0.000 | 5627474 | 1000.00 | 1000 | 64.19- 104.19 | 84.19 |
| 3.038 | 3.038 | 0.000 | 4163606 | 1000.00 | 1040 | 42.29- 82.29 | 62.29 |
| 3.291 | 3.291 | 0.000 | 3786517 | 1000.00 | 981 | 36.65- 76.65 | 56.65 |

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/006f0601.d

Page 1

Date : 05-FEB-2010 07:48

Client ID: AR123201

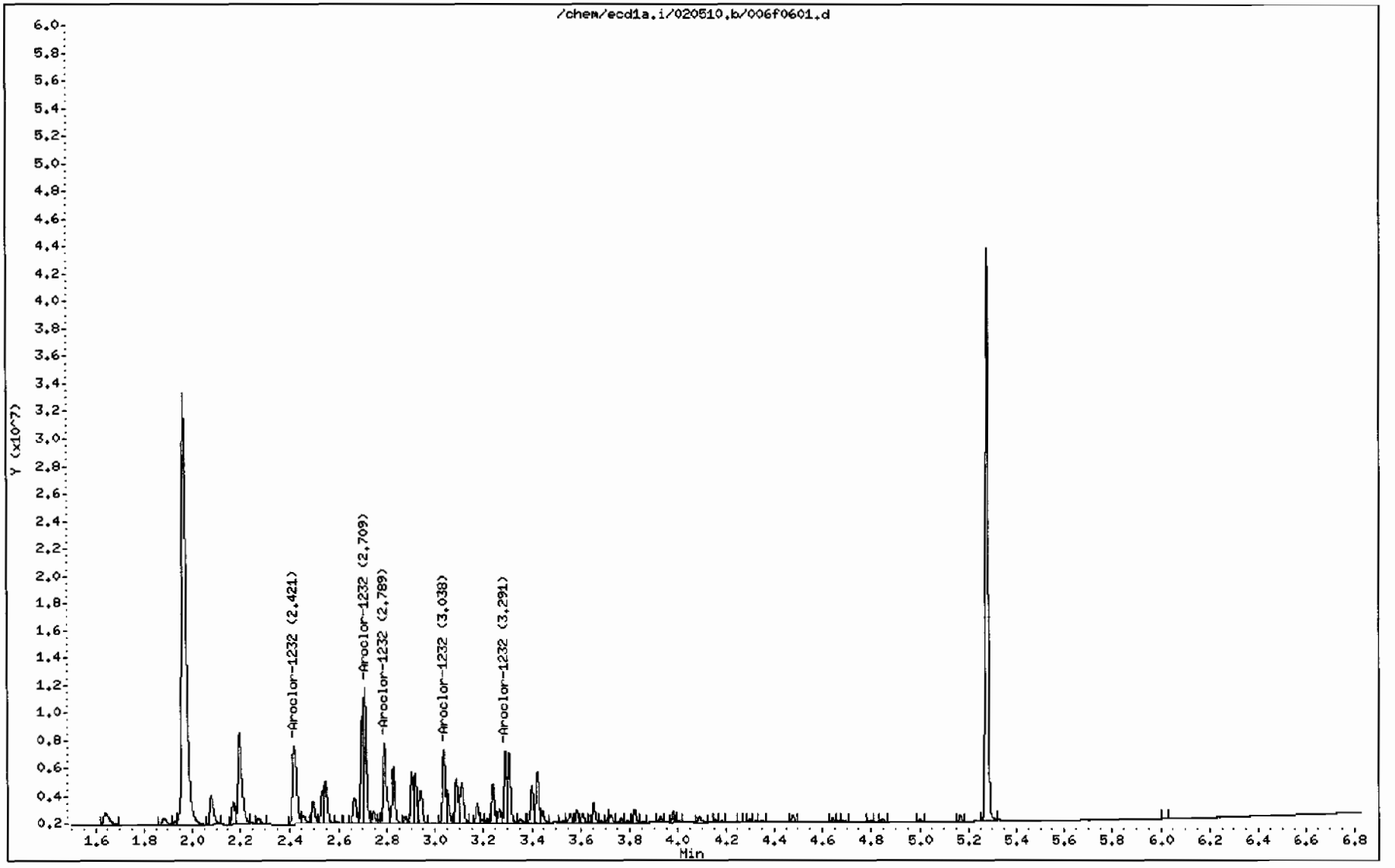
Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 3 Aroclor-1232 | | | | | CAS #: 11141-16-5 | | |
| 2.895 | 2.895 | 0.000 | 5518314 | 1000.00 | 937 | 80.00- 120.00 | 100.00 |
| 3.193 | 3.193 | 0.000 | 6067838 | 1000.00 | 975 | 89.96- 129.96 | 109.96 |
| 3.276 | 3.276 | 0.000 | 4176572 | 1000.00 | 961 | 55.69- 95.69 | 75.69 |
| 3.567 | 3.567 | 0.000 | 3101183 | 1000.00 | 997 | 36.20- 76.20 | 56.20 |
| 3.800 | 3.800 | 0.000 | 3042822 | 1000.00 | 953 | 35.14- 75.14 | 55.14 |
| | | Average of Peak Amounts = | | | 965 | | |

Data File: /chem/ecd1a.i/020510.b/006b0601.d

Date : 05-FEB-2010 07:48

Client ID: AR123201

Sample Info: IWAR100104-32

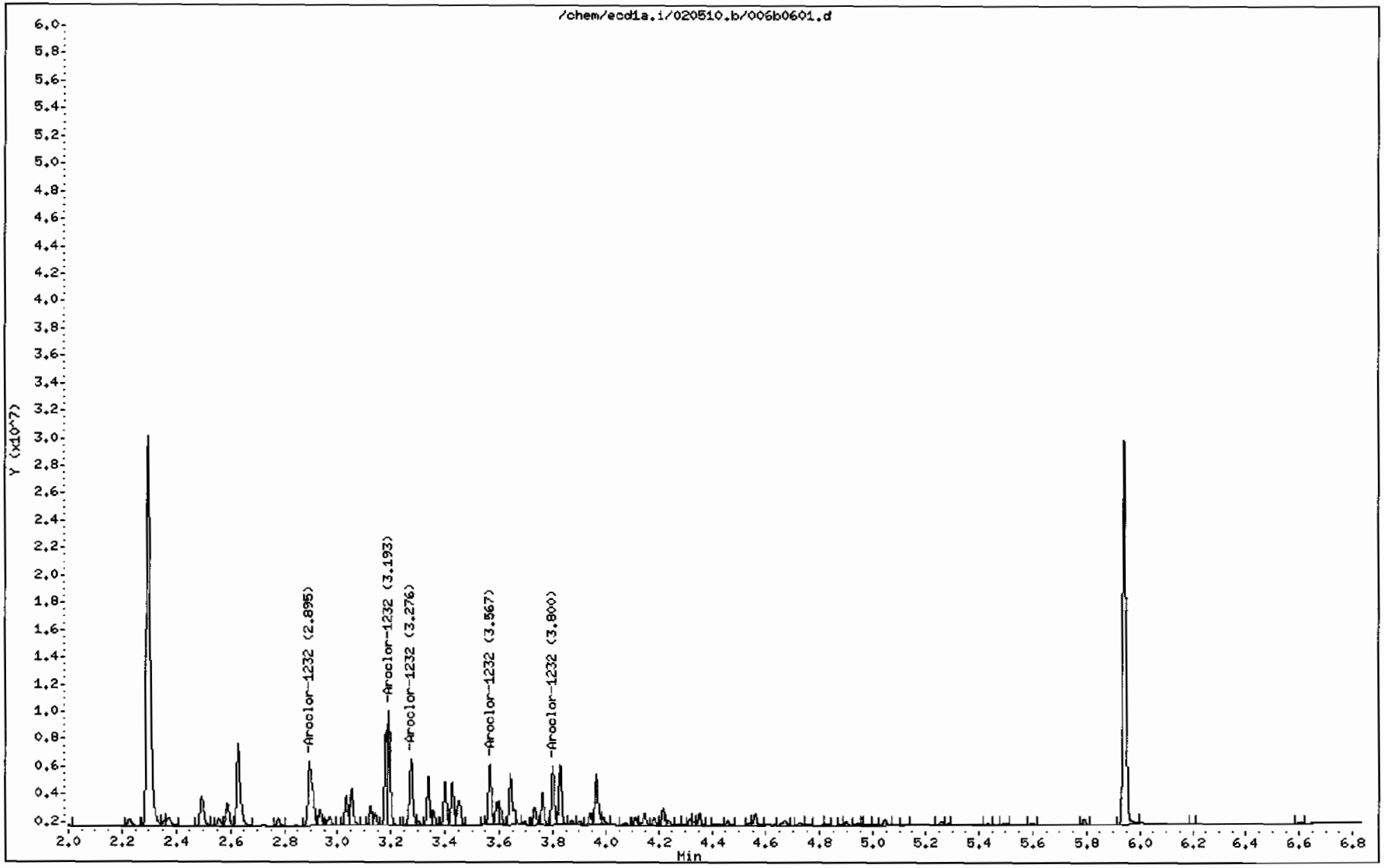
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 2 Aroclor-1221 | | | | | CAS #: 11104-28-2 | | |
| 2.077 | 2.077 | 0.000 | 4201820 | 1000.00 | 977 | 80.00- 120.00 | 100.00 |
| 2.170 | 2.170 | 0.000 | 2263486 | 1000.00 | 927 | 33.87- 73.87 | 53.87 |
| 2.195 | 2.195 | 0.000 | 10281522 | 1000.00 | 1000 | 224.69- 264.69 | 244.69 |
| Average of Peak Amounts = | | | | | 968 | | |

Data File: /chem/ecd1a.i/020510.b/007f0701.d

Date : 05-FEB-2010 07:59

Client ID: AR122101

Sample Info: IWAR100104-21

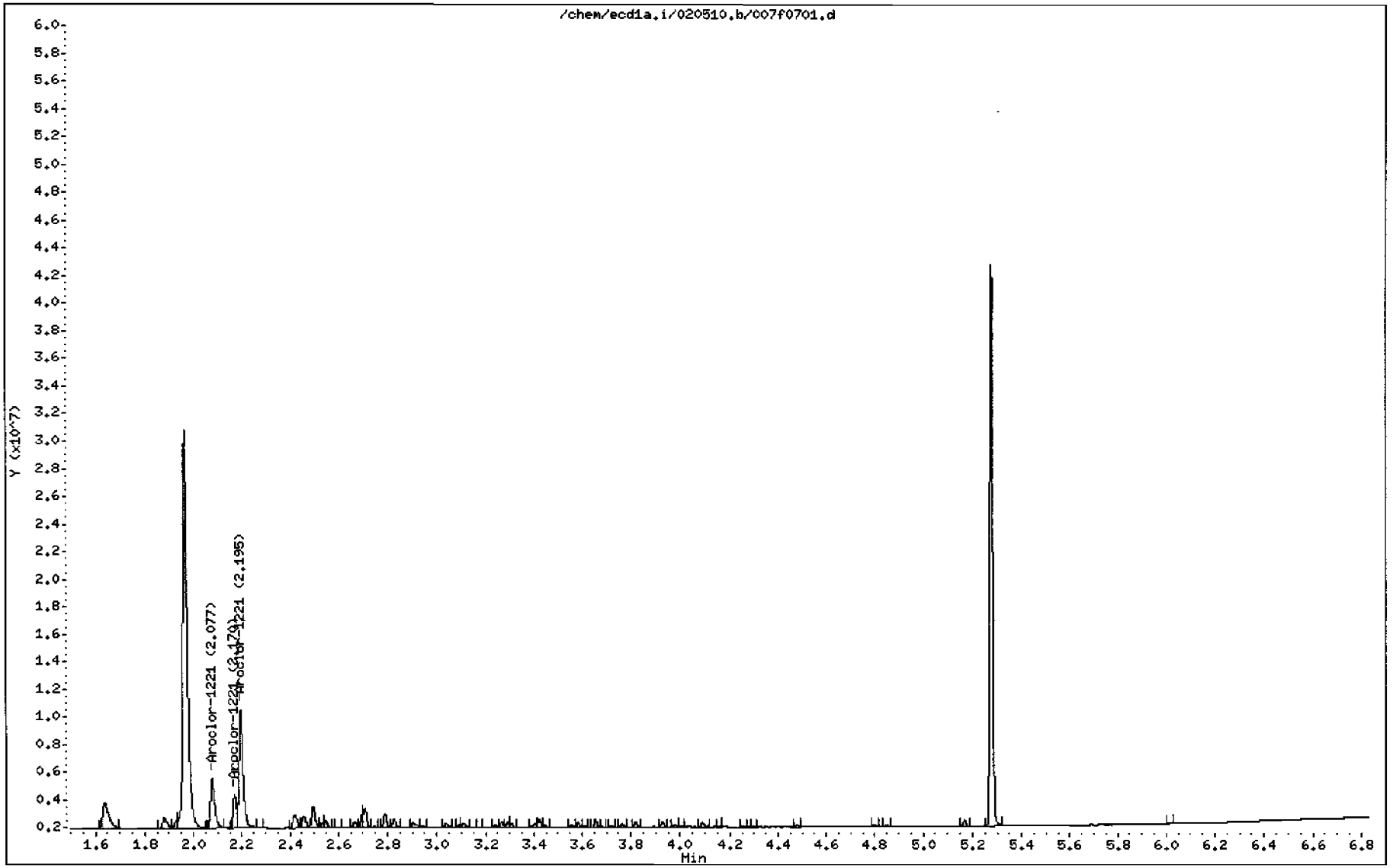
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 2 Aroclor-1221 | | | | | CAS #: 11104-28-2 | | |
| 2.492 | 2.492 | 0.000 | 3283686 | 1000.00 | 902 | 80.00- 120.00 | 100.00 |
| 2.586 | 2.586 | 0.000 | 2130872 | 1000.00 | 915 | 44.89- 84.89 | 64.89 |
| 2.627 | 2.627 | 0.000 | 7321346 | 1000.00 | 902 | 202.96- 242.96 | 222.96 |
| Average of Peak Amounts = | | | | | 906 | | |

Data File: /chem/ecd1a.i/020510.b/007b0701.d

Date : 05-FEB-2010 07:59

Client ID: AR123201

Sample Info: IWAR100104-21

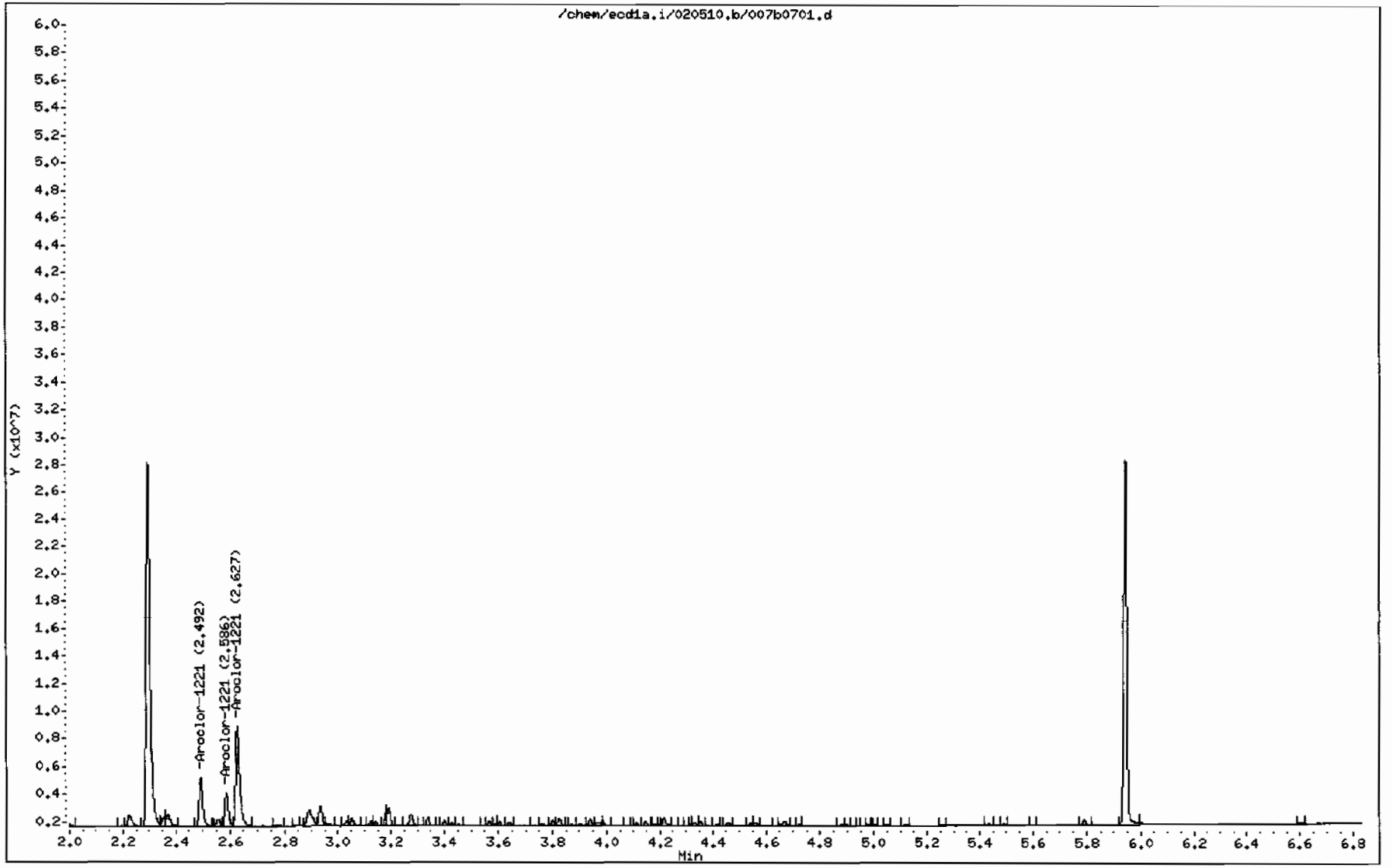
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/009f0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 05-FEB-2010 08:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 9 Aroclor-1268 | | | | | CAS #: 11100-14-4 | | |
| 4.663 | 4.663 | 0.000 | 48680193 | 1000.00 | 928 | 80.00- 120.00 | 100.00 |
| 4.686 | 4.686 | 0.000 | 45876696 | 1000.00 | 953 | 74.24- 114.24 | 94.24 |
| 4.799 | 4.799 | 0.000 | 36431401 | 1000.00 | 984 | 54.84- 94.84 | 74.84 |
| 5.001 | 5.001 | 0.000 | 18070217 | 1000.00 | 1110 | 17.12- 57.12 | 37.12 |
| 5.167 | 5.167 | 0.000 | 120791943 | 1000.00 | 1120 | 228.13- 268.13 | 248.13 |

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/020510.b/009f0901.d

Date : 05-FEB-2010 08:20

Client ID: AR126801

Sample Info: IWAR100107-68

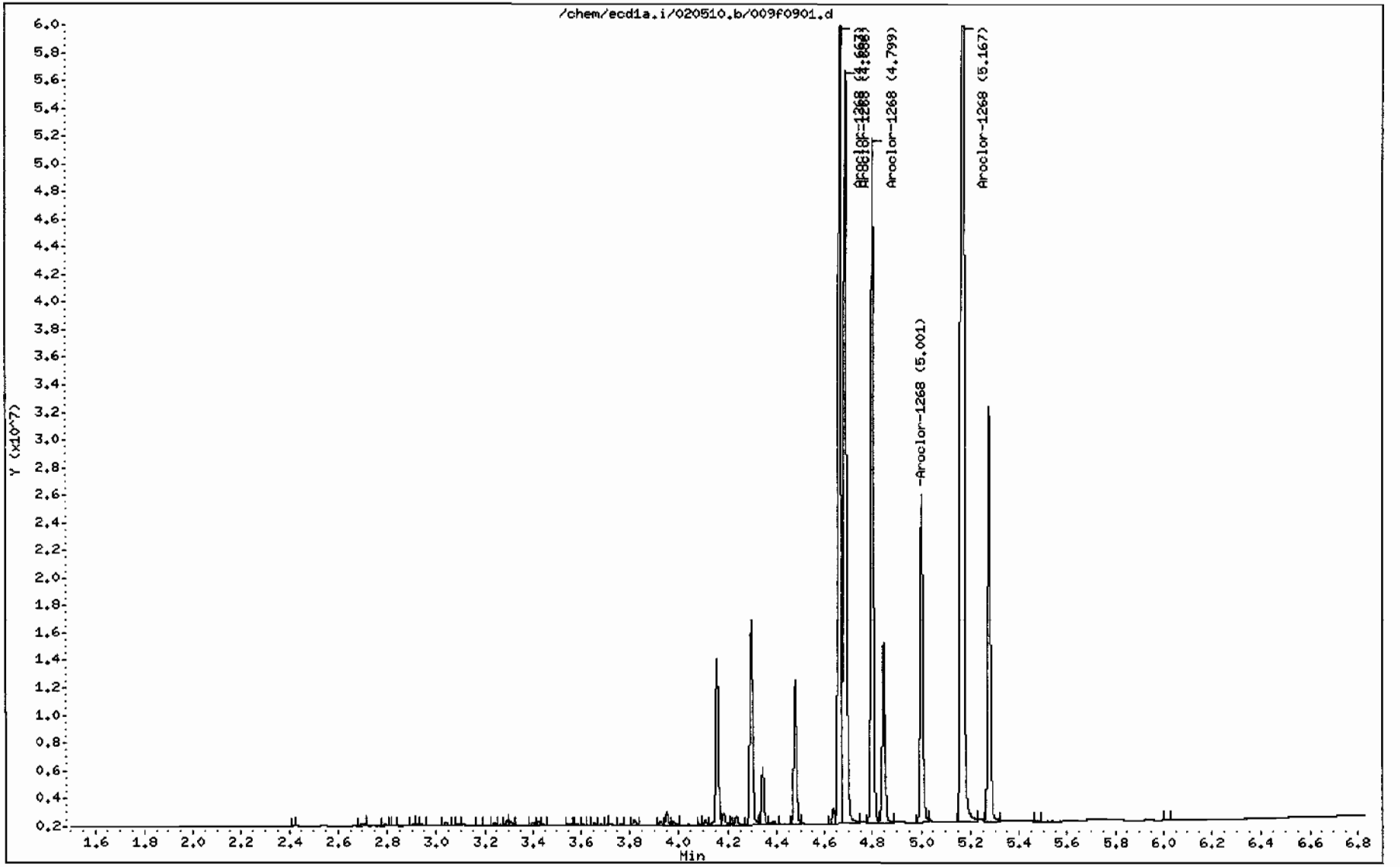
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/009b0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 05-FEB-2010 08:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 9 Aroclor-1268 | | | | | CAS #: 11100-14-4 | | |
| 5.255 | 5.255 | 0.000 | 33206637 | 1000.00 | 916 | 80.00- 120.00 | 100.00 |
| 5.283 | 5.283 | 0.000 | 31815831 | 1000.00 | 947 | 75.81- 115.81 | 95.81 |
| 5.433 | 5.433 | 0.000 | 25007381 | 1000.00 | 962 | 55.31- 95.31 | 75.31 |
| 5.598 | 5.598 | 0.000 | 12362596 | 1000.00 | 1090 | 17.23- 57.23 | 37.23 |
| 5.790 | 5.790 | 0.000 | 78842117 | 1000.00 | 1180 | 217.43- 257.43 | 237.43 |

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/020510.b/009b0901.d

Date : 05-FEB-2010 08:20

Client ID: AR126801

Sample Info: IWAR100107-68

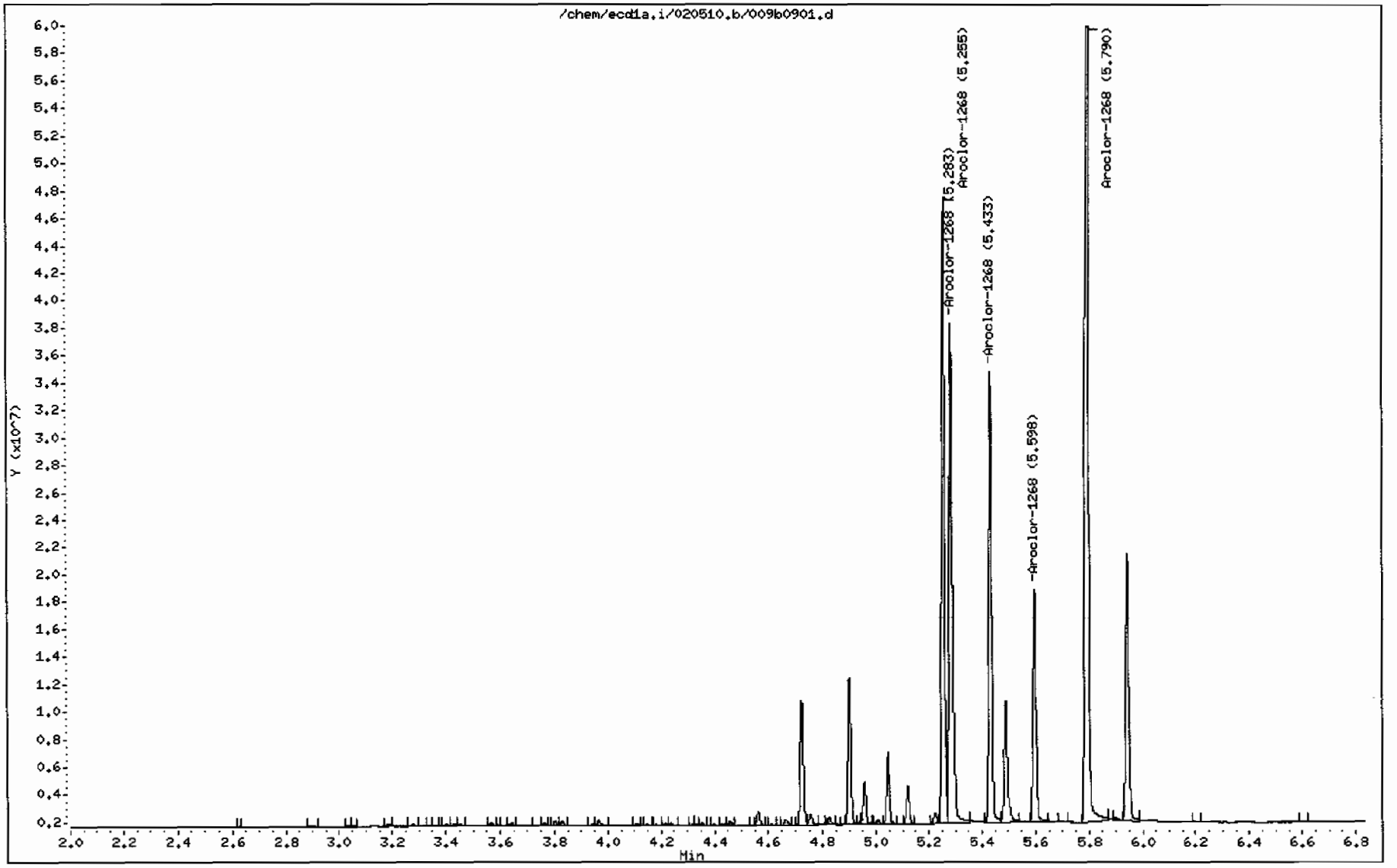
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022f2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

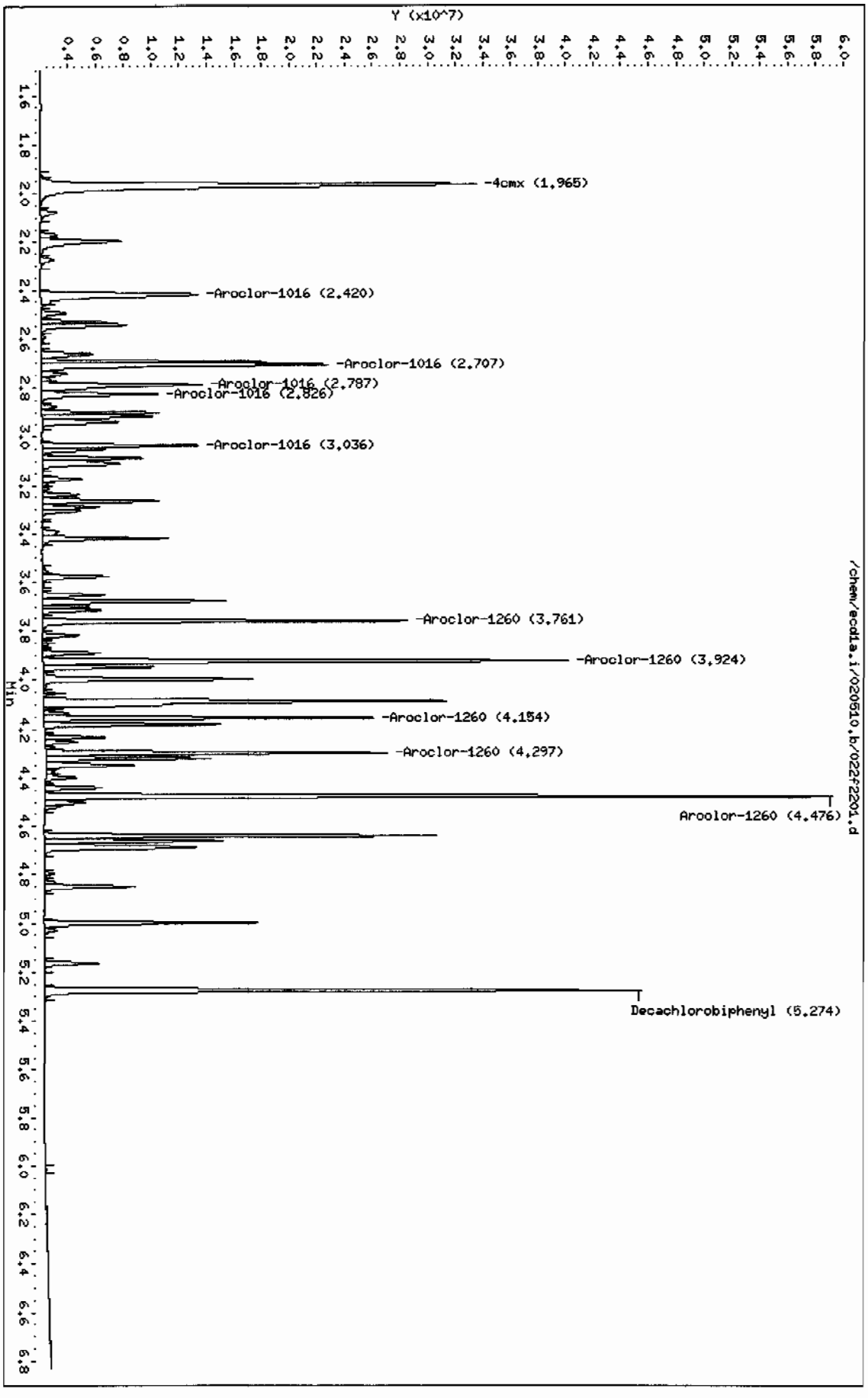
| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.965 | 1.965 | 0.000 | 40504102 | 100.000 | 102 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.274 | 5.275 | -0.001 | 32906895 | 100.000 | 102 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.420 | 2.419 | 0.001 | 14089870 | 1000.00 | 961 | 80.00- 120.00 | 100.00 |
| 2.707 | 2.707 | 0.000 | 18254738 | 1000.00 | 996 | 106.82- 146.82 | 129.56 |
| 2.787 | 2.788 | -0.001 | 11539563 | 1000.00 | 960 | 60.66- 100.66 | 81.90 |
| 2.826 | 2.826 | 0.000 | 6922359 | 1000.00 | 964 | 28.59- 68.59 | 49.13 |
| 3.036 | 3.036 | 0.000 | 8923226 | 1000.00 | 960 | 42.97- 82.97 | 63.33 |
| Average of Peak Amounts = | | | | | 968 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.761 | 3.762 | -0.001 | 19002907 | 1000.00 | 1080 | 80.00- 120.00 | 100.00(M) |
| 3.924 | 3.925 | -0.001 | 28995739 | 1000.00 | 1090 | 132.12- 172.12 | 152.59 |
| 4.154 | 4.155 | -0.001 | 17302329 | 1000.00 | 1090 | 70.53- 110.53 | 91.05 |
| 4.297 | 4.297 | 0.000 | 18016442 | 1000.00 | 1090 | 75.55- 115.55 | 94.81 |
| 4.476 | 4.477 | -0.001 | 41342662 | 1000.00 | 1110 | 197.21- 237.21 | 217.56 |
| Average of Peak Amounts = | | | | | 1.09e+03 | | |

QC Flag Legend

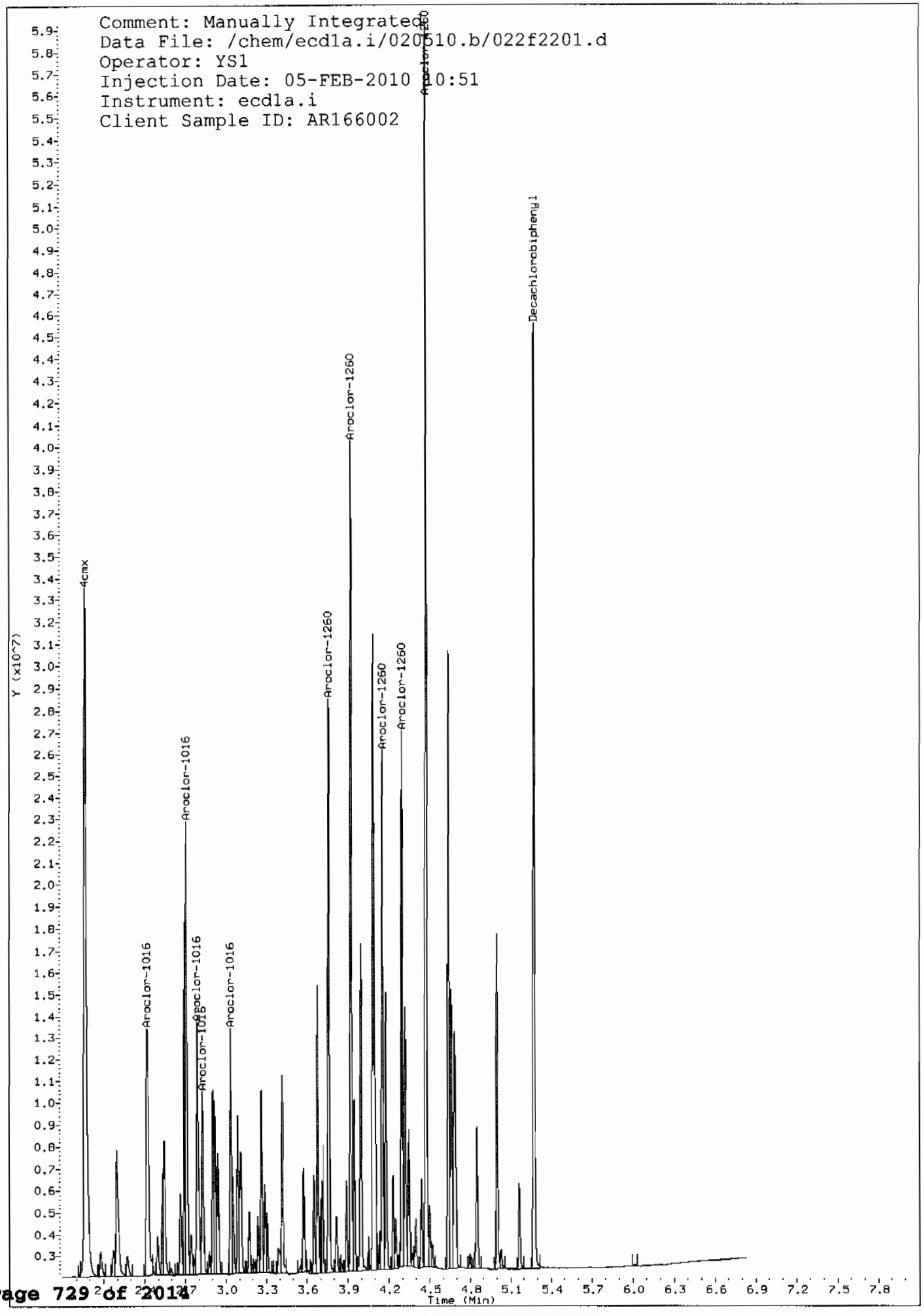
M - Compound response manually integrated.

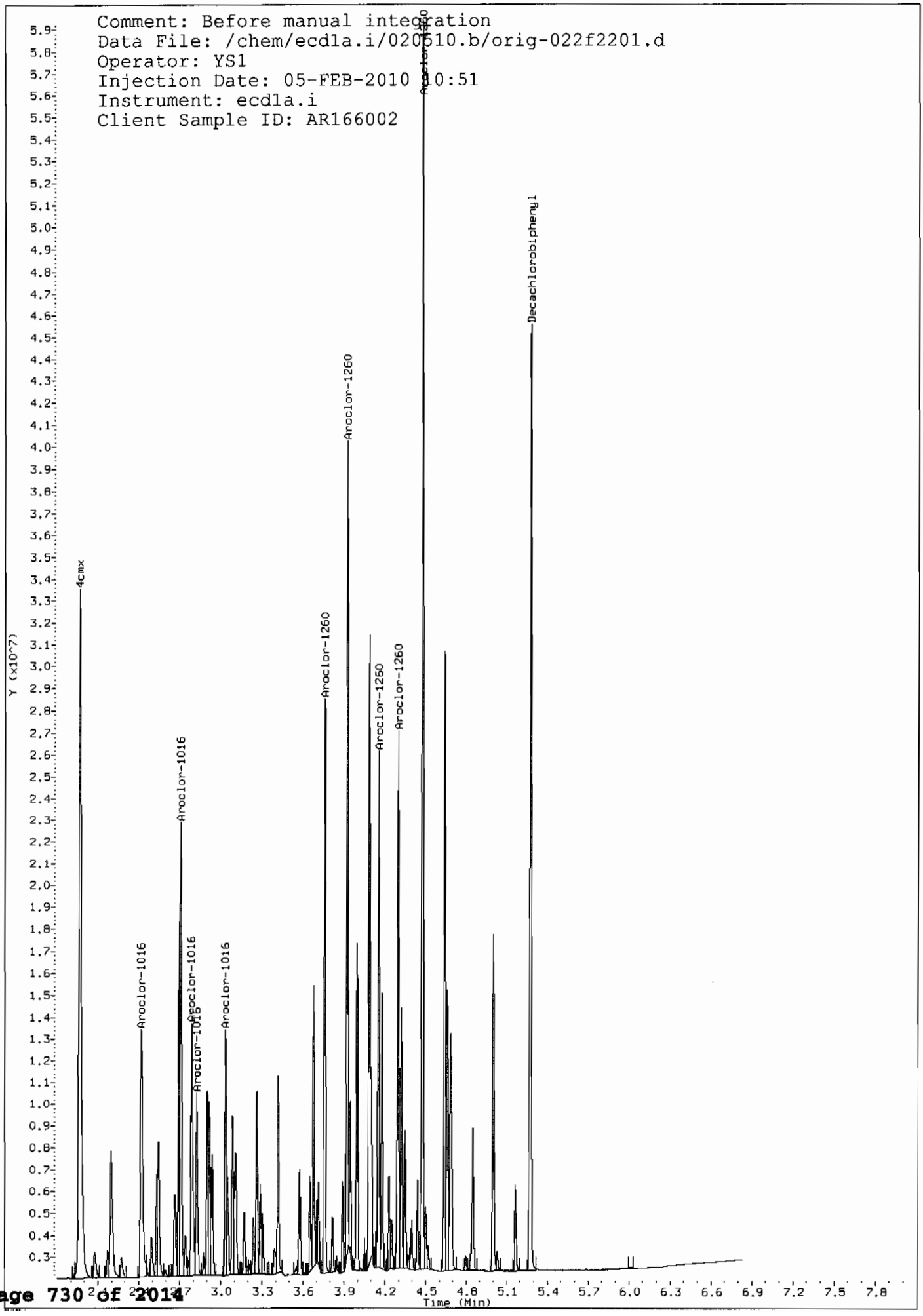
Data File: /chem/ecdia.i/020510.b/022f2201.d
Date : 05-FEB-2010 10:51
Client ID: AR166002
Sample Info: IWAR100203-60 02
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25




Page 1


Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl


Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022b2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.297 | 2.296 | 0.001 | 28991286 | 100.000 | 101 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.942 | -0.001 | 22228765 | 100.000 | 102 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.192 | 3.192 | 0.000 | 12553096 | 1000.00 | 1000 | 80.00- 120.00 | 100.00 |
| 3.275 | 3.275 | 0.000 | 8166105 | 1000.00 | 955 | 45.05- 85.05 | 65.05 |
| 3.338 | 3.339 | -0.001 | 5045053 | 1000.00 | 954 | 20.19- 60.19 | 40.19 |
| 3.565 | 3.565 | 0.000 | 6628313 | 1000.00 | 973 | 32.80- 72.80 | 52.80 |
| 3.641 | 3.641 | 0.000 | 6123429 | 1000.00 | 956 | 28.78- 68.78 | 48.78 |
| Average of Peak Amounts = | | | | | 969 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.331 | 4.332 | -0.001 | 13388385 | 1000.00 | 1060 | 80.00- 120.00 | 100.00 |
| 4.456 | 4.457 | -0.001 | 16291509 | 1000.00 | 1070 | 101.68- 141.68 | 121.68 |
| 4.722 | 4.722 | 0.000 | 12420564 | 1000.00 | 1070 | 72.77- 112.77 | 92.77 |
| 4.896 | 4.896 | 0.000 | 12892265 | 1000.00 | 1070 | 76.29- 116.29 | 96.29 |
| 5.042 | 5.043 | -0.001 | 28894660 | 1000.00 | 1110 | 195.82- 235.82 | 215.82 |
| Average of Peak Amounts = | | | | | 1.07e+03 | | |

Data File: /chem/ecd1a.i/020510.b/022b2201.d

Date : 05-FEB-2010 10:51

Client ID: AR166002

Sample Info: IWAR100203-60 02

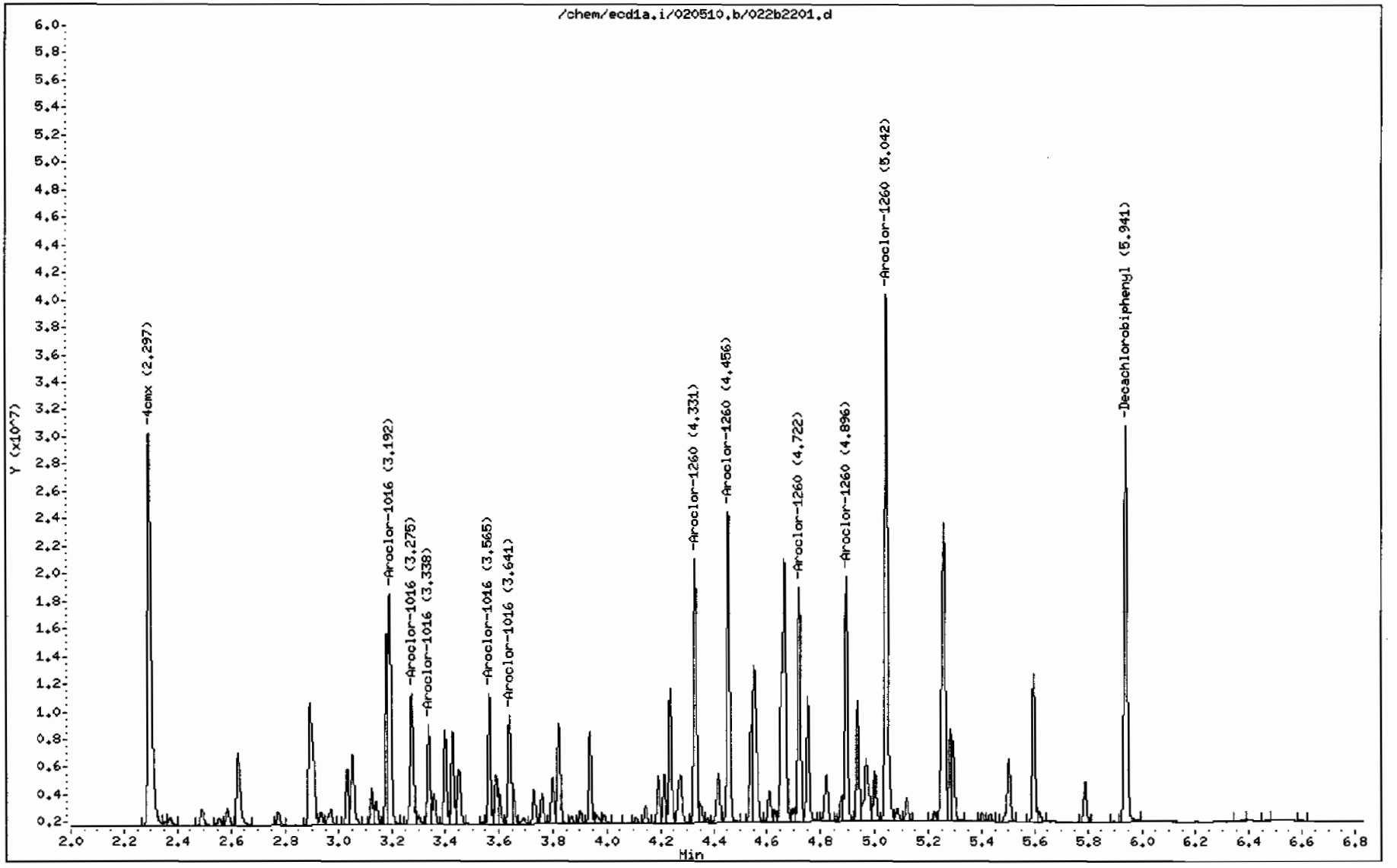
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031f3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

| RT | EXP RT | DLT RT | RESPONSE | CAL-AMT ( ug/L) | ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.966 | 1.965 | 0.001 | 40459975 | 100.000 | 101 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.274 | 5.275 | -0.001 | 32629917 | 100.000 | 101 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.420 | 2.419 | 0.001 | 14012607 | 1000.00 | 956 | 80.00- 120.00 | 100.00 |
| 2.708 | 2.707 | 0.001 | 18319018 | 1000.00 | 1000 | 110.73- 150.73 | 130.73 |
| 2.788 | 2.788 | 0.000 | 11547800 | 1000.00 | 960 | 62.41- 102.41 | 82.41 |
| 2.826 | 2.826 | 0.000 | 6929943 | 1000.00 | 965 | 29.46- 69.46 | 49.46 |
| 3.036 | 3.036 | 0.000 | 8939714 | 1000.00 | 962 | 43.80- 83.80 | 63.80 |
| Average of Peak Amounts = | | | | | 969 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.761 | 3.762 | -0.001 | 18972126 | 1000.00 | 1080 | 80.00- 120.00 | 100.00 |
| 3.924 | 3.925 | -0.001 | 28835947 | 1000.00 | 1080 | 131.99- 171.99 | 151.99 |
| 4.154 | 4.155 | -0.001 | 17204186 | 1000.00 | 1080 | 70.68- 110.68 | 90.68 |
| 4.297 | 4.297 | 0.000 | 18148577 | 1000.00 | 1100 | 75.66- 115.66 | 95.66 |
| 4.476 | 4.477 | -0.001 | 41262621 | 1000.00 | 1110 | 197.49- 237.49 | 217.49 |
| Average of Peak Amounts = | | | | | 1.09e+03 | | |

Data File: /chem/ecd1a.i/020510.b/031f3101.d

Date : 05-FEB-2010 12:40

Client ID: AR166003

Sample Info: IWAR100203-60 03

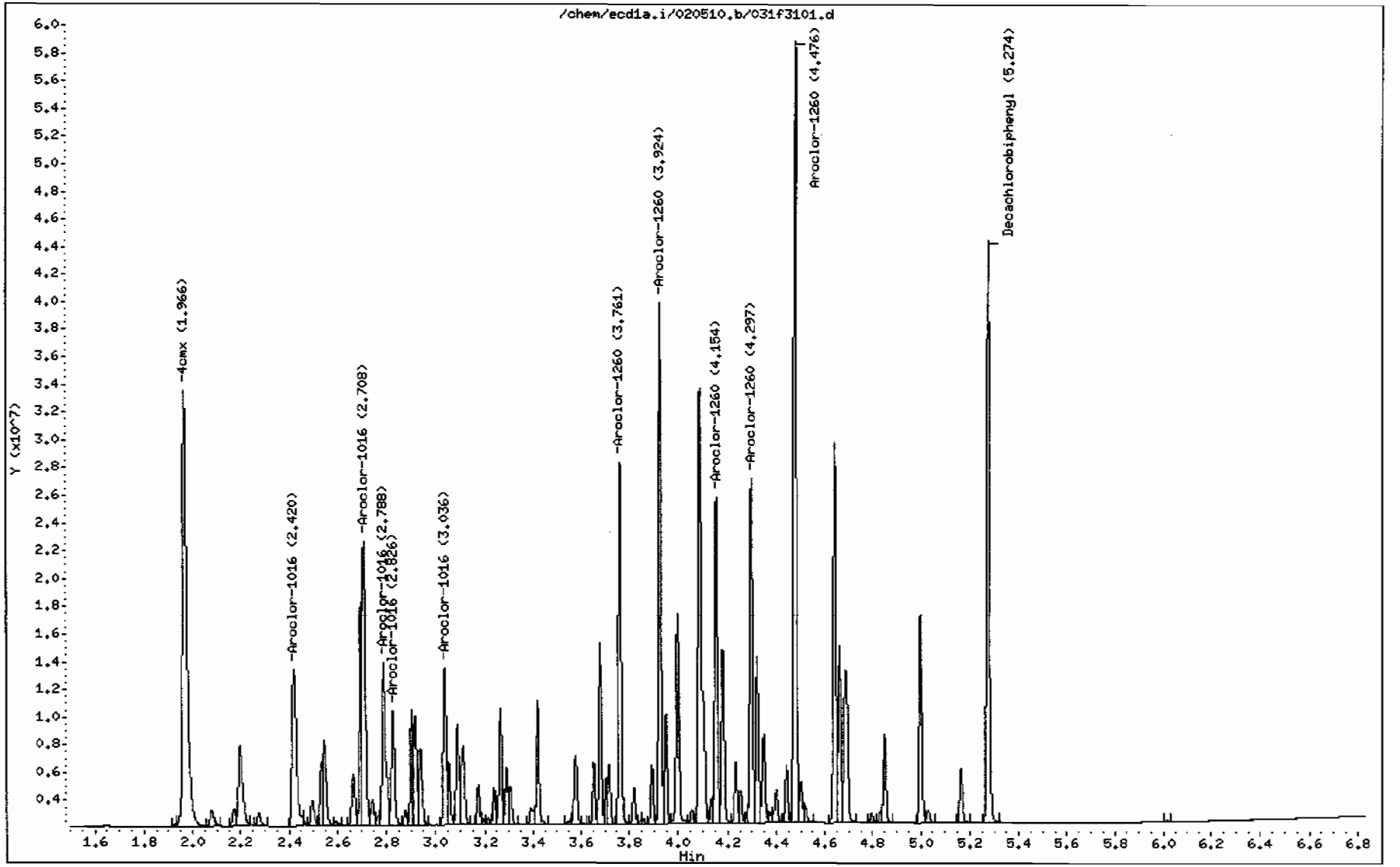
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031b3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.297 | 2.296 | 0.001 | 28690788 | 100.000 | 99.9 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.942 | -0.001 | 21926681 | 100.000 | 101 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.192 | 3.192 | 0.000 | 12359615 | 1000.00 | 990 | 80.00- 120.00 | 100.00(M) |
| 3.275 | 3.275 | 0.000 | 8069931 | 1000.00 | 944 | 45.29- 85.29 | 65.29 |
| 3.338 | 3.339 | -0.001 | 4988684 | 1000.00 | 943 | 20.36- 60.36 | 40.36 |
| 3.565 | 3.565 | 0.000 | 6345906 | 1000.00 | 931 | 31.34- 71.34 | 51.34 |
| 3.641 | 3.641 | 0.000 | 6017327 | 1000.00 | 940 | 38.11- 78.11 | 58.11 |
| Average of Peak Amounts = | | | | | 950 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.331 | 4.332 | -0.001 | 13242341 | 1000.00 | 1050 | 80.00- 120.00 | 100.00 |
| 4.456 | 4.457 | -0.001 | 16223303 | 1000.00 | 1060 | 102.51- 142.51 | 122.51 |
| 4.722 | 4.722 | 0.000 | 12301397 | 1000.00 | 1060 | 72.89- 112.89 | 92.89 |
| 4.895 | 4.896 | -0.001 | 12694909 | 1000.00 | 1050 | 75.87- 115.87 | 95.87 |
| 5.043 | 5.043 | 0.000 | 28307638 | 1000.00 | 1080 | 193.77- 233.77 | 213.77 |
| Average of Peak Amounts = | | | | | 1.06e+03 | | |

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/031b3101.d

Date : 05-FEB-2010 12:40

Client ID: AR166003

Sample Info: |WAR100203-60 03

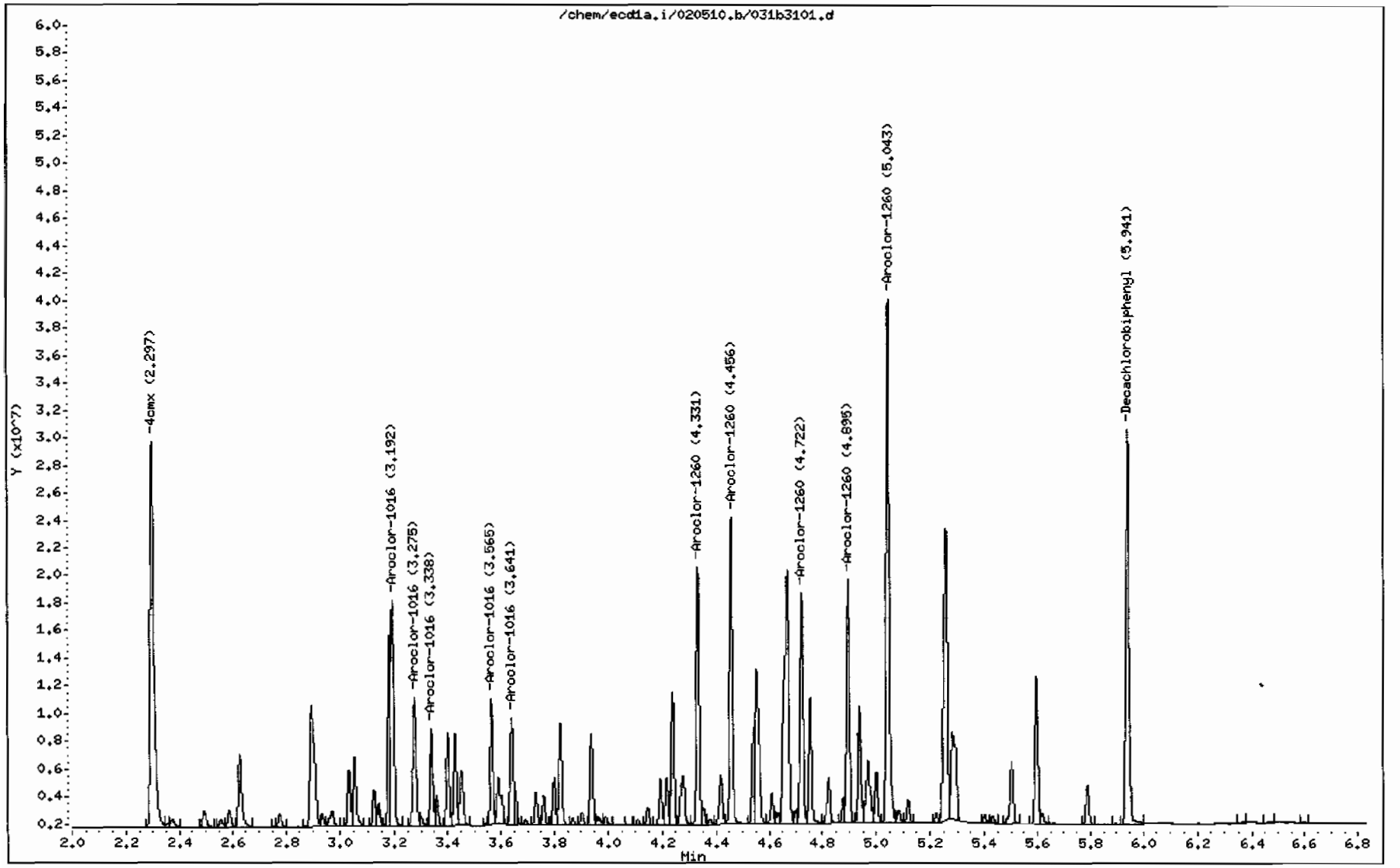
Column phase: CLP2

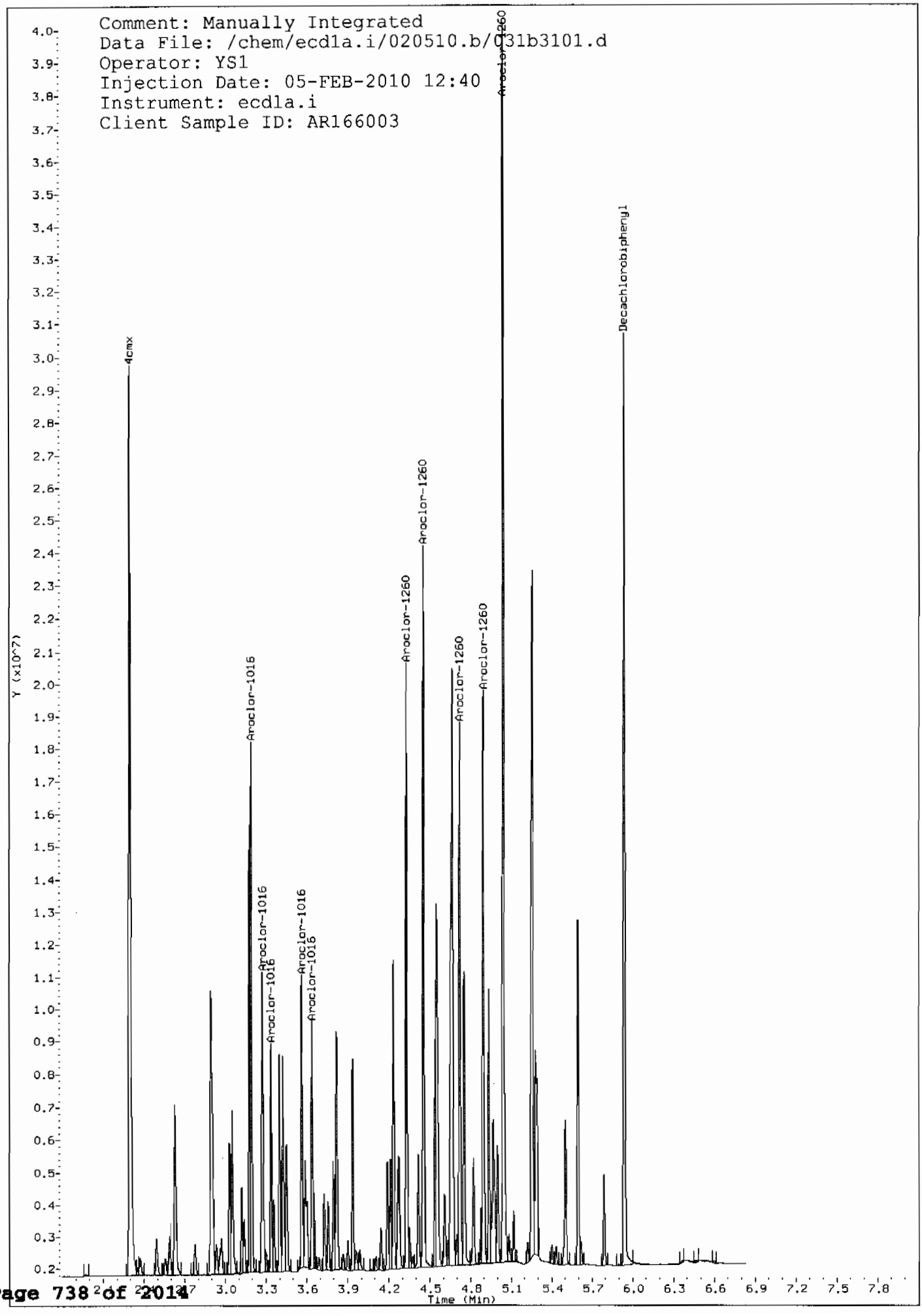
Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25



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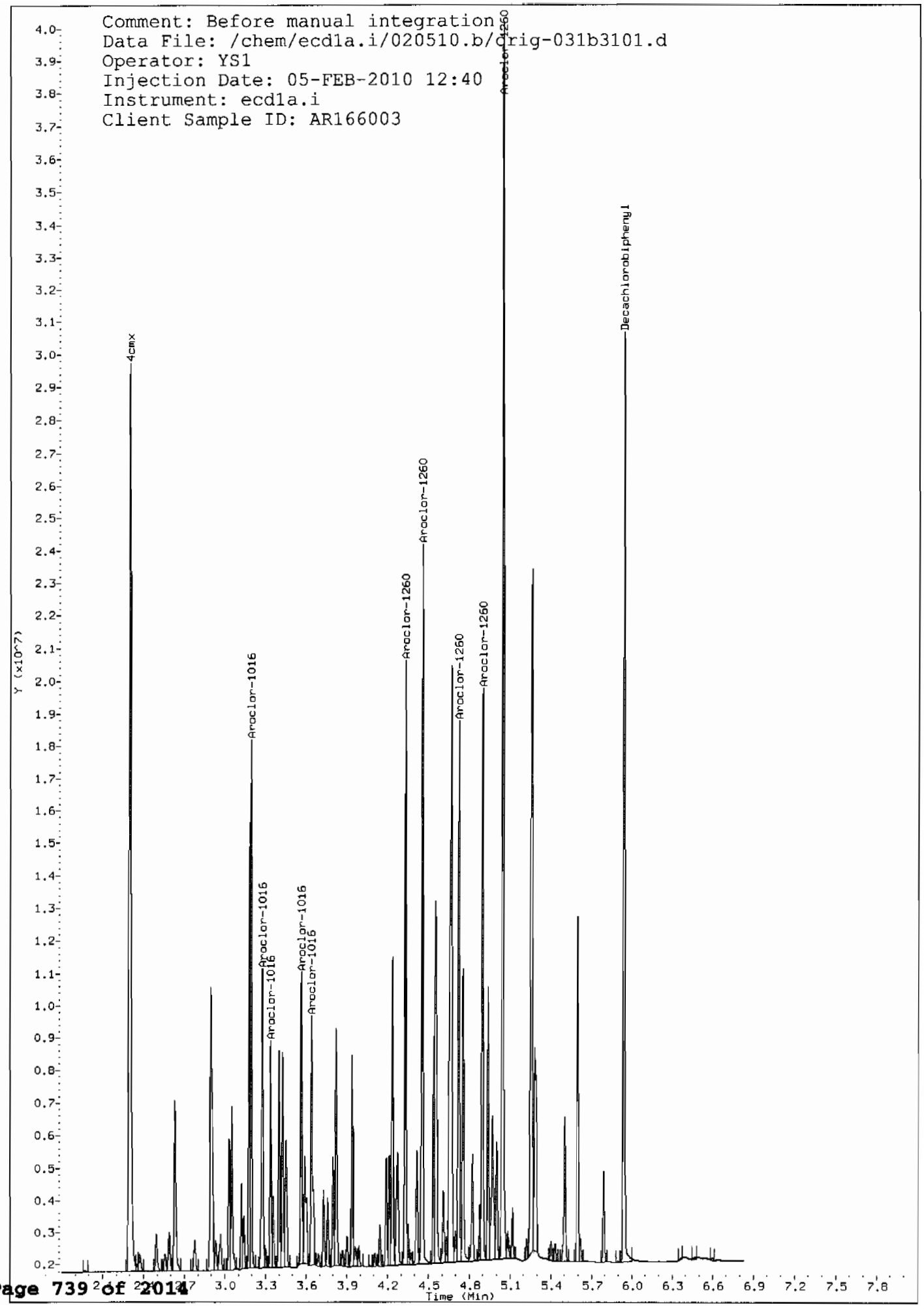
Data File: /chem/ecd1a.i/020510.b/031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/Crig-031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/038f3801.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 05-FEB-2010 14:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 14:20 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.965 | 1.965 | 0.000 | 40766994 | 100.000 | 102 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.274 | 5.275 | -0.001 | 32659668 | 100.000 | 101 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.419 | 2.419 | 0.000 | 14172898 | 1000.00 | 967 | 80.00- 120.00 | 100.00 |
| 2.707 | 2.707 | 0.000 | 18691498 | 1000.00 | 1020 | 111.88- 151.88 | 131.88 |
| 2.787 | 2.788 | -0.001 | 11643904 | 1000.00 | 968 | 62.16- 102.16 | 82.16 |
| 2.825 | 2.826 | -0.001 | 7005692 | 1000.00 | 976 | 29.43- 69.43 | 49.43 |
| 3.035 | 3.036 | -0.001 | 8940138 | 1000.00 | 962 | 43.08- 83.08 | 63.08 |
| Average of Peak Amounts = | | | | | 979 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.761 | 3.762 | -0.001 | 18974874 | 1000.00 | 1080 | 80.00- 120.00 | 100.00 |
| 3.923 | 3.925 | -0.002 | 28991130 | 1000.00 | 1090 | 132.79- 172.79 | 152.79 |
| 4.153 | 4.155 | -0.002 | 17263530 | 1000.00 | 1080 | 70.98- 110.98 | 90.98 |
| 4.297 | 4.297 | 0.000 | 18206068 | 1000.00 | 1100 | 75.95- 115.95 | 95.95 |
| 4.476 | 4.477 | -0.001 | 41419819 | 1000.00 | 1120 | 198.29- 238.29 | 218.29 |
| Average of Peak Amounts = | | | | | 1.09e+03 | | |

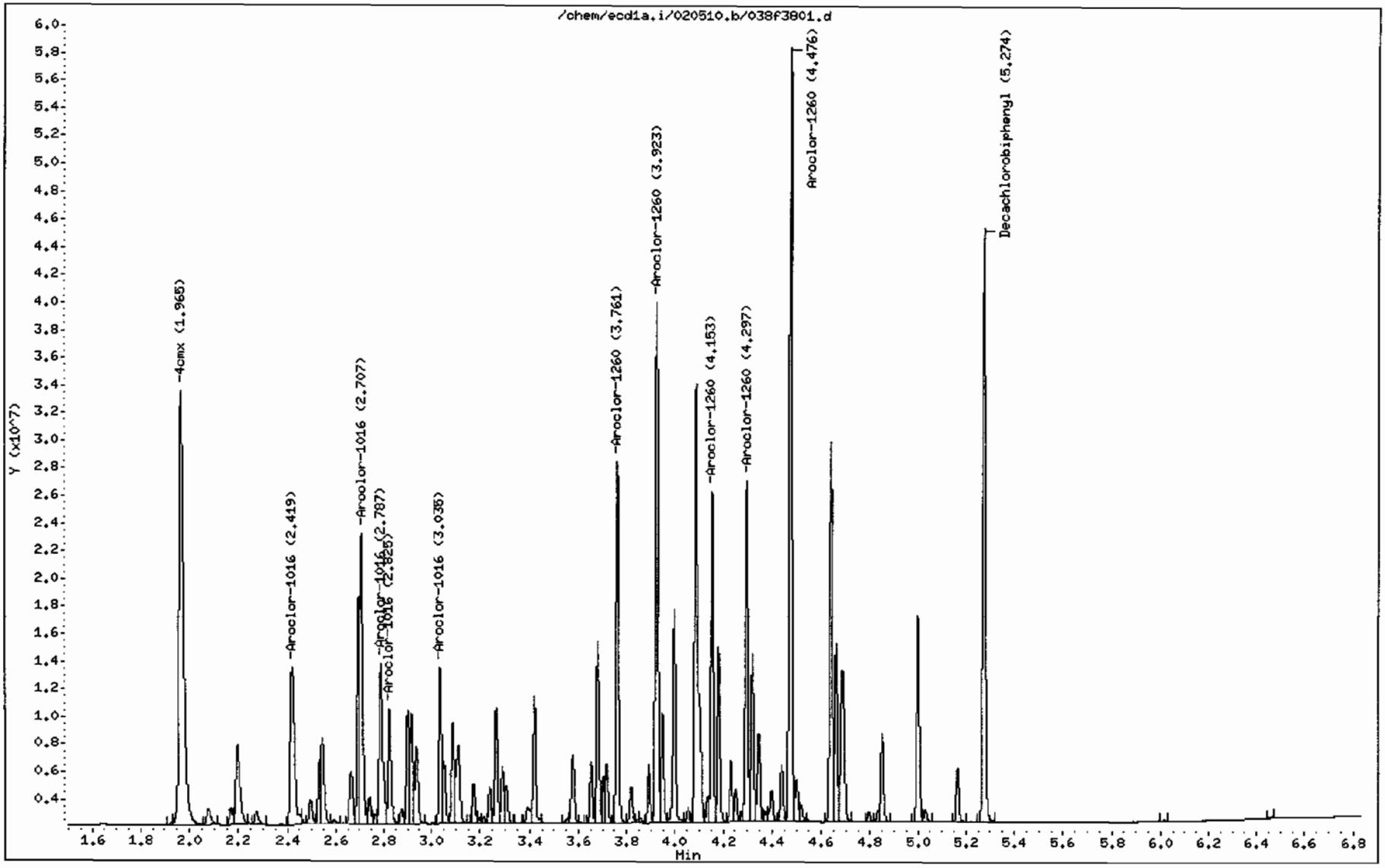
Data File: /chem/ecd1a.i/020510.b/038f3801.d
Date : 05-FEB-2010 14:05
Client ID: AR166004
Sample Info: IWAR100203-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/038b3801.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 05-FEB-2010 14:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 14:20 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

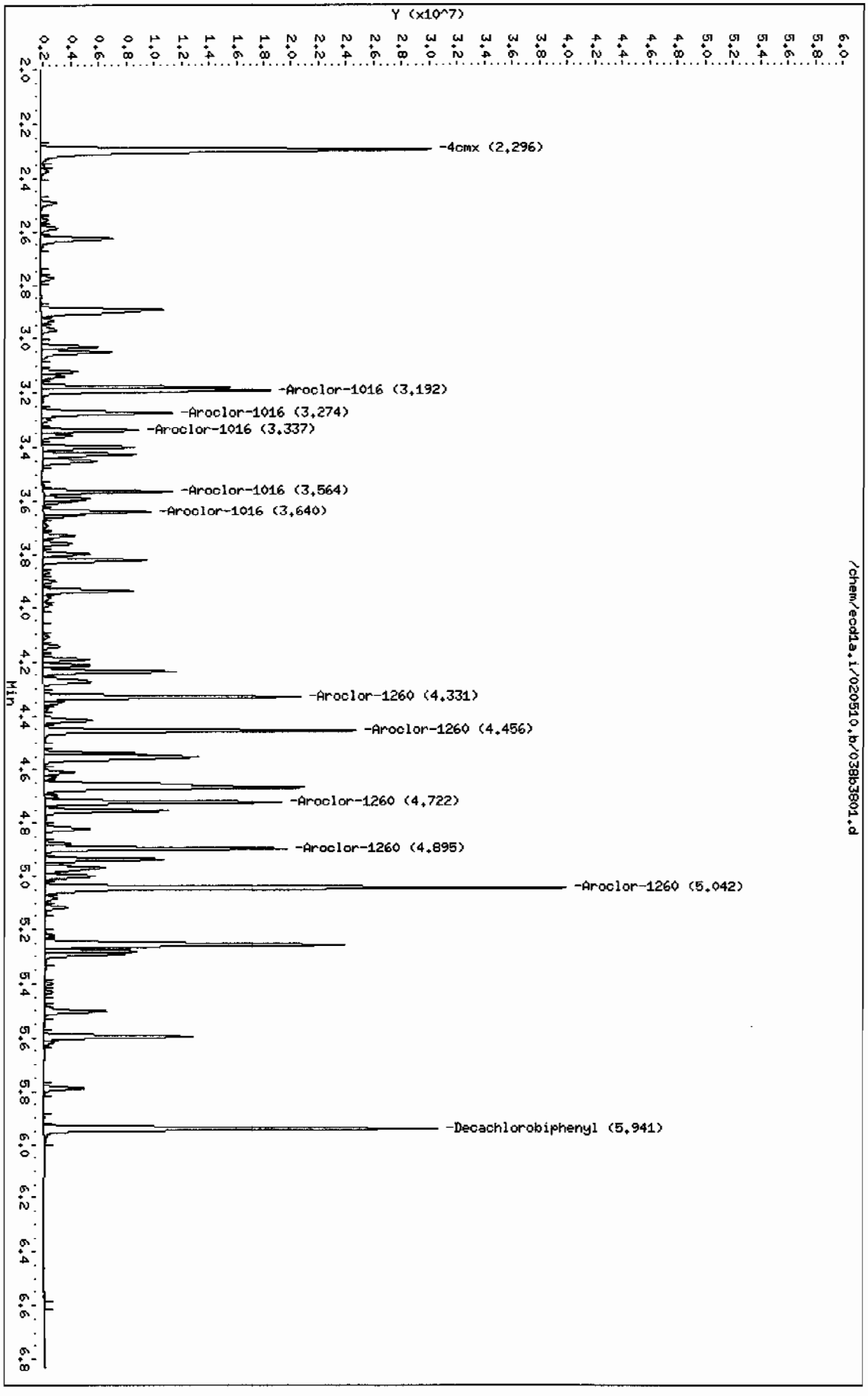
| RT | EXP RT | DLT RT | RESPONSE | CAL-AMT ( ug/L) | ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.296 | 2.296 | 0.000 | 28826296 | 100.000 | 100 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.942 | -0.001 | 22290140 | 100.000 | 102 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.192 | 3.192 | 0.000 | 12213804 | 1000.00 | 978 | 80.00- 120.00 | 100.00(M) |
| 3.274 | 3.275 | -0.001 | 8148079 | 1000.00 | 953 | 46.71- 86.71 | 66.71 |
| 3.337 | 3.339 | -0.002 | 5044334 | 1000.00 | 953 | 21.30- 61.30 | 41.30 |
| 3.564 | 3.565 | -0.001 | 6398182 | 1000.00 | 939 | 32.38- 72.38 | 52.38 |
| 3.640 | 3.641 | -0.001 | 5872077 | 1000.00 | 917 | 28.08- 68.08 | 48.08 |
| Average of Peak Amounts = | | | | | 948 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.331 | 4.332 | -0.001 | 13353624 | 1000.00 | 1060 | 80.00- 120.00 | 100.00 |
| 4.456 | 4.457 | -0.001 | 16258936 | 1000.00 | 1070 | 101.76- 141.76 | 121.76 |
| 4.722 | 4.722 | 0.000 | 12402697 | 1000.00 | 1060 | 72.88- 112.88 | 92.88 |
| 4.895 | 4.896 | -0.001 | 12828373 | 1000.00 | 1060 | 76.07- 116.07 | 96.07 |
| 5.042 | 5.043 | -0.001 | 28683670 | 1000.00 | 1100 | 194.80- 234.80 | 214.80 |
| Average of Peak Amounts = | | | | | 1.07e+03 | | |

QC Flag Legend

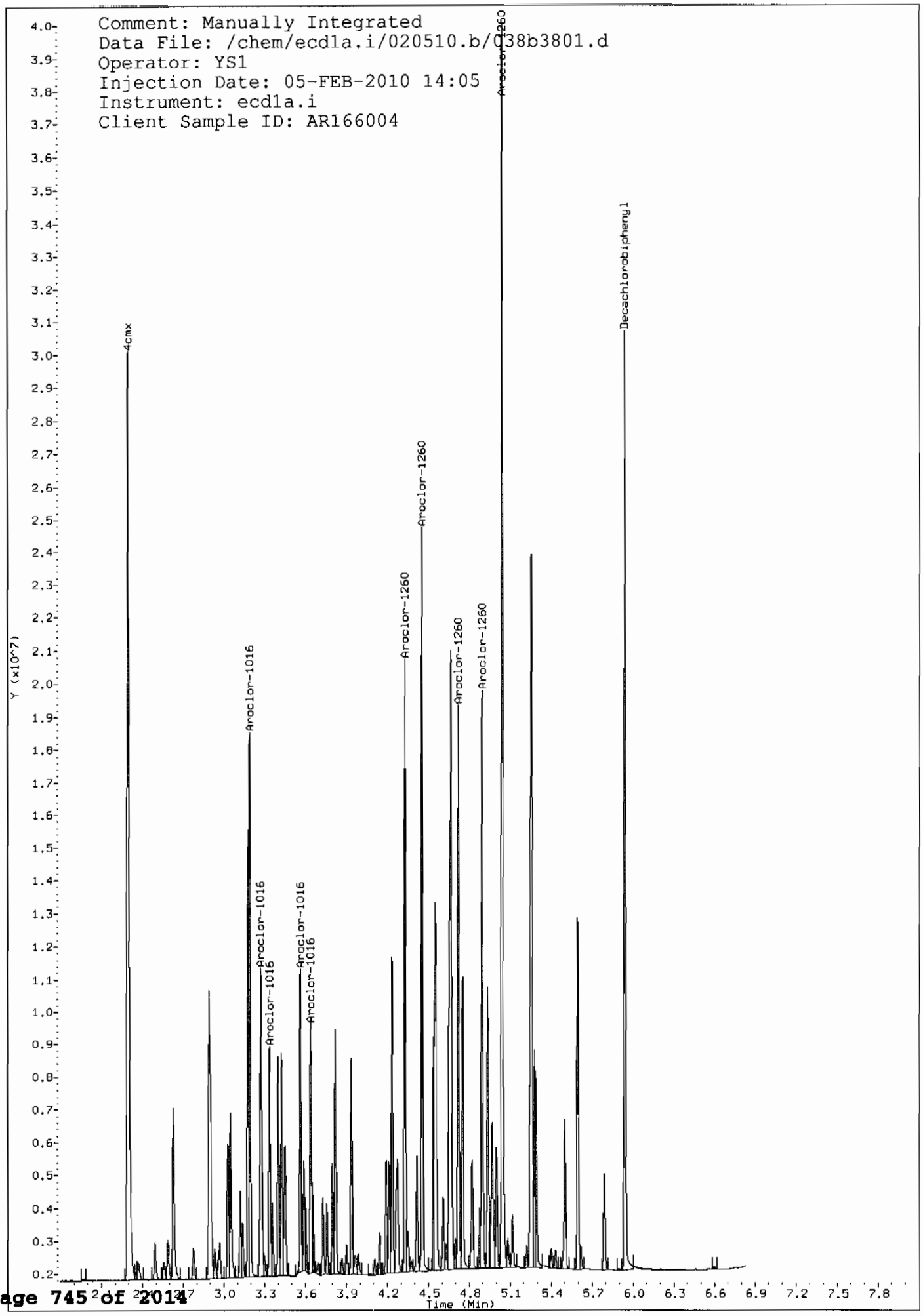
M - Compound response manually integrated.

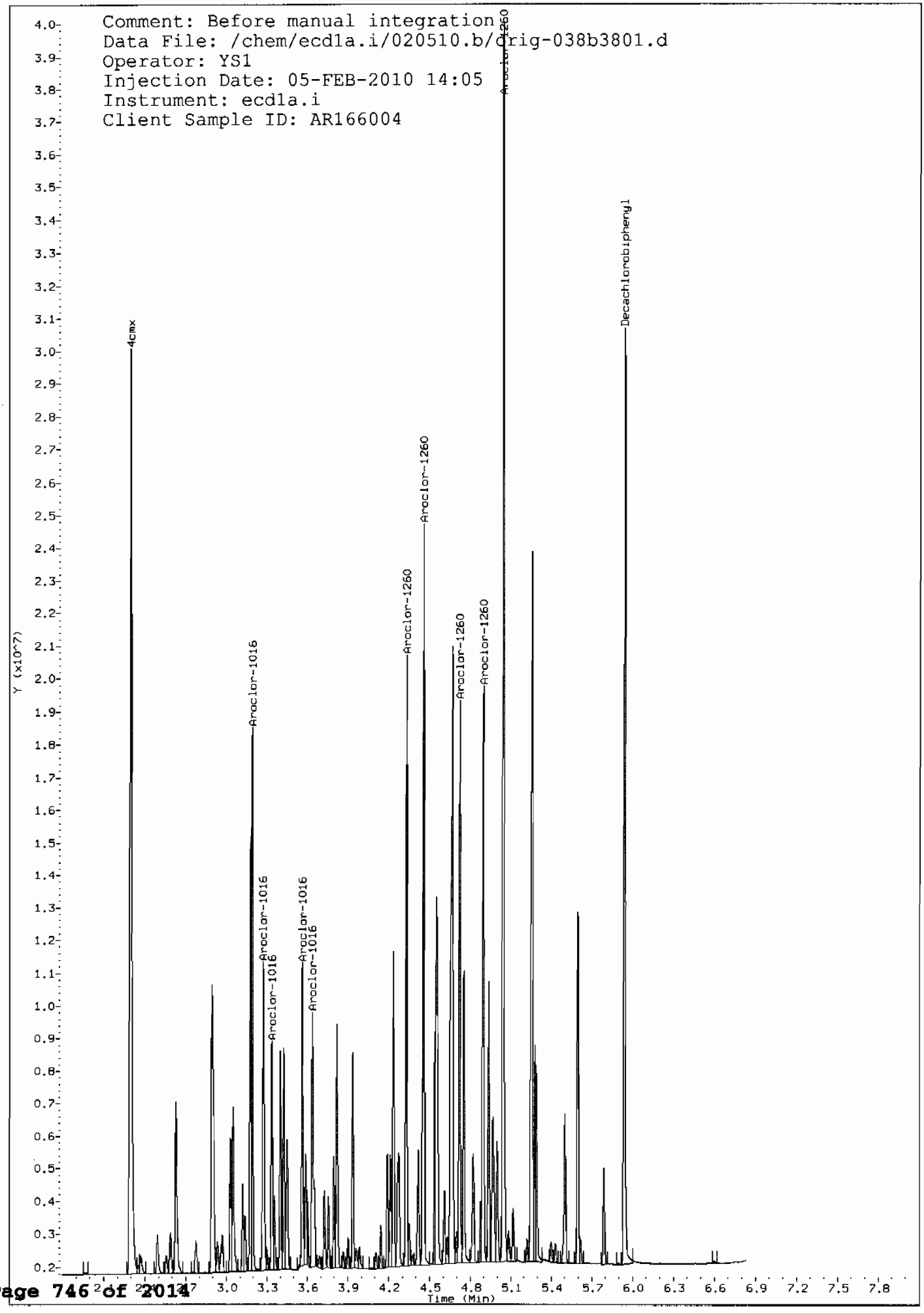
Data File: /chem/ecdia.i/020510.b/038b3801.d
Date : 05-FEB-2010 14:05
Client ID: AR166004
Sample Info: IWAR100203-60 04
Column phase: CLP2

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25




Page 1


Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/038b3801.d
Operator: YS1
Injection Date: 05-FEB-2010 14:05
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-038b3801.d
Operator: YS1
Injection Date: 05-FEB-2010 14:05
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 10-FEB-2010 13:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 15:35 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.962 | 1.962 | 0.000 | 42839718 | 100.000 | 107 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.278 | 5.278 | 0.000 | 31472632 | 100.000 | 97.3 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.418 | 2.418 | 0.000 | 14776276 | 1000.00 | 1010 | 80.00- 120.00 | 100.00 |
| 2.706 | 2.706 | 0.000 | 19013407 | 1000.00 | 1040 | 108.68- 148.68 | 128.68 |
| 2.787 | 2.787 | 0.000 | 12098803 | 1000.00 | 1010 | 61.88- 101.88 | 81.88 |
| 2.825 | 2.825 | 0.000 | 7274798 | 1000.00 | 1010 | 29.23- 69.23 | 49.23 |
| 3.036 | 3.036 | 0.000 | 9316562 | 1000.00 | 1000 | 43.05- 83.05 | 63.05 |
| Average of Peak Amounts = | | | | | 1.01e+03 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.762 | 3.762 | 0.000 | 19413372 | 1000.00 | 1100 | 80.00- 120.00 | 100.00 |
| 3.926 | 3.926 | 0.000 | 29174461 | 1000.00 | 1090 | 130.28- 170.28 | 150.28 |
| 4.156 | 4.156 | 0.000 | 17296559 | 1000.00 | 1090 | 69.10- 109.10 | 89.10 |
| 4.299 | 4.299 | 0.000 | 18262384 | 1000.00 | 1100 | 74.07- 114.07 | 94.07 |
| 4.478 | 4.478 | 0.000 | 40605322 | 1000.00 | 1090 | 189.16- 229.16 | 209.16 |
| Average of Peak Amounts = | | | | | 1.1e+03 | | |

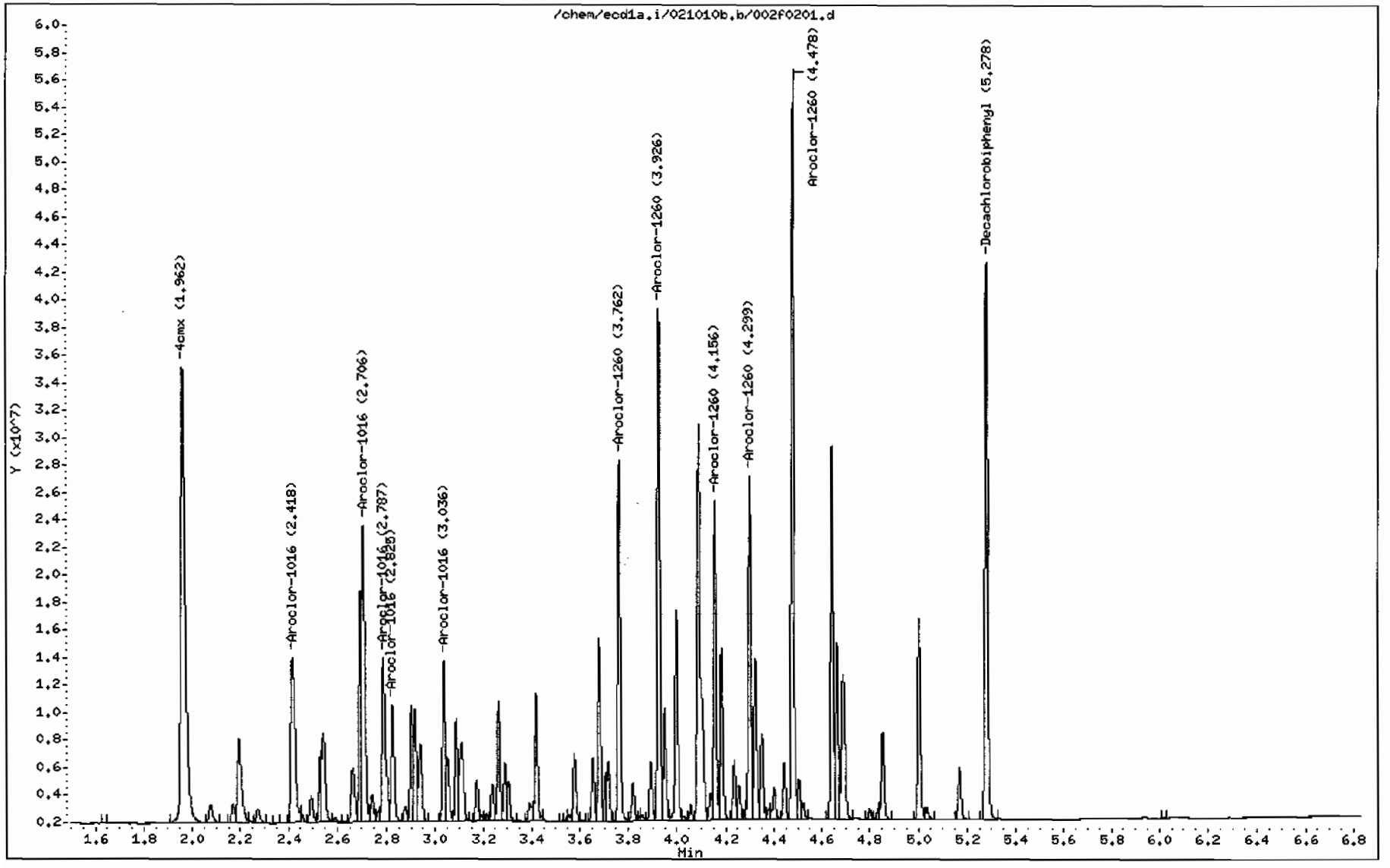
Data File: /chem/ecd1a.i/021010b.b/002f0201.d
Date : 10-FEB-2010 13:05
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 10-FEB-2010 13:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.294 | 2.294 | 0.000 | 27449570 | 100.000 | 95.6 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.943 | 5.943 | 0.000 | 19812056 | 100.000 | 91.0 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.191 | 3.191 | 0.000 | 11735725 | 1000.00 | 940 | 80.00- 120.00 | 100.00 |
| 3.274 | 3.274 | 0.000 | 7689432 | 1000.00 | 900 | 45.52- 85.52 | 65.52 |
| 3.337 | 3.337 | 0.000 | 4730507 | 1000.00 | 894 | 20.31- 60.31 | 40.31 |
| 3.565 | 3.565 | 0.000 | 6232074 | 1000.00 | 915 | 33.10- 73.10 | 53.10 |
| 3.640 | 3.640 | 0.000 | 5765135 | 1000.00 | 900 | 29.12- 69.12 | 49.12 |
| Average of Peak Amounts = | | | | | 910 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.331 | 4.331 | 0.000 | 12439224 | 1000.00 | 984 | 80.00- 120.00 | 100.00 |
| 4.457 | 4.457 | 0.000 | 15036431 | 1000.00 | 988 | 100.88- 140.88 | 120.88 |
| 4.723 | 4.723 | 0.000 | 11433819 | 1000.00 | 981 | 71.92- 111.92 | 91.92 |
| 4.896 | 4.896 | 0.000 | 11827307 | 1000.00 | 981 | 75.08- 115.08 | 95.08 |
| 5.044 | 5.044 | 0.000 | 26195852 | 1000.00 | 1000 | 190.59- 230.59 | 210.59 |
| Average of Peak Amounts = | | | | | 988 | | |

Data File: /chem/ecd1a.i/021010b.b/002b0201.d

Date : 10-FEB-2010 13:05

Client ID: AR166001

Sample Info: IWAR100203-60 01

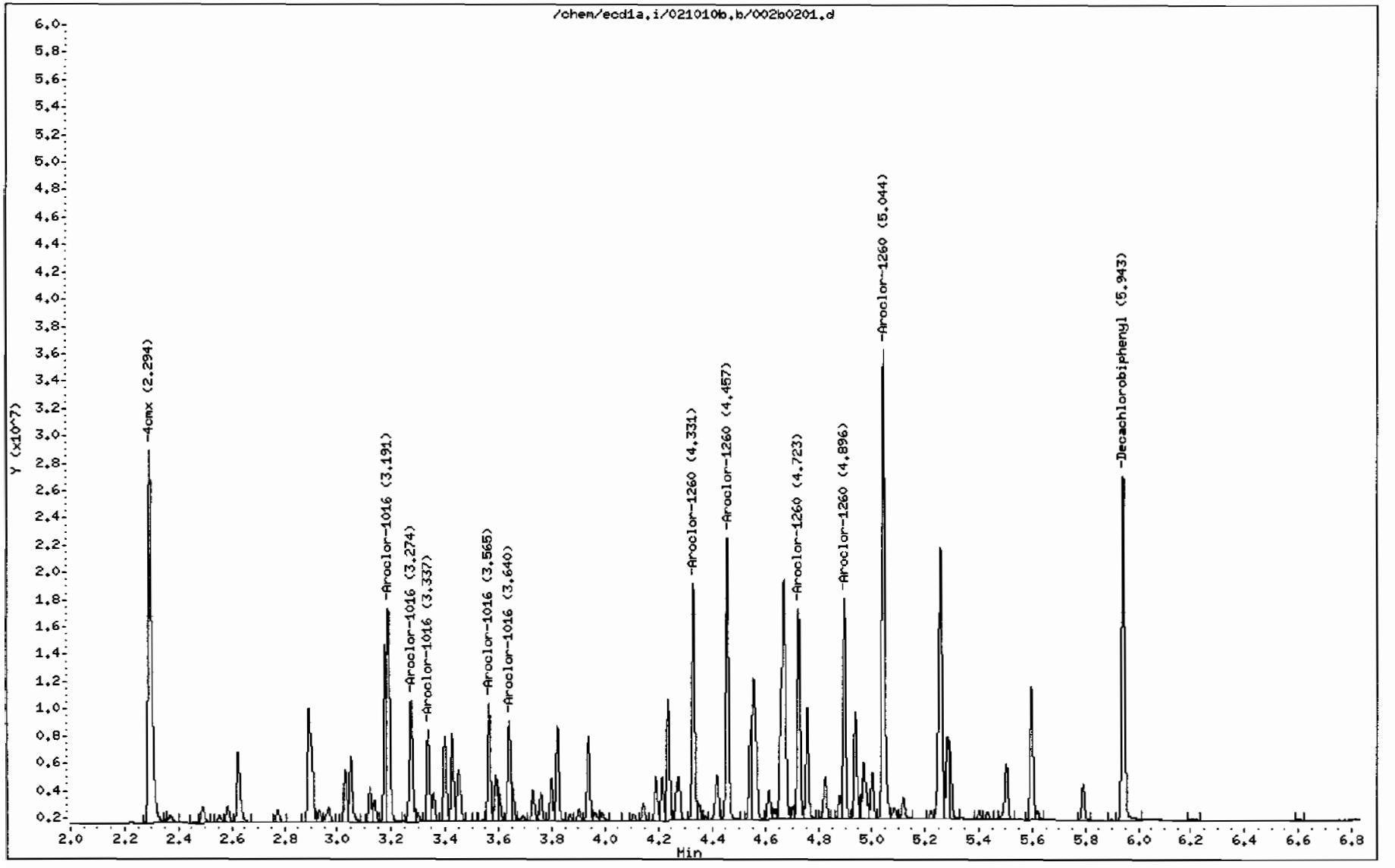
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 10-FEB-2010 13:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254 | | | | | CAS #: 11097-69-1 | | |
| 3.264 | 3.264 | 0.000 | 14862120 | 1000.00 | 942 | 80.00- 120.00 | 100.00 |
| 3.419 | 3.419 | 0.000 | 19889004 | 1000.00 | 932 | 113.82- 153.82 | 133.82 |
| 3.653 | 3.653 | 0.000 | 26256931 | 1000.00 | 963 | 156.67- 196.67 | 176.67 |
| 3.816 | 3.816 | 0.000 | 19806466 | 1000.00 | 960 | 113.27- 153.27 | 133.27 |
| 3.925 | 3.925 | 0.000 | 18999823 | 1000.00 | 970 | 107.84- 147.84 | 127.84 |
| | | Average of Peak Amounts = | | | 953 | | |

Data File: /chem/ecd1a.i/021010b.b/003f0301.d

Date : 10-FEB-2010 13:16

Client ID: AR125401

Sample Info: IWAR091216-54

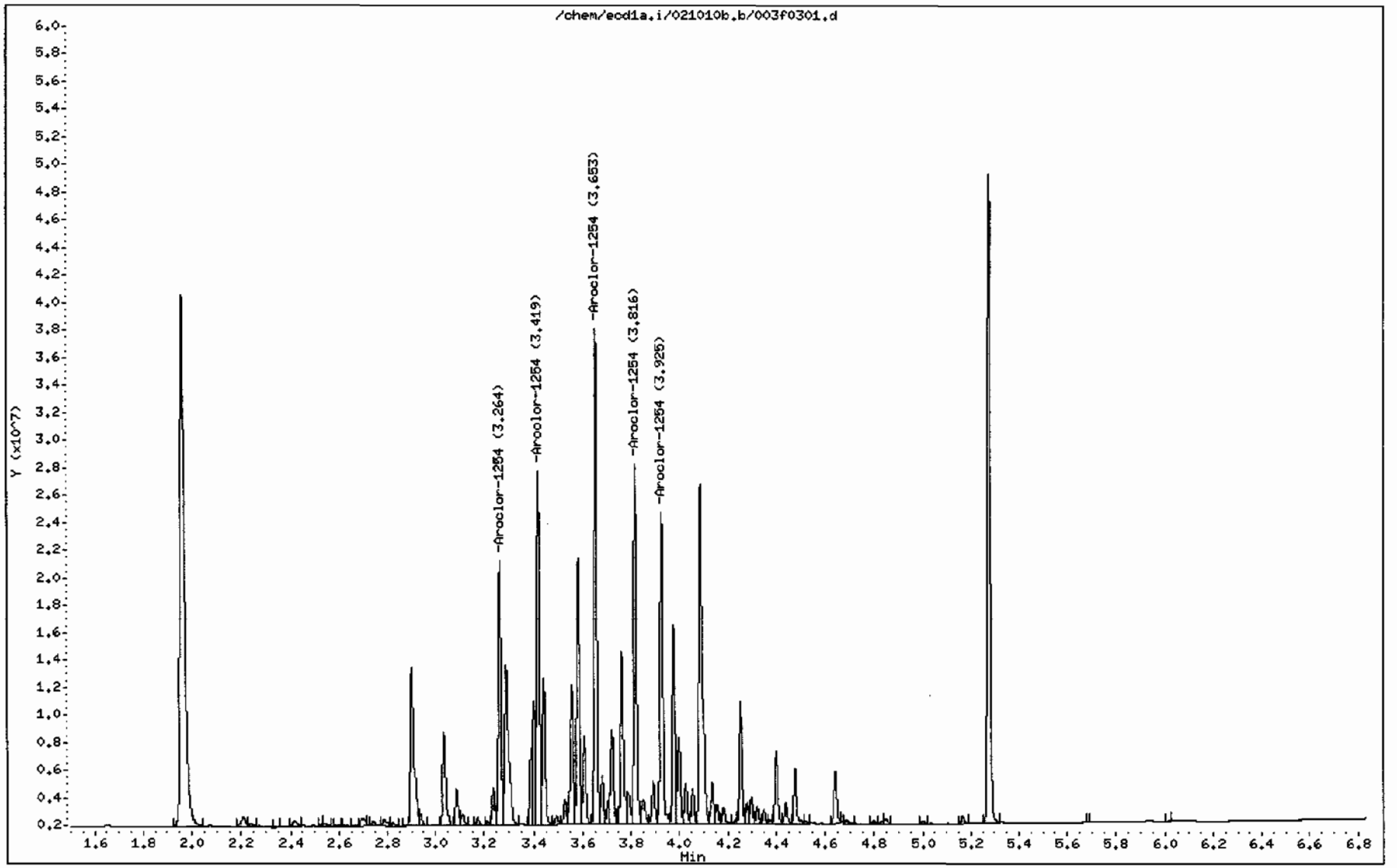
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 10-FEB-2010 13:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 6 Aroclor-1254 | | | | | CAS #: 11097-69-1 | | |
| 3.399 | 3.399 | 0.000 | 6134221 | 1000.00 | 925 | 80.00- 120.00 | 100.00 |
| 3.821 | 3.821 | 0.000 | 10370414 | 1000.00 | 886 | 149.06- 189.06 | 169.06 |
| 3.938 | 3.938 | 0.000 | 12132656 | 1000.00 | 941 | 177.79- 217.79 | 197.79 |
| 4.215 | 4.215 | 0.000 | 16880562 | 1000.00 | 954 | 255.19- 295.19 | 275.19 |
| 4.351 | 4.351 | 0.000 | 12485538 | 1000.00 | 947 | 183.54- 223.54 | 203.54 |
| Average of Peak Amounts = | | | | | 931 | | |

Data File: /chem/ecd1a.i/021010b.b/003b0301.d

Date : 10-FEB-2010 13:16

Client ID: AR125401

Sample Info: IWAR091216-54

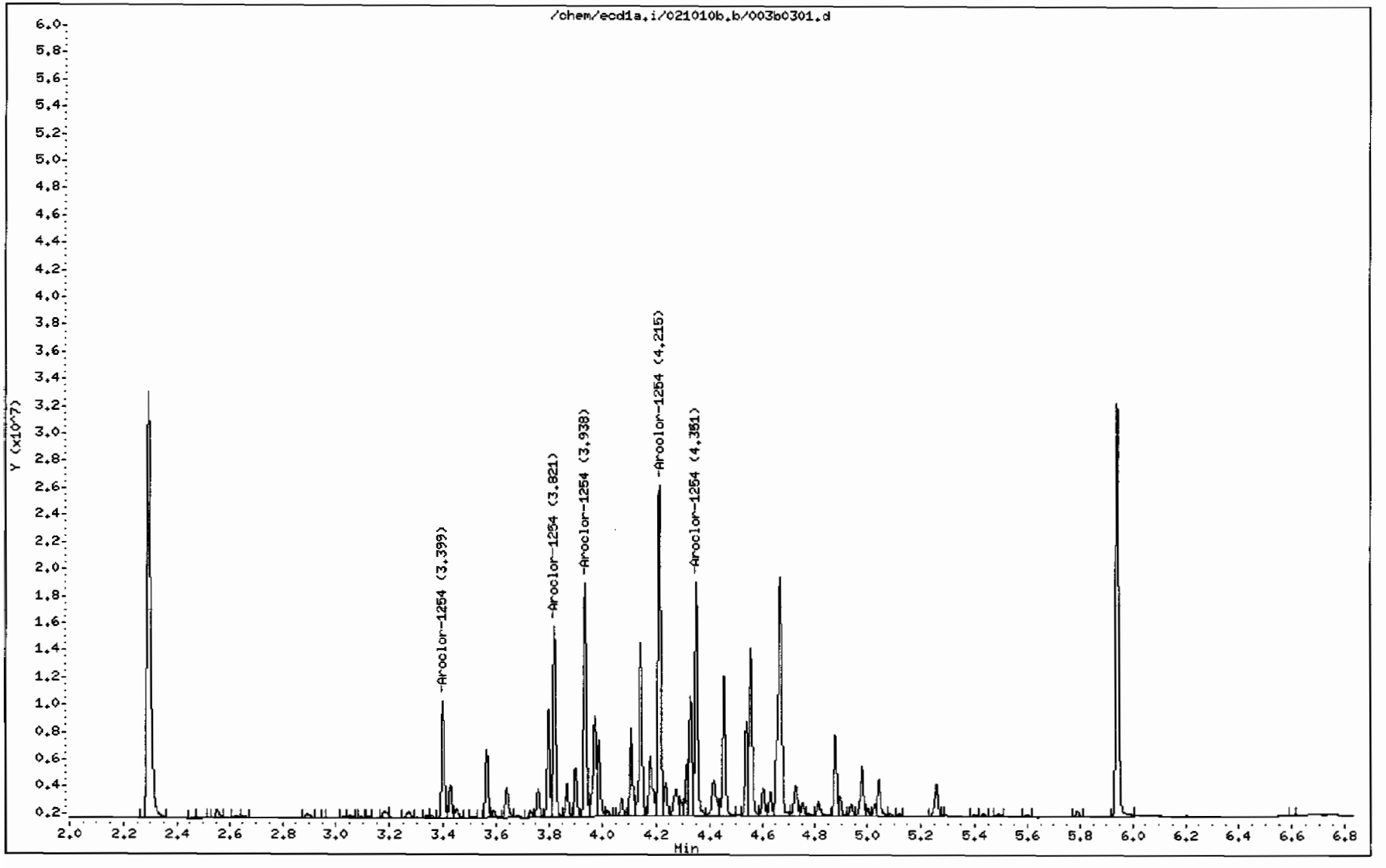
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 10-FEB-2010 13:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 4 Aroclor-1242 | | | | | CAS #: 53469-21-9 | | |
| 2.417 | 2.417 | 0.000 | 12604061 | 1000.00 | 1080 | 80.00- 120.00 | 100.00 |
| 2.706 | 2.706 | 0.000 | 15477446 | 1000.00 | 1150 | 102.80- 142.80 | 122.80 |
| 2.825 | 2.825 | 0.000 | 6033090 | 1000.00 | 1100 | 27.87- 67.87 | 47.87 |
| 3.035 | 3.035 | 0.000 | 7942384 | 1000.00 | 1100 | 43.01- 83.01 | 63.01 |
| 3.289 | 3.289 | 0.000 | 7572953 | 1000.00 | 1110 | 40.08- 80.08 | 60.08 |

Average of Peak Amounts = 1.11e+03

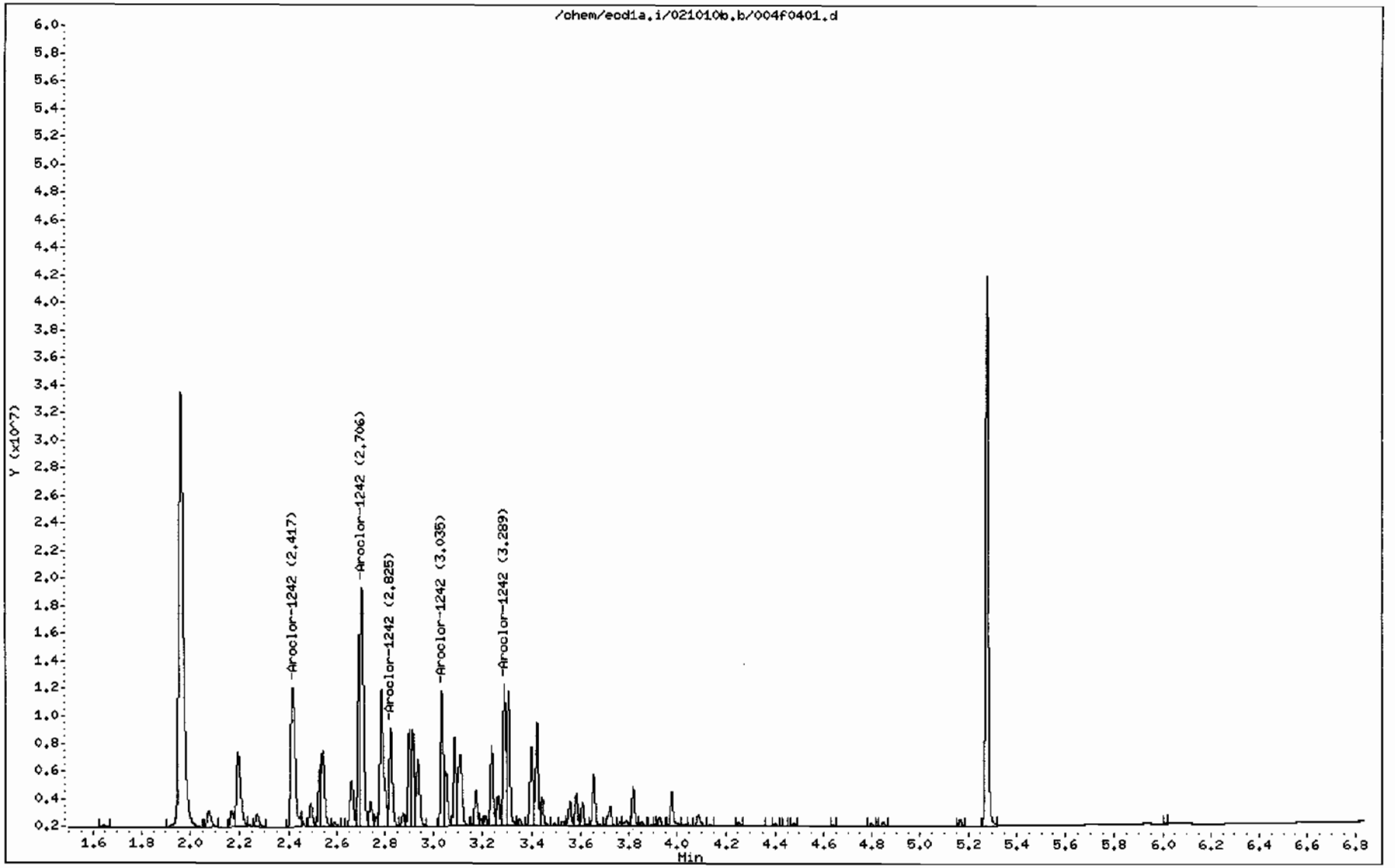
Data File: /chem/ecd1a.i/021010b.b/004f0401.d
Date : 10-FEB-2010 13:27
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 10-FEB-2010 13:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 14:03 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 4 Aroclor-1242 | | | | | CAS #: 53469-21-9 | | |
| 3.191 | 3.191 | 0.000 | 9856923 | 1000.00 | 931 | 80.00- 120.00 | 100.00 |
| 3.274 | 3.274 | 0.000 | 6476461 | 1000.00 | 804 | 45.70- 85.70 | 65.70 |
| 3.565 | 3.565 | 0.000 | 5071271 | 1000.00 | 850 | 31.45- 71.45 | 51.45 |
| 3.799 | 3.799 | 0.000 | 5198330 | 1000.00 | 858 | 32.74- 72.74 | 52.74 |
| 3.826 | 3.826 | 0.000 | 5799878 | 1000.00 | 865 | 38.84- 78.84 | 58.84 |
| | | Average of Peak Amounts = | | | 862 | | |

Data File: /chem/ecd1a.i/021010b.b/004b0401.d

Date : 10-FEB-2010 13:27

Client ID: AR124201

Sample Info: IWAR091217-42

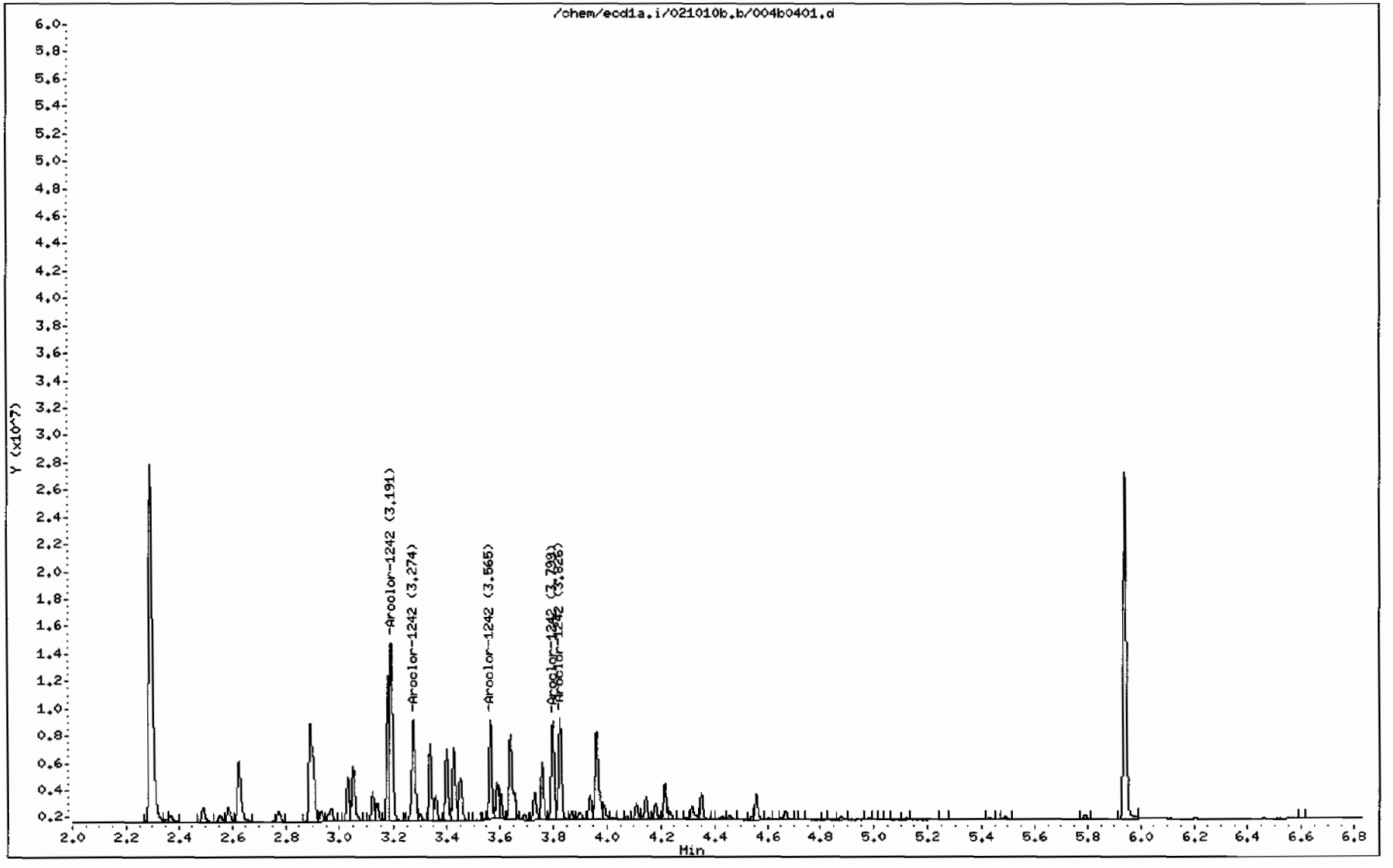
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/021010b.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 10-FEB-2010 13:37
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecdla.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Aroclor-1248 | | | | | CAS #: 12672-29-6 | | |
| 3.087 | 3.087 | 0.000 | 9646914 | 1000.00 | 1230 | 80.00- 120.00 | 100.00 |
| 3.238 | 3.238 | 0.000 | 8327596 | 1000.00 | 1210 | 66.32- 106.32 | 86.32 |
| 3.289 | 3.289 | 0.000 | 16249593 | 1000.00 | 1220 | 148.44- 188.44 | 168.44 |
| 3.421 | 3.421 | 0.000 | 13232365 | 1000.00 | 1200 | 117.17- 157.17 | 137.17 |
| 3.654 | 3.654 | 0.000 | 8607374 | 1000.00 | 1150 | 69.22- 109.22 | 89.22 |

Average of Peak Amounts = 1.2e+03

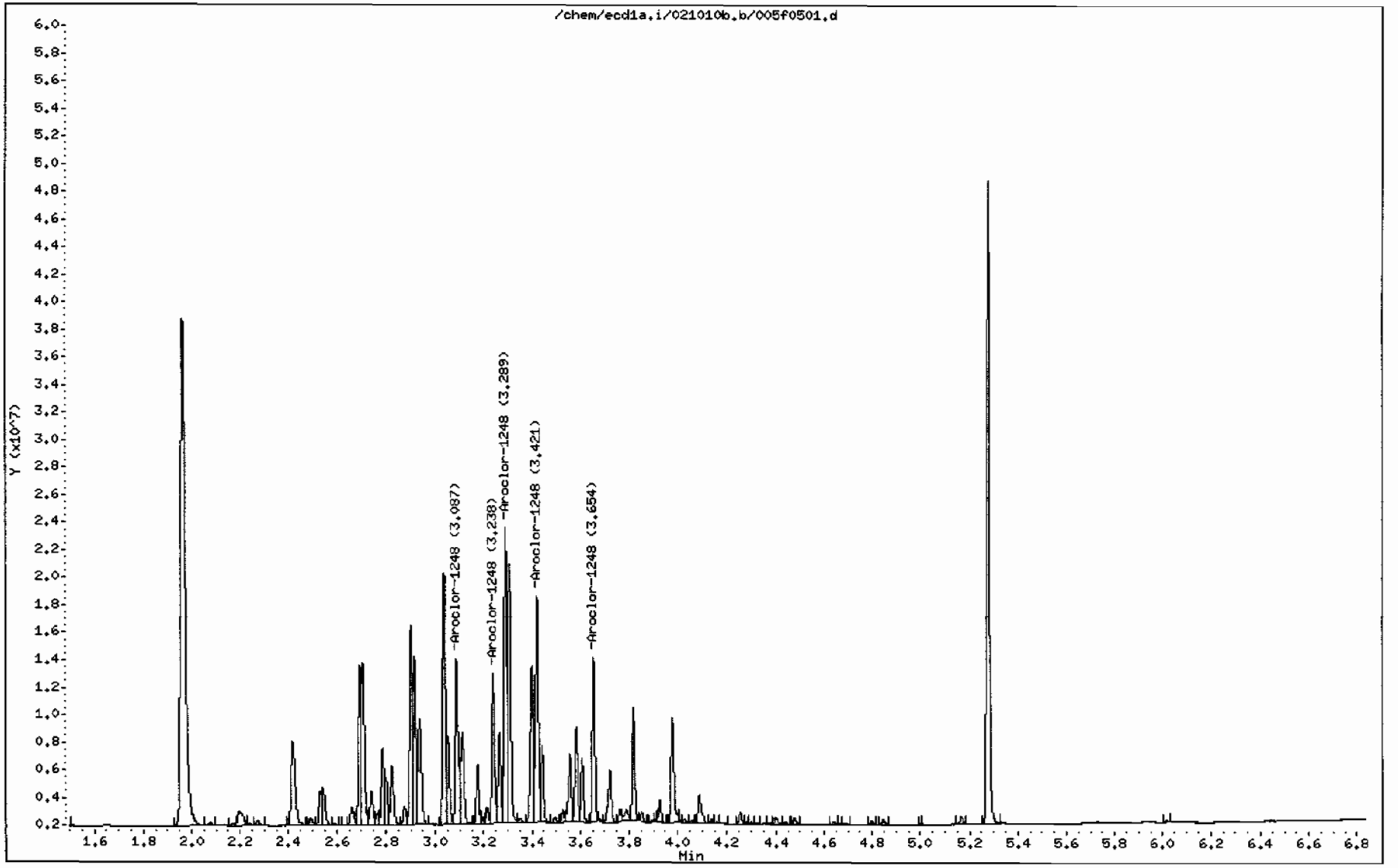
Data File: /chem/ecd1a.i/021010b.b/005f0501.d
Date : 10-FEB-2010 13:37
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 10-FEB-2010 13:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 5 Aroclor-1248 | | | | | CAS #: 12672-29-6 | | |
| 3.399 | 3.399 | 0.000 | 7590613 | 1000.00 | 942 | 80.00- 120.00 | 100.00 |
| 3.565 | 3.565 | 0.000 | 9535062 | 1000.00 | 966 | 105.62- 145.62 | 125.62 |
| 3.799 | 3.799 | 0.000 | 10944029 | 1000.00 | 975 | 124.18- 164.18 | 144.18 |
| 3.826 | 3.826 | 0.000 | 12182625 | 1000.00 | 976 | 140.50- 180.50 | 160.50 |
| 3.964 | 3.964 | 0.000 | 11735967 | 1000.00 | 970 | 134.61- 174.61 | 154.61 |
| | | Average of Peak Amounts | | | 966 | | |

Data File: /chem/ecd1a.i/021010b.b/005b0501.d

Date : 10-FEB-2010 13:37

Client ID: AR124801

Sample Info: IWAR091217-48

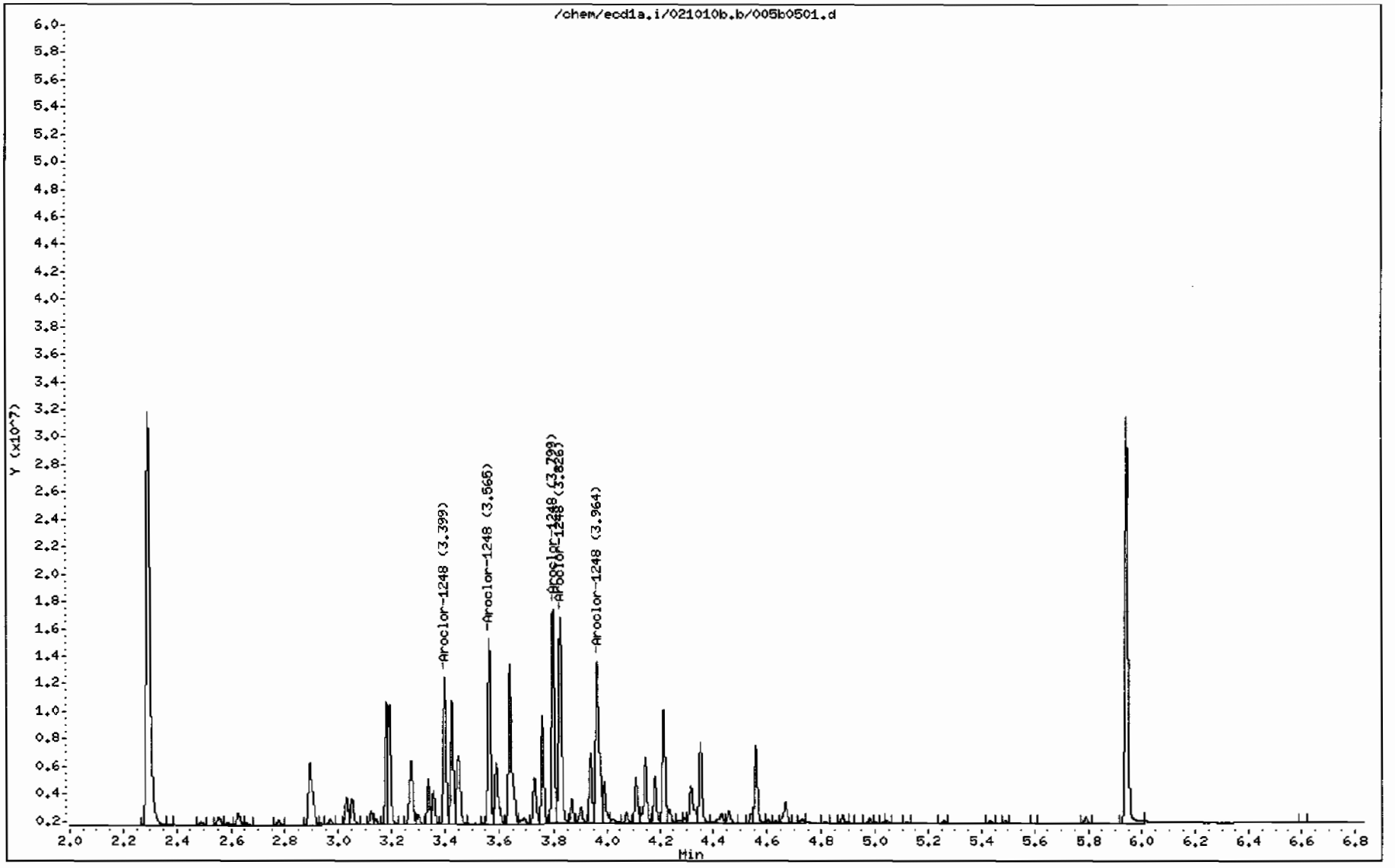
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 10-FEB-2010 14:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 11-Feb-2010 07:52 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 76 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 3 Aroclor-1232 | | | | | CAS #: 11141-16-5 | | |
| 2.421 | 2.421 | 0.000 | 7498432 | 1000.00 | 1090 | 80.00- 120.00 | 100.00 |
| 2.710 | 2.710 | 0.000 | 9847806 | 1000.00 | 1170 | 111.33- 151.33 | 131.33 |
| 2.791 | 2.791 | 0.000 | 6307812 | 1000.00 | 1120 | 64.12- 104.12 | 84.12 |
| 3.040 | 3.040 | 0.000 | 4621432 | 1000.00 | 1160 | 41.63- 81.63 | 61.63 |
| 3.295 | 3.295 | 0.000 | 4258058 | 1000.00 | 1100 | 36.79- 76.79 | 56.79 |

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/021010b.b/006f0601.d

Date : 10-FEB-2010 14:01

Client ID: AR123201

Sample Info: IWAR100104-32

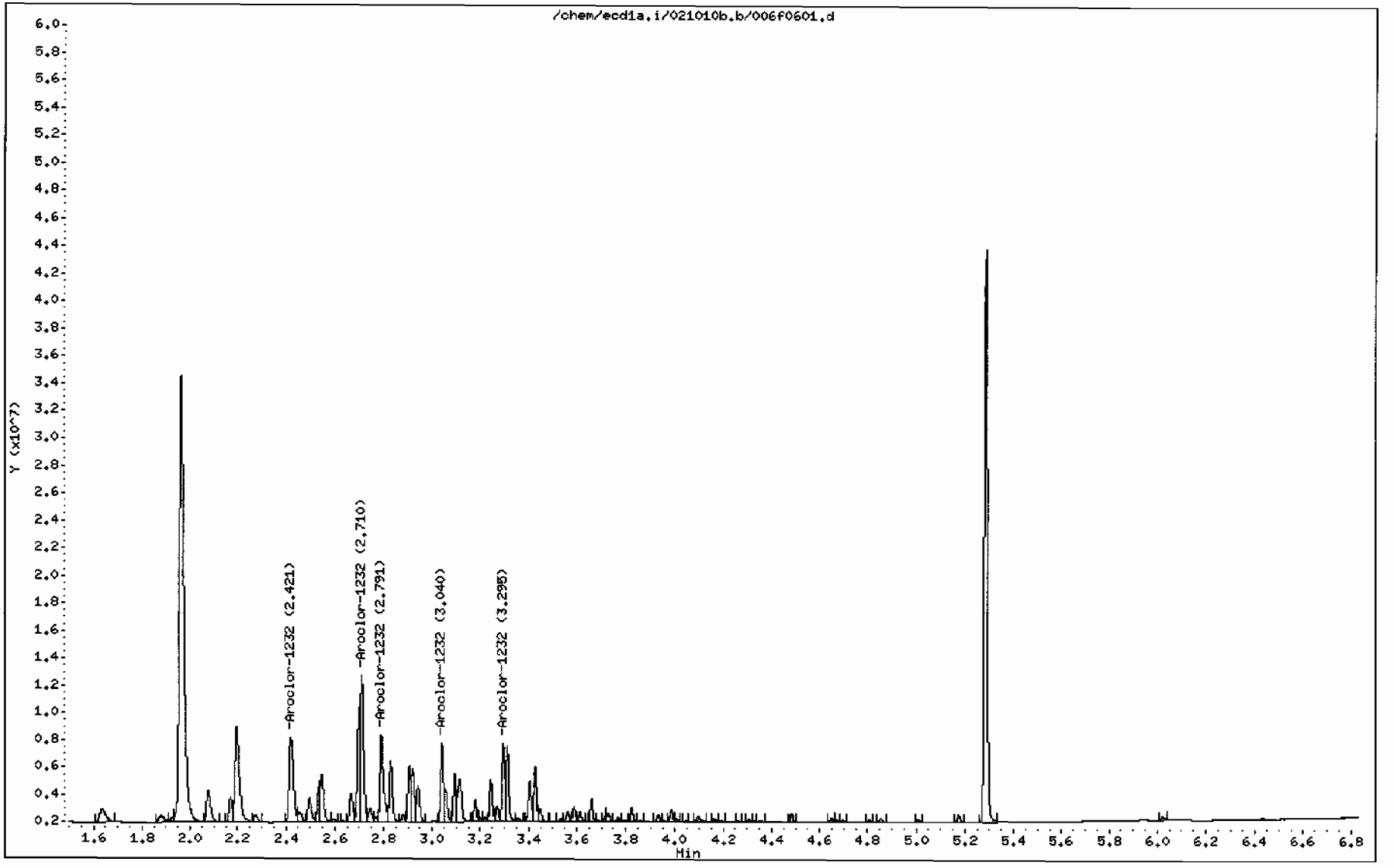
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 10-FEB-2010 14:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 15:12 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 76 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 3 Aroclor-1232 | | | | | CAS #: 11141-16-5 | | |
| 2.895 | 2.895 | 0.000 | 5415236 | 1000.00 | 919 | 80.00- 120.00 | 100.00 |
| 3.194 | 3.194 | 0.000 | 5934560 | 1000.00 | 954 | 89.59- 129.59 | 109.59 |
| 3.277 | 3.277 | 0.000 | 4101022 | 1000.00 | 944 | 55.73- 95.73 | 75.73 |
| 3.568 | 3.568 | 0.000 | 3049355 | 1000.00 | 980 | 36.31- 76.31 | 56.31 |
| 3.802 | 3.802 | 0.000 | 2969250 | 1000.00 | 930 | 34.83- 74.83 | 54.83 |
| Average of Peak Amounts = | | | | | 945 | | |

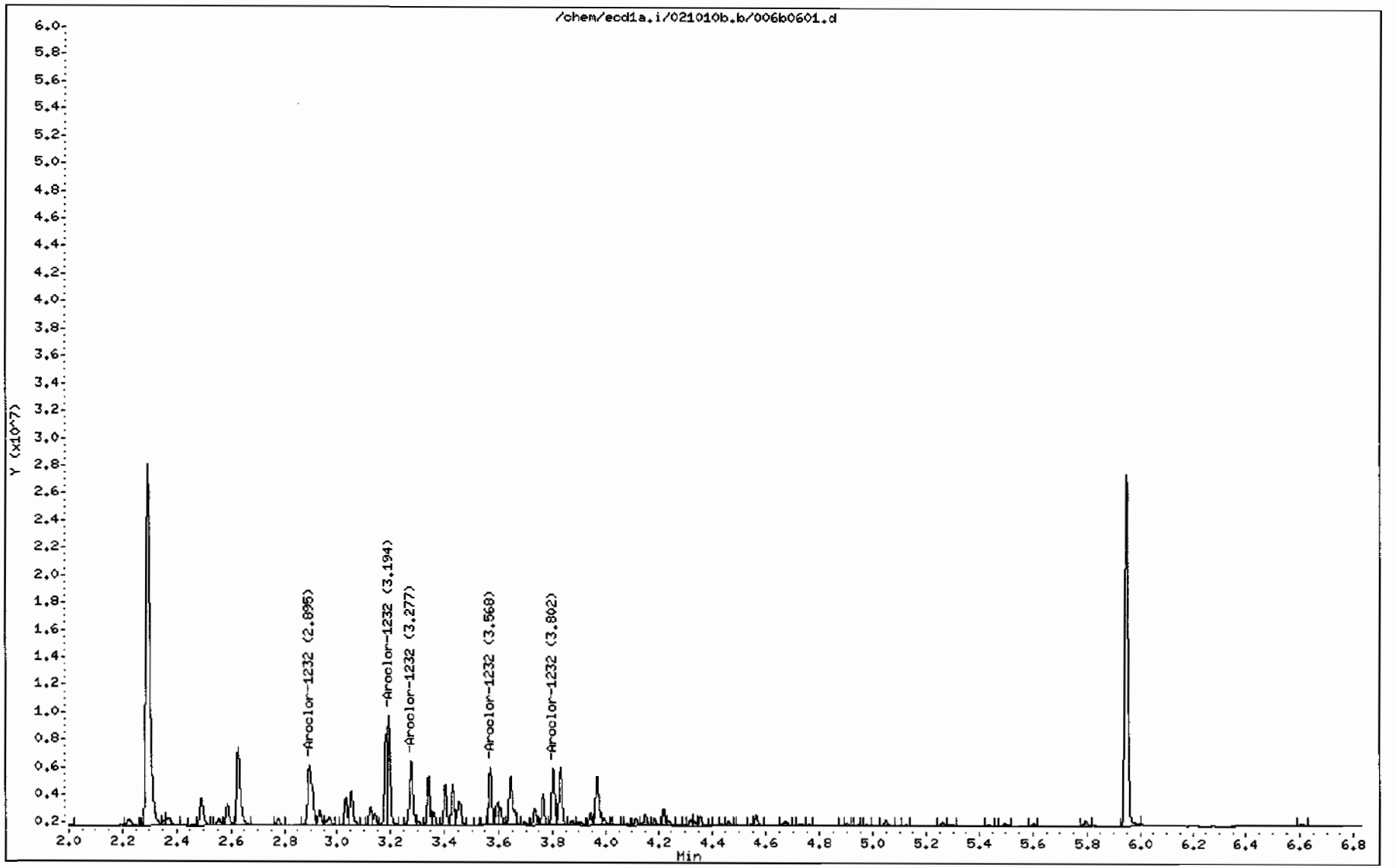
Data File: /chem/ecd1a.i/021010b.b/006b0601.d
Date : 10-FEB-2010 14:01
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 10-FEB-2010 14:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 15:15 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 2 Aroclor-1221 | | | | | CAS #: 11104-28-2 | | |
| 2.076 | 2.076 | 0.000 | 4915893 | 1000.00 | 1140 | 80.00- 120.00 | 100.00 |
| 2.169 | 2.169 | 0.000 | 2675476 | 1000.00 | 1100 | 34.43- 74.43 | 54.43 |
| 2.195 | 2.195 | 0.000 | 11790911 | 1000.00 | 1150 | 219.85- 259.85 | 239.85 |

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/021010b.b/007f0701.d

Date : 10-FEB-2010 14:11

Client ID: AR122101

Sample Info: IWAR100104-21

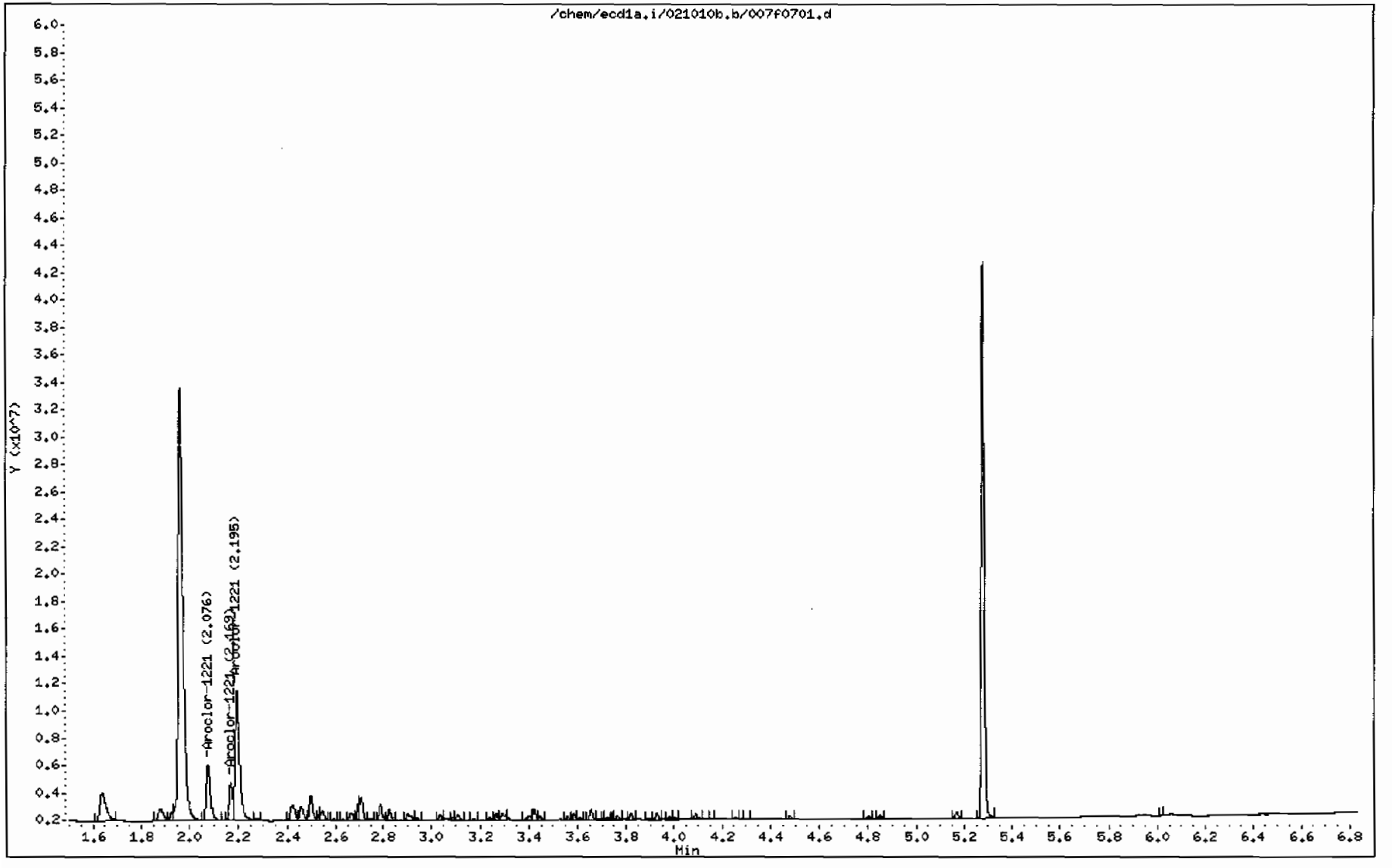
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 10-FEB-2010 14:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 15:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 2 Aroclor-1221 | | | | | CAS #: 11104-28-2 | | |
| 2.491 | 2.491 | 0.000 | 3548255 | 1000.00 | 975 | 80.00- 120.00 | 100.00 |
| 2.586 | 2.586 | 0.000 | 2188828 | 1000.00 | 940 | 41.69- 81.69 | 61.69 |
| 2.626 | 2.626 | 0.000 | 7418216 | 1000.00 | 914 | 189.07- 229.07 | 209.07 |
| Average of Peak Amounts = | | | | | 943 | | |

Data File: /chem/ecd1a.i/021010b.b/007b0701.d

Date : 10-FEB-2010 14:11

Client ID: AR122101

Sample Info: IWAR100104-21

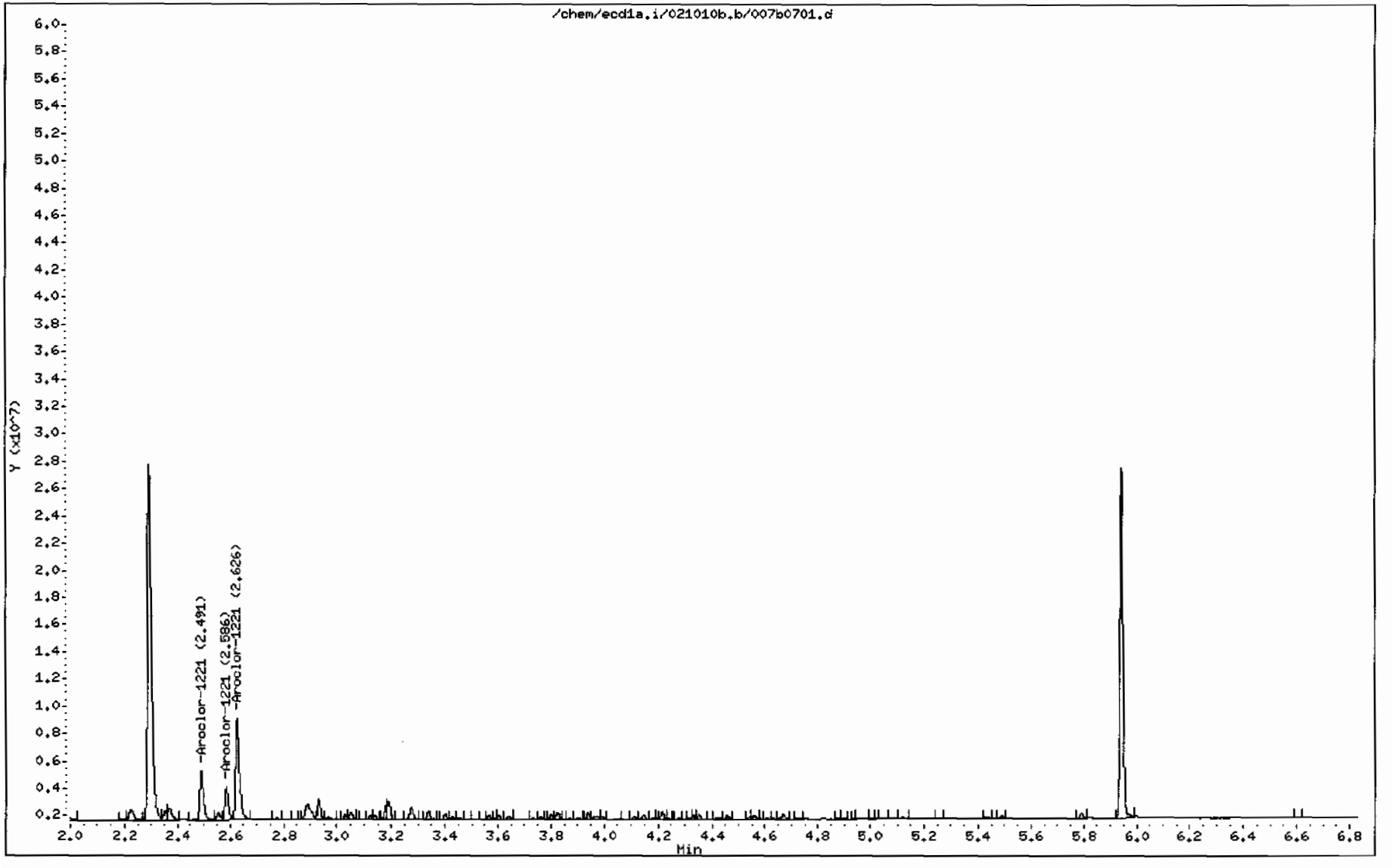
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/009f0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 10-FEB-2010 14:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 15:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 9 Aroclor-1268 | | | | | CAS #: 11100-14-4 | | |
| 4.662 | 4.662 | 0.000 | 49167849 | 1000.00 | 937 | 80.00- 120.00 | 100.00 |
| 4.685 | 4.685 | 0.000 | 46891661 | 1000.00 | 974 | 75.37- 115.37 | 95.37 |
| 4.798 | 4.798 | 0.000 | 37041350 | 1000.00 | 1000 | 55.34- 95.34 | 75.34 |
| 5.001 | 5.001 | 0.000 | 18556074 | 1000.00 | 1140 | 17.74- 57.74 | 37.74 |
| 5.167 | 5.167 | 0.000 | 117519312 | 1000.00 | 1080 | 219.02- 259.02 | 239.02 |

Average of Peak Amounts = 1.03e+03

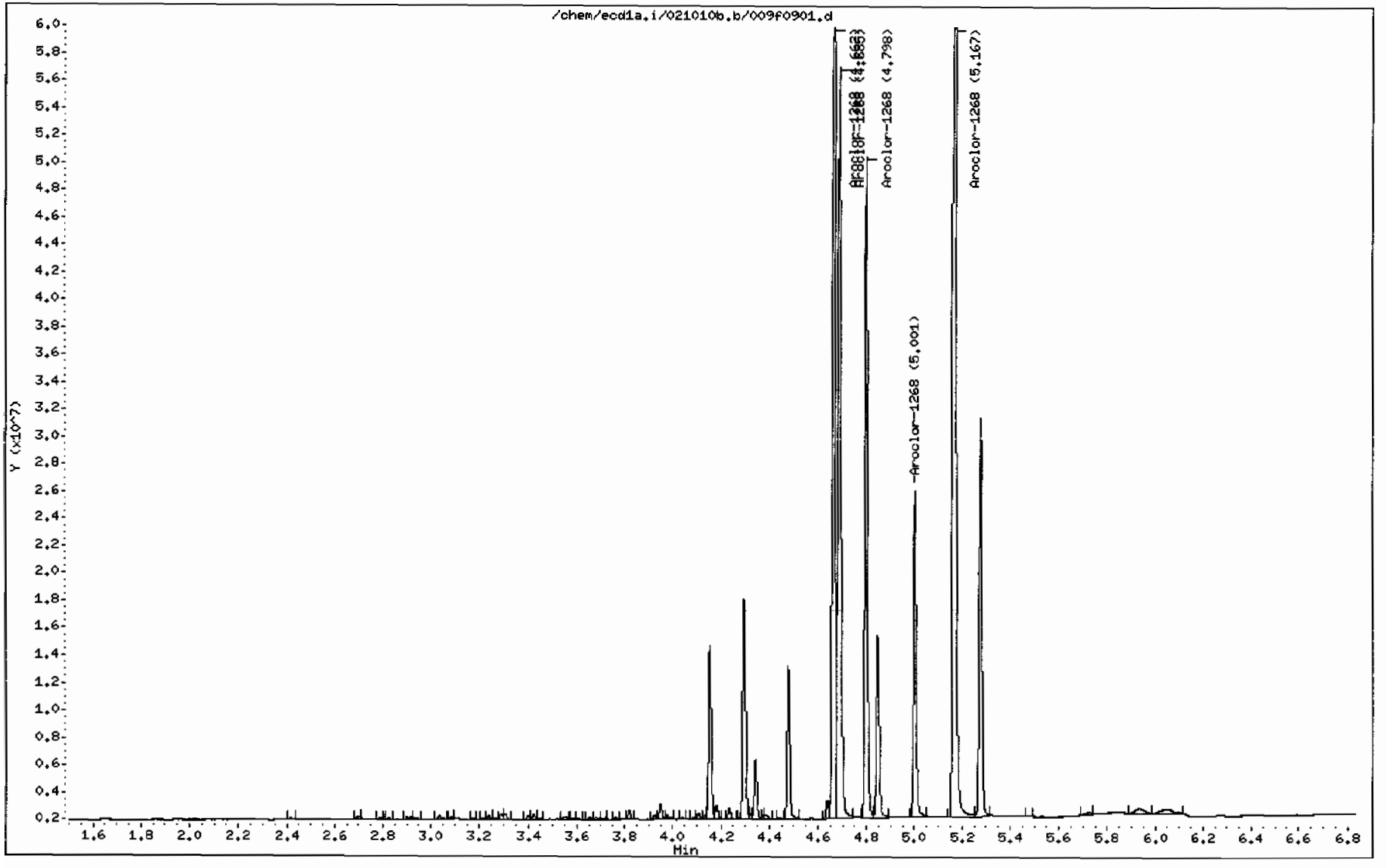
Data File: /chem/ecd1a.i/021010b.b/009f0901.d
Date : 10-FEB-2010 14:32
Client ID: AR126801
Sample Info: IWAR100107-68

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/009b0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 10-FEB-2010 14:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 15:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 9 Aroclor-1268 | | | | | CAS #: 11100-14-4 | | |
| 5.255 | 5.255 | 0.000 | 31440810 | 1000.00 | 867 | 80.00- 120.00 | 100.00 |
| 5.283 | 5.283 | 0.000 | 30209004 | 1000.00 | 900 | 76.08- 116.08 | 96.08 |
| 5.433 | 5.433 | 0.000 | 23642882 | 1000.00 | 910 | 55.20- 95.20 | 75.20 |
| 5.597 | 5.597 | 0.000 | 11736345 | 1000.00 | 1030 | 17.33- 57.33 | 37.33 |
| 5.790 | 5.790 | 0.000 | 73598593 | 1000.00 | 1100 | 214.09- 254.09 | 234.09 |
| Average of Peak Amounts = | | | | | 962 | | |

Data File: /chem/ecd1a.i/021010b.b/009b0901.d

Date : 10-FEB-2010 14:32

Client ID: AR126801

Sample Info: IWAR100107-68

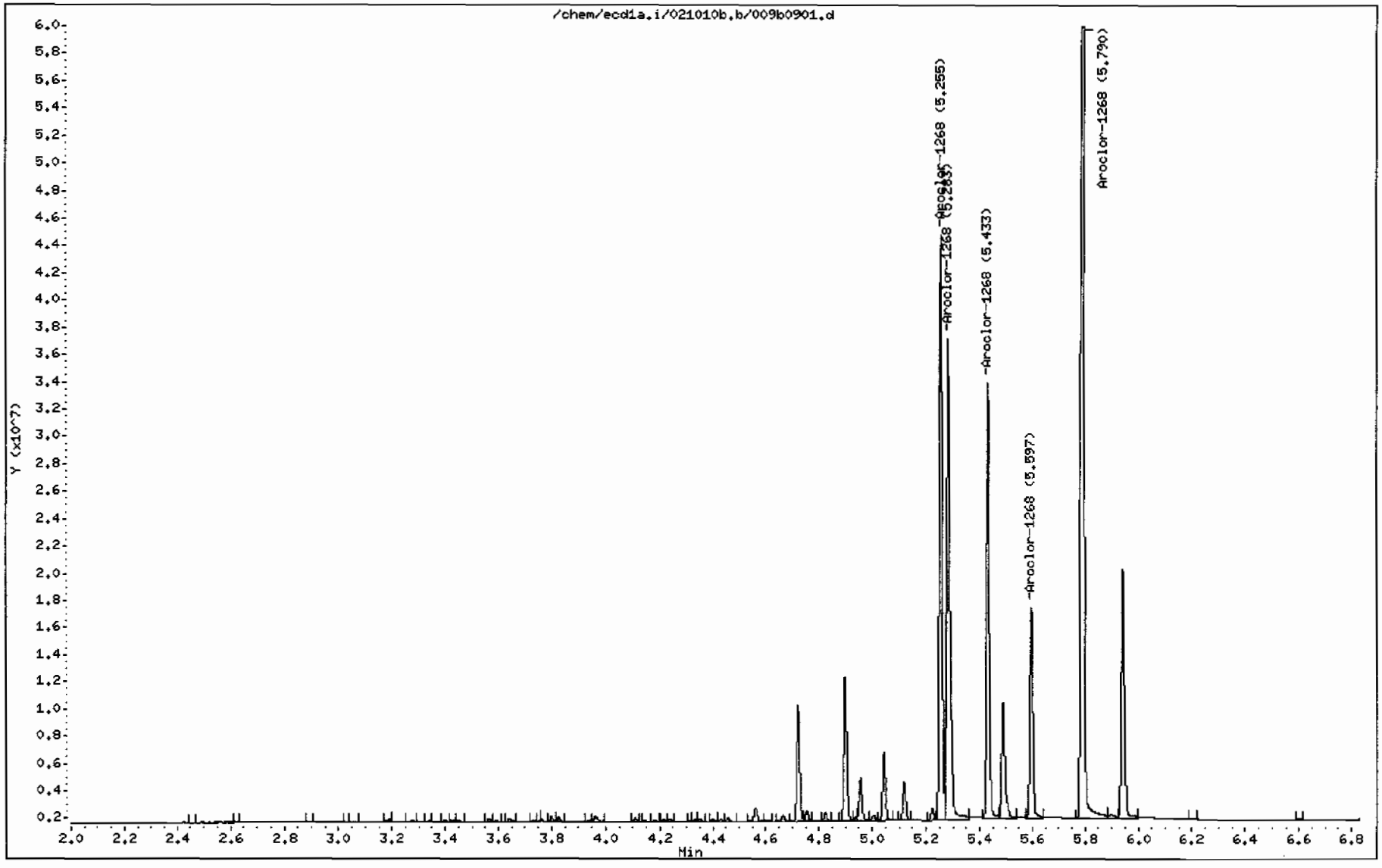
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/013f1301.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 10-FEB-2010 15:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 15:37 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.964 | 1.962 | 0.002 | 43938922 | 100.000 | 110 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.275 | 5.278 | -0.003 | 32323143 | 100.000 | 100 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.419 | 2.418 | 0.001 | 15595706 | 1000.00 | 1060 | 80.00- 120.00 | 100.00 |
| 2.706 | 2.706 | 0.000 | 19738893 | 1000.00 | 1080 | 106.57- 146.57 | 126.57 |
| 2.787 | 2.787 | 0.000 | 12462761 | 1000.00 | 1040 | 59.91- 99.91 | 79.91 |
| 2.825 | 2.825 | 0.000 | 7532735 | 1000.00 | 1050 | 28.30- 68.30 | 48.30 |
| 3.035 | 3.036 | -0.001 | 9639403 | 1000.00 | 1040 | 41.81- 81.81 | 61.81 |
| Average of Peak Amounts = | | | | | 1.05e+03 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.761 | 3.762 | -0.001 | 19867936 | 1000.00 | 1130 | 80.00- 120.00 | 100.00 |
| 3.925 | 3.926 | -0.001 | 29816672 | 1000.00 | 1120 | 130.07- 170.07 | 150.07 |
| 4.155 | 4.156 | -0.001 | 17778956 | 1000.00 | 1120 | 69.49- 109.49 | 89.49 |
| 4.297 | 4.299 | -0.002 | 18563902 | 1000.00 | 1120 | 73.44- 113.44 | 93.44 |
| 4.476 | 4.478 | -0.002 | 41518290 | 1000.00 | 1120 | 188.97- 228.97 | 208.97 |
| Average of Peak Amounts = | | | | | 1.12e+03 | | |

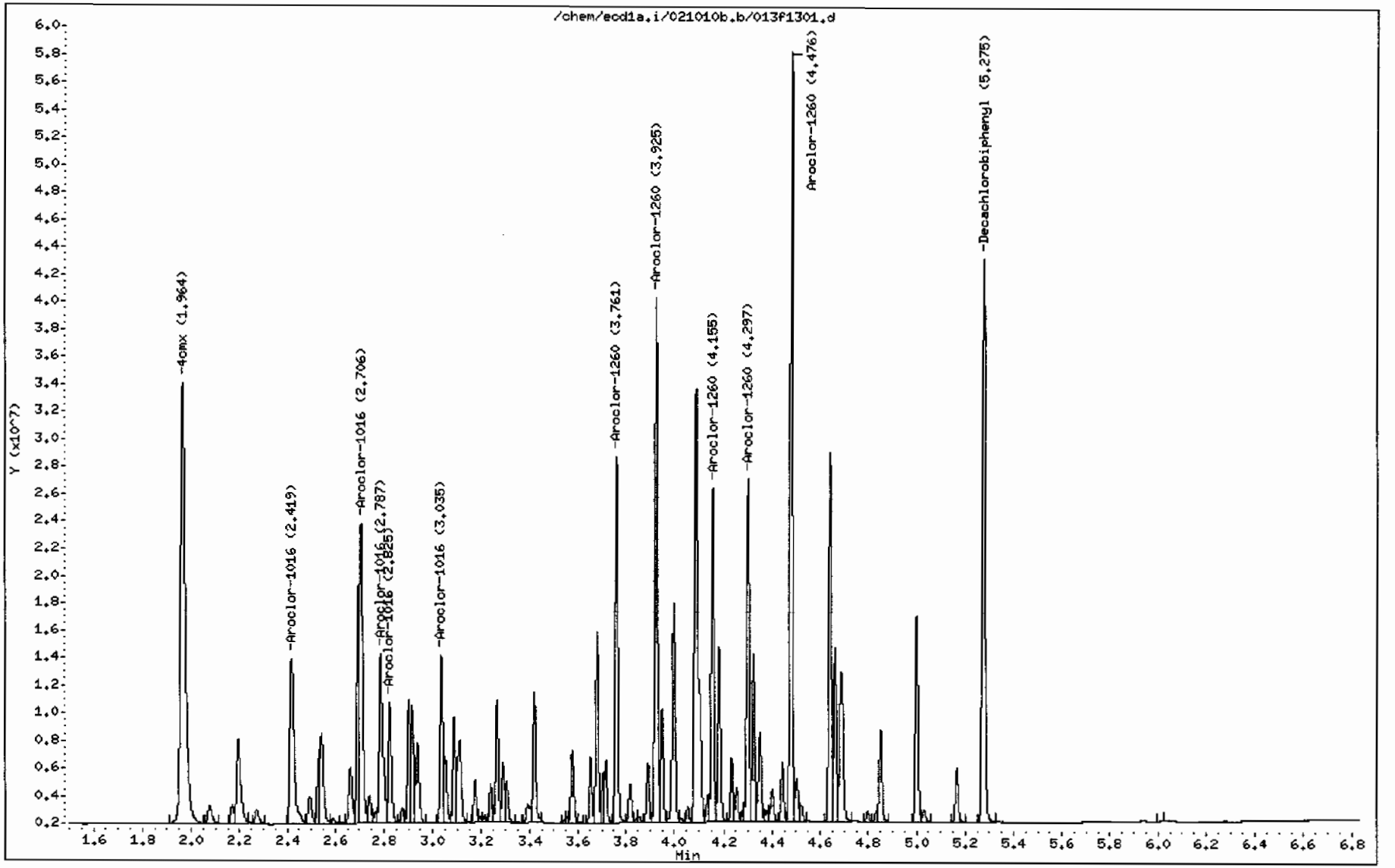
Data File: /chem/ecd1a.i/021010b.b/013f1301.d
Date : 10-FEB-2010 15:15
Client ID: AR166002
Sample Info: IWAR100203-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/013b1301.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 10-FEB-2010 15:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 15:36 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.295 | 2.294 | 0.001 | 27967792 | 100.000 | 97.4 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.943 | -0.002 | 20135201 | 100.000 | 92.5 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.190 | 3.191 | -0.001 | 12169689 | 1000.00 | 975 | 80.00- 120.00 | 100.00(M) |
| 3.274 | 3.274 | 0.000 | 7824979 | 1000.00 | 916 | 44.30- 84.30 | 64.30 |
| 3.337 | 3.337 | 0.000 | 4842342 | 1000.00 | 915 | 19.79- 59.79 | 39.79 |
| 3.565 | 3.565 | 0.000 | 6075793 | 1000.00 | 892 | 29.93- 69.93 | 49.93 |
| 3.640 | 3.640 | 0.000 | 5779567 | 1000.00 | 902 | 27.49- 67.49 | 56.21 |
| Average of Peak Amounts = | | | | | 920 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.330 | 4.331 | -0.001 | 12584029 | 1000.00 | 995 | 80.00- 120.00 | 100.00 |
| 4.455 | 4.457 | -0.002 | 15266696 | 1000.00 | 1000 | 101.32- 141.32 | 121.32 |
| 4.722 | 4.723 | -0.001 | 11631343 | 1000.00 | 998 | 72.43- 112.43 | 92.43 |
| 4.895 | 4.896 | -0.001 | 12041627 | 1000.00 | 999 | 75.69- 115.69 | 95.69 |
| 5.043 | 5.044 | -0.001 | 26770404 | 1000.00 | 1030 | 192.73- 232.73 | 212.73 |
| Average of Peak Amounts = | | | | | 1e+03 | | |

QC Flag Legend

M - Compound response manually integrated.

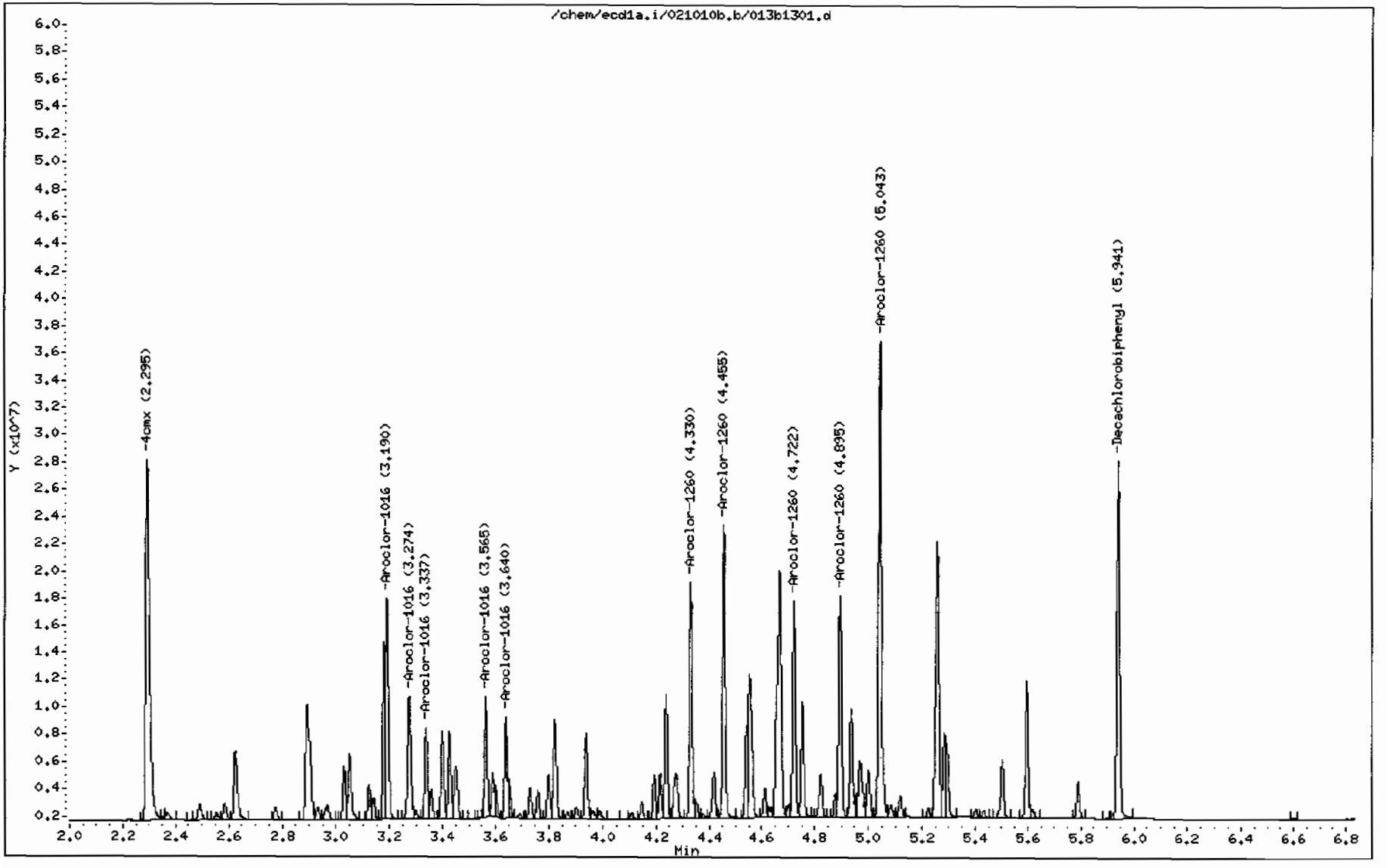
Data File: /chem/ecd1a.i/021010b.b/013b1301.d
Date : 10-FEB-2010 15:15
Client ID: AR166002
Sample Info: !WAR100203-60 02

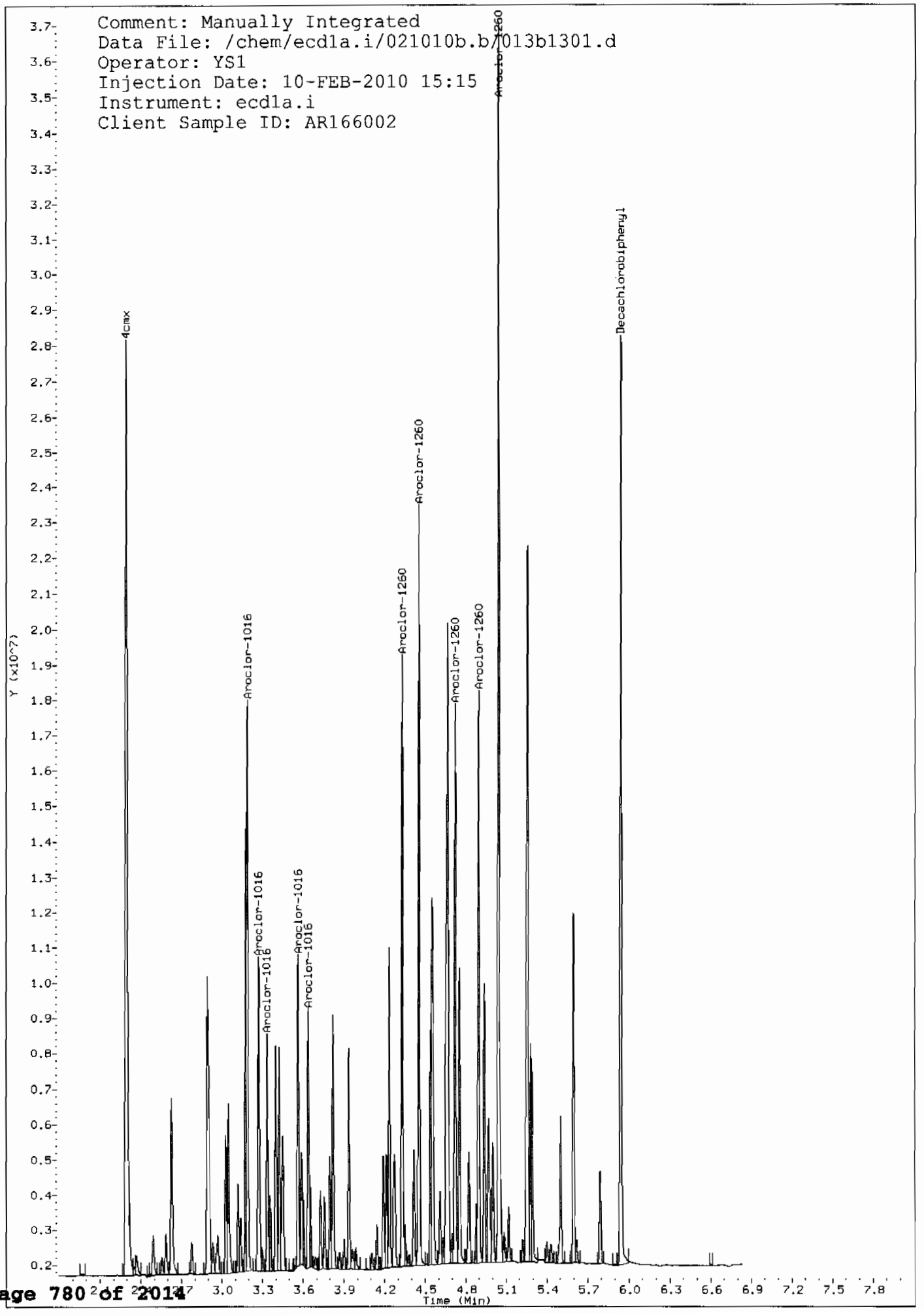
Column phase: CLP2

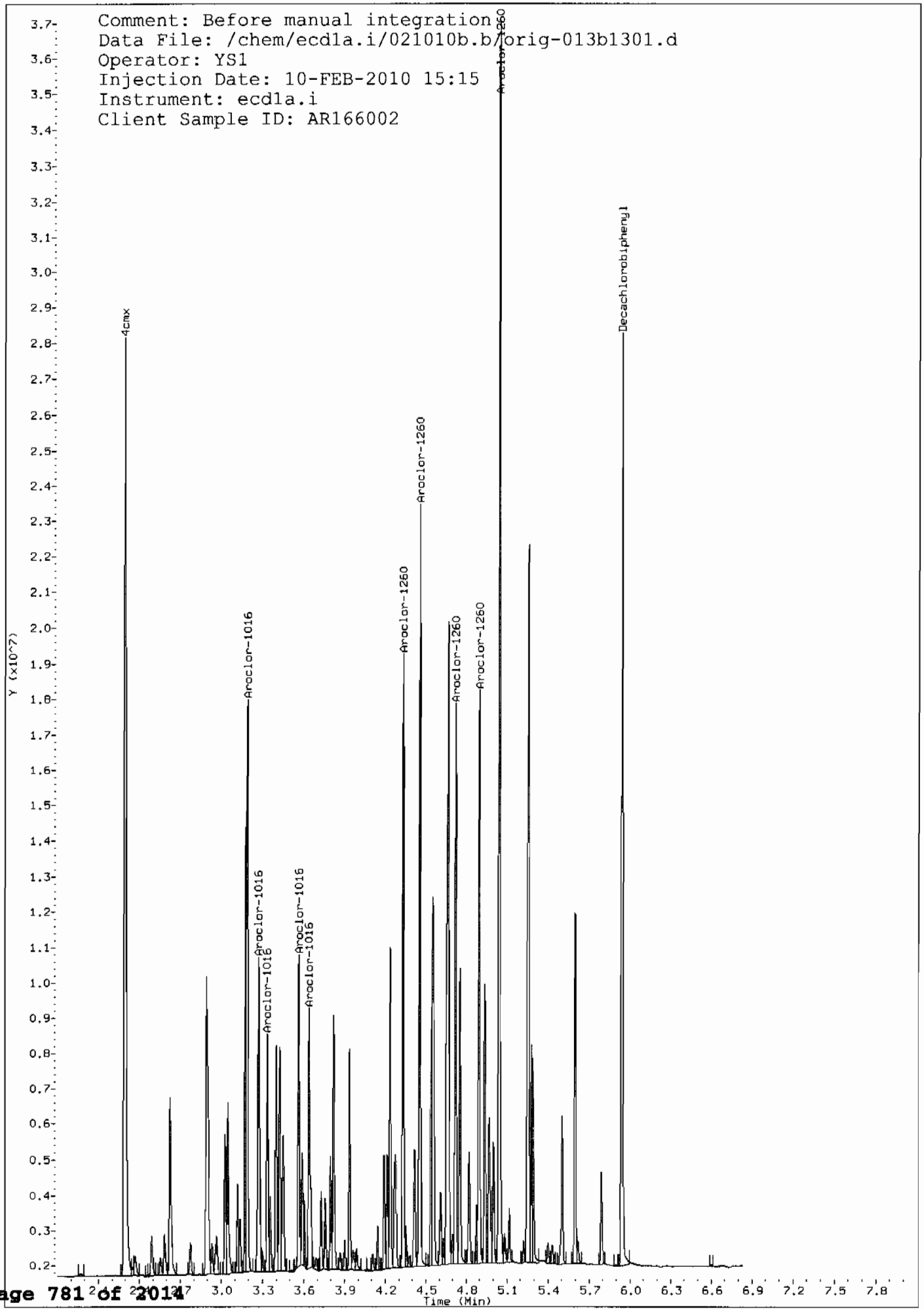
Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25






Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/013b1301.d
Operator: YS1
Injection Date: 10-FEB-2010 15:15
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-013b1301.d
Operator: YS1
Injection Date: 10-FEB-2010 15:15
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/025f2501.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 10-FEB-2010 17:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.963 | 1.962 | 0.001 | 43852520 | 100.000 | 110 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.274 | 5.278 | -0.004 | 32192614 | 100.000 | 99.6 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.418 | 2.418 | 0.000 | 14818778 | 1000.00 | 1010 | 80.00- 120.00 | 100.00 |
| 2.706 | 2.706 | 0.000 | 20050915 | 1000.00 | 1090 | 115.31- 155.31 | 135.31 |
| 2.786 | 2.787 | -0.001 | 12428853 | 1000.00 | 1030 | 63.87- 103.87 | 83.87 |
| 2.824 | 2.825 | -0.001 | 7458975 | 1000.00 | 1040 | 30.33- 70.33 | 50.33 |
| 3.034 | 3.036 | -0.002 | 9526714 | 1000.00 | 1020 | 44.29- 84.29 | 64.29 |
| Average of Peak Amounts = | | | | | 1.04e+03 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.760 | 3.762 | -0.002 | 18433263 | 1000.00 | 1040 | 80.00- 120.00 | 100.00 |
| 3.923 | 3.926 | -0.003 | 27635609 | 1000.00 | 1040 | 129.92- 169.92 | 149.92 |
| 4.153 | 4.156 | -0.003 | 16532014 | 1000.00 | 1040 | 69.69- 109.69 | 89.69 |
| 4.296 | 4.299 | -0.003 | 17311603 | 1000.00 | 1040 | 73.92- 113.92 | 93.92 |
| 4.476 | 4.478 | -0.002 | 38637628 | 1000.00 | 1040 | 189.61- 229.61 | 209.61 |
| Average of Peak Amounts = | | | | | 1.04e+03 | | |

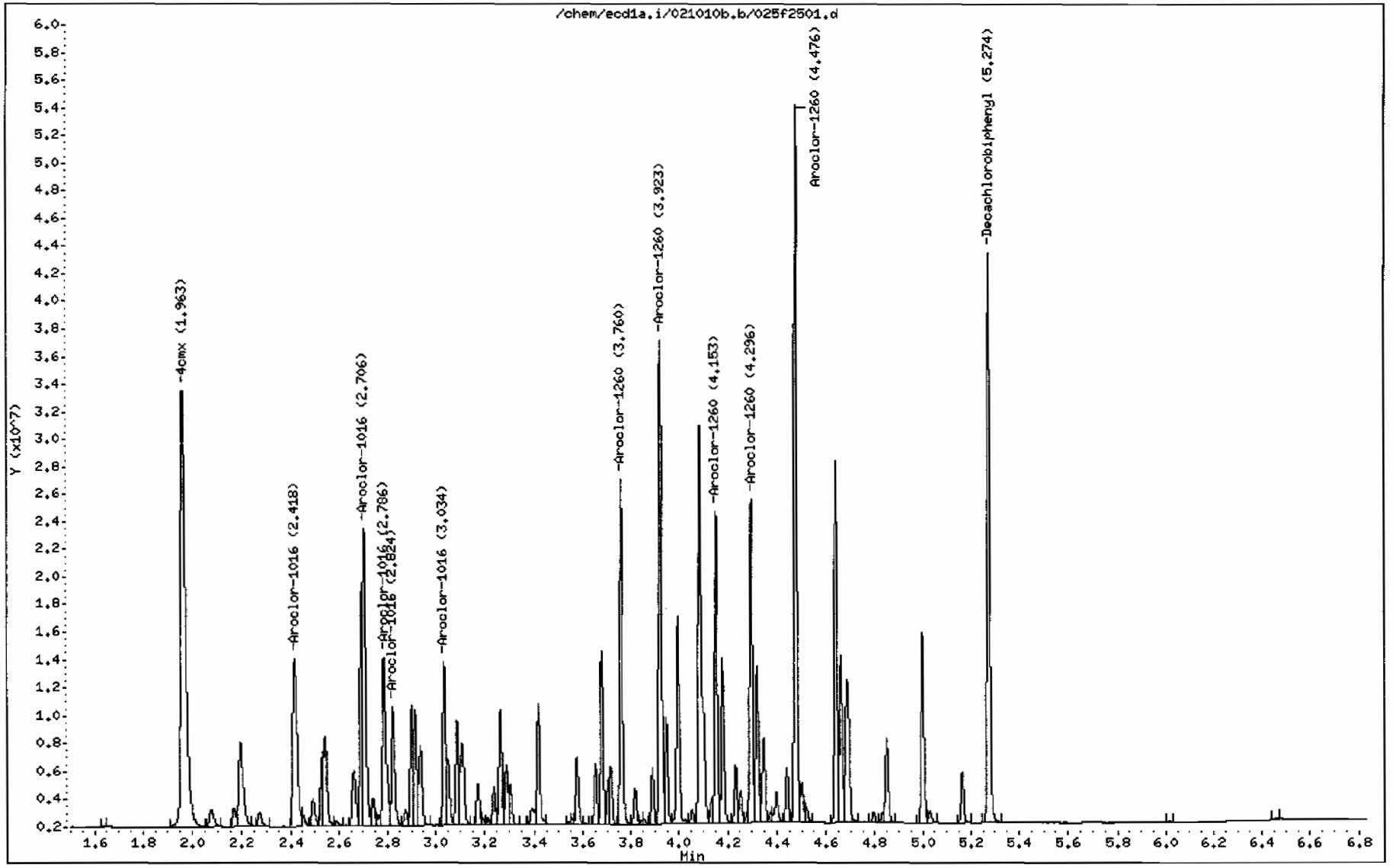
Data File: /chem/ecd1a.i/021010b.b/025f2501.d
Date : 10-FEB-2010 17:42
Client ID: AR166003
Sample Info: IWAR100203-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/025b2501.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 10-FEB-2010 17:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

| RT | EXP RT | DLT RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.294 | 2.294 | 0.000 | 28056043 | 100.000 | 97.7 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.943 | -0.002 | 20502337 | 100.000 | 94.2 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.190 | 3.191 | -0.001 | 12038249 | 1000.00 | 964 | 80.00- 120.00 | 100.00(M) |
| 3.273 | 3.274 | -0.001 | 7854497 | 1000.00 | 919 | 45.25- 85.25 | 65.25 |
| 3.337 | 3.337 | 0.000 | 4834706 | 1000.00 | 914 | 20.16- 60.16 | 40.16 |
| 3.564 | 3.565 | -0.001 | 6155126 | 1000.00 | 903 | 31.13- 71.13 | 51.13 |
| 3.639 | 3.640 | -0.001 | 5773190 | 1000.00 | 901 | 37.39- 77.39 | 57.39 |
| Average of Peak Amounts = | | | | | 920 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.330 | 4.331 | -0.001 | 11824429 | 1000.00 | 935 | 80.00- 120.00 | 100.00 |
| 4.455 | 4.457 | -0.002 | 14326865 | 1000.00 | 941 | 101.16- 141.16 | 121.16 |
| 4.721 | 4.723 | -0.002 | 10885542 | 1000.00 | 934 | 72.06- 112.06 | 92.06 |
| 4.895 | 4.896 | -0.001 | 11330069 | 1000.00 | 940 | 75.82- 115.82 | 95.82 |
| 5.042 | 5.044 | -0.002 | 24982184 | 1000.00 | 958 | 191.28- 231.28 | 211.28 |
| Average of Peak Amounts = | | | | | 942 | | |

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021010b.b/025b2501.d

Date : 10-FEB-2010 17:42

Client ID: AR166003

Sample Info: IWAR100203-60 03

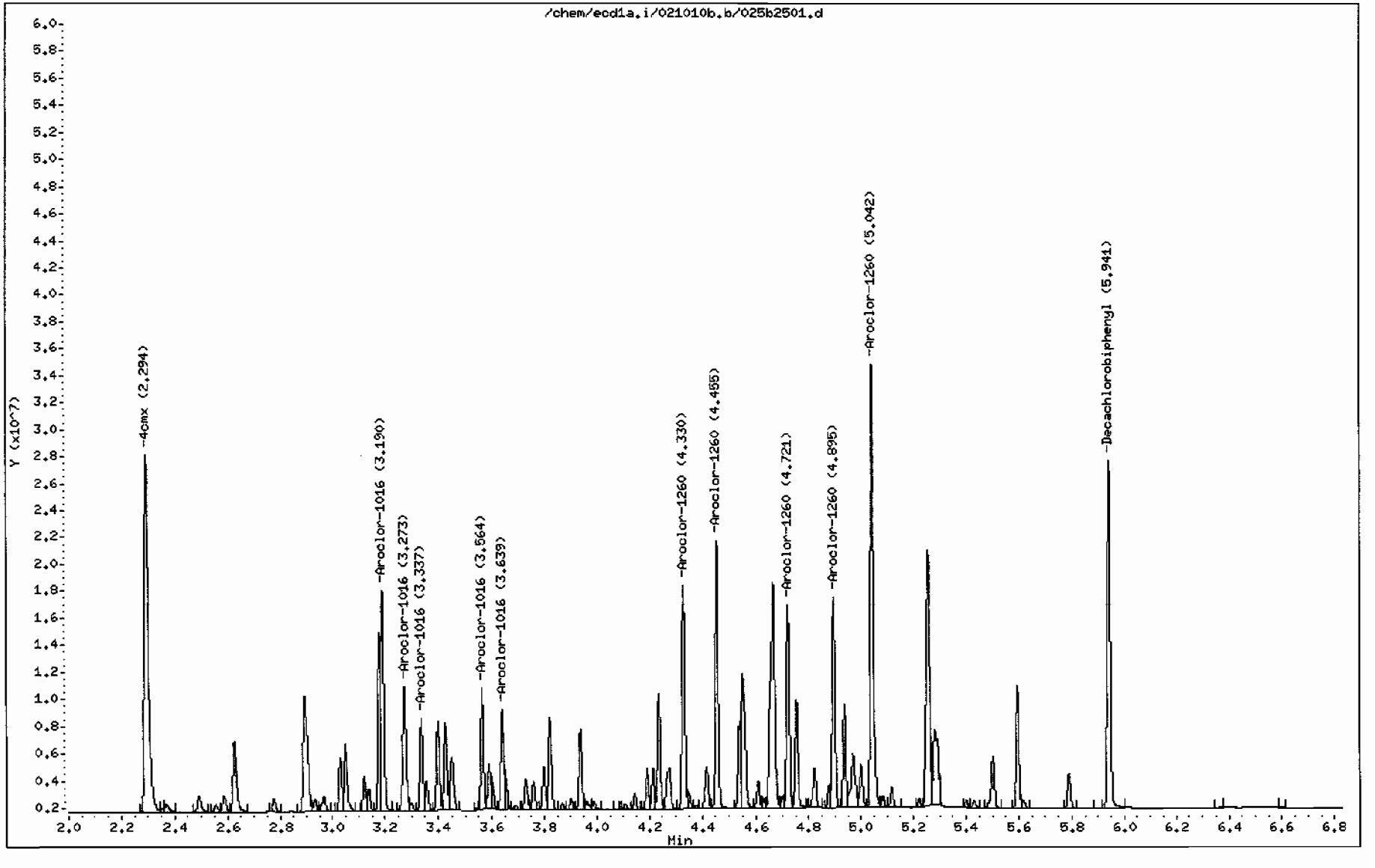
Column phase: CLP2

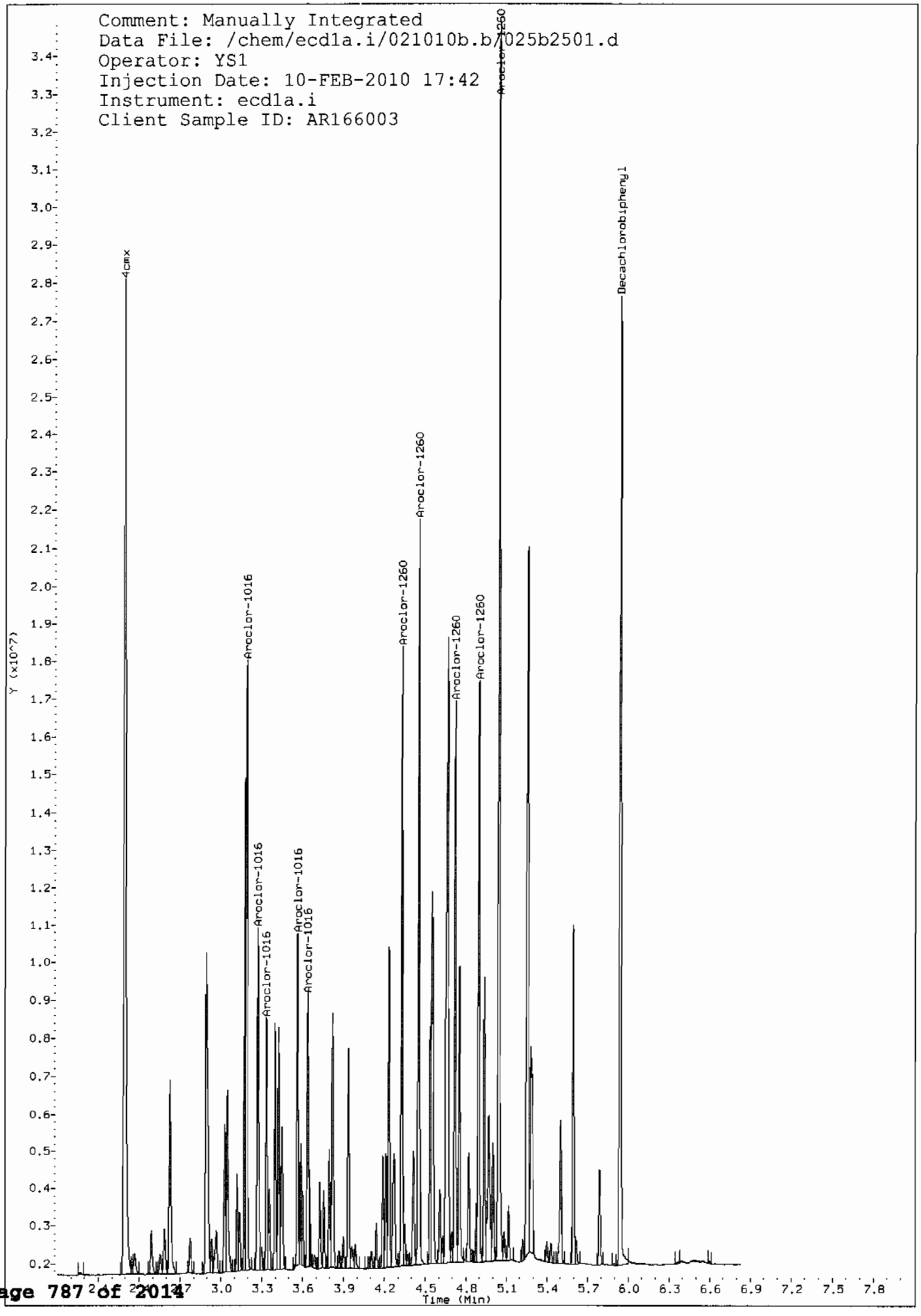
Instrument: ecd1a.i

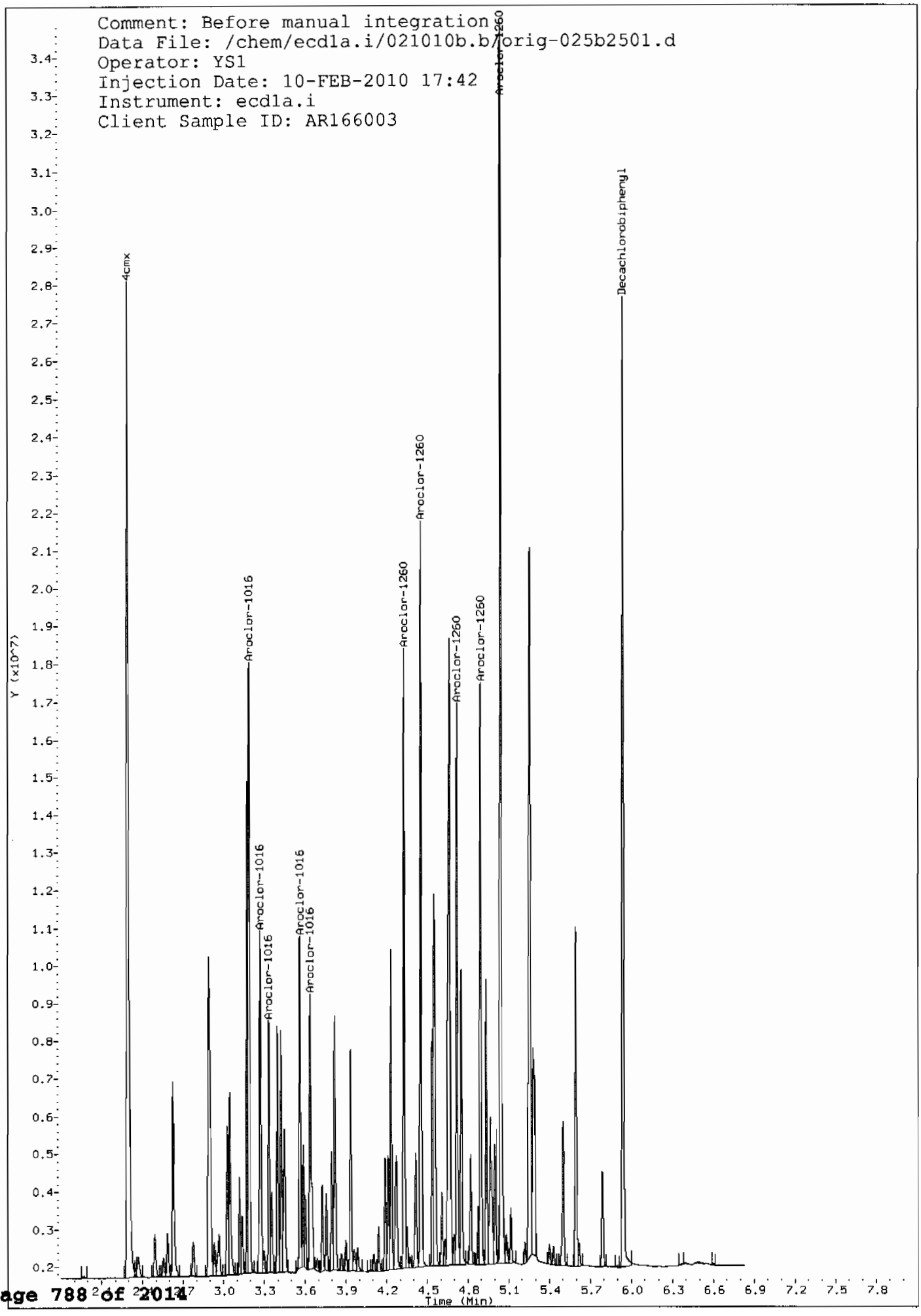
Operator: YS1

Column diameter: 0.25






Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/025b2501.d
Operator: YS1
Injection Date: 10-FEB-2010 17:42
Instrument: ecd1a.i
Client Sample ID: AR166003
4CMX
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-025b2501.d
Operator: YS1
Injection Date: 10-FEB-2010 17:42
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR091130-99 | 12/14/09 | 0444 | 1.97 | 5.29 |
| 02 | ZZZZZ | ZZZZZ | 12/14/09 | 0454 | 1.97 | 5.29 |
| 03 | ZZZZZ | ZZZZZ | 12/14/09 | 0505 | 1.97 | 5.29 |
| 04 | ZZZZZ | ZZZZZ | 12/14/09 | 0515 | 1.97 | 5.29 |
| 05 | ZZZZZ | ZZZZZ | 12/14/09 | 0526 | 1.97 | 5.29 |
| 06 | AR123201 | WAR090930-32 | 12/14/09 | 0536 | 1.97 | 5.29 |
| 07 | AR122101 | WAR090803-21 | 12/14/09 | 0547 | 1.97 | 5.29 |
| 08 | AR126201 | WAR090803-62 | 12/14/09 | 0558 | 1.97 | 5.29 |
| 09 | ZZZZZ | ZZZZZ | 12/14/09 | 0608 | 1.97 | 5.29 |
| 10 | ZZZZZ | ZZZZZ | 12/14/09 | 0619 | 1.97 | 5.29 |
| 11 | ZZZZZ | ZZZZZ | 12/14/09 | 0629 | 1.97 | 5.29 |
| 12 | ZZZZZ | ZZZZZ | 12/14/09 | 0640 | 1.97 | 5.29 |
| 13 | ZZZZZ | ZZZZZ | 12/14/09 | 0650 | 1.97 | 5.29 |
| 14 | ZZZZZ | ZZZZZ | 12/14/09 | 0701 | 1.97 | 5.29 |
| 15 | ZZZZZ | ZZZZZ | 12/14/09 | 0711 | 1.97 | 5.29 |
| 16 | AR125401 | WAR091214-05 | 12/14/09 | 0722 | 1.97 | 5.29 |
| 17 | AR125402 | WAR091214-06 | 12/14/09 | 0732 | 1.97 | 5.29 |
| 18 | AR125403 | WAR091214-07 | 12/14/09 | 0743 | 1.97 | 5.29 |
| 19 | AR125404 | WAR091214-08 | 12/14/09 | 0753 | 1.97 | 5.29 |
| 20 | AR125405 | IAR091027-01 | 12/14/09 | 0804 | 1.97 | 5.29 |
| 21 | AR125401 | WAR091102-54 | 12/14/09 | 0814 | 1.97 | 5.29 |
| 22 | AR124201 | WAR091214-09 | 12/14/09 | 0825 | 1.97 | 5.29 |
| 23 | AR124202 | WAR091214-10 | 12/14/09 | 0835 | 1.97 | 5.29 |
| 24 | AR124203 | WAR091214-11 | 12/14/09 | 0846 | 1.97 | 5.29 |
| 25 | AR124204 | WAR091214-12 | 12/14/09 | 0856 | 1.97 | 5.29 |
| 26 | AR124205 | IAR0911111-0 | 12/14/09 | 0907 | 1.97 | 5.29 |
| 27 | AR124201 | WAR091102-42 | 12/14/09 | 0917 | 1.97 | 5.29 |
| 28 | AR124801 | WAR091214-13 | 12/14/09 | 0928 | 1.97 | 5.29 |
| 29 | AR124802 | WAR091214-14 | 12/14/09 | 0938 | 1.97 | 5.29 |
| 30 | AR124803 | WAR091214-15 | 12/14/09 | 0949 | 1.97 | 5.29 |
| 31 | AR124804 | WAR091214-16 | 12/14/09 | 0959 | 1.97 | 5.29 |
| 32 | AR124805 | IAR091027-02 | 12/14/09 | 1010 | 1.97 | 5.29 |

| | QC LIMITS |
|---|---|
| S1 = 4cmx | (+/- 0.03 MINUTES) |
| DCB = Decachlorobiphenyl | (+/- 0.03 MINUTES) |

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | AR124801 | WAR091027-48 | 12/14/09 | 1020 | 1.97 | 5.29 |
| 02 | AR166001 | WAR091214-01 | 12/14/09 | 1031 | 1.97 | 5.29 |
| 03 | AR166002 | WAR091214-02 | 12/14/09 | 1041 | 1.97 | 5.29 |
| 04 | AR166003 | WAR091214-03 | 12/14/09 | 1052 | 1.97 | 5.29 |
| 05 | AR166004 | WAR091214-04 | 12/14/09 | 1102 | 1.97 | 5.29 |
| 06 | AR166005 | IAR091102-01 | 12/14/09 | 1113 | 1.97 | 5.29 |
| 07 | AR166001 | WAR091211-60 | 12/14/09 | 1123 | 1.97 | 5.29 |
| 08 | AR126801 | WAR091214-17 | 12/14/09 | 1134 | 1.97 | 5.29 |
| 09 | AR126802 | WAR091214-18 | 12/14/09 | 1144 | 1.97 | 5.29 |
| 10 | AR126803 | WAR091214-19 | 12/14/09 | 1155 | 1.97 | 5.29 |
| 11 | AR126804 | WAR091214-20 | 12/14/09 | 1206 | 1.97 | 5.29 |
| 12 | AR126805 | IAR090817-02 | 12/14/09 | 1216 | 1.97 | 5.29 |
| 13 | AR126801 | WAR091106-68 | 12/14/09 | 1227 | 1.97 | 5.29 |
| 14 | DDTANALOGSTD | WAR091020-DD | 12/14/09 | 1237 | | |
| 15 | PIBLK02 | WAR091130-99 | 12/14/09 | 1248 | 1.97 | 5.29 |
| 16 | ZZZZZ | ZZZZZ | 12/14/09 | 1258 | 1.97 | 5.29 |
| 17 | ZZZZZ | ZZZZZ | 12/14/09 | 1309 | 1.97 | 5.29 |
| 18 | ZZZZZ | ZZZZZ | 12/14/09 | 1319 | 1.97 | 5.29 |
| 19 | ZZZZZ | ZZZZZ | 12/14/09 | 1330 | 1.97 | 5.29 |
| 20 | ZZZZZ | ZZZZZ | 12/14/09 | 1340 | 1.97 | 5.29 |
| 21 | ZZZZZ | ZZZZZ | 12/14/09 | 1351 | 1.97 | 5.29 |
| 22 | ZZZZZ | ZZZZZ | 12/14/09 | 1403 | 1.97 | 5.29 |
| 23 | ZZZZZ | ZZZZZ | 12/14/09 | 1416 | 1.97 | 5.29 |
| 24 | ZZZZZ | ZZZZZ | 12/14/09 | 1429 | 1.97 | 5.29 |
| 25 | ZZZZZ | ZZZZZ | 12/14/09 | 1441 | 1.97 | 5.29 |
| 26 | AR166002 | WAR091211-60 | 12/14/09 | 1452 | 1.97 | 5.29 |
| 27 | PIBLK03 | WAR091130-99 | 12/14/09 | 1502 | 1.97 | 5.29 |
| 28 | ZZZZZ | ZZZZZ | 12/14/09 | 1513 | 1.97 | 5.29 |
| 29 | ZZZZZ | ZZZZZ | 12/14/09 | 1525 | 1.97 | 5.29 |
| 30 | ZZZZZ | ZZZZZ | 12/14/09 | 1538 | 1.97 | 5.29 |
| 31 | ZZZZZ | ZZZZZ | 12/14/09 | 1551 | 1.97 | 5.29 |
| 32 | ZZZZZ | ZZZZZ | 12/14/09 | 1603 | 1.97 | 5.27 |

| | QC LIMITS |
|---|---|
| S1 = 4cmx | (+/- 0.03 MINUTES) |
| DCB = Decachlorobiphenyl | (+/- 0.03 MINUTES) |

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR091130-99 | 12/14/09 | 0444 | 2.30 | 5.95 |
| 02 | ZZZZZ | ZZZZZ | 12/14/09 | 0454 | 2.30 | 5.94 |
| 03 | ZZZZZ | ZZZZZ | 12/14/09 | 0505 | 2.30 | 5.95 |
| 04 | ZZZZZ | ZZZZZ | 12/14/09 | 0515 | 2.30 | 5.95 |
| 05 | ZZZZZ | ZZZZZ | 12/14/09 | 0526 | 2.30 | 5.95 |
| 06 | AR123201 | WAR090930-32 | 12/14/09 | 0536 | 2.30 | 5.95 |
| 07 | AR122101 | WAR090803-21 | 12/14/09 | 0547 | 2.30 | 5.95 |
| 08 | AR126201 | WAR090803-62 | 12/14/09 | 0558 | 2.30 | 5.94 |
| 09 | ZZZZZ | ZZZZZ | 12/14/09 | 0608 | 2.30 | 5.94 |
| 10 | ZZZZZ | ZZZZZ | 12/14/09 | 0619 | 2.30 | 5.95 |
| 11 | ZZZZZ | ZZZZZ | 12/14/09 | 0629 | 2.30 | 5.94 |
| 12 | ZZZZZ | ZZZZZ | 12/14/09 | 0640 | 2.30 | 5.94 |
| 13 | ZZZZZ | ZZZZZ | 12/14/09 | 0650 | 2.30 | 5.95 |
| 14 | ZZZZZ | ZZZZZ | 12/14/09 | 0701 | 2.30 | 5.94 |
| 15 | ZZZZZ | ZZZZZ | 12/14/09 | 0711 | 2.30 | 5.95 |
| 16 | AR125401 | WAR091214-05 | 12/14/09 | 0722 | 2.30 | 5.94 |
| 17 | AR125402 | WAR091214-06 | 12/14/09 | 0732 | 2.30 | 5.94 |
| 18 | AR125403 | WAR091214-07 | 12/14/09 | 0743 | 2.30 | 5.94 |
| 19 | AR125404 | WAR091214-08 | 12/14/09 | 0753 | 2.30 | 5.94 |
| 20 | AR125405 | IAR091027-01 | 12/14/09 | 0804 | 2.30 | 5.95 |
| 21 | AR125401 | WAR091102-54 | 12/14/09 | 0814 | 2.30 | 5.94 |
| 22 | AR124201 | WAR091214-09 | 12/14/09 | 0825 | 2.30 | 5.94 |
| 23 | AR124202 | WAR091214-10 | 12/14/09 | 0835 | 2.30 | 5.94 |
| 24 | AR124203 | WAR091214-11 | 12/14/09 | 0846 | 2.30 | 5.94 |
| 25 | AR124204 | WAR091214-12 | 12/14/09 | 0856 | 2.30 | 5.94 |
| 26 | AR124205 | IAR0911111-0 | 12/14/09 | 0907 | 2.30 | 5.94 |
| 27 | AR124201 | WAR091102-42 | 12/14/09 | 0917 | 2.30 | 5.94 |
| 28 | AR124801 | WAR091214-13 | 12/14/09 | 0928 | 2.30 | 5.94 |
| 29 | AR124802 | WAR091214-14 | 12/14/09 | 0938 | 2.30 | 5.94 |
| 30 | AR124803 | WAR091214-15 | 12/14/09 | 0949 | 2.30 | 5.94 |
| 31 | AR124804 | WAR091214-16 | 12/14/09 | 0959 | 2.30 | 5.94 |
| 32 | AR124805 | IAR091027-02 | 12/14/09 | 1010 | 2.30 | 5.94 |

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | AR124801 | WAR091027-48 | 12/14/09 | 1020 | 2.30 | 5.95 |
| 02 | AR166001 | WAR091214-01 | 12/14/09 | 1031 | 2.30 | 5.94 |
| 03 | AR166002 | WAR091214-02 | 12/14/09 | 1041 | 2.30 | 5.94 |
| 04 | AR166003 | WAR091214-03 | 12/14/09 | 1052 | 2.30 | 5.94 |
| 05 | AR166004 | WAR091214-04 | 12/14/09 | 1102 | 2.30 | 5.94 |
| 06 | AR166005 | IAR091102-01 | 12/14/09 | 1113 | 2.30 | 5.94 |
| 07 | AR166001 | WAR091211-60 | 12/14/09 | 1123 | 2.30 | 5.94 |
| 08 | AR126801 | WAR091214-17 | 12/14/09 | 1134 | | |
| 09 | AR126802 | WAR091214-18 | 12/14/09 | 1144 | | |
| 10 | AR126803 | WAR091214-19 | 12/14/09 | 1155 | | |
| 11 | AR126804 | WAR091214-20 | 12/14/09 | 1206 | | |
| 12 | AR126805 | IAR090817-02 | 12/14/09 | 1216 | | |
| 13 | AR126801 | WAR091106-68 | 12/14/09 | 1227 | 2.30 | 5.94 |
| 14 | DDTANALOGSTD | WAR091020-DD | 12/14/09 | 1237 | | |
| 15 | PIBLK02 | WAR091130-99 | 12/14/09 | 1248 | 2.30 | 5.94 |
| 16 | ZZZZZ | ZZZZZ | 12/14/09 | 1258 | 2.30 | 5.94 |
| 17 | ZZZZZ | ZZZZZ | 12/14/09 | 1309 | 2.30 | 5.94 |
| 18 | ZZZZZ | ZZZZZ | 12/14/09 | 1319 | 2.30 | 5.94 |
| 19 | ZZZZZ | ZZZZZ | 12/14/09 | 1330 | 2.30 | 5.94 |
| 20 | ZZZZZ | ZZZZZ | 12/14/09 | 1340 | 2.30 | 5.94 |
| 21 | ZZZZZ | ZZZZZ | 12/14/09 | 1351 | 2.30 | 5.94 |
| 22 | ZZZZZ | ZZZZZ | 12/14/09 | 1403 | 2.30 | 5.94 |
| 23 | ZZZZZ | ZZZZZ | 12/14/09 | 1416 | 2.30 | 5.94 |
| 24 | ZZZZZ | ZZZZZ | 12/14/09 | 1429 | 2.30 | 5.94 |
| 25 | ZZZZZ | ZZZZZ | 12/14/09 | 1441 | 2.30 | 5.94 |
| 26 | AR166002 | WAR091211-60 | 12/14/09 | 1452 | 2.30 | 5.94 |
| 27 | PIBLK03 | WAR091130-99 | 12/14/09 | 1502 | 2.30 | 5.94 |
| 28 | ZZZZZ | ZZZZZ | 12/14/09 | 1513 | 2.30 | 5.94 |
| 29 | ZZZZZ | ZZZZZ | 12/14/09 | 1525 | 2.30 | 5.94 |
| 30 | ZZZZZ | ZZZZZ | 12/14/09 | 1538 | 2.30 | 5.94 |
| 31 | ZZZZZ | ZZZZZ | 12/14/09 | 1551 | 2.30 | 5.94 |
| 32 | ZZZZZ | ZZZZZ | 12/14/09 | 1603 | 2.30 | 5.94 |

| | QC LIMITS |
|---|---|
| S1 = 4cmx | (+/- 0.03 MINUTES) |
| DCB = Decachlorobiphenyl | (+/- 0.03 MINUTES) |

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | RT # | RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR100105-99 | 01/28/10 | 0916 | 1.97 | 5.28 |
| 02 | ZZZZZ | ZZZZZ | 01/28/10 | 0927 | | |
| 03 | AR125401 | WAR091216-54 | 01/28/10 | 0937 | | |
| 04 | AR124201 | WAR091217-42 | 01/28/10 | 0948 | | |
| 05 | AR124801 | WAR091217-48 | 01/28/10 | 0958 | | |
| 06 | AR123201 | WAR100104-32 | 01/28/10 | 1009 | | |
| 07 | AR122101 | WAR100104-21 | 01/28/10 | 1019 | | |
| 08 | AR126201 | WAR100104-62 | 01/28/10 | 1030 | | |
| 09 | ZZZZZ | ZZZZZ | 01/28/10 | 1040 | | |
| 10 | AR166001 | WAR100128-01 | 01/28/10 | 1051 | 1.97 | 5.28 |
| 11 | AR166002 | WAR100128-02 | 01/28/10 | 1101 | 1.97 | 5.28 |
| 12 | AR166003 | WAR100128-03 | 01/28/10 | 1112 | 1.97 | 5.28 |
| 13 | AR166004 | WAR100128-04 | 01/28/10 | 1122 | 1.97 | 5.28 |
| 14 | AR166005 | IAR100104-01 | 01/28/10 | 1134 | 1.97 | 5.28 |
| 15 | AR166001 | WAR100104-60 | 01/28/10 | 1144 | 1.97 | 5.28 |
| 16 | ZZZZZ | ZZZZZ | 01/28/10 | 1155 | | |
| 17 | DDTANALOGSTD | WAR091219-DD | 01/28/10 | 1205 | | |
| 18 | AR126801 | WAR100128-05 | 01/28/10 | 1218 | | |
| 19 | AR126802 | WAR100128-06 | 01/28/10 | 1229 | | |
| 20 | AR126803 | WAR100128-07 | 01/28/10 | 1239 | | |
| 21 | AR126804 | WAR100128-08 | 01/28/10 | 1250 | | |
| 22 | AR126805 | IAR100104-05 | 01/28/10 | 1300 | | |
| 23 | AR126801 | WAR100107-68 | 01/28/10 | 1311 | | |
| 24 | PIBLK02 | WAR100105-99 | 01/28/10 | 1321 | 1.97 | 5.28 |
| 25 | ZZZZZ | ZZZZZ | 01/28/10 | 1332 | 1.97 | 5.28 |
| 26 | ZZZZZ | ZZZZZ | 01/28/10 | 1342 | 1.97 | 5.28 |
| 27 | ZZZZZ | ZZZZZ | 01/28/10 | 1353 | 1.97 | 5.28 |
| 28 | ZZZZZ | ZZZZZ | 01/28/10 | 1405 | 1.97 | 5.28 |
| 29 | ZZZZZ | ZZZZZ | 01/28/10 | 1418 | 1.97 | 5.28 |
| 30 | ZZZZZ | ZZZZZ | 01/28/10 | 1430 | 1.97 | 5.28 |
| 31 | ZZZZZ | ZZZZZ | 01/28/10 | 1443 | 1.97 | 5.28 |
| 32 | AR166002 | WAR100104-60 | 01/28/10 | 1456 | 1.97 | 5.28 |

QC LIMITS

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

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | RT # | RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR100105-99 | 01/28/10 | 0916 | 2.30 | 5.94 |
| 02 | ZZZZZ | ZZZZZ | 01/28/10 | 0927 | | |
| 03 | AR125401 | WAR091216-54 | 01/28/10 | 0937 | | |
| 04 | AR124201 | WAR091217-42 | 01/28/10 | 0948 | | |
| 05 | AR124801 | WAR091217-48 | 01/28/10 | 0958 | | |
| 06 | AR123201 | WAR100104-32 | 01/28/10 | 1009 | | |
| 07 | AR122101 | WAR100104-21 | 01/28/10 | 1019 | | |
| 08 | AR126201 | WAR100104-62 | 01/28/10 | 1030 | | |
| 09 | ZZZZZ | ZZZZZ | 01/28/10 | 1040 | | |
| 10 | AR166001 | WAR100128-01 | 01/28/10 | 1051 | 2.30 | 5.94 |
| 11 | AR166002 | WAR100128-02 | 01/28/10 | 1101 | 2.30 | 5.94 |
| 12 | AR166003 | WAR100128-03 | 01/28/10 | 1112 | 2.30 | 5.95 |
| 13 | AR166004 | WAR100128-04 | 01/28/10 | 1122 | 2.30 | 5.95 |
| 14 | AR166005 | IAR100104-01 | 01/28/10 | 1134 | 2.30 | 5.95 |
| 15 | AR166001 | WAR100104-60 | 01/28/10 | 1144 | 2.30 | 5.94 |
| 16 | ZZZZZ | ZZZZZ | 01/28/10 | 1155 | | |
| 17 | DDTANALOGSTD | WAR091219-DD | 01/28/10 | 1205 | | |
| 18 | AR126801 | WAR100128-05 | 01/28/10 | 1218 | | |
| 19 | AR126802 | WAR100128-06 | 01/28/10 | 1229 | | |
| 20 | AR126803 | WAR100128-07 | 01/28/10 | 1239 | | |
| 21 | AR126804 | WAR100128-08 | 01/28/10 | 1250 | | |
| 22 | AR126805 | IAR100104-05 | 01/28/10 | 1300 | | |
| 23 | AR126801 | WAR100107-68 | 01/28/10 | 1311 | | |
| 24 | PIBLK02 | WAR100105-99 | 01/28/10 | 1321 | 2.30 | 5.94 |
| 25 | ZZZZZ | ZZZZZ | 01/28/10 | 1332 | 2.30 | 5.94 |
| 26 | ZZZZZ | ZZZZZ | 01/28/10 | 1342 | 2.30 | 5.94 |
| 27 | ZZZZZ | ZZZZZ | 01/28/10 | 1353 | 2.30 | 5.94 |
| 28 | ZZZZZ | ZZZZZ | 01/28/10 | 1405 | 2.30 | 5.94 |
| 29 | ZZZZZ | ZZZZZ | 01/28/10 | 1418 | 2.30 | 5.94 |
| 30 | ZZZZZ | ZZZZZ | 01/28/10 | 1430 | 2.30 | 5.94 |
| 31 | ZZZZZ | ZZZZZ | 01/28/10 | 1443 | 2.30 | 5.94 |
| 32 | AR166002 | WAR100104-60 | 01/28/10 | 1456 | 2.30 | 5.94 |

QC LIMITS

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

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR100105-99 | 01/29/10 | 0612 | 1.96 | 5.28 |
| 02 | ZZZZZ | ZZZZZ | 01/29/10 | 0622 | 1.97 | 5.28 |
| 03 | AR125401 | WAR091216-54 | 01/29/10 | 0633 | | |
| 04 | AR124201 | WAR091217-42 | 01/29/10 | 0643 | | |
| 05 | AR124801 | WAR091217-48 | 01/29/10 | 0654 | | |
| 06 | AR123201 | WAR100104-32 | 01/29/10 | 0704 | | |
| 07 | AR122101 | WAR100104-21 | 01/29/10 | 0715 | | |
| 08 | AR126201 | WAR100104-62 | 01/29/10 | 0725 | | |
| 09 | AR126801 | WAR100107-68 | 01/29/10 | 0736 | | |
| 10 | AR166001 | WAR100129-01 | 01/29/10 | 0746 | 1.96 | 5.28 |
| 11 | AR166002 | WAR100129-02 | 01/29/10 | 0757 | 1.97 | 5.28 |
| 12 | AR166003 | WAR100129-03 | 01/29/10 | 0807 | 1.97 | 5.28 |
| 13 | AR166004 | WAR100129-04 | 01/29/10 | 0818 | 1.97 | 5.28 |
| 14 | AR166005 | IAR100104-01 | 01/29/10 | 0859 | 1.97 | 5.29 |
| 15 | AR166001 | WAR100104-60 | 01/29/10 | 0909 | 1.97 | 5.28 |
| 16 | DDTANALOGSTD | WAR091219-DD | 01/29/10 | 0920 | | |
| 17 | PIBLK02 | WAR100105-99 | 01/29/10 | 0930 | 1.97 | 5.28 |
| 18 | ZZZZZ | ZZZZZ | 01/29/10 | 0941 | 1.97 | 5.28 |
| 19 | ZZZZZ | ZZZZZ | 01/29/10 | 0951 | 1.97 | 5.28 |
| 20 | ZZZZZ | ZZZZZ | 01/29/10 | 1002 | 1.97 | 5.28 |
| 21 | ZZZZZ | ZZZZZ | 01/29/10 | 1014 | 1.97 | 5.28 |
| 22 | ZZZZZ | ZZZZZ | 01/29/10 | 1027 | 1.96 | 5.28 |
| 23 | ZZZZZ | ZZZZZ | 01/29/10 | 1040 | 1.97 | 5.28 |
| 24 | ZZZZZ | ZZZZZ | 01/29/10 | 1052 | 1.97 | 5.28 |
| 25 | ZZZZZ | ZZZZZ | 01/29/10 | 1105 | 1.97 | 5.28 |
| 26 | ZZZZZ | ZZZZZ | 01/29/10 | 1117 | 1.96 | 5.28 |
| 27 | ZZZZZ | ZZZZZ | 01/29/10 | 1130 | 1.96 | 5.28 |
| 28 | AR166002 | WAR100104-60 | 01/29/10 | 1142 | 1.97 | 5.28 |
| 29 | PIBLK03 | WAR100105-99 | 01/29/10 | 1153 | 1.97 | 5.28 |
| 30 | ZZZZZ | ZZZZZ | 01/29/10 | 1203 | 1.97 | 5.28 |
| 31 | ZZZZZ | ZZZZZ | 01/29/10 | 1216 | 1.97 | 5.28 |
| 32 | ZZZZZ | ZZZZZ | 01/29/10 | 1228 | 1.97 | 5.28 |

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

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



FORM VIII PEST OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR100105-99 | 01/29/10 | 0612 | 2.30 | 5.94 |
| 02 | ZZZZZ | ZZZZZ | 01/29/10 | 0622 | 2.30 | 5.94 |
| 03 | AR125401 | WAR091216-54 | 01/29/10 | 0633 | | |
| 04 | AR124201 | WAR091217-42 | 01/29/10 | 0643 | | |
| 05 | AR124801 | WAR091217-48 | 01/29/10 | 0654 | | |
| 06 | AR123201 | WAR100104-32 | 01/29/10 | 0704 | | |
| 07 | AR122101 | WAR100104-21 | 01/29/10 | 0715 | | |
| 08 | AR126201 | WAR100104-62 | 01/29/10 | 0725 | | |
| 09 | AR126801 | WAR100107-68 | 01/29/10 | 0736 | | |
| 10 | AR166001 | WAR100129-01 | 01/29/10 | 0746 | 2.30 | 5.94 |
| 11 | AR166002 | WAR100129-02 | 01/29/10 | 0757 | 2.30 | 5.94 |
| 12 | AR166003 | WAR100129-03 | 01/29/10 | 0807 | 2.30 | 5.94 |
| 13 | AR166004 | WAR100129-04 | 01/29/10 | 0818 | 2.30 | 5.94 |
| 14 | AR166005 | IAR100104-01 | 01/29/10 | 0859 | 2.30 | 5.95 |
| 15 | AR166001 | WAR100104-60 | 01/29/10 | 0909 | 2.30 | 5.95 |
| 16 | DDTANALOGSTD | WAR091219-DD | 01/29/10 | 0920 | | |
| 17 | PIBLK02 | WAR100105-99 | 01/29/10 | 0930 | 2.30 | 5.94 |
| 18 | ZZZZZ | ZZZZZ | 01/29/10 | 0941 | 2.30 | 5.94 |
| 19 | ZZZZZ | ZZZZZ | 01/29/10 | 0951 | 2.30 | 5.94 |
| 20 | ZZZZZ | ZZZZZ | 01/29/10 | 1002 | 2.30 | 5.94 |
| 21 | ZZZZZ | ZZZZZ | 01/29/10 | 1014 | 2.30 | 5.94 |
| 22 | ZZZZZ | ZZZZZ | 01/29/10 | 1027 | 2.30 | 5.94 |
| 23 | ZZZZZ | ZZZZZ | 01/29/10 | 1040 | 2.30 | 5.94 |
| 24 | ZZZZZ | ZZZZZ | 01/29/10 | 1052 | 2.30 | 5.94 |
| 25 | ZZZZZ | ZZZZZ | 01/29/10 | 1105 | 2.30 | 5.94 |
| 26 | ZZZZZ | ZZZZZ | 01/29/10 | 1117 | 2.30 | 5.94 |
| 27 | ZZZZZ | ZZZZZ | 01/29/10 | 1130 | 2.30 | 5.94 |
| 28 | AR166002 | WAR100104-60 | 01/29/10 | 1142 | 2.30 | 5.94 |
| 29 | PIBLK03 | WAR100105-99 | 01/29/10 | 1153 | 2.30 | 5.94 |
| 30 | ZZZZZ | ZZZZZ | 01/29/10 | 1203 | 2.30 | 5.94 |
| 31 | ZZZZZ | ZZZZZ | 01/29/10 | 1216 | 2.30 | 5.94 |
| 32 | ZZZZZ | ZZZZZ | 01/29/10 | 1228 | 2.30 | 5.94 |

| | QC LIMITS |
|---|---|
| S1 = 4cmx | (+/- 0.03 MINUTES) |
| DCB = Decachlorobiphenyl | (+/- 0.03 MINUTES) |

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

page 1 of 1

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.27

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR100105-99 | 02/05/10 | 0656 | 1.96 | 5.27 |
| 02 | AR166001 | WAR100203-60 | 02/05/10 | 0706 | 1.96 | 5.27 |
| 03 | AR125401 | WAR091216-54 | 02/05/10 | 0717 | | |
| 04 | AR124201 | WAR091217-42 | 02/05/10 | 0727 | | |
| 05 | AR124801 | WAR091217-48 | 02/05/10 | 0738 | | |
| 06 | AR123201 | WAR100104-32 | 02/05/10 | 0748 | | |
| 07 | AR122101 | WAR100104-21 | 02/05/10 | 0759 | | |
| 08 | AR166002 | WAR100104-62 | 02/05/10 | 0809 | | |
| 09 | AR126801 | WAR100107-68 | 02/05/10 | 0820 | | |
| 10 | DDTANALOGSTD | WAR091219-DD | 02/05/10 | 0831 | | |
| 11 | PIBLK02 | WAR100105-99 | 02/05/10 | 0841 | 1.97 | 5.28 |
| 12 | PBLK01 | 1202033246 | 02/05/10 | 0852 | 1.97 | 5.28 |
| 13 | PBLK01LCS | 1202033247 | 02/05/10 | 0902 | 1.96 | 5.28 |
| 14 | ZZZZZ | ZZZZZ | 02/05/10 | 0913 | 1.96 | 5.28 |
| 15 | ZZZZZ | ZZZZZ | 02/05/10 | 0923 | 1.96 | 5.28 |
| 16 | ZZZZZ | ZZZZZ | 02/05/10 | 0936 | 1.96 | 5.27 |
| 17 | ZZZZZ | ZZZZZ | 02/05/10 | 0948 | 1.96 | 5.27 |
| 18 | ZZZZZ | ZZZZZ | 02/05/10 | 1001 | 1.96 | 5.27 |
| 19 | ZZZZZ | ZZZZZ | 02/05/10 | 1013 | 1.97 | 5.28 |
| 20 | ZZZZZ | ZZZZZ | 02/05/10 | 1026 | 1.96 | 5.28 |
| 21 | ZZZZZ | ZZZZZ | 02/05/10 | 1039 | 1.96 | 5.27 |
| 22 | AR166002 | WAR100203-60 | 02/05/10 | 1051 | 1.96 | 5.27 |
| 23 | PIBLK03 | WAR100105-99 | 02/05/10 | 1102 | 1.97 | 5.28 |
| 24 | ZZZZZ | ZZZZZ | 02/05/10 | 1112 | 1.97 | 5.28 |
| 25 | ZZZZZ | ZZZZZ | 02/05/10 | 1125 | 1.96 | 5.27 |
| 26 | ZZZZZ | ZZZZZ | 02/05/10 | 1137 | 1.96 | 5.27 |
| 27 | ZZZZZ | ZZZZZ | 02/05/10 | 1150 | 1.97 | 5.27 |
| 28 | ZZZZZ | ZZZZZ | 02/05/10 | 1203 | 1.96 | 5.27 |
| 29 | ZZZZZ | ZZZZZ | 02/05/10 | 1215 | 1.96 | 5.27 |
| 30 | ZZZZZ | ZZZZZ | 02/05/10 | 1228 | 1.96 | 5.27 |
| 31 | AR166003 | WAR100203-60 | 02/05/10 | 1240 | 1.97 | 5.27 |
| 32 | PIBLK04 | WAR100105-99 | 02/05/10 | 1251 | 1.97 | 5.28 |

| | QC LIMITS |
|---|---|
| S1 = 4cmx | (+/- 0.03 MINUTES) |
| DCB = Decachlorobiphenyl | (+/- 0.03 MINUTES) |

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.27

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | ZZZZZ | ZZZZZ | 02/05/10 | 1301 | 1.97 | 5.28 |
| 02 | ZZZZZ | ZZZZZ | 02/05/10 | 1314 | 1.96 | 5.28 |
| 03 | ZZZZZ | ZZZZZ | 02/05/10 | 1327 | 1.96 | 5.27 |
| 04 | RE15-10-7891 | 245969002 | 02/05/10 | 1339 | 1.96 | 5.27 |
| 05 | RE15-10-7892 | 245969003 | 02/05/10 | 1352 | 1.96 | 5.28 |
| 06 | AR166004 | WAR100203-60 | 02/05/10 | 1405 | 1.96 | 5.27 |
| 07 | PIBLK05 | WAR100105-99 | 02/05/10 | 1415 | 1.96 | 5.28 |
| 08 | ZZZZZ | ZZZZZ | 02/05/10 | 1426 | 1.97 | 5.28 |
| 09 | ZZZZZ | ZZZZZ | 02/05/10 | 1436 | 1.97 | 5.28 |
| 10 | ZZZZZ | ZZZZZ | 02/05/10 | 1447 | 1.97 | 5.28 |
| 11 | ZZZZZ | ZZZZZ | 02/05/10 | 1457 | 1.97 | 5.28 |
| 12 | ZZZZZ | ZZZZZ | 02/05/10 | 1508 | 1.97 | 5.28 |
| 13 | ZZZZZ | ZZZZZ | 02/05/10 | 1518 | 1.97 | 5.28 |
| 14 | AR166005 | WAR100203-60 | 02/05/10 | 1529 | 1.96 | 5.28 |
| 15 | PIBLK06 | WAR100105-99 | 02/05/10 | 1539 | 1.97 | 5.28 |
| 16 | | | | | | |
| 17 | | | | | | |
| 18 | | | | | | |
| 19 | | | | | | |
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| 27 | | | | | | |
| 28 | | | | | | |
| 29 | | | | | | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |

| | QC LIMITS |
|---|---|
| S1 = 4cmx | (+/- 0.03 MINUTES) |
| DCB = Decachlorobiphenyl | (+/- 0.03 MINUTES) |

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR100105-99 | 02/05/10 | 0656 | 2.29 | 5.94 |
| 02 | AR166001 | WAR100203-60 | 02/05/10 | 0706 | 2.30 | 5.94 |
| 03 | AR125401 | WAR091216-54 | 02/05/10 | 0717 | | |
| 04 | AR124201 | WAR091217-42 | 02/05/10 | 0727 | | |
| 05 | AR124801 | WAR091217-48 | 02/05/10 | 0738 | | |
| 06 | AR123201 | WAR100104-32 | 02/05/10 | 0748 | | |
| 07 | AR123201 | WAR100104-21 | 02/05/10 | 0759 | | |
| 08 | AR126201 | WAR100104-62 | 02/05/10 | 0809 | | |
| 09 | AR126801 | WAR100107-68 | 02/05/10 | 0820 | | |
| 10 | DDTANALOGSTD | WAR091219-DD | 02/05/10 | 0831 | | |
| 11 | PIBLK02 | WAR100105-99 | 02/05/10 | 0841 | 2.30 | 5.94 |
| 12 | PBLK01 | 1202033246 | 02/05/10 | 0852 | 2.30 | 5.94 |
| 13 | PBLK01LCS | 1202033247 | 02/05/10 | 0902 | 2.29 | 5.94 |
| 14 | ZZZZZ | ZZZZZ | 02/05/10 | 0913 | 2.30 | 5.94 |
| 15 | ZZZZZ | ZZZZZ | 02/05/10 | 0923 | 2.30 | 5.94 |
| 16 | ZZZZZ | ZZZZZ | 02/05/10 | 0936 | 2.30 | 5.94 |
| 17 | ZZZZZ | ZZZZZ | 02/05/10 | 0948 | 2.30 | 5.94 |
| 18 | ZZZZZ | ZZZZZ | 02/05/10 | 1001 | 2.30 | 5.94 |
| 19 | ZZZZZ | ZZZZZ | 02/05/10 | 1013 | 2.30 | 5.94 |
| 20 | ZZZZZ | ZZZZZ | 02/05/10 | 1026 | 2.30 | 5.94 |
| 21 | ZZZZZ | ZZZZZ | 02/05/10 | 1039 | 2.30 | 5.94 |
| 22 | AR166002 | WAR100203-60 | 02/05/10 | 1051 | 2.30 | 5.94 |
| 23 | PIBLK03 | WAR100105-99 | 02/05/10 | 1102 | 2.30 | 5.94 |
| 24 | ZZZZZ | ZZZZZ | 02/05/10 | 1112 | 2.30 | 5.94 |
| 25 | ZZZZZ | ZZZZZ | 02/05/10 | 1125 | 2.30 | 5.94 |
| 26 | ZZZZZ | ZZZZZ | 02/05/10 | 1137 | 2.30 | 5.94 |
| 27 | ZZZZZ | ZZZZZ | 02/05/10 | 1150 | 2.30 | 5.94 |
| 28 | ZZZZZ | ZZZZZ | 02/05/10 | 1203 | 2.30 | 5.94 |
| 29 | ZZZZZ | ZZZZZ | 02/05/10 | 1215 | 2.30 | 5.94 |
| 30 | ZZZZZ | ZZZZZ | 02/05/10 | 1228 | 2.30 | 5.94 |
| 31 | AR166003 | WAR100203-60 | 02/05/10 | 1240 | 2.30 | 5.94 |
| 32 | PIBLK04 | WAR100105-99 | 02/05/10 | 1251 | 2.30 | 5.94 |

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | ZZZZZ | ZZZZZ | 02/05/10 | 1301 | 2.30 | 5.94 |
| 02 | ZZZZZ | ZZZZZ | 02/05/10 | 1314 | 2.29 | 5.94 |
| 03 | ZZZZZ | ZZZZZ | 02/05/10 | 1327 | 2.30 | 5.94 |
| 04 | RE15-10-7891 | 245969002 | 02/05/10 | 1339 | 2.30 | 5.94 |
| 05 | RE15-10-7892 | 245969003 | 02/05/10 | 1352 | 2.30 | 5.94 |
| 06 | AR166004 | WAR100203-60 | 02/05/10 | 1405 | 2.30 | 5.94 |
| 07 | PIBLK05 | WAR100105-99 | 02/05/10 | 1415 | 2.30 | 5.94 |
| 08 | ZZZZZ | ZZZZZ | 02/05/10 | 1426 | 2.30 | 5.94 |
| 09 | ZZZZZ | ZZZZZ | 02/05/10 | 1436 | 2.30 | 5.94 |
| 10 | ZZZZZ | ZZZZZ | 02/05/10 | 1447 | 2.30 | 5.94 |
| 11 | ZZZZZ | ZZZZZ | 02/05/10 | 1457 | 2.30 | 5.94 |
| 12 | ZZZZZ | ZZZZZ | 02/05/10 | 1508 | 2.30 | 5.94 |
| 13 | ZZZZZ | ZZZZZ | 02/05/10 | 1518 | 2.30 | 5.94 |
| 14 | AR166005 | WAR100203-60 | 02/05/10 | 1529 | 2.30 | 5.94 |
| 15 | PIBLK06 | WAR100105-99 | 02/05/10 | 1539 | 2.30 | 5.94 |
| 16 | | | | | | |
| 17 | | | | | | |
| 18 | | | | | | |
| 19 | | | | | | |
| 20 | | | | | | |
| 21 | | | | | | |
| 22 | | | | | | |
| 23 | | | | | | |
| 24 | | | | | | |
| 25 | | | | | | |
| 26 | | | | | | |
| 27 | | | | | | |
| 28 | | | | | | |
| 29 | | | | | | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |

| | QC LIMITS |
|---|---|
| S1 = 4cmx | (+/- 0.03 MINUTES) |
| DCB = Decachlorobiphenyl | (+/- 0.03 MINUTES) |

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.28

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR100105-99 | 02/10/10 | 1255 | 1.96 | 5.28 |
| 02 | AR166001 | WAR100203-60 | 02/10/10 | 1305 | 1.96 | 5.28 |
| 03 | AR125401 | WAR091216-54 | 02/10/10 | 1316 | | |
| 04 | AR124201 | WAR091217-42 | 02/10/10 | 1327 | | |
| 05 | AR124801 | WAR091217-48 | 02/10/10 | 1337 | | |
| 06 | AR123201 | WAR100104-32 | 02/10/10 | 1401 | | |
| 07 | AR122101 | WAR100104-21 | 02/10/10 | 1411 | | |
| 08 | AR126201 | WAR100104-62 | 02/10/10 | 1422 | | |
| 09 | AR126801 | WAR100107-68 | 02/10/10 | 1432 | | |
| 10 | DDTANALOGSTD | WAR091219-DD | 02/10/10 | 1443 | | |
| 11 | PIBLK02 | WAR100105-99 | 02/10/10 | 1453 | 1.96 | 5.28 |
| 12 | ZZZZZ | ZZZZZ | 02/10/10 | 1504 | 1.96 | 5.28 |
| 13 | AR166002 | WAR100203-60 | 02/10/10 | 1515 | 1.96 | 5.28 |
| 14 | PIBLK03 | WAR100105-99 | 02/10/10 | 1525 | 1.96 | 5.28 |
| 15 | PBLK02 | 1202037813 | 02/10/10 | 1536 | 1.96 | 5.28 |
| 16 | PBLK02LCS | 1202037814 | 02/10/10 | 1548 | 1.96 | 5.28 |
| 17 | ZZZZZ | ZZZZZ | 02/10/10 | 1601 | 1.96 | 5.27 |
| 18 | ZZZZZ | ZZZZZ | 02/10/10 | 1614 | 1.96 | 5.27 |
| 19 | ZZZZZ | ZZZZZ | 02/10/10 | 1626 | 1.96 | 5.27 |
| 20 | ZZZZZ | ZZZZZ | 02/10/10 | 1639 | 1.96 | 5.27 |
| 21 | RE15-10-7880 | 245969001 | 02/10/10 | 1651 | 1.96 | 5.27 |
| 22 | RE15-10-7880MS | 1202037815 | 02/10/10 | 1704 | 1.96 | 5.27 |
| 23 | RE15-10-7880MSD | 1202037816 | 02/10/10 | 1717 | 1.96 | 5.27 |
| 24 | ZZZZZ | ZZZZZ | 02/10/10 | 1729 | 1.96 | 5.27 |
| 25 | AR166003 | WAR100203-60 | 02/10/10 | 1742 | 1.96 | 5.27 |
| 26 | PIBLK04 | WAR100105-99 | 02/10/10 | 1752 | 1.97 | 5.28 |
| 27 | ZZZZZ | ZZZZZ | 02/10/10 | 1803 | 1.96 | 5.28 |
| 28 | ZZZZZ | ZZZZZ | 02/10/10 | 1813 | 1.96 | 5.28 |
| 29 | ZZZZZ | ZZZZZ | 02/10/10 | 2023 | 1.94 | 5.29 |
| 30 | ZZZZZ | ZZZZZ | 02/10/10 | 2034 | 1.96 | 5.28 |
| 31 | | | | | | |
| 32 | | | | | | |

| | QC LIMITS |
|---|---|
| S1 = 4cmx | (+/- 0.03 MINUTES) |
| DCB = Decachlorobiphenyl | (+/- 0.03 MINUTES) |

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



FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

| | EPA SAMPLE NO. | LAB SAMPLE ID | DATE ANALYZED | TIME ANALYZED | S1 RT # | DCB RT # |
|---|---|---|---|---|---|---|
| 01 | PIBLK01 | WAR100105-99 | 02/10/10 | 1255 | 2.29 | 5.95 |
| 02 | AR166001 | WAR100203-60 | 02/10/10 | 1305 | 2.29 | 5.94 |
| 03 | AR125401 | WAR091216-54 | 02/10/10 | 1316 | | |
| 04 | AR124201 | WAR091217-42 | 02/10/10 | 1327 | | |
| 05 | AR124801 | WAR091217-48 | 02/10/10 | 1337 | | |
| 06 | AR123201 | WAR100104-32 | 02/10/10 | 1401 | | |
| 07 | AR122101 | WAR100104-21 | 02/10/10 | 1411 | | |
| 08 | AR126201 | WAR100104-62 | 02/10/10 | 1422 | | |
| 09 | AR126801 | WAR100107-68 | 02/10/10 | 1432 | | |
| 10 | DDTANALOGSTD | WAR091219-DD | 02/10/10 | 1443 | | |
| 11 | PIBLK02 | WAR100105-99 | 02/10/10 | 1453 | 2.29 | 5.94 |
| 12 | ZZZZZ | ZZZZZ | 02/10/10 | 1504 | 2.30 | 5.94 |
| 13 | AR166002 | WAR100203-60 | 02/10/10 | 1515 | 2.29 | 5.94 |
| 14 | PIBLK03 | WAR100105-99 | 02/10/10 | 1525 | 2.29 | 5.94 |
| 15 | PBLK02 | 1202037813 | 02/10/10 | 1536 | 2.29 | 5.94 |
| 16 | PBLK02LCS | 1202037814 | 02/10/10 | 1548 | 2.29 | 5.94 |
| 17 | ZZZZZ | ZZZZZ | 02/10/10 | 1601 | 2.29 | 5.94 |
| 18 | ZZZZZ | ZZZZZ | 02/10/10 | 1614 | 2.29 | 5.94 |
| 19 | ZZZZZ | ZZZZZ | 02/10/10 | 1626 | 2.29 | 5.94 |
| 20 | ZZZZZ | ZZZZZ | 02/10/10 | 1639 | 2.29 | 5.94 |
| 21 | RE15-10-7880 | 245969001 | 02/10/10 | 1651 | 2.29 | 5.94 |
| 22 | RE15-10-7880MS | 1202037815 | 02/10/10 | 1704 | 2.29 | 5.94 |
| 23 | RE15-10-7880MSD | 1202037816 | 02/10/10 | 1717 | 2.29 | 5.94 |
| 24 | ZZZZZ | ZZZZZ | 02/10/10 | 1729 | 2.29 | 5.94 |
| 25 | AR166003 | WAR100203-60 | 02/10/10 | 1742 | 2.29 | 5.94 |
| 26 | PIBLK04 | WAR100105-99 | 02/10/10 | 1752 | 2.30 | 5.94 |
| 27 | ZZZZZ | ZZZZZ | 02/10/10 | 1803 | 2.29 | 5.94 |
| 28 | ZZZZZ | ZZZZZ | 02/10/10 | 1813 | 2.30 | 5.94 |
| 29 | ZZZZZ | ZZZZZ | 02/10/10 | 2023 | | 5.95 |
| 30 | ZZZZZ | ZZZZZ | 02/10/10 | 2034 | 2.29 | 5.94 |
| 31 | | | | | | |
| 32 | | | | | | |

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

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



FORM VIII PEST OLM03.0

## Identification Summary



**SDG Number:** 10–1512 **Client ID:** LCS for batch 949031

**Lab Sample ID:** 1202033247

| | | | |
|---|---|---|---|
| **Data File:** | 013f1301.d | **Data File:** | 013b1301.d |
| **Inst:** | ECD1A.I_1 | **Inst:** | ECD1A.I_2 |
| **Column:** | CLP1 | **Column:** | CLP2 |
| **Analyzed:** | 05–FEB–10 09:02 | **Analyzed:** | 05–FEB–10 09:02 |

| Analyte | Peak | RT | RT Window | Conc. | Ave Conc. | Units | RPD |
|---|---|---|---|---|---|---|---|
| **Aroclor–1016** | | | | | | | .689 |
| *Column 1* | 1 | 2.42 | 2.39 – 2.45 | 20.2 | | ug/kg | |
| | 2 | 2.71 | 2.68 – 2.74 | 20.8 | | ug/kg | |
| | 3 | 2.79 | 2.76 – 2.82 | 20 | | ug/kg | |
| | 4 | 2.83 | 2.8 – 2.86 | 20.2 | | ug/kg | |
| | 5 | 3.04 | 3.01 – 3.07 | 20 | | ug/kg | |
| | | | | | 20.2 | | |
| *Column 2* | 1 | 3.19 | 3.16 – 3.22 | 20.9 | | ug/kg | |
| | 2 | 3.27 | 3.24 – 3.3 | 20.3 | | ug/kg | |
| | 3 | 3.34 | 3.31 – 3.37 | 19.5 | | ug/kg | |
| | 4 | 3.57 | 3.53 – 3.59 | 19.8 | | ug/kg | |
| | 5 | 3.64 | 3.61 – 3.67 | 20 | | ug/kg | |
| | | | | | 20.1 | | |
| **Aroclor–1260** | | | | | | | .412 |
| *Column 1* | 1 | 3.76 | 3.73 – 3.79 | 23.2 | | ug/kg | |
| | 2 | 3.93 | 3.89 – 3.95 | 23.4 | | ug/kg | |
| | 3 | 4.16 | 4.12 – 4.18 | 23.7 | | ug/kg | |
| | 4 | 4.3 | 4.27 – 4.33 | 23.9 | | ug/kg | |
| | 5 | 4.48 | 4.45 – 4.51 | 24.4 | | ug/kg | |
| | | | | | 23.7 | | |
| *Column 2* | 1 | 4.33 | 4.3 – 4.36 | 22.9 | | ug/kg | |
| | 2 | 4.46 | 4.43 – 4.49 | 23.5 | | ug/kg | |
| | 3 | 4.72 | 4.69 – 4.75 | 23.7 | | ug/kg | |
| | 4 | 4.9 | 4.87 – 4.93 | 23.4 | | ug/kg | |
| | 5 | 5.04 | 5.01 – 5.07 | 24.6 | | ug/kg | |
| | | | | | 23.6 | | |

## Identification Summary



**SDG Number:** 10-1512 **Client ID:** LCS for batch 950897

**Lab Sample ID:** 1202037814

| | | | |
|---|---|---|---|
| **Data File:** | 016f1601.d | **Data File:** | 016b1601.d |
| **Inst:** | ECD1A.I_1 | **Inst:** | ECD1A.I_2 |
| **Column:** | CLP1 | **Column:** | CLP2 |
| **Analyzed:** | 10-FEB-10 15:48 | **Analyzed:** | 10-FEB-10 15:48 |

| Analyte | Peak | RT | RT Window | Conc. | Ave Conc. | Units | RPD |
|---|---|---|---|---|---|---|---|
| **Aroclor-1016** | | | | | | | 10 |
| *Column 1* | 1 | 2.42 | 2.39 – 2.45 | 23 | | ug/kg | |
| | 2 | 2.71 | 2.68 – 2.74 | 25.1 | | ug/kg | |
| | 3 | 2.79 | 2.76 – 2.82 | 23.6 | | ug/kg | |
| | 4 | 2.82 | 2.79 – 2.85 | 23.5 | | ug/kg | |
| | 5 | 3.03 | 3.01 – 3.07 | 23.9 | | ug/kg | |
| | | | | | 23.8 | | |
| *Column 2* | 1 | 3.19 | 3.16 – 3.22 | 22.1 | | ug/kg | |
| | 2 | 3.27 | 3.24 – 3.3 | 21.6 | | ug/kg | |
| | 3 | 3.34 | 3.31 – 3.37 | 21 | | ug/kg | |
| | 4 | 3.56 | 3.53 – 3.59 | 21.6 | | ug/kg | |
| | 5 | 3.64 | 3.61 – 3.67 | 21.5 | | ug/kg | |
| | | | | | 21.6 | | |
| **Aroclor-1260** | | | | | | | 5.64 |
| *Column 1* | 1 | 3.76 | 3.73 – 3.79 | 26.9 | | ug/kg | |
| | 2 | 3.92 | 3.9 – 3.96 | 26.6 | | ug/kg | |
| | 3 | 4.15 | 4.13 – 4.19 | 27.1 | | ug/kg | |
| | 4 | 4.3 | 4.27 – 4.33 | 22.5 | | ug/kg | |
| | 5 | 4.48 | 4.45 – 4.51 | 28 | | ug/kg | |
| | | | | | 26.2 | | |
| *Column 2* | 1 | 4.33 | 4.3 – 4.36 | 24 | | ug/kg | |
| | 2 | 4.46 | 4.43 – 4.49 | 24.5 | | ug/kg | |
| | 3 | 4.72 | 4.69 – 4.75 | 24.7 | | ug/kg | |
| | 4 | 4.9 | 4.87 – 4.93 | 24.8 | | ug/kg | |
| | 5 | 5.04 | 5.01 – 5.07 | 26 | | ug/kg | |
| | | | | | 24.8 | | |

## Identification Summary



**SDG Number:** 10–1512 **Client ID:** RE15–10–7880MS

**Lab Sample ID:** 1202037815

| | | | |
|---|---|---|---|
| **Data File:** | 022f2201.d | **Data File:** | 022b2201.d |
| **Inst:** | ECD1A.I_1 | **Inst:** | ECD1A.I_2 |
| **Column:** | CLP1 | **Column:** | CLP2 |
| **Analyzed:** | 10–FEB–10 17:04 | **Analyzed:** | 10–FEB–10 17:04 |

| Analyte | Peak | RT | RT Window | Conc. | Ave Conc. | Units | RPD |
|---|---|---|---|---|---|---|---|
| **Aroclor–1016** | | | | | | | 10.6 |
| *Column 1* | 1 | 2.42 | 2.39 – 2.45 | 23.2 | | ug/kg | |
| | 2 | 2.71 | 2.68 – 2.74 | 24.6 | | ug/kg | |
| | 3 | 2.79 | 2.76 – 2.82 | 24 | | ug/kg | |
| | 4 | 2.82 | 2.79 – 2.85 | 23.9 | | ug/kg | |
| | 5 | 3.03 | 3.01 – 3.07 | 24.3 | | ug/kg | |
| | | | | | 24 | | |
| *Column 2* | 1 | 3.19 | 3.16 – 3.22 | 22.5 | | ug/kg | |
| | 2 | 3.27 | 3.24 – 3.3 | 21.5 | | ug/kg | |
| | 3 | 3.34 | 3.31 – 3.37 | 21 | | ug/kg | |
| | 4 | 3.56 | 3.53 – 3.59 | 21.4 | | ug/kg | |
| | 5 | 3.64 | 3.61 – 3.67 | 21.4 | | ug/kg | |
| | | | | | 21.6 | | |
| **Aroclor–1260** | | | | | | | 6.03 |
| *Column 1* | 1 | 3.76 | 3.73 – 3.79 | 27.9 | | ug/kg | |
| | 2 | 3.92 | 3.9 – 3.96 | 27.2 | | ug/kg | |
| | 3 | 4.15 | 4.13 – 4.19 | 28.1 | | ug/kg | |
| | 4 | 4.3 | 4.27 – 4.33 | 28.3 | | ug/kg | |
| | 5 | 4.48 | 4.45 – 4.51 | 28.4 | | ug/kg | |
| | | | | | 28 | | |
| *Column 2* | 1 | 4.33 | 4.3 – 4.36 | 25.6 | | ug/kg | |
| | 2 | 4.46 | 4.43 – 4.49 | 26.4 | | ug/kg | |
| | 3 | 4.72 | 4.69 – 4.75 | 26.4 | | ug/kg | |
| | 4 | 4.9 | 4.87 – 4.93 | 26.1 | | ug/kg | |
| | 5 | 5.04 | 5.01 – 5.07 | 27.1 | | ug/kg | |
| | | | | | 26.3 | | |

## Identification Summary



**SDG Number:** 10–1512 **Client ID:** RE15–10–7880MSD

**Lab Sample ID:** 1202037816

| | | | |
|---|---|---|---|
| **Data File:** | 023f2301.d | **Data File:** | 023b2301.d |
| **Inst:** | ECD1A.I_1 | **Inst:** | ECD1A.I_2 |
| **Column:** | CLP1 | **Column:** | CLP2 |
| **Analyzed:** | 10–FEB–10 17:17 | **Analyzed:** | 10–FEB–10 17:17 |

| Analyte | Peak | RT | RT Window | Conc. | Ave Conc. | Units | RPD |
|---|---|---|---|---|---|---|---|
| **Aroclor–1016** | | | | | | | 13.5 |
| *Column 1* | 1 | 2.42 | 2.39 – 2.45 | 26 | | ug/kg | |
| | 2 | 2.7 | 2.68 – 2.74 | 27.8 | | ug/kg | |
| | 3 | 2.79 | 2.76 – 2.82 | 26 | | ug/kg | |
| | 4 | 2.82 | 2.79 – 2.85 | 25.5 | | ug/kg | |
| | 5 | 3.03 | 3.01 – 3.07 | 25.4 | | ug/kg | |
| | | | | | 26.1 | | |
| *Column 2* | 1 | 3.19 | 3.16 – 3.22 | 23.9 | | ug/kg | |
| | 2 | 3.27 | 3.24 – 3.3 | 22.9 | | ug/kg | |
| | 3 | 3.34 | 3.31 – 3.37 | 22.3 | | ug/kg | |
| | 4 | 3.56 | 3.53 – 3.59 | 22.6 | | ug/kg | |
| | 5 | 3.64 | 3.61 – 3.67 | 22.4 | | ug/kg | |
| | | | | | 22.8 | | |
| **Aroclor–1260** | | | | | | | 8.45 |
| *Column 1* | 1 | 3.76 | 3.73 – 3.79 | 29.9 | | ug/kg | |
| | 2 | 3.92 | 3.9 – 3.96 | 30.2 | | ug/kg | |
| | 3 | 4.15 | 4.13 – 4.19 | 30.2 | | ug/kg | |
| | 4 | 4.3 | 4.27 – 4.33 | 30.1 | | ug/kg | |
| | 5 | 4.48 | 4.45 – 4.51 | 30.3 | | ug/kg | |
| | | | | | 30.1 | | |
| *Column 2* | 1 | 4.33 | 4.3 – 4.36 | 27 | | ug/kg | |
| | 2 | 4.46 | 4.43 – 4.49 | 27.9 | | ug/kg | |
| | 3 | 4.72 | 4.69 – 4.75 | 27.7 | | ug/kg | |
| | 4 | 4.89 | 4.87 – 4.93 | 27.4 | | ug/kg | |
| | 5 | 5.04 | 5.01 – 5.07 | 28.5 | | ug/kg | |
| | | | | | 27.7 | | |

## Identification Summary



**SDG Number:** 10–1512 **Client ID:** RE15–10–7891

**Lab Sample ID:** 245969002

| | | | |
|---|---|---|---|
| **Data File:** | 036f3601.d | **Data File:** | 036b3601.d |
| **Inst:** | ECD1A.I_1 | **Inst:** | ECD1A.I_2 |
| **Column:** | CLP1 | **Column:** | CLP2 |
| **Analyzed:** | 05–FEB–10 13:39 | **Analyzed:** | 05–FEB–10 13:39 |

| Analyte | Peak | RT | RT Window | Conc. | Ave Conc. | Units | RPD |
|---|---|---|---|---|---|---|---|
| **Aroclor–1254** | | | | | | | 38 |
| *Column 1* | 1 | 3.26 | 3.24 – 3.3 | 9.11 | | ug/kg | |
| | 2 | 3.42 | 3.39 – 3.45 | 10.9 | | ug/kg | |
| | 3 | 3.65 | 3.62 – 3.68 | 10.5 | | ug/kg | |
| | 4 | 3.82 | 3.79 – 3.85 | 7.94 | | ug/kg | |
| | 5 | 3.92 | 3.9 – 3.96 | 17.2 | | ug/kg | |
| | | | | | 11.1 | | |
| *Column 2* | 1 | 3.4 | 3.37 – 3.43 | 5.88 | | ug/kg | |
| | 2 | 3.82 | 3.79 – 3.85 | 7.88 | | ug/kg | |
| | 3 | 3.94 | 3.91 – 3.97 | 11.1 | | ug/kg | |
| | 4 | 4.22 | 4.19 – 4.25 | 5.95 | | ug/kg | |
| | 5 | 4.35 | 4.32 – 4.38 | 7.09 | | ug/kg | |
| | | | | | 7.58 | | |
| **Aroclor–1260** | | | | | | | 8.76 |
| *Column 1* | 1 | 3.76 | 3.73 – 3.79 | 9.68 | | ug/kg | |
| | 2 | 3.92 | 3.89 – 3.95 | 9.78 | | ug/kg | |
| | 3 | 4.15 | 4.12 – 4.18 | 7.1 | | ug/kg | |
| | 4 | 4.29 | 4.27 – 4.33 | 7.62 | | ug/kg | |
| | 5 | 4.47 | 4.45 – 4.51 | 3.9 | | ug/kg | |
| | | | | | 7.62 | | |
| *Column 2* | 1 | 4.33 | 4.3 – 4.36 | 12 | | ug/kg | |
| | 2 | 4.45 | 4.43 – 4.49 | 9.23 | | ug/kg | |
| | 3 | 4.72 | 4.69 – 4.75 | 8.35 | | ug/kg | |
| | 4 | 4.9 | 4.87 – 4.93 | 7.78 | | ug/kg | |
| | 5 | 5.04 | 5.01 – 5.07 | 4.25 | | ug/kg | |
| | | | | | 8.31 | | |

## Identification Summary



**SDG Number:** 10–1512 **Client ID:** RE15–10–7891

**Lab Sample ID:** 245969002

| | | | |
|---|---|---|---|
| **Data File:** | 036f3601.d | **Data File:** | 036b3601.d |
| **Inst:** | ECD1A.I_1 | **Inst:** | ECD1A.I_2 |
| **Column:** | CLP1 | **Column:** | CLP2 |
| **Analyzed:** | 05–FEB–10 13:39 | **Analyzed:** | 05–FEB–10 13:39 |

| Analyte | Peak | RT | RT Window | Conc. | Ave Conc. | Units | RPD |
|---|---|---|---|---|---|---|---|
| **Aroclor–1268** | | | | | | | 5.49 |
| *Column 1* | 1 | 4.66 | 4.63 – 4.69 | 6.31 | | ug/kg | |
| | 2 | 4.68 | 4.66 – 4.72 | 6.66 | | ug/kg | |
| | 3 | 4.8 | 4.77 – 4.83 | 6.58 | | ug/kg | |
| | 4 | 5 | 4.97 – 5.03 | 8.43 | | ug/kg | |
| | 5 | 5.16 | 5.14 – 5.2 | 9.32 | | ug/kg | |
| | | | | | 7.46 | | |
| *Column 2* | 1 | 5.25 | 5.23 – 5.29 | 7.32 | | ug/kg | |
| | 2 | 5.28 | 5.25 – 5.31 | 6.83 | | ug/kg | |
| | 3 | 5.43 | 5.4 – 5.46 | 7.24 | | ug/kg | |
| | 4 | 5.6 | 5.57 – 5.63 | 8.11 | | ug/kg | |
| | 5 | 5.79 | 5.76 – 5.82 | 9.89 | | ug/kg | |
| | | | | | 7.88 | | |

# QUALITY CONTROL DATA

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | **10-1512** | | | **Matrix:** | **SOIL** |
| **Lab Sample ID:** | **1202033246** | | | | |
| **Client Sample:** | **QC for batch 949031** | **Client:** | **LANL010** | **Project:** | **QC** |
| **Client ID:** | **MB for batch 949031** | **Method:** | **SW846 8082** | **SOP Ref:** | **GL-OA-E-040** |
| **Batch ID:** | **949033** | **Inst:** | **ECD1A.I** | **Dilution:** | **1** |
| **Run Date:** | **02/05/2010 08:52** | **Analyst:** | **YS1** | **Inj. Vol:** | **1 uL** |
| **Prep Date:** | **02/04/2010 20:32** | **Aliquot:** | **30 g** | **Final Volume:** | **1 mL** |
| **Data File:** | **012f1201-1.d** | **Column:** | **1 CLP1** | **Level:** | **LOW** |
| | **012b1201-1.d** | | **2 CLP2** | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11104-28-2 | Aroclor-1221 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11141-16-5 | Aroclor-1232 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 53469-21-9 | Aroclor-1242 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 12672-29-6 | Aroclor-1248 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11097-69-1 | Aroclor-1254 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11096-82-5 | Aroclor-1260 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11100-14-4 | Aroclor-1268 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/020510.b/012f1201-4.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecdla.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecdla.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.965 | 1.965 | 0.000 | 48584892 | 121.874 | 4.1 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.277 | 5.275 | 0.002 | 36515828 | 112.942 | 3.8 | 80.00- 120.00 | 100.00 |

Data File: /chem/ecd1a.i/020510.b/012f1201-4.d

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Sample Info: |1202033246|1|

Volume Injected (uL): 1.0

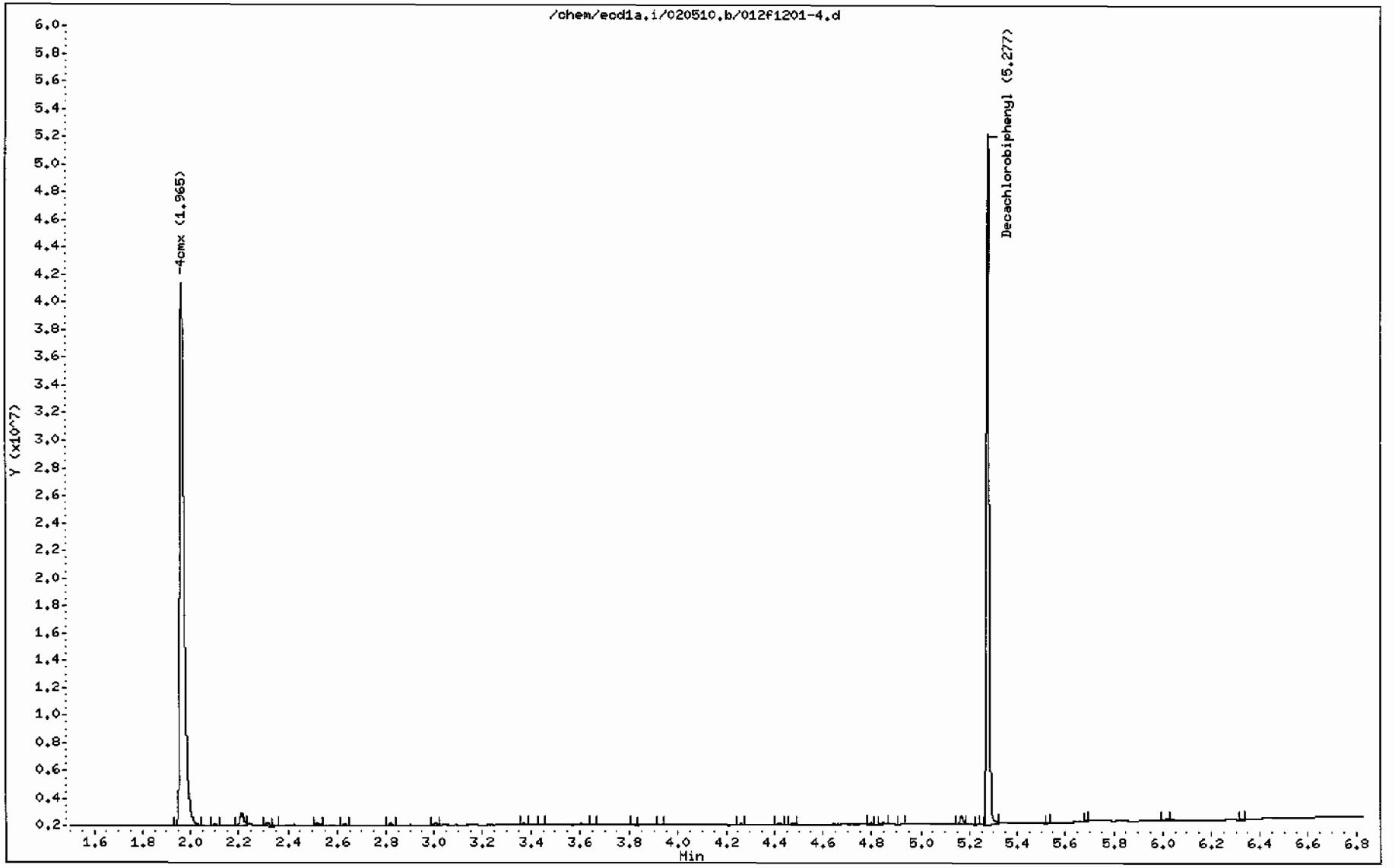
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/012b1201-4.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.297 | 2.296 | 0.001 | 34903615 | 121.512 | 4.0 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.943 | 5.942 | 0.001 | 29195934 | 134.155 | 4.5 | 80.00- 120.00 | 100.00 |

Data File: /chem/ecd1a.i/020510.b/012b1201-4.d

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Sample Info: |1202033246|1|

Volume Injected (uL): 1.0

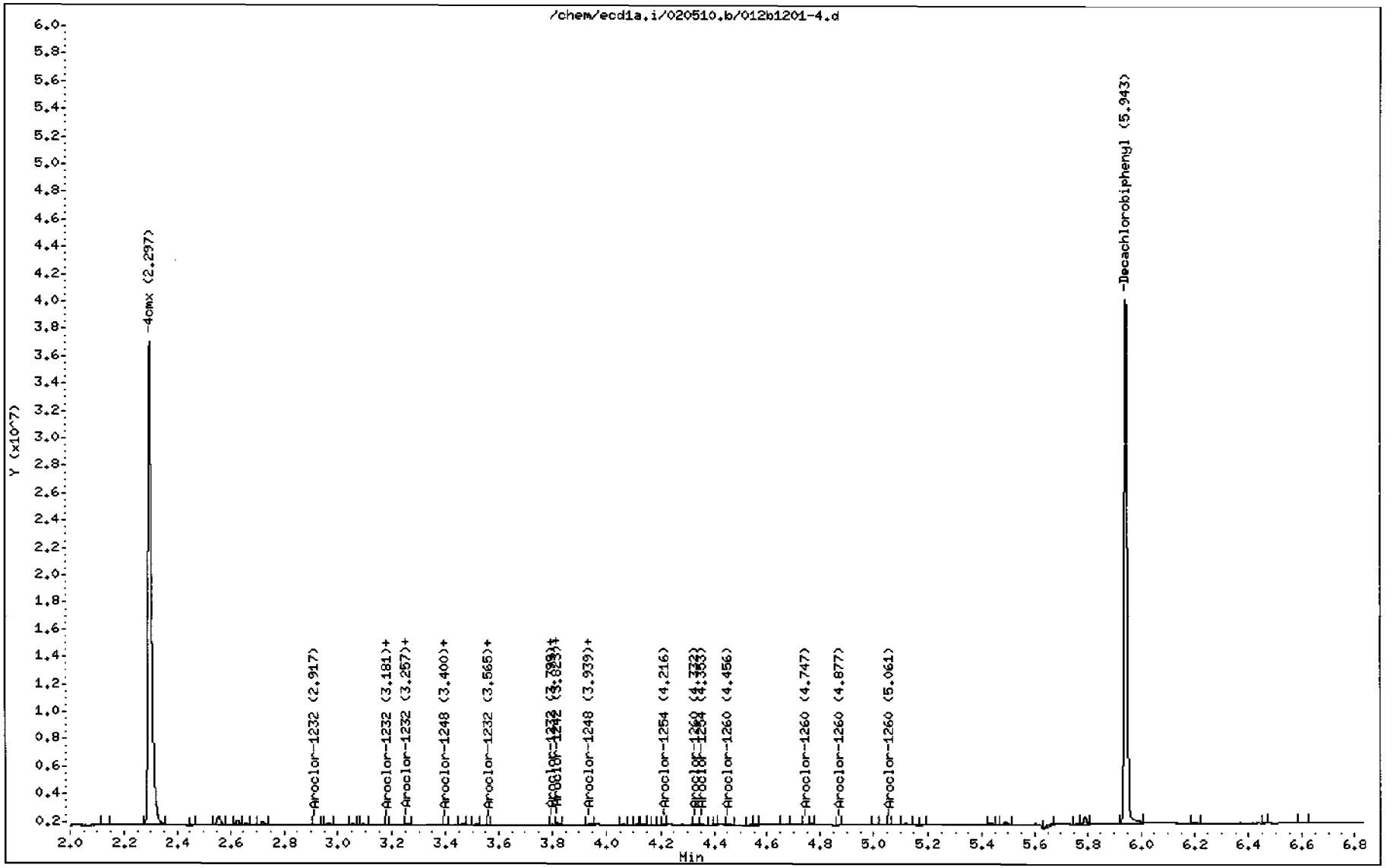
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25





# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | **10-1512** | | | **Matrix:** | **SOIL** |
| **Lab Sample ID:** | **1202037813** | | | | |
| **Client Sample:** | **QC for batch 950897** | **Client:** | **LANL010** | **Project:** | **QC** |
| **Client ID:** | **MB for batch 950897** | **Method:** | **SW846 8082** | **SOP Ref:** | **GL-OA-E-040** |
| **Batch ID:** | **950898** | **Inst:** | **ECD1A.I** | **Dilution:** | **1** |
| **Run Date:** | **02/10/2010 15:36** | **Analyst:** | **YS1** | **Inj. Vol:** | **1 uL** |
| **Prep Date:** | **02/09/2010 21:07** | **Aliquot:** | **30 g** | **Final Volume:** | **1 mL** |
| **Data File:** | **015f1501.d** | **Column:** | **1 CLP1** | **Level:** | **LOW** |
| | **015b1501.d** | | **2 CLP2** | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11104-28-2 | Aroclor-1221 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11141-16-5 | Aroclor-1232 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 53469-21-9 | Aroclor-1242 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 12672-29-6 | Aroclor-1248 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11097-69-1 | Aroclor-1254 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11096-82-5 | Aroclor-1260 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/015f1501.d
Lab Smp Id: 1202037813 Client Smp ID: PBLK02
Inj Date : 10-FEB-2010 15:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037813|1|
Misc Info : |ECD82P_1S|950898|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 11-Feb-2010 06:04 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

Cpnd Variable Local Compound Variable

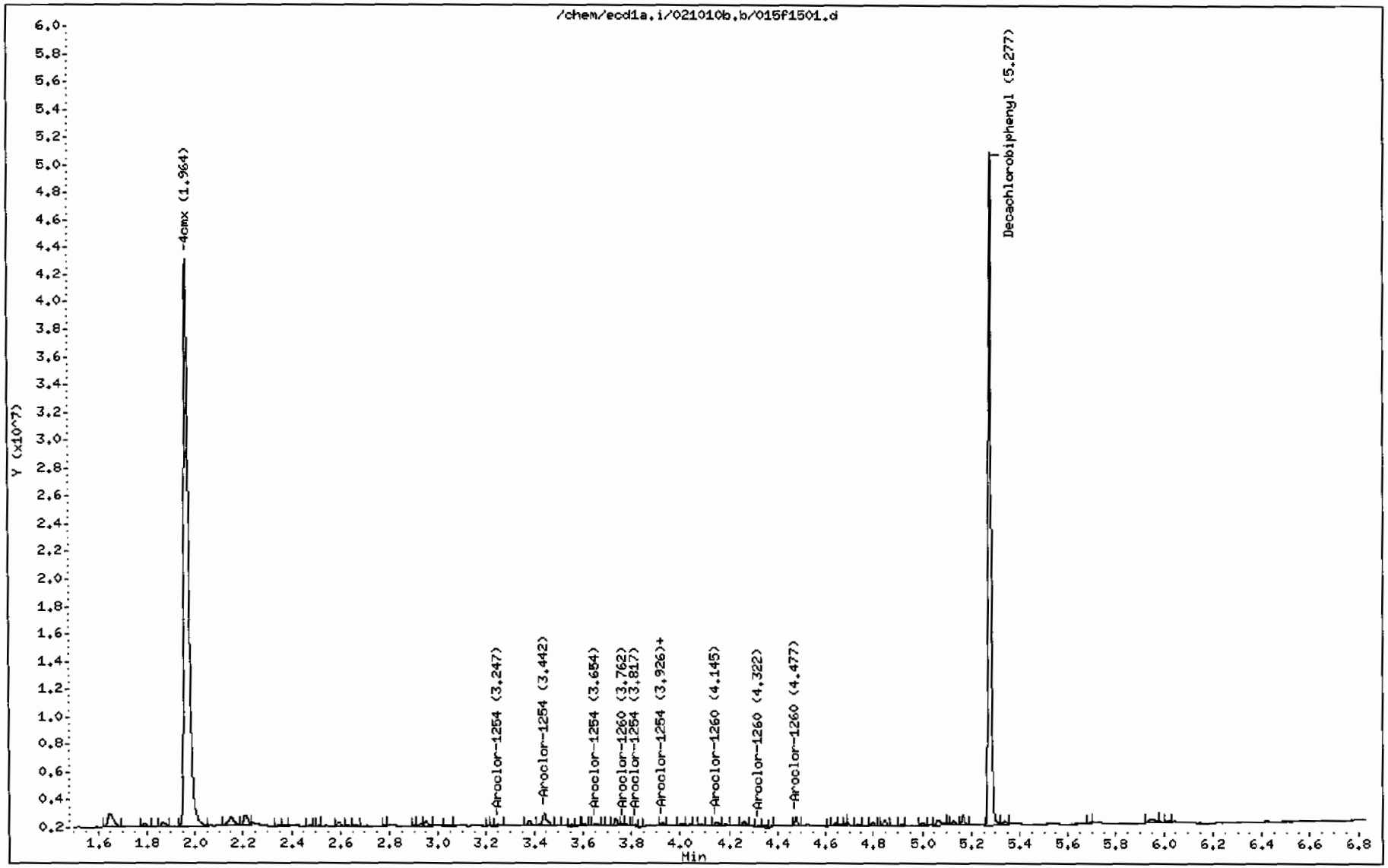
| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.964 | 1.962 | 0.002 | 55496273 | 139.211 | 4.6 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.277 | 5.278 | -0.001 | 37513425 | 116.027 | 3.9 | 80.00- 120.00 | 100.00 |

Data File: /chem/ecd1a.i/021010b.b/015f1501.d
Date : 10-FEB-2010 15:36
Client ID: PBLK02
Sample Info: |1202037813|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/015b1501.d
Lab Smp Id: 1202037813 Client Smp ID: PBLK02
Inj Date : 10-FEB-2010 15:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037813|1|
Misc Info : |ECD82P_1S|950898|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

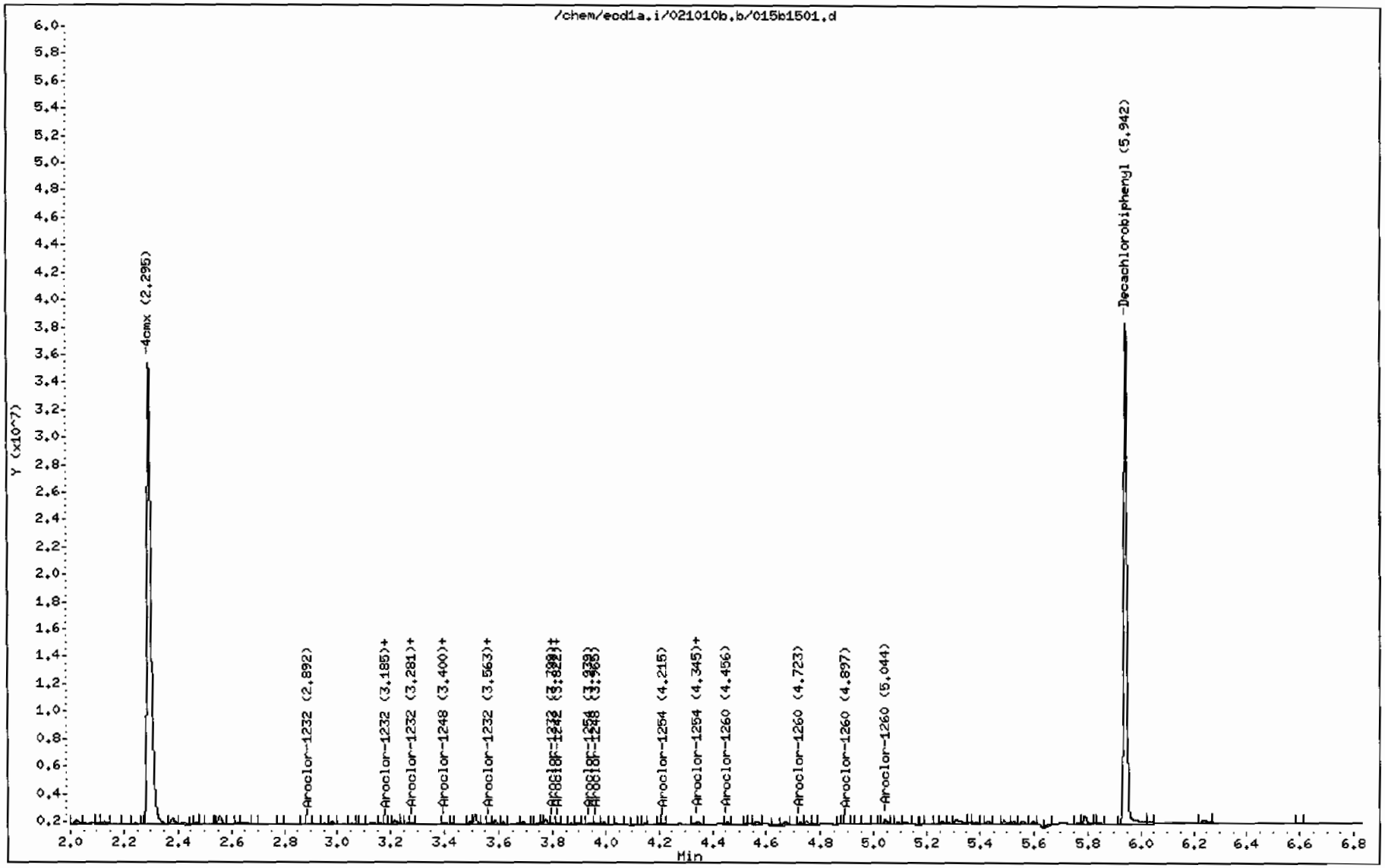
Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.295 | 2.294 | 0.001 | 35469517 | 123.482 | 4.1 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.942 | 5.943 | -0.001 | 28948374 | 133.018 | 4.4 | 80.00- 120.00 | 100.00 |

Data File: /chem/ecd1a.i/021010b.b/015b1501.d
Date : 10-FEB-2010 15:36
Client ID: PBLK02
Sample Info: |1202037813|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25





# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | **10-1512** | | | **Matrix:** | **SOIL** |
| **Lab Sample ID:** | **1202033247** | | | | |
| **Client Sample:** | **QC for batch 949031** | **Client:** | **LANL010** | **Project:** | **QC** |
| **Client ID:** | **LCS for batch 949031** | **Method:** | **SW846 8082** | **SOP Ref:** | **GL-OA-E-040** |
| **Batch ID:** | **949033** | **Inst:** | **ECD1A.I** | **Dilution:** | **1** |
| **Run Date:** | **02/05/2010 09:02** | **Analyst:** | **YS1** | **Inj. Vol:** | **1 uL** |
| **Prep Date:** | **02/04/2010 20:32** | **Aliquot:** | **30 g** | **Final Volume:** | **1 mL** |
| **Data File:** | **013f1301-1.d** | **Column:** | **1 CLP1** | **Level:** | **LOW** |
| | **013b1301-1.d** | | **2 CLP2** | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | | 20.2 | ug/kg | 1.11 | 3.33 | 1 |
| 11104-28-2 | Aroclor-1221 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11141-16-5 | Aroclor-1232 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 53469-21-9 | Aroclor-1242 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 12672-29-6 | Aroclor-1248 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11097-69-1 | Aroclor-1254 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11096-82-5 | Aroclor-1260 | | 23.7 | ug/kg | 1.11 | 3.33 | 1 |
| 11100-14-4 | Aroclor-1268 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013f1301-4.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

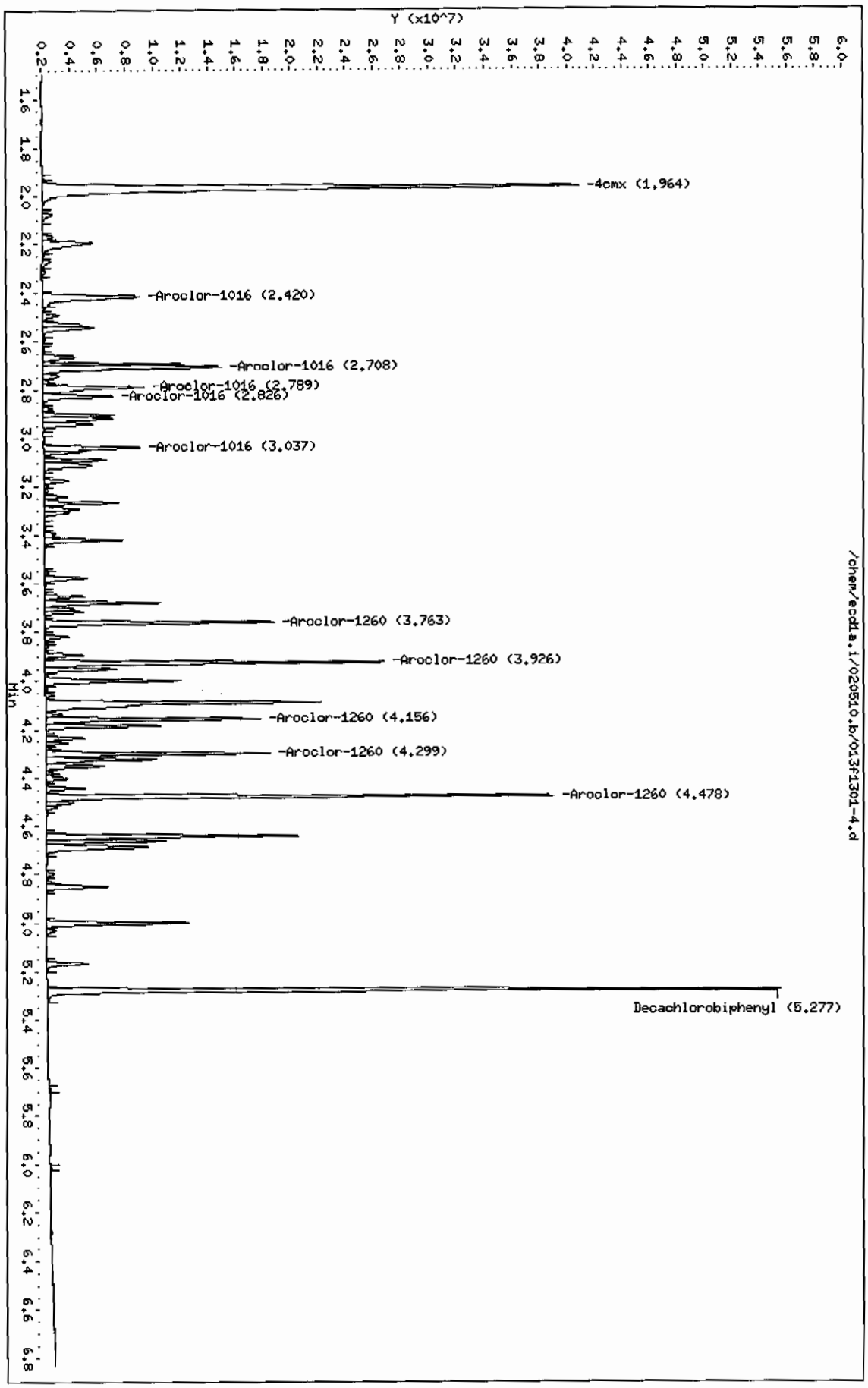
Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.964 | 1.965 | -0.001 | 50013903 | 125.458 | 4.2 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.277 | 5.275 | 0.002 | 39702847 | 122.799 | 4.1 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.420 | 2.419 | 0.001 | 8867856 | 604.950 | 20.2 | 80.00- 120.00 | 100.00 |
| 2.708 | 2.707 | 0.001 | 11431437 | 623.897 | 20.8 | 111.50- 151.50 | 128.91 |
| 2.789 | 2.788 | 0.001 | 7213810 | 599.968 | 20.0 | 62.41- 102.41 | 81.35 |
| 2.826 | 2.826 | 0.000 | 4356989 | 606.812 | 20.2 | 29.39- 69.39 | 49.13 |

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016 (continued) | | | | | | | |
| 3.037 | 3.036 | 0.001 | 5584390 | 601.132 | 20.0 | 44.74- 84.74 | 62.97 |
| Average of Peak Concentrations = | | | | | 20.2 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.763 | 3.762 | 0.001 | 12251339 | 694.656 | 23.2 | 80.00- 120.00 | 100.00 |
| 3.926 | 3.925 | 0.001 | 18755441 | 703.451 | 23.4 | 132.75- 172.75 | 153.09 |
| 4.156 | 4.155 | 0.001 | 11339517 | 712.208 | 23.7 | 70.75- 110.75 | 92.56 |
| 4.299 | 4.297 | 0.002 | 11864393 | 716.853 | 23.9 | 75.46- 115.46 | 96.84 |
| 4.478 | 4.477 | 0.001 | 27215780 | 732.880 | 24.4 | 198.55- 238.55 | 222.15 |
| Average of Peak Concentrations = | | | | | 23.7 | | |

Data File: /chem/ecdia.i/020510.b/013F1301-4.d
Date : 05-FEB-2010 09:02
Client ID: PBLK01LCS
Sample Info: 1120203324714
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25




Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013b1301-4.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.295 | 2.296 | -0.001 | 35785063 | 124.581 | 4.2 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.943 | 5.942 | 0.001 | 29148749 | 133.938 | 4.5 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.192 | 3.192 | 0.000 | 7837768 | 627.787 | 20.9 | 80.00- 120.00 | 100.00(M) |
| 3.275 | 3.275 | 0.000 | 5207354 | 609.274 | 20.3 | 46.71- 86.71 | 66.44 |
| 3.340 | 3.339 | 0.001 | 3101086 | 586.135 | 19.5 | 21.11- 61.11 | 39.57 |
| 3.566 | 3.565 | 0.001 | 4040701 | 593.042 | 19.8 | 32.44- 72.44 | 51.55 |

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016 (continued) | | | | | | | |
| 3.642 | 3.641 | 0.001 | 3840836 | 599.683 | 20.0 | 29.96- 69.96 | 49.00 |
| Average of Peak Concentrations = | | | | | 20.1 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.332 | 4.332 | 0.000 | 8683387 | 686.743 | 22.9 | 80.00- 120.00 | 100.00 |
| 4.457 | 4.457 | 0.000 | 10720030 | 704.334 | 23.5 | 101.36- 141.36 | 123.45 |
| 4.723 | 4.722 | 0.001 | 8290264 | 711.578 | 23.7 | 72.42- 112.42 | 95.47 |
| 4.896 | 4.896 | 0.000 | 8478479 | 703.403 | 23.4 | 75.24- 115.24 | 97.64 |
| 5.044 | 5.043 | 0.001 | 19273891 | 739.359 | 24.6 | 194.19- 234.19 | 221.96 |
| Average of Peak Concentrations = | | | | | 23.6 | | |

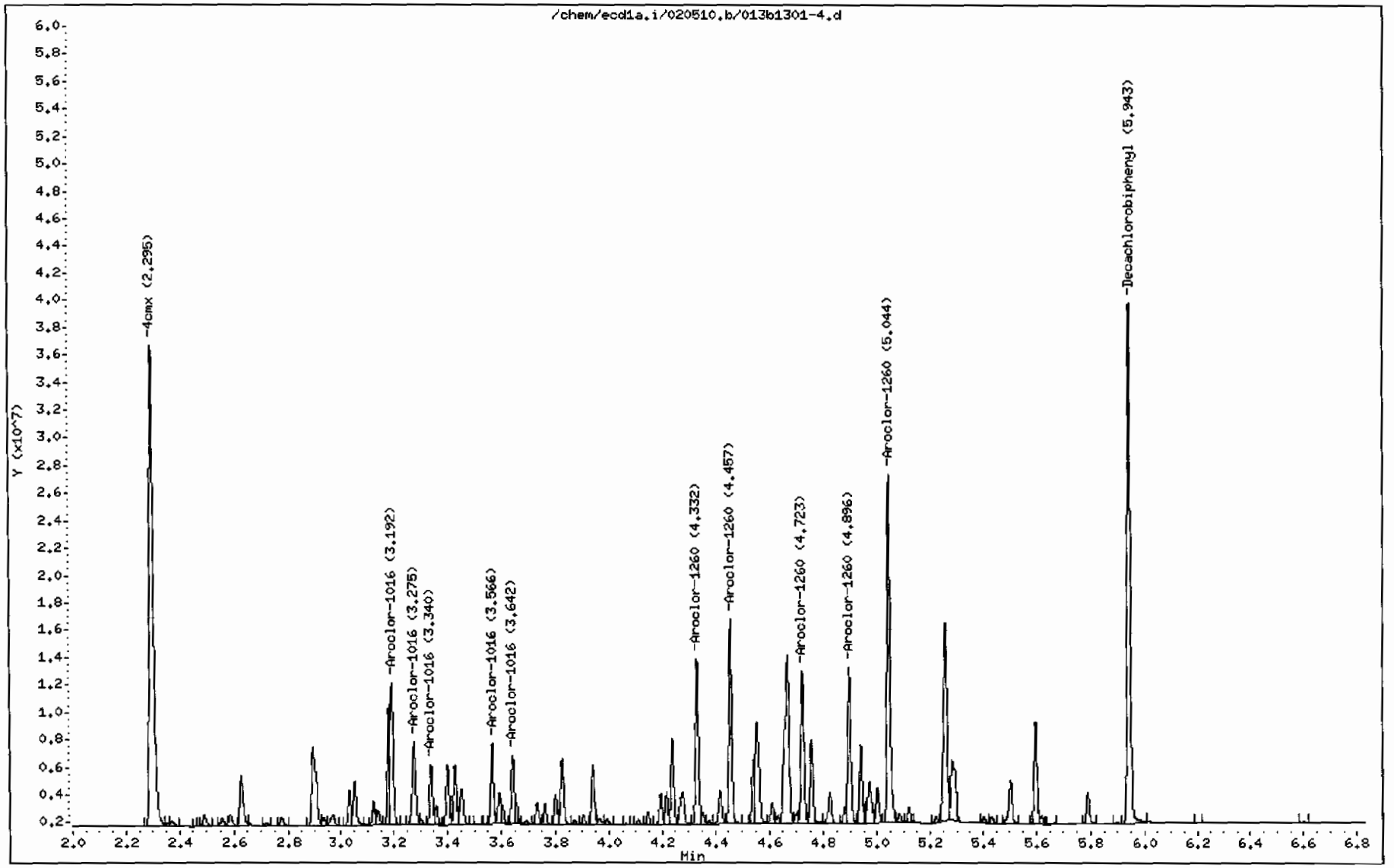
QC Flag Legend

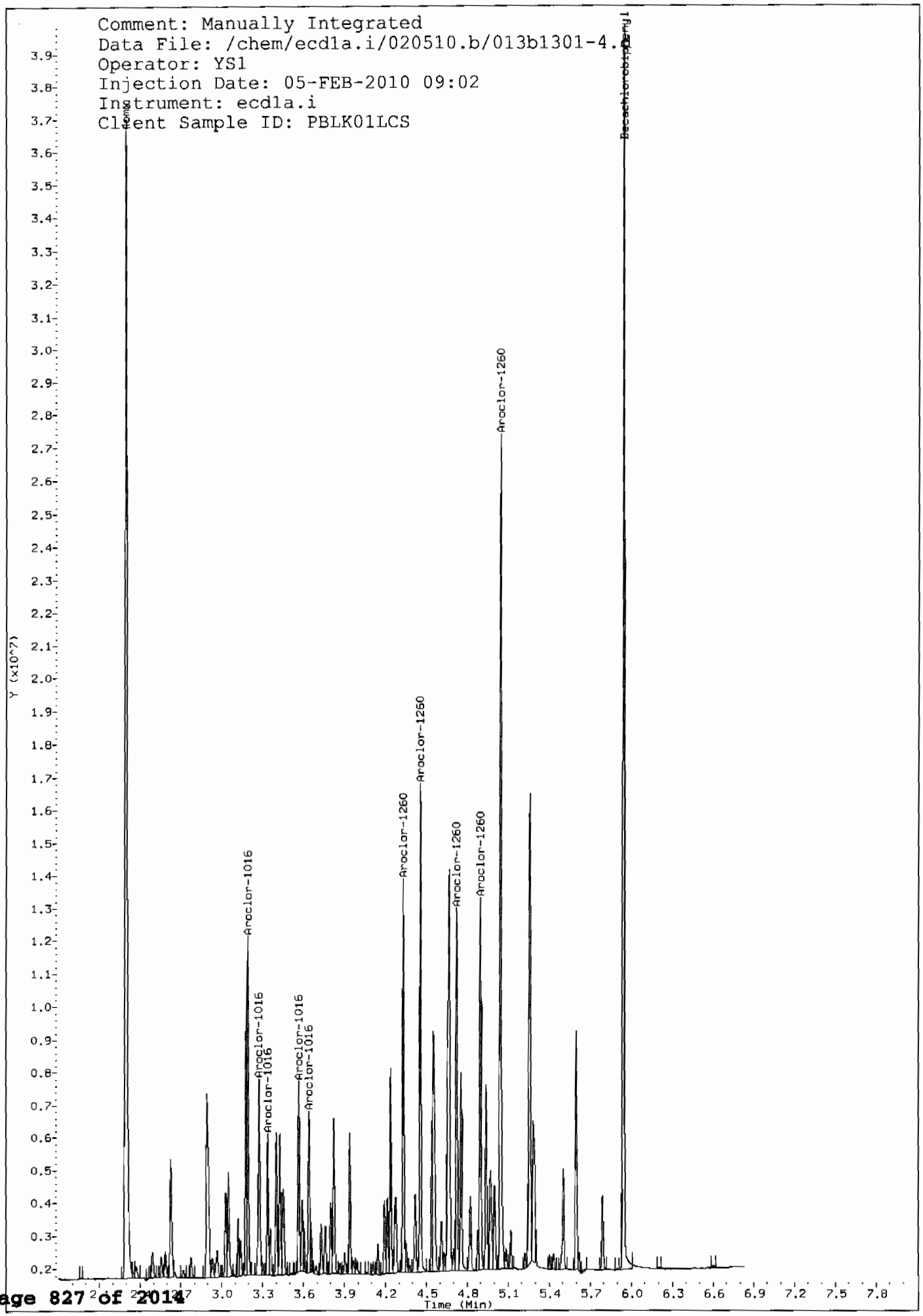
M - Compound response manually integrated.

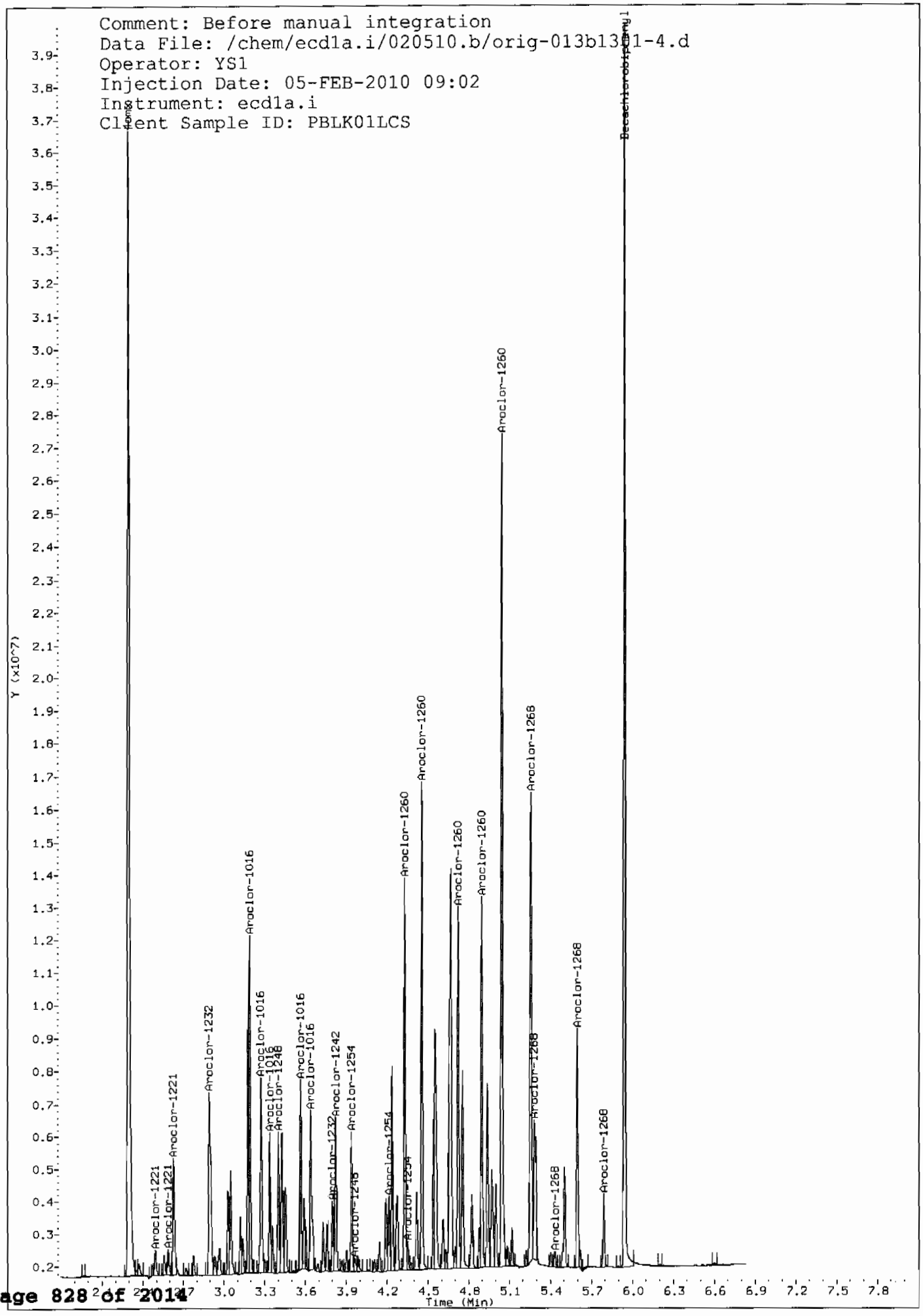
Data File: /chem/ecd1a.i/020510.b/013b1301-4.d
Date : 05-FEB-2010 09:02
Client ID: PBLK01LCS
Sample Info: |1202033247|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25






Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/013b1301-4.
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-013b1301-4.d
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1268
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | **10–1512** | | | **Matrix:** | **SOIL** |
| **Lab Sample ID:** | **1202037814** | | | | |
| **Client Sample:** | **QC for batch 950897** | **Client:** | **LANL010** | **Project:** | **QC** |
| **Client ID:** | **LCS for batch 950897** | **Method:** | **SW846 8082** | **SOP Ref:** | **GL–OA–E–040** |
| **Batch ID:** | **950898** | **Inst:** | **ECD1A.I** | **Dilution:** | **1** |
| **Run Date:** | **02/10/2010 15:48** | **Analyst:** | **YS1** | **Inj. Vol:** | **1 uL** |
| **Prep Date:** | **02/09/2010 21:07** | **Aliquot:** | **30 g** | **Final Volume:** | **1 mL** |
| **Data File:** | **016f1601.d** | **Column:** | **1 CLP1** | **Level:** | **LOW** |
| | **016b1601.d** | | **2 CLP2** | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674–11–2 | Aroclor–1016 | | 23.8 | ug/kg | 1.11 | 3.33 | 1 |
| 11104–28–2 | Aroclor–1221 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11141–16–5 | Aroclor–1232 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 53469–21–9 | Aroclor–1242 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 12672–29–6 | Aroclor–1248 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11097–69–1 | Aroclor–1254 | U | 3.33 | ug/kg | 1.11 | 3.33 | 1 |
| 11096–82–5 | Aroclor–1260 | | 26.2 | ug/kg | 1.11 | 3.33 | 1 |

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/016f1601.d
Lab Smp Id: 1202037814 Client Smp ID: PBLK02LCS
Inj Date : 10-FEB-2010 15:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037814|1|
Misc Info : |ECD82P_1S|950898|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 11-Feb-2010 07:52 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

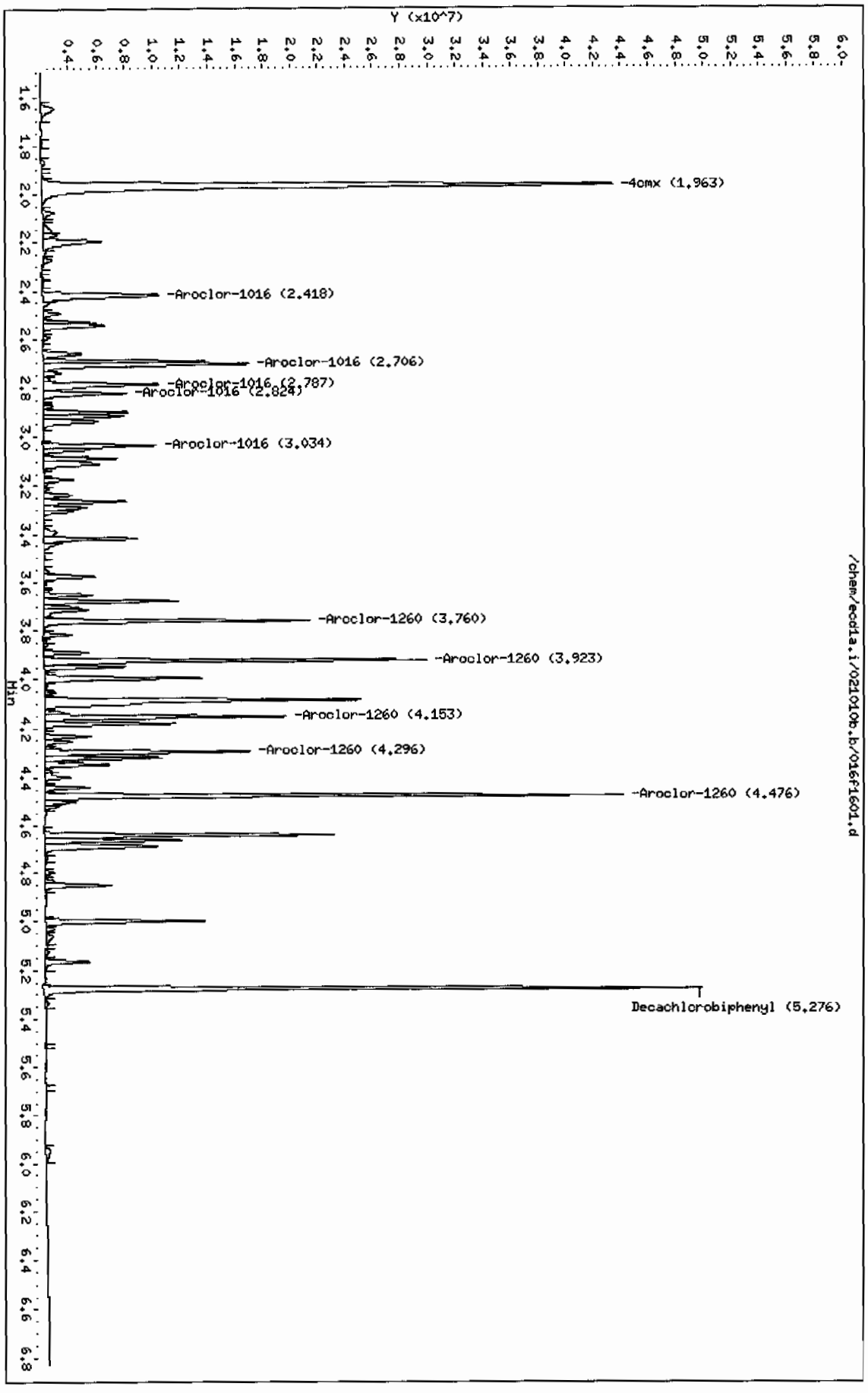
Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.963 | 1.962 | 0.001 | 55335273 | 138.807 | 4.6 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.276 | 5.278 | -0.002 | 35582415 | 110.055 | 3.7 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.418 | 2.418 | 0.000 | 10133640 | 691.300 | 23.0 | 80.00- 120.00 | 100.00 |
| 2.706 | 2.706 | 0.000 | 13790584 | 752.653 | 25.1 | 115.31- 155.31 | 136.09 |
| 2.787 | 2.787 | 0.000 | 8530446 | 709.472 | 23.6 | 63.87- 103.87 | 84.18 |
| 2.824 | 2.825 | -0.001 | 5065609 | 705.504 | 23.5 | 30.33- 70.33 | 49.99 |

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016 (continued) | | | | | | | |
| 3.034 | 3.036 | -0.002 | 6652717 | 716.133 | 23.9 | 44.29- 84.29 | 65.65 |
| | | Average of Peak Concentrations = | | | 23.8 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.760 | 3.762 | -0.002 | 14216245 | 806.067 | 26.9 | 80.00- 120.00 | 100.00 |
| 3.923 | 3.926 | -0.003 | 21316040 | 799.491 | 26.6 | 129.92- 169.92 | 149.94 |
| 4.153 | 4.156 | -0.003 | 12938180 | 812.616 | 27.1 | 69.69- 109.69 | 91.01 |
| 4.296 | 4.299 | -0.003 | 11170189 | 674.909 | 22.5 | 73.92- 113.92 | 78.57 |
| 4.476 | 4.478 | -0.002 | 31233709 | 841.077 | 28.0 | 189.61- 229.61 | 219.70 |
| | | Average of Peak Concentrations = | | | 26.2 | | |

Data File: /chem/ecdia.i/021010b.b/016f1601.d
Date : 10-FEB-2010 15:48
Client ID: PBLK02LCS
Sample Info: 1120203781411
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25




Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/016b1601.d
Lab Smp Id: 1202037814 Client Smp ID: PBLK02LCS
Inj Date : 10-FEB-2010 15:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037814|1|
Misc Info : |ECD82P_1S|950898|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.00000 | Weight of sample extracted (g) |
| M | 0.00000 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.294 | 2.294 | 0.000 | 35118580 | 122.261 | 4.1 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.943 | -0.002 | 29093918 | 133.686 | 4.4 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.191 | 3.191 | 0.000 | 8270781 | 662.470 | 22.1 | 80.00- 120.00 | 100.00(M) |
| 3.273 | 3.274 | -0.001 | 5540819 | 648.290 | 21.6 | 45.25- 85.25 | 66.99 |
| 3.338 | 3.337 | 0.001 | 3335698 | 630.479 | 21.0 | 20.16- 60.16 | 40.33 |
| 3.564 | 3.565 | -0.001 | 4406465 | 646.724 | 21.6 | 31.13- 71.13 | 53.28 |

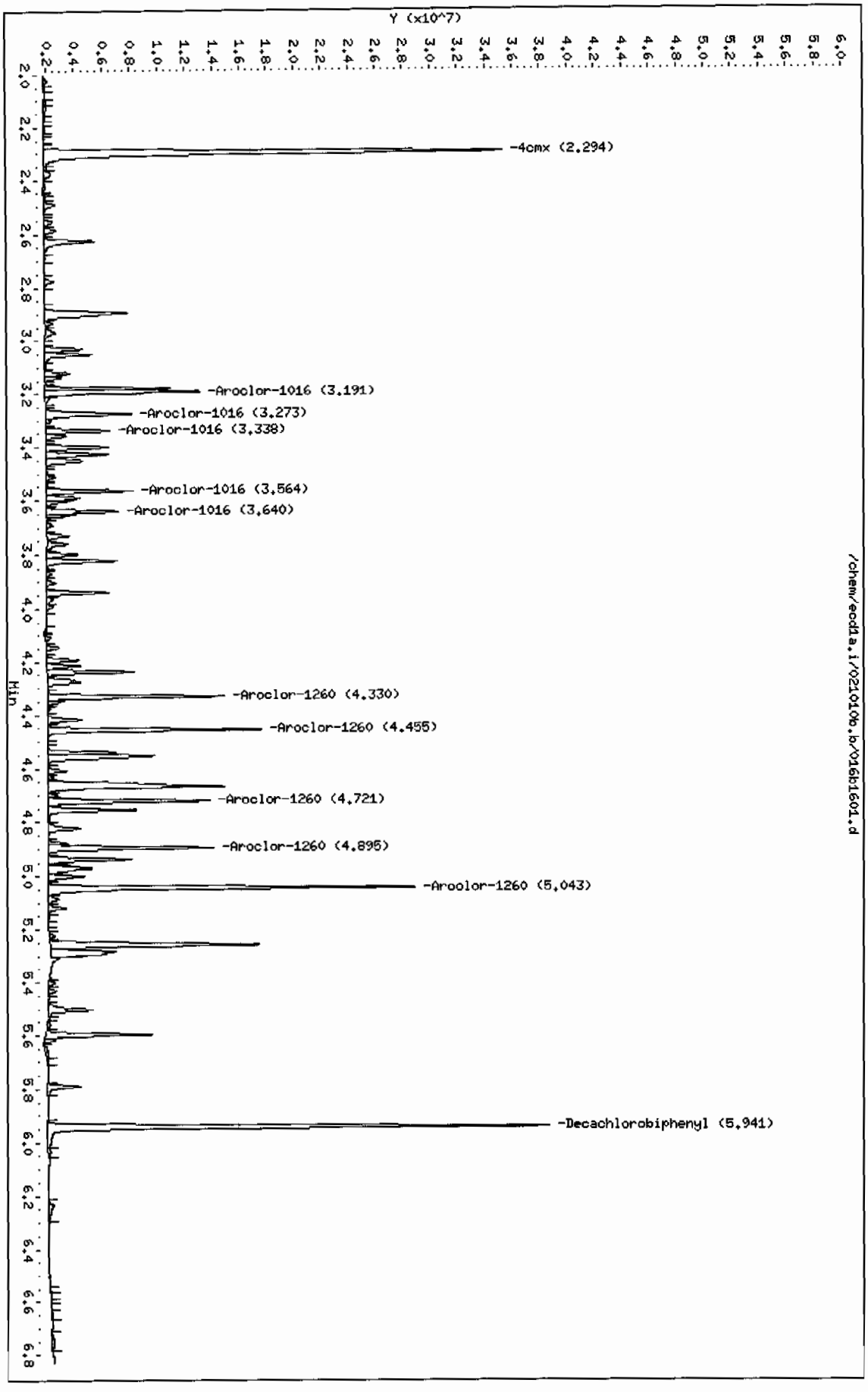
| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016 (continued) | | | | | | | |
| 3.640 | 3.640 | 0.000 | 4138247 | 646.118 | 21.5 | 37.39- 77.39 | 59.98 |
| Average of Peak Concentrations = | | | | | 21.6 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.330 | 4.331 | -0.001 | 9091332 | 719.006 | 24.0 | 80.00- 120.00 | 100.00 |
| 4.455 | 4.457 | -0.002 | 11176356 | 734.316 | 24.5 | 101.16- 141.16 | 122.93 |
| 4.721 | 4.723 | -0.002 | 8620806 | 739.950 | 24.7 | 72.06- 112.06 | 94.82 |
| 4.895 | 4.896 | -0.001 | 8984089 | 745.350 | 24.8 | 75.82- 115.82 | 98.82 |
| 5.043 | 5.044 | -0.001 | 20325162 | 779.686 | 26.0 | 191.28- 231.28 | 223.57 |
| Average of Peak Concentrations = | | | | | 24.8 | | |

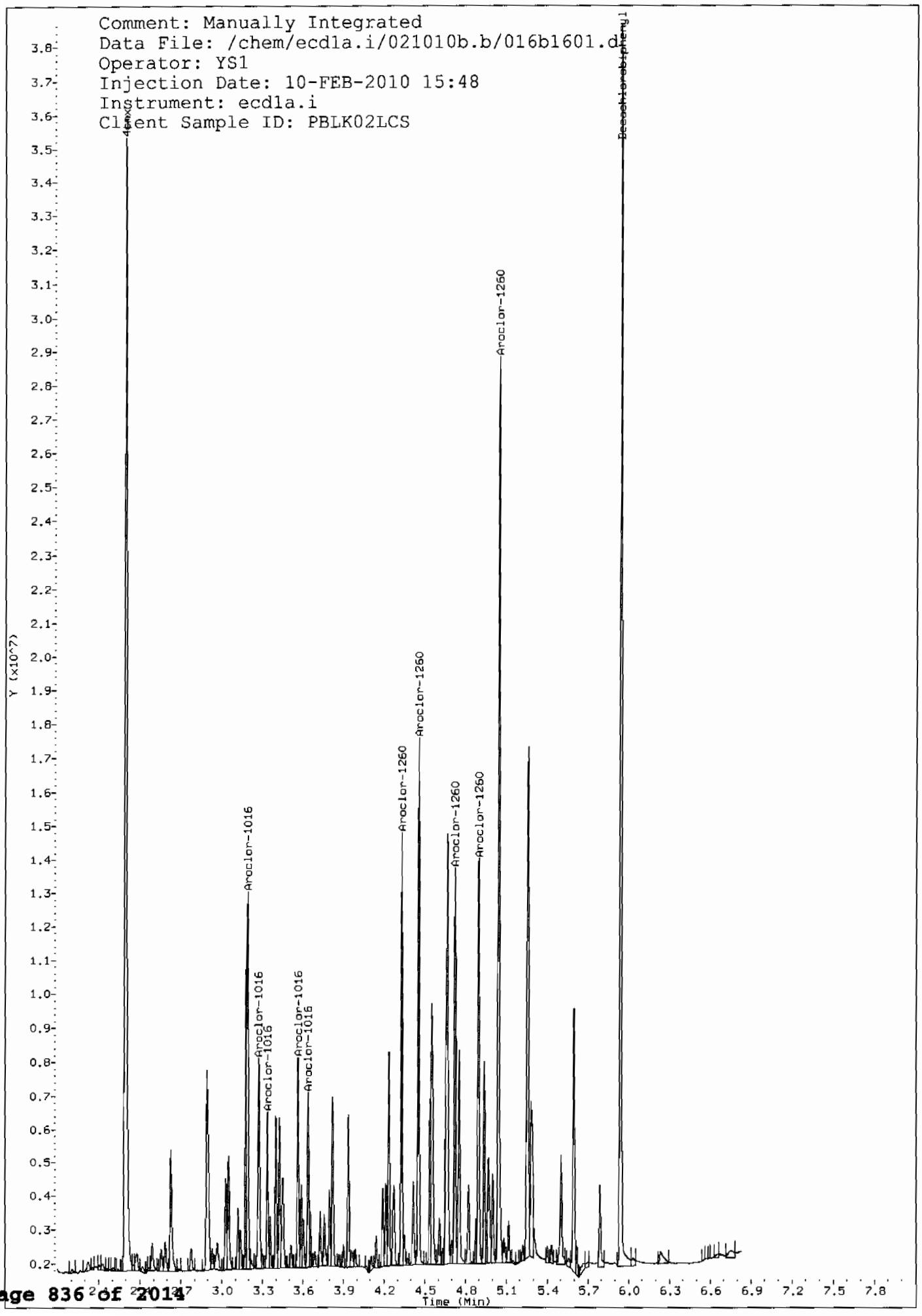
QC Flag Legend

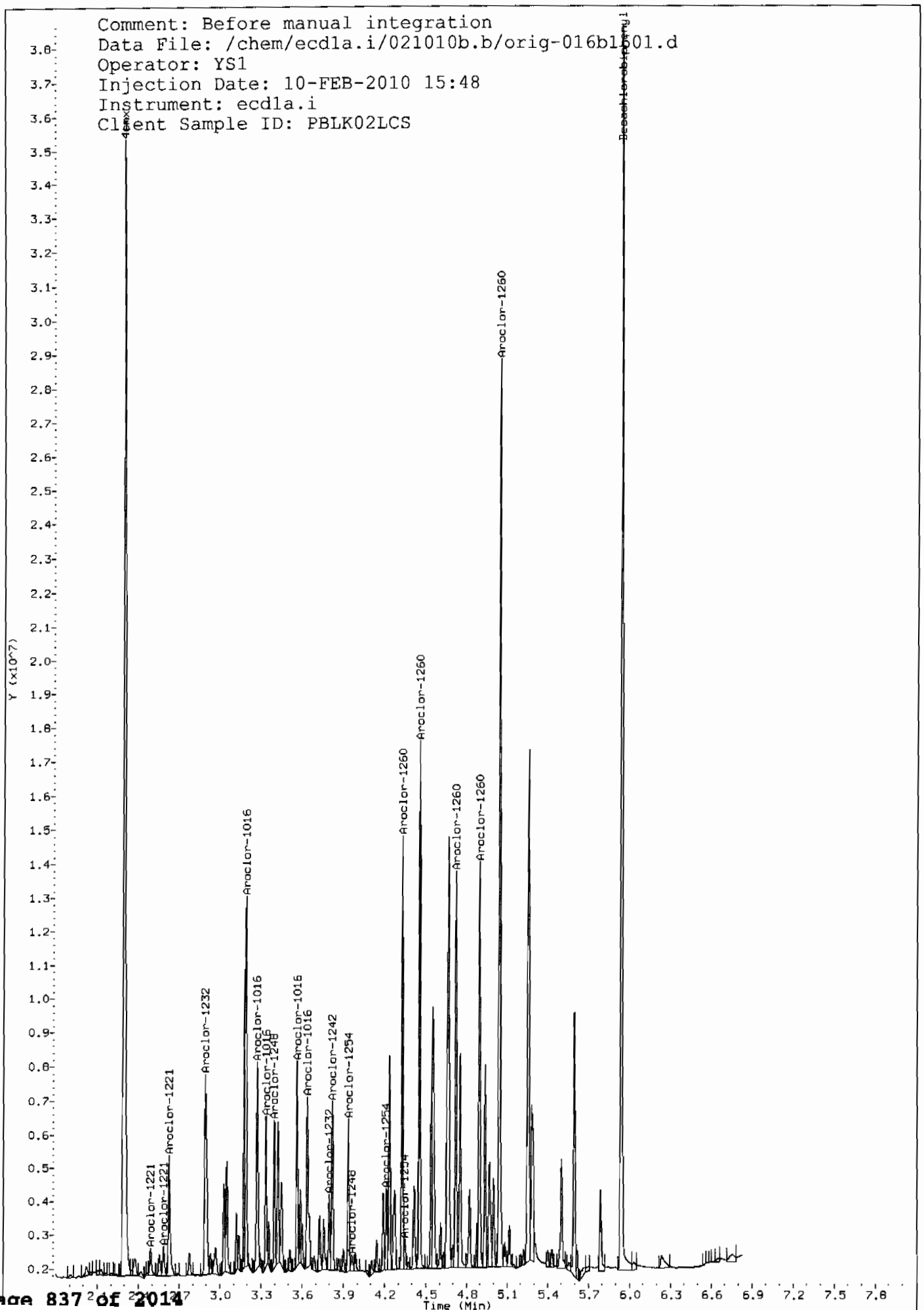
M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021010b.b/016b1601.d
Date : 10-FEB-2010 15:48
Client ID: PBLK02LCS
Sample Info: 1120203781411
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/016b1601.d
Operator: YS1
Injection Date: 10-FEB-2010 15:48
Instrument: ecd1a.i
Client Sample ID: PBLK02LCS
4,4'-DDE
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-016b1501.d
Operator: YS1
Injection Date: 10-FEB-2010 15:48
Instrument: ecd1a.i
Client Sample ID: PBLK02LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | 10–1512 | **Date Collected:** | 01/27/2010 12:00 | **Matrix:** | R |
| **Lab Sample ID:** | 1202037815 | **Date Received:** | 02/02/2010 09:10 | **%Moisture:** | 7.5 |
| **Client Sample:** | QC for batch 950897 | **Client:** | LANL010 | **Project:** | QC |
| **Client ID:** | RE15–10–7880MS | **Method:** | SW846 8082 | **SOP Ref:** | GL–OA–E–040 |
| **Batch ID:** | 950898 | **Inst:** | ECD1A.I | **Dilution:** | 1 |
| **Run Date:** | 02/10/2010 17:04 | **Analyst:** | YS1 | **Inj. Vol:** | 1 uL |
| **Prep Date:** | 02/09/2010 21:07 | **Aliquot:** | 30.06 g | **Final Volume:** | 1 mL |
| **Data File:** | 022f2201.d | **Column:** | 1 CLP1 | **Level:** | LOW |
| | 022b2201.d | | 2 CLP2 | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674–11–2 | Aroclor–1016 | | 24.0 | ug/kg | 1.20 | 3.60 | 1 |
| 11104–28–2 | Aroclor–1221 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11141–16–5 | Aroclor–1232 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 53469–21–9 | Aroclor–1242 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 12672–29–6 | Aroclor–1248 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11097–69–1 | Aroclor–1254 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11096–82–5 | Aroclor–1260 | | 28.0 | ug/kg | 1.20 | 3.60 | 1 |

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/022f2201.d
Lab Smp Id: 1202037815 Client Smp ID: RE15-10-7880MS
Inj Date : 10-FEB-2010 17:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037815|1|
Misc Info : |ECD82P_1S|950898|2|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 16-Feb-2010 08:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.06000 | Weight of sample extracted (g) |
| M | 7.50240 | % Moisture |

Cpnd Variable Local Compound Variable

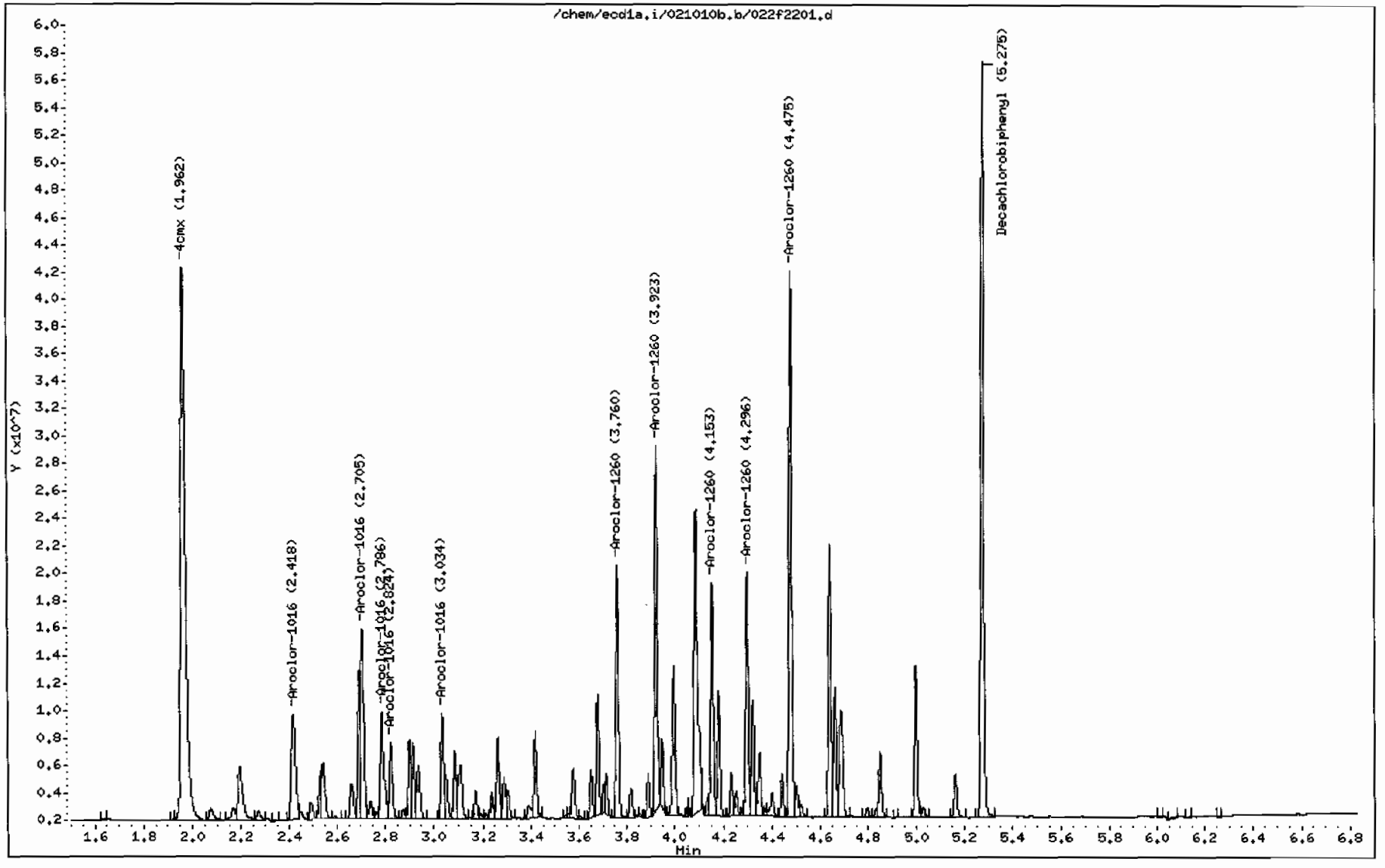
| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.962 | 1.962 | 0.000 | 54196229 | 135.950 | 4.9 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.275 | 5.278 | -0.003 | 43345578 | 134.066 | 4.8 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.418 | 2.418 | 0.000 | 9442218 | 644.132 | 23.2 | 80.00- 120.00 | 100.00 |
| 2.705 | 2.706 | -0.001 | 12534639 | 684.107 | 24.6 | 115.31- 155.31 | 132.75 |
| 2.786 | 2.787 | -0.001 | 8030482 | 667.890 | 24.0 | 63.87- 103.87 | 85.05 |
| 2.824 | 2.825 | -0.001 | 4774071 | 664.900 | 23.9 | 30.33- 70.33 | 50.56 |

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016 (continued) | | | | | | | |
| 3.034 | 3.036 | -0.002 | 6263895 | 674.278 | 24.2 | 44.29- 84.29 | 66.34 |
| Average of Peak Concentrations = | | | | | 24.0 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.760 | 3.762 | -0.002 | 13689169 | 776.182 | 27.9 | 80.00- 120.00 | 100.00 |
| 3.923 | 3.926 | -0.003 | 20140248 | 755.391 | 27.2 | 129.92- 169.92 | 147.13 |
| 4.153 | 4.156 | -0.003 | 12426902 | 780.504 | 28.1 | 69.69- 109.69 | 90.78 |
| 4.296 | 4.299 | -0.003 | 12999150 | 785.416 | 28.2 | 73.92- 113.92 | 94.96 |
| 4.475 | 4.478 | -0.003 | 29363009 | 790.702 | 28.4 | 189.61- 229.61 | 214.50 |
| Average of Peak Concentrations = | | | | | 28.0 | | |

Data File: /chem/ecd1a.i/021010b.b/022f2201.d
Date : 10-FEB-2010 17:04
Client ID: RE15-10-7880MS
Sample Info: |1202037815|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/022b2201.d
Lab Smp Id: 1202037815 Client Smp ID: RE15-10-7880MS
Inj Date : 10-FEB-2010 17:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037815|1|
Misc Info : |ECD82P_1S|950898|2|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.06000 | Weight of sample extracted (g) |
| M | 7.50240 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.294 | 2.294 | 0.000 | 34981975 | 121.785 | 4.4 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.941 | 5.943 | -0.002 | 28186723 | 129.518 | 4.6 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.190 | 3.191 | -0.001 | 7819871 | 626.353 | 22.5 | 80.00- 120.00 | 100.00(M) |
| 3.273 | 3.274 | -0.001 | 5119543 | 598.999 | 21.5 | 45.25- 85.25 | 65.47 |
| 3.337 | 3.337 | 0.000 | 3089356 | 583.918 | 21.0 | 20.16- 60.16 | 39.51 |
| 3.564 | 3.565 | -0.001 | 4052724 | 594.807 | 21.4 | 31.13- 71.13 | 51.83 |

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016 (continued) | | | | | | | |
| 3.640 | 3.640 | 0.000 | 3818929 | 596.262 | 21.4 | 27.96- 67.96 | 48.84 |
| Average of Peak Concentrations = | | | | | 21.6 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.330 | 4.331 | -0.001 | 9001558 | 711.906 | 25.6 | 80.00- 120.00 | 100.00 |
| 4.455 | 4.457 | -0.002 | 11166980 | 733.700 | 26.4 | 101.16- 141.16 | 124.06 |
| 4.721 | 4.723 | -0.002 | 8563633 | 735.043 | 26.4 | 72.06- 112.06 | 95.14 |
| 4.895 | 4.896 | -0.001 | 8744094 | 725.439 | 26.1 | 75.82- 115.82 | 97.14 |
| 5.042 | 5.044 | -0.002 | 19672360 | 754.644 | 27.1 | 191.28- 231.28 | 218.54 |
| Average of Peak Concentrations = | | | | | 26.3 | | |

QC Flag Legend

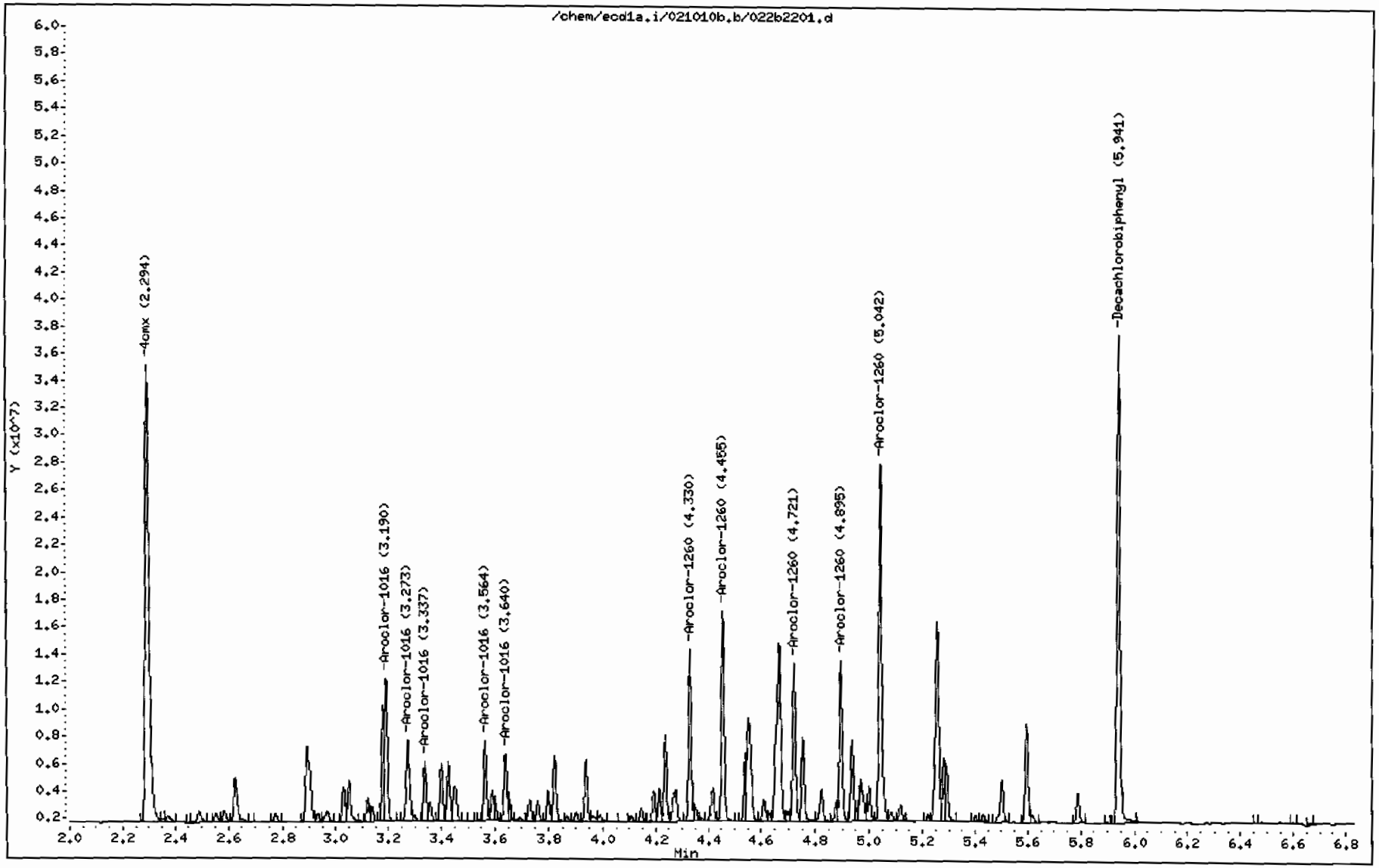
M - Compound response manually integrated.

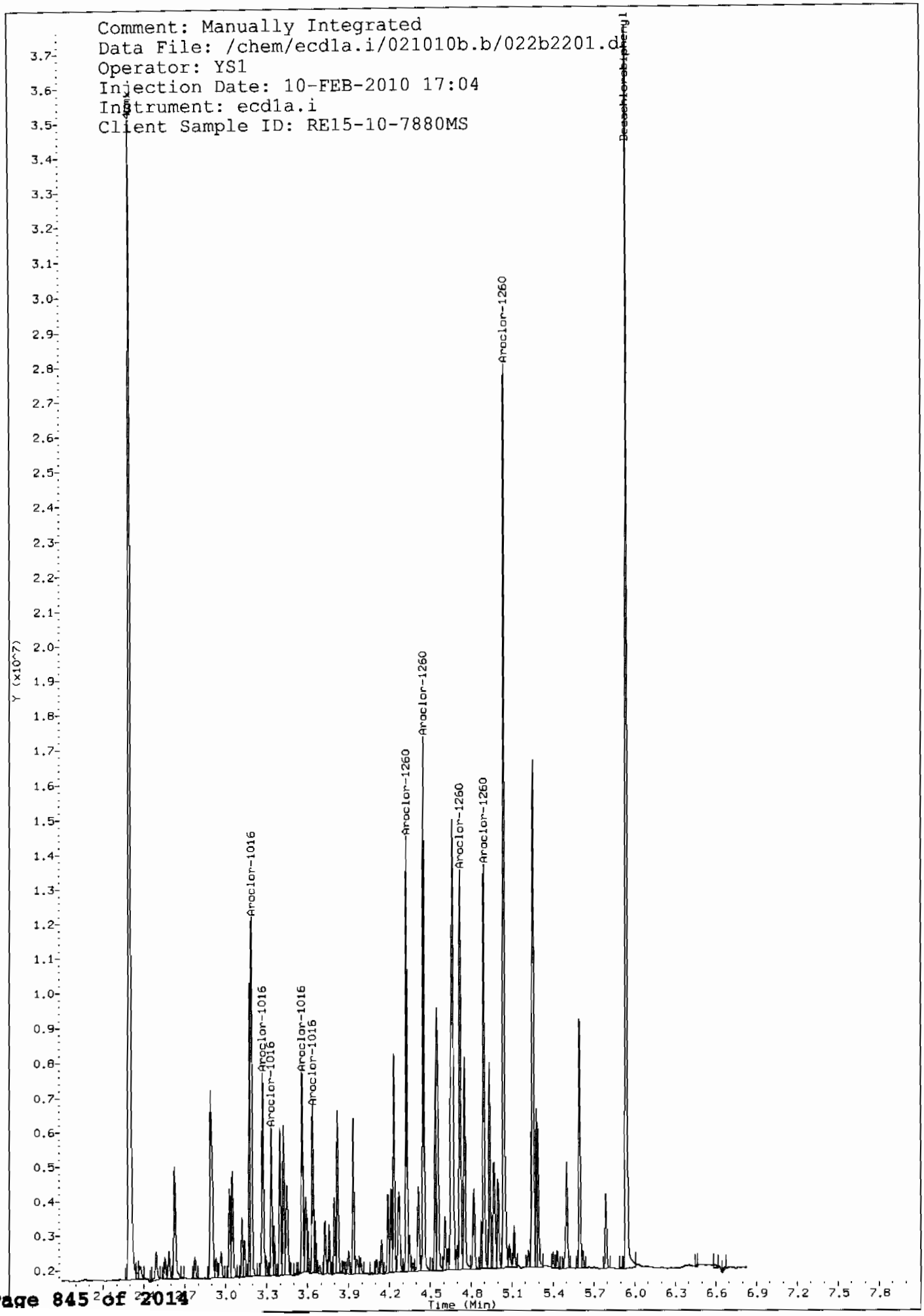
Data File: /chem/ecd1a.i/021010b.b/022b2201.d
Date : 10-FEB-2010 17:04
Client ID: RE15-10-7880MS
Sample Info: |1202037815|1|
Volume Injected (uL): 1.0
Column phase: CLP2

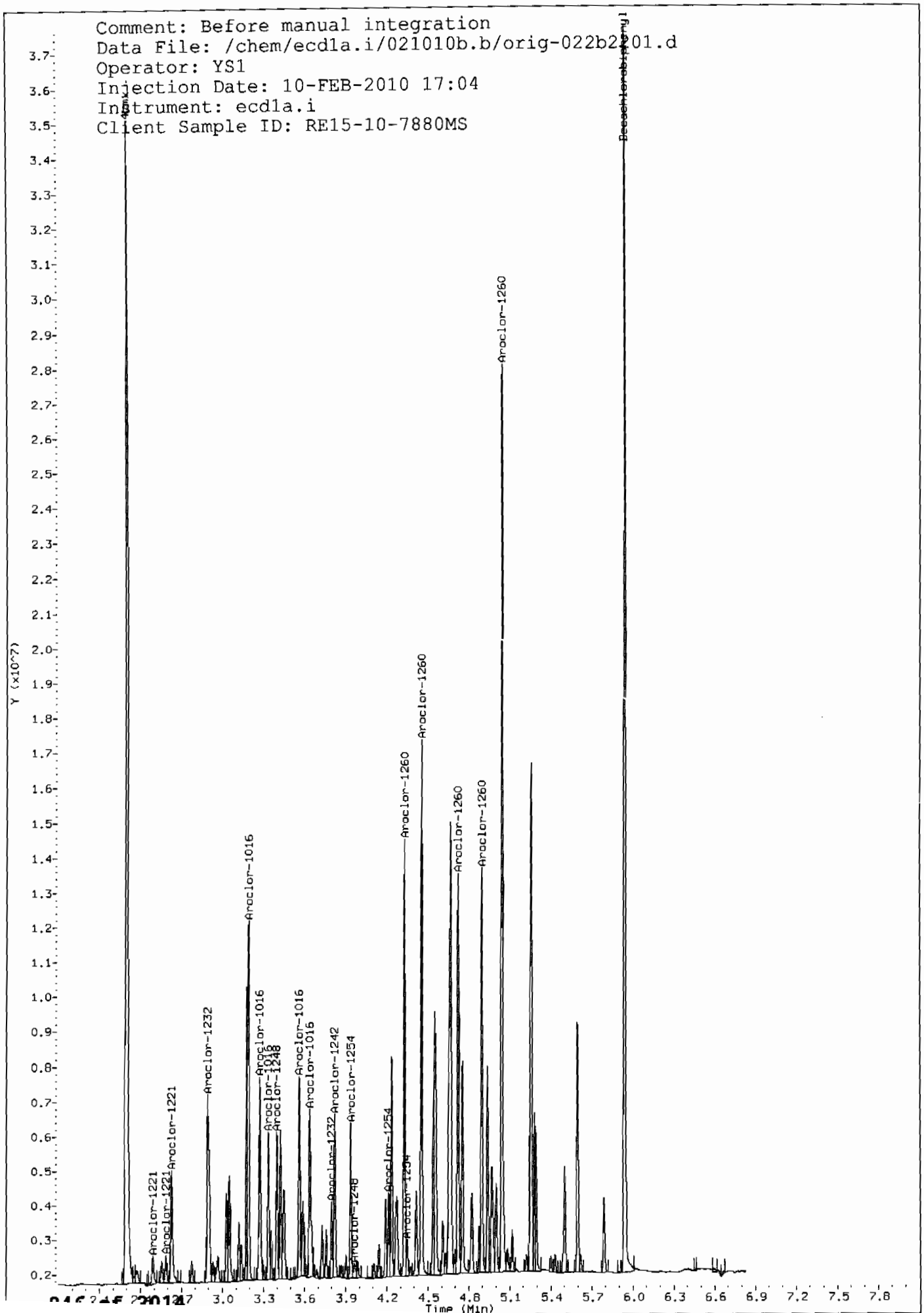
Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25






Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/022b2201.d
Operator: YS1
Injection Date: 10-FEB-2010 17:04
Instrument: ecd1a.i
Client Sample ID: RE15-10-7880MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-022b2201.d
Operator: YS1
Injection Date: 10-FEB-2010 17:04
Instrument: ecd1a.i
Client Sample ID: RE15-10-7880MS
Y (x10^7)
Time (Min)
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1242
Aroclor-1254
Aroclor-1260

# PCB
## Certificate of Analysis
## Sample Summary

| | | | | | |
|---|---|---|---|---|---|
| **SDG Number:** | 10–1512 | **Date Collected:** | 01/27/2010 12:00 | **Matrix:** | R |
| **Lab Sample ID:** | 1202037816 | **Date Received:** | 02/02/2010 09:10 | **%Moisture:** | 7.5 |
| **Client Sample:** | QC for batch 950897 | **Client:** | LANL010 | **Project:** | QC |
| **Client ID:** | RE15–10–7880MSD | **Method:** | SW846 8082 | **SOP Ref:** | GL–OA–E–040 |
| **Batch ID:** | 950898 | **Inst:** | ECD1A.I | **Dilution:** | 1 |
| **Run Date:** | 02/10/2010 17:17 | **Analyst:** | YS1 | **Inj. Vol:** | 1 uL |
| **Prep Date:** | 02/09/2010 21:07 | **Aliquot:** | 30.01 g | **Final Volume:** | 1 mL |
| **Data File:** | 023f2301.d | **Column:** | 1 CLP1 | **Level:** | LOW |
| | 023b2301.d | | 2 CLP2 | | |

| CAS No. | Parmname | Qualifier | Result | Units | MDL/LOD | PQL/LOQ | Column |
|---|---|---|---|---|---|---|---|
| 12674–11–2 | Aroclor–1016 | | 26.1 | ug/kg | 1.20 | 3.60 | 1 |
| 11104–28–2 | Aroclor–1221 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11141–16–5 | Aroclor–1232 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 53469–21–9 | Aroclor–1242 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 12672–29–6 | Aroclor–1248 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11097–69–1 | Aroclor–1254 | U | 3.60 | ug/kg | 1.20 | 3.60 | 1 |
| 11096–82–5 | Aroclor–1260 | | 30.1 | ug/kg | 1.20 | 3.60 | 1 |

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/023f2301.d
Lab Smp Id: 1202037816 Client Smp ID: RE15-10-7880MSD
Inj Date : 10-FEB-2010 17:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037816|1|
Misc Info : |ECD82P_1S|950898|2|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 16-Feb-2010 08:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.01000 | Weight of sample extracted (g) |
| M | 7.50240 | % Moisture |

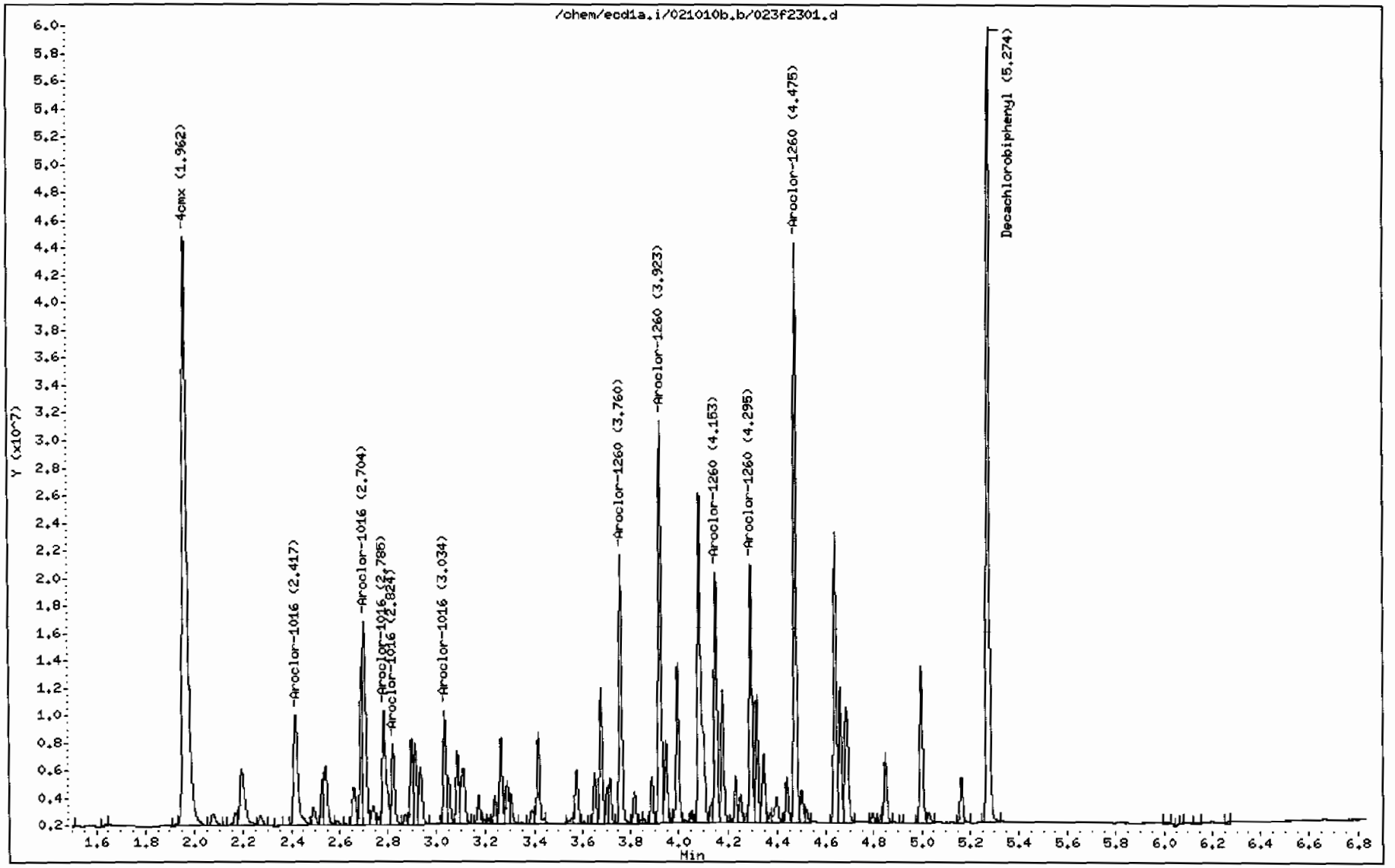
Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 1.962 | 1.962 | 0.000 | 57442491 | 144.093 | 5.2 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.274 | 5.278 | -0.004 | 46009969 | 142.306 | 5.1 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 2.417 | 2.418 | -0.001 | 10572906 | 721.266 | 26.0 | 80.00- 120.00 | 100.00 |
| 2.704 | 2.706 | -0.002 | 14128634 | 771.103 | 27.8 | 115.31- 155.31 | 133.63 |
| 2.785 | 2.787 | -0.002 | 8666837 | 720.815 | 26.0 | 63.87- 103.87 | 81.97 |
| 2.824 | 2.825 | -0.001 | 5079315 | 707.413 | 25.5 | 30.33- 70.33 | 48.04 |

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016 (continued) | | | | | | | |
| 3.034 | 3.036 | -0.002 | 6553208 | 705.421 | 25.4 | 44.29- 84.29 | 61.98 |
| Average of Peak Concentrations = | | | | | 26.1 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 3.760 | 3.762 | -0.002 | 14617781 | 828.834 | 29.8 | 80.00- 120.00 | 100.00 |
| 3.923 | 3.926 | -0.003 | 22356215 | 838.504 | 30.2 | 129.92- 169.92 | 152.94 |
| 4.153 | 4.156 | -0.003 | 13354082 | 838.738 | 30.2 | 69.69- 109.69 | 91.36 |
| 4.295 | 4.299 | -0.004 | 13828555 | 835.529 | 30.1 | 73.92- 113.92 | 94.60 |
| 4.475 | 4.478 | -0.003 | 31258722 | 841.750 | 30.3 | 189.61- 229.61 | 213.84 |
| Average of Peak Concentrations = | | | | | 30.1 | | |

Data File: /chem/ecd1a.i/021010b.b/023f2301.d
Date : 10-FEB-2010 17:17
Client ID: RE15-10-7880MSD
Sample Info: |1202037816|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/023b2301.d
Lab Smp Id: 1202037816 Client Smp ID: RE15-10-7880MSD
Inj Date : 10-FEB-2010 17:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037816|1|
Misc Info : |ECD82P_1S|950898|2|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

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

| Name | Value | Description |
|---|---|---|
| DF | 1.00000 | Dilution Factor |
| Uf | 1.00000 | Correction factor |
| Vt | 1.00000 | Volume of final extract (mL) |
| Vi | 1.00000 | Volume injected (uL) |
| Ws | 30.01000 | Weight of sample extracted (g) |
| M | 7.50240 | % Moisture |

Cpnd Variable Local Compound Variable

| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| $ 11 4cmx | | | | | CAS #: 877-09-8 | | |
| 2.293 | 2.294 | -0.001 | 37098190 | 129.152 | 4.6 | 80.00- 120.00 | 100.00 |
| $ 12 Decachlorobiphenyl | | | | | CAS #: 2051-24-3 | | |
| 5.940 | 5.943 | -0.003 | 29673443 | 136.349 | 4.9 | 80.00- 120.00 | 100.00 |
| 1 Aroclor-1016 | | | | | CAS #: 12674-11-2 | | |
| 3.190 | 3.191 | -0.001 | 8281162 | 663.302 | 23.9 | 80.00- 120.00 | 100.00(M) |
| 3.273 | 3.274 | -0.001 | 5431677 | 635.520 | 22.9 | 45.25- 85.25 | 65.59 |
| 3.337 | 3.337 | 0.000 | 3278568 | 619.680 | 22.3 | 20.16- 60.16 | 39.59 |
| 3.564 | 3.565 | -0.001 | 4275453 | 627.496 | 22.6 | 31.13- 71.13 | 51.63 |

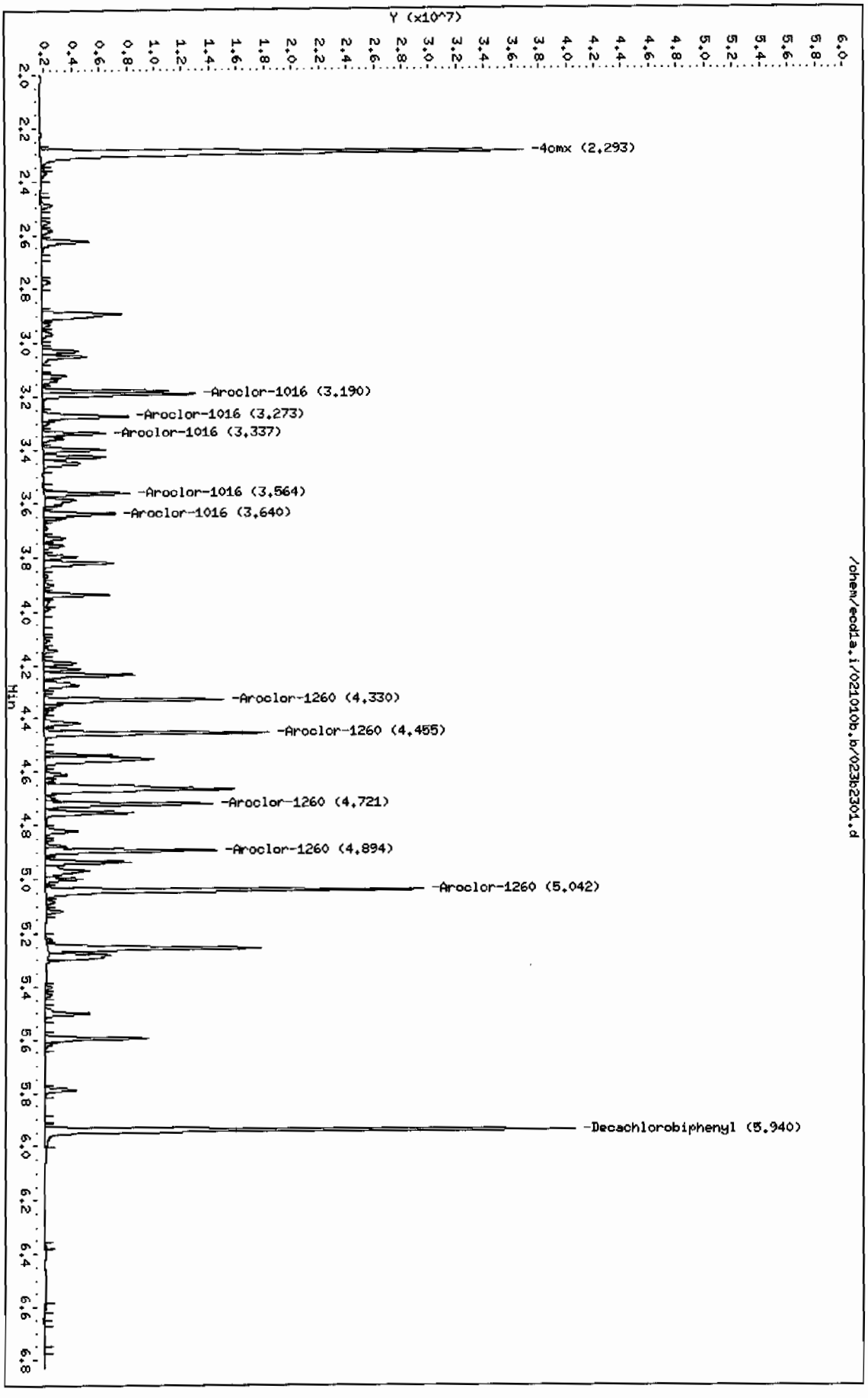
| RT | EXP RT | DLT RT | RESPONSE | CONCENTRATIONS ON-COL ( ug/L) | FINAL (ug/Kg) | TARGET RANGE | RATIO |
|---|---|---|---|---|---|---|---|
| 1 Aroclor-1016 (continued) | | | | | | | |
| 3.640 | 3.640 | 0.000 | 3974206 | 620.506 | 22.4 | 27.96- 67.96 | 47.99 |
| Average of Peak Concentrations = | | | | | 22.8 | | |
| 7 Aroclor-1260 | | | | | CAS #: 11096-82-5 | | |
| 4.330 | 4.331 | -0.001 | 9474938 | 749.344 | 27.0 | 80.00- 120.00 | 100.00 |
| 4.455 | 4.457 | -0.002 | 11773548 | 773.553 | 27.9 | 101.16- 141.16 | 124.26 |
| 4.721 | 4.723 | -0.002 | 8967607 | 769.717 | 27.7 | 72.06- 112.06 | 94.65 |
| 4.894 | 4.896 | -0.002 | 9161663 | 760.082 | 27.4 | 75.82- 115.82 | 96.69 |
| 5.042 | 5.044 | -0.002 | 20628284 | 791.314 | 28.5 | 191.28- 231.28 | 217.71 |
| Average of Peak Concentrations = | | | | | 27.7 | | |

QC Flag Legend

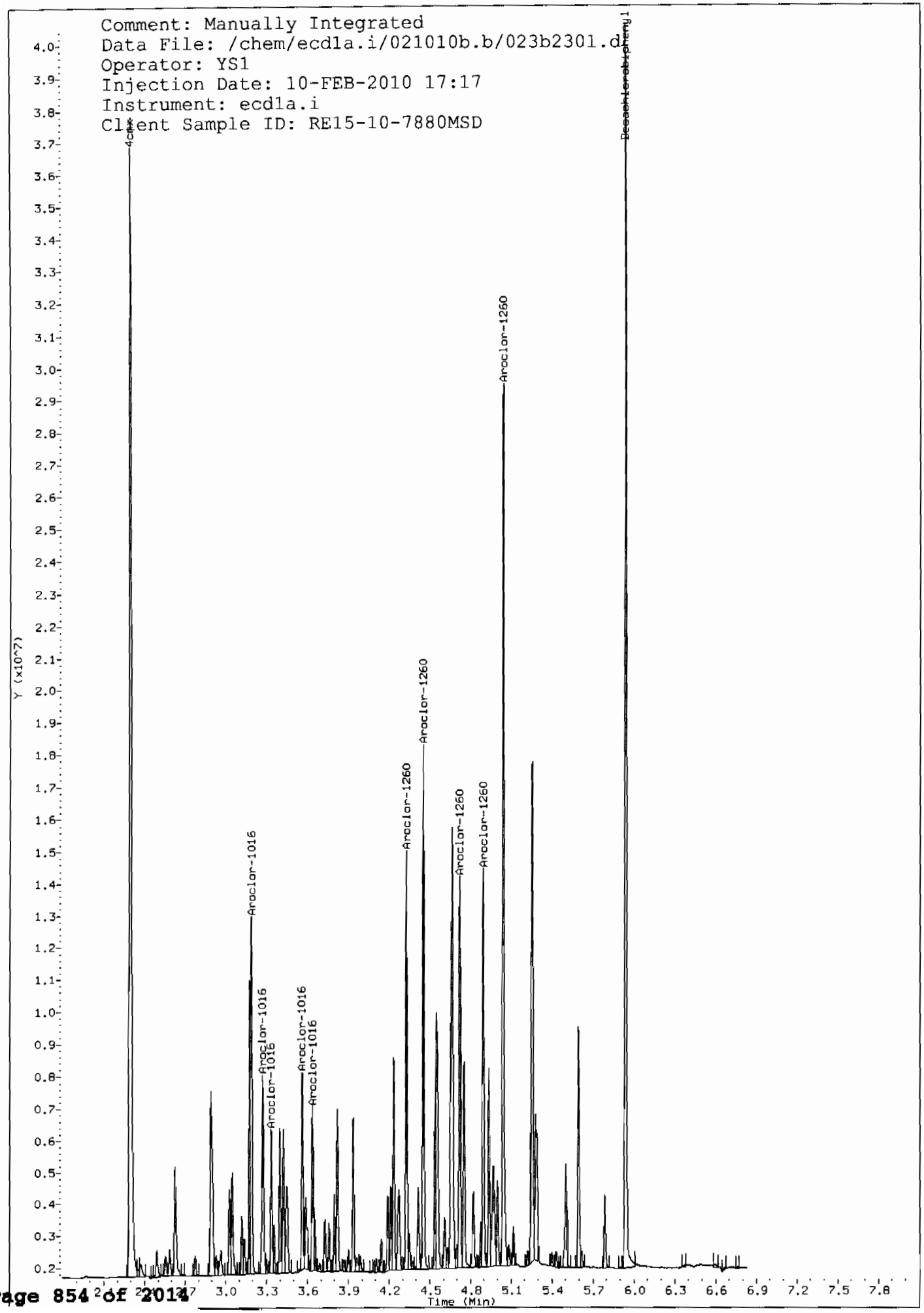
M - Compound response manually integrated.

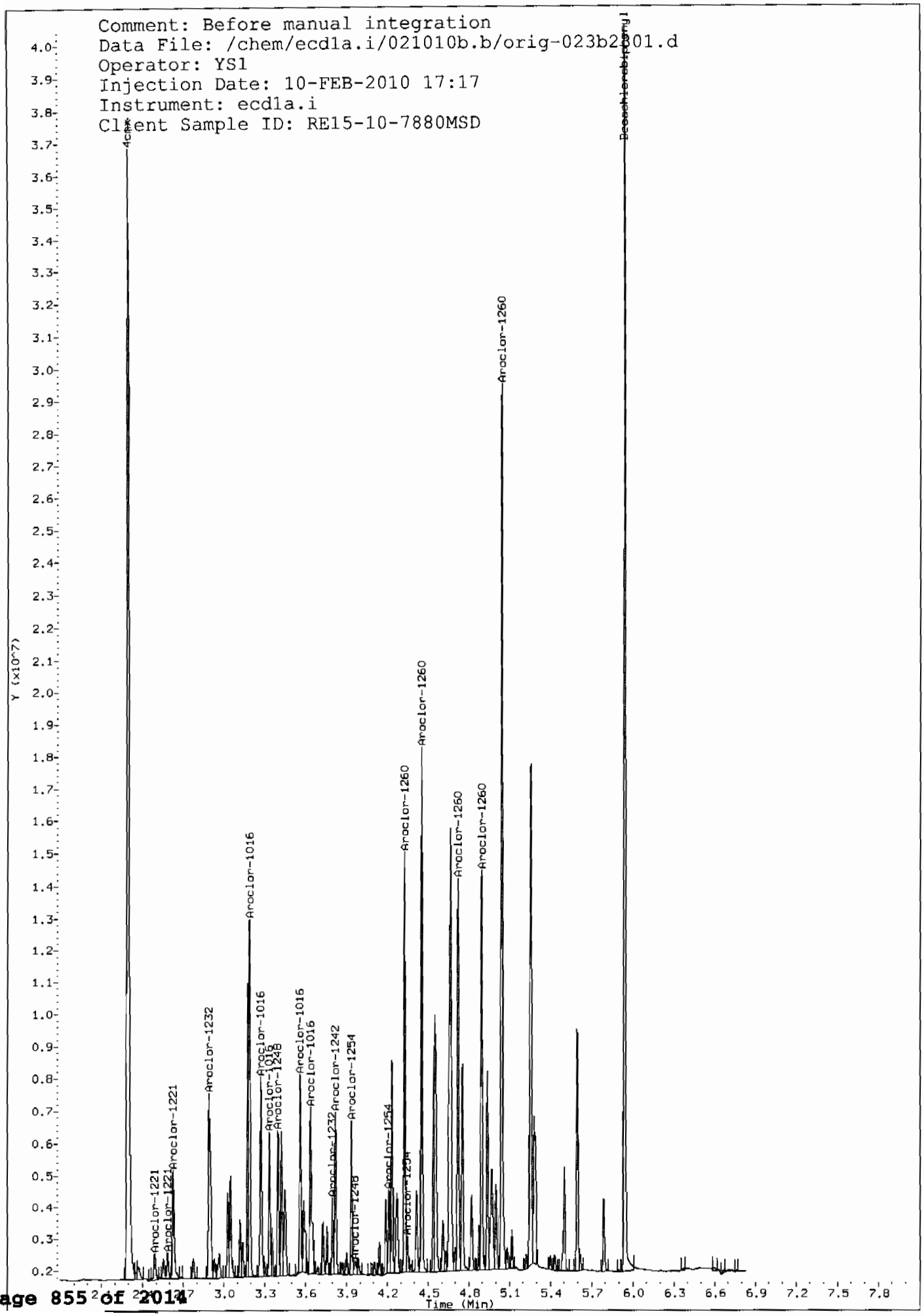
Data File: /chem/ecd1a.i/021010b.b/023b2301.d
Date : 10-FEB-2010 17:17
Client ID: RE15-10-7880MSD
Sample Info: 1120203781611
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25




Page 1


Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/023b2301.d
Operator: YS1
Injection Date: 10-FEB-2010 17:17
Instrument: ecd1a.i
Client Sample ID: RE15-10-7880MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-023b2001.d
Operator: YS1
Injection Date: 10-FEB-2010 17:17
Instrument: ecd1a.i
Client Sample ID: RE15-10-7880MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1254
Y (x10^7)
Time (Min)

# MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 001f0101.d | WAR091130-99 01 | YS1 | 14-DEC-2009 04:44 | 121409 | | 1.0 | CLEAN | |
| 002f0201.d | WAR091211-60 01 | YS1 | 14-DEC-2009 04:54 | 121409 | | 1.0 | DUSE RE-ICAL | |
| 003f0301.d | WAR091102-54 | YS1 | 14-DEC-2009 05:05 | 121409 | | 1.0 | DUSE RE-ICAL | |
| 004f0401.d | WAR091102-42 | YS1 | 14-DEC-2009 05:15 | 121409 | | 1.0 | DUSE RE-ICAL | |
| 005f0501.d | WAR091027-48 | YS1 | 14-DEC-2009 05:26 | 121409 | | 1.0 | DUSE RE-ICAL | |
| 006f0601.d | WAR090930-32 | YS1 | 14-DEC-2009 05:36 | 121409 | | 1.0 | PATTERN ONLY | |
| 007f0701.d | WAR090803-21 | YS1 | 14-DEC-2009 05:47 | 121409 | | 1.0 | PATTERN ONLY | |
| 008f0801.d | WAR090803-62 | YS1 | 14-DEC-2009 05:58 | 121409 | | 1.0 | PATTERN ONLY | |
| 009f0901.d | WAR091106-68 | YS1 | 14-DEC-2009 06:08 | 121409 | | 1.0 | DUSE RE-ICAL | |
| 010f1001.d | 1660-1 | YS1 | 14-DEC-2009 06:19 | 121409 | | 1.0 | DUSE | |
| 011f1101.d | 1660-2 | YS1 | 14-DEC-2009 06:29 | 121409 | | 1.0 | DUSE | |
| 012f1201.d | 1660-3 | YS1 | 14-DEC-2009 06:40 | 121409 | | 1.0 | DUSE | |
| 013f1301.d | 1660-4 | YS1 | 14-DEC-2009 06:50 | 121409 | | 1.0 | DUSE | |
| 014f1401.d | IAR091102-01 | YS1 | 14-DEC-2009 07:01 | 121409 | | 1.0 | DUSE | |
| 015f1501.d | WAR091211-60 01 | YS1 | 14-DEC-2009 07:11 | 121409 | | 1.0 | DUSE | |

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 016f1601.d | WAR091214-05 54 | YS1 | 14-DEC-2009 07:22 | | 121409 | 1.0 | AR1254 I-CAL LEVEL 1 |
| 017f1701.d | WAR091214-06 54 | YS1 | 14-DEC-2009 07:32 | | 121409 | 1.0 | AR1254 I-CAL LEVEL 2 |
| 018f1801.d | WAR091214-07 54 | YS1 | 14-DEC-2009 07:43 | | 121409 | 1.0 | AR1254 I-CAL LEVEL 3 |
| 019f1901.d | WAR091214-08 54 | YS1 | 14-DEC-2009 07:53 | | 121409 | 1.0 | AR1254 I-CAL LEVEL 4 |
| 020f2001.d | IAR091027-01 | YS1 | 14-DEC-2009 08:04 | | 121409 | 1.0 | AR1254 I-CAL LEVEL 5 |
| 021f2101.d | WAR091102-54 | YS1 | 14-DEC-2009 08:14 | | 121409 | 1.0 | PASSED ON BOTH COLUMNS |
| 022f2201.d | WAR091214-09 42 | YS1 | 14-DEC-2009 08:25 | | 121409 | 1.0 | AR1242 I-CAL LEVEL 1 |
| 023f2301.d | WAR091214-10 42 | YS1 | 14-DEC-2009 08:35 | | 121409 | 1.0 | AR1242 I-CAL LEVEL 2 |
| 024f2401.d | WAR091214-11 42 | YS1 | 14-DEC-2009 08:46 | | 121409 | 1.0 | AR1242 I-CAL LEVEL 3 |
| 025f2501.d | WAR091214-12 42 | YS1 | 14-DEC-2009 08:56 | | 121409 | 1.0 | AR1242 I-CAL LEVEL 4 |
| 026f2601.d | IAR091111-01 | YS1 | 14-DEC-2009 09:07 | | 121409 | 1.0 | AR1242 I-CAL LEVEL 5 |
| 027f2701.d | WAR091102-42 | YS1 | 14-DEC-2009 09:17 | | 121409 | 1.0 | PASSED ON BOTH COLUMNS |
| 028f2801.d | WAR091214-13 48 | YS1 | 14-DEC-2009 09:28 | | 121409 | 1.0 | AR1248 I-CAL LEVEL 1 |
| 029f2901.d | WAR091214-14 48 | YS1 | 14-DEC-2009 09:38 | | 121409 | 1.0 | AR1248 I-CAL LEVEL 2 |
| 030f3001.d | WAR091214-15 48 | YS1 | 14-DEC-2009 09:49 | | 121409 | 1.0 | AR1248 I-CAL LEVEL 3 |
| 031f3101.d | WAR091214-16 48 | YS1 | 14-DEC-2009 09:59 | | 121409 | 1.0 | AR1248 I-CAL LEVEL 4 |
| 032f3201.d | IAR091027-02 | YS1 | 14-DEC-2009 10:10 | | 121409 | 1.0 | AR1248 I-CAL LEVEL 5 |
| 033f3301.d | WAR091027-48 | YS1 | 14-DEC-2009 10:20 | | 121409 | 1.0 | PASSED ON BOTH COLUMNS |
| 034f3401.d | WAR091214-01 60 | YS1 | 14-DEC-2009 10:31 | | 121409 | 1.0 | AR1660 I-CAL LEVEL 1 |
| 035f3501.d | WAR091214-02 60 | YS1 | 14-DEC-2009 10:41 | | 121409 | 1.0 | AR1660 I-CAL LEVEL 2 |

Instrument Batch: /chem/ecd1a.i/121409.b



| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 036f3601.d | WAR091214-03 60 | YS1 | 14-DEC-2009 10:52 | | 121409 | 1.0 | AR1660 I-CAL LEVEL 3 | |
| 037f3701.d | WAR091214-04 60 | YS1 | 14-DEC-2009 11:02 | | 121409 | 1.0 | AR1660 I-CAL LEVEL 4 | |
| 038f3801.d | IAR091102-01 | YS1 | 14-DEC-2009 11:13 | | 121409 | 1.0 | AR1660 I-CAL LEVEL 5 | |
| 039f3901.d | WAR091211-60 01 | YS1 | 14-DEC-2009 11:23 | | 121409 | 1.0 | PASSED ON BOTH COLUMNS | |
| 040f4001.d | WAR091214-17 68 | YS1 | 14-DEC-2009 11:34 | | 121409 | 1.0 | AR1268 I-CAL LEVEL 1 | |

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|---|---|---|---|---|---|---|---|---|---|
| 041f4101.d | WAR091214-18 68 | YS1 | 14-DEC-2009 11:44 | | 121409 | | 1.0 | | AR1268 I-CAL LEVEL 2 |
| 042f4201.d | WAR091214-19 68 | YS1 | 14-DEC-2009 11:55 | | 121409 | | 1.0 | | AR1268 I-CAL LEVEL 3 |
| 043f4301.d | WAR091214-20 68 | YS1 | 14-DEC-2009 12:06 | | 121409 | | 1.0 | | AR1268 I-CAL LEVEL 4 |
| 044f4401.d | IAR090817-02 | YS1 | 14-DEC-2009 12:16 | | 121409 | | 1.0 | | AR1268 I-CAL LEVEL 5 |
| 045f4501.d | WAR091106-68 | YS1 | 14-DEC-2009 12:27 | | 121409 | | 1.0 | | PASSED ON BOTH COLUMNS |
| 046f4601.d | WAR091020-DDT | YS1 | 14-DEC-2009 12:37 | | 121409 | | 1.0 | | DDT ANALOG STANDARD |
| 047f4701.d | WAR091130-99 02 | YS1 | 14-DEC-2009 12:48 | | 121409 | | 1.0 | | CLEAN |
| 048f4801.d | 1201991693 | YS1 | 14-DEC-2009 12:58 | 931140 | 10-782 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 049f4901.d | 1201991694 | YS1 | 14-DEC-2009 13:09 | 931140 | 10-782 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 050f5001.d | 242297001 | YS1 | 14-DEC-2009 13:19 | 931140 | 10-782 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 051f5101.d | 242297002 | YS1 | 14-DEC-2009 13:30 | 931140 | 10-782 | | 10.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 052f5201.d | 242297003 | YS1 | 14-DEC-2009 13:40 | 931140 | 10-782 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 053f5301.d | 242297004 | YS1 | 14-DEC-2009 13:51 | 931140 | 10-782 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 054f5401.d | 242297005 | YS1 | 14-DEC-2009 14:03 | 931140 | 10-782 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 055f5501.d | 242297006 | YS1 | 14-DEC-2009 14:16 | 931140 | 10-782 | | 10.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |

Instrument Batch: /chem/ecd1a.i/121409.b



| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 056f5601.d | 242297007 | YS1 | 14-DEC-2009 14:29 | 931140 | 10-782 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 057f5701.d | 242297008 | YS1 | 14-DEC-2009 14:41 | 931140 | 10-782 | 25.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 058f5801.d | WAR091211-60 02 | YS1 | 14-DEC-2009 14:52 | | 121409 | 1.0 | | PASSED ON BOTH COLUMNS |
| 059f5901.d | WAR091130-99 03 | YS1 | 14-DEC-2009 15:02 | | 121409 | 1.0 | | CLEAN |
| 060f6001.d | 242297009 | YS1 | 14-DEC-2009 15:13 | 931140 | 10-782 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 061f6101.d | 242297010 | YS1 | 14-DEC-2009 15:25 | 931140 | 10-782 | 1.0 | LANL | DCB LOW RE |
| 062f6201.d | 242297011 | YS1 | 14-DEC-2009 15:38 | 931140 | 10-782 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 063f6301.d | 242297012 | YS1 | 14-DEC-2009 15:51 | 931140 | 10-782 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 064f6401.d | 242297013 | YS1 | 14-DEC-2009 16:03 | 931140 | 10-782 | 10.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |

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|---|---|---|---|---|---|---|---|---|---|
| 065f6501.d | 242305004 | YS1 | 14-DEC-2009 16:16 | 931140 | 10-786 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 066f6601.d | 1201991695 | YS1 | 14-DEC-2009 16:28 | 931140 | 10-786 | | 5.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 067f6701.d | 1201991696 | YS1 | 14-DEC-2009 16:41 | 931140 | 10-786 | | 5.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 068f6801.d | 242305005 | YS1 | 14-DEC-2009 16:53 | 931140 | 10-786 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 069f6901.d | 242305006 | YS1 | 14-DEC-2009 17:06 | 931140 | 10-786 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 070f7001.d | WAR091211-60 03 | YS1 | 14-DEC-2009 17:19 | | 121409 | | 1.0 | | PASSED ON BOTH COLUMNS |
| 071f7101.d | WAR091130-99 04 | YS1 | 14-DEC-2009 17:31 | | 121409 | | 1.0 | | CLEAN |
| 072f7201.d | 1201992645 | YS1 | 14-DEC-2009 17:44 | 931553 | 242521 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 073f7301.d | 1201992646 | YS1 | 14-DEC-2009 17:57 | 931553 | 242521 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 074f7401.d | 242264001 | YS1 | 14-DEC-2009 18:09 | 931553 | 242264 | | 5.0 | ENRG | UPLOAD BOTH COLUMNS, USE HIGHER |
| 075f7501.d | 242521001 | YS1 | 14-DEC-2009 18:22 | 931553 | 242521 | | 5.0 | EMSC | UPLOAD BOTH COLUMNS, USE HIGHER |

Instrument Batch: /chem/ecd1a.i/121409.b



| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 076f7601.d | 1201992647 | YS1 | 14-DEC-2009 18:35 | 931553 | 242521 | | 5.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 077f7701.d | 1201992648 | YS1 | 14-DEC-2009 18:47 | 931553 | 242521 | | 5.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 078f7801.d | 242521002 | YS1 | 14-DEC-2009 19:00 | 931553 | 242521 | | 5.0 | EMSC | UPLOAD BOTH COLUMNS, USE HIGHER |
| 079f7901.d | 242521003 | YS1 | 14-DEC-2009 19:12 | 931553 | 242521 | | 5.0 | EMSC | UPLOAD BOTH COLUMNS, USE HIGHER |
| 080f8001.d | 242521004 | YS1 | 14-DEC-2009 19:25 | 931553 | 242521 | | 5.0 | EMSC | UPLOAD BOTH COLUMNS, USE HIGHER |
| 081f8101.d | 242521005 | YS1 | 14-DEC-2009 19:38 | 931553 | 242521 | | 5.0 | EMSC | UPLOAD BOTH COLUMNS, USE HIGHER |
| 082f8201.d | WAR091211-60 04 | YS1 | 14-DEC-2009 19:50 | | 121409 | | 1.0 | | PASSED ON BOTH COLUMNS |
| 083f8301.d | WAR091130-99 05 | YS1 | 14-DEC-2009 20:03 | | 121409 | | 1.0 | | CLEAN |
| 084f8401.d | 242521006 | YS1 | 14-DEC-2009 20:15 | 931553 | 242521 | | 5.0 | EMSC | UPLOAD BOTH COLUMNS, USE HIGHER |
| 085f8501.d | 242521007 | YS1 | 14-DEC-2009 20:28 | 931553 | 242521 | | 5.0 | EMSC | UPLOAD BOTH COLUMNS, USE HIGHER |
| 086f8601.d | 242521008 | YS1 | 14-DEC-2009 20:41 | 931553 | 242521 | | 5.0 | EMSC | UPLOAD BOTH COLUMNS, USE HIGHER |
| 087f8701.d | WAR091211-60 05 | YS1 | 14-DEC-2009 20:53 | | 121409 | | 1.0 | | PASSED ON BOTH COLUMNS |
| 088f8801.d | WAR091130-99 06 | YS1 | 14-DEC-2009 21:06 | | 121409 | | 1.0 | | CLEAN |
| 089f8901.d | 242297010 | YS1 | 14-DEC-2009 21:19 | 931140 | 10-782 | | 1.0 | LANL | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 090f9001.d | WAR091211-60 06 | YS1 | 14-DEC-2009 21:31 | | 121409 | 1.0 | PASSED ON BOTH COLUMNS |
| 091f9101.d | WAR091130-99 07 | YS1 | 14-DEC-2009 21:44 | | 121409 | 1.0 | CLEAN |
| 092f9201.d | 1660 | YS1 | 14-DEC-2009 21:56 | | 121409 | 1.0 | screen |
| 093f9301.d | 1660 | YS1 | 14-DEC-2009 22:09 | | 121409 | 1.0 | screen |
| 094f9401.d | 1660 | YS1 | 14-DEC-2009 22:22 | | 121409 | 1.0 | screen |

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012810a.b Injection Volume: 0.5 ul

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 001f0101.d | WAR100105-99 01 | YS1 | 28-JAN-2010 09:16 | | 012810a | 1.0 | | CLEAN |
| 002f0201.d | WAR100104-60 01 | YS1 | 28-JAN-2010 09:27 | | 012810a | 1.0 | | DUSE RE-I-CAL |
| 003f0301.d | WAR091216-54 | YS1 | 28-JAN-2010 09:37 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 004f0401.d | WAR091217-42 | YS1 | 28-JAN-2010 09:48 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 005f0501.d | WAR091217-48 | YS1 | 28-JAN-2010 09:58 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 006f0601.d | WAR100104-32 | YS1 | 28-JAN-2010 10:09 | | 012810a | 1.0 | | PATTERN ONLY |
| 007f0701.d | WAR100104-21 | YS1 | 28-JAN-2010 10:19 | | 012810a | 1.0 | | PATTERN ONLY |
| 008f0801.d | WAR100104-62 | YS1 | 28-JAN-2010 10:30 | | 012810a | 1.0 | | PATTERN ONLY |
| 009f0901.d | WAR100107-68 | YS1 | 28-JAN-2010 10:40 | | 012810a | 1.0 | | DUSE RE-I-CAL |
| 010f1001.d | WAR100128-01 60 | YS1 | 28-JAN-2010 10:51 | | 012810a | 1.0 | | AR1660 I-CAL LEVEL 1 |
| 011f1101.d | WAR100128-02 60 | YS1 | 28-JAN-2010 11:01 | | 012810a | 1.0 | | AR1660 I-CAL LEVEL 2 |
| 012f1201.d | WAR100128-03 60 | YS1 | 28-JAN-2010 11:12 | | 012810a | 1.0 | | AR1660 I-CAL LEVEL 3 |
| 013f1301.d | WAR100128-04 60 | YS1 | 28-JAN-2010 11:22 | | 012810a | 1.0 | | AR1660 I-CAL LEVEL 4 |
| 014f1401.d | IAR100104-01-01 | YS1 | 28-JAN-2010 11:34 | | 012810a | 1.0 | | AR1660 I-CAL LEVEL 5 |
| 015f1501.d | WAR100104-60 01 | YS1 | 28-JAN-2010 11:44 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |

Instrument Batch: /chem/ecd1a.i/012810a.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 016f1601.d | WAR100122-68 | YS1 | 28-JAN-2010 11:55 | | 012810a | 1.0 | | DUSE RE-ICAL |
| 017f1701.d | WAR091219-DDT | YS1 | 28-JAN-2010 12:05 | | 012810a | 1.0 | | DDT ANALOG STANDARD |
| 018f1801.d | WAR100128-05 68 | YS1 | 28-JAN-2010 12:18 | | 012810a | 1.0 | | AR1268 I-CAL LEVEL 1 |
| 019f1901.d | WAR100128-06 68 | YS1 | 28-JAN-2010 12:29 | | 012810a | 1.0 | | AR1268 I-CAL LEVEL 2 |
| 020f2001.d | WAR100128-07 68 | YS1 | 28-JAN-2010 12:39 | | 012810a | 1.0 | | AR1268 I-CAL LEVEL 3 |
| 021f2101.d | WAR100128-08 68 | YS1 | 28-JAN-2010 12:50 | | 012810a | 1.0 | | AR1268 I-CAL LEVEL 4 |
| 022f2201.d | IAR100104-05 | YS1 | 28-JAN-2010 13:00 | | 012810a | 1.0 | | AR1268 I-CAL LEVEL 5 |
| 023f2301.d | WAR100107-68 | YS1 | 28-JAN-2010 13:11 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 024f2401.d | WAR100105-99 02 | YS1 | 28-JAN-2010 13:21 | | 012810a | 1.0 | | CLEAN |
| 025f2501.d | 1202026135 | YS1 | 28-JAN-2010 13:32 | 945965 | 245586 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 026f2601.d | 1202026136 | YS1 | 28-JAN-2010 13:42 | 945965 | 245586 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 027f2701.d | 245586001 | YS1 | 28-JAN-2010 13:53 | 945965 | 245586 | 250.0 | NNES | UPLOAD BOTH COLUMNS, USE HIGHER |
| 028f2801.d | 1202026137 | YS1 | 28-JAN-2010 14:05 | 945965 | 245586 | 250.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 029f2901.d | 1202026138 | YS1 | 28-JAN-2010 14:18 | 945965 | 245586 | 250.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 030f3001.d | 245586002 | YS1 | 28-JAN-2010 14:30 | 945965 | 245586 | 50.0 | NNES | UPLOAD BOTH COLUMNS, USE HIGHER |
| 031f3101.d | 245586003 | YS1 | 28-JAN-2010 14:43 | 945965 | 245586 | 1.0 | NNES | UPLOAD BOTH COLUMNS, USE HIGHER |
| 032f3201.d | WAR100104-60 02 | YS1 | 28-JAN-2010 14:56 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 033f3301.d | WAR091216-54 02 | YS1 | 28-JAN-2010 15:06 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 034f3401.d | WAR091217-42 02 | YS1 | 28-JAN-2010 15:16 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 035f3501.d | WAR091217-48 02 | YS1 | 28-JAN-2010 15:27 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |

Instrument Batch: /chem/ecd1a.i/012810a.b



| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 036f3601.d | WAR100104-32 02 | YS1 | 28-JAN-2010 15:38 | | 012810a | 1.0 | | PATTERN ONLY |
| 037f3701.d | WAR100104-21 02 | YS1 | 28-JAN-2010 15:48 | | 012810a | 1.0 | | PATTERN ONLY |
| 038f3801.d | WAR100104-62 02 | YS1 | 28-JAN-2010 15:58 | | 012810a | 1.0 | | PATTERN ONLY |
| 039f3901.d | WAR100122-68 02 | YS1 | 28-JAN-2010 16:09 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 040f4001.d | WAR100105-99 03 | YS1 | 28-JAN-2010 16:19 | | 012810a | 1.0 | | CLEAN | |
| 041f4101.d | 245096008 | YS1 | 28-JAN-2010 16:30 | 944883 | 10-1299 | 20.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 042f4201.d | 245096009 | YS1 | 28-JAN-2010 16:43 | 944883 | 10-1299 | 10.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 043f4301.d | 245096010 | YS1 | 28-JAN-2010 16:55 | 944883 | 10-1299 | 20.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 044f4401.d | 245096011 | YS1 | 28-JAN-2010 17:08 | 944883 | 10-1299 | 20.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 045f4501.d | 245099015 | YS1 | 28-JAN-2010 17:20 | 944883 | 10-1301 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 046f4601.d | 245114003 | YS1 | 28-JAN-2010 17:33 | 944883 | 10-1324 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 047f4701.d | 1202023863 | YS1 | 28-JAN-2010 17:45 | 944883 | 10-1324 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 048f4801.d | 1202023864 | YS1 | 28-JAN-2010 17:58 | 944883 | 10-1324 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 049f4901.d | 245114004 | YS1 | 28-JAN-2010 18:11 | 944883 | 10-1324 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 050f5001.d | 245114005 | YS1 | 28-JAN-2010 18:23 | 944883 | 10-1324 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 051f5101.d | WAR100104-60 03 | YS1 | 28-JAN-2010 18:38 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS | |
| 052f5201.d | WAR100105-99 04 | YS1 | 28-JAN-2010 18:50 | | 012810a | 1.0 | | CLEAN | |
| 053f5301.d | 245114006 | YS1 | 28-JAN-2010 19:03 | 944883 | 10-1324 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER | |
| 054f5401.d | WAR100104-60 04 | YS1 | 28-JAN-2010 19:17 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS | |
| 055f5501.d | WAR100105-99 05 | YS1 | 28-JAN-2010 19:30 | | 012810a | 1.0 | | CLEAN | |

Instrument Batch: /chem/ecd1a.i/012810a.b



| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 056f5601.d | 1202026131 | YS1 | 28-JAN-2010 19:42 | 945963 | 10-1372 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 057f5701.d | 1202026132 | YS1 | 28-JAN-2010 19:55 | 945963 | 10-1372 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 058f5801.d | 245376001 | YS1 | 28-JAN-2010 20:08 | 945963 | 10-1372 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 059f5901.d | 245376002 | YS1 | 28-JAN-2010 20:20 | 945963 | 10-1372 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 060f6001.d | 245376003 | YS1 | 28-JAN-2010 20:33 | 945963 | 10-1372 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 061f6101.d | 245376004 | YS1 | 28-JAN-2010 20:45 | 945963 | 10-1372 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 062f6201.d | 245376005 | YS1 | 28-JAN-2010 20:58 | 945963 | 10-1372 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 063f6301.d | 245376006 | YS1 | 28-JAN-2010 21:10 | 945963 | 10-1372 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 064f6401.d | 245376007 | YS1 | 28-JAN-2010 21:23 | 945963 | 10-1372 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |

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|---|---|---|---|---|---|---|---|---|---|
| 065f6501.d | 245381002 | YS1 | 28-JAN-2010 21:36 | 945963 | 10-1380 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 066f6601.d | WAR100104-60 05 | YS1 | 28-JAN-2010 21:48 | | 012810a | | 1.0 | | PASSED ON BOTH COLUMNS |
| 067f6701.d | WAR100105-99 06 | YS1 | 28-JAN-2010 22:01 | | 012810a | | 1.0 | | CLEAN |
| 068f6801.d | 245384001 | YS1 | 28-JAN-2010 22:13 | 945963 | 10-1382 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 069f6901.d | 1202026133 | YS1 | 28-JAN-2010 22:26 | 945963 | 10-1382 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 070f7001.d | 1202026134 | YS1 | 28-JAN-2010 22:39 | 945963 | 10-1382 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 071f7101.d | 245384002 | YS1 | 28-JAN-2010 22:51 | 945963 | 10-1382 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 072f7201.d | 245384003 | YS1 | 28-JAN-2010 23:04 | 945963 | 10-1382 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 073f7301.d | 245384004 | YS1 | 28-JAN-2010 23:16 | 945963 | 10-1382 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 074f7401.d | 245384005 | YS1 | 28-JAN-2010 23:29 | 945963 | 10-1382 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 075f7501.d | 245384006 | YS1 | 28-JAN-2010 23:41 | 945963 | 10-1382 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |

Instrument Batch: /chem/ecd1a.i/012810a.b



| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 076f7601.d | 245384007 | YS1 | 28-JAN-2010 23:54 | 945963 | 10-1382 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 077f7701.d | 245384008 | YS1 | 29-JAN-2010 00:07 | 945963 | 10-1382 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 078f7801.d | WAR100104-60 06 | YS1 | 29-JAN-2010 00:19 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 079f7901.d | WAR100105-99 07 | YS1 | 29-JAN-2010 00:32 | | 012810a | 1.0 | | CLEAN |
| 080f8001.d | 245384012 | YS1 | 29-JAN-2010 00:45 | 945963 | 10-1382 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 081f8101.d | WAR100104-60 07 | YS1 | 29-JAN-2010 00:57 | | 012810a | 1.0 | | PASSED ON BOTH COLUMNS |
| 082f8201.d | WAR100105-99 08 | YS1 | 29-JAN-2010 01:10 | | 012810a | 1.0 | | CLEAN |
| 083f8301.d | 1202026309 | YS1 | 29-JAN-2010 01:22 | 946042 | EUI-7483 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 084f8401.d | 1202026310 | YS1 | 29-JAN-2010 01:35 | 946042 | EUI-7483 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 085f8501.d | 1202026313 | YS1 | 29-JAN-2010 01:48 | 946042 | EUI-7483 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 086f8601.d | 245309001 | YS1 | 29-JAN-2010 02:00 | 946042 | EUI-7483 | 1.0 | CARE | UPLOAD BOTH COLUMNS, USE HIGHER |
| 087f8701.d | 1202026311 | YS1 | 29-JAN-2010 02:13 | 946042 | EUI-7483 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 088f8801.d | 1202026312 | YS1 | 29-JAN-2010 02:25 | 946042 | EUI-7483 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |

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|---|---|---|---|---|---|---|---|
| 089f8901.d | WAR100104-60 08 | YS1 | 29-JAN-2010 02:38 | | 012810a | 1.0 | PASSED ON BOTH COLUMNS |
| 090f9001.d | WAR100105-99 09 | YS1 | 29-JAN-2010 02:51 | | 012810a | 1.0 | CLEAN |

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012910.b Injection Volume: 0.5 ul

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 001f0101.d | WAR100105-99 01 | YS1 | 29-JAN-2010 06:12 | | 012910 | 1.0 | | CLEAN |
| 002f0201.d | WAR100104-60 01 | YS1 | 29-JAN-2010 06:22 | | 012910 | 1.0 | | DUSE RE I-CAL |
| 003f0301.d | WAR091216-54 | YS1 | 29-JAN-2010 06:33 | | 012910 | 1.0 | | PASSED ON BOTH COLUMNS |
| 004f0401.d | WAR091217-42 | YS1 | 29-JAN-2010 06:43 | | 012910 | 1.0 | | PASSED ON BOTH COLUMNS |
| 005f0501.d | WAR091217-48 | YS1 | 29-JAN-2010 06:54 | | 012910 | 1.0 | | PASSED ON BOTH COLUMNS |
| 006f0601.d | WAR100104-32 | YS1 | 29-JAN-2010 07:04 | | 012910 | 1.0 | | PATTERN ONLY |
| 007f0701.d | WAR100104-21 | YS1 | 29-JAN-2010 07:15 | | 012910 | 1.0 | | PATTERN ONLY |
| 008f0801.d | WAR100104-62 | YS1 | 29-JAN-2010 07:25 | | 012910 | 1.0 | | PATTERN ONLY |
| 009f0901.d | WAR100107-68 | YS1 | 29-JAN-2010 07:36 | | 012910 | 1.0 | | PATTERN ONLY |
| 010f1001.d | WAR100129-01 60 | YS1 | 29-JAN-2010 07:46 | | 012910 | 1.0 | | AR1660 I-CAL LEVEL 1 |
| 011f1101.d | WAR100129-02 60 | YS1 | 29-JAN-2010 07:57 | | 012910 | 1.0 | | AR1660 I-CAL LEVEL 2 |
| 012f1201.d | WAR100129-03 60 | YS1 | 29-JAN-2010 08:07 | | 012910 | 1.0 | | AR1660 I-CAL LEVEL 3 |
| 013f1301.d | WAR100129-04 60 | YS1 | 29-JAN-2010 08:18 | | 012910 | 1.0 | | AR1660 I-CAL LEVEL 4 |
| 014f1401.d | IAR100104-01 | YS1 | 29-JAN-2010 08:59 | | 012910 | 1.0 | | AR1660 I-CAL LEVEL 5 |
| 015f1501.d | WAR100104-60 01 | YS1 | 29-JAN-2010 09:09 | | 012910 | 1.0 | | PASSED ON BOTH COLUMNS |

Instrument Batch: /chem/ecd1a.i/012910.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 016f1601.d | WAR091219-DDT | YS1 | 29-JAN-2010 09:20 | | 012910 | | 1.0 | | DDT ANALOG STANDARD |
| 017f1701.d | WAR100105-99 02 | YS1 | 29-JAN-2010 09:30 | | 012910 | | 1.0 | | CLEAN |
| 018f1801.d | 1202027001 | YS1 | 29-JAN-2010 09:41 | 946348 | 10-1416 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 019f1901.d | 1202027002 | YS1 | 29-JAN-2010 09:51 | 946348 | 10-1416 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 020f2001.d | 245609001 | YS1 | 29-JAN-2010 10:02 | 946348 | 10-1416 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 021f2101.d | 245609002 | YS1 | 29-JAN-2010 10:14 | 946348 | 10-1416 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 022f2201.d | 245609003 | YS1 | 29-JAN-2010 10:27 | 946348 | 10-1416 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 023f2301.d | 1202027003 | YS1 | 29-JAN-2010 10:40 | 946348 | 10-1416 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 024f2401.d | 1202027004 | YS1 | 29-JAN-2010 10:52 | 946348 | 10-1416 | | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 025f2501.d | 245609004 | YS1 | 29-JAN-2010 11:05 | 946348 | 10-1416 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 026f2601.d | 245609005 | YS1 | 29-JAN-2010 11:17 | 946348 | 10-1416 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 027f2701.d | 245609006 | YS1 | 29-JAN-2010 11:30 | 946348 | 10-1416 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 028f2801.d | WAR100104-60 02 | YS1 | 29-JAN-2010 11:42 | | 012910 | | 1.0 | | PASSED ON BOTH COLUMNS |
| 029f2901.d | WAR100105-99 03 | YS1 | 29-JAN-2010 11:53 | | 012910 | | 1.0 | | CLEAN |
| 030f3001.d | 245609007 | YS1 | 29-JAN-2010 12:03 | 946348 | 10-1416 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 031f3101.d | 245609008 | YS1 | 29-JAN-2010 12:16 | 946348 | 10-1416 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 032f3201.d | 245609009 | YS1 | 29-JAN-2010 12:28 | 946348 | 10-1416 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 033f3301.d | 245609010 | YS1 | 29-JAN-2010 12:41 | 946348 | 10-1416 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 034f3401.d | 245609011 | YS1 | 29-JAN-2010 12:54 | 946348 | 10-1416 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 035f3501.d | 245609012 | YS1 | 29-JAN-2010 13:06 | 946348 | 10-1416 | | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |

Instrument Batch: /chem/ecd1a.i/012910.b



| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 036f3601.d | 245609013 | YS1 | 29-JAN-2010 13:19 | 946348 | 10-1416 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 037f3701.d | 245609014 | YS1 | 29-JAN-2010 13:31 | 946348 | 10-1416 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 038f3801.d | 245609015 | YS1 | 29-JAN-2010 13:44 | 946348 | 10-1416 | 10.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 039f3901.d | 245609016 | YS1 | 29-JAN-2010 13:56 | 946348 | 10-1416 | 5.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 040f4001.d | WAR100104-60 03 | YS1 | 29-JAN-2010 14:09 | | 012910 | 1.0 | | PASSED ON BOTH COLUMNS |

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/08/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/020510.b Injection Volume: 0.5 ul

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 001f0101.d | WAR100105-99 01 | YS1 | 05-FEB-2010 06:56 | | 020510 | 1.0 | | CLEAN |
| 002f0201.d | WAR100203-60 01 | YS1 | 05-FEB-2010 07:06 | | 020510 | 1.0 | | PASSED ON BOTH COLUMNS |
| 003f0301.d | WAR091216-54 | YS1 | 05-FEB-2010 07:17 | | 020510 | 1.0 | | PASSED ON BOTH COLUMNS |
| 004f0401.d | WAR091217-42 | YS1 | 05-FEB-2010 07:27 | | 020510 | 1.0 | | PASSED ON BOTH COLUMNS |
| 005f0501.d | WAR091217-48 | YS1 | 05-FEB-2010 07:38 | | 020510 | 1.0 | | PASSED ON BOTH COLUMNS |
| 006f0601.d | WAR100104-32 | YS1 | 05-FEB-2010 07:48 | | 020510 | 1.0 | | PATTERN ONLY |
| 007f0701.d | WAR100104-21 | YS1 | 05-FEB-2010 07:59 | | 020510 | 1.0 | | PATTERN ONLY |
| 008f0801.d | WAR100104-62 | YS1 | 05-FEB-2010 08:09 | | 020510 | 1.0 | | PASSED ON BOTH COLUMNS |
| 009f0901.d | WAR100107-68 | YS1 | 05-FEB-2010 08:20 | | 020510 | 1.0 | | PASSED ON BOTH COLUMNS |
| 010f1001.d | WAR091219-DDT | YS1 | 05-FEB-2010 08:31 | | 020510 | 1.0 | | DDT ANALOG STANDARD |
| 011f1101.d | WAR100105-99 02 | YS1 | 05-FEB-2010 08:41 | | 020510 | 1.0 | | CLEAN |
| 012f1201.d | 1202033246 | YS1 | 05-FEB-2010 08:52 | 949033 | 10-1462 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 013f1301.d | 1202033247 | YS1 | 05-FEB-2010 09:02 | 949033 | 10-1462 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 014f1401.d | 245786001 | YS1 | 05-FEB-2010 09:13 | 949033 | 10-1462 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 015f1501.d | 245795001 | YS1 | 05-FEB-2010 09:23 | 949033 | 10-1470 | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |

Instrument Batch: /chem/ecd1a.i/020510.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 016f1601.d | 245795002 | YS1 | 05-FEB-2010 09:36 | 949033 | 10-1470 | | 1.0 | LANL | AR1268 RE TO CONFIRM |
| 017f1701.d | 245795003 | YS1 | 05-FEB-2010 09:48 | 949033 | 10-1470 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 018f1801.d | 245795004 | YS1 | 05-FEB-2010 10:01 | 949033 | 10-1470 | | 1.0 | LANL | AR1268 RE TO CONFIRM |
| 019f1901.d | 245795005 | YS1 | 05-FEB-2010 10:13 | 949033 | 10-1470 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 020f2001.d | 245795006 | YS1 | 05-FEB-2010 10:26 | 949033 | 10-1470 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 021f2101.d | 245795007 | YS1 | 05-FEB-2010 10:39 | 949033 | 10-1470 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 022f2201.d | WAR100203-60 02 | YS1 | 05-FEB-2010 10:51 | | 020510 | | 1.0 | | PASSED ON BOTH COLUMNS |
| 023f2301.d | WAR100105-99 03 | YS1 | 05-FEB-2010 11:02 | | 020510 | | 1.0 | | CLEAN |
| 024f2401.d | 245795008 | YS1 | 05-FEB-2010 11:12 | 949033 | 10-1470 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 025f2501.d | 245803006 | YS1 | 05-FEB-2010 11:25 | 949033 | 10-1473 | | 1.0 | LANL | AR1268 RE TO CONFIRM |
| 026f2601.d | 245803007 | YS1 | 05-FEB-2010 11:37 | 949033 | 10-1473 | | 1.0 | LANL | AR1268 RE TO CONFIRM |
| 027f2701.d | 245803008 | YS1 | 05-FEB-2010 11:50 | 949033 | 10-1473 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 028f2801.d | 245959001 | YS1 | 05-FEB-2010 12:03 | 949033 | 10-1510 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 029f2901.d | 245959002 | YS1 | 05-FEB-2010 12:15 | 949033 | 10-1510 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 030f3001.d | 245959012 | YS1 | 05-FEB-2010 12:28 | 949033 | 10-1510 | | 1.0 | LANL | UPLOAD BOTH COLUMNS, USE HIGHER |
| 031f3101.d | WAR100203-60 03 | YS1 | 05-FEB-2010 12:40 | | 020510 | | 1.0 | | PASSED ON BOTH COLUMNS |
| 032f3201.d | WAR100105-99 04 | YS1 | 05-FEB-2010 12:51 | | 020510 | | 1.0 | | CLEAN |
| 033f3301.d | 245969001 | YS1 | 05-FEB-2010 13:01 | 949033 | 10-1512 | | 1.0 | LANL | RE RESULT DID NOT MATCH WITH MS/MSD |
| 034f3401.d | 1202033248 | YS1 | 05-FEB-2010 13:14 | 949033 | 10-1512 | | 1.0 | QC A | DUSE |
| 035f3501.d | 1202033249 | YS1 | 05-FEB-2010 13:27 | 949033 | 10-1512 | | 1.0 | QC A | DUSE |
| 036f3601.d | 245969002 | YS1 | 05-FEB-2010 13:39 | 949033 | 10-1512 | | 1.0 | LANL | AR1268 RE TO CONFIRM |

Instrument Batch: /chem/ecd1a.i/020510.b



| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 037f3701.d | 245969003 | YS1 | 05-FEB-2010 13:52 | 949033 | 10-1512 | 1.0 | LANL | UPLOAD BOTH COLUMNS ,USE HIGHER |
| 038f3801.d | WAR100203-60 04 | YS1 | 05-FEB-2010 14:05 | | 020510 | 1.0 | | PASSED ON BOTH COLUMNS |
| 039f3901.d | WAR100105-99 05 | YS1 | 05-FEB-2010 14:15 | | 020510 | 1.0 | | CLEAN |
| 040f4001.d | 1202026314 | YS1 | 05-FEB-2010 14:26 | 946047 | 020510 | 1.0 | QC A | REPORT FROM ECD 8 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 041f4101.d | 1202026315 | YS1 | 05-FEB-2010 14:36 | 946047 | | | 1.0 | QC A | REPORT FROM ECD 8 |
| 042f4201.d | 243861001 | YS1 | 05-FEB-2010 14:47 | 946047 | 2010MDLVECD11262-L | | 1.0 | QCQA | UPLOAD BOTH COLUMNS |
| 043f4301.d | 243861002 | YS1 | 05-FEB-2010 14:57 | 946047 | 2010MDLVECD11262-L | | 1.0 | QCQA | UPLOAD BOTH COLUMNS |
| 044f4401.d | 243861003 | YS1 | 05-FEB-2010 15:08 | 946047 | 2010MDLVECD11262-L | | 1.0 | QCQA | UPLOAD BOTH COLUMNS |
| 045f4501.d | 243861004 | YS1 | 05-FEB-2010 15:18 | 946047 | 2010MDLVECD11262-L | | 1.0 | QCQA | UPLOAD BOTH COLUMNS |
| 046f4601.d | WAR100203-60 05 | YS1 | 05-FEB-2010 15:29 | | 020510 | | 1.0 | | PASSED ON BOTH COLUMNS |
| 047f4701.d | WAR100105-99 06 | YS1 | 05-FEB-2010 15:39 | | 020510 | | 1.0 | | CLEAN |

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/11/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/021010b.b Injection Volume: 0.5 ul

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 001f0101.d | WAR100105-99 01 | YS1 | 10-FEB-2010 12:55 | | 021010b | 1.0 | | CLEAN |
| 002f0201.d | WAR100203-60 01 | YS1 | 10-FEB-2010 13:05 | | 021010b | 1.0 | | PASSED ON BOTH COLUMNS |
| 003f0301.d | WAR091216-54 | YS1 | 10-FEB-2010 13:16 | | 021010b | 1.0 | | PASSED ON BOTH COLUMNS |
| 004f0401.d | WAR091217-42 | YS1 | 10-FEB-2010 13:27 | | 021010b | 1.0 | | PASSED ON BOTH COLUMNS |
| 005f0501.d | WAR091217-48 | YS1 | 10-FEB-2010 13:37 | | 021010b | 1.0 | | PATTERN ONLY |
| 006f0601.d | WAR100104-32 | YS1 | 10-FEB-2010 14:01 | | 021010b | 1.0 | | PATTERN ONLY |
| 007f0701.d | WAR100104-21 | YS1 | 10-FEB-2010 14:11 | | 021010b | 1.0 | | PATTERN ONLY |
| 008f0801.d | WAR100104-62 | YS1 | 10-FEB-2010 14:22 | | 021010b | 1.0 | | PATTERN ONLY |
| 009f0901.d | WAR100107-68 | YS1 | 10-FEB-2010 14:32 | | 021010b | 1.0 | | PATTERN ONLY |
| 010f1001.d | WAR091219-DDT | YS1 | 10-FEB-2010 14:43 | | 021010b | 1.0 | | DDT ANALOG STANDARD |
| 011f1101.d | WAR100105-99 02 | YS1 | 10-FEB-2010 14:53 | | 021010b | 1.0 | | CLEAN |
| 012f1201.d | 245480001 | YS1 | 10-FEB-2010 15:04 | 949975 | SP4012 | 10.0 | ORNL | UPLOAD BOTH COLUMNS, USE FRONT |
| 013f1301.d | WAR100203-60 02 | YS1 | 10-FEB-2010 15:15 | | 021010b | 1.0 | | PASSED ON BOTH COLUMNS |
| 014f1401.d | WAR100105-99 03 | YS1 | 10-FEB-2010 15:25 | | 021010b | 1.0 | | CLEAN |
| 015f1501.d | 1202037813 | YS1 | 10-FEB-2010 15:36 | 950898 | 10-1512 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |

Instrument Batch: /chem/ecd1a.i/021010b.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 016f1601.d | 1202037814 | YS1 | 10-FEB-2010 15:48 | 950898 | 10-1512 | 1.0 | QC A | UPLOAD BOTH COLUMNS, USE HIGHER |
| 017f1701.d | 245795002 | YS1 | 10-FEB-2010 16:01 | 950898 | 10-1470 | 1.0 | SVA | DUSE CONFIRMATION FOR AR1268 HIT |
| 018f1801.d | 245795004 | YS1 | 10-FEB-2010 16:14 | 950898 | 10-1470 | 1.0 | SVA | DUSE CONFIRMATION FOR AR1268 HIT |
| 019f1901.d | 245803006 | YS1 | 10-FEB-2010 16:26 | 950898 | 10-1473 | 1.0 | SVA | DUSE CONFIRMATION FOR AR1268 HIT |
| 020f2001.d | 245803007 | YS1 | 10-FEB-2010 16:39 | 950898 | 10-1473 | 1.0 | SVA | DUSE CONFIRMATION FOR AR1268 HIT |
| 021f2101.d | 245969001 | YS1 | 10-FEB-2010 16:51 | 950898 | 10-1512 | 1.0 | SVA | UPLOAD BOTH COLUMNS, USE HIGHER |
| 022f2201.d | 1202037815 | YS1 | 10-FEB-2010 17:04 | 950898 | 10-1512 | 1.0 | SVA | UPLOAD BOTH COLUMNS, USE HIGHER |
| 023f2301.d | 1202037816 | YS1 | 10-FEB-2010 17:17 | 950898 | 10-1512 | 1.0 | SVA | UPLOAD BOTH COLUMNS, USE HIGHER |
| 024f2401.d | 245969002 | YS1 | 10-FEB-2010 17:29 | 950898 | 10-1512 | 1.0 | SVA | DUSE CONFIRMATION FOR AR1268 HIT |
| 025f2501.d | WAR100203-60 03 | YS1 | 10-FEB-2010 17:42 | | 021010b | 1.0 | | PASSED ON BOTH COLUMNS |
| 026f2601.d | WAR100105-99 04 | YS1 | 10-FEB-2010 17:52 | | 021010b | 1.0 | | CLEAN |
| 027f2701.d | WAR100105-99 05 | YS1 | 10-FEB-2010 18:03 | | 021010b | 1.0 | | CLEAN |
| 028f2801.d | WAR100105-99 05 | YS1 | 10-FEB-2010 18:13 | | 021010b | 1.0 | | CLEAN |
| 029f2901.d | WE100210-07SCR | YS1 | 10-FEB-2010 20:23 | | 021010b | 1.0 | | SCREEN FOR PREP |
| 030f3001.d | WAR100105-99 05 | YS1 | 10-FEB-2010 20:34 | | 021010b | 1.0 | | CLEAN |

# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

**Batch ID:** 949031 **Verified by:** _____

**Analyst:** Andrew Schwemin

**Method:** SW846 3550B

**Lab SOP:** GL-OA-E-010 REV# 18

**Instrument:** Semi-Volatiles Manual

| Sample ID | Run Date | Aliquot (g) | Clean Up | Prior to Clean up (mL) | Amount Cleaned (mL) | After Clean up (mL) | Prepped Aliquot (mL) | Prepped Factor (mL/g) |
|---|---|---|---|---|---|---|---|---|
| 1202033246 MB | 04-FEB-2010 20:32:00 | 30 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03333 |
| 1202033247 LCS | 04-FEB-2010 20:32:00 | 30 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03333 |
| 245786001 | 04-FEB-2010 20:32:00 | 30.05 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03328 |
| 245795001 | 04-FEB-2010 20:32:00 | 30.05 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03328 |
| 245795002 | 04-FEB-2010 20:32:00 | 30.19 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03312 |
| 245795003 | 04-FEB-2010 20:32:00 | 30.18 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03313 |
| 245795004 | 04-FEB-2010 20:32:00 | 30.01 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03332 |
| 245795005 | 04-FEB-2010 20:32:00 | 30.05 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03328 |
| 245795006 | 04-FEB-2010 20:32:00 | 30.03 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.0333 |
| 245795007 | 04-FEB-2010 20:32:00 | 30.01 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03332 |
| 245795008 | 04-FEB-2010 20:32:00 | 30.02 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03331 |
| 245803006 | 04-FEB-2010 20:32:00 | 30.11 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03321 |
| 245803007 | 04-FEB-2010 20:32:00 | 30.04 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03329 |
| 245803008 | 04-FEB-2010 20:32:00 | 30.02 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03331 |
| 245959001 | 04-FEB-2010 20:32:00 | 30.19 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03312 |
| 245959002 | 04-FEB-2010 20:32:00 | 30.02 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03331 |
| 245959012 | 04-FEB-2010 20:32:00 | 30.03 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.0333 |
| 245969001 | 04-FEB-2010 20:32:00 | 30.05 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03328 |
| 1202033248 MS (245969001) | 04-FEB-2010 20:32:00 | 30.26 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03305 |
| 1202033249 MSD (245969001) | 04-FEB-2010 20:32:00 | 30.04 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03329 |
| 245969002 | 04-FEB-2010 20:32:00 | 30.21 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.0331 |
| 245969003 | 04-FEB-2010 20:32:00 | 30.11 | H2SO4/KMn2 | | 2 | 9 | 1 | 0.03321 |

| Type | Sample Id | Description | Serial Number | Spike Amt | Units |
|---|---|---|---|---|---|
| LCS | 1202033247 | PCB Laboratory Control | WE100126-07 | 1 | mL |
| MS | 1202033248 | PCB Laboratory Control | WE100126-07 | 1 | mL |
| MSD | 1202033249 | PCB Laboratory Control | WE100126-07 | 1 | mL |
| SURR | All | PEST LOW LEVEL SURROGATE 200 UG/L | UE100108-15 | 1 | mL |
| REGNT | All | 1:1 sulfuric acid | 1260695a | 5 | mL |
| REGNT | All | Acetone | 1264558 | 150 | mL |
| REGNT | All | Hexane | 1264562-B2 | 150 | mL |
| REGNT | All | 5% Potassium Permanganate | B1202457-F | 5 | mL |
| SOURC | All | SODIUM SULFATE | 1265308 | 30 | g |

**Comments:**

Clean up Date: 2/4/10
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

**Batch ID:** 950897 **Verified by:** _____

**Analyst:** Andrew Schwemin

**Method:** SW846 3550B

**Lab SOP:** GL–OA–E–010 REV# 18

**Instrument:** Semi–Volatiles Manual

| Sample ID | Run Date | Aliquot (g) | Clean Up | Prior to Clean up (mL) | Amount Cleaned (mL) | After Clean up (mL) | Prepped Aliquot (mL) | Prepped Factor (mL/g) |
|---|---|---|---|---|---|---|---|---|
| 1202037813 MB | 09–FEB–2010 21:07:00 | 30 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03333 |
| 1202037814 LCS | 09–FEB–2010 21:07:00 | 30 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03333 |
| 245795002 – 2 | 09–FEB–2010 21:07:00 | 30.11 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03321 |
| 245795004 – 2 | 09–FEB–2010 21:07:00 | 30.17 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03315 |
| 245803006 – 2 | 09–FEB–2010 21:07:00 | 30.03 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.0333 |
| 245803007 – 2 | 09–FEB–2010 21:07:00 | 30.19 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03312 |
| 245969001 – 2 | 09–FEB–2010 21:07:00 | 30.01 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03332 |
| 1202037815 – 2 MS (245969001) | 09–FEB–2010 21:07:00 | 30.06 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03327 |
| 1202037816 – 2 MSD (245969001) | 09–FEB–2010 21:07:00 | 30.01 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03332 |
| 245969002 – 2 | 09–FEB–2010 21:07:00 | 30.18 | H2SO4/KMl2 | | 2 | 9 | 1 | 0.03313 |

| Type | Sample Id | Description | Serial Number | Spike Amt | Units |
|---|---|---|---|---|---|
| LCS | 1202037814 | PCB Laboratory Control | WE100126–07 | 1 | mL |
| MS | 1202037815 | PCB Laboratory Control | WE100126–07 | 1 | mL |
| MSD | 1202037816 | PCB Laboratory Control | WE100126–07 | 1 | mL |
| SURR | All | PEST LOW LEVEL SURROGATE 200 UG/L | UE100127–15 | 1 | mL |
| REGNT | All | 1:1 sulfuric acid | 1260695a | 5 | mL |
| REGNT | All | Acetone | 1264558 | 150 | mL |
| REGNT | All | Hexane | 1264562–B2 | 150 | mL |
| REGNT | All | 5% Potassium Permanganate | B1202457–F | 5 | mL |
| SOURC | All | SODIUM SULFATE | 1265308 | 30 | g |

**Comments:**

Clean up Date: 2/9/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

# Metals Analysis

# Case Narrative

**Metals Fractional Narrative**
**Los Alamos National Laboratory (LANL)**
**SDG 10-1512**

**Sample Analysis**

| Sample ID | Client ID |
|---|---|
| 245969001 | RE15-10-7880 |
| 245969002 | RE15-10-7891 |
| 245969003 | RE15-10-7892 |
| 245969004 | RE15-10-7967 |
| 245969005 | RE15-10-7976 |
| 245969006 | RE15-10-7968 |
| 245969007 | RE15-10-7965 |
| 245969008 | RE15-10-7975 |
| 245969009 | RE15-10-7978 |
| 245969010 | RE15-10-7970 |
| 245969011 | RE15-10-7964 |
| 245969012 | RE15-10-7973 |
| 245969013 | RE15-10-7962 |
| 245969014 | RE15-10-7963 |
| 245969015 | RE15-10-7977 |
| 1202032590 | Method Blank (MB) **ICP** |
| 1202032595 | Laboratory Control Sample (LCS) |
| 1202032592 | 245969001(RE15-10-7880L) Serial Dilution (SD) |
| 1202032591 | 245969001(RE15-10-7880D) Sample Duplicate (DUP) |
| 1202032593 | 245969001(RE15-10-7880S) Matrix Spike (MS) |

| | |
|---|---|
| 1202032594 | 245969001(RE15-10-7880SD) Matrix Spike Duplicate (MSD) |
| 1202032600 | Method Blank (MB) **ICP-MS** |
| 1202032605 | Laboratory Control Sample (LCS) |
| 1202032602 | 245969001(RE15-10-7880L) Serial Dilution (SD) |
| 1202032601 | 245969001(RE15-10-7880D) Sample Duplicate (DUP) |
| 1202032603 | 245969001(RE15-10-7880S) Matrix Spike (MS) |
| 1202032604 | 245969001(RE15-10-7880SD) Matrix Spike Duplicate (MSD) |
| 1202037115 | Method Blank (MB) **CVAA** |
| 1202037116 | Laboratory Control Sample (LCS) |
| 1202037119 | 245969001(RE15-10-7880L) Serial Dilution (SD) |
| 1202037117 | 245969001(RE15-10-7880D) Sample Duplicate (DUP) |
| 1202037118 | 245969001(RE15-10-7880S) Matrix Spike (MS) |
| 1202037120 | 245969001(RE15-10-7880SD) Matrix Spike Duplicate (MSD) |

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

**Method/Analysis Information**

| | |
|---|---|
| **Analytical Batch:** | 948756, 948759 and 950565 |
| **Prep Batch :** | 948754, 948758 and 950563 |
| **Standard Operating Procedures:** | GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23 |
| **Analytical Method:** | SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A |
| **Prep Method :** | SW846 3050B and SW846 7471A Prep |

**Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

## System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

## Calibration Information

**Instrument Calibration**
All initial calibration requirements have been met for this sample delivery group (SDG).

**CRDL Requirements**
All CRDL standard(s) met the referenced advisory control limits with the exception of uranium, which recovered outside of the advisory limits of 70-130%.

**ICSA/ICSAB Statement**
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

**Continuing Calibration Blank (CCB) Requirements**
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

**Continuing Calibration Verification (CCV) Requirements**
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

## Quality Control (QC) Information

**Method Blank (MB) Statement**
The MBs analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**
The laboratory control sample (LCS) met the recommended acceptance criteria for percent recovery (%R) for all elements of interest, with the exception of antimony. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

**Quality Control (QC) Sample Statement**
The following sample was selected as the quality control (QC) sample for this SDG: 245969001 (RE15-10-7880).

**Matrix Spike (MS) Recovery Statement**
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, lead, potassium, sodium and uranium, as indicated by the "N" qualifiers.

**Matrix Spike Duplicate (MSD) Recovery Statement**
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, lead, potassium and sodium, as indicated by the "N" qualifiers.

**MS/MSD Relative Percent Difference (RPD) Statement**
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of uranium, as indicated by the "*" qualifier.

**Duplicate Relative Percent Difference (RPD) Statement**
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of chromium, cobalt and uranium, as indicated by the "*" qualifiers.

**Serial Dilution % Difference Statement**
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of lead, as indicated by the "E" qualifier.

## Technical Information

**Holding Time Specifications**
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. All samples in this SDG met the specified holding time.

**Sample Dilutions**
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples 245969002 (RE15-10-7891), 245969004 (RE15-10-7967), 245969006 (RE15-10-7968), 245969007 (RE15-10-7965) and 245969008 (RE15-10-7975) required dilutions for uranium in order to bring over range concentrations within the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

**Preparation Information**
The samples in this SDG were prepared exactly according to the cited SOP.

## Miscellaneous Information

**Electronic Packaging 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. 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**
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 796063 and 797331. A copy of each DER is included in the Miscellaneous Data section of this package.

**Additional Comments**
Additional comments were not required for this SDG.

**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:** Kristen Parson **Date:** 3/1/10

# Sample Data Summary

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969001 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7880 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 92.5

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 1640000 | ug/Kg | N | 7250 | 21300 | 21300 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1070 | ug/Kg | U | 352 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 0.915 | mg/kg | J | 0.207 | 1.04 | 1.04 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 19600 | ug/Kg | | 107 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.235 | mg/kg | | 0.0207 | 0.104 | 0.104 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 533 | ug/Kg | U | 107 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 308000 | ug/Kg | | 8530 | 26700 | 26700 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 8570 | ug/Kg | * | 160 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 4770 | ug/Kg | * | 160 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 3660 | ug/Kg | | 320 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 8040000 | ug/Kg | | 8530 | 26700 | 26700 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 34400 | ug/Kg | EN | 267 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 136000 | ug/Kg | | 9060 | 32000 | 32000 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 221000 | ug/Kg | | 213 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 14.4 | ug/kg | | 4 | 11.8 | 11.8 | 1 | AV | JXL1 | 02/18/10 10:11 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 3.04 | mg/kg | | 0.104 | 0.414 | 0.414 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 616000 | ug/Kg | N | 6820 | 26700 | 26700 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.04 | mg/kg | U | 0.518 | 1.04 | 1.04 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 533 | ug/Kg | U | 107 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 423000 | ug/Kg | N | 7460 | 26700 | 26700 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.207 | mg/kg | U | 0.0621 | 0.207 | 0.207 | 2 | MS | RMJ | 02/25/10 11:24 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 0.606 | mg/kg | *N | 0.0137 | 0.0414 | 0.0414 | 2 | MS | RMJ | 02/26/10 04:20 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 2080 | ug/Kg | | 107 | 533 | 533 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 23000 | ug/Kg | | 352 | 1070 | 1070 | 1 | P | HSC | 02/25/10 07:22 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.507 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.522 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.551 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969002 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7891 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 74

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 7040000 | ug/Kg | N | 8940 | 26300 | 26300 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1310 | ug/Kg | | 434 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 2.23 | mg/kg | | 0.261 | 1.3 | 1.3 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 78300 | ug/Kg | | 131 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 2.95 | mg/kg | | 0.0261 | 0.13 | 0.13 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 259 | ug/Kg | J | 131 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 27600000 | ug/Kg | | 10500 | 32900 | 32900 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 10600 | ug/Kg | * | 197 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 7410 | ug/Kg | * | 197 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 280000 | ug/Kg | | 394 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 10400000 | ug/Kg | | 10500 | 32900 | 32900 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 117000 | ug/Kg | EN | 329 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 1660000 | ug/Kg | | 11200 | 39400 | 39400 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 200000 | ug/Kg | | 263 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 10 | ug/kg | J | 4.99 | 14.7 | 14.7 | 1 | AV | JXL1 | 02/18/10 10:21 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 7.45 | mg/kg | | 0.13 | 0.522 | 0.522 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 1010000 | ug/Kg | N | 8410 | 32900 | 32900 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.3 | mg/kg | U | 0.652 | 1.3 | 1.3 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 159 | ug/Kg | J | 131 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 123000 | ug/Kg | N | 9200 | 32900 | 32900 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.127 | mg/kg | J | 0.0783 | 0.261 | 0.261 | 2 | MS | RMJ | 02/25/10 11:54 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 213 | mg/kg | *N | 0.172 | 0.522 | 0.522 | 20 | MS | RMJ | 02/26/10 04:35 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 19200 | ug/Kg | | 131 | 657 | 657 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 44000 | ug/Kg | | 434 | 1310 | 1310 | 1 | P | HSC | 02/25/10 08:11 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.514 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.518 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.553 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969003 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7892 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 93

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 4330000 | ug/Kg | N | 6620 | 19500 | 19500 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 974 | ug/Kg | U | 321 | 974 | 974 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.12 | mg/kg | | 0.197 | 0.984 | 0.984 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 43400 | ug/Kg | | 97.4 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.559 | mg/kg | | 0.0197 | 0.0984 | 0.0984 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 487 | ug/Kg | U | 97.4 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 2880000 | ug/Kg | | 7790 | 24300 | 24300 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 23800 | ug/Kg | * | 146 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 3530 | ug/Kg | * | 146 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 7360 | ug/Kg | | 292 | 974 | 974 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 7650000 | ug/Kg | | 7790 | 24300 | 24300 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 8150 | ug/Kg | EN | 243 | 974 | 974 | 1 | P | HSC | 03/01/10 13:45 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | 924000 | ug/Kg | | 8280 | 29200 | 29200 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 210000 | ug/Kg | | 195 | 974 | 974 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 27.7 | ug/kg | | 4.04 | 11.9 | 11.9 | 1 | AV | JXL1 | 02/18/10 10:23 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 5.92 | mg/kg | | 0.0984 | 0.394 | 0.394 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 572000 | ug/Kg | N | 6230 | 24300 | 24300 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 0.984 | mg/kg | U | 0.492 | 0.984 | 0.984 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 487 | ug/Kg | U | 97.4 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 198000 | ug/Kg | N | 6820 | 24300 | 24300 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.0756 | mg/kg | J | 0.0591 | 0.197 | 0.197 | 2 | MS | RMJ | 02/25/10 12:00 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 6.79 | mg/kg | *N | 0.013 | 0.0394 | 0.0394 | 2 | MS | RMJ | 02/28/10 03:29 | 100227-5 | 948759 |
| 7440-62-2 | Vanadium | 7520 | ug/Kg | | 97.4 | 487 | 487 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 35400 | ug/Kg | | 321 | 974 | 974 | 1 | P | HSC | 02/25/10 08:18 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.552 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.546 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.543 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969004 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7967 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 76

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 4770000 | ug/Kg | N | 8830 | 26000 | 26000 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 4620 | ug/Kg | | 428 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.79 | mg/kg | | 0.242 | 1.21 | 1.21 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 101000 | ug/Kg | | 130 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 11.9 | mg/kg | | 0.0242 | 0.121 | 0.121 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 438 | ug/Kg | J | 130 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 2650000 | ug/Kg | | 10400 | 32500 | 32500 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 31700 | ug/Kg | * | 195 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 5550 | ug/Kg | * | 195 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 2200000 | ug/Kg | | 389 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 9720000 | ug/Kg | | 10400 | 32500 | 32500 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 363000 | ug/Kg | EN | 325 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 1020000 | ug/Kg | | 11000 | 38900 | 38900 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 182000 | ug/Kg | | 260 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 8 | ug/kg | J | 5.28 | 15.5 | 15.5 | 1 | AV | JXL1 | 02/18/10 10:25 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 10 | mg/kg | | 0.121 | 0.485 | 0.485 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 676000 | ug/Kg | N | 8310 | 32500 | 32500 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.21 | mg/kg | U | 0.606 | 1.21 | 1.21 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 1870 | ug/Kg | | 130 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 62200 | ug/Kg | N | 9090 | 32500 | 32500 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.242 | mg/kg | U | 0.0727 | 0.242 | 0.242 | 2 | MS | RMJ | 02/25/10 12:06 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 295 | mg/kg | *N | 0.32 | 0.97 | 0.97 | 40 | MS | RMJ | 02/26/10 04:47 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 16100 | ug/Kg | | 130 | 649 | 649 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 75100 | ug/Kg | | 428 | 1300 | 1300 | 1 | P | HSC | 02/25/10 08:25 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.508 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.544 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.51 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969005 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7976 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 96.3

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 2760000 | ug/Kg | N | 6830 | 20100 | 20100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1000 | ug/Kg | U | 331 | 1000 | 1000 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 0.955 | mg/kg | J | 0.203 | 1.02 | 1.02 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 32400 | ug/Kg | | 100 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.394 | mg/kg | | 0.0203 | 0.102 | 0.102 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 102 | ug/Kg | J | 100 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 593000 | ug/Kg | | 8030 | 25100 | 25100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 7190 | ug/Kg | * | 151 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 10100 | ug/Kg | * | 151 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 21000 | ug/Kg | | 301 | 1000 | 1000 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 9830000 | ug/Kg | | 8030 | 25100 | 25100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 16400 | ug/Kg | EN | 251 | 1000 | 1000 | 1 | P | HSC | 03/01/10 13:52 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | 451000 | ug/Kg | | 8540 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 223000 | ug/Kg | | 201 | 1000 | 1000 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 8.03 | ug/kg | J | 4.19 | 12.3 | 12.3 | 1 | AV | JXL1 | 02/18/10 10:31 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 3.65 | mg/kg | | 0.102 | 0.406 | 0.406 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 613000 | ug/Kg | N | 6430 | 25100 | 25100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.02 | mg/kg | U | 0.508 | 1.02 | 1.02 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 502 | ug/Kg | U | 100 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 244000 | ug/Kg | N | 7030 | 25100 | 25100 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.203 | mg/kg | U | 0.061 | 0.203 | 0.203 | 2 | MS | RMJ | 02/25/10 12:23 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 5.33 | mg/kg | *N | 0.0134 | 0.0406 | 0.0406 | 2 | MS | RMJ | 02/26/10 04:50 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 7450 | ug/Kg | | 100 | 502 | 502 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 31400 | ug/Kg | | 331 | 1000 | 1000 | 1 | P | HSC | 02/25/10 08:32 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.517 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.511 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.506 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969006 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7968 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 89

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 2880000 | ug/Kg | N | 7400 | 21800 | 21800 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1340 | ug/Kg | | 359 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.22 | mg/kg | | 0.205 | 1.03 | 1.03 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 39000 | ug/Kg | | 109 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 1.23 | mg/kg | | 0.0205 | 0.103 | 0.103 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 544 | ug/Kg | U | 109 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 913000 | ug/Kg | | 8700 | 27200 | 27200 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 33900 | ug/Kg | * | 163 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 3430 | ug/Kg | * | 163 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 116000 | ug/Kg | | 326 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 6750000 | ug/Kg | | 8700 | 27200 | 27200 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 25300 | ug/Kg | EN | 272 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 511000 | ug/Kg | | 9250 | 32600 | 32600 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 221000 | ug/Kg | | 218 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 5.16 | ug/kg | J | 3.88 | 11.4 | 11.4 | 1 | AV | JXL1 | 02/18/10 10:33 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 5.59 | mg/kg | | 0.103 | 0.41 | 0.41 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 453000 | ug/Kg | N | 6960 | 27200 | 27200 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.03 | mg/kg | U | 0.513 | 1.03 | 1.03 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 242 | ug/Kg | J | 109 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 166000 | ug/Kg | N | 7620 | 27200 | 27200 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.205 | mg/kg | U | 0.0616 | 0.205 | 0.205 | 2 | MS | RMJ | 02/25/10 12:29 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 37.7 | mg/kg | *N | 0.0677 | 0.205 | 0.205 | 10 | MS | RMJ | 02/26/10 04:54 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 4530 | ug/Kg | | 109 | 544 | 544 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 27800 | ug/Kg | | 359 | 1090 | 1090 | 1 | P | HSC | 02/25/10 08:39 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.515 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.546 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.589 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969007 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7965 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 78

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 5750000 | ug/Kg | N | 8370 | 24600 | 24600 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1050 | ug/Kg | J | 406 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.64 | mg/kg | | 0.238 | 1.19 | 1.19 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 85500 | ug/Kg | | 123 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 1.51 | mg/kg | | 0.0238 | 0.119 | 0.119 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 181 | ug/Kg | J | 123 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 1740000 | ug/Kg | | 9850 | 30800 | 30800 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 17800 | ug/Kg | * | 185 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 2800 | ug/Kg | * | 185 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 49200 | ug/Kg | | 369 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 8510000 | ug/Kg | | 9850 | 30800 | 30800 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 113000 | ug/Kg | EN | 308 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 968000 | ug/Kg | | 10500 | 36900 | 36900 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 210000 | ug/Kg | | 246 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 17.1 | ug/kg | | 5.07 | 14.9 | 14.9 | 1 | AV | JXL1 | 02/18/10 10:35 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 5.67 | mg/kg | | 0.119 | 0.476 | 0.476 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 801000 | ug/Kg | N | 7880 | 30800 | 30800 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.19 | mg/kg | U | 0.595 | 1.19 | 1.19 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 616 | ug/Kg | U | 123 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 60000 | ug/Kg | N | 8620 | 30800 | 30800 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.0993 | mg/kg | J | 0.0714 | 0.238 | 0.238 | 2 | MS | RMJ | 02/25/10 12:35 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 71.2 | mg/kg | *N | 0.0786 | 0.238 | 0.238 | 10 | MS | RMJ | 02/26/10 04:57 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 13600 | ug/Kg | | 123 | 616 | 616 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 32900 | ug/Kg | | 406 | 1230 | 1230 | 1 | P | HSC | 02/25/10 08:46 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.522 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.54 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.517 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969008 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7975 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 74

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 5160000 | ug/Kg | N | 8190 | 24100 | 24100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1210 | ug/Kg | U | 398 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 2.21 | mg/kg | | 0.263 | 1.31 | 1.31 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 63300 | ug/Kg | | 121 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 1.84 | mg/kg | | 0.0263 | 0.131 | 0.131 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 1170 | ug/Kg | | 121 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 1570000 | ug/Kg | | 9640 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 11100 | ug/Kg | * | 181 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 4130 | ug/Kg | * | 181 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 45600 | ug/Kg | | 362 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 10700000 | ug/Kg | | 9640 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 46400 | ug/Kg | EN | 301 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 946000 | ug/Kg | | 10200 | 36200 | 36200 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 249000 | ug/Kg | | 241 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 14.8 | ug/kg | U | 5.04 | 14.8 | 14.8 | 1 | AV | JXL1 | 02/18/10 10:37 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 6.42 | mg/kg | | 0.131 | 0.525 | 0.525 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 1020000 | ug/Kg | N | 7710 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.31 | mg/kg | U | 0.657 | 1.31 | 1.31 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 603 | ug/Kg | U | 121 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 56300 | ug/Kg | N | 8440 | 30100 | 30100 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.132 | mg/kg | J | 0.0788 | 0.263 | 0.263 | 2 | MS | RMJ | 02/25/10 12:41 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 45.7 | mg/kg | *N | 0.0867 | 0.263 | 0.263 | 10 | MS | RMJ | 02/26/10 05:00 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 22200 | ug/Kg | | 121 | 603 | 603 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 40700 | ug/Kg | | 398 | 1210 | 1210 | 1 | P | HSC | 02/25/10 08:53 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.557 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.511 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.543 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969009 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7978 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 83

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 13300000 | ug/Kg | N | 7820 | 23000 | 23000 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1150 | ug/Kg | U | 380 | 1150 | 1150 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 3.38 | mg/kg | | 0.211 | 1.05 | 1.05 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 138000 | ug/Kg | | 115 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 1.31 | mg/kg | | 0.0211 | 0.105 | 0.105 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 575 | ug/Kg | U | 115 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 3240000 | ug/Kg | | 9210 | 28800 | 28800 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 11500 | ug/Kg | * | 173 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 9040 | ug/Kg | * | 173 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 9910 | ug/Kg | | 345 | 1150 | 1150 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 15000000 | ug/Kg | | 9210 | 28800 | 28800 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 14100 | ug/Kg | EN | 288 | 1150 | 1150 | 1 | P | HSC | 03/01/10 13:59 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | 2250000 | ug/Kg | | 9780 | 34500 | 34500 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 231000 | ug/Kg | | 230 | 1150 | 1150 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 45.7 | ug/kg | | 4.48 | 13.2 | 13.2 | 1 | AV | JXL1 | 02/18/10 10:39 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 10.4 | mg/kg | | 0.105 | 0.422 | 0.422 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 1760000 | ug/Kg | N | 7360 | 28800 | 28800 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.05 | mg/kg | U | 0.527 | 1.05 | 1.05 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 575 | ug/Kg | U | 115 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 137000 | ug/Kg | N | 8060 | 28800 | 28800 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.191 | mg/kg | J | 0.0632 | 0.211 | 0.211 | 2 | MS | RMJ | 02/25/10 12:47 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 2.68 | mg/kg | *N | 0.0139 | 0.0422 | 0.0422 | 2 | MS | RMJ | 02/26/10 05:03 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 24300 | ug/Kg | | 115 | 575 | 575 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 34500 | ug/Kg | | 380 | 1150 | 1150 | 1 | P | HSC | 02/25/10 09:14 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.523 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.571 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.548 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969010 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7970 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 91.8

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 1920000 | ug/Kg | N | 7140 | 21000 | 21000 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1050 | ug/Kg | U | 346 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.12 | mg/kg | | 0.211 | 1.06 | 1.06 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 51300 | ug/Kg | | 105 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.529 | mg/kg | | 0.0211 | 0.106 | 0.106 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 525 | ug/Kg | U | 105 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 2010000 | ug/Kg | | 8390 | 26200 | 26200 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 5680 | ug/Kg | * | 157 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 2150 | ug/Kg | * | 157 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 22100 | ug/Kg | | 315 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 5510000 | ug/Kg | | 8390 | 26200 | 26200 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 33300 | ug/Kg | EN | 262 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 494000 | ug/Kg | | 8920 | 31500 | 31500 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 169000 | ug/Kg | | 210 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 11.4 | ug/kg | U | 3.87 | 11.4 | 11.4 | 1 | AV | JXL1 | 02/18/10 10:41 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 2.52 | mg/kg | | 0.106 | 0.422 | 0.422 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 477000 | ug/Kg | N | 6720 | 26200 | 26200 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.06 | mg/kg | U | 0.528 | 1.06 | 1.06 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 525 | ug/Kg | U | 105 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 246000 | ug/Kg | N | 7350 | 26200 | 26200 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.211 | mg/kg | U | 0.0633 | 0.211 | 0.211 | 2 | MS | RMJ | 02/25/10 12:53 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 4.23 | mg/kg | *N | 0.0139 | 0.0422 | 0.0422 | 2 | MS | RMJ | 02/26/10 05:06 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 7380 | ug/Kg | | 105 | 525 | 525 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 56900 | ug/Kg | | 346 | 1050 | 1050 | 1 | P | HSC | 02/25/10 09:22 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.519 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.516 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.574 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969011 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7964 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 89

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 8080000 | ug/Kg | N | 7040 | 20700 | 20700 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1030 | ug/Kg | U | 341 | 1030 | 1030 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.85 | mg/kg | | 0.21 | 1.05 | 1.05 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 78800 | ug/Kg | | 103 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.685 | mg/kg | | 0.021 | 0.105 | 0.105 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 517 | ug/Kg | U | 103 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 1920000 | ug/Kg | | 8280 | 25900 | 25900 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 13500 | ug/Kg | * | 155 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 5370 | ug/Kg | * | 155 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 4950 | ug/Kg | | 310 | 1030 | 1030 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 10100000 | ug/Kg | | 8280 | 25900 | 25900 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 9070 | ug/Kg | EN | 259 | 1030 | 1030 | 1 | P | HSC | 03/01/10 14:06 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | 1580000 | ug/Kg | | 8800 | 31000 | 31000 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 189000 | ug/Kg | | 207 | 1030 | 1030 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 16.2 | ug/kg | | 4.42 | 13 | 13 | 1 | AV | JXL1 | 02/18/10 10:43 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 7.05 | mg/kg | | 0.105 | 0.421 | 0.421 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 967000 | ug/Kg | N | 6620 | 25900 | 25900 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.05 | mg/kg | U | 0.526 | 1.05 | 1.05 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 517 | ug/Kg | U | 103 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 275000 | ug/Kg | N | 7240 | 25900 | 25900 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.138 | mg/kg | J | 0.0631 | 0.21 | 0.21 | 2 | MS | RMJ | 02/25/10 12:59 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 1.79 | mg/kg | *N | 0.0139 | 0.0421 | 0.0421 | 2 | MS | RMJ | 02/26/10 05:15 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 17500 | ug/Kg | | 103 | 517 | 517 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 23700 | ug/Kg | | 341 | 1030 | 1030 | 1 | P | HSC | 02/25/10 09:29 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.541 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.532 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.517 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969012 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7973 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 82

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 5690000 | ug/Kg | N | 7460 | 21900 | 21900 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 717 | ug/Kg | J | 362 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 2.13 | mg/kg | | 0.242 | 1.21 | 1.21 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 68800 | ug/Kg | | 110 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 1.06 | mg/kg | | 0.0242 | 0.121 | 0.121 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 549 | ug/Kg | U | 110 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 1470000 | ug/Kg | | 8780 | 27400 | 27400 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 20100 | ug/Kg | * | 165 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 4180 | ug/Kg | * | 165 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 19500 | ug/Kg | | 329 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 9990000 | ug/Kg | | 8780 | 27400 | 27400 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 145000 | ug/Kg | EN | 274 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 1070000 | ug/Kg | | 9320 | 32900 | 32900 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 274000 | ug/Kg | | 219 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 7.18 | ug/kg | J | 4.23 | 12.5 | 12.5 | 1 | AV | JXL1 | 02/18/10 10:45 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 8.1 | mg/kg | | 0.121 | 0.484 | 0.484 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 993000 | ug/Kg | N | 7020 | 27400 | 27400 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.21 | mg/kg | U | 0.605 | 1.21 | 1.21 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 549 | ug/Kg | U | 110 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 57700 | ug/Kg | N | 7680 | 27400 | 27400 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.0767 | mg/kg | J | 0.0726 | 0.242 | 0.242 | 2 | MS | RMJ | 02/25/10 13:04 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 9.61 | mg/kg | *N | 0.016 | 0.0484 | 0.0484 | 2 | MS | RMJ | 02/26/10 05:18 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 21100 | ug/Kg | | 110 | 549 | 549 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 20900 | ug/Kg | | 362 | 1100 | 1100 | 1 | P | HSC | 02/25/10 09:36 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.559 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.507 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.591 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969013 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7962 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 94.7

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 4650000 | ug/Kg | N | 6460 | 19000 | 19000 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 950 | ug/Kg | U | 313 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.24 | mg/kg | | 0.203 | 1.02 | 1.02 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 47800 | ug/Kg | | 95 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.721 | mg/kg | | 0.0203 | 0.102 | 0.102 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 475 | ug/Kg | U | 95 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 2150000 | ug/Kg | | 7600 | 23700 | 23700 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 5690 | ug/Kg | * | 142 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 8030 | ug/Kg | * | 142 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 30000 | ug/Kg | | 285 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 7650000 | ug/Kg | | 7600 | 23700 | 23700 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 32900 | ug/Kg | EN | 237 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 972000 | ug/Kg | | 8070 | 28500 | 28500 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 212000 | ug/Kg | | 190 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 13.6 | ug/kg | | 3.95 | 11.6 | 11.6 | 1 | AV | JXL1 | 02/18/10 10:47 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 4.43 | mg/kg | | 0.102 | 0.407 | 0.407 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 721000 | ug/Kg | N | 6080 | 23700 | 23700 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.02 | mg/kg | U | 0.509 | 1.02 | 1.02 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 475 | ug/Kg | U | 95 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 169000 | ug/Kg | N | 6650 | 23700 | 23700 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.0926 | mg/kg | J | 0.061 | 0.203 | 0.203 | 2 | MS | RMJ | 02/25/10 13:10 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 17 | mg/kg | *N | 0.0134 | 0.0407 | 0.0407 | 2 | MS | RMJ | 02/26/10 05:21 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 6880 | ug/Kg | | 95 | 475 | 475 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 23600 | ug/Kg | | 313 | 950 | 950 | 1 | P | HSC | 02/25/10 09:43 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.556 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.519 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.546 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969014 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7963 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 79

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 4260000 | ug/Kg | N | 8170 | 24000 | 24000 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1200 | ug/Kg | U | 397 | 1200 | 1200 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 1.32 | mg/kg | | 0.23 | 1.15 | 1.15 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 56100 | ug/Kg | | 120 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 0.684 | mg/kg | | 0.023 | 0.115 | 0.115 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 123 | ug/Kg | J | 120 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 1030000 | ug/Kg | | 9620 | 30100 | 30100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 12700 | ug/Kg | * | 180 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 3310 | ug/Kg | * | 180 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 29000 | ug/Kg | | 361 | 1200 | 1200 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 8490000 | ug/Kg | | 9620 | 30100 | 30100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 17100 | ug/Kg | EN | 301 | 1200 | 1200 | 1 | P | HSC | 03/01/10 14:13 | 030110A-2 | 948756 |
| 7439-95-4 | Magnesium | 832000 | ug/Kg | | 10200 | 36100 | 36100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 238000 | ug/Kg | | 240 | 1200 | 1200 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 9.55 | ug/kg | J | 4.72 | 13.9 | 13.9 | 1 | AV | JXL1 | 02/18/10 10:49 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 5 | mg/kg | | 0.115 | 0.459 | 0.459 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 740000 | ug/Kg | N | 7690 | 30100 | 30100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.15 | mg/kg | U | 0.574 | 1.15 | 1.15 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 601 | ug/Kg | U | 120 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 78900 | ug/Kg | N | 8420 | 30100 | 30100 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.101 | mg/kg | J | 0.0689 | 0.23 | 0.23 | 2 | MS | RMJ | 02/25/10 13:16 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 7.41 | mg/kg | *N | 0.0151 | 0.0459 | 0.0459 | 2 | MS | RMJ | 02/26/10 05:24 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 15000 | ug/Kg | | 120 | 601 | 601 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 28000 | ug/Kg | | 397 | 1200 | 1200 | 1 | P | HSC | 02/25/10 09:50 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.525 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.55 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.546 | g | 30 | mL | 02/17/10 | TXB3 |

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245969015 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-7977 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** SOIL **%SOLIDS:** 64

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 11200000 | ug/Kg | N | 10400 | 30600 | 30600 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-36-0 | Antimony | 1530 | ug/Kg | U | 504 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-38-2 | Arsenic | 2.26 | mg/kg | | 0.285 | 1.42 | 1.42 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-39-3 | Barium | 159000 | ug/Kg | | 153 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-41-7 | Beryllium | 5.26 | mg/kg | | 0.0285 | 0.142 | 0.142 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-43-9 | Cadmium | 232 | ug/Kg | J | 153 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-70-2 | Calcium | 2510000 | ug/Kg | | 12200 | 38200 | 38200 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-47-3 | Chromium | 10400 | ug/Kg | * | 229 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-48-4 | Cobalt | 5430 | ug/Kg | * | 229 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-50-8 | Copper | 11600 | ug/Kg | | 458 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-89-6 | Iron | 11400000 | ug/Kg | | 12200 | 38200 | 38200 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-92-1 | Lead | 33100 | ug/Kg | EN | 382 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-95-4 | Magnesium | 2020000 | ug/Kg | | 13000 | 45800 | 45800 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-96-5 | Manganese | 425000 | ug/Kg | | 306 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7439-97-6 | Mercury | 18.4 | ug/kg | | 5.87 | 17.3 | 17.3 | 1 | AV | JXL1 | 02/18/10 10:55 | 021810S1-6 | 950565 |
| 7440-02-0 | Nickel | 9.14 | mg/kg | | 0.142 | 0.569 | 0.569 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-09-7 | Potassium | 1890000 | ug/Kg | N | 9780 | 38200 | 38200 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7782-49-2 | Selenium | 1.42 | mg/kg | U | 0.711 | 1.42 | 1.42 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-22-4 | Silver | 764 | ug/Kg | U | 153 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-23-5 | Sodium | 61200 | ug/Kg | N | 10700 | 38200 | 38200 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-28-0 | Thallium | 0.205 | mg/kg | J | 0.0854 | 0.285 | 0.285 | 2 | MS | RMJ | 02/25/10 13:22 | 100224-3 | 948759 |
| 7440-61-1 | Uranium | 16.6 | mg/kg | *N | 0.0188 | 0.0569 | 0.0569 | 2 | MS | RMJ | 02/26/10 05:27 | 100225-4 | 948759 |
| 7440-62-2 | Vanadium | 22800 | ug/Kg | | 153 | 764 | 764 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |
| 7440-66-6 | Zinc | 28500 | ug/Kg | | 504 | 1530 | 1530 | 1 | P | HSC | 02/25/10 09:57 | 022410-1 | 948756 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948756 | 948754 | SW846 3050B | 0.513 | g | 50 | mL | 02/10/10 | FGA |
| 948759 | 948758 | SW846 3050B | 0.551 | g | 50 | mL | 02/10/10 | FGA |
| 950565 | 950563 | SW846 7471A Prep | 0.545 | g | 30 | mL | 02/17/10 | TXB3 |

# Quality Control Summary

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| ICV01 | | | | | | | | | | |
| | Mercury | 5.13 | ug/L | 5 | ug/L | 102.6 | 90.0 – 110.0 | AV | 18–FEB–10 09:57 | 021810S1–6 |
| | Aluminum | 5190 | ug/L | 5000 | ug/L | 103.7 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Antimony | 503 | ug/L | 500 | ug/L | 100.7 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Barium | 525 | ug/L | 500 | ug/L | 105.1 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Cadmium | 496 | ug/L | 500 | ug/L | 99.3 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Calcium | 5250 | ug/L | 5000 | ug/L | 105.1 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Chromium | 502 | ug/L | 500 | ug/L | 100.3 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Cobalt | 513 | ug/L | 500 | ug/L | 102.6 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Copper | 524 | ug/L | 500 | ug/L | 104.7 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Iron | 5310 | ug/L | 5000 | ug/L | 106.1 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Lead | 514 | ug/L | 500 | ug/L | 102.8 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Magnesium | 5190 | ug/L | 5000 | ug/L | 103.8 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Manganese | 504 | ug/L | 500 | ug/L | 100.8 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Potassium | 2540 | ug/L | 2500 | ug/L | 101.7 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Silver | 253 | ug/L | 250 | ug/L | 101.3 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Sodium | 2600 | ug/L | 2500 | ug/L | 103.8 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Vanadium | 501 | ug/L | 500 | ug/L | 100.3 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Zinc | 492 | ug/L | 500 | ug/L | 98.5 | 90.0 – 110.0 | P | 24–FEB–10 13:14 | 022410–1 |
| | Arsenic | 47.6 | ug/L | 50 | ug/L | 95.2 | 90.0 – 110.0 | MS | 25–FEB–10 10:20 | 100224–3 |
| | Beryllium | 51.3 | ug/L | 50 | ug/L | 102.5 | 90.0 – 110.0 | MS | 25–FEB–10 10:20 | 100224–3 |
| | Nickel | 51.5 | ug/L | 50 | ug/L | 103 | 90.0 – 110.0 | MS | 25–FEB–10 10:20 | 100224–3 |
| | Selenium | 50.4 | ug/L | 50 | ug/L | 100.7 | 90.0 – 110.0 | MS | 25–FEB–10 10:20 | 100224–3 |
| | Thallium | 49.9 | ug/L | 50 | ug/L | 99.9 | 90.0 – 110.0 | MS | 25–FEB–10 10:20 | 100224–3 |
| | Uranium | 54.3 | ug/L | 50 | ug/L | 108.5 | 90.0 – 110.0 | MS | 26–FEB–10 03:52 | 100225–4 |
| | Uranium | 53.2 | ug/L | 50 | ug/L | 106.3 | 90.0 – 110.0 | MS | 28–FEB–10 03:08 | 100227–5 |
| | Lead | 495 | ug/L | 500 | ug/L | 98.9 | 90.0 – 110.0 | P | 01–MAR–10 12:04 | 030110A–2 |
| CCV01 | | | | | | | | | | |
| | Mercury | 5.06 | ug/L | 5 | ug/L | 101.2 | 80.0 – 120.0 | AV | 18–FEB–10 10:03 | 021810S1–6 |
| | Aluminum | 5110 | ug/L | 5000 | ug/L | 102.2 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Antimony | 515 | ug/L | 500 | ug/L | 103.1 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Barium | 491 | ug/L | 500 | ug/L | 98.2 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Cadmium | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Calcium | 5180 | ug/L | 5000 | ug/L | 103.6 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Chromium | 491 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Cobalt | 492 | ug/L | 500 | ug/L | 98.3 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Copper | 483 | ug/L | 500 | ug/L | 96.7 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Iron | 5050 | ug/L | 5000 | ug/L | 101.1 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Lead | 499 | ug/L | 500 | ug/L | 99.8 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Magnesium | 5240 | ug/L | 5000 | ug/L | 104.9 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Manganese | 490 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Potassium | 5330 | ug/L | 5000 | ug/L | 106.6 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Silver | 490 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Sodium | 10500 | ug/L | 10000 | ug/L | 105 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Vanadium | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Zinc | 489 | ug/L | 500 | ug/L | 97.7 | 90.0 – 110.0 | P | 24–FEB–10 14:02 | 022410–1 |
| | Arsenic | 46.8 | ug/L | 50 | ug/L | 93.6 | 90.0 – 110.0 | MS | 25–FEB–10 10:49 | 100224–3 |
| | Beryllium | 51.9 | ug/L | 50 | ug/L | 103.7 | 90.0 – 110.0 | MS | 25–FEB–10 10:49 | 100224–3 |
| | Nickel | 52.1 | ug/L | 50 | ug/L | 104.2 | 90.0 – 110.0 | MS | 25–FEB–10 10:49 | 100224–3 |
| | Selenium | 51 | ug/L | 50 | ug/L | 101.9 | 90.0 – 110.0 | MS | 25–FEB–10 10:49 | 100224–3 |
| | Thallium | 50.1 | ug/L | 50 | ug/L | 100.3 | 90.0 – 110.0 | MS | 25–FEB–10 10:49 | 100224–3 |
| | Uranium | 54.8 | ug/L | 50 | ug/L | 109.6 | 90.0 – 110.0 | MS | 26–FEB–10 04:08 | 100225–4 |
| | Uranium | 53.7 | ug/L | 50 | ug/L | 107.4 | 90.0 – 110.0 | MS | 28–FEB–10 03:23 | 100227–5 |
| | Lead | 506 | ug/L | 500 | ug/L | 101.3 | 90.0 – 110.0 | P | 01–MAR–10 12:51 | 030110A–2 |
| CCV02 | | | | | | | | | | |
| | Mercury | 5.07 | ug/L | 5 | ug/L | 101.4 | 80.0 – 120.0 | AV | 18–FEB–10 10:27 | 021810S1–6 |
| | Aluminum | 5100 | ug/L | 5000 | ug/L | 101.9 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Antimony | 499 | ug/L | 500 | ug/L | 99.8 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Barium | 491 | ug/L | 500 | ug/L | 98.2 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Cadmium | 491 | ug/L | 500 | ug/L | 98.2 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Calcium | 5180 | ug/L | 5000 | ug/L | 103.6 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Chromium | 490 | ug/L | 500 | ug/L | 98 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Cobalt | 491 | ug/L | 500 | ug/L | 98.2 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Copper | 484 | ug/L | 500 | ug/L | 96.8 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Iron | 5040 | ug/L | 5000 | ug/L | 100.8 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Lead | 492 | ug/L | 500 | ug/L | 98.4 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Magnesium | 5160 | ug/L | 5000 | ug/L | 103.2 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Manganese | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Potassium | 5120 | ug/L | 5000 | ug/L | 102.3 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Silver | 491 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Sodium | 10300 | ug/L | 10000 | ug/L | 103 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Vanadium | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Zinc | 486 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 24–FEB–10 14:39 | 022410–1 |
| | Arsenic | 48 | ug/L | 50 | ug/L | 96 | 90.0 – 110.0 | MS | 25–FEB–10 11:13 | 100224–3 |
| | Beryllium | 51.7 | ug/L | 50 | ug/L | 103.3 | 90.0 – 110.0 | MS | 25–FEB–10 11:13 | 100224–3 |
| | Nickel | 51.9 | ug/L | 50 | ug/L | 103.9 | 90.0 – 110.0 | MS | 25–FEB–10 11:13 | 100224–3 |
| | Selenium | 52 | ug/L | 50 | ug/L | 104.1 | 90.0 – 110.0 | MS | 25–FEB–10 11:13 | 100224–3 |
| | Thallium | 49 | ug/L | 50 | ug/L | 97.9 | 90.0 – 110.0 | MS | 25–FEB–10 11:13 | 100224–3 |
| | Uranium | 52.3 | ug/L | 50 | ug/L | 104.6 | 90.0 – 110.0 | MS | 26–FEB–10 04:38 | 100225–4 |
| | Uranium | 53.2 | ug/L | 50 | ug/L | 106.5 | 90.0 – 110.0 | MS | 28–FEB–10 03:32 | 100227–5 |
| | Lead | 498 | ug/L | 500 | ug/L | 99.5 | 90.0 – 110.0 | P | 01–MAR–10 13:12 | 030110A–2 |
| CCV03 | | | | | | | | | | |
| | Mercury | 5.22 | ug/L | 5 | ug/L | 104.5 | 80.0 – 120.0 | AV | 18–FEB–10 10:51 | 021810S1–6 |
| | Aluminum | 5050 | ug/L | 5000 | ug/L | 101.1 | 90.0 – 110.0 | P | 24–FEB–10 16:03 | 022410–1 |
| | Antimony | 496 | ug/L | 500 | ug/L | 99.2 | 90.0 – 110.0 | P | 24–FEB–10 16:03 | 022410–1 |
| | Barium | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 24–FEB–10 16:03 | 022410–1 |
| | Cadmium | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 24–FEB–10 16:03 | 022410–1 |
| | Calcium | 5190 | ug/L | 5000 | ug/L | 103.8 | 90.0 – 110.0 | P | 24–FEB–10 16:03 | 022410–1 |
| | Chromium | 486 | ug/L | 500 | ug/L | 97.2 | 90.0 – 110.0 | P | 24–FEB–10 16:03 | 022410–1 |
| | Cobalt | 487 | ug/L | 500 | ug/L | 97.5 | 90.0 – 110.0 | P | 24–FEB–10 16:03 | 022410–1 |
| | Copper | 481 | ug/L | 500 | ug/L | 96.1 | 90.0 – 110.0 | P | 24–FEB–10 16:03 | 022410–1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Iron | 5060 | ug/L | 5000 | ug/L | 101.2 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Lead | 486 | ug/L | 500 | ug/L | 97.3 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Magnesium | 5120 | ug/L | 5000 | ug/L | 102.3 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Manganese | 494 | ug/L | 500 | ug/L | 98.7 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Potassium | 5090 | ug/L | 5000 | ug/L | 101.8 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Silver | 488 | ug/L | 500 | ug/L | 97.5 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Sodium | 10300 | ug/L | 10000 | ug/L | 103.1 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Vanadium | 489 | ug/L | 500 | ug/L | 97.9 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Zinc | 480 | ug/L | 500 | ug/L | 96.1 | 90.0 – 110.0 | P | 24-FEB-10 16:03 | 022410-1 |
| | Arsenic | 47.5 | ug/L | 50 | ug/L | 94.9 | 90.0 – 110.0 | MS | 25-FEB-10 12:11 | 100224-3 |
| | Beryllium | 51.3 | ug/L | 50 | ug/L | 102.6 | 90.0 – 110.0 | MS | 25-FEB-10 12:11 | 100224-3 |
| | Nickel | 51.7 | ug/L | 50 | ug/L | 103.4 | 90.0 – 110.0 | MS | 25-FEB-10 12:11 | 100224-3 |
| | Selenium | 50.3 | ug/L | 50 | ug/L | 100.7 | 90.0 – 110.0 | MS | 25-FEB-10 12:11 | 100224-3 |
| | Thallium | 48.3 | ug/L | 50 | ug/L | 96.6 | 90.0 – 110.0 | MS | 25-FEB-10 12:11 | 100224-3 |
| | Uranium | 53.7 | ug/L | 50 | ug/L | 107.4 | 90.0 – 110.0 | MS | 26-FEB-10 05:09 | 100225-4 |
| | Lead | 502 | ug/L | 500 | ug/L | 100.3 | 90.0 – 110.0 | P | 01-MAR-10 14:20 | 030110A-2 |
| CCV04 | | | | | | | | | | |
| | Mercury | 5.15 | ug/L | 5 | ug/L | 103 | 80.0 – 120.0 | AV | 18-FEB-10 11:15 | 021810S1-6 |
| | Aluminum | 5080 | ug/L | 5000 | ug/L | 101.7 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Antimony | 502 | ug/L | 500 | ug/L | 100.3 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Barium | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Cadmium | 494 | ug/L | 500 | ug/L | 98.9 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Calcium | 5220 | ug/L | 5000 | ug/L | 104.5 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Chromium | 492 | ug/L | 500 | ug/L | 98.4 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Cobalt | 494 | ug/L | 500 | ug/L | 98.7 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Copper | 486 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Iron | 5080 | ug/L | 5000 | ug/L | 101.7 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Lead | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Magnesium | 5170 | ug/L | 5000 | ug/L | 103.3 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Manganese | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Potassium | 5100 | ug/L | 5000 | ug/L | 102 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Silver | 492 | ug/L | 500 | ug/L | 98.4 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Sodium | 10500 | ug/L | 10000 | ug/L | 104.6 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Vanadium | 494 | ug/L | 500 | ug/L | 98.9 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Zinc | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 24-FEB-10 16:32 | 022410-1 |
| | Arsenic | 45.5 | ug/L | 50 | ug/L | 91 | 90.0 – 110.0 | MS | 25-FEB-10 13:28 | 100224-3 |
| | Beryllium | 48.3 | ug/L | 50 | ug/L | 96.7 | 90.0 – 110.0 | MS | 25-FEB-10 13:28 | 100224-3 |
| | Nickel | 49.2 | ug/L | 50 | ug/L | 98.3 | 90.0 – 110.0 | MS | 25-FEB-10 13:28 | 100224-3 |
| | Selenium | 48.3 | ug/L | 50 | ug/L | 96.7 | 90.0 – 110.0 | MS | 25-FEB-10 13:28 | 100224-3 |
| | Thallium | 48.5 | ug/L | 50 | ug/L | 97 | 90.0 – 110.0 | MS | 25-FEB-10 13:28 | 100224-3 |
| | Uranium | 53.7 | ug/L | 50 | ug/L | 107.3 | 90.0 – 110.0 | MS | 26-FEB-10 05:30 | 100225-4 |
| CCV05 | | | | | | | | | | |
| | Aluminum | 4910 | ug/L | 5000 | ug/L | 98.2 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Antimony | 495 | ug/L | 500 | ug/L | 98.9 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Barium | 485 | ug/L | 500 | ug/L | 97 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Cadmium | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Calcium | 5050 | ug/L | 5000 | ug/L | 100.9 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Chromium | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Cobalt | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Copper | 476 | ug/L | 500 | ug/L | 95.3 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Iron | 4890 | ug/L | 5000 | ug/L | 97.7 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Lead | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Magnesium | 4960 | ug/L | 5000 | ug/L | 99.3 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Manganese | 488 | ug/L | 500 | ug/L | 97.6 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Potassium | 4940 | ug/L | 5000 | ug/L | 98.9 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Silver | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Sodium | 9820 | ug/L | 10000 | ug/L | 98.2 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Vanadium | 485 | ug/L | 500 | ug/L | 97 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |
| | Zinc | 480 | ug/L | 500 | ug/L | 96 | 90.0 – 110.0 | P | 24-FEB-10 16:52 | 022410-1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| CCV06 | | | | | | | | | | |
| | Aluminum | 4930 | ug/L | 5000 | ug/L | 98.5 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Antimony | 517 | ug/L | 500 | ug/L | 103.5 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Barium | 510 | ug/L | 500 | ug/L | 102 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Cadmium | 514 | ug/L | 500 | ug/L | 102.8 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Calcium | 5080 | ug/L | 5000 | ug/L | 101.5 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Chromium | 508 | ug/L | 500 | ug/L | 101.5 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Cobalt | 514 | ug/L | 500 | ug/L | 102.9 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Copper | 500 | ug/L | 500 | ug/L | 100 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Iron | 4960 | ug/L | 5000 | ug/L | 99.2 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Lead | 505 | ug/L | 500 | ug/L | 101.1 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Magnesium | 5070 | ug/L | 5000 | ug/L | 101.4 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Manganese | 509 | ug/L | 500 | ug/L | 101.7 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Potassium | 4930 | ug/L | 5000 | ug/L | 98.6 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Silver | 505 | ug/L | 500 | ug/L | 101 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Sodium | 10200 | ug/L | 10000 | ug/L | 102 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Vanadium | 508 | ug/L | 500 | ug/L | 101.7 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| | Zinc | 506 | ug/L | 500 | ug/L | 101.2 | 90.0 – 110.0 | P | 24-FEB-10 18:15 | 022410-1 |
| CCV07 | | | | | | | | | | |
| | Aluminum | 4950 | ug/L | 5000 | ug/L | 99 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Antimony | 505 | ug/L | 500 | ug/L | 100.9 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Barium | 494 | ug/L | 500 | ug/L | 98.7 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Cadmium | 498 | ug/L | 500 | ug/L | 99.6 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Calcium | 5050 | ug/L | 5000 | ug/L | 101.1 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Chromium | 492 | ug/L | 500 | ug/L | 98.3 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Cobalt | 497 | ug/L | 500 | ug/L | 99.4 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Copper | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Iron | 4890 | ug/L | 5000 | ug/L | 97.8 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Lead | 496 | ug/L | 500 | ug/L | 99.2 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Magnesium | 4970 | ug/L | 5000 | ug/L | 99.5 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Manganese | 496 | ug/L | 500 | ug/L | 99.2 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Potassium | 4960 | ug/L | 5000 | ug/L | 99.3 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Silver | 490 | ug/L | 500 | ug/L | 97.9 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Sodium | 9990 | ug/L | 10000 | ug/L | 99.9 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Vanadium | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| | Zinc | 489 | ug/L | 500 | ug/L | 97.9 | 90.0 – 110.0 | P | 24-FEB-10 19:39 | 022410-1 |
| CCV08 | | | | | | | | | | |
| | Aluminum | 5050 | ug/L | 5000 | ug/L | 101.1 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Antimony | 507 | ug/L | 500 | ug/L | 101.5 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Barium | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Cadmium | 497 | ug/L | 500 | ug/L | 99.4 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Calcium | 5110 | ug/L | 5000 | ug/L | 102.2 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Chromium | 491 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Cobalt | 496 | ug/L | 500 | ug/L | 99.2 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Copper | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Iron | 4810 | ug/L | 5000 | ug/L | 96.1 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Lead | 498 | ug/L | 500 | ug/L | 99.7 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Magnesium | 5170 | ug/L | 5000 | ug/L | 103.5 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Manganese | 499 | ug/L | 500 | ug/L | 99.7 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Potassium | 5030 | ug/L | 5000 | ug/L | 100.6 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Silver | 490 | ug/L | 500 | ug/L | 98 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Sodium | 9520 | ug/L | 10000 | ug/L | 95.2 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Vanadium | 493 | ug/L | 500 | ug/L | 98.5 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| | Zinc | 489 | ug/L | 500 | ug/L | 97.8 | 90.0 – 110.0 | P | 24-FEB-10 21:01 | 022410-1 |
| CCV09 | | | | | | | | | | |
| | Aluminum | 5130 | ug/L | 5000 | ug/L | 102.7 | 90.0 – 110.0 | P | 24-FEB-10 22:16 | 022410-1 |
| | Antimony | 499 | ug/L | 500 | ug/L | 99.7 | 90.0 – 110.0 | P | 24-FEB-10 22:16 | 022410-1 |
| | Barium | 488 | ug/L | 500 | ug/L | 97.6 | 90.0 – 110.0 | P | 24-FEB-10 22:16 | 022410-1 |
| | Cadmium | 492 | ug/L | 500 | ug/L | 98.3 | 90.0 – 110.0 | P | 24-FEB-10 22:16 | 022410-1 |
| | Calcium | 5220 | ug/L | 5000 | ug/L | 104.3 | 90.0 – 110.0 | P | 24-FEB-10 22:16 | 022410-1 |
| | Chromium | 485 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 24-FEB-10 22:16 | 022410-1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cobalt | 490 | ug/L | 500 | ug/L | 98 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Copper | 478 | ug/L | 500 | ug/L | 95.6 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Iron | 5050 | ug/L | 5000 | ug/L | 101 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Lead | 489 | ug/L | 500 | ug/L | 97.9 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Magnesium | 5130 | ug/L | 5000 | ug/L | 102.5 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Manganese | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Potassium | 5150 | ug/L | 5000 | ug/L | 103.1 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Silver | 486 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Sodium | 10600 | ug/L | 10000 | ug/L | 105.7 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Vanadium | 487 | ug/L | 500 | ug/L | 97.5 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| | Zinc | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 24–FEB–10 22:16 | 022410–1 |
| CCV10 | | | | | | | | | | |
| | Aluminum | 5040 | ug/L | 5000 | ug/L | 100.8 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Antimony | 503 | ug/L | 500 | ug/L | 100.7 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Barium | 490 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Cadmium | 494 | ug/L | 500 | ug/L | 98.9 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Calcium | 5100 | ug/L | 5000 | ug/L | 102.1 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Chromium | 490 | ug/L | 500 | ug/L | 97.9 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Cobalt | 493 | ug/L | 500 | ug/L | 98.5 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Copper | 481 | ug/L | 500 | ug/L | 96.1 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Iron | 4870 | ug/L | 5000 | ug/L | 97.3 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Lead | 495 | ug/L | 500 | ug/L | 99 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Magnesium | 5030 | ug/L | 5000 | ug/L | 100.6 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Manganese | 496 | ug/L | 500 | ug/L | 99.2 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Potassium | 5000 | ug/L | 5000 | ug/L | 99.9 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Silver | 488 | ug/L | 500 | ug/L | 97.6 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Sodium | 9890 | ug/L | 10000 | ug/L | 98.9 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Vanadium | 492 | ug/L | 500 | ug/L | 98.3 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |
| | Zinc | 486 | ug/L | 500 | ug/L | 97.3 | 90.0 – 110.0 | P | 24–FEB–10 23:34 | 022410–1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| CCV11 | | | | | | | | | | |
| | Aluminum | 5040 | ug/L | 5000 | ug/L | 100.8 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Antimony | 513 | ug/L | 500 | ug/L | 102.5 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Barium | 501 | ug/L | 500 | ug/L | 100.2 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Cadmium | 505 | ug/L | 500 | ug/L | 100.9 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Calcium | 5050 | ug/L | 5000 | ug/L | 101 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Chromium | 501 | ug/L | 500 | ug/L | 100.2 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Cobalt | 503 | ug/L | 500 | ug/L | 100.5 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Copper | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Iron | 4720 | ug/L | 5000 | ug/L | 94.4 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Lead | 689 | ug/L | 500 | ug/L | 137.8 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Magnesium | 4930 | ug/L | 5000 | ug/L | 98.6 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Manganese | 500 | ug/L | 500 | ug/L | 100 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Potassium | 5050 | ug/L | 5000 | ug/L | 100.9 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Silver | 500 | ug/L | 500 | ug/L | 100 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Sodium | 10100 | ug/L | 10000 | ug/L | 101.4 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Vanadium | 502 | ug/L | 500 | ug/L | 100.4 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| | Zinc | 499 | ug/L | 500 | ug/L | 99.8 | 90.0 – 110.0 | P | 25-FEB-10 00:37 | 022410-1 |
| CCV12 | | | | | | | | | | |
| | Aluminum | 5370 | ug/L | 5000 | ug/L | 107.3 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Antimony | 523 | ug/L | 500 | ug/L | 104.6 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Barium | 509 | ug/L | 500 | ug/L | 101.8 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Cadmium | 510 | ug/L | 500 | ug/L | 102.1 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Calcium | 5310 | ug/L | 5000 | ug/L | 106.3 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Chromium | 508 | ug/L | 500 | ug/L | 101.7 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Cobalt | 510 | ug/L | 500 | ug/L | 102 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Copper | 501 | ug/L | 500 | ug/L | 100.3 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Iron | 4910 | ug/L | 5000 | ug/L | 98.2 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Lead | 664 | ug/L | 500 | ug/L | 132.9 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Magnesium | 5230 | ug/L | 5000 | ug/L | 104.5 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |
| | Manganese | 511 | ug/L | 500 | ug/L | 102.2 | 90.0 – 110.0 | P | 25-FEB-10 01:48 | 022410-1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Potassium | 5380 | ug/L | 5000 | ug/L | 107.6 | 90.0 – 110.0 | P | 25–FEB–10 01:48 | 022410–1 |
| | Silver | 508 | ug/L | 500 | ug/L | 101.7 | 90.0 – 110.0 | P | 25–FEB–10 01:48 | 022410–1 |
| | Sodium | 10400 | ug/L | 10000 | ug/L | 103.9 | 90.0 – 110.0 | P | 25–FEB–10 01:48 | 022410–1 |
| | Vanadium | 511 | ug/L | 500 | ug/L | 102.3 | 90.0 – 110.0 | P | 25–FEB–10 01:48 | 022410–1 |
| | Zinc | 504 | ug/L | 500 | ug/L | 100.8 | 90.0 – 110.0 | P | 25–FEB–10 01:48 | 022410–1 |
| CCV13 | | | | | | | | | | |
| | Aluminum | 5130 | ug/L | 5000 | ug/L | 102.6 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Antimony | 520 | ug/L | 500 | ug/L | 104 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Barium | 510 | ug/L | 500 | ug/L | 102 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Cadmium | 512 | ug/L | 500 | ug/L | 102.5 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Calcium | 5070 | ug/L | 5000 | ug/L | 101.4 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Chromium | 509 | ug/L | 500 | ug/L | 101.7 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Cobalt | 513 | ug/L | 500 | ug/L | 102.5 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Copper | 502 | ug/L | 500 | ug/L | 100.4 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Iron | 4650 | ug/L | 5000 | ug/L | 93 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Lead | 532 | ug/L | 500 | ug/L | 106.4 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Magnesium | 4980 | ug/L | 5000 | ug/L | 99.6 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Manganese | 510 | ug/L | 500 | ug/L | 101.9 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Potassium | 5120 | ug/L | 5000 | ug/L | 102.4 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Silver | 509 | ug/L | 500 | ug/L | 101.7 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Sodium | 9720 | ug/L | 10000 | ug/L | 97.2 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Vanadium | 511 | ug/L | 500 | ug/L | 102.3 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| | Zinc | 505 | ug/L | 500 | ug/L | 101.1 | 90.0 – 110.0 | P | 25–FEB–10 03:04 | 022410–1 |
| CCV14 | | | | | | | | | | |
| | Aluminum | 5290 | ug/L | 5000 | ug/L | 105.8 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Antimony | 523 | ug/L | 500 | ug/L | 104.6 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Barium | 513 | ug/L | 500 | ug/L | 102.7 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Cadmium | 517 | ug/L | 500 | ug/L | 103.3 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Calcium | 5330 | ug/L | 5000 | ug/L | 106.6 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Chromium | 512 | ug/L | 500 | ug/L | 102.4 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cobalt | 515 | ug/L | 500 | ug/L | 103.1 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Copper | 504 | ug/L | 500 | ug/L | 100.7 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Iron | 4930 | ug/L | 5000 | ug/L | 98.6 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Lead | 530 | ug/L | 500 | ug/L | 106.1 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Magnesium | 5230 | ug/L | 5000 | ug/L | 104.7 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Manganese | 511 | ug/L | 500 | ug/L | 102.1 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Potassium | 5330 | ug/L | 5000 | ug/L | 106.6 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Silver | 512 | ug/L | 500 | ug/L | 102.3 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Sodium | 10300 | ug/L | 10000 | ug/L | 102.9 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Vanadium | 514 | ug/L | 500 | ug/L | 102.8 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| | Zinc | 508 | ug/L | 500 | ug/L | 101.7 | 90.0 – 110.0 | P | 25–FEB–10 04:23 | 022410–1 |
| CCV15 | | | | | | | | | | |
| | Aluminum | 5350 | ug/L | 5000 | ug/L | 107 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Antimony | 512 | ug/L | 500 | ug/L | 102.5 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Barium | 504 | ug/L | 500 | ug/L | 100.9 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Cadmium | 508 | ug/L | 500 | ug/L | 101.7 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Calcium | 5220 | ug/L | 5000 | ug/L | 104.4 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Chromium | 503 | ug/L | 500 | ug/L | 100.5 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Cobalt | 500 | ug/L | 500 | ug/L | 100 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Copper | 495 | ug/L | 500 | ug/L | 99.1 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Iron | 4760 | ug/L | 5000 | ug/L | 95.1 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Lead | 523 | ug/L | 500 | ug/L | 104.6 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Magnesium | 5060 | ug/L | 5000 | ug/L | 101.3 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Manganese | 506 | ug/L | 500 | ug/L | 101.3 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Potassium | 5350 | ug/L | 5000 | ug/L | 107.1 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Silver | 500 | ug/L | 500 | ug/L | 100.1 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Sodium | 10000 | ug/L | 10000 | ug/L | 100.1 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Vanadium | 504 | ug/L | 500 | ug/L | 100.8 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |
| | Zinc | 499 | ug/L | 500 | ug/L | 99.8 | 90.0 – 110.0 | P | 25–FEB–10 05:34 | 022410–1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| CCV16 | | | | | | | | | | |
| | Aluminum | 5520 | ug/L | 5000 | ug/L | 110.5 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Antimony | 520 | ug/L | 500 | ug/L | 104 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Barium | 510 | ug/L | 500 | ug/L | 101.9 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Cadmium | 515 | ug/L | 500 | ug/L | 102.9 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Calcium | 5410 | ug/L | 5000 | ug/L | 108.1 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Chromium | 510 | ug/L | 500 | ug/L | 102 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Cobalt | 511 | ug/L | 500 | ug/L | 102.3 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Copper | 500 | ug/L | 500 | ug/L | 100 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Iron | 4840 | ug/L | 5000 | ug/L | 96.9 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Lead | 524 | ug/L | 500 | ug/L | 104.7 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Magnesium | 5250 | ug/L | 5000 | ug/L | 105 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Manganese | 515 | ug/L | 500 | ug/L | 103.1 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Potassium | 5520 | ug/L | 5000 | ug/L | 110.3 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Silver | 508 | ug/L | 500 | ug/L | 101.6 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Sodium | 9980 | ug/L | 10000 | ug/L | 99.8 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Vanadium | 511 | ug/L | 500 | ug/L | 102.3 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| | Zinc | 506 | ug/L | 500 | ug/L | 101.2 | 90.0 – 110.0 | P | 25–FEB–10 06:36 | 022410–1 |
| CCV17 | | | | | | | | | | |
| | Aluminum | 5130 | ug/L | 5000 | ug/L | 102.5 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Antimony | 503 | ug/L | 500 | ug/L | 100.6 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Barium | 494 | ug/L | 500 | ug/L | 98.9 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Cadmium | 499 | ug/L | 500 | ug/L | 99.9 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Calcium | 5090 | ug/L | 5000 | ug/L | 101.8 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Chromium | 495 | ug/L | 500 | ug/L | 99 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Cobalt | 496 | ug/L | 500 | ug/L | 99.3 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Copper | 485 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Iron | 4630 | ug/L | 5000 | ug/L | 92.7 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Lead | 508 | ug/L | 500 | ug/L | 101.6 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Magnesium | 4890 | ug/L | 5000 | ug/L | 97.8 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Manganese | 494 | ug/L | 500 | ug/L | 98.8 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Potassium | 5130 | ug/L | 5000 | ug/L | 102.5 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Silver | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Sodium | 9720 | ug/L | 10000 | ug/L | 97.3 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Vanadium | 496 | ug/L | 500 | ug/L | 99.2 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| | Zinc | 492 | ug/L | 500 | ug/L | 98.4 | 90.0 – 110.0 | P | 25–FEB–10 06:55 | 022410–1 |
| CCV18 | | | | | | | | | | |
| | Aluminum | 5270 | ug/L | 5000 | ug/L | 105.3 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Antimony | 489 | ug/L | 500 | ug/L | 97.8 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Barium | 488 | ug/L | 500 | ug/L | 97.5 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Cadmium | 491 | ug/L | 500 | ug/L | 98.2 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Calcium | 5120 | ug/L | 5000 | ug/L | 102.5 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Chromium | 490 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Cobalt | 488 | ug/L | 500 | ug/L | 97.5 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Copper | 482 | ug/L | 500 | ug/L | 96.3 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Iron | 4660 | ug/L | 5000 | ug/L | 93.3 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Lead | 495 | ug/L | 500 | ug/L | 98.9 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Magnesium | 4930 | ug/L | 5000 | ug/L | 98.7 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Manganese | 487 | ug/L | 500 | ug/L | 97.5 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Potassium | 5190 | ug/L | 5000 | ug/L | 103.9 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Silver | 489 | ug/L | 500 | ug/L | 97.8 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Sodium | 10000 | ug/L | 10000 | ug/L | 100.2 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Vanadium | 492 | ug/L | 500 | ug/L | 98.4 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| | Zinc | 486 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 25–FEB–10 07:57 | 022410–1 |
| CCV19 | | | | | | | | | | |
| | Aluminum | 5260 | ug/L | 5000 | ug/L | 105.2 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Antimony | 492 | ug/L | 500 | ug/L | 98.4 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Barium | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Cadmium | 490 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Calcium | 5130 | ug/L | 5000 | ug/L | 102.6 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Chromium | 490 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cobalt | 487 | ug/L | 500 | ug/L | 97.5 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Copper | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Iron | 4700 | ug/L | 5000 | ug/L | 94 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Lead | 495 | ug/L | 500 | ug/L | 99 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Magnesium | 4930 | ug/L | 5000 | ug/L | 98.7 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Manganese | 488 | ug/L | 500 | ug/L | 97.7 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Potassium | 5190 | ug/L | 5000 | ug/L | 103.9 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Silver | 490 | ug/L | 500 | ug/L | 97.9 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Sodium | 10200 | ug/L | 10000 | ug/L | 102.1 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Vanadium | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| | Zinc | 485 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 25–FEB–10 09:01 | 022410–1 |
| CCV20 | | | | | | | | | | |
| | Aluminum | 5200 | ug/L | 5000 | ug/L | 103.9 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Antimony | 490 | ug/L | 500 | ug/L | 98 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Barium | 480 | ug/L | 500 | ug/L | 96 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Cadmium | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Calcium | 5130 | ug/L | 5000 | ug/L | 102.6 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Chromium | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Cobalt | 480 | ug/L | 500 | ug/L | 96.1 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Copper | 475 | ug/L | 500 | ug/L | 95 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Iron | 4660 | ug/L | 5000 | ug/L | 93.3 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Lead | 491 | ug/L | 500 | ug/L | 98.2 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Magnesium | 4840 | ug/L | 5000 | ug/L | 96.8 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Manganese | 488 | ug/L | 500 | ug/L | 97.5 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Potassium | 5150 | ug/L | 5000 | ug/L | 102.9 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Silver | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Sodium | 10200 | ug/L | 10000 | ug/L | 102 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Vanadium | 486 | ug/L | 500 | ug/L | 97.2 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |
| | Zinc | 477 | ug/L | 500 | ug/L | 95.5 | 90.0 – 110.0 | P | 25–FEB–10 10:05 | 022410–1 |

# METALS
## –2b–
## CRDL Standard for AA & ICP

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**AA CRDL Standard Source:** SPEX

**ICP CRDL Standard Source** Solutions Plus

**Instrument ID:** ICPMS6,MER536,OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Advisory Limits (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| CRDL01 | | | | | | | | | | |
| | Mercury | .218 | ug/L | .2 | ug/L | 109 | 70.0 – 130.0 | AV | 18–FEB–10 10:01 | 021810S1–6 |
| | Nickel | 2.35 | ug/L | 2 | ug/L | 117.3 | 70.0 – 130.0 | MS | 25–FEB–10 10:31 | 100224–3 |
| | Thallium | 1.1 | ug/L | 1 | ug/L | 110.2 | 70.0 – 130.0 | MS | 25–FEB–10 10:31 | 100224–3 |
| | Beryllium | .511 | ug/L | .5 | ug/L | 102.2 | 70.0 – 130.0 | MS | 25–FEB–10 10:31 | 100224–3 |
| | Selenium | 5.67 | ug/L | 5 | ug/L | 113.3 | 70.0 – 130.0 | MS | 25–FEB–10 10:31 | 100224–3 |
| | Arsenic | 5.44 | ug/L | 5 | ug/L | 108.7 | 70.0 – 130.0 | MS | 25–FEB–10 10:31 | 100224–3 |
| | Uranium | .253 | ug/L | .2 | ug/L | 126.5 | 70.0 – 130.0 | MS | 26–FEB–10 03:58 | 100225–4 |
| | Uranium | .267 | ug/L | .2 | ug/L | 133.5 | 70.0 – 130.0 | MS | 28–FEB–10 03:14 | 100227–5 |
| PQL01 | | | | | | | | | | |
| | Aluminum | 204 | ug/L | 200 | ug/L | 102.1 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Iron | 103 | ug/L | 100 | ug/L | 103.2 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Lead | 11.1 | ug/L | 10 | ug/L | 110.5 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Magnesium | 253 | ug/L | 300 | ug/L | 84.5 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Manganese | 10.4 | ug/L | 10 | ug/L | 104.3 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Potassium | 162 | ug/L | 150 | ug/L | 107.9 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Silver | 4.97 | ug/L | 5 | ug/L | 99.4 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Sodium | 317 | ug/L | 300 | ug/L | 105.8 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Antimony | 11.4 | ug/L | 10 | ug/L | 114.3 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Barium | 5.11 | ug/L | 5 | ug/L | 102.3 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Cadmium | 5.3 | ug/L | 5 | ug/L | 106 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Chromium | 4.81 | ug/L | 5 | ug/L | 96.3 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Cobalt | 5.02 | ug/L | 5 | ug/L | 100.4 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Copper | 9.61 | ug/L | 10 | ug/L | 96.1 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Vanadium | 5.28 | ug/L | 5 | ug/L | 105.6 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Zinc | 9.96 | ug/L | 10 | ug/L | 99.6 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Calcium | 209 | ug/L | 200 | ug/L | 104.4 | 70.0 – 130.0 | P | 24–FEB–10 13:28 | 022410–1 |
| | Lead | 10.8 | ug/L | 10 | ug/L | 107.7 | 70.0 – 130.0 | P | 01–MAR–10 12:18 | 030110A–2 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| **ICB01** | | | | | | | | | | |
| | Mercury | –0.129 | +/–.2 | J | 0.068 | 0.2 | SOL | AV | 18–FEB–10 09:59 | 021810S1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 13:21 | 022410–1 |
| | Arsenic | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | MS | 25–FEB–10 10:25 | 100224–3 |
| | Beryllium | 0.1 | +/–.5 | U | 0.1 | 0.5 | SOL | MS | 25–FEB–10 10:25 | 100224–3 |
| | Nickel | 0.5 | +/–2 | U | 0.5 | 2.0 | SOL | MS | 25–FEB–10 10:25 | 100224–3 |
| | Selenium | 2.5 | +/–5 | U | 2.5 | 5.0 | SOL | MS | 25–FEB–10 10:25 | 100224–3 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | SOL | MS | 25–FEB–10 10:25 | 100224–3 |
| | Uranium | 0.066 | +/–.2 | U | 0.066 | 0.2 | SOL | MS | 26–FEB–10 03:55 | 100225–4 |
| | Uranium | 0.066 | +/–.2 | U | 0.066 | 0.2 | SOL | MS | 28–FEB–10 03:11 | 100227–5 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 01–MAR–10 12:11 | 030110A–2 |
| **CCB01** | | | | | | | | | | |
| | Mercury | 0.068 | +/–.2 | U | 0.068 | 0.2 | SOL | AV | 18–FEB–10 10:05 | 021810S1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Antimony | 7.02 | +/–10 | J | 3.3 | 10.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Lead | 5.55 | +/–10 | J | 2.5 | 10.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Potassium | 110.64 | +/–250 | J | 64.0 | 250 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 14:09 | 022410–1 |
| | Arsenic | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | MS | 25–FEB–10 10:55 | 100224–3 |
| | Beryllium | 0.1 | +/–.5 | U | 0.1 | 0.5 | SOL | MS | 25–FEB–10 10:55 | 100224–3 |
| | Nickel | 0.5 | +/–2 | U | 0.5 | 2.0 | SOL | MS | 25–FEB–10 10:55 | 100224–3 |
| | Selenium | 2.5 | +/–5 | U | 2.5 | 5.0 | SOL | MS | 25–FEB–10 10:55 | 100224–3 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | SOL | MS | 25–FEB–10 10:55 | 100224–3 |
| | Uranium | 0.066 | +/–.2 | U | 0.066 | 0.2 | SOL | MS | 26–FEB–10 04:11 | 100225–4 |
| | Uranium | 0.066 | +/–.2 | U | 0.066 | 0.2 | SOL | MS | 28–FEB–10 03:26 | 100227–5 |
| | Lead | 6.08 | +/–10 | J | 2.5 | 10.0 | SOL | P | 01–MAR–10 12:58 | 030110A–2 |
| **CCB02** | | | | | | | | | | |
| | Mercury | 0.068 | +/–.2 | U | 0.068 | 0.2 | SOL | AV | 18–FEB–10 10:29 | 021810S1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |

# Metals
## –3a–
## Initial and Continuing Calibration Blank Summary

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 14:46 | 022410–1 |
| | Arsenic | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | MS | 25–FEB–10 11:18 | 100224–3 |
| | Beryllium | 0.1 | +/–.5 | U | 0.1 | 0.5 | SOL | MS | 25–FEB–10 11:18 | 100224–3 |
| | Nickel | 0.5 | +/–2 | U | 0.5 | 2.0 | SOL | MS | 25–FEB–10 11:18 | 100224–3 |
| | Selenium | 2.5 | +/–5 | U | 2.5 | 5.0 | SOL | MS | 25–FEB–10 11:18 | 100224–3 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | SOL | MS | 25–FEB–10 11:18 | 100224–3 |
| | Uranium | 0.066 | +/–.2 | U | 0.066 | 0.2 | SOL | MS | 26–FEB–10 04:41 | 100225–4 |
| | Uranium | 0.066 | +/–.2 | U | 0.066 | 0.2 | SOL | MS | 28–FEB–10 03:35 | 100227–5 |
| | Lead | 2.54 | +/–10 | J | 2.5 | 10.0 | SOL | P | 01–MAR–10 13:19 | 030110A–2 |
| **CCB03** | | | | | | | | | | |
| | Mercury | –0.08 | +/–.2 | J | 0.068 | 0.2 | SOL | AV | 18–FEB–10 10:53 | 021810S1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 24–FEB–10 16:10 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 16:10 | 022410–1 |
| | Arsenic | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | MS | 25–FEB–10 12:17 | 100224–3 |
| | Beryllium | 0.1 | +/–.5 | U | 0.1 | 0.5 | SOL | MS | 25–FEB–10 12:17 | 100224–3 |
| | Nickel | 0.5 | +/–2 | U | 0.5 | 2.0 | SOL | MS | 25–FEB–10 12:17 | 100224–3 |
| | Selenium | 2.5 | +/–5 | U | 2.5 | 5.0 | SOL | MS | 25–FEB–10 12:17 | 100224–3 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | SOL | MS | 25–FEB–10 12:17 | 100224–3 |
| | Uranium | 0.066 | +/–.2 | U | 0.066 | 0.2 | SOL | MS | 26–FEB–10 05:12 | 100225–4 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 01–MAR–10 14:27 | 030110A–2 |
| **CCB04** | | | | | | | | | | |
| | Mercury | –0.106 | +/–.2 | J | 0.068 | 0.2 | SOL | AV | 18–FEB–10 11:17 | 021810S1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 16:39 | 022410–1 |
| | Arsenic | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | MS | 25–FEB–10 13:34 | 100224–3 |
| | Beryllium | 0.1 | +/–.5 | U | 0.1 | 0.5 | SOL | MS | 25–FEB–10 13:34 | 100224–3 |
| | Nickel | 0.5 | +/–2 | U | 0.5 | 2.0 | SOL | MS | 25–FEB–10 13:34 | 100224–3 |
| | Selenium | 2.5 | +/–5 | U | 2.5 | 5.0 | SOL | MS | 25–FEB–10 13:34 | 100224–3 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | SOL | MS | 25–FEB–10 13:34 | 100224–3 |
| | Uranium | 0.066 | +/–.2 | U | 0.066 | 0.2 | SOL | MS | 26–FEB–10 05:33 | 100225–4 |
| **CCB05** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Magnesium | –136.6 | +/–300 | J | 85.0 | 300 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 17:00 | 022410–1 |
| **CCB06** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 18:22 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 18:22 | 022410–1 |
| **CCB07** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Magnesium | –85.33 | +/–300 | J | 85.0 | 300 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 19:46 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| **CCB08** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Magnesium | –134.18 | +/–300 | J | 85.0 | 300 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 21:08 | 022410–1 |
| **CCB09** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 22:23 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 22:23 | 022410–1 |
| CCB10 | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Lead | 2.5 | +/–10 | U | 2.5 | 10.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 24–FEB–10 23:41 | 022410–1 |
| CCB11 | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Lead | 173.02 | +/–10 | | 2.5 | 10.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 00:44 | 022410–1 |
| **CCB12** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Antimony | 3.34 | +/–10 | J | 3.3 | 10.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Lead | 107.38 | +/–10 | | 2.5 | 10.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 01:55 | 022410–1 |
| **CCB13** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Lead | 23.1 | +/–10 | | 2.5 | 10.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Potassium | 71.68 | +/–250 | J | 64.0 | 250 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 03:12 | 022410–1 |
| **CCB14** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Lead | 14.05 | +/–10 | | 2.5 | 10.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Potassium | 79.34 | +/–250 | J | 64.0 | 250 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 04:30 | 022410–1 |
| CCB15 | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Lead | 10.39 | +/–10 | | 2.5 | 10.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Magnesium | –88.87 | +/–300 | J | 85.0 | 300 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Potassium | 92.62 | +/–250 | J | 64.0 | 250 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 05:41 | 022410–1 |
| CCB16 | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Lead | 8.23 | +/–10 | J | 2.5 | 10.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Magnesium | –110.03 | +/–300 | J | 85.0 | 300 | SOL | P | 25–FEB–10 06:43 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Potassium | 86.72 | +/–250 | J | 64.0 | 250 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 06:43 | 022410–1 |
| CCB17 | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Lead | 8.31 | +/–10 | J | 2.5 | 10.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Potassium | 92.57 | +/–250 | J | 64.0 | 250 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 07:02 | 022410–1 |
| CCB18 | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Lead | 5.22 | +/–10 | J | 2.5 | 10.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Potassium | 72.49 | +/–250 | J | 64.0 | 250 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 08:04 | 022410–1 |
| **CCB19** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Antimony | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Cadmium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Calcium | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Chromium | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Cobalt | 1.5 | +/–5 | U | 1.5 | 5.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Iron | 80.0 | +/–250 | U | 80.0 | 250 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Lead | 6.02 | +/–10 | J | 2.5 | 10.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Manganese | 2.0 | +/–10 | U | 2.0 | 10.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Potassium | 64.0 | +/–250 | U | 64.0 | 250 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Sodium | 70.0 | +/–250 | U | 70.0 | 250 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | SOL | P | 25–FEB–10 09:08 | 022410–1 |
| **CCB20** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | SOL | P | 25–FEB–10 10:12 | 022410–1 |

**Metals**
**-3a-**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10-1512

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Antimony | 3.3 | +/-10 | U | 3.3 | 10.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Barium | 1.0 | +/-5 | U | 1.0 | 5.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Cadmium | 1.0 | +/-5 | U | 1.0 | 5.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Calcium | 80.0 | +/-250 | U | 80.0 | 250 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Chromium | 1.5 | +/-5 | U | 1.5 | 5.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Cobalt | 1.5 | +/-5 | U | 1.5 | 5.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Copper | 3.0 | +/-10 | U | 3.0 | 10.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Iron | 80.0 | +/-250 | U | 80.0 | 250 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Lead | 5.68 | +/-10 | J | 2.5 | 10.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Magnesium | -103.57 | +/-300 | J | 85.0 | 300 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Manganese | 2.0 | +/-10 | U | 2.0 | 10.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Potassium | 64.0 | +/-250 | U | 64.0 | 250 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Silver | 1.0 | +/-5 | U | 1.0 | 5.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Sodium | 70.0 | +/-250 | U | 70.0 | 250 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Vanadium | 1.0 | +/-5 | U | 1.0 | 5.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |
| | Zinc | 3.3 | +/-10 | U | 3.3 | 10.0 | SOL | P | 25-FEB-10 10:12 | 022410-1 |

# METALS
## –3b–
## PREPARATION BLANK SUMMARY

**SDG NO.** 10–1512

**Contract:** LANL01004

**Matrix:** SOIL

| Sample ID | Analyte | Result | Units | Acceptance Window | Conc Qual | M | MDL | RDL |
|---|---|---|---|---|---|---|---|---|
| 1202032590 | | | | | | | | |
| | Aluminum | 6020 | ug/Kg | +/–17700 | U | P | 6020 | 17700 |
| | Antimony | 292 | ug/Kg | +/–885 | U | P | 292 | 885 |
| | Barium | 88.5 | ug/Kg | +/–442 | U | P | 88.5 | 442 |
| | Cadmium | 88.5 | ug/Kg | +/–442 | U | P | 88.5 | 442 |
| | Calcium | 7080 | ug/Kg | +/–22100 | U | P | 7080 | 22100 |
| | Chromium | 133 | ug/Kg | +/–442 | U | P | 133 | 442 |
| | Silver | 88.5 | ug/Kg | +/–442 | U | P | 88.5 | 442 |
| | Sodium | 6190 | ug/Kg | +/–22100 | U | P | 6190 | 22100 |
| | Vanadium | 88.5 | ug/Kg | +/–442 | U | P | 88.5 | 442 |
| | Potassium | 6320 | ug/Kg | +/–22100 | J | P | 5660 | 22100 |
| | Manganese | 177 | ug/Kg | +/–885 | U | P | 177 | 885 |
| | Magnesium | –13400 | ug/Kg | +/–26500 | J | P | 7520 | 26500 |
| | Lead | 422 | ug/Kg | +/–885 | J | P | 221 | 885 |
| | Iron | 7080 | ug/Kg | +/–22100 | U | P | 7080 | 22100 |
| | Copper | 265 | ug/Kg | +/–885 | U | P | 265 | 885 |
| | Cobalt | 133 | ug/Kg | +/–442 | U | P | 133 | 442 |
| | Zinc | 318 | ug/Kg | +/–885 | J | P | 292 | 885 |
| 1202032600 | | | | | | | | |
| | Arsenic | 0.187 | mg/kg | +/–0.933 | U | MS | 0.187 | 0.933 |
| | Beryllium | 0.0187 | mg/kg | +/–0.0933 | U | MS | 0.0187 | 0.0933 |
| | Nickel | 0.0933 | mg/kg | +/–0.373 | U | MS | 0.0933 | 0.373 |
| | Selenium | 0.466 | mg/kg | +/–0.933 | U | MS | 0.466 | 0.933 |
| | Thallium | 0.056 | mg/kg | +/–0.187 | U | MS | 0.056 | 0.187 |
| | Uranium | 0.0123 | mg/kg | +/–0.0373 | U | MS | 0.0123 | 0.0373 |
| 1202037115 | | | | | | | | |
| | Mercury | –4.4 | ug/kg | +/–10.9 | J | AV | 3.72 | 10.9 |

# METALS
## -4-
## Interference Check Sample

**SDG No:** 10-1512

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Aluminum | 520000 | ug/L | 500000 | ug/L | 104 | 80.0 - 120.0 | 24-FEB-10 13:35 | 022410-1 |
| | Antimony | -5.41 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Barium | 1.08 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Cadmium | -1.24 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Calcium | 487000 | ug/L | 500000 | ug/L | 97.5 | 80.0 - 120.0 | 24-FEB-10 13:35 | 022410-1 |
| | Chromium | 3.41 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Cobalt | -1.42 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Copper | 3.17 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Iron | 190000 | ug/L | 200000 | ug/L | 95.1 | 80.0 - 120.0 | 24-FEB-10 13:35 | 022410-1 |
| | Lead | -9.68 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Magnesium | 501000 | ug/L | 500000 | ug/L | 100 | 80.0 - 120.0 | 24-FEB-10 13:35 | 022410-1 |
| | Manganese | -0.422 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Potassium | -180.0 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Silver | -1.2 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Sodium | 64.0 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Vanadium | -0.642 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| | Zinc | -2.44 | ug/L | | | | | 24-FEB-10 13:35 | 022410-1 |
| **ICSAB01** | | | | | | | | | |
| | Aluminum | 518000 | ug/L | 500000 | ug/L | 104 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Antimony | 536 | ug/L | 500 | ug/L | 107 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Barium | 485 | ug/L | 500 | ug/L | 97 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Cadmium | 447 | ug/L | 500 | ug/L | 89.4 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Calcium | 483000 | ug/L | 500000 | ug/L | 96.7 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Chromium | 475 | ug/L | 500 | ug/L | 95.1 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Cobalt | 428 | ug/L | 500 | ug/L | 85.6 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Copper | 538 | ug/L | 500 | ug/L | 108 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Iron | 187000 | ug/L | 200000 | ug/L | 93.5 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Lead | 445 | ug/L | 500 | ug/L | 89.1 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |
| | Magnesium | 493000 | ug/L | 500000 | ug/L | 98.7 | 80.0 - 120.0 | 24-FEB-10 13:41 | 022410-1 |

# METALS
## –4–
## Interference Check Sample

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:**

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| | Manganese | 472 | ug/L | 500 | ug/L | 94.5 | 80.0 – 120.0 | 24–FEB–10 13:41 | 022410–1 |
| | Potassium | 5440 | ug/L | 5000 | ug/L | 109 | 80.0 – 120.0 | 24–FEB–10 13:41 | 022410–1 |
| | Silver | 266 | ug/L | 250 | ug/L | 107 | 80.0 – 120.0 | 24–FEB–10 13:41 | 022410–1 |
| | Sodium | 5520 | ug/L | 5000 | ug/L | 110 | 80.0 – 120.0 | 24–FEB–10 13:41 | 022410–1 |
| | Vanadium | 499 | ug/L | 500 | ug/L | 99.9 | 80.0 – 120.0 | 24–FEB–10 13:41 | 022410–1 |
| | Zinc | 479 | ug/L | 500 | ug/L | 95.9 | 80.0 – 120.0 | 24–FEB–10 13:41 | 022410–1 |

# METALS
## -4-
## Interference Check Sample

**SDG No:** 10-1512

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** OPTIMA3

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Lead | 9.4 | ug/L | | | | | 01-MAR-10 12:25 | 030110A-2 |
| **ICSAB01** | | | | | | | | | |
| | Lead | 485 | ug/L | 500 | ug/L | 97.1 | 80.0 - 120.0 | 01-MAR-10 12:31 | 030110A-2 |

# METALS
## –4–
## Interference Check Sample

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** ICPMS6

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Arsenic | –0.183 | ug/L | | | | | 25–FEB–10 10:37 | 100224–3 |
| | Beryllium | 0.094 | ug/L | | | | | 25–FEB–10 10:37 | 100224–3 |
| | Nickel | 4.18 | ug/L | | | | | 25–FEB–10 10:37 | 100224–3 |
| | Selenium | –2.27 | ug/L | | | | | 25–FEB–10 10:37 | 100224–3 |
| | Thallium | 0.003 | ug/L | | | | | 25–FEB–10 10:37 | 100224–3 |
| **ICSAB01** | | | | | | | | | |
| | Arsenic | 21.0 | ug/L | 20 | ug/L | 105 | 80.0 – 120.0 | 25–FEB–10 10:43 | 100224–3 |
| | Beryllium | 19.0 | ug/L | 20 | ug/L | 95.1 | 80.0 – 120.0 | 25–FEB–10 10:43 | 100224–3 |
| | Nickel | 22.8 | ug/L | 23.31 | ug/L | 98 | 80.0 – 120.0 | 25–FEB–10 10:43 | 100224–3 |
| | Selenium | 18.8 | ug/L | 20 | ug/L | 93.9 | 80.0 – 120.0 | 25–FEB–10 10:43 | 100224–3 |
| | Thallium | 19.2 | ug/L | 20 | ug/L | 96.1 | 80.0 – 120.0 | 25–FEB–10 10:43 | 100224–3 |

# METALS
## –4–
## Interference Check Sample

**SDG No:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** ICPMS6

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Uranium | –0.003 | ug/L | | | | | 26–FEB–10 04:01 | 100225–4 |
| **ICSAB01** | | | | | | | | | |
| | Uranium | 23.2 | ug/L | 20 | ug/L | 116 | 80.0 – 120.0 | 26–FEB–10 04:05 | 100225–4 |

# METALS
## -4-
## Interference Check Sample

**SDG No:** 10-1512

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** ICPMS6

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Uranium | -0.002 | ug/L | | | | | 28-FEB-10 03:17 | 100227-5 |
| **ICSAB01** | | | | | | | | | |
| | Uranium | 22.4 | ug/L | 20 | ug/L | 112 | 80.0 - 120.0 | 28-FEB-10 03:20 | 100227-5 |

**METALS**
**–5a–**

**Matrix Spike Summary**

**SDG NO.** 10–1512 **Client ID** RE15–10–7880S

**Contract:** LANL01004 **Level:** Low

**Matrix:** SOIL **% Solids:** 92.5

**Sample ID:** 245969001 **Spike ID:** 1202032593

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ug/Kg | 75–125 | 2870000 | | 1640000 | | 507000 | 243 | N | P |
| Antimony | ug/Kg | 75–125 | 47100 | | 352 | U | 50700 | 92.8 | | P |
| Barium | ug/Kg | 75–125 | 67100 | | 19600 | | 50700 | 93.7 | | P |
| Cadmium | ug/Kg | 75–125 | 48400 | | 107 | U | 50700 | 95.4 | | P |
| Calcium | ug/Kg | 75–125 | 927000 | | 308000 | | 507000 | 122 | | P |
| Chromium | ug/Kg | 75–125 | 54000 | | 8570 | | 50700 | 89.5 | | P |
| Cobalt | ug/Kg | 75–125 | 50400 | | 4770 | | 50700 | 90.1 | | P |
| Copper | ug/Kg | 75–125 | 54000 | | 3660 | | 50700 | 99.3 | | P |
| Iron | ug/Kg | | 7400000 | | 8040000 | | 507000 | –125 | N/A | P |
| Lead | ug/Kg | 75–125 | 62800 | | 34400 | | 50700 | 55.9 | N | P |
| Magnesium | ug/Kg | 75–125 | 730000 | | 136000 | | 507000 | 117 | | P |
| Manganese | ug/Kg | | 255000 | | 221000 | | 50700 | 65.9 | N/A | P |
| Potassium | ug/Kg | 75–125 | 1390000 | | 616000 | | 507000 | 154 | N | P |
| Silver | ug/Kg | 75–125 | 48700 | | 107 | U | 50700 | 95.9 | | P |
| Sodium | ug/Kg | 75–125 | 1140000 | | 423000 | | 507000 | 142 | N | P |
| Vanadium | ug/Kg | 75–125 | 49900 | | 2080 | | 50700 | 94.3 | | P |
| Zinc | ug/Kg | 75–125 | 70600 | | 23000 | | 50700 | 93.9 | | P |

**METALS**
**–5a–**

**Matrix Spike Duplicate Summary**

**SDG NO.** 10–1512 **Client ID** RE15–10–7880SD

**Contract:** LANL01004 **Level:** Low

**Matrix:** SOIL **% Solids:** 92.5

**Sample ID:** 245969001 **Spike ID:** 1202032594

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ug/Kg | 75–125 | 2820000 | | 1640000 | | 513000 | 231 | N | P |
| Antimony | ug/Kg | 75–125 | 47200 | | 352 | U | 51300 | 92 | | P |
| Barium | ug/Kg | 75–125 | 65800 | | 19600 | | 51300 | 90.2 | | P |
| Cadmium | ug/Kg | 75–125 | 47500 | | 107 | U | 51300 | 92.7 | | P |
| Calcium | ug/Kg | 75–125 | 935000 | | 308000 | | 513000 | 122 | | P |
| Chromium | ug/Kg | 75–125 | 53600 | | 8570 | | 51300 | 87.8 | | P |
| Cobalt | ug/Kg | 75–125 | 50100 | | 4770 | | 51300 | 88.4 | | P |
| Copper | ug/Kg | 75–125 | 55800 | | 3660 | | 51300 | 102 | | P |
| Iron | ug/Kg | | 6870000 | | 8040000 | | 513000 | –228 | N/A | P |
| Lead | ug/Kg | 75–125 | 67500 | | 34400 | | 51300 | 64.5 | N | P |
| Magnesium | ug/Kg | 75–125 | 746000 | | 136000 | | 513000 | 119 | | P |
| Manganese | ug/Kg | | 271000 | | 221000 | | 51300 | 95.9 | N/A | P |
| Potassium | ug/Kg | 75–125 | 1350000 | | 616000 | | 513000 | 143 | N | P |
| Silver | ug/Kg | 75–125 | 49100 | | 107 | U | 51300 | 95.6 | | P |
| Sodium | ug/Kg | 75–125 | 1150000 | | 423000 | | 513000 | 142 | N | P |
| Vanadium | ug/Kg | 75–125 | 50400 | | 2080 | | 51300 | 94.3 | | P |
| Zinc | ug/Kg | 75–125 | 72500 | | 23000 | | 51300 | 96.5 | | P |

**METALS**
**–5a–**

**Matrix Spike Summary**

**SDG NO.** 10–1512 **Client ID** RE15–10–7880S

**Contract:** LANL01004 **Level:** Low

**Matrix:** SOIL **% Solids:** 92.5

**Sample ID:** 245969001 **Spike ID:** 1202032603

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | mg/kg | 75–125 | 5.29 | | 0.235 | | 5.21 | 97 | | MS |
| Nickel | mg/kg | 75–125 | 8.65 | | 3.04 | | 5.21 | 108 | | MS |
| Selenium | mg/kg | 75–125 | 2.14 | | 0.518 | U | 2.08 | 95.5 | | MS |
| Thallium | mg/kg | 75–125 | 9.34 | | 0.0621 | U | 10.4 | 89.4 | | MS |
| Uranium | mg/kg | 75–125 | 1380 | | 0.606 | | 5.21 | 26400 | N | MS |
| Arsenic | mg/kg | 75–125 | 8.77 | | 0.915 | J | 8.33 | 94.3 | | MS |

# METALS
## –5a–
## Matrix Spike Duplicate Summary

**SDG NO.** 10–1512 **Client ID** RE15–10–7880SD

**Contract:** LANL01004 **Level:** Low

**Matrix:** SOIL **% Solids:** 92.5

**Sample ID:** 245969001 **Spike ID:** 1202032604

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | mg/kg | 75–125 | 4.96 | | 0.235 | | 5.11 | 92.5 | | MS |
| Nickel | mg/kg | 75–125 | 8.3 | | 3.04 | | 5.11 | 103 | | MS |
| Selenium | mg/kg | 75–125 | 2.01 | | 0.518 | U | 2.04 | 91.3 | | MS |
| Thallium | mg/kg | 75–125 | 8.84 | | 0.0621 | U | 10.2 | 86.2 | | MS |
| Uranium | mg/kg | 75–125 | 6.46 | | 0.606 | | 5.11 | 115 | | MS |
| Arsenic | mg/kg | 75–125 | 8.46 | | 0.915 | J | 8.17 | 92.3 | | MS |

# METALS
## –5a–
## Matrix Spike Summary

**SDG NO.** 10–1512 **Client ID** RE15–10–7880S

**Contract:** LANL01004 **Level:** Low

**Matrix:** SOIL **% Solids:** 92.5

**Sample ID:** 245969001 **Spike ID:** 1202037118

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/kg | 75–125 | 136 | | 14.4 | | 122 | 99.4 | | AV |

# METALS
## –5a–
## Matrix Spike Duplicate Summary

**SDG NO.** 10–1512 **Client ID** RE15–10–7880SD

**Contract:** LANL01004 **Level:** Low

**Matrix:** SOIL **% Solids:** 92.5

**Sample ID:** 245969001 **Spike ID:** 1202037120

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/kg | 75–125 | 130 | | 14.4 | | 112 | 103 | | AV |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** SOLID **Level:** Low **Client ID:** RE15–10–7880D

**Sample ID:** 245969001 **Duplicate ID:** 1202032591 **Percent Solids for Dup:** 92.5

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ug/Kg | +/–20% | 1640000 | | 1520000 | | 7.26 | | P |
| Antimony | ug/Kg | | 352 | U | 354 | U | | | P |
| Barium | ug/Kg | +/–20% | 19600 | | 18000 | | 8.18 | | P |
| Cadmium | ug/Kg | | 107 | U | 107 | U | | | P |
| Calcium | ug/Kg | +/–20% | 308000 | | 291000 | | 5.94 | | P |
| Chromium | ug/Kg | +/–20% | 8570 | | 5270 | | 47.8 | * | P |
| Cobalt | ug/Kg | +/–20% | 4770 | | 8490 | | 56.1 | * | P |
| Copper | ug/Kg | +/–1070 | 3660 | | 2900 | | 23.4 | | P |
| Iron | ug/Kg | +/–20% | 8040000 | | 7410000 | | 8.16 | | P |
| Lead | ug/Kg | +/–20% | 34400 | | 35300 | | 2.44 | | P |
| Magnesium | ug/Kg | +/–32200 | 136000 | | 136000 | | .396 | | P |
| Manganese | ug/Kg | +/–20% | 221000 | | 239000 | | 7.7 | | P |
| Potassium | ug/Kg | +/–20% | 616000 | | 593000 | | 3.69 | | P |
| Silver | ug/Kg | | 107 | U | 107 | U | | | P |
| Sodium | ug/Kg | +/–20% | 423000 | | 399000 | | 5.73 | | P |
| Vanadium | ug/Kg | +/–536 | 2080 | | 2060 | | .931 | | P |
| Zinc | ug/Kg | +/–20% | 23000 | | 23000 | | .105 | | P |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** SOLID **Level:** Low **Client ID:** RE15–10–7880SD

**Sample ID:** 1202032593 **Duplicate ID:** 1202032594 **Percent Solids for Dup:** 92.5

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ug/Kg | +/–20 | 2870000 | | 2820000 | | 1.58 | | P |
| Antimony | ug/Kg | +/–20 | 47100 | | 47200 | | .239 | | P |
| Barium | ug/Kg | +/–20 | 67100 | | 65800 | | 1.88 | | P |
| Cadmium | ug/Kg | +/–20 | 48400 | | 47500 | | 1.71 | | P |
| Calcium | ug/Kg | +/–20 | 927000 | | 935000 | | .829 | | P |
| Chromium | ug/Kg | +/–20 | 54000 | | 53600 | | .694 | | P |
| Cobalt | ug/Kg | +/–20 | 50400 | | 50100 | | .71 | | P |
| Copper | ug/Kg | +/–20 | 54000 | | 55800 | | 3.21 | | P |
| Iron | ug/Kg | +/–20 | 7400000 | | 6870000 | | 7.47 | | P |
| Lead | ug/Kg | +/–20 | 62800 | | 67500 | | 7.24 | | P |
| Magnesium | ug/Kg | +/–20 | 730000 | | 746000 | | 2.18 | | P |
| Manganese | ug/Kg | +/–20 | 255000 | | 271000 | | 6 | | P |
| Potassium | ug/Kg | +/–20 | 1390000 | | 1350000 | | 3.15 | | P |
| Silver | ug/Kg | +/–20 | 48700 | | 49100 | | .805 | | P |
| Sodium | ug/Kg | +/–20 | 1140000 | | 1150000 | | .794 | | P |
| Vanadium | ug/Kg | +/–20 | 49900 | | 50400 | | 1.08 | | P |
| Zinc | ug/Kg | +/–20 | 70600 | | 72500 | | 2.63 | | P |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** SOLID **Level:** Low **Client ID:** RE15–10–7880D

**Sample ID:** 245969001 **Duplicate ID:** 1202032601 **Percent Solids for Dup:** 92.5

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | mg/kg | +/–1.06 | 0.915 | J | 0.991 | J | 7.95 | | MS |
| Beryllium | mg/kg | +/–.106 | 0.235 | | 0.224 | | 4.9 | | MS |
| Nickel | mg/kg | +/–20% | 3.04 | | 3.17 | | 4.36 | | MS |
| Selenium | mg/kg | | 0.518 | U | 0.528 | U | | | MS |
| Thallium | mg/kg | | 0.0621 | U | 0.0633 | U | | | MS |
| Uranium | mg/kg | +/–20% | 0.606 | | 0.791 | | 26.6 | * | MS |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** SOLID **Level:** Low **Client ID:** RE15–10–7880SD

**Sample ID:** 1202032603 **Duplicate ID:** 1202032604 **Percent Solids for Dup:** 92.5

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | mg/kg | +/–20 | 8.77 | | 8.46 | | 3.61 | | MS |
| Beryllium | mg/kg | +/–20 | 5.29 | | 4.96 | | 6.4 | | MS |
| Nickel | mg/kg | +/–20 | 8.65 | | 8.3 | | 4.14 | | MS |
| Selenium | mg/kg | +/–20 | 2.14 | | 2.01 | | 6.02 | | MS |
| Thallium | mg/kg | +/–20 | 9.34 | | 8.84 | | 5.49 | | MS |
| Uranium | mg/kg | +/–20 | 1380 | | 6.46 | | 198 | * | MS |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** SOLID **Level:** Low **Client ID:** RE15–10–7880D

**Sample ID:** 245969001 **Duplicate ID:** 1202037117 **Percent Solids for Dup:** 92.5

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/kg | +/–13 | 14.4 | | 10.8 | J | 28.4 | | AV |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** SOLID **Level:** Low **Client ID:** RE15–10–7880SD

**Sample ID:** 1202037118 **Duplicate ID:** 1202037120 **Percent Solids for Dup:** 92.5

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/kg | +/–20 | 136 | | 130 | | 4.54 | | AV |

**METALS**
**–7–**
**Laboratory Control Sample Summary**

**SDG NO.** 10–1512

**Contract:** LANL01004

**Aqueous LCS Source:**

**Solid LCS Source:** ERA

| Sample ID | Analyte | Units | True Value | Result | C | % Recovery | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| 1202032595 | | | | | | | | |
| | Aluminum | ug/Kg | 10500000 | 9140000 | | 87 | 56–144 | P |
| | Antimony | ug/Kg | 173000 | 118000 | | 68.2 | 71–130 | P |
| | Barium | ug/Kg | 198000 | 184000 | | 92.7 | 80–120 | P |
| | Cadmium | ug/Kg | 60700 | 57500 | | 94.7 | 81–120 | P |
| | Calcium | ug/Kg | 9870000 | 9620000 | | 97.4 | 83–117 | P |
| | Chromium | ug/Kg | 236000 | 227000 | | 96.1 | 80–120 | P |
| | Cobalt | ug/Kg | 91200 | 86800 | | 95.2 | 81–120 | P |
| | Copper | ug/Kg | 174000 | 178000 | | 102 | 81–118 | P |
| | Iron | ug/Kg | 18000000 | 15600000 | | 86.7 | 51–149 | P |
| | Lead | ug/Kg | 86000 | 79600 | | 92.5 | 79–121 | P |
| | Magnesium | ug/Kg | 4000000 | 3500000 | | 87.6 | 79–122 | P |
| | Manganese | ug/Kg | 558000 | 502000 | | 89.9 | 81–119 | P |
| | Potassium | ug/Kg | 4300000 | 4130000 | | 96.1 | 74–127 | P |
| | Silver | ug/Kg | 30100 | 28900 | | 96.1 | 66–134 | P |
| | Sodium | ug/Kg | 1020000 | 957000 | | 93.9 | 74–127 | P |
| | Vanadium | ug/Kg | 115000 | 114000 | | 99 | 79–121 | P |
| | Zinc | ug/Kg | 594000 | 559000 | | 94 | 80–121 | P |

**METALS**
**–7–**
**Laboratory Control Sample Summary**

**SDG NO.** 10–1512

**Contract:** LANL01004

**Aqueous LCS Source:** **Solid LCS Source:** ERA

| Sample ID | Analyte | Units | True Value | Result | C | % Recovery | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| 1202032605 | | | | | | | | |
| | Beryllium | mg/kg | 77.6 | 75.7 | | 97.5 | 84–116 | MS |
| | Nickel | mg/kg | 134 | 134 | | 99.9 | 78–123 | MS |
| | Selenium | mg/kg | 286 | 278 | | 97.2 | 77–123 | MS |
| | Thallium | mg/kg | 121 | 116 | | 95.8 | 78–122 | MS |
| | Uranium | mg/kg | 2.13 | 1.89 | | 88.9 | 73–127 | MS |
| | Arsenic | mg/kg | 104 | 98.9 | | 95.1 | 78–123 | MS |

**METALS**
**-7-**
**Laboratory Control Sample Summary**

**SDG NO.** 10-1512

**Contract:** LANL01004

**Aqueous LCS Source:** **Solid LCS Source:** ERA

| Sample ID | Analyte | Units | True Value | Result | C | % Recovery | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| 1202037116 | | | | | | | | |
| | Mercury | ug/kg | 5150 | 5920 | | 115 | 71.6-128.3 | AV |

**METALS**
**–9–**
**Serial Dilution Sample Summary**

**SDG NO.** 10–1512 **Client ID** RE15–10–7880L

**Contract:** LANL01004

**Matrix:** SOLID **Level:** Low

**Sample ID:** 245969001 **Serial Dilution ID:** 1202032592

| Analyte | Initial Value ug/L | C | Serial Value ug/L | C | % Difference | Qual | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 15400 | | 15300 | | .649 | | 10 | P |
| Antimony | 3.3 | U | 16.5 | U | | | | P |
| Barium | 183 | | 192 | | 4.92 | | 10 | P |
| Cadmium | 1 | U | 5 | U | | | | P |
| Calcium | 2890 | | 2940 | | 1.73 | | | P |
| Chromium | 80.4 | | 82 | | 1.99 | | 10 | P |
| Cobalt | 44.7 | | 47.5 | | 6.26 | | | P |
| Copper | 34.4 | | 33.6 | J | 2.47 | | | P |
| Iron | 75400 | | 76500 | | 1.46 | | 10 | P |
| Lead | 323 | | 369 | | 14.1 | E | 10 | P |
| Magnesium | 1280 | | 835 | J | 34.8 | | | P |
| Manganese | 2080 | | 2190 | | 5.29 | | 10 | P |
| Potassium | 5770 | | 5950 | | 3.12 | | 10 | P |
| Silver | 1 | U | 5 | U | | | | P |
| Sodium | 3970 | | 3680 | | 7.3 | | 10 | P |
| Vanadium | 19.5 | | 21 | J | 7.44 | | | P |
| Zinc | 216 | | 229 | | 5.79 | | 10 | P |

# METALS
## -9-
## Serial Dilution Sample Summary

**SDG NO.** 10-1512 **Client ID** RE15-10-7880L

**Contract:** LANL01004

**Matrix:** SOLID **Level:** Low

**Sample ID:** 245969001 **Serial Dilution ID:** 1202032602

| Analyte | Initial Value ug/L | C | Serial Value ug/L | C | % Difference | Qual | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.42 | J | 5 | U | 100 | | | MS |
| Beryllium | 1.14 | | 1.22 | J | 6.58 | | | MS |
| Nickel | 14.7 | | 14.8 | | .34 | | | MS |
| Selenium | 2.5 | U | 12.5 | U | | | | MS |
| Thallium | .3 | U | 1.5 | U | | | | MS |
| Uranium | 2.92 | | 5.55 | | 90.1 | | | MS |

# METALS
## -9-
## Serial Dilution Sample Summary

**SDG NO.** 10-1512 **Client ID** RE15-10-7880L

**Contract:** LANL01004

**Matrix:** SOLID **Level:** Low

**Sample ID:** 245969001 **Serial Dilution ID:** 1202037119

| Analyte | Initial Value ug/L | C | Serial Value ug/L | C | % Difference | Qual | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| Mercury | .245 | | .34 | U | 100 | | | AV |

**METALS**
**–13–**
**SAMPLE PREPARATION SUMMARY**

**SDG No:** 10–1512 **Method Type:** P

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| **Batch Number** | 948754 | | | | | | |
| 1202032590 | MB for batch 948754 | MB | S | 10–FEB–10 | .565g | 50mL | |
| 1202032595 | LCS for batch 948754 | LCS | S | 10–FEB–10 | .505g | 50mL | |
| 1202032593 | RE15–10–7880S | MS | S | 10–FEB–10 | .533g | 50mL | |
| 1202032594 | RE15–10–7880SD | MSD | S | 10–FEB–10 | .527g | 50mL | |
| 1202032591 | RE15–10–7880D | DUP | S | 10–FEB–10 | .504g | 50mL | |
| 245969001 | RE15–10–7880 | SAMPLE | S | 10–FEB–10 | .507g | 50mL | |
| 245969002 | RE15–10–7891 | SAMPLE | S | 10–FEB–10 | .514g | 50mL | |
| 245969003 | RE15–10–7892 | SAMPLE | S | 10–FEB–10 | .552g | 50mL | |
| 245969004 | RE15–10–7967 | SAMPLE | S | 10–FEB–10 | .508g | 50mL | |
| 245969005 | RE15–10–7976 | SAMPLE | S | 10–FEB–10 | .517g | 50mL | |
| 245969006 | RE15–10–7968 | SAMPLE | S | 10–FEB–10 | .515g | 50mL | |
| 245969007 | RE15–10–7965 | SAMPLE | S | 10–FEB–10 | .522g | 50mL | |
| 245969008 | RE15–10–7975 | SAMPLE | S | 10–FEB–10 | .557g | 50mL | |
| 245969009 | RE15–10–7978 | SAMPLE | S | 10–FEB–10 | .523g | 50mL | |
| 245969010 | RE15–10–7970 | SAMPLE | S | 10–FEB–10 | .519g | 50mL | |
| 245969011 | RE15–10–7964 | SAMPLE | S | 10–FEB–10 | .541g | 50mL | |
| 245969012 | RE15–10–7973 | SAMPLE | S | 10–FEB–10 | .559g | 50mL | |
| 245969013 | RE15–10–7962 | SAMPLE | S | 10–FEB–10 | .556g | 50mL | |
| 245969014 | RE15–10–7963 | SAMPLE | S | 10–FEB–10 | .525g | 50mL | |

# METALS
## -13-
## SAMPLE PREPARATION SUMMARY

**SDG No:** 10-1512 **Method Type:** P

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| 245969015 | RE15-10-7977 | SAMPLE | S | 10-FEB-10 | .513g | 50mL | |

**METALS**
**-13-**
**SAMPLE PREPARATION SUMMARY**

**SDG No:** 10-1512 **Method Type:** MS

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| **Batch Number** | 948758 | | | | | | |
| 1202032600 | MB for batch 948758 | MB | S | 10-FEB-10 | .536g | 50mL | |
| 1202032605 | LCS for batch 948758 | LCS | S | 10-FEB-10 | .522g | 50mL | |
| 1202032603 | RE15-10-7880S | MS | S | 10-FEB-10 | .519g | 50mL | |
| 1202032604 | RE15-10-7880SD | MSD | S | 10-FEB-10 | .529g | 50mL | |
| 1202032601 | RE15-10-7880D | DUP | S | 10-FEB-10 | .512g | 50mL | |
| 245969001 | RE15-10-7880 | SAMPLE | S | 10-FEB-10 | .522g | 50mL | |
| 245969002 | RE15-10-7891 | SAMPLE | S | 10-FEB-10 | .518g | 50mL | |
| 245969003 | RE15-10-7892 | SAMPLE | S | 10-FEB-10 | .546g | 50mL | |
| 245969004 | RE15-10-7967 | SAMPLE | S | 10-FEB-10 | .544g | 50mL | |
| 245969005 | RE15-10-7976 | SAMPLE | S | 10-FEB-10 | .511g | 50mL | |
| 245969006 | RE15-10-7968 | SAMPLE | S | 10-FEB-10 | .546g | 50mL | |
| 245969007 | RE15-10-7965 | SAMPLE | S | 10-FEB-10 | .54g | 50mL | |
| 245969008 | RE15-10-7975 | SAMPLE | S | 10-FEB-10 | .511g | 50mL | |
| 245969009 | RE15-10-7978 | SAMPLE | S | 10-FEB-10 | .571g | 50mL | |
| 245969010 | RE15-10-7970 | SAMPLE | S | 10-FEB-10 | .516g | 50mL | |
| 245969011 | RE15-10-7964 | SAMPLE | S | 10-FEB-10 | .532g | 50mL | |
| 245969012 | RE15-10-7973 | SAMPLE | S | 10-FEB-10 | .507g | 50mL | |
| 245969013 | RE15-10-7962 | SAMPLE | S | 10-FEB-10 | .519g | 50mL | |
| 245969014 | RE15-10-7963 | SAMPLE | S | 10-FEB-10 | .55g | 50mL | |

**METALS**
**-13-**
**SAMPLE PREPARATION SUMMARY**

**SDG No:** 10-1512 **Method Type:** MS

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| 245969015 | RE15-10-7977 | SAMPLE | S | 10-FEB-10 | .551g | 50mL | |

**METALS**
**-13-**
**SAMPLE PREPARATION SUMMARY**

**SDG No:** 10-1512 **Method Type:** AV

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| **Batch Number** | 950563 | | | | | | |
| 1202037115 | MB for batch 950563 | MB | S | 17-FEB-10 | .549g | 30mL | |
| 1202037116 | LCS for batch 950563 | LCS | S | 17-FEB-10 | .204g | 30mL | |
| 1202037118 | RE15-10-7880S | MS | S | 17-FEB-10 | .53g | 30mL | |
| 1202037120 | RE15-10-7880SD | MSD | S | 17-FEB-10 | .578g | 30mL | |
| 1202037117 | RE15-10-7880D | DUP | S | 17-FEB-10 | .5g | 30mL | |
| 245969001 | RE15-10-7880 | SAMPLE | S | 17-FEB-10 | .551g | 30mL | |
| 245969002 | RE15-10-7891 | SAMPLE | S | 17-FEB-10 | .553g | 30mL | |
| 245969003 | RE15-10-7892 | SAMPLE | S | 17-FEB-10 | .543g | 30mL | |
| 245969004 | RE15-10-7967 | SAMPLE | S | 17-FEB-10 | .51g | 30mL | |
| 245969005 | RE15-10-7976 | SAMPLE | S | 17-FEB-10 | .506g | 30mL | |
| 245969006 | RE15-10-7968 | SAMPLE | S | 17-FEB-10 | .589g | 30mL | |
| 245969007 | RE15-10-7965 | SAMPLE | S | 17-FEB-10 | .517g | 30mL | |
| 245969008 | RE15-10-7975 | SAMPLE | S | 17-FEB-10 | .543g | 30mL | |
| 245969009 | RE15-10-7978 | SAMPLE | S | 17-FEB-10 | .548g | 30mL | |
| 245969010 | RE15-10-7970 | SAMPLE | S | 17-FEB-10 | .574g | 30mL | |
| 245969011 | RE15-10-7964 | SAMPLE | S | 17-FEB-10 | .517g | 30mL | |
| 245969012 | RE15-10-7973 | SAMPLE | S | 17-FEB-10 | .591g | 30mL | |
| 245969013 | RE15-10-7962 | SAMPLE | S | 17-FEB-10 | .546g | 30mL | |
| 245969014 | RE15-10-7963 | SAMPLE | S | 17-FEB-10 | .546g | 30mL | |

**METALS**
**-13-**
**SAMPLE PREPARATION SUMMARY**

**SDG No:** 10-1512 **Method Type:** AV

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| 245969015 | RE15-10-7977 | SAMPLE | S | 17-FEB-10 | .545g | 30mL | |

**Metals**
**–14–**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** ICPMS6
**Start Date:** 25–FEB–10 **End Date:** 25–FEB–10

**Client Sdg:** 10–1512
**Method** MS
**Data File:** 100224–3

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 10:02 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| S10 | 1 | 10:08 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| S100 | 1 | 10:14 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| ICV01 | 1 | 10:20 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| ICB01 | 1 | 10:25 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CRDL01 | 1 | 10:31 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| ICSA01 | 1 | 10:37 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| ICSAB01 | 1 | 10:43 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CCV01 | 1 | 10:49 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CCB01 | 1 | 10:55 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 1202032600 | 2 | 11:01 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 1202032605 | 40 | 11:07 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CCV02 | 1 | 11:13 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CCB02 | 1 | 11:18 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969001 | 2 | 11:24 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 1202032601 | 2 | 11:30 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 1202032603 | 2 | 11:36 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 1202032604 | 2 | 11:42 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 1202032602 | 10 | 11:48 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969002 | 2 | 11:54 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969003 | 2 | 12:00 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969004 | 2 | 12:06 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CCV03 | 1 | 12:11 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CCB03 | 1 | 12:17 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969005 | 2 | 12:23 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969006 | 2 | 12:29 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969007 | 2 | 12:35 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969008 | 2 | 12:41 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969009 | 2 | 12:47 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969010 | 2 | 12:53 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969011 | 2 | 12:59 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969012 | 2 | 13:04 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969013 | 2 | 13:10 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969014 | 2 | 13:16 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| 245969015 | 2 | 13:22 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CCV04 | 1 | 13:28 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |
| CCB04 | 1 | 13:34 | | | X | | X | | | | | | | | | | | X | | X | | | X | | | |

**Metals**
**–14–**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** ICPMS6
**Start Date:** 26–FEB–10 **End Date:** 26–FEB–10

**Client Sdg:** 10–1512
**Method** MS
**Data File:** 100225–4

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 03:43 | | | | | | | | | | | | | | | | | | | | | | X | | |
| S10 | 1 | 03:46 | | | | | | | | | | | | | | | | | | | | | | X | | |
| S100 | 1 | 03:49 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICV01 | 1 | 03:52 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICB01 | 1 | 03:55 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CRDL01 | 1 | 03:58 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICSA01 | 1 | 04:01 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICSAB01 | 1 | 04:05 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV01 | 1 | 04:08 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB01 | 1 | 04:11 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032600 | 2 | 04:14 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032605 | 40 | 04:17 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969001 | 2 | 04:20 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032601 | 2 | 04:23 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032603 | 2 | 04:26 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032604 | 2 | 04:29 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032602 | 10 | 04:32 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969002 | 20 | 04:35 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV02 | 1 | 04:38 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB02 | 1 | 04:41 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ZZZZZZ | 2 | 04:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| 245969004 | 40 | 04:47 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969005 | 2 | 04:50 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969006 | 10 | 04:54 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969007 | 10 | 04:57 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969008 | 10 | 05:00 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969009 | 2 | 05:03 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969010 | 2 | 05:06 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV03 | 1 | 05:09 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB03 | 1 | 05:12 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969011 | 2 | 05:15 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969012 | 2 | 05:18 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969013 | 2 | 05:21 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969014 | 2 | 05:24 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969015 | 2 | 05:27 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV04 | 1 | 05:30 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB04 | 1 | 05:33 | | | | | | | | | | | | | | | | | | | | | | X | | |

**Metals**
**–14–**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** ICPMS6
**Start Date:** 28–FEB–10 **End Date:** 28–FEB–10

**Client Sdg:** 10–1512
**Method** MS
**Data File:** 100227–5

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 02:58 | | | | | | | | | | | | | | | | | | | | | | X | | |
| S10 | 1 | 03:02 | | | | | | | | | | | | | | | | | | | | | | X | | |
| S100 | 1 | 03:05 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICV01 | 1 | 03:08 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICB01 | 1 | 03:11 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CRDL01 | 1 | 03:14 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICSA01 | 1 | 03:17 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICSAB01 | 1 | 03:20 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV01 | 1 | 03:23 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB01 | 1 | 03:26 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 245969003 | 2 | 03:29 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV02 | 1 | 03:32 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB02 | 1 | 03:35 | | | | | | | | | | | | | | | | | | | | | | X | | |

# Metals
## -14-
## Analysis Run Log

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** OPTIMA3
**Start Date:** 24-FEB-10
**End Date:** 25-FEB-10
**Client Sdg:** 10-1512
**Method** P
**Data File:** 022410-1

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 12:41 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| S0.1 | 1 | 12:47 | | X | | X | | X | | X | X | X | | X | | X | | | X | | X | | | | X | X |
| S0.5 | 1 | 12:54 | X | X | | X | | X | X | X | X | X | | X | X | X | | | X | | X | | | | X | X |
| SCAL | 1 | 13:01 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| S10 | 1 | 13:09 | X | | | | | | X | | | | X | | X | | | | | | | X | | | | |
| ICV01 | 1 | 13:14 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ICB01 | 1 | 13:21 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| PQL01 | 1 | 13:28 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ICSA01 | 1 | 13:35 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ICSAB01 | 1 | 13:41 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| LR01 | 1 | 13:48 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| LR02 | 1 | 13:55 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCV01 | 1 | 14:02 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB01 | 1 | 14:09 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| LR03 | 1 | 14:25 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| LR04 | 1 | 14:32 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCV02 | 1 | 14:39 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB02 | 1 | 14:46 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 14:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV03 | 1 | 16:03 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB03 | 1 | 16:10 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 16:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV04 | 1 | 16:32 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB04 | 1 | 16:39 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCV05 | 1 | 16:52 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB05 | 1 | 17:00 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 17:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:27 | | | | | | | | | | | | | | | | | | | | | | | | |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 1 | 17:34 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:41 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:48 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:55 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:01 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:08 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV06 | 1 | 18:15 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB06 | 1 | 18:22 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 18:29 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:36 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:43 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:50 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:57 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:04 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:11 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:18 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:25 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:32 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV07 | 1 | 19:39 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB07 | 1 | 19:46 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 19:53 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:59 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 20:06 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 20:13 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 20:20 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 20:27 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 20:34 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 20:40 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 20:47 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 20:54 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV08 | 1 | 21:01 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB08 | 1 | 21:08 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 21:15 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 21:22 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 21:28 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 21:35 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 21:42 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 21:49 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 21:56 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 22:03 | | | | | | | | | | | | | | | | | | | | | | | |

**Metals**
**-14-**
**Analysis Run Log**

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 5 | 22:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV09 | 1 | 22:16 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB09 | 1 | 22:23 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 22:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 22:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 22:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 22:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 22:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 23:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 23:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 23:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 23:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV10 | 1 | 23:34 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB10 | 1 | 23:41 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 23:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 23:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 00:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 00:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 00:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 00:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 00:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV11 | 1 | 00:37 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB11 | 1 | 00:44 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 00:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 00:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 01:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 01:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 01:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 01:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 01:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 01:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV12 | 1 | 01:48 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB12 | 1 | 01:55 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 02:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 02:43 | | | | | | | | | | | | | | | | | | | | | | | | |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 1 | 02:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV13 | 1 | 03:04 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB13 | 1 | 03:12 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 03:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV14 | 1 | 04:23 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB14 | 1 | 04:30 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 04:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 05:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 05:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 05:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 05:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV15 | 1 | 05:34 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB15 | 1 | 05:41 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| ZZZZZZ | 1 | 05:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 05:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 06:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 06:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 06:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 06:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 06:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV16 | 1 | 06:36 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB16 | 1 | 06:43 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCV17 | 1 | 06:55 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB17 | 1 | 07:02 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 1202032590 | 1 | 07:09 | X | X | | X | | X | X | X | X | X | X | | X | X | | | X | | X | X | | | X | X |
| 1202032595 | 1 | 07:15 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969001 | 1 | 07:22 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 1202032591 | 1 | 07:29 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202032593 | 1 | 07:36 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 1202032594 | 1 | 07:43 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 1202032592 | 5 | 07:50 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCV18 | 1 | 07:57 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB18 | 1 | 08:04 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969002 | 1 | 08:11 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969003 | 1 | 08:18 | X | X | | X | | X | X | X | X | X | X | | X | X | | | X | | X | X | | | X | X |
| 245969004 | 1 | 08:25 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969005 | 1 | 08:32 | X | X | | X | | X | X | X | X | X | X | | X | X | | | X | | X | X | | | X | X |
| 245969006 | 1 | 08:39 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969007 | 1 | 08:46 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969008 | 1 | 08:53 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCV19 | 1 | 09:01 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB19 | 1 | 09:08 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969009 | 1 | 09:14 | X | X | | X | | X | X | X | X | X | X | | X | X | | | X | | X | X | | | X | X |
| 245969010 | 1 | 09:22 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969011 | 1 | 09:29 | X | X | | X | | X | X | X | X | X | X | | X | X | | | X | | X | X | | | X | X |
| 245969012 | 1 | 09:36 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969013 | 1 | 09:43 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| 245969014 | 1 | 09:50 | X | X | | X | | X | X | X | X | X | X | | X | X | | | X | | X | X | | | X | X |
| 245969015 | 1 | 09:57 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCV20 | 1 | 10:05 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |
| CCB20 | 1 | 10:12 | X | X | | X | | X | X | X | X | X | X | X | X | X | | | X | | X | X | | | X | X |

# Metals
## –14–
## Analysis Run Log

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** OPTIMA3
**Start Date:** 01–MAR–10 **End Date:** 01–MAR–10

**Client Sdg:** 10–1512
**Method** P
**Data File:** 030110A–2

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 11:32 | | | | | | | | | | | | X | | | | | | | | | | | | |
| S0.1 | 1 | 11:38 | | | | | | | | | | | | X | | | | | | | | | | | | |
| S0.5 | 1 | 11:44 | | | | | | | | | | | | X | | | | | | | | | | | | |
| SCAL | 1 | 11:52 | | | | | | | | | | | | X | | | | | | | | | | | | |
| S10 | 1 | 11:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV01 | 1 | 12:04 | | | | | | | | | | | | X | | | | | | | | | | | | |
| ICB01 | 1 | 12:11 | | | | | | | | | | | | X | | | | | | | | | | | | |
| PQL01 | 1 | 12:18 | | | | | | | | | | | | X | | | | | | | | | | | | |
| ICSA01 | 1 | 12:25 | | | | | | | | | | | | X | | | | | | | | | | | | |
| ICSAB01 | 1 | 12:31 | | | | | | | | | | | | X | | | | | | | | | | | | |
| LR01 | 1 | 12:37 | | | | | | | | | | | | X | | | | | | | | | | | | |
| LR02 | 1 | 12:44 | | | | | | | | | | | | X | | | | | | | | | | | | |
| CCV01 | 1 | 12:51 | | | | | | | | | | | | X | | | | | | | | | | | | |
| CCB01 | 1 | 12:58 | | | | | | | | | | | | X | | | | | | | | | | | | |
| LR03 | 1 | 13:05 | | | | | | | | | | | | X | | | | | | | | | | | | |
| CCV02 | 1 | 13:12 | | | | | | | | | | | | X | | | | | | | | | | | | |
| CCB02 | 1 | 13:19 | | | | | | | | | | | | X | | | | | | | | | | | | |
| 1202032590 | 1 | 13:31 | | | | | | | | | | | | X | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| 245969003 | 1 | 13:45 | | | | | | | | | | | | X | | | | | | | | | | | | |
| 245969005 | 1 | 13:52 | | | | | | | | | | | | X | | | | | | | | | | | | |
| 245969009 | 1 | 13:59 | | | | | | | | | | | | X | | | | | | | | | | | | |
| 245969011 | 1 | 14:06 | | | | | | | | | | | | X | | | | | | | | | | | | |
| 245969014 | 1 | 14:13 | | | | | | | | | | | | X | | | | | | | | | | | | |
| CCV03 | 1 | 14:20 | | | | | | | | | | | | X | | | | | | | | | | | | |
| CCB03 | 1 | 14:27 | | | | | | | | | | | | X | | | | | | | | | | | | |

**Metals**
**-14-**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** MER536
**Start Date:** 18-FEB-10 **End Date:** 18-FEB-10

**Client Sdg:** 10-1512
**Method** AV
**Data File:** 021810S1-6

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 09:45 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S0.2 | 1 | 09:47 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S0.5 | 1 | 09:49 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S2.0 | 1 | 09:51 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S5.0 | 1 | 09:53 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S10 | 1 | 09:55 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ICV01 | 1 | 09:57 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ICB01 | 1 | 09:59 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CRDL01 | 1 | 10:01 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCV01 | 1 | 10:03 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCB01 | 1 | 10:05 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202037115 | 1 | 10:07 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202037116 | 10 | 10:09 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969001 | 1 | 10:11 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202037117 | 1 | 10:13 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202037118 | 1 | 10:15 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202037120 | 1 | 10:17 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202037119 | 5 | 10:19 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969002 | 1 | 10:21 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969003 | 1 | 10:23 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969004 | 1 | 10:25 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCV02 | 1 | 10:27 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCB02 | 1 | 10:29 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969005 | 1 | 10:31 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969006 | 1 | 10:33 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969007 | 1 | 10:35 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969008 | 1 | 10:37 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969009 | 1 | 10:39 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969010 | 1 | 10:41 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969011 | 1 | 10:43 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969012 | 1 | 10:45 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969013 | 1 | 10:47 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969014 | 1 | 10:49 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCV03 | 1 | 10:51 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCB03 | 1 | 10:53 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 245969015 | 1 | 10:55 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ZZZZZZ | 1 | 10:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 10 | 10:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 11:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 11:03 | | | | | | | | | | | | | | | | | | | | | | | | |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 1 | 11:05 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 11:07 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 11:09 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 11:11 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 11:13 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV04 | 1 | 11:15 | | | | | | | | | | | | | | X | | | | | | | | | |
| CCB04 | 1 | 11:17 | | | | | | | | | | | | | | X | | | | | | | | | |

# Standards

**METALS**
**-10-**
**Instrument Detection Limits**

**SDG NO.** 10-1512

**Contract:** LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

| ICP/MS | Analyte | Wavelength (nm) | MDL ug/L | RDL ug/L |
|---|---|---|---|---|
| SOLID | Aluminum | | 15.0 | 50 |
| | Antimony | | 0.5 | 3 |
| | Arsenic | | 1.0 | 5 |
| | Barium | | 0.5 | 2 |
| | Beryllium | | 0.1 | .5 |
| | Cadmium | | 0.1 | 1 |
| | Calcium | | 33.0 | 100 |
| | Chromium | | 1.0 | 3 |
| | Cobalt | | 0.3 | 1 |
| | Copper | | 0.33 | 1 |
| | Iron | | 25.0 | 100 |
| | Lead | | 0.5 | 2 |
| | Magnesium | | 7.5 | 25 |
| | Manganese | | 1.0 | 5 |
| | Nickel | | 0.5 | 2 |
| | Potassium | | 80.0 | 300 |
| | Selenium | | 2.5 | 5 |
| | Silver | | 0.2 | 1 |
| | Sodium | | 80.0 | 250 |
| | Thallium | | 0.3 | 1 |
| | Uranium | | 0.066 | .2 |
| | Vanadium | | 2.0 | 10 |
| | Zinc | | 2.0 | 10 |

**METALS**
**-10-**
**Instrument Detection Limits**

**SDG NO.** 10-1512

**Contract:** LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

| MERCURY | Analyte | Wavelength (nm) | MDL ug/L | RDL ug/L |
|---|---|---|---|---|
| SOLID | Mercury | | 0.068 | .2 |

**METALS**
**-10-**
**Instrument Detection Limits**

**SDG NO.** 10-1512

**Contract:** LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

| ICP | Analyte | Wavelength (nm) | MDL ug/L | RDL ug/L |
|---|---|---|---|---|
| SOLID | Aluminum | 396.153 | 68.0 | 200 |
| | Antimony | 206.836 | 3.3 | 10 |
| | Arsenic | 188.979 | 5.0 | 30 |
| | Barium | 233.527 | 1.0 | 5 |
| | Beryllium | 313.107 | 1.0 | 5 |
| | Cadmium | 226.502 | 1.0 | 5 |
| | Calcium | 317.933 | 80.0 | 250 |
| | Chromium | 267.716 | 1.5 | 5 |
| | Cobalt | 228.616 | 1.5 | 5 |
| | Copper | 324.752 | 3.0 | 10 |
| | Iron | 238.204 | 80.0 | 250 |
| | Lead | 220.353 | 2.5 | 10 |
| | Magnesium | 279.077 | 85.0 | 300 |
| | Manganese | 257.61 | 2.0 | 10 |
| | Nickel | 231.604 | 1.5 | 5 |
| | Potassium | 766.49 | 64.0 | 250 |
| | Selenium | 196.026 | 5.0 | 30 |
| | Silver | 328.068 | 1.0 | 5 |
| | Sodium | 589.592 | 70.0 | 250 |
| | Thallium | 190.801 | 5.0 | 20 |
| | Uranium | 409.014 | 10.0 | 50 |
| | Vanadium | 292.402 | 1.0 | 5 |
| | Zinc | 213.857 | 3.3 | 10 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1512
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

| Parmname | Wavelength | Aluminum | Antimony | Arsenic | Barium | Beryllium |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | 0.02697 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.00000 | -0.48147 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | -0.21356 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Potassium | 766.49 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Selenium | 196.026 | -0.05186 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silica | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Strontium | 421.552 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.18741 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Boron | Cadmium | Chromium | Cobalt | Copper |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 2.85580 | 0.00000 |
| Cadmium | 226.502 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.44491 | 0.00000 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | -29.9151 | 0.00000 |
| Lead | 220.353 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.57616 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.60374 | 0.00000 |
| Phosphorous | 214.914 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 198.62 |
| Potassium | 766.49 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Selenium | 196.026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silica | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Strontium | 421.552 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 | 0.00000 | 4.37985 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.36147 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 2.23785 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 | 0.36818 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 1.35273 |

# METALS
## –11–
## Interelement Correction Factors

**Lab Code:** GEL **GEL Job No:** 10–1512
**Contract:** LANL01004
**Instrument:** OPTIMA3 **Effective Dates:** 01–FEB–10
**Interelement Correction Factors (apparent ppb analyte/ppm interferent)**

| Parmname | Wavelength | Iron | Lead | Magnesium | Manganese | Molybdenum |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 48.4946 |
| Antimony | 206.836 | –0.02515 | 0.00000 | 0.00000 | 0.00000 | –20.5057 |
| Arsenic | 188.979 | –0.23424 | 0.00000 | 0.00000 | 0.00000 | 2.41902 |
| Barium | 233.527 | –0.03042 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.16240 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.10329 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | –0.01944 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.01444 | 0.00000 | 0.00000 | 0.00000 | –2.33100 |
| Copper | 324.752 | –0.05293 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | 0.09554 | 0.00000 | 0.00000 | 0.00000 | –2.48774 |
| Magnesium | 279.077 | 1.04597 | 0.00000 | 0.00000 | 0.00000 | –10.4683 |
| Manganese | 257.61 | –0.09877 | 0.00000 | 0.04089 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | –0.07763 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | 0.80543 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Potassium | 766.49 | 0.00000 | 0.00000 | 0.00000 | 0.39429 | 1.18725 |
| Selenium | 196.026 | –3.27508 | 0.00000 | 0.00000 | 0.00000 | –3.07287 |
| Silica | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 27.2377 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 12.3082 |
| Silver | 328.068 | –0.32385 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Strontium | 421.552 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 | 0.00000 | –4.77918 | 0.00000 |
| Tin | 189.927 | –0.01682 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.08168 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.11400 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.14564 | 0.00000 | –0.01931 | 0.00000 | –14.1293 |
| Zinc | 213.857 | 0.09701 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1512
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

| Parmname | Wavelength | Nickel | Phosphorous | Potassium | Selenium | Silica |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | -0.84443 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | -0.63547 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Potassium | 766.49 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Selenium | 196.026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silica | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Strontium | 421.552 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 6.37026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Silicon | Silver | Strontium | Sulfur | Thallium |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Potassium | 766.49 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Selenium | 196.026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silica | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Strontium | 421.552 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Tin | Titanium | Uranium | Vanadium | Zinc |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | -15.4932 | 3.30431 | 0.00000 | -2.81282 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | -8.66313 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | -2.20293 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | -2.27027 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.00000 | 0.00000 | -0.19473 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.39645 | -1.41250 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 2.09497 | 0.00000 | 0.00000 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.55360 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | -9.37529 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Potassium | 766.49 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Selenium | 196.026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silica | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.81635 | -4.04400 | 0.00000 |
| Strontium | 421.552 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | -8.29801 | 0.00000 | 1.88584 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.43915 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 1.05947 | -1.91382 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

**METALS**
**–12–**
**Linear Ranges**

**SDG NO.** 10–1512

**Contract:** LANL01004 **Lab Code: GEL**

**Instrument ID** ICPMS6

| Analyte | Integration Time (msec) | LDR | Units | Effective Date |
|---|---|---|---|---|
| Silver | 1000 | 250 | ug/L | 01–FEB–10 |
| Sodium | 1 | 50000 | ug/L | 01–FEB–10 |
| Thallium | 1000 | 500 | ug/L | 01–FEB–10 |
| Uranium | 1000 | 5000 | ug/L | 01–FEB–10 |
| Vanadium | 1000 | 100 | ug/L | 01–FEB–10 |
| Zinc | 1000 | 2500 | ug/L | 01–FEB–10 |
| Aluminum | 1 | 50000 | ug/L | 01–FEB–10 |
| Antimony | 1000 | 250 | ug/L | 01–FEB–10 |
| Arsenic | 1000 | 1000 | ug/L | 01–FEB–10 |
| Barium | 1000 | 1000 | ug/L | 01–FEB–10 |
| Beryllium | 1000 | 1000 | ug/L | 01–FEB–10 |
| Cadmium | 1000 | 1000 | ug/L | 01–FEB–10 |
| Calcium | 500 | 50000 | ug/L | 01–FEB–10 |
| Chromium | 1000 | 1000 | ug/L | 01–FEB–10 |
| Cobalt | 1000 | 1000 | ug/L | 01–FEB–10 |
| Copper | 1000 | 1000 | ug/L | 01–FEB–10 |
| Iron | 500 | 50000 | ug/L | 01–FEB–10 |
| Lead | 1000 | 5000 | ug/L | 01–FEB–10 |
| Magnesium | 1 | 50000 | ug/L | 01–FEB–10 |
| Manganese | 1000 | 1000 | ug/L | 01–FEB–10 |
| Nickel | 1000 | 1000 | ug/L | 01–FEB–10 |
| Potassium | 1 | 50000 | ug/L | 01–FEB–10 |
| Selenium | 1000 | 500 | ug/L | 01–FEB–10 |

**METALS**
**–12–**
**Linear Ranges**

**SDG NO.** 10–1512

**Contract:** LANL01004 **Lab Code: GEL**

**Instrument ID** OPTIMA3

| Analyte | Integration Time (sec) | LDR | Units | Effective Date |
|---|---|---|---|---|
| Aluminum | 20 | 500000 | ug/L | 01–FEB–10 |
| Antimony | 20 | 10000 | ug/L | 01–FEB–10 |
| Arsenic | 20 | 10000 | ug/L | 01–FEB–10 |
| Barium | 20 | 15000 | ug/L | 01–FEB–10 |
| Beryllium | 20 | 3000 | ug/L | 01–FEB–10 |
| Cadmium | 20 | 10000 | ug/L | 01–FEB–10 |
| Calcium | 20 | 500000 | ug/L | 01–FEB–10 |
| Chromium | 20 | 25000 | ug/L | 01–FEB–10 |
| Cobalt | 20 | 10000 | ug/L | 01–FEB–10 |
| Copper | 20 | 20000 | ug/L | 01–FEB–10 |
| Iron | 20 | 500000 | ug/L | 01–FEB–10 |
| Lead | 20 | 25000 | ug/L | 01–FEB–10 |
| Magnesium | 20 | 500000 | ug/L | 01–FEB–10 |
| Manganese | 20 | 10000 | ug/L | 01–FEB–10 |
| Nickel | 20 | 10000 | ug/L | 01–FEB–10 |
| Potassium | 20 | 300000 | ug/L | 01–FEB–10 |
| Selenium | 20 | 10000 | ug/L | 01–FEB–10 |
| Silver | 20 | 1000 | ug/L | 01–FEB–10 |
| Sodium | 20 | 500000 | ug/L | 01–FEB–10 |
| Thallium | 20 | 10000 | ug/L | 01–FEB–10 |
| Uranium | 20 | 15000 | ug/L | 01–FEB–10 |
| Vanadium | 20 | 10000 | ug/L | 01–FEB–10 |
| Zinc | 20 | 15000 | ug/L | 01–FEB–10 |

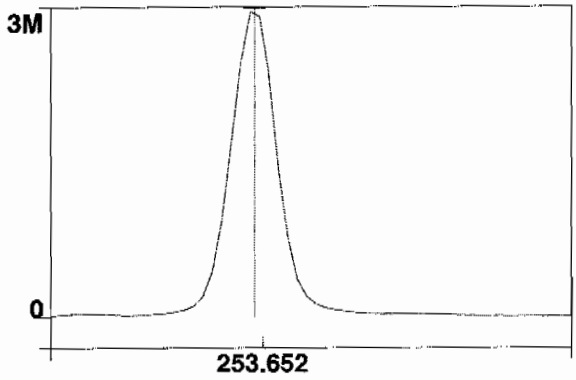
# Raw Data

Method: Hg_ReAlign
Result: 030110

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1




Intensity: 3188246.6 cps
Conc:

1

==========

**Analysis Begun**

**Start Time:** 2/24/2010 12:41:03 **Plasma On Time:** 00:00:00
**Logged In Analyst:** Optima3 **Technique:** ICP Continuous
**Spectrometer Model:** Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

**Sample Information File:** C:\pe\Optima3\Sample Information\022410.sif
**Batch ID:**
**Results Data Set:** 022410
**Results Library:** C:\pe\Optima3\Results\Results.mdb

==========

**Sequence No.:** 1 **Autosampler Location:** 8
**Sample ID:** S0 **Date Collected:** 2/24/2010 12:41:05
**Analyst:** **Data Type:** Original
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**

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**Replicate Data: S0**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3896.6 | 3896.6 | 99.4 | % | 12:43:18 |
| 1 | Y RADIAL | 4390.8 | 4390.8 | 99.54 | % | 12:42:58 |
| 1 | Al 396.153Radial† | -128.6 | -129.3 | [0.00] | ug/L | 12:42:58 |
| 1 | Ca 317.933Radial† | 18.8 | 18.9 | [0.00] | ug/L | 12:43:18 |
| 1 | Fe 238.204 Radial† | 11.3 | 11.3 | [0.00] | ug/L | 12:43:18 |
| 1 | K 766.490 Radial† | 2645.3 | 2660.3 | [0.00] | ug/L | 12:42:58 |
| 1 | Mg 279.077 IEC† | 3.1 | 3.1 | [0.00] | ug/L | 12:43:18 |
| 1 | Na 589.592 Radial† | -826.1 | -830.8 | [0.00] | ug/L | 12:42:58 |
| 1 | Sr 421.552† | 71.0 | 71.4 | [0.00] | ug/L | 12:42:58 |
| 1 | Sc 361.383 | 877876.1 | 877876.1 | 100.07 | % | 12:44:14 |
| 1 | Y 371.029 | 757025.6 | 757025.6 | 100.16 | % | 12:44:14 |
| 1 | Ag 328.068† | 216.3 | 216.1 | [0.00] | ug/L | 12:44:14 |
| 1 | As 188.979† | -23.1 | -23.1 | [0.00] | ug/L | 12:44:34 |
| 1 | B 249.677† | -385.0 | -384.7 | [0.00] | ug/L | 12:44:34 |
| 1 | Ba 233.527† | 0.0 | 0.0 | [0.00] | ug/L | 12:44:34 |
| 1 | Be 313.107† | -3714.2 | -3711.5 | [0.00] | ug/L | 12:44:14 |
| 1 | Cd 226.502† | -194.6 | -194.4 | [0.00] | ug/L | 12:44:34 |
| 1 | Co 228.616† | -57.4 | -57.3 | [0.00] | ug/L | 12:44:34 |
| 1 | Cr 267.716† | 72.2 | 72.1 | [0.00] | ug/L | 12:44:34 |
| 1 | Cu 324.752† | 6029.5 | 6025.1 | [0.00] | ug/L | 12:44:14 |
| 1 | Mn 257.610† | 440.8 | 440.4 | [0.00] | ug/L | 12:44:34 |
| 1 | Mo 202.031† | 15.1 | 15.1 | [0.00] | ug/L | 12:44:34 |
| 1 | Ni 231.604† | 63.6 | 63.5 | [0.00] | ug/L | 12:44:34 |
| 1 | P 214.914† | 215.4 | 215.2 | [0.00] | ug/L | 12:44:34 |
| 1 | Pb 220.353† | -56.7 | -56.7 | [0.00] | ug/L | 12:44:34 |
| 1 | S 181.975 Axial† | 38.6 | 38.6 | [0.00] | ug/L | 12:44:34 |
| 1 | Sb 206.836† | 37.5 | 37.5 | [0.00] | ug/L | 12:44:34 |
| 1 | Se 196.026† | -32.0 | -31.9 | [0.00] | ug/L | 12:44:34 |
| 1 | Si 251.611† | 557.4 | 557.0 | [0.00] | ug/L | 12:44:34 |
| 1 | Sn 189.927† | 17.3 | 17.3 | [0.00] | ug/L | 12:44:34 |
| 1 | Ti 334.940† | -1321.0 | -1320.1 | [0.00] | ug/L | 12:44:14 |
| 1 | Tl 190.801† | -31.5 | -31.4 | [0.00] | ug/L | 12:44:34 |
| 1 | U 409.014† | -2936.7 | -2934.6 | [0.00] | ug/L | 12:44:14 |
| 1 | V 292.402† | -1480.7 | -1479.6 | [0.00] | ug/L | 12:44:14 |
| 1 | Zn 213.857† | 606.9 | 606.4 | [0.00] | ug/L | 12:44:34 |
| 1 | SiO2† | 548.2 | 547.8 | [0.00] | ug/L | 12:45:30 |
| 2 | Sc Radial | 3933.1 | 3933.1 | 100 | % | 12:43:43 |
| 2 | Y RADIAL | 4456.7 | 4456.7 | 101.0 | % | 12:43:23 |
| 2 | Al 396.153Radial† | -92.2 | -91.8 | [0.00] | ug/L | 12:43:23 |
| 2 | Ca 317.933Radial† | 20.4 | 20.4 | [0.00] | ug/L | 12:43:43 |
| 2 | Fe 238.204 Radial† | 10.6 | 10.6 | [0.00] | ug/L | 12:43:43 |
| 2 | K 766.490 Radial† | 2597.3 | 2587.9 | [0.00] | ug/L | 12:43:23 |
| 2 | Mg 279.077 IEC† | 5.5 | 5.4 | [0.00] | ug/L | 12:43:43 |
| 2 | Na 589.592 Radial† | -800.9 | -798.0 | [0.00] | ug/L | 12:43:23 |
| 2 | Sr 421.552† | 21.6 | 21.6 | [0.00] | ug/L | 12:43:23 |
| 2 | Sc 361.383 | 880112.3 | 880112.3 | 100.33 | % | 12:44:40 |
| 2 | Y 371.029 | 760544.3 | 760544.3 | 100.62 | % | 12:44:40 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Ag 328.068† | 279.3 | 278.4 | [0.00] | ug/L | 12:44:40 |
| 2 | As 188.979† | -17.2 | -17.2 | [0.00] | ug/L | 12:45:00 |
| 2 | B 249.677† | -387.2 | -385.9 | [0.00] | ug/L | 12:45:00 |
| 2 | Ba 233.527† | 2.1 | 2.1 | [0.00] | ug/L | 12:45:00 |
| 2 | Be 313.107† | -3758.8 | -3746.5 | [0.00] | ug/L | 12:44:40 |
| 2 | Cd 226.502† | -206.9 | -206.2 | [0.00] | ug/L | 12:45:00 |
| 2 | Co 228.616† | -66.3 | -66.0 | [0.00] | ug/L | 12:45:00 |
| 2 | Cr 267.716† | 88.2 | 87.9 | [0.00] | ug/L | 12:45:00 |
| 2 | Cu 324.752† | 6059.3 | 6039.5 | [0.00] | ug/L | 12:44:40 |
| 2 | Mn 257.610† | 467.5 | 466.0 | [0.00] | ug/L | 12:45:00 |
| 2 | Mo 202.031† | 5.7 | 5.7 | [0.00] | ug/L | 12:45:00 |
| 2 | Ni 231.604† | 64.4 | 64.2 | [0.00] | ug/L | 12:45:00 |
| 2 | P 214.914† | 222.5 | 221.8 | [0.00] | ug/L | 12:45:00 |
| 2 | Pb 220.353† | -54.4 | -54.3 | [0.00] | ug/L | 12:45:00 |
| 2 | S 181.975 Axial† | 43.0 | 42.8 | [0.00] | ug/L | 12:45:00 |
| 2 | Sb 206.836† | 34.3 | 34.2 | [0.00] | ug/L | 12:45:00 |
| 2 | Se 196.026† | -28.5 | -28.4 | [0.00] | ug/L | 12:45:00 |
| 2 | Si 251.611† | 547.2 | 545.4 | [0.00] | ug/L | 12:45:00 |
| 2 | Sn 189.927† | 5.6 | 5.6 | [0.00] | ug/L | 12:45:00 |
| 2 | Ti 334.940† | -1450.8 | -1446.1 | [0.00] | ug/L | 12:44:40 |
| 2 | Tl 190.801† | -33.6 | -33.5 | [0.00] | ug/L | 12:45:00 |
| 2 | U 409.014† | -2845.2 | -2835.9 | [0.00] | ug/L | 12:44:40 |
| 2 | V 292.402† | -1518.7 | -1513.8 | [0.00] | ug/L | 12:44:40 |
| 2 | Zn 213.857† | 610.6 | 608.6 | [0.00] | ug/L | 12:45:00 |
| 2 | SiO2† | 580.4 | 578.5 | [0.00] | ug/L | 12:45:35 |
| 3 | Sc Radial | 3926.7 | 3926.7 | 100 | % | 12:44:08 |
| 3 | Y RADIAL | 4385.1 | 4385.1 | 99.42 | % | 12:43:48 |
| 3 | Al 396.153Radial† | -116.4 | -116.1 | [0.00] | ug/L | 12:43:48 |
| 3 | Ca 317.933Radial† | 19.8 | 19.8 | [0.00] | ug/L | 12:44:08 |
| 3 | Fe 238.204 Radial† | 12.0 | 12.0 | [0.00] | ug/L | 12:44:08 |
| 3 | K 766.490 Radial† | 2676.0 | 2670.6 | [0.00] | ug/L | 12:43:48 |
| 3 | Mg 279.077 IEC† | 3.7 | 3.7 | [0.00] | ug/L | 12:44:08 |
| 3 | Na 589.592 Radial† | -832.2 | -830.5 | [0.00] | ug/L | 12:43:48 |
| 3 | Sr 421.552† | 14.3 | 14.2 | [0.00] | ug/L | 12:43:48 |
| 3 | Sc 361.383 | 873705.1 | 873705.1 | 99.598 | % | 12:45:05 |
| 3 | Y 371.029 | 749962.1 | 749962.1 | 99.222 | % | 12:45:05 |
| 3 | Ag 328.068† | 225.8 | 226.8 | [0.00] | ug/L | 12:45:05 |
| 3 | As 188.979† | -14.4 | -14.5 | [0.00] | ug/L | 12:45:25 |
| 3 | B 249.677† | -422.3 | -424.0 | [0.00] | ug/L | 12:45:25 |
| 3 | Ba 233.527† | -6.3 | -6.4 | [0.00] | ug/L | 12:45:25 |
| 3 | Be 313.107† | -3813.2 | -3828.6 | [0.00] | ug/L | 12:45:05 |
| 3 | Cd 226.502† | -187.4 | -188.2 | [0.00] | ug/L | 12:45:25 |
| 3 | Co 228.616† | -75.9 | -76.2 | [0.00] | ug/L | 12:45:25 |
| 3 | Cr 267.716† | 72.7 | 73.0 | [0.00] | ug/L | 12:45:25 |
| 3 | Cu 324.752† | 5884.0 | 5907.8 | [0.00] | ug/L | 12:45:05 |
| 3 | Mn 257.610† | 467.9 | 469.8 | [0.00] | ug/L | 12:45:25 |
| 3 | Mo 202.031† | 9.6 | 9.6 | [0.00] | ug/L | 12:45:25 |
| 3 | Ni 231.604† | 59.4 | 59.6 | [0.00] | ug/L | 12:45:25 |
| 3 | P 214.914† | 193.8 | 194.5 | [0.00] | ug/L | 12:45:25 |
| 3 | Pb 220.353† | -63.1 | -63.4 | [0.00] | ug/L | 12:45:25 |
| 3 | S 181.975 Axial† | 40.8 | 41.0 | [0.00] | ug/L | 12:45:25 |
| 3 | Sb 206.836† | 38.3 | 38.4 | [0.00] | ug/L | 12:45:25 |
| 3 | Se 196.026† | -22.8 | -22.9 | [0.00] | ug/L | 12:45:25 |
| 3 | Si 251.611† | 570.2 | 572.5 | [0.00] | ug/L | 12:45:25 |
| 3 | Sn 189.927† | 8.5 | 8.6 | [0.00] | ug/L | 12:45:25 |
| 3 | Ti 334.940† | -1350.6 | -1356.1 | [0.00] | ug/L | 12:45:05 |
| 3 | Tl 190.801† | -32.7 | -32.8 | [0.00] | ug/L | 12:45:25 |
| 3 | U 409.014† | -2877.8 | -2889.4 | [0.00] | ug/L | 12:45:05 |
| 3 | V 292.402† | -1517.6 | -1523.7 | [0.00] | ug/L | 12:45:05 |
| 3 | Zn 213.857† | 600.7 | 603.1 | [0.00] | ug/L | 12:45:25 |
| 3 | SiO2† | 534.7 | 536.9 | [0.00] | ug/L | 12:45:41 |

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**Mean Data: S0**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 877231.2 | 3251.90 | 0.37% | 100.00 | % |
| Sc Radial | 3918.8 | 19.47 | 0.50% | 100 | % |
| Y 371.029 | 755844.0 | 5389.12 | 0.71% | 100.00 | % |
| Y RADIAL | 4410.9 | 39.77 | 0.90% | 100.0 | % |
| Ag 328.068† | 240.4 | 33.31 | 13.85% | [0.00] | ug/L |

| | | | | | |
|---|---|---|---|---|---|
| Al 396.153Radial† | -112.4 | 19.01 | 16.91% | [0.00] | ug/L |
| As 188.979† | -18.2 | 4.39 | 24.06% | [0.00] | ug/L |
| B 249.677† | -398.2 | 22.32 | 5.61% | [0.00] | ug/L |
| Ba 233.527† | -1.4 | 4.39 | 310.28% | [0.00] | ug/L |
| Be 313.107† | -3762.2 | 60.09 | 1.60% | [0.00] | ug/L |
| Ca 317.933Radial† | 19.7 | 0.74 | 3.76% | [0.00] | ug/L |
| Cd 226.502† | -196.3 | 9.16 | 4.67% | [0.00] | ug/L |
| Co 228.616† | -66.5 | 9.45 | 14.20% | [0.00] | ug/L |
| Cr 267.716† | 77.7 | 8.87 | 11.42% | [0.00] | ug/L |
| Cu 324.752† | 5990.8 | 72.25 | 1.21% | [0.00] | ug/L |
| Fe 238.204 Radial† | 11.3 | 0.71 | 6.25% | [0.00] | ug/L |
| K 766.490 Radial† | 2639.6 | 45.10 | 1.71% | [0.00] | ug/L |
| Mg 279.077 IEC† | 4.1 | 1.22 | 29.95% | [0.00] | ug/L |
| Mn 257.610† | 458.7 | 15.96 | 3.48% | [0.00] | ug/L |
| Mo 202.031† | 10.1 | 4.73 | 46.62% | [0.00] | ug/L |
| Na 589.592 Radial† | -819.8 | 18.85 | 2.30% | [0.00] | ug/L |
| Ni 231.604† | 62.4 | 2.49 | 3.99% | [0.00] | ug/L |
| P 214.914† | 210.5 | 14.20 | 6.75% | [0.00] | ug/L |
| Pb 220.353† | -58.1 | 4.73 | 8.14% | [0.00] | ug/L |
| S 181.975 Axial† | 40.8 | 2.13 | 5.23% | [0.00] | ug/L |
| Sb 206.836† | 36.7 | 2.22 | 6.05% | [0.00] | ug/L |
| Se 196.026† | -27.7 | 4.54 | 16.36% | [0.00] | ug/L |
| Si 251.611† | 558.3 | 13.60 | 2.44% | [0.00] | ug/L |
| Sn 189.927† | 10.5 | 6.10 | 58.21% | [0.00] | ug/L |
| Sr 421.552† | 35.7 | 31.09 | 87.02% | [0.00] | ug/L |
| Ti 334.940† | -1374.1 | 64.90 | 4.72% | [0.00] | ug/L |
| Tl 190.801† | -32.6 | 1.05 | 3.21% | [0.00] | ug/L |
| U 409.014† | -2886.6 | 49.42 | 1.71% | [0.00] | ug/L |
| V 292.402† | -1505.7 | 23.15 | 1.54% | [0.00] | ug/L |
| Zn 213.857† | 606.0 | 2.76 | 0.46% | [0.00] | ug/L |
| SiO2† | 554.4 | 21.58 | 3.89% | [0.00] | ug/L |

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/24/2010 12:47:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4005.8 | 4005.8 | 102 | % | 12:50:03 |
| 1 | Y RADIAL | 4421.1 | 4421.1 | 100.2 | % | 12:50:03 |
| 1 | K 766.490 Radial† | 7828.1 | 5018.5 | [1000] | ug/L | 12:49:43 |
| 1 | Sr 421.552† | 14342.5 | 13995.4 | [100] | ug/L | 12:50:03 |
| 1 | Sc 361.383 | 912251.6 | 912251.6 | 103.99 | % | 12:51:00 |
| 1 | Y 371.029 | 767312.1 | 767312.1 | 101.52 | % | 12:51:00 |
| 1 | Ag 328.068† | 21835.8 | 20757.1 | [100] | ug/L | 12:51:05 |
| 1 | As 188.979† | 198.9 | 209.5 | [100] | ug/L | 12:51:25 |
| 1 | B 249.677† | 3460.9 | 3726.2 | [100] | ug/L | 12:51:05 |
| 1 | Ba 233.527† | 12816.7 | 12326.1 | [100] | ug/L | 12:51:05 |
| 1 | Be 313.107† | 261235.4 | 254969.0 | [100] | ug/L | 12:51:00 |
| 1 | Cd 226.502† | 8472.7 | 8343.7 | [100] | ug/L | 12:51:05 |
| 1 | Co 228.616† | 4664.2 | 4551.7 | [100] | ug/L | 12:51:25 |
| 1 | Cr 267.716† | 9056.1 | 8630.8 | [100] | ug/L | 12:51:05 |
| 1 | Cu 324.752† | 38425.7 | 30959.8 | [100] | ug/L | 12:51:05 |
| 1 | Mn 257.610† | 89289.5 | 85403.0 | [100] | ug/L | 12:51:05 |
| 1 | Mo 202.031† | 1368.6 | 1305.9 | [100] | ug/L | 12:51:25 |
| 1 | Ni 231.604† | 3925.6 | 3712.5 | [100] | ug/L | 12:51:25 |
| 1 | P 214.914† | 1032.8 | 782.6 | [500] | ug/L | 12:51:25 |
| 1 | Pb 220.353† | 757.9 | 786.9 | [100] | ug/L | 12:51:25 |
| 1 | S 181.975 Axial† | 173.6 | 126.2 | [200] | ug/L | 12:51:25 |
| 1 | Sb 206.836† | 319.8 | 270.9 | [100] | ug/L | 12:51:25 |
| 1 | Se 196.026† | 114.7 | 138.1 | [100] | ug/L | 12:51:25 |
| 1 | Si 251.611† | 15820.1 | 14654.5 | [500] | ug/L | 12:51:05 |
| 1 | Sn 189.927† | 563.2 | 531.1 | [100] | ug/L | 12:51:25 |
| 1 | Ti 334.940† | 62252.0 | 61236.3 | [100] | ug/L | 12:51:05 |
| 1 | Tl 190.801† | 284.5 | 306.2 | [100] | ug/L | 12:51:25 |
| 1 | U 409.014† | 823.0 | 3678.0 | [100] | ug/L | 12:51:00 |
| 1 | V 292.402† | 12731.0 | 13747.9 | [100] | ug/L | 12:51:05 |
| 1 | Zn 213.857† | 10501.6 | 9492.4 | [100] | ug/L | 12:51:05 |
| 1 | SiO2† | 15859.3 | 14696.0 | [1069.5] | ug/L | 12:52:31 |
| 2 | Sc Radial | 4014.4 | 4014.4 | 102 | % | 12:50:28 |
| 2 | Y RADIAL | 4429.4 | 4429.4 | 100.4 | % | 12:50:28 |
| 2 | K 766.490 Radial† | 7827.2 | 5001.2 | [1000] | ug/L | 12:50:08 |
| 2 | Sr 421.552† | 14370.6 | 13992.6 | [100] | ug/L | 12:50:28 |
| 2 | Sc 361.383 | 913537.5 | 913537.5 | 104.14 | % | 12:51:31 |
| 2 | Y 371.029 | 770025.1 | 770025.1 | 101.88 | % | 12:51:31 |
| 2 | Ag 328.068† | 22061.3 | 20944.1 | [100] | ug/L | 12:51:36 |
| 2 | As 188.979† | 191.0 | 201.6 | [100] | ug/L | 12:51:56 |
| 2 | B 249.677† | 3542.8 | 3800.2 | [100] | ug/L | 12:51:36 |
| 2 | Ba 233.527† | 12960.8 | 12447.1 | [100] | ug/L | 12:51:36 |
| 2 | Be 313.107† | 262476.2 | 255807.0 | [100] | ug/L | 12:51:31 |
| 2 | Cd 226.502† | 8580.1 | 8435.4 | [100] | ug/L | 12:51:36 |
| 2 | Co 228.616† | 4674.2 | 4555.0 | [100] | ug/L | 12:51:56 |
| 2 | Cr 267.716† | 9092.1 | 8653.1 | [100] | ug/L | 12:51:36 |
| 2 | Cu 324.752† | 38833.0 | 31298.9 | [100] | ug/L | 12:51:36 |
| 2 | Mn 257.610† | 90310.7 | 86262.8 | [100] | ug/L | 12:51:36 |
| 2 | Mo 202.031† | 1386.0 | 1320.7 | [100] | ug/L | 12:51:56 |
| 2 | Ni 231.604† | 3948.1 | 3728.8 | [100] | ug/L | 12:51:56 |
| 2 | P 214.914† | 1023.5 | 772.3 | [500] | ug/L | 12:51:56 |
| 2 | Pb 220.353† | 753.7 | 781.9 | [100] | ug/L | 12:51:56 |
| 2 | S 181.975 Axial† | 178.6 | 130.7 | [200] | ug/L | 12:51:56 |
| 2 | Sb 206.836† | 328.6 | 278.8 | [100] | ug/L | 12:51:56 |
| 2 | Se 196.026† | 131.5 | 154.0 | [100] | ug/L | 12:51:56 |
| 2 | Si 251.611† | 15981.8 | 14788.3 | [500] | ug/L | 12:51:36 |
| 2 | Sn 189.927† | 567.0 | 534.0 | [100] | ug/L | 12:51:56 |
| 2 | Ti 334.940† | 62812.3 | 61690.1 | [100] | ug/L | 12:51:36 |
| 2 | Tl 190.801† | 288.1 | 309.2 | [100] | ug/L | 12:51:56 |
| 2 | U 409.014† | 775.5 | 3631.3 | [100] | ug/L | 12:51:31 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | V 292.402† | 12904.7 | 13897.5 | [100] | ug/L | 12:51:36 |
| 2 | Zn 213.857† | 10628.4 | 9600.0 | [100] | ug/L | 12:51:36 |
| 2 | SiO2† | 15791.1 | 14609.1 | [1069.5] | ug/L | 12:52:37 |
| 3 | Sc Radial | 4034.1 | 4034.1 | 103 | % | 12:50:53 |
| 3 | Y RADIAL | 4460.1 | 4460.1 | 101.1 | % | 12:50:53 |
| 3 | K 766.490 Radial† | 7747.9 | 4886.8 | [1000] | ug/L | 12:50:33 |
| 3 | Sr 421.552† | 14406.4 | 13958.9 | [100] | ug/L | 12:50:53 |
| 3 | Sc 361.383 | 917853.3 | 917853.3 | 104.63 | % | 12:52:01 |
| 3 | Y 371.029 | 772132.1 | 772132.1 | 102.15 | % | 12:52:01 |
| 3 | Ag 328.068† | 21942.6 | 20731.0 | [100] | ug/L | 12:52:06 |
| 3 | As 188.979† | 203.5 | 212.7 | [100] | ug/L | 12:52:26 |
| 3 | B 249.677† | 3497.8 | 3741.2 | [100] | ug/L | 12:52:06 |
| 3 | Ba 233.527† | 12850.1 | 12282.8 | [100] | ug/L | 12:52:06 |
| 3 | Be 313.107† | 263723.4 | 255813.8 | [100] | ug/L | 12:52:01 |
| 3 | Cd 226.502† | 8478.9 | 8299.9 | [100] | ug/L | 12:52:06 |
| 3 | Co 228.616† | 4695.0 | 4553.8 | [100] | ug/L | 12:52:26 |
| 3 | Cr 267.716† | 9036.4 | 8558.7 | [100] | ug/L | 12:52:06 |
| 3 | Cu 324.752† | 38599.7 | 30900.6 | [100] | ug/L | 12:52:06 |
| 3 | Mn 257.610† | 89449.5 | 85031.9 | [100] | ug/L | 12:52:06 |
| 3 | Mo 202.031† | 1376.6 | 1305.6 | [100] | ug/L | 12:52:26 |
| 3 | Ni 231.604† | 3946.9 | 3709.8 | [100] | ug/L | 12:52:26 |
| 3 | P 214.914† | 1025.1 | 769.2 | [500] | ug/L | 12:52:26 |
| 3 | Pb 220.353† | 759.5 | 784.0 | [100] | ug/L | 12:52:26 |
| 3 | S 181.975 Axial† | 177.3 | 128.6 | [200] | ug/L | 12:52:26 |
| 3 | Sb 206.836† | 318.4 | 267.6 | [100] | ug/L | 12:52:26 |
| 3 | Se 196.026† | 122.0 | 144.4 | [100] | ug/L | 12:52:26 |
| 3 | Si 251.611† | 15853.0 | 14593.1 | [500] | ug/L | 12:52:06 |
| 3 | Sn 189.927† | 568.3 | 532.7 | [100] | ug/L | 12:52:26 |
| 3 | Ti 334.940† | 62266.2 | 60884.5 | [100] | ug/L | 12:52:06 |
| 3 | Tl 190.801† | 284.5 | 304.5 | [100] | ug/L | 12:52:26 |
| 3 | U 409.014† | 873.3 | 3721.2 | [100] | ug/L | 12:52:01 |
| 3 | V 292.402† | 12660.5 | 13605.9 | [100] | ug/L | 12:52:06 |
| 3 | Zn 213.857† | 10587.7 | 9513.1 | [100] | ug/L | 12:52:06 |
| 3 | SiO2† | 15645.8 | 14399.0 | [1069.5] | ug/L | 12:52:42 |

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**Mean Data: S0.1**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 914547.5 | 2934.26 | 0.32% | 104.25 | % |
| Sc Radial | 4018.1 | 14.52 | 0.36% | 103 | % |
| Y 371.029 | 769823.1 | 2416.34 | 0.31% | 101.85 | % |
| Y RADIAL | 4436.9 | 20.55 | 0.46% | 100.6 | % |
| Ag 328.068† | 20810.8 | 116.25 | 0.56% | [100] | ug/L |
| As 188.979† | 208.0 | 5.71 | 2.75% | [100] | ug/L |
| B 249.677† | 3755.9 | 39.08 | 1.04% | [100] | ug/L |
| Ba 233.527† | 12352.0 | 85.16 | 0.69% | [100] | ug/L |
| Be 313.107† | 255529.9 | 485.76 | 0.19% | [100] | ug/L |
| Cd 226.502† | 8359.7 | 69.12 | 0.83% | [100] | ug/L |
| Co 228.616† | 4553.5 | 1.67 | 0.04% | [100] | ug/L |
| Cr 267.716† | 8614.2 | 49.31 | 0.57% | [100] | ug/L |
| Cu 324.752† | 31053.1 | 214.93 | 0.69% | [100] | ug/L |
| K 766.490 Radial† | 4968.8 | 71.55 | 1.44% | [1000] | ug/L |
| Mn 257.610† | 85565.9 | 631.38 | 0.74% | [100] | ug/L |
| Mo 202.031† | 1310.7 | 8.66 | 0.66% | [100] | ug/L |
| Ni 231.604† | 3717.0 | 10.29 | 0.28% | [100] | ug/L |
| P 214.914† | 774.7 | 7.02 | 0.91% | [500] | ug/L |
| Pb 220.353† | 784.3 | 2.54 | 0.32% | [100] | ug/L |
| S 181.975 Axial† | 128.5 | 2.26 | 1.76% | [200] | ug/L |
| Sb 206.836† | 272.4 | 5.80 | 2.13% | [100] | ug/L |
| Se 196.026† | 145.5 | 8.02 | 5.51% | [100] | ug/L |
| Si 251.611† | 14678.6 | 99.81 | 0.68% | [500] | ug/L |
| Sn 189.927† | 532.6 | 1.47 | 0.28% | [100] | ug/L |
| Sr 421.552† | 13982.3 | 20.28 | 0.15% | [100] | ug/L |
| Ti 334.940† | 61270.3 | 403.85 | 0.66% | [100] | ug/L |
| Tl 190.801† | 306.6 | 2.39 | 0.78% | [100] | ug/L |
| U 409.014† | 3676.8 | 45.00 | 1.22% | [100] | ug/L |
| V 292.402† | 13750.4 | 145.82 | 1.06% | [100] | ug/L |
| Zn 213.857† | 9535.2 | 57.07 | 0.60% | [100] | ug/L |
| SiO2† | 14568.0 | 152.72 | 1.05% | [1069.5] | ug/L |

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/24/2010 12:54:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3959.7 | 3959.7 | 101 | % | 12:57:04 |
| 1 | Y RADIAL | 4531.2 | 4531.2 | 102.7 | % | 12:56:44 |
| 1 | Al 396.153Radial† | 5299.7 | 5357.4 | [5000] | ug/L | 12:56:44 |
| 1 | Ca 317.933Radial† | 2504.8 | 2459.2 | [5000] | ug/L | 12:57:04 |
| 1 | K 766.490 Radial† | 28970.2 | 26031.7 | [5000] | ug/L | 12:56:44 |
| 1 | Mg 279.077 IEC† | 114.3 | 109.0 | [5000] | ug/L | 12:57:04 |
| 1 | Sr 421.552† | 74496.5 | 73692.2 | [500] | ug/L | 12:56:44 |
| 1 | Sc 361.383 | 897125.4 | 897125.4 | 102.27 | % | 12:58:02 |
| 1 | Y 371.029 | 748525.9 | 748525.9 | 99.032 | % | 12:58:02 |
| 1 | Ag 328.068† | 107053.3 | 104438.9 | [500] | ug/L | 12:58:07 |
| 1 | As 188.979† | 1070.9 | 1065.4 | [500] | ug/L | 12:58:27 |
| 1 | B 249.677† | 19759.8 | 19719.9 | [500] | ug/L | 12:58:07 |
| 1 | Ba 233.527† | 63021.1 | 61625.0 | [500] | ug/L | 12:58:07 |
| 1 | Be 313.107† | 1311064.9 | 1285753.6 | [500] | ug/L | 12:58:02 |
| 1 | Cd 226.502† | 42580.3 | 41832.3 | [500] | ug/L | 12:58:07 |
| 1 | Co 228.616† | 23629.3 | 23171.9 | [500] | ug/L | 12:58:07 |
| 1 | Cr 267.716† | 44167.4 | 43110.3 | [500] | ug/L | 12:58:07 |
| 1 | Cu 324.752† | 168199.0 | 158478.3 | [500] | ug/L | 12:58:07 |
| 1 | Mn 257.610† | 435613.3 | 425494.6 | [500] | ug/L | 12:58:02 |
| 1 | Mo 202.031† | 6724.4 | 6565.1 | [500] | ug/L | 12:58:27 |
| 1 | Ni 231.604† | 19643.7 | 19145.6 | [500] | ug/L | 12:58:07 |
| 1 | P 214.914† | 4299.3 | 3993.5 | [2500] | ug/L | 12:58:27 |
| 1 | Pb 220.353† | 3963.4 | 3933.6 | [500] | ug/L | 12:58:27 |
| 1 | S 181.975 Axial† | 723.9 | 667.0 | [1000] | ug/L | 12:58:27 |
| 1 | Sb 206.836† | 1435.8 | 1367.3 | [500] | ug/L | 12:58:27 |
| 1 | Se 196.026† | 731.1 | 742.6 | [500] | ug/L | 12:58:27 |
| 1 | Si 251.611† | 76752.3 | 74491.9 | [2500] | ug/L | 12:58:07 |
| 1 | Sn 189.927† | 2742.3 | 2671.0 | [500] | ug/L | 12:58:27 |
| 1 | Ti 334.940† | 312680.9 | 307121.1 | [500] | ug/L | 12:58:07 |
| 1 | Tl 190.801† | 1515.9 | 1514.9 | [500] | ug/L | 12:58:27 |
| 1 | U 409.014† | 15062.9 | 17615.5 | [500] | ug/L | 12:58:07 |
| 1 | V 292.402† | 69312.6 | 69281.2 | [500] | ug/L | 12:58:07 |
| 1 | Zn 213.857† | 49818.2 | 48107.4 | [500] | ug/L | 12:58:07 |
| 1 | SiO2† | 76507.0 | 74256.1 | [5347.5] | ug/L | 12:59:34 |
| 2 | Sc Radial | 3933.2 | 3933.2 | 100 | % | 12:57:29 |
| 2 | Y RADIAL | 4459.3 | 4459.3 | 101.1 | % | 12:57:09 |
| 2 | Al 396.153Radial† | 5244.5 | 5337.7 | [5000] | ug/L | 12:57:09 |
| 2 | Ca 317.933Radial† | 2485.6 | 2456.8 | [5000] | ug/L | 12:57:29 |
| 2 | K 766.490 Radial† | 28957.5 | 26211.9 | [5000] | ug/L | 12:57:09 |
| 2 | Mg 279.077 IEC† | 114.5 | 110.0 | [5000] | ug/L | 12:57:29 |
| 2 | Sr 421.552† | 73720.2 | 73414.8 | [500] | ug/L | 12:57:09 |
| 2 | Sc 361.383 | 905003.4 | 905003.4 | 103.17 | % | 12:58:33 |
| 2 | Y 371.029 | 755053.0 | 755053.0 | 99.895 | % | 12:58:33 |
| 2 | Ag 328.068† | 107573.6 | 104032.0 | [500] | ug/L | 12:58:38 |
| 2 | As 188.979† | 1079.9 | 1065.0 | [500] | ug/L | 12:58:58 |
| 2 | B 249.677† | 19869.0 | 19657.5 | [500] | ug/L | 12:58:38 |
| 2 | Ba 233.527† | 63498.4 | 61551.2 | [500] | ug/L | 12:58:38 |
| 2 | Be 313.107† | 1324029.2 | 1287160.3 | [500] | ug/L | 12:58:33 |
| 2 | Cd 226.502† | 42949.2 | 41827.5 | [500] | ug/L | 12:58:38 |
| 2 | Co 228.616† | 23774.0 | 23111.0 | [500] | ug/L | 12:58:38 |
| 2 | Cr 267.716† | 44412.4 | 42971.8 | [500] | ug/L | 12:58:38 |
| 2 | Cu 324.752† | 168924.0 | 157749.4 | [500] | ug/L | 12:58:38 |
| 2 | Mn 257.610† | 439858.6 | 425901.7 | [500] | ug/L | 12:58:33 |
| 2 | Mo 202.031† | 6721.4 | 6505.0 | [500] | ug/L | 12:58:58 |
| 2 | Ni 231.604† | 19793.6 | 19123.7 | [500] | ug/L | 12:58:38 |
| 2 | P 214.914† | 4301.9 | 3959.3 | [2500] | ug/L | 12:58:58 |
| 2 | Pb 220.353† | 3958.2 | 3894.8 | [500] | ug/L | 12:58:58 |
| 2 | S 181.975 Axial† | 735.7 | 672.3 | [1000] | ug/L | 12:58:58 |
| 2 | Sb 206.836† | 1436.7 | 1355.9 | [500] | ug/L | 12:58:58 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Se 196.026† | 726.6 | 732.0 | [500] | ug/L | 12:58:58 |
| 2 | Si 251.611† | 77292.3 | 74362.0 | [2500] | ug/L | 12:58:38 |
| 2 | Sn 189.927† | 2746.6 | 2651.9 | [500] | ug/L | 12:58:58 |
| 2 | Ti 334.940† | 314167.7 | 305900.8 | [500] | ug/L | 12:58:38 |
| 2 | Tl 190.801† | 1521.2 | 1507.1 | [500] | ug/L | 12:58:58 |
| 2 | U 409.014† | 15023.8 | 17449.3 | [500] | ug/L | 12:58:38 |
| 2 | V 292.402† | 69648.6 | 69017.0 | [500] | ug/L | 12:58:38 |
| 2 | Zn 213.857† | 50222.2 | 48075.0 | [500] | ug/L | 12:58:38 |
| 2 | SiO2† | 76326.3 | 73429.6 | [5347.5] | ug/L | 12:59:40 |
| 3 | Sc Radial | 3958.2 | 3958.2 | 101 | % | 12:57:55 |
| 3 | Y RADIAL | 4421.5 | 4421.5 | 100.2 | % | 12:57:35 |
| 3 | Al 396.153Radial† | 5185.2 | 5246.0 | [5000] | ug/L | 12:57:35 |
| 3 | Ca 317.933Radial† | 2501.0 | 2456.4 | [5000] | ug/L | 12:57:55 |
| 3 | K 766.490 Radial† | 28377.0 | 25454.7 | [5000] | ug/L | 12:57:35 |
| 3 | Mg 279.077 IEC† | 113.2 | 108.0 | [5000] | ug/L | 12:57:55 |
| 3 | Sr 421.552† | 72815.9 | 72054.9 | [500] | ug/L | 12:57:35 |
| 3 | Sc 361.383 | 899796.5 | 899796.5 | 102.57 | % | 12:59:04 |
| 3 | Y 371.029 | 750250.2 | 750250.2 | 99.260 | % | 12:59:04 |
| 3 | Ag 328.068† | 107424.7 | 104490.3 | [500] | ug/L | 12:59:09 |
| 3 | As 188.979† | 1092.1 | 1082.9 | [500] | ug/L | 12:59:29 |
| 3 | B 249.677† | 19835.0 | 19735.8 | [500] | ug/L | 12:59:09 |
| 3 | Ba 233.527† | 63425.2 | 61836.0 | [500] | ug/L | 12:59:09 |
| 3 | Be 313.107† | 1311646.2 | 1282514.5 | [500] | ug/L | 12:59:04 |
| 3 | Cd 226.502† | 42936.9 | 42056.3 | [500] | ug/L | 12:59:09 |
| 3 | Co 228.616† | 23728.0 | 23199.5 | [500] | ug/L | 12:59:09 |
| 3 | Cr 267.716† | 44364.5 | 43174.2 | [500] | ug/L | 12:59:09 |
| 3 | Cu 324.752† | 167878.7 | 157677.8 | [500] | ug/L | 12:59:09 |
| 3 | Mn 257.610† | 436632.8 | 425224.0 | [500] | ug/L | 12:59:04 |
| 3 | Mo 202.031† | 6787.8 | 6607.4 | [500] | ug/L | 12:59:29 |
| 3 | Ni 231.604† | 19669.6 | 19113.8 | [500] | ug/L | 12:59:09 |
| 3 | P 214.914† | 4317.1 | 3998.3 | [2500] | ug/L | 12:59:29 |
| 3 | Pb 220.353† | 3990.8 | 3948.8 | [500] | ug/L | 12:59:29 |
| 3 | S 181.975 Axial† | 729.2 | 670.1 | [1000] | ug/L | 12:59:29 |
| 3 | Sb 206.836† | 1442.2 | 1369.4 | [500] | ug/L | 12:59:29 |
| 3 | Se 196.026† | 729.7 | 739.2 | [500] | ug/L | 12:59:29 |
| 3 | Si 251.611† | 77120.7 | 74628.3 | [2500] | ug/L | 12:59:09 |
| 3 | Sn 189.927† | 2757.9 | 2678.2 | [500] | ug/L | 12:59:29 |
| 3 | Ti 334.940† | 313399.4 | 306913.9 | [500] | ug/L | 12:59:09 |
| 3 | Tl 190.801† | 1530.3 | 1524.5 | [500] | ug/L | 12:59:29 |
| 3 | U 409.014† | 14852.9 | 17367.0 | [500] | ug/L | 12:59:09 |
| 3 | V 292.402† | 69433.5 | 69197.9 | [500] | ug/L | 12:59:09 |
| 3 | Zn 213.857† | 50097.8 | 48235.4 | [500] | ug/L | 12:59:09 |
| 3 | SiO2† | 76717.8 | 74239.4 | [5347.5] | ug/L | 12:59:45 |

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**Mean Data: S0.5**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 900641.8 | 4006.45 | 0.44% | 102.67 | % |
| Sc Radial | 3950.4 | 14.89 | 0.38% | 101 | % |
| Y 371.029 | 751276.3 | 3382.41 | 0.45% | 99.396 | % |
| Y RADIAL | 4470.7 | 55.69 | 1.25% | 101.4 | % |
| Ag 328.068† | 104320.4 | 251.07 | 0.24% | [500] | ug/L |
| Al 396.153Radial† | 5313.7 | 59.46 | 1.12% | [5000] | ug/L |
| As 188.979† | 1071.1 | 10.25 | 0.96% | [500] | ug/L |
| B 249.677† | 19704.4 | 41.40 | 0.21% | [500] | ug/L |
| Ba 233.527† | 61670.7 | 147.80 | 0.24% | [500] | ug/L |
| Be 313.107† | 1285142.8 | 2382.35 | 0.19% | [500] | ug/L |
| Ca 317.933Radial† | 2457.5 | 1.55 | 0.06% | [5000] | ug/L |
| Cd 226.502† | 41905.4 | 130.75 | 0.31% | [500] | ug/L |
| Co 228.616† | 23160.8 | 45.28 | 0.20% | [500] | ug/L |
| Cr 267.716† | 43085.4 | 103.50 | 0.24% | [500] | ug/L |
| Cu 324.752† | 157968.5 | 442.96 | 0.28% | [500] | ug/L |
| K 766.490 Radial† | 25899.5 | 395.55 | 1.53% | [5000] | ug/L |
| Mg 279.077 IEC† | 109.0 | 1.01 | 0.92% | [5000] | ug/L |
| Mn 257.610† | 425540.1 | 341.15 | 0.08% | [500] | ug/L |
| Mo 202.031† | 6559.2 | 51.47 | 0.78% | [500] | ug/L |
| Ni 231.604† | 19127.7 | 16.28 | 0.09% | [500] | ug/L |
| P 214.914† | 3983.7 | 21.24 | 0.53% | [2500] | ug/L |
| Pb 220.353† | 3925.8 | 27.83 | 0.71% | [500] | ug/L |
| S 181.975 Axial† | 669.8 | 2.64 | 0.39% | [1000] | ug/L |

| | | | | | |
|---|---|---|---|---|---|
| Sb 206.836† | 1364.2 | 7.24 | 0.53% | [500] | ug/L |
| Se 196.026† | 737.9 | 5.41 | 0.73% | [500] | ug/L |
| Si 251.611† | 74494.1 | 133.14 | 0.18% | [2500] | ug/L |
| Sn 189.927† | 2667.0 | 13.62 | 0.51% | [500] | ug/L |
| Sr 421.552† | 73054.0 | 876.27 | 1.20% | [500] | ug/L |
| Ti 334.940† | 306645.3 | 653.00 | 0.21% | [500] | ug/L |
| Tl 190.801† | 1515.5 | 8.69 | 0.57% | [500] | ug/L |
| U 409.014† | 17477.3 | 126.58 | 0.72% | [500] | ug/L |
| V 292.402† | 69165.3 | 135.09 | 0.20% | [500] | ug/L |
| Zn 213.857† | 48139.3 | 84.84 | 0.18% | [500] | ug/L |
| SiO2† | 73975.0 | 472.42 | 0.64% | [5347.5] | ug/L |

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/24/2010 13:01:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

| Rep1# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3880.9 | 3880.9 | 99.0 | % | 13:04:09 |
| 1 | Y RADIAL | 4366.3 | 4366.3 | 98.99 | % | 13:03:49 |
| 1 | Al 396.153Radial† | 10508.7 | 10723.7 | [10000] | ug/L | 13:03:49 |
| 1 | Ca 317.933Radial† | 4948.7 | 4977.4 | [10000] | ug/L | 13:03:49 |
| 1 | Fe 238.204 Radial† | 739.4 | 735.3 | [10000] | ug/L | 13:04:09 |
| 1 | K 766.490 Radial† | 54503.6 | 52395.8 | [10000] | ug/L | 13:03:49 |
| 1 | Mg 279.077 IEC† | 217.4 | 215.4 | [10000] | ug/L | 13:04:09 |
| 1 | Na 589.592 Radial† | 31922.6 | 33053.9 | [10000] | ug/L | 13:03:49 |
| 1 | Sr 421.552† | 143109.9 | 144470.8 | [1000] | ug/L | 13:03:49 |
| 1 | Sc 361.383 | 862098.1 | 862098.1 | 98.275 | % | 13:05:12 |
| 1 | Y 371.029 | 730592.8 | 730592.8 | 96.659 | % | 13:05:12 |
| 1 | Ag 328.068† | 213991.6 | 217507.6 | [1000] | ug/L | 13:05:12 |
| 1 | As 188.979† | 2199.7 | 2256.5 | [1000] | ug/L | 13:05:32 |
| 1 | B 249.677† | 40577.2 | 41687.7 | [1000] | ug/L | 13:05:12 |
| 1 | Ba 233.527† | 126278.9 | 128497.0 | [1000] | ug/L | 13:05:12 |
| 1 | Be 313.107† | 2643845.8 | 2694017.5 | [1000] | ug/L | 13:05:07 |
| 1 | Cd 226.502† | 85249.3 | 86942.0 | [1000] | ug/L | 13:05:12 |
| 1 | Co 228.616† | 47146.8 | 48040.9 | [1000] | ug/L | 13:05:12 |
| 1 | Cr 267.716† | 88467.4 | 89942.6 | [1000] | ug/L | 13:05:12 |
| 1 | Cu 324.752† | 331740.6 | 331573.1 | [1000] | ug/L | 13:05:12 |
| 1 | Mn 257.610† | 873120.1 | 887987.9 | [1000] | ug/L | 13:05:07 |
| 1 | Mo 202.031† | 13513.2 | 13740.3 | [1000] | ug/L | 13:05:32 |
| 1 | Ni 231.604† | 39004.7 | 39626.9 | [1000] | ug/L | 13:05:12 |
| 1 | P 214.914† | 8438.2 | 8375.9 | [5000] | ug/L | 13:05:32 |
| 1 | Pb 220.353† | 8018.1 | 8217.0 | [1000] | ug/L | 13:05:32 |
| 1 | S 181.975 Axial† | 1417.0 | 1401.1 | [2000] | ug/L | 13:05:32 |
| 1 | Sb 206.836† | 2869.6 | 2883.3 | [1000] | ug/L | 13:05:32 |
| 1 | Se 196.026† | 1473.1 | 1526.7 | [1000] | ug/L | 13:05:32 |
| 1 | Si 251.611† | 153638.7 | 155777.3 | [5000] | ug/L | 13:05:12 |
| 1 | Sn 189.927† | 5532.1 | 5618.7 | [1000] | ug/L | 13:05:32 |
| 1 | Ti 334.940† | 629710.8 | 642138.6 | [1000] | ug/L | 13:05:12 |
| 1 | Tl 190.801† | 3059.8 | 3146.1 | [1000] | ug/L | 13:05:32 |
| 1 | U 409.014† | 33013.1 | 36479.2 | [1000] | ug/L | 13:05:12 |
| 1 | V 292.402† | 140898.6 | 144877.6 | [1000] | ug/L | 13:05:12 |
| 1 | Zn 213.857† | 98955.1 | 100086.1 | [1000] | ug/L | 13:05:12 |
| 1 | SiO2† | 154057.4 | 156207.2 | [10695] | ug/L | 13:06:41 |
| 2 | Sc Radial | 3870.6 | 3870.6 | 98.8 | % | 13:04:34 |
| 2 | Y RADIAL | 4379.4 | 4379.4 | 99.29 | % | 13:04:14 |
| 2 | Al 396.153Radial† | 10539.9 | 10783.7 | [10000] | ug/L | 13:04:14 |
| 2 | Ca 317.933Radial† | 4960.3 | 5002.4 | [10000] | ug/L | 13:04:14 |
| 2 | Fe 238.204 Radial† | 735.6 | 733.4 | [10000] | ug/L | 13:04:34 |
| 2 | K 766.490 Radial† | 54665.8 | 52707.5 | [10000] | ug/L | 13:04:14 |
| 2 | Mg 279.077 IEC† | 221.2 | 219.8 | [10000] | ug/L | 13:04:34 |
| 2 | Na 589.592 Radial† | 32289.0 | 33511.2 | [10000] | ug/L | 13:04:14 |
| 2 | Sr 421.552† | 144136.6 | 145897.3 | [1000] | ug/L | 13:04:14 |
| 2 | Sc 361.383 | 862519.3 | 862519.3 | 98.323 | % | 13:05:44 |
| 2 | Y 371.029 | 730370.7 | 730370.7 | 96.630 | % | 13:05:44 |
| 2 | Ag 328.068† | 214513.9 | 217932.4 | [1000] | ug/L | 13:05:44 |
| 2 | As 188.979† | 2212.0 | 2268.0 | [1000] | ug/L | 13:06:04 |
| 2 | B 249.677† | 40609.6 | 41700.5 | [1000] | ug/L | 13:05:44 |
| 2 | Ba 233.527† | 126652.9 | 128814.6 | [1000] | ug/L | 13:05:44 |
| 2 | Be 313.107† | 2629012.2 | 2677617.0 | [1000] | ug/L | 13:05:38 |
| 2 | Cd 226.502† | 85562.0 | 87217.7 | [1000] | ug/L | 13:05:44 |
| 2 | Co 228.616† | 47342.7 | 48216.7 | [1000] | ug/L | 13:05:44 |
| 2 | Cr 267.716† | 88487.6 | 89919.2 | [1000] | ug/L | 13:05:44 |
| 2 | Cu 324.752† | 332651.7 | 332334.9 | [1000] | ug/L | 13:05:44 |
| 2 | Mn 257.610† | 868761.6 | 883121.1 | [1000] | ug/L | 13:05:38 |
| 2 | Mo 202.031† | 13507.4 | 13727.7 | [1000] | ug/L | 13:06:04 |
| 2 | Ni 231.604† | 39139.1 | 39744.2 | [1000] | ug/L | 13:05:44 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 8465.6 | 8399.4 | [5000] | ug/L | 13:06:04 |
| 2 | Pb 220.353† | 7995.5 | 8190.0 | [1000] | ug/L | 13:06:04 |
| 2 | S 181.975 Axial† | 1420.9 | 1404.3 | [2000] | ug/L | 13:06:04 |
| 2 | Sb 206.836† | 2875.8 | 2888.2 | [1000] | ug/L | 13:06:04 |
| 2 | Se 196.026† | 1486.2 | 1539.3 | [1000] | ug/L | 13:06:04 |
| 2 | Si 251.611† | 154172.3 | 156243.7 | [5000] | ug/L | 13:05:44 |
| 2 | Sn 189.927† | 5555.0 | 5639.2 | [1000] | ug/L | 13:06:04 |
| 2 | Ti 334.940† | 631308.0 | 643450.1 | [1000] | ug/L | 13:05:44 |
| 2 | Tl 190.801† | 3069.3 | 3154.2 | [1000] | ug/L | 13:06:04 |
| 2 | U 409.014† | 33087.8 | 36538.8 | [1000] | ug/L | 13:05:44 |
| 2 | V 292.402† | 140835.9 | 144743.8 | [1000] | ug/L | 13:05:44 |
| 2 | Zn 213.857† | 99266.4 | 100353.5 | [1000] | ug/L | 13:05:44 |
| 2 | SiO2† | 151317.5 | 153344.1 | [10695] | ug/L | 13:06:46 |
| 3 | Sc Radial | 3888.1 | 3888.1 | 99.2 | % | 13:04:59 |
| 3 | Y RADIAL | 4297.5 | 4297.5 | 97.43 | % | 13:04:39 |
| 3 | Al 396.153Radial† | 10402.0 | 10596.6 | [10000] | ug/L | 13:04:39 |
| 3 | Ca 317.933Radial† | 4857.0 | 4875.7 | [10000] | ug/L | 13:04:39 |
| 3 | Fe 238.204 Radial† | 737.7 | 732.2 | [10000] | ug/L | 13:04:59 |
| 3 | K 766.490 Radial† | 53748.1 | 51533.5 | [10000] | ug/L | 13:04:39 |
| 3 | Mg 279.077 IEC† | 220.0 | 217.7 | [10000] | ug/L | 13:04:59 |
| 3 | Na 589.592 Radial† | 31437.0 | 32505.4 | [10000] | ug/L | 13:04:39 |
| 3 | Sr 421.552† | 141054.9 | 142134.5 | [1000] | ug/L | 13:04:39 |
| 3 | Sc 361.383 | 859586.0 | 859586.0 | 97.989 | % | 13:06:15 |
| 3 | Y 371.029 | 727059.1 | 727059.1 | 96.192 | % | 13:06:15 |
| 3 | Ag 328.068† | 213575.5 | 217719.3 | [1000] | ug/L | 13:06:15 |
| 3 | As 188.979† | 2207.6 | 2271.2 | [1000] | ug/L | 13:06:35 |
| 3 | B 249.677† | 40605.4 | 41837.2 | [1000] | ug/L | 13:06:15 |
| 3 | Ba 233.527† | 125588.7 | 128168.1 | [1000] | ug/L | 13:06:15 |
| 3 | Be 313.107† | 2624977.6 | 2682624.1 | [1000] | ug/L | 13:06:10 |
| 3 | Cd 226.502† | 84961.5 | 86901.8 | [1000] | ug/L | 13:06:15 |
| 3 | Co 228.616† | 47045.8 | 48078.0 | [1000] | ug/L | 13:06:15 |
| 3 | Cr 267.716† | 87921.2 | 89648.3 | [1000] | ug/L | 13:06:15 |
| 3 | Cu 324.752† | 331178.0 | 331985.5 | [1000] | ug/L | 13:06:15 |
| 3 | Mn 257.610† | 869310.7 | 886696.8 | [1000] | ug/L | 13:06:10 |
| 3 | Mo 202.031† | 13519.7 | 13787.1 | [1000] | ug/L | 13:06:35 |
| 3 | Ni 231.604† | 38715.6 | 39447.9 | [1000] | ug/L | 13:06:15 |
| 3 | P 214.914† | 8449.3 | 8412.3 | [5000] | ug/L | 13:06:35 |
| 3 | Pb 220.353† | 7981.9 | 8203.9 | [1000] | ug/L | 13:06:35 |
| 3 | S 181.975 Axial† | 1416.6 | 1404.9 | [2000] | ug/L | 13:06:35 |
| 3 | Sb 206.836† | 2891.6 | 2914.3 | [1000] | ug/L | 13:06:35 |
| 3 | Se 196.026† | 1494.8 | 1553.2 | [1000] | ug/L | 13:06:35 |
| 3 | Si 251.611† | 153322.8 | 155911.9 | [5000] | ug/L | 13:06:15 |
| 3 | Sn 189.927† | 5545.6 | 5648.9 | [1000] | ug/L | 13:06:35 |
| 3 | Ti 334.940† | 627308.7 | 641559.9 | [1000] | ug/L | 13:06:15 |
| 3 | Tl 190.801† | 3061.7 | 3157.1 | [1000] | ug/L | 13:06:35 |
| 3 | U 409.014† | 32986.5 | 36550.2 | [1000] | ug/L | 13:06:15 |
| 3 | V 292.402† | 140217.5 | 144601.5 | [1000] | ug/L | 13:06:15 |
| 3 | Zn 213.857† | 98578.6 | 99996.2 | [1000] | ug/L | 13:06:15 |
| 3 | SiO2† | 154226.8 | 156838.3 | [10695] | ug/L | 13:06:51 |

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**Mean Data: SCAL**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 861401.1 | 1586.02 | 0.18% | 98.195 | % |
| Sc Radial | 3879.9 | 8.80 | 0.23% | 99.0 | % |
| Y 371.029 | 729340.9 | 1979.20 | 0.27% | 96.494 | % |
| Y RADIAL | 4347.7 | 43.98 | 1.01% | 98.57 | % |
| Ag 328.068† | 217719.8 | 212.42 | 0.10% | [1000] | ug/L |
| Al 396.153Radial† | 10701.3 | 95.53 | 0.89% | [10000] | ug/L |
| As 188.979† | 2265.2 | 7.71 | 0.34% | [1000] | ug/L |
| B 249.677† | 41741.8 | 82.83 | 0.20% | [1000] | ug/L |
| Ba 233.527† | 128493.2 | 323.24 | 0.25% | [1000] | ug/L |
| Be 313.107† | 2684752.8 | 8404.92 | 0.31% | [1000] | ug/L |
| Ca 317.933Radial† | 4951.8 | 67.11 | 1.36% | [10000] | ug/L |
| Cd 226.502† | 87020.5 | 171.97 | 0.20% | [1000] | ug/L |
| Co 228.616† | 48111.9 | 92.67 | 0.19% | [1000] | ug/L |
| Cr 267.716† | 89836.7 | 163.59 | 0.18% | [1000] | ug/L |
| Cu 324.752† | 331964.5 | 381.32 | 0.11% | [1000] | ug/L |
| Fe 238.204 Radial† | 733.7 | 1.59 | 0.22% | [10000] | ug/L |
| K 766.490 Radial† | 52212.3 | 608.15 | 1.16% | [10000] | ug/L |

| | | | | | |
|---|---|---|---|---|---|
| Mg 279.077 IEC† | 217.6 | 2.22 | 1.02% | [10000] | ug/L |
| Mn 257.610† | 885935.3 | 2521.17 | 0.28% | [1000] | ug/L |
| Mo 202.031† | 13751.7 | 31.30 | 0.23% | [1000] | ug/L |
| Na 589.592 Radial† | 33023.5 | 503.61 | 1.53% | [10000] | ug/L |
| Ni 231.604† | 39606.3 | 149.23 | 0.38% | [1000] | ug/L |
| P 214.914† | 8395.9 | 18.47 | 0.22% | [5000] | ug/L |
| Pb 220.353† | 8203.6 | 13.53 | 0.16% | [1000] | ug/L |
| S 181.975 Axial† | 1403.4 | 2.07 | 0.15% | [2000] | ug/L |
| Sb 206.836† | 2895.2 | 16.67 | 0.58% | [1000] | ug/L |
| Se 196.026† | 1539.7 | 13.25 | 0.86% | [1000] | ug/L |
| Si 251.611† | 155977.6 | 240.04 | 0.15% | [5000] | ug/L |
| Sn 189.927† | 5635.6 | 15.44 | 0.27% | [1000] | ug/L |
| Sr 421.552† | 144167.5 | 1899.60 | 1.32% | [1000] | ug/L |
| Ti 334.940† | 642382.9 | 968.50 | 0.15% | [1000] | ug/L |
| Tl 190.801† | 3152.5 | 5.73 | 0.18% | [1000] | ug/L |
| U 409.014† | 36522.7 | 38.15 | 0.10% | [1000] | ug/L |
| V 292.402† | 144741.0 | 138.09 | 0.10% | [1000] | ug/L |
| Zn 213.857† | 100145.3 | 185.88 | 0.19% | [1000] | ug/L |
| SiO2† | 155463.2 | 1862.13 | 1.20% | [10695] | ug/L |

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/24/2010 13:09:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

**Replicate Data: S10**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3780.3 | 3780.3 | 96.5 | % | 13:11:16 |
| 1 | Y RADIAL | 4156.9 | 4156.9 | 94.24 | % | 13:11:16 |
| 1 | Al 396.153Radial† | 52348.5 | 54379.2 | [50000] | ug/L | 13:10:56 |
| 1 | Ca 317.933Radial† | 23503.8 | 24345.4 | [50000] | ug/L | 13:10:56 |
| 1 | Fe 238.204 Radial† | 1374.2 | 1413.2 | [20000] | ug/L | 13:11:16 |
| 1 | Mg 279.077 IEC† | 1004.5 | 1037.2 | [50000] | ug/L | 13:11:16 |
| 1 | Na 589.592 Radial† | 62730.7 | 65849.2 | [20000] | ug/L | 13:10:56 |
| 1 | Sc 361.383 | 860273.3 | 860273.3 | 98.067 | % | 13:12:13 |
| 1 | Y 371.029 | 713382.4 | 713382.4 | 94.382 | % | 13:12:13 |
| 2 | Sc Radial | 3848.6 | 3848.6 | 98.2 | % | 13:11:41 |
| 2 | Y RADIAL | 4208.0 | 4208.0 | 95.40 | % | 13:11:41 |
| 2 | Al 396.153Radial† | 52279.8 | 53346.7 | [50000] | ug/L | 13:11:21 |
| 2 | Ca 317.933Radial† | 23456.6 | 23865.2 | [50000] | ug/L | 13:11:21 |
| 2 | Fe 238.204 Radial† | 1390.5 | 1404.5 | [20000] | ug/L | 13:11:41 |
| 2 | Mg 279.077 IEC† | 1013.0 | 1027.4 | [50000] | ug/L | 13:11:41 |
| 2 | Na 589.592 Radial† | 62730.1 | 64695.1 | [20000] | ug/L | 13:11:21 |
| 2 | Sc 361.383 | 871844.5 | 871844.5 | 99.386 | % | 13:12:19 |
| 2 | Y 371.029 | 722628.9 | 722628.9 | 95.606 | % | 13:12:19 |
| 3 | Sc Radial | 3854.8 | 3854.8 | 98.4 | % | 13:12:06 |
| 3 | Y RADIAL | 4211.5 | 4211.5 | 95.48 | % | 13:12:06 |
| 3 | Al 396.153Radial† | 51229.1 | 52192.0 | [50000] | ug/L | 13:11:46 |
| 3 | Ca 317.933Radial† | 23058.4 | 23421.6 | [50000] | ug/L | 13:11:46 |
| 3 | Fe 238.204 Radial† | 1383.5 | 1395.1 | [20000] | ug/L | 13:12:06 |
| 3 | Mg 279.077 IEC† | 1007.7 | 1020.4 | [50000] | ug/L | 13:12:06 |
| 3 | Na 589.592 Radial† | 61330.9 | 63168.9 | [20000] | ug/L | 13:11:46 |
| 3 | Sc 361.383 | 865956.5 | 865956.5 | 98.715 | % | 13:12:24 |
| 3 | Y 371.029 | 717851.7 | 717851.7 | 94.974 | % | 13:12:24 |

**Mean Data: S10**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 866024.8 | 5785.90 | 0.67% | 98.723 | % |
| Sc Radial | 3827.9 | 41.34 | 1.08% | 97.7 | % |
| Y 371.029 | 717954.3 | 4624.13 | 0.64% | 94.987 | % |
| Y RADIAL | 4192.1 | 30.56 | 0.73% | 95.04 | % |
| Al 396.153Radial† | 53306.0 | 1094.15 | 2.05% | [50000] | ug/L |
| Ca 317.933Radial† | 23877.4 | 462.04 | 1.94% | [50000] | ug/L |
| Fe 238.204 Radial† | 1404.3 | 9.05 | 0.64% | [20000] | ug/L |
| Mg 279.077 IEC† | 1028.3 | 8.45 | 0.82% | [50000] | ug/L |
| Na 589.592 Radial† | 64571.1 | 1344.43 | 2.08% | [20000] | ug/L |

**Calibration Summary**

| Analyte | Stds. | Equation | Intercept | Slope | Curvature | Corr. Coef. | Reslope |
|---|---|---|---|---|---|---|---|
| Ag 328.068 | 3 | Lin Thru 0 | 0.0 | 215.8 | 0.00000 | 0.999854 | |
| Al 396.153Radial | 3 | Lin Thru 0 | 0.0 | 1.066 | 0.00000 | 1.000000 | |
| As 188.979 | 3 | Lin Thru 0 | 0.0 | 2.239 | 0.00000 | 0.999740 | |
| B 249.677 | 3 | Lin Thru 0 | 0.0 | 41.25 | 0.00000 | 0.999714 | |
| Ba 233.527 | 3 | Lin Thru 0 | 0.0 | 127.4 | 0.00000 | 0.999867 | |
| Be 313.107 | 3 | Lin Thru 0 | 0.0 | 2661 | 0.00000 | 0.999847 | |
| Ca 317.933Radial | 3 | Lin Thru 0 | 0.0 | 0.4784 | 0.00000 | 0.999971 | |
| Cd 226.502 | 3 | Lin Thru 0 | 0.0 | 86.36 | 0.00000 | 0.999886 | |
| Co 228.616 | 3 | Lin Thru 0 | 0.0 | 47.74 | 0.00000 | 0.999880 | |
| Cr 267.716 | 3 | Lin Thru 0 | 0.0 | 89.08 | 0.00000 | 0.999861 | |
| Cu 324.752 | 3 | Lin Thru 0 | 0.0 | 328.6 | 0.00000 | 0.999799 | |
| Fe 238.204 Radia | 2 | Lin Thru 0 | 0.0 | 0.0708 | 0.00000 | 0.999842 | |
| K 766.490 Radial | 3 | Lin Thru 0 | 0.0 | 5.211 | 0.00000 | 0.999986 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Mg 279.077 IEC | 3 | Lin Thru 0 | 0.0 | 0.0206 | 0.00000 | 0.999923 |
| Mn 257.610 | 3 | Lin Thru 0 | 0.0 | 878.8 | 0.00000 | 0.999872 |
| Mo 202.031 | 3 | Lin Thru 0 | 0.0 | 13.62 | 0.00000 | 0.999823 |
| Na 589.592 Radia | 2 | Lin Thru 0 | 0.0 | 3.243 | 0.00000 | 0.999959 |
| Ni 231.604 | 3 | Lin Thru 0 | 0.0 | 39.32 | 0.00000 | 0.999894 |
| P 214.914 | 3 | Lin Thru 0 | 0.0 | 1.661 | 0.00000 | 0.999771 |
| Pb 220.353 | 3 | Lin Thru 0 | 0.0 | 8.131 | 0.00000 | 0.999846 |
| S 181.975 Axial | 3 | Lin Thru 0 | 0.0 | 0.6949 | 0.00000 | 0.999810 |
| Sb 206.836 | 3 | Lin Thru 0 | 0.0 | 2.861 | 0.00000 | 0.999721 |
| Se 196.026 | 3 | Lin Thru 0 | 0.0 | 1.526 | 0.00000 | 0.999852 |
| Si 251.611 | 3 | Lin Thru 0 | 0.0 | 30.90 | 0.00000 | 0.999828 |
| Sn 189.927 | 3 | Lin Thru 0 | 0.0 | 5.573 | 0.00000 | 0.999760 |
| Sr 421.552 | 3 | Lin Thru 0 | 0.0 | 144.5 | 0.00000 | 0.999981 |
| Ti 334.940 | 3 | Lin Thru 0 | 0.0 | 636.4 | 0.00000 | 0.999829 |
| Tl 190.801 | 3 | Lin Thru 0 | 0.0 | 3.128 | 0.00000 | 0.999879 |
| U 409.014 | 3 | Lin Thru 0 | 0.0 | 36.21 | 0.00000 | 0.999850 |
| V 292.402 | 3 | Lin Thru 0 | 0.0 | 143.4 | 0.00000 | 0.999835 |
| Zn 213.857 | 3 | Lin Thru 0 | 0.0 | 99.34 | 0.00000 | 0.999873 |
| SiO2 | 3 | Lin Thru 0 | 0.0 | 14.39 | 0.00000 | 0.999800 |

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/24/2010 13:14:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4002.5 | 4002.5 | 102 | % | | | 13:16:28 |
| 1 | Y RADIAL | 4387.7 | 4387.7 | 99.47 | % | | | 13:16:28 |
| 1 | Al 396.153Radial† | 5568.5 | 5564.5 | 5193.6 | ug/L | 5193.6 | ppb | 13:16:28 |
| 1 | Ca 317.933Radial† | 2581.1 | 2507.4 | 5241.7 | ug/L | 5241.7 | ppb | 13:16:49 |
| 1 | Fe 238.204 Radial† | 390.7 | 371.2 | 5255.5 | ug/L | 5255.5 | ppb | 13:16:49 |
| 1 | K 766.490 Radial† | 16204.1 | 13225.5 | 2534.4 | ug/L | 2534.4 | ppb | 13:16:28 |
| 1 | Mg 279.077 IEC† | 115.3 | 108.8 | 5276.4 | ug/L | 5276.4 | ppb | 13:16:49 |
| 1 | Na 589.592 Radial† | 7802.4 | 8459.0 | 2608.1 | ug/L | 2608.1 | ppb | 13:16:28 |
| 1 | Sr 421.552† | 79385.6 | 77689.3 | 537.54 | ug/L | 537.54 | ppb | 13:16:28 |
| 1 | Sc 361.383 | 910091.3 | 910091.3 | 103.75 | % | | | 13:17:46 |
| 1 | Y 371.029 | 762006.8 | 762006.8 | 100.82 | % | | | 13:17:46 |
| 1 | Ag 328.068† | 56217.1 | 53946.9 | 253.08 | ug/L | 253.08 | ppb | 13:17:46 |
| 1 | As 188.979† | 1087.5 | 1066.5 | 480.49 | ug/L | 480.49 | ppb | 13:18:06 |
| 1 | B 249.677† | 22056.9 | 21658.7 | 522.80 | ug/L | 522.80 | ppb | 13:17:46 |
| 1 | Ba 233.527† | 69368.8 | 66865.6 | 525.97 | ug/L | 525.97 | ppb | 13:17:46 |
| 1 | Be 313.107† | 698166.4 | 676720.3 | 255.43 | ug/L | 255.43 | ppb | 13:17:46 |
| 1 | Cd 226.502† | 44207.9 | 42807.9 | 495.57 | ug/L | 495.57 | ppb | 13:18:06 |
| 1 | Co 228.616† | 25271.8 | 24425.8 | 511.81 | ug/L | 511.81 | ppb | 13:18:06 |
| 1 | Cr 267.716† | 46315.4 | 44565.5 | 501.29 | ug/L | 501.29 | ppb | 13:17:46 |
| 1 | Cu 324.752† | 184507.5 | 171854.9 | 522.98 | ug/L | 522.98 | ppb | 13:17:46 |
| 1 | Mn 257.610† | 459927.2 | 442862.2 | 504.25 | ug/L | 504.25 | ppb | 13:17:46 |
| 1 | Mo 202.031† | 7354.4 | 7078.7 | 520.16 | ug/L | 520.16 | ppb | 13:18:06 |
| 1 | Ni 231.604† | 19739.1 | 18964.0 | 482.00 | ug/L | 482.00 | ppb | 13:18:06 |
| 1 | P 214.914† | 4633.2 | 4255.4 | 2459.8 | ug/L | 2459.8 | ppb | 13:18:06 |
| 1 | Pb 220.353† | 4263.1 | 4167.3 | 514.11 | ug/L | 514.11 | ppb | 13:18:06 |
| 1 | S 181.975 Axial† | 1781.8 | 1676.7 | 2411.8 | ug/L | 2411.8 | ppb | 13:18:06 |
| 1 | Sb 206.836† | 1471.8 | 1382.0 | 501.73 | ug/L | 501.73 | ppb | 13:18:06 |
| 1 | Se 196.026† | 4059.6 | 3940.8 | 2599.6 | ug/L | 2599.6 | ppb | 13:18:06 |
| 1 | Si 251.611† | 156795.7 | 150576.0 | 4866.1 | ug/L | 4866.1 | ppb | 13:17:46 |
| 1 | Sn 189.927† | 3008.1 | 2889.0 | 518.99 | ug/L | 518.99 | ppb | 13:18:06 |
| 1 | Ti 334.940† | 324728.6 | 314377.8 | 493.89 | ug/L | 493.89 | ppb | 13:17:46 |
| 1 | Tl 190.801† | 1627.4 | 1601.2 | 515.28 | ug/L | 515.28 | ppb | 13:18:06 |
| 1 | U 409.014† | 15221.6 | 17558.6 | 483.15 | ug/L | 483.15 | ppb | 13:17:46 |
| 1 | V 292.402† | 72012.9 | 70918.4 | 501.41 | ug/L | 501.41 | ppb | 13:17:46 |
| 1 | Zn 213.857† | 51785.9 | 49310.1 | 491.81 | ug/L | 491.81 | ppb | 13:17:46 |
| 1 | SiO2† | 153306.5 | 147216.7 | 10217 | ug/L | 10217 | ppb | 13:19:04 |
| 2 | Sc Radial | 4016.6 | 4016.6 | 102 | % | | | 13:16:54 |
| 2 | Y RADIAL | 4409.0 | 4409.0 | 99.96 | % | | | 13:16:54 |
| 2 | Al 396.153Radial† | 5568.1 | 5544.9 | 5175.0 | ug/L | 5175.0 | ppb | 13:16:54 |
| 2 | Ca 317.933Radial† | 2593.7 | 2510.8 | 5248.9 | ug/L | 5248.9 | ppb | 13:17:14 |
| 2 | Fe 238.204 Radial† | 396.0 | 375.0 | 5308.8 | ug/L | 5308.8 | ppb | 13:17:14 |
| 2 | K 766.490 Radial† | 16360.7 | 13322.6 | 2553.0 | ug/L | 2553.0 | ppb | 13:16:54 |
| 2 | Mg 279.077 IEC† | 112.8 | 106.0 | 5140.6 | ug/L | 5140.6 | ppb | 13:17:14 |
| 2 | Na 589.592 Radial† | 7843.2 | 8472.0 | 2612.1 | ug/L | 2612.1 | ppb | 13:16:54 |
| 2 | Sr 421.552† | 79566.0 | 77592.3 | 536.86 | ug/L | 536.86 | ppb | 13:16:54 |
| 2 | Sc 361.383 | 897996.3 | 897996.3 | 102.37 | % | | | 13:18:12 |
| 2 | Y 371.029 | 751687.1 | 751687.1 | 99.450 | % | | | 13:18:12 |
| 2 | Ag 328.068† | 55639.3 | 54112.3 | 253.87 | ug/L | 253.87 | ppb | 13:18:12 |
| 2 | As 188.979† | 1097.5 | 1090.3 | 491.16 | ug/L | 491.16 | ppb | 13:18:32 |
| 2 | B 249.677† | 21785.1 | 21679.6 | 523.29 | ug/L | 523.29 | ppb | 13:18:12 |
| 2 | Ba 233.527† | 68356.1 | 66776.9 | 525.27 | ug/L | 525.27 | ppb | 13:18:12 |
| 2 | Be 313.107† | 688510.6 | 676351.8 | 255.29 | ug/L | 255.29 | ppb | 13:18:12 |
| 2 | Cd 226.502† | 44012.9 | 43191.5 | 500.01 | ug/L | 500.01 | ppb | 13:18:32 |
| 2 | Co 228.616† | 25177.8 | 24662.1 | 516.77 | ug/L | 516.77 | ppb | 13:18:32 |
| 2 | Cr 267.716† | 45780.1 | 44643.8 | 502.18 | ug/L | 502.18 | ppb | 13:18:12 |
| 2 | Cu 324.752† | 182271.7 | 172066.1 | 523.62 | ug/L | 523.62 | ppb | 13:18:12 |
| 2 | Mn 257.610† | 453911.4 | 442956.5 | 504.37 | ug/L | 504.37 | ppb | 13:18:12 |
| 2 | Mo 202.031† | 7316.1 | 7136.8 | 524.43 | ug/L | 524.43 | ppb | 13:18:32 |
| 2 | Ni 231.604† | 19677.9 | 19160.4 | 486.99 | ug/L | 486.99 | ppb | 13:18:32 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4596.9 | 4280.1 | 2474.5 | ug/L | 2474.5 ppb | 13:18:32 |
| 2 | Pb 220.353† | 4237.4 | 4197.5 | 517.83 | ug/L | 517.83 ppb | 13:18:32 |
| 2 | S 181.975 Axial† | 1757.4 | 1676.0 | 2410.8 | ug/L | 2410.8 ppb | 13:18:32 |
| 2 | Sb 206.836† | 1461.5 | 1391.0 | 505.04 | ug/L | 505.04 ppb | 13:18:32 |
| 2 | Se 196.026† | 4056.1 | 3990.0 | 2632.1 | ug/L | 2632.1 ppb | 13:18:32 |
| 2 | Si 251.611† | 154707.8 | 150572.1 | 4865.9 | ug/L | 4865.9 ppb | 13:18:12 |
| 2 | Sn 189.927† | 2993.6 | 2913.9 | 523.46 | ug/L | 523.46 ppb | 13:18:32 |
| 2 | Ti 334.940† | 320615.0 | 314575.2 | 494.22 | ug/L | 494.22 ppb | 13:18:12 |
| 2 | Tl 190.801† | 1619.2 | 1614.3 | 519.45 | ug/L | 519.45 ppb | 13:18:32 |
| 2 | U 409.014† | 14892.7 | 17434.9 | 479.72 | ug/L | 479.72 ppb | 13:18:12 |
| 2 | V 292.402† | 71135.6 | 70996.3 | 502.00 | ug/L | 502.00 ppb | 13:18:12 |
| 2 | Zn 213.857† | 51226.3 | 49435.7 | 493.04 | ug/L | 493.04 ppb | 13:18:12 |
| 2 | SiO2† | 153714.0 | 149605.1 | 10383 | ug/L | 10383 ppb | 13:19:09 |
| 3 | Sc Radial | 3969.6 | 3969.6 | 101 | % | | 13:17:19 |
| 3 | Y RADIAL | 4372.6 | 4372.6 | 99.13 | % | | 13:17:19 |
| 3 | Al 396.153Radial† | 5517.9 | 5559.6 | 5189.2 | ug/L | 5189.2 ppb | 13:17:19 |
| 3 | Ca 317.933Radial† | 2573.3 | 2520.7 | 5269.5 | ug/L | 5269.5 ppb | 13:17:39 |
| 3 | Fe 238.204 Radial† | 394.6 | 378.2 | 5354.1 | ug/L | 5354.1 ppb | 13:17:39 |
| 3 | K 766.490 Radial† | 16096.4 | 13250.7 | 2539.2 | ug/L | 2539.2 ppb | 13:17:19 |
| 3 | Mg 279.077 IEC† | 111.9 | 106.4 | 5156.7 | ug/L | 5156.7 ppb | 13:17:39 |
| 3 | Na 589.592 Radial† | 7604.2 | 8326.6 | 2567.3 | ug/L | 2567.3 ppb | 13:17:19 |
| 3 | Sr 421.552† | 78330.9 | 77292.4 | 534.79 | ug/L | 534.79 ppb | 13:17:19 |
| 3 | Sc 361.383 | 909994.2 | 909994.2 | 103.73 | % | | 13:18:38 |
| 3 | Y 371.029 | 760463.9 | 760463.9 | 100.61 | % | | 13:18:38 |
| 3 | Ag 328.068† | 56219.3 | 53954.8 | 253.15 | ug/L | 253.15 ppb | 13:18:38 |
| 3 | As 188.979† | 1095.7 | 1074.5 | 484.12 | ug/L | 484.12 ppb | 13:18:58 |
| 3 | B 249.677† | 22183.4 | 21782.9 | 525.80 | ug/L | 525.80 ppb | 13:18:38 |
| 3 | Ba 233.527† | 69189.4 | 66699.8 | 524.67 | ug/L | 524.67 ppb | 13:18:38 |
| 3 | Be 313.107† | 696913.9 | 675584.7 | 255.00 | ug/L | 255.00 ppb | 13:18:38 |
| 3 | Cd 226.502† | 44019.2 | 42630.7 | 493.51 | ug/L | 493.51 ppb | 13:18:58 |
| 3 | Co 228.616† | 25198.2 | 24357.5 | 510.37 | ug/L | 510.37 ppb | 13:18:58 |
| 3 | Cr 267.716† | 46286.1 | 44542.0 | 501.04 | ug/L | 501.04 ppb | 13:18:38 |
| 3 | Cu 324.752† | 184903.4 | 172255.5 | 524.20 | ug/L | 524.20 ppb | 13:18:38 |
| 3 | Mn 257.610† | 459425.8 | 442426.1 | 503.77 | ug/L | 503.77 ppb | 13:18:38 |
| 3 | Mo 202.031† | 7310.3 | 7036.9 | 517.10 | ug/L | 517.10 ppb | 13:18:58 |
| 3 | Ni 231.604† | 19679.0 | 18908.1 | 480.58 | ug/L | 480.58 ppb | 13:18:58 |
| 3 | P 214.914† | 4580.5 | 4205.0 | 2429.1 | ug/L | 2429.1 ppb | 13:18:58 |
| 3 | Pb 220.353† | 4232.3 | 4138.0 | 510.49 | ug/L | 510.49 ppb | 13:18:58 |
| 3 | S 181.975 Axial† | 1777.9 | 1673.1 | 2406.6 | ug/L | 2406.6 ppb | 13:18:58 |
| 3 | Sb 206.836† | 1475.7 | 1385.9 | 502.96 | ug/L | 502.96 ppb | 13:18:58 |
| 3 | Se 196.026† | 4052.3 | 3934.1 | 2595.6 | ug/L | 2595.6 ppb | 13:18:58 |
| 3 | Si 251.611† | 156929.5 | 150721.2 | 4870.8 | ug/L | 4870.8 ppb | 13:18:38 |
| 3 | Sn 189.927† | 2978.9 | 2861.2 | 514.00 | ug/L | 514.00 ppb | 13:18:58 |
| 3 | Ti 334.940† | 324622.4 | 314309.0 | 493.80 | ug/L | 493.80 ppb | 13:18:38 |
| 3 | Tl 190.801† | 1629.4 | 1603.3 | 515.94 | ug/L | 515.94 ppb | 13:18:58 |
| 3 | U 409.014† | 15231.2 | 17569.5 | 483.44 | ug/L | 483.44 ppb | 13:18:38 |
| 3 | V 292.402† | 71959.9 | 70874.7 | 501.05 | ug/L | 501.05 ppb | 13:18:38 |
| 3 | Zn 213.857† | 51795.2 | 49324.3 | 491.95 | ug/L | 491.95 ppb | 13:18:38 |
| 3 | SiO2† | 155095.5 | 148957.1 | 10338 | ug/L | 10338 ppb | 13:19:14 |

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**Mean Data: ICV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 906027.3 | 103.28 | % | 0.793 | | | | 0.77% |
| Sc Radial | 3996.3 | 102 | % | 0.6 | | | | 0.60% |
| Y 371.029 | 758052.6 | 100.29 | % | 0.736 | | | | 0.73% |
| Y RADIAL | 4389.8 | 99.52 | % | 0.415 | | | | 0.42% |
| Ag 328.068† | 54004.6 | 253.36 | ug/L | 0.437 | 253.36 | ppb | 0.437 | 0.17% |
| QC value within limits for Ag 328.068 Recovery = 101.35% | | | | | | | | |
| Al 396.153Radial† | 5556.3 | 5185.9 | ug/L | 9.69 | 5185.9 | ppb | 9.69 | 0.19% |
| QC value within limits for Al 396.153Radial Recovery = 103.72% | | | | | | | | |
| As 188.979† | 1077.1 | 485.26 | ug/L | 5.424 | 485.26 | ppb | 5.424 | 1.12% |
| QC value within limits for As 188.979 Recovery = 97.05% | | | | | | | | |
| B 249.677† | 21707.1 | 523.96 | ug/L | 1.611 | 523.96 | ppb | 1.611 | 0.31% |
| QC value within limits for B 249.677 Recovery = 104.79% | | | | | | | | |
| Ba 233.527† | 66780.7 | 525.30 | ug/L | 0.650 | 525.30 | ppb | 0.650 | 0.12% |
| QC value within limits for Ba 233.527 Recovery = 105.06% | | | | | | | | |
| Be 313.107† | 676218.9 | 255.24 | ug/L | 0.218 | 255.24 | ppb | 0.218 | 0.09% |
| QC value within limits for Be 313.107 Recovery = 102.10% | | | | | | | | |
| Ca 317.933Radial† | 2513.0 | 5253.4 | ug/L | 14.44 | 5253.4 | ppb | 14.44 | 0.27% |

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   QC value within limits for Ca 317.933Radial  Recovery = 105.07%
Cd 226.502†            42876.7      496.36 ug/L         3.322      496.36 ppb          3.322   0.67%
   QC value within limits for Cd 226.502  Recovery = 99.27%
Co 228.616†            24481.8      512.99 ug/L         3.356      512.99 ppb          3.356   0.65%
   QC value within limits for Co 228.616  Recovery = 102.60%
Cr 267.716†            44583.7      501.50 ug/L         0.599      501.50 ppb          0.599   0.12%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           172058.8      523.60 ug/L         0.612      523.60 ppb          0.612   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.72%
Fe 238.204 Radial†       374.8      5306.1 ug/L        49.34      5306.1 ppb         49.34   0.93%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.12%
K 766.490 Radial†      13266.3      2542.2 ug/L         9.66      2542.2 ppb          9.66   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 101.69%
Mg 279.077 IEC†          107.1      5191.2 ug/L        74.19      5191.2 ppb         74.19   1.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.82%
Mn 257.610†           442748.2      504.13 ug/L         0.318      504.13 ppb          0.318   0.06%
   QC value within limits for Mn 257.610  Recovery = 100.83%
Mo 202.031†             7084.1      520.57 ug/L         3.680      520.57 ppb          3.680   0.71%
   QC value within limits for Mo 202.031  Recovery = 104.11%
Na 589.592 Radial†      8419.2      2595.9 ug/L        24.81      2595.9 ppb         24.81   0.96%
   QC value within limits for Na 589.592 Radial  Recovery = 103.83%
Ni 231.604†            19010.8      483.19 ug/L         3.368      483.19 ppb          3.368   0.70%
   QC value within limits for Ni 231.604  Recovery = 96.64%
P 214.914†              4246.9      2454.5 ug/L        23.18      2454.5 ppb         23.18   0.94%
   QC value within limits for P 214.914  Recovery = 98.18%
Pb 220.353†             4167.6      514.15 ug/L         3.669      514.15 ppb          3.669   0.71%
   QC value within limits for Pb 220.353  Recovery = 102.83%
S 181.975 Axial†        1675.2      2409.7 ug/L         2.73      2409.7 ppb          2.73   0.11%
   QC value within limits for S 181.975 Axial  Recovery = 96.39%
Sb 206.836†             1386.3      503.25 ug/L         1.671      503.25 ppb          1.671   0.33%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†             3955.0      2609.1 ug/L        20.01      2609.1 ppb         20.01   0.77%
   QC value within limits for Se 196.026  Recovery = 104.36%
Si 251.611†           150623.1      4867.6 ug/L         2.79      4867.6 ppb          2.79   0.06%
   QC value within limits for Si 251.611  Recovery = 97.35%
Sn 189.927†             2888.0      518.82 ug/L         4.734      518.82 ppb          4.734   0.91%
   QC value within limits for Sn 189.927  Recovery = 103.76%
Sr 421.552†            77524.7      536.40 ug/L         1.432      536.40 ppb          1.432   0.27%
   QC value within limits for Sr 421.552  Recovery = 107.28%
Ti 334.940†           314420.7      493.97 ug/L         0.219      493.97 ppb          0.219   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.79%
Tl 190.801†             1606.3      516.89 ug/L         2.239      516.89 ppb          2.239   0.43%
   QC value within limits for Tl 190.801  Recovery = 103.38%
U 409.014†             17521.0      482.10 ug/L         2.065      482.10 ppb          2.065   0.43%
   QC value within limits for U 409.014  Recovery = 96.42%
V 292.402†             70929.8      501.49 ug/L         0.479      501.49 ppb          0.479   0.10%
   QC value within limits for V 292.402  Recovery = 100.30%
Zn 213.857†            49356.7      492.27 ug/L         0.671      492.27 ppb          0.671   0.14%
   QC value within limits for Zn 213.857  Recovery = 98.45%
SiO2†                 148593.0       10312 ug/L          85.8       10312 ppb           85.8   0.83%
   QC value within limits for SiO2  Recovery = 96.42%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/24/2010 13:21:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3888.0 | 3888.0 | 99.2 | % | | | 13:23:38 |
| 1 | Y RADIAL | 4425.2 | 4425.2 | 100.3 | % | | | 13:23:18 |
| 1 | Al 396.153Radial† | -125.8 | -14.4 | -13.548 | ug/L | -13.548 | ppb | 13:23:18 |
| 1 | Ca 317.933Radial† | 15.2 | -4.4 | -9.1159 | ug/L | -9.1159 | ppb | 13:23:38 |
| 1 | Fe 238.204 Radial† | 10.0 | -1.2 | -17.144 | ug/L | -17.144 | ppb | 13:23:38 |
| 1 | K 766.490 Radial† | 2698.9 | 80.7 | 15.469 | ug/L | 15.469 | ppb | 13:23:18 |
| 1 | Mg 279.077 IEC† | 3.2 | -0.8 | -39.302 | ug/L | -39.302 | ppb | 13:23:38 |
| 1 | Na 589.592 Radial† | -711.1 | 103.0 | 31.763 | ug/L | 31.763 | ppb | 13:23:18 |
| 1 | Sr 421.552† | 28.0 | -7.5 | -0.0519 | ug/L | -0.0519 | ppb | 13:23:18 |
| 1 | Sc 361.383 | 889352.7 | 889352.7 | 101.38 | % | | | 13:24:35 |
| 1 | Y 371.029 | 752996.9 | 752996.9 | 99.623 | % | | | 13:24:35 |
| 1 | Ag 328.068† | 285.8 | 41.5 | 0.1870 | ug/L | 0.1870 | ppb | 13:24:35 |
| 1 | As 188.979† | -14.8 | 3.7 | 1.6321 | ug/L | 1.6321 | ppb | 13:24:55 |
| 1 | B 249.677† | -200.2 | 200.8 | 4.8708 | ug/L | 4.8708 | ppb | 13:24:55 |
| 1 | Ba 233.527† | 6.7 | 8.0 | 0.0622 | ug/L | 0.0622 | ppb | 13:24:55 |
| 1 | Be 313.107† | -3638.6 | 173.2 | 0.0648 | ug/L | 0.0648 | ppb | 13:24:35 |
| 1 | Cd 226.502† | -192.8 | 6.0 | 0.0718 | ug/L | 0.0718 | ppb | 13:24:55 |
| 1 | Co 228.616† | -65.4 | 2.1 | 0.0444 | ug/L | 0.0444 | ppb | 13:24:55 |
| 1 | Cr 267.716† | 63.8 | -14.8 | -0.1677 | ug/L | -0.1677 | ppb | 13:24:55 |
| 1 | Cu 324.752† | 5979.5 | -92.8 | -0.2829 | ug/L | -0.2829 | ppb | 13:24:35 |
| 1 | Mn 257.610† | 471.7 | 6.5 | 0.0073 | ug/L | 0.0073 | ppb | 13:24:55 |
| 1 | Mo 202.031† | 14.3 | 4.0 | 0.2904 | ug/L | 0.2904 | ppb | 13:24:55 |
| 1 | Ni 231.604† | 64.6 | 1.2 | 0.0317 | ug/L | 0.0317 | ppb | 13:24:55 |
| 1 | P 214.914† | 210.3 | -3.1 | -1.7875 | ug/L | -1.7875 | ppb | 13:24:55 |
| 1 | Pb 220.353† | -39.7 | 19.0 | 2.3329 | ug/L | 2.3329 | ppb | 13:24:55 |
| 1 | S 181.975 Axial† | 33.4 | -7.9 | -11.298 | ug/L | -11.298 | ppb | 13:24:55 |
| 1 | Sb 206.836† | 42.2 | 4.9 | 1.7528 | ug/L | 1.7528 | ppb | 13:24:55 |
| 1 | Se 196.026† | -26.3 | 1.8 | 1.1257 | ug/L | 1.1257 | ppb | 13:24:55 |
| 1 | Si 251.611† | 587.7 | 21.4 | 0.6887 | ug/L | 0.6887 | ppb | 13:24:55 |
| 1 | Sn 189.927† | 17.1 | 6.4 | 1.1457 | ug/L | 1.1457 | ppb | 13:24:55 |
| 1 | Ti 334.940† | -1475.1 | -81.0 | -0.1250 | ug/L | -0.1250 | ppb | 13:24:35 |
| 1 | Tl 190.801† | -27.6 | 5.4 | 1.7165 | ug/L | 1.7165 | ppb | 13:24:55 |
| 1 | U 409.014† | -2941.4 | -14.7 | -0.4036 | ug/L | -0.4036 | ppb | 13:24:35 |
| 1 | V 292.402† | -1540.9 | -14.3 | -0.0942 | ug/L | -0.0942 | ppb | 13:24:35 |
| 1 | Zn 213.857† | 618.7 | 4.2 | 0.0455 | ug/L | 0.0455 | ppb | 13:24:55 |
| 1 | SiO2† | 612.6 | 49.8 | 3.4541 | ug/L | 3.4541 | ppb | 13:25:51 |
| 2 | Sc Radial | 3974.7 | 3974.7 | 101 | % | | | 13:24:03 |
| 2 | Y RADIAL | 4459.8 | 4459.8 | 101.1 | % | | | 13:23:43 |
| 2 | Al 396.153Radial† | -95.5 | 18.3 | 17.171 | ug/L | 17.171 | ppb | 13:23:43 |
| 2 | Ca 317.933Radial† | 16.0 | -3.9 | -8.2566 | ug/L | -8.2566 | ppb | 13:24:03 |
| 2 | Fe 238.204 Radial† | 11.2 | -0.3 | -4.1237 | ug/L | -4.1237 | ppb | 13:24:03 |
| 2 | K 766.490 Radial† | 2661.5 | -15.5 | -2.9732 | ug/L | -2.9732 | ppb | 13:23:43 |
| 2 | Mg 279.077 IEC† | 1.8 | -2.3 | -110.94 | ug/L | -110.94 | ppb | 13:24:03 |
| 2 | Na 589.592 Radial† | -764.7 | 65.9 | 20.305 | ug/L | 20.305 | ppb | 13:23:43 |
| 2 | Sr 421.552† | 32.3 | -3.9 | -0.0266 | ug/L | -0.0266 | ppb | 13:23:43 |
| 2 | Sc 361.383 | 894802.7 | 894802.7 | 102.00 | % | | | 13:25:00 |
| 2 | Y 371.029 | 757537.6 | 757537.6 | 100.22 | % | | | 13:25:00 |
| 2 | Ag 328.068† | 246.6 | 1.4 | 0.0092 | ug/L | 0.0092 | ppb | 13:25:00 |
| 2 | As 188.979† | -18.4 | 0.2 | 0.0777 | ug/L | 0.0777 | ppb | 13:25:21 |
| 2 | B 249.677† | -214.2 | 188.2 | 4.5643 | ug/L | 4.5643 | ppb | 13:25:21 |
| 2 | Ba 233.527† | 16.1 | 17.2 | 0.1359 | ug/L | 0.1359 | ppb | 13:25:21 |
| 2 | Be 313.107† | -3693.5 | 141.2 | 0.0526 | ug/L | 0.0526 | ppb | 13:25:00 |
| 2 | Cd 226.502† | -188.1 | 11.9 | 0.1374 | ug/L | 0.1374 | ppb | 13:25:21 |
| 2 | Co 228.616† | -61.7 | 6.1 | 0.1270 | ug/L | 0.1270 | ppb | 13:25:21 |
| 2 | Cr 267.716† | 71.7 | -7.4 | -0.0817 | ug/L | -0.0817 | ppb | 13:25:21 |
| 2 | Cu 324.752† | 5911.2 | -195.6 | -0.5940 | ug/L | -0.5940 | ppb | 13:25:00 |
| 2 | Mn 257.610† | 450.9 | -16.7 | -0.0148 | ug/L | -0.0148 | ppb | 13:25:21 |
| 2 | Mo 202.031† | 8.4 | -1.9 | -0.1378 | ug/L | -0.1378 | ppb | 13:25:21 |
| 2 | Ni 231.604† | 72.1 | 8.2 | 0.2083 | ug/L | 0.2083 | ppb | 13:25:21 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 213.4 | -1.3 | -0.6319 ug/L | -0.6319 ppb | 13:25:21 |
| 2 | Pb 220.353† | -37.2 | 21.6 | 2.6617 ug/L | 2.6617 ppb | 13:25:21 |
| 2 | S 181.975 Axial† | 39.8 | -1.8 | -2.6215 ug/L | -2.6215 ppb | 13:25:21 |
| 2 | Sb 206.836† | 46.4 | 8.8 | 3.1197 ug/L | 3.1197 ppb | 13:25:21 |
| 2 | Se 196.026† | -15.5 | 12.6 | 8.2171 ug/L | 8.2171 ppb | 13:25:21 |
| 2 | Si 251.611† | 599.1 | 29.0 | 0.9412 ug/L | 0.9412 ppb | 13:25:21 |
| 2 | Sn 189.927† | 25.4 | 14.4 | 2.5852 ug/L | 2.5852 ppb | 13:25:21 |
| 2 | Ti 334.940† | -1531.3 | -127.1 | -0.1906 ug/L | -0.1906 ppb | 13:25:00 |
| 2 | Tl 190.801† | -27.7 | 5.5 | 1.7437 ug/L | 1.7437 ppb | 13:25:21 |
| 2 | U 409.014† | -3046.0 | -99.6 | -2.7487 ug/L | -2.7487 ppb | 13:25:00 |
| 2 | V 292.402† | -1472.3 | 62.3 | 0.4260 ug/L | 0.4260 ppb | 13:25:00 |
| 2 | Zn 213.857† | 627.0 | 8.6 | 0.0869 ug/L | 0.0869 ppb | 13:25:21 |
| 2 | SiO2† | 578.2 | 12.5 | 0.8715 ug/L | 0.8715 ppb | 13:25:56 |
| 3 | Sc Radial | 3920.0 | 3920.0 | 100 % | | 13:24:29 |
| 3 | Y RADIAL | 4491.9 | 4491.9 | 101.8 % | | 13:24:08 |
| 3 | Al 396.153Radial† | -113.0 | -0.5 | -0.4953 ug/L | -0.4953 ppb | 13:24:08 |
| 3 | Ca 317.933Radial† | 18.1 | -1.6 | -3.2438 ug/L | -3.2438 ppb | 13:24:29 |
| 3 | Fe 238.204 Radial† | 9.2 | -2.2 | -30.471 ug/L | -30.471 ppb | 13:24:29 |
| 3 | K 766.490 Radial† | 2722.4 | 82.0 | 15.724 ug/L | 15.724 ppb | 13:24:08 |
| 3 | Mg 279.077 IEC† | 4.2 | 0.1 | 6.6210 ug/L | 6.6210 ppb | 13:24:29 |
| 3 | Na 589.592 Radial† | -783.4 | 36.6 | 11.299 ug/L | 11.299 ppb | 13:24:08 |
| 3 | Sr 421.552† | 33.5 | -2.2 | -0.0152 ug/L | -0.0152 ppb | 13:24:08 |
| 3 | Sc 361.383 | 878206.7 | 878206.7 | 100.11 % | | 13:25:26 |
| 3 | Y 371.029 | 743925.8 | 743925.8 | 98.423 % | | 13:25:26 |
| 3 | Ag 328.068† | 260.2 | 19.5 | 0.0848 ug/L | 0.0848 ppb | 13:25:26 |
| 3 | As 188.979† | -21.9 | -3.6 | -1.6279 ug/L | -1.6279 ppb | 13:25:46 |
| 3 | B 249.677† | -188.0 | 210.5 | 5.1077 ug/L | 5.1077 ppb | 13:25:46 |
| 3 | Ba 233.527† | 8.6 | 10.0 | 0.0774 ug/L | 0.0774 ppb | 13:25:46 |
| 3 | Be 313.107† | -3636.2 | 130.1 | 0.0489 ug/L | 0.0489 ppb | 13:25:26 |
| 3 | Cd 226.502† | -193.6 | 2.8 | 0.0353 ug/L | 0.0353 ppb | 13:25:46 |
| 3 | Co 228.616† | -62.8 | 3.8 | 0.0815 ug/L | 0.0815 ppb | 13:25:46 |
| 3 | Cr 267.716† | 52.0 | -25.7 | -0.2899 ug/L | -0.2899 ppb | 13:25:46 |
| 3 | Cu 324.752† | 5930.1 | -67.2 | -0.2035 ug/L | -0.2035 ppb | 13:25:26 |
| 3 | Mn 257.610† | 460.3 | 1.1 | -0.0021 ug/L | -0.0021 ppb | 13:25:46 |
| 3 | Mo 202.031† | 12.2 | 2.0 | 0.1472 ug/L | 0.1472 ppb | 13:25:46 |
| 3 | Ni 231.604† | 72.8 | 10.2 | 0.2605 ug/L | 0.2605 ppb | 13:25:46 |
| 3 | P 214.914† | 197.3 | -13.4 | -7.9870 ug/L | -7.9870 ppb | 13:25:46 |
| 3 | Pb 220.353† | -64.7 | -6.5 | -0.7917 ug/L | -0.7917 ppb | 13:25:46 |
| 3 | S 181.975 Axial† | 35.9 | -4.9 | -7.0867 ug/L | -7.0867 ppb | 13:25:46 |
| 3 | Sb 206.836† | 32.9 | -3.9 | -1.3173 ug/L | -1.3173 ppb | 13:25:46 |
| 3 | Se 196.026† | -19.3 | 8.5 | 5.4677 ug/L | 5.4677 ppb | 13:25:46 |
| 3 | Si 251.611† | 616.0 | 57.0 | 1.8421 ug/L | 1.8421 ppb | 13:25:46 |
| 3 | Sn 189.927† | 22.1 | 11.5 | 2.0730 ug/L | 2.0730 ppb | 13:25:46 |
| 3 | Ti 334.940† | -1381.2 | -5.5 | -0.0075 ug/L | -0.0075 ppb | 13:25:26 |
| 3 | Tl 190.801† | -39.0 | -6.4 | -2.0518 ug/L | -2.0518 ppb | 13:25:46 |
| 3 | U 409.014† | -3063.6 | -173.6 | -4.7906 ug/L | -4.7906 ppb | 13:25:26 |
| 3 | V 292.402† | -1519.0 | -11.7 | -0.0838 ug/L | -0.0838 ppb | 13:25:26 |
| 3 | Zn 213.857† | 612.3 | 5.6 | 0.0593 ug/L | 0.0593 ppb | 13:25:46 |
| 3 | SiO2† | 572.9 | 17.9 | 1.2380 ug/L | 1.2380 ppb | 13:26:01 |

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**Mean Data: ICB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 887454.0 | 101.17 | % | 0.964 | | | | 0.95% |
| Sc Radial | 3927.6 | 100 | % | 1.1 | | | | 1.12% |
| Y 371.029 | 751486.8 | 99.424 | % | 0.9169 | | | | 0.92% |
| Y RADIAL | 4459.0 | 101.1 | % | 0.76 | | | | 0.75% |
| Ag 328.068† | 20.8 | 0.0937 | ug/L | 0.08922 | 0.0937 | ppb | 0.08922 | 95.22% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 1.1 | 1.0426 | ug/L | 15.41673 | 1.0426 | ppb | 15.41673 | >999.9% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | 0.1 | 0.0273 | ug/L | 1.63058 | 0.0273 | ppb | 1.63058 | >999.9% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 199.8 | 4.8476 | ug/L | 0.27246 | 4.8476 | ppb | 0.27246 | 5.62% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 11.7 | 0.0918 | ug/L | 0.03894 | 0.0918 | ppb | 0.03894 | 42.39% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 148.1 | 0.0554 | ug/L | 0.00833 | 0.0554 | ppb | 0.00833 | 15.04% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -3.3 | -6.8721 | ug/L | 3.17145 | -6.8721 | ppb | 3.17145 | 46.15% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.9      0.0815 ug/L       0.05175      0.0815 ppb        0.05175  63.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.0      0.0843 ug/L       0.04140      0.0843 ppb        0.04140  49.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -16.0     -0.1798 ug/L       0.10464     -0.1798 ppb        0.10464  58.21%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -118.5     -0.3601 ug/L       0.20638     -0.3601 ppb        0.20638  57.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.2     -17.246 ug/L       13.1738     -17.246 ppb        13.1738  76.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          49.1      9.4068 ug/L      10.72214      9.4068 ppb       10.72214 113.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0     -47.873 ug/L       59.2467     -47.873 ppb        59.2467 123.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -3.0     -0.0032 ug/L       0.01112     -0.0032 ppb        0.01112 347.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.4      0.0999 ug/L       0.21798      0.0999 ppb        0.21798 218.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         68.5      21.122 ug/L       10.2562      21.122 ppb        10.2562  48.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.6      0.1668 ug/L       0.11988      0.1668 ppb        0.11988  71.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.9     -3.4688 ug/L       3.95530     -3.4688 ppb        3.95530 114.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                11.4      1.4010 ug/L       1.90603      1.4010 ppb        1.90603 136.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.9     -7.0019 ug/L       4.33863     -7.0019 ppb        4.33863  61.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.3      1.1850 ug/L       2.27230      1.1850 ppb        2.27230 191.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.6      4.9368 ug/L       3.57535      4.9368 ppb        3.57535  72.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                35.8      1.1574 ug/L       0.60631      1.1574 ppb        0.60631  52.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.8      1.9346 ug/L       0.72965      1.9346 ppb        0.72965  37.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.5     -0.0313 ug/L       0.01879     -0.0313 ppb        0.01879  60.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -71.2     -0.1077 ug/L       0.09277     -0.1077 ppb        0.09277  86.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.5      0.4695 ug/L       2.18352      0.4695 ppb        2.18352 465.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -96.0     -2.6476 ug/L       2.19521     -2.6476 ppb        2.19521  82.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.1      0.0827 ug/L       0.29738      0.0827 ppb        0.29738 359.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 6.1      0.0639 ug/L       0.02108      0.0639 ppb        0.02108  32.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      26.7      1.8545 ug/L       1.39736      1.8545 ppb        1.39736  75.35%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/24/2010 13:28:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3886.9 | 3886.9 | 99.2 | % | | | 13:30:26 |
| 1 | Y RADIAL | 4390.7 | 4390.7 | 99.54 | % | | | 13:30:06 |
| 1 | Al 396.153Radial† | 106.1 | 219.4 | 205.29 | ug/L | 205.29 | ppb | 13:30:06 |
| 1 | Ca 317.933Radial† | 120.0 | 101.3 | 211.78 | ug/L | 211.78 | ppb | 13:30:26 |
| 1 | Fe 238.204 Radial† | 17.0 | 5.8 | 82.580 | ug/L | 82.580 | ppb | 13:30:26 |
| 1 | K 766.490 Radial† | 3487.9 | 877.0 | 168.08 | ug/L | 168.08 | ppb | 13:30:06 |
| 1 | Mg 279.077 IEC† | 11.6 | 7.7 | 371.90 | ug/L | 371.90 | ppb | 13:30:26 |
| 1 | Na 589.592 Radial† | 168.2 | 989.4 | 305.06 | ug/L | 305.06 | ppb | 13:30:06 |
| 1 | Sr 421.552† | 744.5 | 714.9 | 4.9454 | ug/L | 4.9454 | ppb | 13:30:06 |
| 1 | Sc 361.383 | 884473.5 | 884473.5 | 100.83 | % | | | 13:31:23 |
| 1 | Y 371.029 | 750126.1 | 750126.1 | 99.244 | % | | | 13:31:23 |
| 1 | Ag 328.068† | 1296.3 | 1045.3 | 4.8408 | ug/L | 4.8408 | ppb | 13:31:23 |
| 1 | As 188.979† | 41.1 | 59.1 | 26.412 | ug/L | 26.412 | ppb | 13:31:43 |
| 1 | B 249.677† | 1615.1 | 2000.1 | 48.463 | ug/L | 48.463 | ppb | 13:31:23 |
| 1 | Ba 233.527† | 663.7 | 659.7 | 5.1902 | ug/L | 5.1902 | ppb | 13:31:43 |
| 1 | Be 313.107† | 9757.7 | 13439.9 | 5.0621 | ug/L | 5.0621 | ppb | 13:31:23 |
| 1 | Cd 226.502† | 267.8 | 461.9 | 5.3541 | ug/L | 5.3541 | ppb | 13:31:43 |
| 1 | Co 228.616† | 182.3 | 247.4 | 5.1947 | ug/L | 5.1947 | ppb | 13:31:43 |
| 1 | Cr 267.716† | 514.9 | 433.0 | 4.8546 | ug/L | 4.8546 | ppb | 13:31:43 |
| 1 | Cu 324.752† | 9250.5 | 3184.0 | 9.6636 | ug/L | 9.6636 | ppb | 13:31:23 |
| 1 | Mn 257.610† | 9733.2 | 9194.7 | 10.456 | ug/L | 10.456 | ppb | 13:31:23 |
| 1 | Mo 202.031† | 151.4 | 140.1 | 10.292 | ug/L | 10.292 | ppb | 13:31:43 |
| 1 | Ni 231.604† | 279.6 | 214.8 | 5.4604 | ug/L | 5.4604 | ppb | 13:31:43 |
| 1 | P 214.914† | 449.7 | 235.5 | 139.92 | ug/L | 139.92 | ppb | 13:31:43 |
| 1 | Pb 220.353† | 32.5 | 90.4 | 11.173 | ug/L | 11.173 | ppb | 13:31:43 |
| 1 | S 181.975 Axial† | 107.6 | 65.9 | 94.759 | ug/L | 94.759 | ppb | 13:31:43 |
| 1 | Sb 206.836† | 63.8 | 26.6 | 9.6596 | ug/L | 9.6596 | ppb | 13:31:43 |
| 1 | Se 196.026† | 26.5 | 54.0 | 35.666 | ug/L | 35.666 | ppb | 13:31:43 |
| 1 | Si 251.611† | 3725.9 | 3137.1 | 101.39 | ug/L | 101.39 | ppb | 13:31:23 |
| 1 | Sn 189.927† | 65.4 | 54.4 | 9.7926 | ug/L | 9.7926 | ppb | 13:31:43 |
| 1 | Ti 334.940† | 1839.9 | 3198.9 | 4.9993 | ug/L | 4.9993 | ppb | 13:31:23 |
| 1 | Tl 190.801† | 35.9 | 68.2 | 21.869 | ug/L | 21.869 | ppb | 13:31:43 |
| 1 | U 409.014† | -935.5 | 1958.7 | 54.068 | ug/L | 54.068 | ppb | 13:31:23 |
| 1 | V 292.402† | -811.4 | 700.9 | 5.1240 | ug/L | 5.1240 | ppb | 13:31:23 |
| 1 | Zn 213.857† | 1628.5 | 1009.1 | 10.098 | ug/L | 10.098 | ppb | 13:31:43 |
| 1 | SiO2† | 3713.8 | 3129.0 | 217.17 | ug/L | 217.17 | ppb | 13:32:39 |
| 2 | Sc Radial | 3953.9 | 3953.9 | 101 | % | | | 13:30:51 |
| 2 | Y RADIAL | 4543.6 | 4543.6 | 103.0 | % | | | 13:30:31 |
| 2 | Al 396.153Radial† | 110.7 | 222.1 | 207.83 | ug/L | 207.83 | ppb | 13:30:31 |
| 2 | Ca 317.933Radial† | 119.3 | 98.6 | 206.13 | ug/L | 206.13 | ppb | 13:30:51 |
| 2 | Fe 238.204 Radial† | 19.5 | 8.0 | 113.72 | ug/L | 113.72 | ppb | 13:30:51 |
| 2 | K 766.490 Radial† | 3515.0 | 844.2 | 161.80 | ug/L | 161.80 | ppb | 13:30:31 |
| 2 | Mg 279.077 IEC† | 7.2 | 3.1 | 148.44 | ug/L | 148.44 | ppb | 13:30:51 |
| 2 | Na 589.592 Radial† | 245.5 | 1063.1 | 327.79 | ug/L | 327.79 | ppb | 13:30:31 |
| 2 | Sr 421.552† | 781.2 | 738.6 | 5.1092 | ug/L | 5.1092 | ppb | 13:30:31 |
| 2 | Sc 361.383 | 890366.7 | 890366.7 | 101.50 | % | | | 13:31:48 |
| 2 | Y 371.029 | 754202.4 | 754202.4 | 99.783 | % | | | 13:31:48 |
| 2 | Ag 328.068† | 1343.0 | 1082.8 | 5.0298 | ug/L | 5.0298 | ppb | 13:31:48 |
| 2 | As 188.979† | 48.7 | 66.3 | 29.639 | ug/L | 29.639 | ppb | 13:32:08 |
| 2 | B 249.677† | 1596.7 | 1971.4 | 47.764 | ug/L | 47.764 | ppb | 13:31:48 |
| 2 | Ba 233.527† | 661.8 | 653.5 | 5.1424 | ug/L | 5.1424 | ppb | 13:32:08 |
| 2 | Be 313.107† | 9826.4 | 13443.6 | 5.0636 | ug/L | 5.0636 | ppb | 13:31:48 |
| 2 | Cd 226.502† | 267.4 | 459.7 | 5.3248 | ug/L | 5.3248 | ppb | 13:32:08 |
| 2 | Co 228.616† | 166.8 | 230.9 | 4.8486 | ug/L | 4.8486 | ppb | 13:32:08 |
| 2 | Cr 267.716† | 498.5 | 413.4 | 4.6399 | ug/L | 4.6399 | ppb | 13:32:08 |
| 2 | Cu 324.752† | 9281.3 | 3153.6 | 9.5760 | ug/L | 9.5760 | ppb | 13:31:48 |
| 2 | Mn 257.610† | 9753.0 | 9150.4 | 10.418 | ug/L | 10.418 | ppb | 13:31:48 |
| 2 | Mo 202.031† | 147.4 | 135.1 | 9.9289 | ug/L | 9.9289 | ppb | 13:32:08 |
| 2 | Ni 231.604† | 274.1 | 207.6 | 5.2770 | ug/L | 5.2770 | ppb | 13:32:08 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 457.1 | 239.9 | 142.58 ug/L | 142.58 ppb | 13:32:08 |
| 2 | Pb 220.353† | 32.5 | 90.1 | 11.136 ug/L | 11.136 ppb | 13:32:08 |
| 2 | S 181.975 Axial† | 116.1 | 73.6 | 105.92 ug/L | 105.92 ppb | 13:32:08 |
| 2 | Sb 206.836† | 72.9 | 35.1 | 12.645 ug/L | 12.645 ppb | 13:32:08 |
| 2 | Se 196.026† | 19.7 | 47.2 | 31.285 ug/L | 31.285 ppb | 13:32:08 |
| 2 | Si 251.611† | 3700.9 | 3088.0 | 99.802 ug/L | 99.802 ppb | 13:31:48 |
| 2 | Sn 189.927† | 72.8 | 61.3 | 11.024 ug/L | 11.024 ppb | 13:32:08 |
| 2 | Ti 334.940† | 1876.9 | 3223.3 | 5.0579 ug/L | 5.0579 ppb | 13:31:48 |
| 2 | Tl 190.801† | 32.2 | 64.3 | 20.608 ug/L | 20.608 ppb | 13:32:08 |
| 2 | U 409.014† | -1166.5 | 1737.3 | 47.952 ug/L | 47.952 ppb | 13:31:48 |
| 2 | V 292.402† | -797.0 | 720.5 | 5.2349 ug/L | 5.2349 ppb | 13:31:48 |
| 2 | Zn 213.857† | 1611.9 | 982.1 | 9.8224 ug/L | 9.8224 ppb | 13:32:08 |
| 2 | SiO2† | 3770.4 | 3160.4 | 219.36 ug/L | 219.36 ppb | 13:32:44 |
| 3 | Sc Radial | 3892.5 | 3892.5 | 99.3 % | | 13:31:16 |
| 3 | Y RADIAL | 4435.2 | 4435.2 | 100.6 % | | 13:30:56 |
| 3 | Al 396.153Radial† | 99.9 | 213.0 | 199.28 ug/L | 199.28 ppb | 13:30:56 |
| 3 | Ca 317.933Radial† | 118.6 | 99.7 | 208.46 ug/L | 208.46 ppb | 13:31:16 |
| 3 | Fe 238.204 Radial† | 19.2 | 8.0 | 113.34 ug/L | 113.34 ppb | 13:31:16 |
| 3 | K 766.490 Radial† | 3428.5 | 812.1 | 155.64 ug/L | 155.64 ppb | 13:30:56 |
| 3 | Mg 279.077 IEC† | 9.0 | 4.9 | 239.90 ug/L | 239.90 ppb | 13:31:16 |
| 3 | Na 589.592 Radial† | 213.9 | 1035.1 | 319.16 ug/L | 319.16 ppb | 13:30:56 |
| 3 | Sr 421.552† | 747.3 | 716.6 | 4.9573 ug/L | 4.9573 ppb | 13:30:56 |
| 3 | Sc 361.383 | 883324.4 | 883324.4 | 100.69 % | | 13:32:13 |
| 3 | Y 371.029 | 748072.9 | 748072.9 | 98.972 % | | 13:32:13 |
| 3 | Ag 328.068† | 1334.7 | 1085.0 | 5.0386 ug/L | 5.0386 ppb | 13:32:13 |
| 3 | As 188.979† | 47.1 | 65.0 | 29.068 ug/L | 29.068 ppb | 13:32:33 |
| 3 | B 249.677† | 1640.0 | 2026.9 | 49.109 ug/L | 49.109 ppb | 13:32:13 |
| 3 | Ba 233.527† | 639.5 | 636.5 | 5.0101 ug/L | 5.0101 ppb | 13:32:33 |
| 3 | Be 313.107† | 9556.6 | 13252.9 | 4.9918 ug/L | 4.9918 ppb | 13:32:13 |
| 3 | Cd 226.502† | 255.9 | 450.4 | 5.2179 ug/L | 5.2179 ppb | 13:32:33 |
| 3 | Co 228.616† | 173.6 | 238.9 | 5.0151 ug/L | 5.0151 ppb | 13:32:33 |
| 3 | Cr 267.716† | 522.3 | 441.0 | 4.9489 ug/L | 4.9489 ppb | 13:32:33 |
| 3 | Cu 324.752† | 9210.2 | 3155.9 | 9.5813 ug/L | 9.5813 ppb | 13:32:13 |
| 3 | Mn 257.610† | 9689.8 | 9164.2 | 10.430 ug/L | 10.430 ppb | 13:32:13 |
| 3 | Mo 202.031† | 138.0 | 126.9 | 9.3305 ug/L | 9.3305 ppb | 13:32:33 |
| 3 | Ni 231.604† | 290.7 | 226.3 | 5.7517 ug/L | 5.7517 ppb | 13:32:33 |
| 3 | P 214.914† | 438.2 | 224.6 | 133.37 ug/L | 133.37 ppb | 13:32:33 |
| 3 | Pb 220.353† | 29.9 | 87.8 | 10.850 ug/L | 10.850 ppb | 13:32:33 |
| 3 | S 181.975 Axial† | 106.6 | 65.1 | 93.592 ug/L | 93.592 ppb | 13:32:33 |
| 3 | Sb 206.836† | 70.5 | 33.3 | 11.987 ug/L | 11.987 ppb | 13:32:33 |
| 3 | Se 196.026† | 29.4 | 57.0 | 37.703 ug/L | 37.703 ppb | 13:32:33 |
| 3 | Si 251.611† | 3660.2 | 3076.6 | 99.441 ug/L | 99.441 ppb | 13:32:13 |
| 3 | Sn 189.927† | 68.2 | 57.2 | 10.302 ug/L | 10.302 ppb | 13:32:33 |
| 3 | Ti 334.940† | 1836.3 | 3197.7 | 5.0090 ug/L | 5.0090 ppb | 13:32:13 |
| 3 | Tl 190.801† | 29.7 | 62.1 | 19.913 ug/L | 19.913 ppb | 13:32:33 |
| 3 | U 409.014† | -1043.1 | 1850.7 | 51.082 ug/L | 51.082 ppb | 13:32:13 |
| 3 | V 292.402† | -755.6 | 755.3 | 5.4770 ug/L | 5.4770 ppb | 13:32:13 |
| 3 | Zn 213.857† | 1612.7 | 995.5 | 9.9546 ug/L | 9.9546 ppb | 13:32:33 |
| 3 | SiO2† | 3695.2 | 3115.3 | 216.25 ug/L | 216.25 ppb | 13:32:49 |

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**Mean Data: PQL**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 886054.8 | 101.01 | % | 0.431 | | | | 0.43% |
| Sc Radial | 3911.1 | 99.8 | % | 0.95 | | | | 0.95% |
| Y 371.029 | 750800.5 | 99.333 | % | 0.4128 | | | | 0.42% |
| Y RADIAL | 4456.5 | 101.0 | % | 1.78 | | | | 1.76% |
| Ag 328.068† | 1071.0 | 4.9697 | ug/L | 0.11176 | 4.9697 | ppb | 0.11176 | 2.25% |
| QC value within limits for Ag 328.068 Recovery = 99.39% | | | | | | | | |
| Al 396.153Radial† | 218.2 | 204.13 | ug/L | 4.392 | 204.13 | ppb | 4.392 | 2.15% |
| QC value within limits for Al 396.153Radial Recovery = 102.07% | | | | | | | | |
| As 188.979† | 63.4 | 28.373 | ug/L | 1.7222 | 28.373 | ppb | 1.7222 | 6.07% |
| QC value within limits for As 188.979 Recovery = 94.58% | | | | | | | | |
| B 249.677† | 1999.4 | 48.445 | ug/L | 0.6727 | 48.445 | ppb | 0.6727 | 1.39% |
| QC value within limits for B 249.677 Recovery = 96.89% | | | | | | | | |
| Ba 233.527† | 649.9 | 5.1142 | ug/L | 0.09327 | 5.1142 | ppb | 0.09327 | 1.82% |
| QC value within limits for Ba 233.527 Recovery = 102.28% | | | | | | | | |
| Be 313.107† | 13378.8 | 5.0392 | ug/L | 0.04101 | 5.0392 | ppb | 0.04101 | 0.81% |
| QC value within limits for Be 313.107 Recovery = 100.78% | | | | | | | | |
| Ca 317.933Radial† | 99.9 | 208.79 | ug/L | 2.840 | 208.79 | ppb | 2.840 | 1.36% |

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   QC value within limits for Ca 317.933Radial  Recovery = 104.40%
Cd 226.502†              457.4      5.2989 ug/L       0.07172      5.2989 ppb        0.07172   1.35%
   QC value within limits for Cd 226.502  Recovery = 105.98%
Co 228.616†              239.1      5.0195 ug/L       0.17310      5.0195 ppb        0.17310   3.45%
   QC value within limits for Co 228.616  Recovery = 100.39%
Cr 267.716†              429.2      4.8145 ug/L       0.15835      4.8145 ppb        0.15835   3.29%
   QC value within limits for Cr 267.716  Recovery = 96.29%
Cu 324.752†             3164.5      9.6070 ug/L       0.04909      9.6070 ppb        0.04909   0.51%
   QC value within limits for Cu 324.752  Recovery = 96.07%
Fe 238.204 Radial†         7.3      103.21 ug/L        17.871      103.21 ppb         17.871  17.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.21%
K 766.490 Radial†        844.4      161.84 ug/L         6.222      161.84 ppb          6.222   3.84%
   QC value within limits for K 766.490 Radial  Recovery = 107.89%
Mg 279.077 IEC†            5.2      253.41 ug/L       112.343      253.41 ppb        112.343  44.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 84.47%
Mn 257.610†             9169.8      10.434 ug/L        0.0196      10.434 ppb         0.0196   0.19%
   QC value within limits for Mn 257.610  Recovery = 104.34%
Mo 202.031†              134.0      9.8503 ug/L       0.48540      9.8503 ppb        0.48540   4.93%
   QC value within limits for Mo 202.031  Recovery = 98.50%
Na 589.592 Radial†      1029.2      317.34 ug/L        11.472      317.34 ppb         11.472   3.62%
   QC value within limits for Na 589.592 Radial  Recovery = 105.78%
Ni 231.604†              216.2      5.4964 ug/L       0.23936      5.4964 ppb        0.23936   4.35%
   QC value within limits for Ni 231.604  Recovery = 109.93%
P 214.914†               233.3      138.62 ug/L         4.736      138.62 ppb          4.736   3.42%
   QC value within limits for P 214.914  Recovery = 92.41%
Pb 220.353†               89.4      11.053 ug/L        0.1771      11.053 ppb         0.1771   1.60%
   QC value within limits for Pb 220.353  Recovery = 110.53%
S 181.975 Axial†          68.2      98.091 ug/L        6.8062      98.091 ppb         6.8062   6.94%
   QC value within limits for S 181.975 Axial  Recovery = 98.09%
Sb 206.836†               31.7      11.430 ug/L        1.5685      11.430 ppb         1.5685  13.72%
   QC value within limits for Sb 206.836  Recovery = 114.30%
Se 196.026†               52.7      34.884 ug/L        3.2797      34.884 ppb         3.2797   9.40%
   QC value within limits for Se 196.026  Recovery = 116.28%
Si 251.611†             3100.6      100.21 ug/L         1.034      100.21 ppb          1.034   1.03%
   QC value within limits for Si 251.611  Recovery = 100.21%
Sn 189.927†               57.6      10.373 ug/L        0.6188      10.373 ppb         0.6188   5.97%
   QC value within limits for Sn 189.927  Recovery = 103.73%
Sr 421.552†              723.4      5.0040 ug/L       0.09134      5.0040 ppb        0.09134   1.83%
   QC value within limits for Sr 421.552  Recovery = 100.08%
Ti 334.940†             3206.6      5.0221 ug/L       0.03144      5.0221 ppb        0.03144   0.63%
   QC value within limits for Ti 334.940  Recovery = 100.44%
Tl 190.801†               64.9      20.797 ug/L        0.9919      20.797 ppb         0.9919   4.77%
   QC value within limits for Tl 190.801  Recovery = 103.98%
U 409.014†              1848.9      51.034 ug/L        3.0584      51.034 ppb         3.0584   5.99%
   QC value within limits for U 409.014  Recovery = 102.07%
V 292.402†               725.5      5.2786 ug/L       0.18053      5.2786 ppb        0.18053   3.42%
   QC value within limits for V 292.402  Recovery = 105.57%
Zn 213.857†              995.6      9.9583 ug/L       0.13788      9.9583 ppb        0.13788   1.38%
   QC value within limits for Zn 213.857  Recovery = 99.58%
SiO2†                   3134.9      217.59 ug/L         1.601      217.59 ppb          1.601   0.74%
   QC value within limits for SiO2  Recovery = 102.16%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/24/2010 13:35:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3579.0 | 3579.0 | 91.3 | % | | | 13:37:14 |
| 1 | Y RADIAL | 3936.7 | 3936.7 | 89.25 | % | | | 13:37:14 |
| 1 | Al 396.153Radial† | 498697.7 | 546158.2 | 512230 | ug/L | 512230 | ppb | 13:36:54 |
| 1 | Ca 317.933Radial† | 210027.0 | 229948.0 | 480710 | ug/L | 480710 | ppb | 13:36:54 |
| 1 | Fe 238.204 Radial† | 12266.0 | 13419.2 | 189420 | ug/L | 189420 | ppb | 13:37:14 |
| 1 | K 766.490 Radial† | 2317.6 | -102.0 | -180.37 | ug/L | -180.37 | ppb | 13:36:54 |
| 1 | Mg 279.077 IEC† | 9430.8 | 10322.2 | 500290 | ug/L | 500290 | ppb | 13:37:14 |
| 1 | Na 589.592 Radial† | -578.6 | 186.2 | 57.412 | ug/L | 57.412 | ppb | 13:37:14 |
| 1 | Sr 421.552† | 540.5 | 556.0 | 0.2581 | ug/L | 0.2581 | ppb | 13:37:14 |
| 1 | Sc 361.383 | 752109.3 | 752109.3 | 85.737 | % | | | 13:38:11 |
| 1 | Y 371.029 | 620836.9 | 620836.9 | 82.138 | % | | | 13:38:11 |
| 1 | Ag 328.068† | -9722.3 | -11580.1 | -1.9309 | ug/L | -1.9309 | ppb | 13:38:11 |
| 1 | As 188.979† | -83.7 | -79.4 | 8.7794 | ug/L | 8.7794 | ppb | 13:38:31 |
| 1 | B 249.677† | 453.9 | 927.7 | -8.2727 | ug/L | -8.2727 | ppb | 13:38:11 |
| 1 | Ba 233.527† | -512.4 | -596.3 | 1.1226 | ug/L | 1.1226 | ppb | 13:38:31 |
| 1 | Be 313.107† | -3937.2 | -830.0 | -0.3618 | ug/L | -0.3618 | ppb | 13:38:11 |
| 1 | Cd 226.502† | 1201.2 | 1597.3 | -1.0580 | ug/L | -1.0580 | ppb | 13:38:31 |
| 1 | Co 228.616† | 1.0 | 67.6 | -1.3196 | ug/L | -1.3196 | ppb | 13:38:31 |
| 1 | Cr 267.716† | -1035.5 | -1285.5 | 3.5901 | ug/L | 3.5901 | ppb | 13:38:31 |
| 1 | Cu 324.752† | 3172.2 | -2290.8 | 3.0294 | ug/L | 3.0294 | ppb | 13:38:11 |
| 1 | Mn 257.610† | 1340.3 | 1104.6 | -0.4986 | ug/L | -0.4986 | ppb | 13:38:11 |
| 1 | Mo 202.031† | -246.5 | -297.6 | -1.4261 | ug/L | -1.4261 | ppb | 13:38:31 |
| 1 | Ni 231.604† | 174.0 | 140.4 | 3.5711 | ug/L | 3.5711 | ppb | 13:38:31 |
| 1 | P 214.914† | 184.9 | 5.1 | -21.112 | ug/L | -21.112 | ppb | 13:38:31 |
| 1 | Pb 220.353† | -770.5 | -840.6 | -10.497 | ug/L | -10.497 | ppb | 13:38:31 |
| 1 | S 181.975 Axial† | 67.8 | 38.3 | -40.887 | ug/L | -40.887 | ppb | 13:38:31 |
| 1 | Sb 206.836† | 62.4 | 36.1 | -4.8098 | ug/L | -4.8098 | ppb | 13:38:31 |
| 1 | Se 196.026† | -795.8 | -900.4 | -4.1061 | ug/L | -4.1061 | ppb | 13:38:31 |
| 1 | Si 251.611† | 487.9 | 10.8 | 0.6173 | ug/L | 0.6173 | ppb | 13:38:31 |
| 1 | Sn 189.927† | -358.6 | -428.7 | -2.3916 | ug/L | -2.3916 | ppb | 13:38:31 |
| 1 | Ti 334.940† | -13166.7 | -13983.0 | 1.6088 | ug/L | 1.6088 | ppb | 13:38:11 |
| 1 | Tl 190.801† | -84.7 | -66.2 | -21.395 | ug/L | -21.395 | ppb | 13:38:31 |
| 1 | U 409.014† | -1052.0 | 1659.6 | 24.268 | ug/L | 24.268 | ppb | 13:38:11 |
| 1 | V 292.402† | 875.7 | 2527.1 | -0.4927 | ug/L | -0.4927 | ppb | 13:38:31 |
| 1 | Zn 213.857† | 2741.2 | 2591.2 | -2.2750 | ug/L | -2.2750 | ppb | 13:38:31 |
| 1 | SiO2† | 512.4 | 43.2 | 3.5965 | ug/L | 3.5965 | ppb | 13:39:28 |
| 2 | Sc Radial | 3527.7 | 3527.7 | 90.0 | % | | | 13:37:39 |
| 2 | Y RADIAL | 3875.7 | 3875.7 | 87.87 | % | | | 13:37:39 |
| 2 | Al 396.153Radial† | 496990.4 | 552197.0 | 517890 | ug/L | 517890 | ppb | 13:37:19 |
| 2 | Ca 317.933Radial† | 208493.4 | 231586.4 | 484130 | ug/L | 484130 | ppb | 13:37:19 |
| 2 | Fe 238.204 Radial† | 12191.7 | 13531.9 | 191010 | ug/L | 191010 | ppb | 13:37:39 |
| 2 | K 766.490 Radial† | 2326.8 | -54.9 | -172.49 | ug/L | -172.49 | ppb | 13:37:19 |
| 2 | Mg 279.077 IEC† | 9342.6 | 10374.2 | 502810 | ug/L | 502810 | ppb | 13:37:39 |
| 2 | Na 589.592 Radial† | -541.5 | 218.2 | 67.285 | ug/L | 67.285 | ppb | 13:37:39 |
| 2 | Sr 421.552† | 552.6 | 578.1 | 0.3851 | ug/L | 0.3851 | ppb | 13:37:39 |
| 2 | Sc 361.383 | 757243.3 | 757243.3 | 86.322 | % | | | 13:38:37 |
| 2 | Y 371.029 | 625612.2 | 625612.2 | 82.770 | % | | | 13:38:37 |
| 2 | Ag 328.068† | -9548.5 | -11302.0 | -0.1941 | ug/L | -0.1941 | ppb | 13:38:37 |
| 2 | As 188.979† | -94.6 | -91.3 | 3.8179 | ug/L | 3.8179 | ppb | 13:38:57 |
| 2 | B 249.677† | 422.3 | 887.5 | -9.5048 | ug/L | -9.5048 | ppb | 13:38:37 |
| 2 | Ba 233.527† | -507.3 | -586.2 | 1.2494 | ug/L | 1.2494 | ppb | 13:38:57 |
| 2 | Be 313.107† | -3887.3 | -741.0 | -0.3277 | ug/L | -0.3277 | ppb | 13:38:37 |
| 2 | Cd 226.502† | 1205.8 | 1593.1 | -1.2718 | ug/L | -1.2718 | ppb | 13:38:57 |
| 2 | Co 228.616† | -4.2 | 61.7 | -1.4662 | ug/L | -1.4662 | ppb | 13:38:57 |
| 2 | Cr 267.716† | -1051.2 | -1295.5 | 3.6318 | ug/L | 3.6318 | ppb | 13:38:57 |
| 2 | Cu 324.752† | 3191.0 | -2294.1 | 3.1082 | ug/L | 3.1082 | ppb | 13:38:37 |
| 2 | Mn 257.610† | 1313.4 | 1062.8 | -0.4924 | ug/L | -0.4924 | ppb | 13:38:37 |
| 2 | Mo 202.031† | -240.9 | -289.2 | -0.6460 | ug/L | -0.6460 | ppb | 13:38:57 |
| 2 | Ni 231.604† | 183.0 | 149.5 | 3.8021 | ug/L | 3.8021 | ppb | 13:38:57 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 168.6 | -15.2 | -33.149 ug/L | -33.149 ppb | 13:38:57 |
| 2 | Pb 220.353† | -795.0 | -862.8 | -12.176 ug/L | -12.176 ppb | 13:38:57 |
| 2 | S 181.975 Axial† | 62.0 | 31.0 | -52.486 ug/L | -52.486 ppb | 13:38:57 |
| 2 | Sb 206.836† | 56.6 | 28.9 | -7.4361 ug/L | -7.4361 ppb | 13:38:57 |
| 2 | Se 196.026† | -793.2 | -891.2 | 6.8776 ug/L | 6.8776 ppb | 13:38:57 |
| 2 | Si 251.611† | 497.2 | 17.7 | 0.8340 ug/L | 0.8340 ppb | 13:38:57 |
| 2 | Sn 189.927† | -337.7 | -401.7 | 2.9641 ug/L | 2.9641 ppb | 13:38:57 |
| 2 | Ti 334.940† | -13091.6 | -13791.9 | 2.1660 ug/L | 2.1660 ppb | 13:38:37 |
| 2 | Tl 190.801† | -64.3 | -41.9 | -13.609 ug/L | -13.609 ppb | 13:38:57 |
| 2 | U 409.014† | -1323.7 | 1353.1 | 15.623 ug/L | 15.623 ppb | 13:38:37 |
| 2 | V 292.402† | 857.6 | 2499.2 | -0.8777 ug/L | -0.8777 ppb | 13:38:57 |
| 2 | Zn 213.857† | 2774.9 | 2608.6 | -2.3394 ug/L | -2.3394 ppb | 13:38:57 |
| 2 | SiO2† | 495.7 | 19.9 | 1.9590 ug/L | 1.9590 ppb | 13:39:33 |
| 3 | Sc Radial | 3526.0 | 3526.0 | 90.0 % | | 13:38:05 |
| 3 | Y RADIAL | 3875.8 | 3875.8 | 87.87 % | | 13:38:05 |
| 3 | Al 396.153Radial† | 509370.4 | 566227.4 | 531050 ug/L | 531050 ppb | 13:37:45 |
| 3 | Ca 317.933Radial† | 214024.4 | 237847.4 | 497220 ug/L | 497220 ppb | 13:37:45 |
| 3 | Fe 238.204 Radial† | 12116.2 | 13454.6 | 189920 ug/L | 189920 ppb | 13:38:05 |
| 3 | K 766.490 Radial† | 2276.8 | -109.1 | -187.27 ug/L | -187.27 ppb | 13:37:45 |
| 3 | Mg 279.077 IEC† | 9289.7 | 10320.5 | 500210 ug/L | 500210 ppb | 13:38:05 |
| 3 | Na 589.592 Radial† | -541.2 | 218.2 | 67.291 ug/L | 67.291 ppb | 13:38:05 |
| 3 | Sr 421.552† | 548.3 | 573.6 | 0.2566 ug/L | 0.2566 ppb | 13:38:05 |
| 3 | Sc 361.383 | 755740.9 | 755740.9 | 86.151 % | | 13:39:02 |
| 3 | Y 371.029 | 623884.9 | 623884.9 | 82.541 % | | 13:39:02 |
| 3 | Ag 328.068† | -9673.4 | -11468.9 | -1.4795 ug/L | -1.4795 ppb | 13:39:02 |
| 3 | As 188.979† | -75.6 | -69.5 | 13.323 ug/L | 13.323 ppb | 13:39:22 |
| 3 | B 249.677† | 399.9 | 862.4 | -9.9362 ug/L | -9.9362 ppb | 13:39:02 |
| 3 | Ba 233.527† | -543.3 | -629.2 | 0.8794 ug/L | 0.8794 ppb | 13:39:22 |
| 3 | Be 313.107† | -3936.8 | -807.5 | -0.3540 ug/L | -0.3540 ppb | 13:39:02 |
| 3 | Cd 226.502† | 1186.2 | 1573.2 | -1.3897 ug/L | -1.3897 ppb | 13:39:22 |
| 3 | Co 228.616† | -5.4 | 60.2 | -1.4823 ug/L | -1.4823 ppb | 13:39:22 |
| 3 | Cr 267.716† | -1089.8 | -1342.7 | 2.9988 ug/L | 2.9988 ppb | 13:39:22 |
| 3 | Cu 324.752† | 3272.9 | -2191.7 | 3.3624 ug/L | 3.3624 ppb | 13:39:02 |
| 3 | Mn 257.610† | 1475.6 | 1254.0 | -0.2761 ug/L | -0.2761 ppb | 13:39:02 |
| 3 | Mo 202.031† | -251.3 | -301.8 | -1.5005 ug/L | -1.5005 ppb | 13:39:22 |
| 3 | Ni 231.604† | 196.4 | 165.5 | 4.2092 ug/L | 4.2092 ppb | 13:39:22 |
| 3 | P 214.914† | 155.1 | -30.4 | -38.275 ug/L | -38.275 ppb | 13:39:22 |
| 3 | Pb 220.353† | -774.0 | -840.4 | -6.3731 ug/L | -6.3731 ppb | 13:39:22 |
| 3 | S 181.975 Axial† | 64.8 | 34.4 | -50.051 ug/L | -50.051 ppb | 13:39:22 |
| 3 | Sb 206.836† | 66.0 | 39.9 | -3.9982 ug/L | -3.9982 ppb | 13:39:22 |
| 3 | Se 196.026† | -801.0 | -902.0 | -3.7489 ug/L | -3.7489 ppb | 13:39:22 |
| 3 | Si 251.611† | 461.6 | -22.5 | -0.4560 ug/L | -0.4560 ppb | 13:39:22 |
| 3 | Sn 189.927† | -360.8 | -429.3 | 0.3998 ug/L | 0.3998 ppb | 13:39:22 |
| 3 | Ti 334.940† | -13393.6 | -14172.7 | 3.5363 ug/L | 3.5363 ppb | 13:39:02 |
| 3 | Tl 190.801† | -85.7 | -66.9 | -21.615 ug/L | -21.615 ppb | 13:39:22 |
| 3 | U 409.014† | -1336.9 | 1334.8 | 15.241 ug/L | 15.241 ppb | 13:39:02 |
| 3 | V 292.402† | 884.0 | 2531.8 | -0.5548 ug/L | -0.5548 ppb | 13:39:22 |
| 3 | Zn 213.857† | 2725.5 | 2557.6 | -2.6931 ug/L | -2.6931 ppb | 13:39:22 |
| 3 | SiO2† | 452.6 | -29.1 | -1.4188 ug/L | -1.4188 ppb | 13:39:38 |

**Mean Data: ICSA**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 755031.2 | 86.070 | % | 0.3009 | | | | 0.35% |
| Sc Radial | 3544.3 | 90.4 | % | 0.77 | | | | 0.85% |
| Y 371.029 | 623444.7 | 82.483 | % | 0.3199 | | | | 0.39% |
| Y RADIAL | 3896.1 | 88.33 | % | 0.797 | | | | 0.90% |
| Ag 328.068† | -11450.3 | -1.2015 | ug/L | 0.90116 | -1.2015 | ppb | 0.90116 | 75.00% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 554860.9 | 520390 | ug/L | 9656.7 | 520390 | ppb | 9656.7 | 1.86% |
| QC value within limits for Al 396.153Radial Recovery = 104.08% | | | | | | | | |
| As 188.979† | -80.1 | 8.6402 | ug/L | 4.75425 | 8.6402 | ppb | 4.75425 | 55.02% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 892.5 | -9.2379 | ug/L | 0.86328 | -9.2379 | ppb | 0.86328 | 9.34% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | -603.9 | 1.0838 | ug/L | 0.18798 | 1.0838 | ppb | 0.18798 | 17.35% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | -792.8 | -0.3478 | ug/L | 0.01788 | -0.3478 | ppb | 0.01788 | 5.14% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 233127.3 | 487350 | ug/L | 8715.4 | 487350 | ppb | 8715.4 | 1.79% |

```
   QC value within limits for Ca 317.933Radial  Recovery = 97.47%
Cd 226.502†            1587.8     -1.2399 ug/L       0.16812     -1.2399 ppb        0.16812  13.56%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              63.2     -1.4227 ug/L       0.08966     -1.4227 ppb        0.08966   6.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1307.9      3.4069 ug/L       0.35405      3.4069 ppb        0.35405  10.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2258.9      3.1667 ug/L       0.17402      3.1667 ppb        0.17402   5.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    13468.6      190110 ug/L         812.9      190110 ppb          812.9   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.06%
K 766.490 Radial†       -88.7     -180.04 ug/L         7.397     -180.04 ppb          7.397   4.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       10339.0      501100 ug/L        1479.9      501100 ppb         1479.9   0.30%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.22%
Mn 257.610†            1140.5     -0.4224 ug/L       0.12673     -0.4224 ppb        0.12673  30.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -296.2     -1.1909 ug/L       0.47334     -1.1909 ppb        0.47334  39.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       207.6      63.996 ug/L        5.7020      63.996 ppb         5.7020   8.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              151.8      3.8608 ug/L       0.32308      3.8608 ppb        0.32308   8.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.5     -30.845 ug/L        8.8106     -30.845 ppb         8.8106  28.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -847.9     -9.6820 ug/L       2.98596     -9.6820 ppb        2.98596  30.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          34.6     -47.808 ug/L        6.1164     -47.808 ppb         6.1164  12.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               35.0     -5.4147 ug/L       1.79698     -5.4147 ppb        1.79698  33.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -897.9     -0.3258 ug/L       6.24089     -0.3258 ppb        6.24089 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                2.0      0.3318 ug/L       0.69081      0.3318 ppb        0.69081 208.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -419.9      0.3241 ug/L       2.67867      0.3241 ppb        2.67867 826.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              569.3      0.2999 ug/L       0.07378      0.2999 ppb        0.07378  24.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -13982.5      2.4370 ug/L       0.99191      2.4370 ppb        0.99191  40.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -58.4     -18.873 ug/L        4.5599     -18.873 ppb         4.5599  24.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1449.2      18.377 ug/L        5.1050      18.377 ppb         5.1050  27.78%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2519.3     -0.6417 ug/L       0.20670     -0.6417 ppb        0.20670  32.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2585.8     -2.4358 ug/L       0.22510     -2.4358 ppb        0.22510   9.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    11.3      1.3789 ug/L       2.55748      1.3789 ppb        2.55748 185.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/24/2010 13:41:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3544.0 | 3544.0 | 90.4 | % | | | 13:44:03 |
| 1 | Y RADIAL | 3889.0 | 3889.0 | 88.17 | % | | | 13:44:03 |
| 1 | Al 396.153Radial† | 502369.0 | 555616.9 | 521080 | ug/L | 521080 | ppb | 13:43:43 |
| 1 | Ca 317.933Radial† | 210391.1 | 232624.5 | 486300 | ug/L | 486300 | ppb | 13:43:43 |
| 1 | Fe 238.204 Radial† | 11970.1 | 13224.8 | 186680 | ug/L | 186680 | ppb | 13:44:03 |
| 1 | K 766.490 Radial† | 28907.3 | 29325.2 | 5462.0 | ug/L | 5462.0 | ppb | 13:43:43 |
| 1 | Mg 279.077 IEC† | 9207.4 | 10177.2 | 493270 | ug/L | 493270 | ppb | 13:44:03 |
| 1 | Na 589.592 Radial† | 15629.9 | 18102.9 | 5581.6 | ug/L | 5581.6 | ppb | 13:43:43 |
| 1 | Sr 421.552† | 66679.5 | 73696.4 | 506.31 | ug/L | 506.31 | ppb | 13:43:43 |
| 1 | Sc 361.383 | 771349.2 | 771349.2 | 87.930 | % | | | 13:45:01 |
| 1 | Y 371.029 | 635031.0 | 635031.0 | 84.016 | % | | | 13:45:01 |
| 1 | Ag 328.068† | 40762.5 | 46117.5 | 266.06 | ug/L | 266.06 | ppb | 13:45:01 |
| 1 | As 188.979† | 906.5 | 1049.2 | 515.34 | ug/L | 515.34 | ppb | 13:45:21 |
| 1 | B 249.677† | 18899.9 | 21892.5 | 499.24 | ug/L | 499.24 | ppb | 13:45:01 |
| 1 | Ba 233.527† | 53585.0 | 60941.9 | 485.03 | ug/L | 485.03 | ppb | 13:45:01 |
| 1 | Be 313.107† | 560557.9 | 641267.1 | 242.09 | ug/L | 242.09 | ppb | 13:45:01 |
| 1 | Cd 226.502† | 35237.2 | 40270.4 | 447.42 | ug/L | 447.42 | ppb | 13:45:21 |
| 1 | Co 228.616† | 18018.5 | 20558.3 | 428.05 | ug/L | 428.05 | ppb | 13:45:21 |
| 1 | Cr 267.716† | 35779.9 | 40613.6 | 474.19 | ug/L | 474.19 | ppb | 13:45:01 |
| 1 | Cu 324.752† | 158407.7 | 174161.4 | 539.58 | ug/L | 539.58 | ppb | 13:45:01 |
| 1 | Mn 257.610† | 366309.0 | 416133.0 | 471.80 | ug/L | 471.80 | ppb | 13:45:01 |
| 1 | Mo 202.031† | 5509.0 | 6255.1 | 479.51 | ug/L | 479.51 | ppb | 13:45:21 |
| 1 | Ni 231.604† | 15024.1 | 17024.0 | 432.71 | ug/L | 432.71 | ppb | 13:45:21 |
| 1 | P 214.914† | 3798.5 | 4109.4 | 2352.0 | ug/L | 2352.0 | ppb | 13:45:21 |
| 1 | Pb 220.353† | 2439.7 | 2832.7 | 444.38 | ug/L | 444.38 | ppb | 13:45:21 |
| 1 | S 181.975 Axial† | 1669.9 | 1858.4 | 2576.6 | ug/L | 2576.6 | ppb | 13:45:21 |
| 1 | Sb 206.836† | 1362.0 | 1512.3 | 528.40 | ug/L | 528.40 | ppb | 13:45:21 |
| 1 | Se 196.026† | 2531.7 | 2907.0 | 2483.1 | ug/L | 2483.1 | ppb | 13:45:21 |
| 1 | Si 251.611† | 140010.4 | 158671.1 | 5128.7 | ug/L | 5128.7 | ppb | 13:45:01 |
| 1 | Sn 189.927† | 2002.9 | 2267.3 | 482.49 | ug/L | 482.49 | ppb | 13:45:21 |
| 1 | Ti 334.940† | 270764.6 | 309306.2 | 510.57 | ug/L | 510.57 | ppb | 13:45:01 |
| 1 | Tl 190.801† | 1146.4 | 1336.3 | 430.70 | ug/L | 430.70 | ppb | 13:45:21 |
| 1 | U 409.014† | 14157.0 | 18986.9 | 502.00 | ug/L | 502.00 | ppb | 13:45:01 |
| 1 | V 292.402† | 62854.5 | 72988.1 | 498.09 | ug/L | 498.09 | ppb | 13:45:01 |
| 1 | Zn 213.857† | 45128.8 | 50717.5 | 479.13 | ug/L | 479.13 | ppb | 13:45:01 |
| 1 | SiO2† | 140658.7 | 159412.3 | 11066 | ug/L | 11066 | ppb | 13:46:19 |
| 2 | Sc Radial | 3552.5 | 3552.5 | 90.7 | % | | | 13:44:29 |
| 2 | Y RADIAL | 3877.9 | 3877.9 | 87.92 | % | | | 13:44:29 |
| 2 | Al 396.153Radial† | 508992.0 | 561586.1 | 526680 | ug/L | 526680 | ppb | 13:44:08 |
| 2 | Ca 317.933Radial† | 212481.2 | 234370.2 | 489950 | ug/L | 489950 | ppb | 13:44:08 |
| 2 | Fe 238.204 Radial† | 12008.0 | 13234.8 | 186820 | ug/L | 186820 | ppb | 13:44:29 |
| 2 | K 766.490 Radial† | 29295.8 | 29676.8 | 5528.2 | ug/L | 5528.2 | ppb | 13:44:08 |
| 2 | Mg 279.077 IEC† | 9219.7 | 10166.2 | 492740 | ug/L | 492740 | ppb | 13:44:29 |
| 2 | Na 589.592 Radial† | 15603.6 | 18032.2 | 5559.8 | ug/L | 5559.8 | ppb | 13:44:08 |
| 2 | Sr 421.552† | 67349.1 | 74257.7 | 510.17 | ug/L | 510.17 | ppb | 13:44:08 |
| 2 | Sc 361.383 | 768844.9 | 768844.9 | 87.645 | % | | | 13:45:27 |
| 2 | Y 371.029 | 633977.1 | 633977.1 | 83.877 | % | | | 13:45:27 |
| 2 | Ag 328.068† | 40655.2 | 46146.1 | 266.20 | ug/L | 266.20 | ppb | 13:45:27 |
| 2 | As 188.979† | 901.6 | 1046.9 | 514.36 | ug/L | 514.36 | ppb | 13:45:47 |
| 2 | B 249.677† | 18586.9 | 21605.3 | 492.26 | ug/L | 492.26 | ppb | 13:45:27 |
| 2 | Ba 233.527† | 53366.3 | 60890.9 | 484.64 | ug/L | 484.64 | ppb | 13:45:27 |
| 2 | Be 313.107† | 560843.3 | 643669.2 | 242.99 | ug/L | 242.99 | ppb | 13:45:27 |
| 2 | Cd 226.502† | 34895.0 | 40010.5 | 444.40 | ug/L | 444.40 | ppb | 13:45:47 |
| 2 | Co 228.616† | 17845.7 | 20428.0 | 425.31 | ug/L | 425.31 | ppb | 13:45:47 |
| 2 | Cr 267.716† | 35787.6 | 40755.0 | 475.79 | ug/L | 475.79 | ppb | 13:45:27 |
| 2 | Cu 324.752† | 156939.6 | 173073.0 | 536.28 | ug/L | 536.28 | ppb | 13:45:27 |
| 2 | Mn 257.610† | 365173.9 | 416194.7 | 471.90 | ug/L | 471.90 | ppb | 13:45:27 |
| 2 | Mo 202.031† | 5466.6 | 6227.1 | 477.50 | ug/L | 477.50 | ppb | 13:45:47 |
| 2 | Ni 231.604† | 14898.0 | 16935.8 | 430.47 | ug/L | 430.47 | ppb | 13:45:47 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 3761.0 | 4080.7 | 2336.6 ug/L | 2336.6 ppb | 13:45:47 |
| 2 | Pb 220.353† | 2428.1 | 2828.5 | 445.06 ug/L | 445.06 ppb | 13:45:47 |
| 2 | S 181.975 Axial† | 1619.7 | 1807.2 | 2502.0 ug/L | 2502.0 ppb | 13:45:47 |
| 2 | Sb 206.836† | 1383.5 | 1541.8 | 538.47 ug/L | 538.47 ppb | 13:45:47 |
| 2 | Se 196.026† | 2472.8 | 2849.1 | 2445.6 ug/L | 2445.6 ppb | 13:45:47 |
| 2 | Si 251.611† | 139473.1 | 158576.7 | 5125.7 ug/L | 5125.7 ppb | 13:45:27 |
| 2 | Sn 189.927† | 1978.4 | 2246.8 | 479.46 ug/L | 479.46 ppb | 13:45:47 |
| 2 | Ti 334.940† | 269310.3 | 308649.8 | 510.07 ug/L | 510.07 ppb | 13:45:27 |
| 2 | Tl 190.801† | 1146.6 | 1340.8 | 432.13 ug/L | 432.13 ppb | 13:45:47 |
| 2 | U 409.014† | 13819.2 | 18653.9 | 492.79 ug/L | 492.79 ppb | 13:45:27 |
| 2 | V 292.402† | 62858.7 | 73225.7 | 499.67 ug/L | 499.67 ppb | 13:45:27 |
| 2 | Zn 213.857† | 44974.0 | 50708.1 | 479.04 ug/L | 479.04 ppb | 13:45:27 |
| 2 | SiO2† | 140832.5 | 160131.6 | 11116 ug/L | 11116 ppb | 13:46:24 |
| 3 | Sc Radial | 3562.2 | 3562.2 | 90.9 % | | 13:44:54 |
| 3 | Y RADIAL | 3908.3 | 3908.3 | 88.61 % | | 13:44:54 |
| 3 | Al 396.153Radial† | 491528.9 | 540851.0 | 507230 ug/L | 507230 ppb | 13:44:34 |
| 3 | Ca 317.933Radial† | 206193.9 | 226817.4 | 474160 ug/L | 474160 ppb | 13:44:34 |
| 3 | Fe 238.204 Radial† | 12072.2 | 13269.5 | 187310 ug/L | 187310 ppb | 13:44:54 |
| 3 | K 766.490 Radial† | 28351.1 | 28549.9 | 5317.3 ug/L | 5317.3 ppb | 13:44:34 |
| 3 | Mg 279.077 IEC† | 9271.3 | 10195.5 | 494150 ug/L | 494150 ppb | 13:44:54 |
| 3 | Na 589.592 Radial† | 15205.4 | 17547.5 | 5410.4 ug/L | 5410.4 ppb | 13:44:34 |
| 3 | Sr 421.552† | 65002.1 | 71474.1 | 491.03 ug/L | 491.03 ppb | 13:44:34 |
| 3 | Sc 361.383 | 773529.9 | 773529.9 | 88.179 % | | 13:45:53 |
| 3 | Y 371.029 | 636974.7 | 636974.7 | 84.273 % | | 13:45:53 |
| 3 | Ag 328.068† | 40958.4 | 46209.0 | 266.85 ug/L | 266.85 ppb | 13:45:53 |
| 3 | As 188.979† | 908.4 | 1048.5 | 515.17 ug/L | 515.17 ppb | 13:46:13 |
| 3 | B 249.677† | 18901.7 | 21833.9 | 497.71 ug/L | 497.71 ppb | 13:45:53 |
| 3 | Ba 233.527† | 53818.9 | 61035.4 | 485.79 ug/L | 485.79 ppb | 13:45:53 |
| 3 | Be 313.107† | 564385.8 | 643810.9 | 243.05 ug/L | 243.05 ppb | 13:45:53 |
| 3 | Cd 226.502† | 35486.2 | 40439.8 | 449.32 ug/L | 449.32 ppb | 13:46:13 |
| 3 | Co 228.616† | 18169.6 | 20671.9 | 430.42 ug/L | 430.42 ppb | 13:46:13 |
| 3 | Cr 267.716† | 35994.8 | 40742.6 | 475.70 ug/L | 475.70 ppb | 13:45:53 |
| 3 | Cu 324.752† | 158602.6 | 173874.4 | 538.74 ug/L | 538.74 ppb | 13:45:53 |
| 3 | Mn 257.610† | 368718.0 | 417690.4 | 473.59 ug/L | 473.59 ppb | 13:45:53 |
| 3 | Mo 202.031† | 5549.3 | 6283.1 | 481.47 ug/L | 481.47 ppb | 13:46:13 |
| 3 | Ni 231.604† | 15178.9 | 17151.4 | 435.95 ug/L | 435.95 ppb | 13:46:13 |
| 3 | P 214.914† | 3790.8 | 4088.4 | 2335.6 ug/L | 2335.6 ppb | 13:46:13 |
| 3 | Pb 220.353† | 2482.3 | 2873.2 | 446.25 ug/L | 446.25 ppb | 13:46:13 |
| 3 | S 181.975 Axial† | 1671.0 | 1854.2 | 2573.2 ug/L | 2573.2 ppb | 13:46:13 |
| 3 | Sb 206.836† | 1397.3 | 1548.0 | 541.30 ug/L | 541.30 ppb | 13:46:13 |
| 3 | Se 196.026† | 2539.2 | 2907.3 | 2485.4 ug/L | 2485.4 ppb | 13:46:13 |
| 3 | Si 251.611† | 140631.7 | 158926.7 | 5137.0 ug/L | 5137.0 ppb | 13:45:53 |
| 3 | Sn 189.927† | 2009.9 | 2268.8 | 480.57 ug/L | 480.57 ppb | 13:46:13 |
| 3 | Ti 334.940† | 271430.4 | 309193.1 | 508.69 ug/L | 508.69 ppb | 13:45:53 |
| 3 | Tl 190.801† | 1173.2 | 1363.1 | 439.26 ug/L | 439.26 ppb | 13:46:13 |
| 3 | U 409.014† | 14112.1 | 18890.7 | 499.27 ug/L | 499.27 ppb | 13:45:53 |
| 3 | V 292.402† | 63290.8 | 73281.4 | 500.09 ug/L | 500.09 ppb | 13:45:53 |
| 3 | Zn 213.857† | 45344.3 | 50817.2 | 480.02 ug/L | 480.02 ppb | 13:45:53 |
| 3 | SiO2† | 140723.0 | 159034.3 | 11040 ug/L | 11040 ppb | 13:46:29 |

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**Mean Data: ICSAB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 771241.4 | 87.918 | % | 0.2672 | | | | 0.30% |
| Sc Radial | 3552.9 | 90.7 | % | 0.23 | | | | 0.26% |
| Y 371.029 | 635327.6 | 84.055 | % | 0.2012 | | | | 0.24% |
| Y RADIAL | 3891.8 | 88.23 | % | 0.348 | | | | 0.39% |
| Ag 328.068† | 46157.5 | 266.37 | ug/L | 0.423 | 266.37 | ppb | 0.423 | 0.16% |
| QC value within limits for Ag 328.068 Recovery = 106.55% | | | | | | | | |
| Al 396.153Radial† | 552684.7 | 518330 | ug/L | 10011.0 | 518330 | ppb | 10011.0 | 1.93% |
| QC value within limits for Al 396.153Radial Recovery = 103.67% | | | | | | | | |
| As 188.979† | 1048.2 | 514.96 | ug/L | 0.524 | 514.96 | ppb | 0.524 | 0.10% |
| QC value within limits for As 188.979 Recovery = 102.99% | | | | | | | | |
| B 249.677† | 21777.3 | 496.40 | ug/L | 3.668 | 496.40 | ppb | 3.668 | 0.74% |
| QC value within limits for B 249.677 Recovery = 99.28% | | | | | | | | |
| Ba 233.527† | 60956.1 | 485.15 | ug/L | 0.585 | 485.15 | ppb | 0.585 | 0.12% |
| QC value within limits for Ba 233.527 Recovery = 97.03% | | | | | | | | |
| Be 313.107† | 642915.7 | 242.71 | ug/L | 0.536 | 242.71 | ppb | 0.536 | 0.22% |
| QC value within limits for Be 313.107 Recovery = 97.08% | | | | | | | | |
| Ca 317.933Radial† | 231270.7 | 483470 | ug/L | 8266.3 | 483470 | ppb | 8266.3 | 1.71% |

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   QC value within limits for Ca 317.933Radial  Recovery = 96.69%
Cd 226.502†            40240.2      447.05 ug/L        2.484      447.05 ppb        2.484   0.56%
   QC value within limits for Cd 226.502  Recovery = 89.41%
Co 228.616†            20552.8      427.93 ug/L        2.558      427.93 ppb        2.558   0.60%
   QC value within limits for Co 228.616  Recovery = 85.59%
Cr 267.716†            40703.7      475.23 ug/L        0.901      475.23 ppb        0.901   0.19%
   QC value within limits for Cr 267.716  Recovery = 95.05%
Cu 324.752†           173702.9      538.20 ug/L        1.715      538.20 ppb        1.715   0.32%
   QC value within limits for Cu 324.752  Recovery = 107.64%
Fe 238.204 Radial†     13243.0      186940 ug/L        331.0      186940 ppb        331.0   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.47%
K 766.490 Radial†      29184.0      5435.8 ug/L       107.86      5435.8 ppb       107.86   1.98%
   QC value within limits for K 766.490 Radial  Recovery = 108.72%
Mg 279.077 IEC†        10179.6      493390 ug/L        716.2      493390 ppb        716.2   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.68%
Mn 257.610†           416672.7      472.43 ug/L        1.009      472.43 ppb        1.009   0.21%
   QC value within limits for Mn 257.610  Recovery = 94.49%
Mo 202.031†             6255.1      479.49 ug/L        1.982      479.49 ppb        1.982   0.41%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†     17894.2      5517.3 ug/L        93.22      5517.3 ppb        93.22   1.69%
   QC value within limits for Na 589.592 Radial  Recovery = 110.35%
Ni 231.604†            17037.1      433.04 ug/L        2.755      433.04 ppb        2.755   0.64%
   QC value within limits for Ni 231.604  Recovery = 86.61%
P 214.914†              4092.9      2341.4 ug/L         9.19      2341.4 ppb         9.19   0.39%
   QC value within limits for P 214.914  Recovery = 93.66%
Pb 220.353†             2844.8      445.23 ug/L        0.943      445.23 ppb        0.943   0.21%
   QC value within limits for Pb 220.353  Recovery = 89.05%
S 181.975 Axial†        1839.9      2550.6 ug/L        42.14      2550.6 ppb        42.14   1.65%
   QC value within limits for S 181.975 Axial  Recovery = 102.02%
Sb 206.836†             1534.0      536.06 ug/L        6.780      536.06 ppb        6.780   1.26%
   QC value within limits for Sb 206.836  Recovery = 107.21%
Se 196.026†             2887.8      2471.4 ug/L        22.39      2471.4 ppb        22.39   0.91%
   QC value within limits for Se 196.026  Recovery = 98.86%
Si 251.611†           158724.9      5130.5 ug/L         5.84      5130.5 ppb         5.84   0.11%
   QC value within limits for Si 251.611  Recovery = 102.61%
Sn 189.927†             2261.0      480.84 ug/L        1.536      480.84 ppb        1.536   0.32%
   QC value within limits for Sn 189.927  Recovery = 96.17%
Sr 421.552†            73142.7      502.50 ug/L       10.124      502.50 ppb       10.124   2.01%
   QC value within limits for Sr 421.552  Recovery = 100.50%
Ti 334.940†           309049.7      509.78 ug/L        0.973      509.78 ppb        0.973   0.19%
   QC value within limits for Ti 334.940  Recovery = 101.96%
Tl 190.801†             1346.7      434.03 ug/L        4.587      434.03 ppb        4.587   1.06%
   QC value within limits for Tl 190.801  Recovery = 86.81%
U 409.014†             18843.8      498.02 ug/L        4.732      498.02 ppb        4.732   0.95%
   QC value within limits for U 409.014  Recovery = 99.60%
V 292.402†             73165.1      499.28 ug/L        1.052      499.28 ppb        1.052   0.21%
   QC value within limits for V 292.402  Recovery = 99.86%
Zn 213.857†            50747.6      479.40 ug/L        0.544      479.40 ppb        0.544   0.11%
   QC value within limits for Zn 213.857  Recovery = 95.88%
SiO2†                 159526.1       11074 ug/L         38.8       11074 ppb         38.8   0.35%
   QC value within limits for SiO2  Recovery = 103.54%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/24/2010 13:48:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3468.7 | 3468.7 | 88.5 | % | | | 13:50:52 |
| 1 | Y RADIAL | 3837.9 | 3837.9 | 87.01 | % | | | 13:50:52 |
| 1 | Al 396.153Radial† | 488307.2 | 551778.7 | 517500 | ug/L | 517500 | ppb | 13:50:32 |
| 1 | Ca 317.933Radial† | 203936.0 | 230377.5 | 481610 | ug/L | 481610 | ppb | 13:50:32 |
| 1 | Fe 238.204 Radial† | 27514.6 | 31073.4 | 438610 | ug/L | 438610 | ppb | 13:50:52 |
| 1 | K 766.490 Radial† | 2419.3 | 93.6 | -346.34 | ug/L | -346.34 | ppb | 13:50:32 |
| 1 | Mg 279.077 IEC† | 9016.2 | 10182.1 | 493240 | ug/L | 493240 | ppb | 13:50:52 |
| 1 | Na 589.592 Radial† | 1495172.9 | 1689995.2 | 521070 | ug/L | 521070 | ppb | 13:50:32 |
| 1 | Sr 421.552† | 754.1 | 816.3 | 2.0521 | ug/L | 2.0521 | ppb | 13:50:52 |
| 1 | Sc 361.383 | 750786.8 | 750786.8 | 85.586 | % | | | 13:51:50 |
| 1 | Y 371.029 | 622054.4 | 622054.4 | 82.299 | % | | | 13:51:50 |
| 1 | Ag 328.068† | -23006.2 | -27121.2 | -8.3338 | ug/L | -8.3338 | ppb | 13:51:50 |
| 1 | As 188.979† | -192.1 | -206.2 | 10.666 | ug/L | 10.666 | ppb | 13:52:11 |
| 1 | B 249.677† | 1496.8 | 2147.1 | -19.189 | ug/L | -19.189 | ppb | 13:51:50 |
| 1 | Ba 233.527† | -1560.8 | -1822.2 | -0.8859 | ug/L | -0.8859 | ppb | 13:52:11 |
| 1 | Be 313.107† | -9848.1 | -7744.5 | -2.9341 | ug/L | -2.9341 | ppb | 13:51:50 |
| 1 | Cd 226.502† | 3079.5 | 3794.4 | 1.2798 | ug/L | 1.2798 | ppb | 13:52:11 |
| 1 | Co 228.616† | 208.2 | 309.8 | 0.0800 | ug/L | 0.0800 | ppb | 13:52:11 |
| 1 | Cr 267.716† | -994.7 | -1239.9 | 22.458 | ug/L | 22.458 | ppb | 13:52:11 |
| 1 | Cu 324.752† | 373.2 | -5554.8 | -1.1997 | ug/L | -1.1997 | ppb | 13:51:50 |
| 1 | Mn 257.610† | -19933.2 | -23749.0 | -3.8910 | ug/L | -3.8910 | ppb | 13:51:50 |
| 1 | Mo 202.031† | -468.7 | -557.8 | -1.1730 | ug/L | -1.1730 | ppb | 13:52:11 |
| 1 | Ni 231.604† | 253.9 | 234.2 | 5.9514 | ug/L | 5.9514 | ppb | 13:52:11 |
| 1 | P 214.914† | 512.3 | 388.1 | 12.004 | ug/L | 12.004 | ppb | 13:52:11 |
| 1 | Pb 220.353† | -538.6 | -571.1 | -3.2250 | ug/L | -3.2250 | ppb | 13:52:11 |
| 1 | S 181.975 Axial† | 74.0 | 45.7 | -31.241 | ug/L | -31.241 | ppb | 13:52:11 |
| 1 | Sb 206.836† | 104.7 | 85.6 | 9.1558 | ug/L | 9.1558 | ppb | 13:52:11 |
| 1 | Se 196.026† | -1910.7 | -2204.7 | -81.423 | ug/L | -81.423 | ppb | 13:52:11 |
| 1 | Si 251.611† | -490.0 | -1130.8 | -36.087 | ug/L | -36.087 | ppb | 13:52:11 |
| 1 | Sn 189.927† | -368.8 | -441.4 | -18.820 | ug/L | -18.820 | ppb | 13:52:11 |
| 1 | Ti 334.940† | -6880.1 | -6664.7 | 7.8453 | ug/L | 7.8453 | ppb | 13:51:50 |
| 1 | Tl 190.801† | -88.5 | -70.8 | -22.942 | ug/L | -22.942 | ppb | 13:52:11 |
| 1 | U 409.014† | 418077.4 | 491374.9 | 13519 | ug/L | 13519 | ppb | 13:51:50 |
| 1 | V 292.402† | 2566.6 | 4504.5 | 2.4700 | ug/L | 2.4700 | ppb | 13:52:11 |
| 1 | Zn 213.857† | 5217.9 | 5490.6 | -10.382 | ug/L | -10.382 | ppb | 13:52:11 |
| 1 | SiO2† | -432.6 | -1059.8 | -72.538 | ug/L | -72.538 | ppb | 13:53:07 |
| 2 | Sc Radial | 3478.3 | 3478.3 | 88.8 | % | | | 13:51:18 |
| 2 | Y RADIAL | 3838.2 | 3838.2 | 87.02 | % | | | 13:51:18 |
| 2 | Al 396.153Radial† | 487020.0 | 548813.7 | 514720 | ug/L | 514720 | ppb | 13:50:58 |
| 2 | Ca 317.933Radial† | 203394.4 | 229134.7 | 479010 | ug/L | 479010 | ppb | 13:50:58 |
| 2 | Fe 238.204 Radial† | 27553.2 | 31031.5 | 438020 | ug/L | 438020 | ppb | 13:51:18 |
| 2 | K 766.490 Radial† | 2572.8 | 259.0 | -312.90 | ug/L | -312.90 | ppb | 13:50:58 |
| 2 | Mg 279.077 IEC† | 9021.2 | 10159.7 | 492150 | ug/L | 492150 | ppb | 13:51:18 |
| 2 | Na 589.592 Radial† | 1493113.0 | 1683036.1 | 518920 | ug/L | 518920 | ppb | 13:50:58 |
| 2 | Sr 421.552† | 740.4 | 798.4 | 1.9480 | ug/L | 1.9480 | ppb | 13:51:18 |
| 2 | Sc 361.383 | 742911.5 | 742911.5 | 84.688 | % | | | 13:52:16 |
| 2 | Y 371.029 | 615612.6 | 615612.6 | 81.447 | % | | | 13:52:16 |
| 2 | Ag 328.068† | -22744.4 | -27097.1 | -8.3287 | ug/L | -8.3287 | ppb | 13:52:16 |
| 2 | As 188.979† | -191.1 | -207.4 | 9.9744 | ug/L | 9.9744 | ppb | 13:52:36 |
| 2 | B 249.677† | 1338.8 | 1979.1 | -23.168 | ug/L | -23.168 | ppb | 13:52:16 |
| 2 | Ba 233.527† | -1541.5 | -1818.8 | -0.8785 | ug/L | -0.8785 | ppb | 13:52:36 |
| 2 | Be 313.107† | -9714.6 | -7708.9 | -2.9234 | ug/L | -2.9234 | ppb | 13:52:16 |
| 2 | Cd 226.502† | 3043.1 | 3789.6 | 1.2751 | ug/L | 1.2751 | ppb | 13:52:36 |
| 2 | Co 228.616† | 206.2 | 310.0 | 0.0929 | ug/L | 0.0929 | ppb | 13:52:36 |
| 2 | Cr 267.716† | -1010.1 | -1270.4 | 22.080 | ug/L | 22.080 | ppb | 13:52:36 |
| 2 | Cu 324.752† | 371.4 | -5552.2 | -1.1944 | ug/L | -1.1944 | ppb | 13:52:16 |
| 2 | Mn 257.610† | -19556.0 | -23550.5 | -3.6791 | ug/L | -3.6791 | ppb | 13:52:16 |
| 2 | Mo 202.031† | -483.7 | -581.3 | -2.9767 | ug/L | -2.9767 | ppb | 13:52:36 |
| 2 | Ni 231.604† | 248.5 | 230.9 | 5.8697 | ug/L | 5.8697 | ppb | 13:52:36 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 502.1 | 382.4 | 8.3391 | ug/L | 8.3391 ppb | 13:52:36 |
| 2 | Pb 220.353† | -576.5 | -622.7 | -10.118 | ug/L | -10.118 ppb | 13:52:36 |
| 2 | S 181.975 Axial† | 77.4 | 50.6 | -23.588 | ug/L | -23.588 ppb | 13:52:36 |
| 2 | Sb 206.836† | 57.5 | 31.1 | -9.8311 | ug/L | -9.8311 ppb | 13:52:36 |
| 2 | Se 196.026† | -1874.9 | -2186.1 | -71.076 | ug/L | -71.076 ppb | 13:52:36 |
| 2 | Si 251.611† | -430.8 | -1067.0 | -34.001 | ug/L | -34.001 ppb | 13:52:36 |
| 2 | Sn 189.927† | -360.6 | -436.3 | -18.333 | ug/L | -18.333 ppb | 13:52:36 |
| 2 | Ti 334.940† | -7442.4 | -7413.9 | 6.4309 | ug/L | 6.4309 ppb | 13:52:16 |
| 2 | Tl 190.801† | -104.1 | -90.4 | -29.202 | ug/L | -29.202 ppb | 13:52:36 |
| 2 | U 409.014† | 412102.3 | 489497.7 | 13467 | ug/L | 13467 ppb | 13:52:16 |
| 2 | V 292.402† | 2453.3 | 4402.5 | 1.7016 | ug/L | 1.7016 ppb | 13:52:36 |
| 2 | Zn 213.857† | 5168.7 | 5497.2 | -10.227 | ug/L | -10.227 ppb | 13:52:36 |
| 2 | SiO2† | -492.2 | -1135.6 | -77.760 | ug/L | -77.760 ppb | 13:53:12 |
| 3 | Sc Radial | 3489.1 | 3489.1 | 89.0 | % | | 13:51:43 |
| 3 | Y RADIAL | 3863.1 | 3863.1 | 87.58 | % | | 13:51:43 |
| 3 | Al 396.153Radial† | 487601.6 | 547765.9 | 513740 | ug/L | 513740 ppb | 13:51:23 |
| 3 | Ca 317.933Radial† | 203078.5 | 228069.5 | 476780 | ug/L | 476780 ppb | 13:51:23 |
| 3 | Fe 238.204 Radial† | 27513.9 | 30891.1 | 436040 | ug/L | 436040 ppb | 13:51:43 |
| 3 | K 766.490 Radial† | 2457.1 | 120.1 | -337.68 | ug/L | -337.68 ppb | 13:51:23 |
| 3 | Mg 279.077 IEC† | 8999.2 | 10103.5 | 489430 | ug/L | 489430 ppb | 13:51:43 |
| 3 | Na 589.592 Radial† | 1489428.8 | 1673683.2 | 516040 | ug/L | 516040 ppb | 13:51:23 |
| 3 | Sr 421.552† | 767.1 | 825.9 | 2.1544 | ug/L | 2.1544 ppb | 13:51:43 |
| 3 | Sc 361.383 | 756603.2 | 756603.2 | 86.249 | % | | 13:52:42 |
| 3 | Y 371.029 | 626649.0 | 626649.0 | 82.907 | % | | 13:52:42 |
| 3 | Ag 328.068† | -23278.8 | -27230.7 | -9.5249 | ug/L | -9.5249 ppb | 13:52:42 |
| 3 | As 188.979† | -196.8 | -210.0 | 8.3641 | ug/L | 8.3641 ppb | 13:53:02 |
| 3 | B 249.677† | 1443.2 | 2071.6 | -20.604 | ug/L | -20.604 ppb | 13:52:42 |
| 3 | Ba 233.527† | -1573.6 | -1823.0 | -0.9702 | ug/L | -0.9702 ppb | 13:53:02 |
| 3 | Be 313.107† | -9779.0 | -7575.9 | -2.8781 | ug/L | -2.8781 ppb | 13:52:42 |
| 3 | Cd 226.502† | 3081.5 | 3769.1 | 1.2428 | ug/L | 1.2428 ppb | 13:53:02 |
| 3 | Co 228.616† | 210.2 | 310.3 | 0.1318 | ug/L | 0.1318 ppb | 13:53:02 |
| 3 | Cr 267.716† | -1020.1 | -1260.4 | 22.004 | ug/L | 22.004 ppb | 13:53:02 |
| 3 | Cu 324.752† | 389.6 | -5539.0 | -1.2604 | ug/L | -1.2604 ppb | 13:52:42 |
| 3 | Mn 257.610† | -19815.4 | -23433.4 | -3.6302 | ug/L | -3.6302 ppb | 13:52:42 |
| 3 | Mo 202.031† | -488.9 | -577.0 | -2.8368 | ug/L | -2.8368 ppb | 13:53:02 |
| 3 | Ni 231.604† | 247.1 | 224.0 | 5.6939 | ug/L | 5.6939 ppb | 13:53:02 |
| 3 | P 214.914† | 504.5 | 374.4 | 4.9145 | ug/L | 4.9145 ppb | 13:53:02 |
| 3 | Pb 220.353† | -530.8 | -557.3 | -2.0945 | ug/L | -2.0945 ppb | 13:53:02 |
| 3 | S 181.975 Axial† | 75.7 | 46.9 | -28.770 | ug/L | -28.770 ppb | 13:53:02 |
| 3 | Sb 206.836† | 73.8 | 48.9 | -3.5421 | ug/L | -3.5421 ppb | 13:53:02 |
| 3 | Se 196.026† | -1873.7 | -2144.7 | -50.134 | ug/L | -50.134 ppb | 13:53:02 |
| 3 | Si 251.611† | -380.0 | -999.0 | -31.803 | ug/L | -31.803 ppb | 13:53:02 |
| 3 | Sn 189.927† | -359.5 | -427.3 | -17.006 | ug/L | -17.006 ppb | 13:53:02 |
| 3 | Ti 334.940† | -8714.7 | -8730.1 | 4.2858 | ug/L | 4.2858 ppb | 13:52:42 |
| 3 | Tl 190.801† | -123.5 | -110.6 | -35.681 | ug/L | -35.681 ppb | 13:53:02 |
| 3 | U 409.014† | 419759.0 | 489569.3 | 13469 | ug/L | 13469 ppb | 13:52:42 |
| 3 | V 292.402† | 2602.8 | 4523.5 | 2.7917 | ug/L | 2.7917 ppb | 13:53:02 |
| 3 | Zn 213.857† | 5190.5 | 5411.9 | -10.787 | ug/L | -10.787 ppb | 13:53:02 |
| 3 | SiO2† | -420.5 | -1042.0 | -71.260 | ug/L | -71.260 ppb | 13:53:18 |

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**Mean Data: LR1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 750100.5 | 85.508 | % | 0.7833 | | | | 0.92% |
| Sc Radial | 3478.7 | 88.8 | % | 0.26 | | | | 0.29% |
| Y 371.029 | 621438.7 | 82.218 | % | 0.7335 | | | | 0.89% |
| Y RADIAL | 3846.4 | 87.20 | % | 0.328 | | | | 0.38% |
| Ag 328.068† | -27149.6 | -8.7291 | ug/L | 0.68915 | -8.7291 | ppb | 0.68915 | 7.89% |
| Al 396.153Radial† | 549452.8 | 515320 | ug/L | 1952.0 | 515320 | ppb | 1952.0 | 0.38% |
| QC value within limits for Al 396.153Radial Recovery = 103.06% | | | | | | | | |
| As 188.979† | -207.9 | 9.6682 | ug/L | 1.18114 | 9.6682 | ppb | 1.18114 | 12.22% |
| B 249.677† | 2065.9 | -20.987 | ug/L | 2.0170 | -20.987 | ppb | 2.0170 | 9.61% |
| Ba 233.527† | -1821.4 | -0.9115 | ug/L | 0.05096 | -0.9115 | ppb | 0.05096 | 5.59% |
| Be 313.107† | -7676.4 | -2.9119 | ug/L | 0.02973 | -2.9119 | ppb | 0.02973 | 1.02% |
| Ca 317.933Radial† | 229193.9 | 479130 | ug/L | 2414.8 | 479130 | ppb | 2414.8 | 0.50% |
| QC value within limits for Ca 317.933Radial Recovery = 95.83% | | | | | | | | |
| Cd 226.502† | 3784.4 | 1.2659 | ug/L | 0.02015 | 1.2659 | ppb | 0.02015 | 1.59% |
| Co 228.616† | 310.0 | 0.1016 | ug/L | 0.02695 | 0.1016 | ppb | 0.02695 | 26.53% |
| Cr 267.716† | -1256.9 | 22.181 | ug/L | 0.2434 | 22.181 | ppb | 0.2434 | 1.10% |
| Cu 324.752† | -5548.7 | -1.2182 | ug/L | 0.03668 | -1.2182 | ppb | 0.03668 | 3.01% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Fe 238.204 Radial† | 30998.7 | 437550 ug/L | 1347.6 | 437550 ppb | 1347.6 | 0.31% |
| QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.51% | | | | | | |
| K 766.490 Radial† | 157.6 | -332.31 ug/L | 17.357 | -332.31 ppb | 17.357 | 5.22% |
| Mg 279.077 IEC† | 10148.4 | 491610 ug/L | 1961.9 | 491610 ppb | 1961.9 | 0.40% |
| QC value within limits for Mg 279.077 IEC Recovery = 98.32% | | | | | | |
| Mn 257.610† | -23577.6 | -3.7334 ug/L | 0.13866 | -3.7334 ppb | 0.13866 | 3.71% |
| Mo 202.031† | -572.0 | -2.3288 ug/L | 1.00344 | -2.3288 ppb | 1.00344 | 43.09% |
| Na 589.592 Radial† | 1682238.2 | 518680 ug/L | 2523.7 | 518680 ppb | 2523.7 | 0.49% |
| QC value within limits for Na 589.592 Radial Recovery = 103.74% | | | | | | |
| Ni 231.604† | 229.7 | 5.8383 ug/L | 0.13156 | 5.8383 ppb | 0.13156 | 2.25% |
| P 214.914† | 381.6 | 8.4194 ug/L | 3.54567 | 8.4194 ppb | 3.54567 | 42.11% |
| Pb 220.353† | -583.7 | -5.1458 ug/L | 4.34301 | -5.1458 ppb | 4.34301 | 84.40% |
| S 181.975 Axial† | 47.7 | -27.866 ug/L | 3.9058 | -27.866 ppb | 3.9058 | 14.02% |
| Sb 206.836† | 55.2 | -1.4058 ug/L | 9.67201 | -1.4058 ppb | 9.67201 | 688.00% |
| Se 196.026† | -2178.5 | -67.544 ug/L | 15.9409 | -67.544 ppb | 15.9409 | 23.60% |
| Si 251.611† | -1065.6 | -33.964 ug/L | 2.1422 | -33.964 ppb | 2.1422 | 6.31% |
| Sn 189.927† | -435.0 | -18.053 ug/L | 0.9387 | -18.053 ppb | 0.9387 | 5.20% |
| Sr 421.552† | 813.5 | 2.0515 ug/L | 0.10322 | 2.0515 ppb | 0.10322 | 5.03% |
| Ti 334.940† | -7602.9 | 6.1874 ug/L | 1.79220 | 6.1874 ppb | 1.79220 | 28.97% |
| Tl 190.801† | -90.6 | -29.275 ug/L | 6.3698 | -29.275 ppb | 6.3698 | 21.76% |
| U 409.014† | 490147.3 | 13485 ug/L | 29.3 | 13485 ppb | 29.3 | 0.22% |
| QC value less than the lower limit for U 409.014 Recovery = 89.90% | | | | | | |
| V 292.402† | 4476.8 | 2.3211 ug/L | 0.56011 | 2.3211 ppb | 0.56011 | 24.13% |
| Zn 213.857† | 5466.6 | -10.465 ug/L | 0.2894 | -10.465 ppb | 0.2894 | 2.77% |
| SiO2† | -1079.2 | -73.852 ug/L | 3.4436 | -73.852 ppb | 3.4436 | 4.66% |

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/24/2010 13:55:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3755.1 | 3755.1 | 95.8 | % | | | 13:57:46 |
| 1 | Y RADIAL | 4233.7 | 4233.7 | 95.98 | % | | | 13:57:26 |
| 1 | Al 396.153Radial† | 373.7 | 502.4 | 12.258 | ug/L | 12.258 | ppb | 13:57:26 |
| 1 | Ca 317.933Radial† | 30.3 | 12.0 | 25.045 | ug/L | 25.045 | ppb | 13:57:46 |
| 1 | Fe 238.204 Radial† | -7.0 | -18.6 | 9.4874 | ug/L | 9.4874 | ppb | 13:57:46 |
| 1 | K 766.490 Radial† | 1536547.3 | 1600901.5 | 307200 | ug/L | 307200 | ppb | 13:57:21 |
| 1 | Mg 279.077 IEC† | -4.6 | -8.9 | -332.35 | ug/L | -332.35 | ppb | 13:57:46 |
| 1 | Na 589.592 Radial† | -207.8 | 602.9 | 185.88 | ug/L | 185.88 | ppb | 13:57:26 |
| 1 | Sr 421.552† | 1357129.4 | 1416264.8 | 9799.9 | ug/L | 9799.9 | ppb | 13:57:21 |
| 1 | Sc 361.383 | 867704.4 | 867704.4 | 98.914 | % | | | 13:59:03 |
| 1 | Y 371.029 | 715999.5 | 715999.5 | 94.728 | % | | | 13:59:03 |
| 1 | Ag 328.068† | -8007.1 | -8335.4 | 0.7870 | ug/L | 0.7870 | ppb | 13:59:08 |
| 1 | As 188.979† | 20923.1 | 21171.1 | 9515.8 | ug/L | 9515.8 | ppb | 13:59:08 |
| 1 | B 249.677† | 197438.5 | 200004.5 | 4823.1 | ug/L | 4823.1 | ppb | 13:59:08 |
| 1 | Ba 233.527† | 1631925.0 | 1649843.7 | 12968 | ug/L | 12968 | ppb | 13:59:03 |
| 1 | Be 313.107† | 7328086.3 | 7412305.2 | 2807.7 | ug/L | 2807.7 | ppb | 13:58:56 |
| 1 | Cd 226.502† | 802576.9 | 811584.9 | 9404.0 | ug/L | 9404.0 | ppb | 13:59:03 |
| 1 | Co 228.616† | 429667.2 | 434451.1 | 9098.6 | ug/L | 9098.6 | ppb | 13:59:08 |
| 1 | Cr 267.716† | 2048510.5 | 2070923.9 | 23262 | ug/L | 23262 | ppb | 13:59:03 |
| 1 | Cu 324.752† | 6395075.1 | 6459297.3 | 19656 | ug/L | 19656 | ppb | 13:58:56 |
| 1 | Mn 257.610† | 8000483.7 | 8087864.0 | 9203.5 | ug/L | 9203.5 | ppb | 13:58:56 |
| 1 | Mo 202.031† | 127518.1 | 128908.0 | 9464.0 | ug/L | 9464.0 | ppb | 13:59:08 |
| 1 | Ni 231.604† | 361475.3 | 365381.6 | 9287.3 | ug/L | 9287.3 | ppb | 13:59:08 |
| 1 | P 214.914† | 29896.6 | 30014.4 | 14259 | ug/L | 14259 | ppb | 13:59:08 |
| 1 | Pb 220.353† | 191166.1 | 193323.1 | 23789 | ug/L | 23789 | ppb | 13:59:08 |
| 1 | S 181.975 Axial† | 35706.3 | 36057.5 | 51888 | ug/L | 51888 | ppb | 13:59:08 |
| 1 | Sb 206.836† | 29721.4 | 30011.1 | 10844 | ug/L | 10844 | ppb | 13:59:08 |
| 1 | Se 196.026† | 14821.8 | 15012.2 | 9863.3 | ug/L | 9863.3 | ppb | 13:59:08 |
| 1 | Si 251.611† | 1415805.2 | 1430791.3 | 46182 | ug/L | 46182 | ppb | 13:59:03 |
| 1 | Sn 189.927† | 55584.4 | 56184.2 | 10081 | ug/L | 10081 | ppb | 13:59:08 |
| 1 | Ti 334.940† | 6151049.1 | 6219956.9 | 9765.7 | ug/L | 9765.7 | ppb | 13:58:56 |
| 1 | Tl 190.801† | 28932.1 | 29282.4 | 9429.1 | ug/L | 9429.1 | ppb | 13:59:08 |
| 1 | U 409.014† | -1761.6 | 1105.6 | -21.464 | ug/L | -21.464 | ppb | 13:59:08 |
| 1 | V 292.402† | 1384474.8 | 1401180.9 | 9885.2 | ug/L | 9885.2 | ppb | 13:59:03 |
| 1 | Zn 213.857† | 1348344.9 | 1362542.6 | 13630 | ug/L | 13630 | ppb | 13:59:03 |
| 1 | SiO2† | 1424198.9 | 1439281.1 | 99766 | ug/L | 99766 | ppb | 13:59:53 |
| 2 | Sc Radial | 3762.7 | 3762.7 | 96.0 | % | | | 13:58:16 |
| 2 | Y RADIAL | 4105.6 | 4105.6 | 93.08 | % | | | 13:57:56 |
| 2 | Al 396.153Radial† | 361.4 | 488.8 | -0.2516 | ug/L | -0.2516 | ppb | 13:57:56 |
| 2 | Ca 317.933Radial† | 28.2 | 9.7 | 20.219 | ug/L | 20.219 | ppb | 13:58:16 |
| 2 | Fe 238.204 Radial† | -7.7 | -19.3 | -0.5570 | ug/L | -0.5570 | ppb | 13:58:16 |
| 2 | K 766.490 Radial† | 1554297.3 | 1616159.3 | 310130 | ug/L | 310130 | ppb | 13:57:51 |
| 2 | Mg 279.077 IEC† | -2.6 | -6.7 | -227.63 | ug/L | -227.63 | ppb | 13:58:16 |
| 2 | Na 589.592 Radial† | -264.2 | 544.7 | 167.93 | ug/L | 167.93 | ppb | 13:57:56 |
| 2 | Sr 421.552† | 1369933.4 | 1426748.5 | 9872.5 | ug/L | 9872.5 | ppb | 13:57:51 |
| 2 | Sc 361.383 | 861919.3 | 861919.3 | 98.255 | % | | | 13:59:22 |
| 2 | Y 371.029 | 711492.0 | 711492.0 | 94.132 | % | | | 13:59:22 |
| 2 | Ag 328.068† | -8021.4 | -8404.3 | 0.5572 | ug/L | 0.5572 | ppb | 13:59:27 |
| 2 | As 188.979† | 20787.2 | 21174.7 | 9519.1 | ug/L | 9519.1 | ppb | 13:59:27 |
| 2 | B 249.677† | 196145.7 | 200028.4 | 4823.7 | ug/L | 4823.7 | ppb | 13:59:27 |
| 2 | Ba 233.527† | 1628256.0 | 1657183.1 | 13026 | ug/L | 13026 | ppb | 13:59:22 |
| 2 | Be 313.107† | 7432593.3 | 7568394.2 | 2866.8 | ug/L | 2866.8 | ppb | 13:59:16 |
| 2 | Cd 226.502† | 801317.0 | 815748.5 | 9452.2 | ug/L | 9452.2 | ppb | 13:59:22 |
| 2 | Co 228.616† | 427144.6 | 434799.3 | 9105.4 | ug/L | 9105.4 | ppb | 13:59:27 |
| 2 | Cr 267.716† | 2042538.8 | 2078746.4 | 23350 | ug/L | 23350 | ppb | 13:59:22 |
| 2 | Cu 324.752† | 6475808.6 | 6584859.4 | 20038 | ug/L | 20038 | ppb | 13:59:16 |
| 2 | Mn 257.610† | 8104106.2 | 8247615.4 | 9385.3 | ug/L | 9385.3 | ppb | 13:59:16 |
| 2 | Mo 202.031† | 126598.8 | 128837.6 | 9458.8 | ug/L | 9458.8 | ppb | 13:59:27 |
| 2 | Ni 231.604† | 359202.1 | 365520.8 | 9290.8 | ug/L | 9290.8 | ppb | 13:59:27 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 29727.0 | 30044.6 | 14202 ug/L | 14202 ppb | 13:59:27 |
| 2 | Pb 220.353† | 190171.6 | 193608.1 | 23824 ug/L | 23824 ppb | 13:59:27 |
| 2 | S 181.975 Axial† | 35472.2 | 36061.6 | 51894 ug/L | 51894 ppb | 13:59:27 |
| 2 | Sb 206.836† | 29516.1 | 30003.7 | 10841 ug/L | 10841 ppb | 13:59:27 |
| 2 | Se 196.026† | 14688.4 | 14977.1 | 9840.2 ug/L | 9840.2 ppb | 13:59:27 |
| 2 | Si 251.611† | 1408873.0 | 1433343.0 | 46265 ug/L | 46265 ppb | 13:59:22 |
| 2 | Sn 189.927† | 55282.5 | 56254.1 | 10093 ug/L | 10093 ppb | 13:59:27 |
| 2 | Ti 334.940† | 6228525.0 | 6340547.7 | 9955.1 ug/L | 9955.1 ppb | 13:59:16 |
| 2 | Tl 190.801† | 28737.0 | 29280.0 | 9430.7 ug/L | 9430.7 ppb | 13:59:27 |
| 2 | U 409.014† | -1701.3 | 1155.1 | -20.294 ug/L | -20.294 ppb | 13:59:27 |
| 2 | V 292.402† | 1378505.8 | 1404500.4 | 9908.1 ug/L | 9908.1 ppb | 13:59:22 |
| 2 | Zn 213.857† | 1345230.6 | 1368522.3 | 13690 ug/L | 13690 ppb | 13:59:22 |
| 2 | SiO2† | 1411018.3 | 1435530.4 | 99505 ug/L | 99505 ppb | 13:59:59 |
| 3 | Sc Radial | 3788.7 | 3788.7 | 96.7 % | | 13:58:47 |
| 3 | Y RADIAL | 4223.7 | 4223.7 | 95.76 % | | 13:58:27 |
| 3 | Al 396.153Radial† | 370.8 | 495.9 | -2.2803 ug/L | -2.2803 ppb | 13:58:27 |
| 3 | Ca 317.933Radial† | 25.3 | 6.5 | 13.519 ug/L | 13.519 ppb | 13:58:47 |
| 3 | Fe 238.204 Radial† | -7.2 | -18.8 | 11.971 ug/L | 11.971 ppb | 13:58:47 |
| 3 | K 766.490 Radial† | 1559142.3 | 1610028.7 | 308950 ug/L | 308950 ppb | 13:58:22 |
| 3 | Mg 279.077 IEC† | -3.0 | -7.2 | -247.42 ug/L | -247.42 ppb | 13:58:47 |
| 3 | Na 589.592 Radial† | -221.0 | 591.1 | 182.27 ug/L | 182.27 ppb | 13:58:27 |
| 3 | Sr 421.552† | 1373522.5 | 1420640.4 | 9830.2 ug/L | 9830.2 ppb | 13:58:22 |
| 3 | Sc 361.383 | 860982.1 | 860982.1 | 98.148 % | | 13:59:42 |
| 3 | Y 371.029 | 709940.5 | 709940.5 | 93.927 % | | 13:59:42 |
| 3 | Ag 328.068† | -8138.1 | -8532.1 | -0.0355 ug/L | -0.0355 ppb | 13:59:47 |
| 3 | As 188.979† | 21300.3 | 21720.6 | 9762.6 ug/L | 9762.6 ppb | 13:59:47 |
| 3 | B 249.677† | 200239.4 | 204416.6 | 4929.6 ug/L | 4929.6 ppb | 13:59:47 |
| 3 | Ba 233.527† | 1627336.3 | 1658049.8 | 13033 ug/L | 13033 ppb | 13:59:42 |
| 3 | Be 313.107† | 7439530.6 | 7583696.5 | 2872.6 ug/L | 2872.6 ppb | 13:59:35 |
| 3 | Cd 226.502† | 801403.9 | 816724.8 | 9463.7 ug/L | 9463.7 ppb | 13:59:42 |
| 3 | Co 228.616† | 434713.0 | 442983.7 | 9277.3 ug/L | 9277.3 ppb | 13:59:47 |
| 3 | Cr 267.716† | 2039723.8 | 2078141.1 | 23343 ug/L | 23343 ppb | 13:59:42 |
| 3 | Cu 324.752† | 6458784.5 | 6574688.1 | 20007 ug/L | 20007 ppb | 13:59:35 |
| 3 | Mn 257.610† | 8121943.3 | 8274767.2 | 9416.2 ug/L | 9416.2 ppb | 13:59:35 |
| 3 | Mo 202.031† | 128860.9 | 131282.8 | 9638.3 ug/L | 9638.3 ppb | 13:59:47 |
| 3 | Ni 231.604† | 365882.0 | 372724.8 | 9473.9 ug/L | 9473.9 ppb | 13:59:47 |
| 3 | P 214.914† | 30446.3 | 30810.4 | 14671 ug/L | 14671 ppb | 13:59:47 |
| 3 | Pb 220.353† | 193738.8 | 197453.3 | 24297 ug/L | 24297 ppb | 13:59:47 |
| 3 | S 181.975 Axial† | 36311.7 | 36956.2 | 53181 ug/L | 53181 ppb | 13:59:47 |
| 3 | Sb 206.836† | 30113.5 | 30645.1 | 11072 ug/L | 11072 ppb | 13:59:47 |
| 3 | Se 196.026† | 15158.0 | 15471.8 | 10165 ug/L | 10165 ppb | 13:59:47 |
| 3 | Si 251.611† | 1412452.1 | 1438550.5 | 46431 ug/L | 46431 ppb | 13:59:42 |
| 3 | Sn 189.927† | 56386.5 | 57440.2 | 10306 ug/L | 10306 ppb | 13:59:47 |
| 3 | Ti 334.940† | 6231589.1 | 6350569.8 | 9970.9 ug/L | 9970.9 ppb | 13:59:35 |
| 3 | Tl 190.801† | 29248.4 | 29833.0 | 9607.1 ug/L | 9607.1 ppb | 13:59:47 |
| 3 | U 409.014† | -1667.4 | 1187.7 | -19.379 ug/L | -19.379 ppb | 13:59:47 |
| 3 | V 292.402† | 1376930.5 | 1404422.5 | 9910.1 ug/L | 9910.1 ppb | 13:59:42 |
| 3 | Zn 213.857† | 1346478.4 | 1371284.0 | 13717 ug/L | 13717 ppb | 13:59:42 |
| 3 | SiO2† | 1395286.9 | 1421065.3 | 98495 ug/L | 98495 ppb | 14:00:05 |

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**Mean Data: LR2**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 863535.3 | 98.439 | % | 0.4150 | | | | 0.42% |
| Sc Radial | 3768.8 | 96.2 | % | 0.45 | | | | 0.47% |
| Y 371.029 | 712477.3 | 94.262 | % | 0.4164 | | | | 0.44% |
| Y RADIAL | 4187.7 | 94.94 | % | 1.614 | | | | 1.70% |
| Ag 328.068† | -8424.0 | 0.4362 | ug/L | 0.42440 | 0.4362 | ppb | 0.42440 | 97.29% |
| Al 396.153Radial† | 495.7 | 3.2420 | ug/L | 7.87361 | 3.2420 | ppb | 7.87361 | 242.86% |
| As 188.979† | 21355.5 | 9599.2 | ug/L | 141.52 | 9599.2 | ppb | 141.52 | 1.47% |
| QC value within limits for As 188.979 Recovery = 95.99% | | | | | | | | |
| B 249.677† | 201483.2 | 4858.8 | ug/L | 61.31 | 4858.8 | ppb | 61.31 | 1.26% |
| QC value within limits for B 249.677 Recovery = 97.18% | | | | | | | | |
| Ba 233.527† | 1655025.6 | 13009 | ug/L | 35.4 | 13009 | ppb | 35.4 | 0.27% |
| QC value less than the lower limit for Ba 233.527 Recovery = 86.73% | | | | | | | | |
| Be 313.107† | 7521465.3 | 2849.0 | ug/L | 35.90 | 2849.0 | ppb | 35.90 | 1.26% |
| QC value within limits for Be 313.107 Recovery = 94.97% | | | | | | | | |
| Ca 317.933Radial† | 9.4 | 19.594 | ug/L | 5.7887 | 19.594 | ppb | 5.7887 | 29.54% |
| Cd 226.502† | 814686.1 | 9440.0 | ug/L | 31.65 | 9440.0 | ppb | 31.65 | 0.34% |
| QC value within limits for Cd 226.502 Recovery = 94.40% | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Co 228.616† | 437411.4 | 9160.4 ug/L | 101.26 | 9160.4 ppb | 101.26 | 1.11% |
| QC value within limits for Co 228.616 Recovery = 91.60% | | | | | | |
| Cr 267.716† | 2075937.2 | 23318 ug/L | 48.9 | 23318 ppb | 48.9 | 0.21% |
| QC value within limits for Cr 267.716 Recovery = 93.27% | | | | | | |
| Cu 324.752† | 6539615.0 | 19901 ug/L | 212.2 | 19901 ppb | 212.2 | 1.07% |
| QC value within limits for Cu 324.752 Recovery = 99.50% | | | | | | |
| Fe 238.204 Radial† | -18.9 | 6.9670 ug/L | 6.63327 | 6.9670 ppb | 6.63327 | 95.21% |
| K 766.490 Radial† | 1609029.8 | 308760 ug/L | 1473.3 | 308760 ppb | 1473.3 | 0.48% |
| QC value within limits for K 766.490 Radial Recovery = 102.92% | | | | | | |
| Mg 279.077 IEC† | -7.6 | -269.13 ug/L | 55.636 | -269.13 ppb | 55.636 | 20.67% |
| Mn 257.610† | 8203415.5 | 9335.0 ug/L | 114.92 | 9335.0 ppb | 114.92 | 1.23% |
| QC value within limits for Mn 257.610 Recovery = 93.35% | | | | | | |
| Mo 202.031† | 129676.1 | 9520.4 ug/L | 102.18 | 9520.4 ppb | 102.18 | 1.07% |
| QC value within limits for Mo 202.031 Recovery = 95.20% | | | | | | |
| Na 589.592 Radial† | 579.6 | 178.69 ug/L | 9.494 | 178.69 ppb | 9.494 | 5.31% |
| Ni 231.604† | 367875.7 | 9350.7 ug/L | 106.76 | 9350.7 ppb | 106.76 | 1.14% |
| QC value within limits for Ni 231.604 Recovery = 93.51% | | | | | | |
| P 214.914† | 30289.8 | 14377 ug/L | 255.9 | 14377 ppb | 255.9 | 1.78% |
| QC value within limits for P 214.914 Recovery = 95.85% | | | | | | |
| Pb 220.353† | 194794.8 | 23970 ug/L | 283.9 | 23970 ppb | 283.9 | 1.18% |
| QC value within limits for Pb 220.353 Recovery = 95.88% | | | | | | |
| S 181.975 Axial† | 36358.4 | 52321 ug/L | 745.0 | 52321 ppb | 745.0 | 1.42% |
| QC value within limits for S 181.975 Axial Recovery = 104.64% | | | | | | |
| Sb 206.836† | 30220.0 | 10919 ug/L | 132.7 | 10919 ppb | 132.7 | 1.22% |
| QC value within limits for Sb 206.836 Recovery = 109.19% | | | | | | |
| Se 196.026† | 15153.7 | 9956.2 ug/L | 181.18 | 9956.2 ppb | 181.18 | 1.82% |
| QC value within limits for Se 196.026 Recovery = 99.56% | | | | | | |
| Si 251.611† | 1434228.3 | 46293 ug/L | 126.8 | 46293 ppb | 126.8 | 0.27% |
| QC value within limits for Si 251.611 Recovery = 92.59% | | | | | | |
| Sn 189.927† | 56626.2 | 10160 ug/L | 126.6 | 10160 ppb | 126.6 | 1.25% |
| QC value within limits for Sn 189.927 Recovery = 101.60% | | | | | | |
| Sr 421.552† | 1421217.9 | 9834.2 ug/L | 36.44 | 9834.2 ppb | 36.44 | 0.37% |
| QC value within limits for Sr 421.552 Recovery = 98.34% | | | | | | |
| Ti 334.940† | 6303691.5 | 9897.2 ug/L | 114.20 | 9897.2 ppb | 114.20 | 1.15% |
| QC value within limits for Ti 334.940 Recovery = 98.97% | | | | | | |
| Tl 190.801† | 29465.1 | 9489.0 ug/L | 102.27 | 9489.0 ppb | 102.27 | 1.08% |
| QC value within limits for Tl 190.801 Recovery = 94.89% | | | | | | |
| U 409.014† | 1149.5 | -20.379 ug/L | 1.0450 | -20.379 ppb | 1.0450 | 5.13% |
| V 292.402† | 1403367.9 | 9901.1 ug/L | 13.80 | 9901.1 ppb | 13.80 | 0.14% |
| QC value within limits for V 292.402 Recovery = 99.01% | | | | | | |
| Zn 213.857† | 1367449.6 | 13679 ug/L | 44.2 | 13679 ppb | 44.2 | 0.32% |
| QC value within limits for Zn 213.857 Recovery = 91.19% | | | | | | |
| SiO2† | 1431958.9 | 99255 ug/L | 671.2 | 99255 ppb | 671.2 | 0.68% |
| QC value within limits for SiO2 Recovery = 92.76% | | | | | | |

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 14:02:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3833.5 | 3833.5 | 97.8 | % | | | 14:04:28 |
| 1 | Y RADIAL | 4288.4 | 4288.4 | 97.22 | % | | | 14:04:08 |
| 1 | Al 396.153Radial† | 5161.8 | 5389.1 | 5030.7 | ug/L | 5030.7 | ppb | 14:04:08 |
| 1 | Ca 317.933Radial† | 2438.7 | 2473.3 | 5170.5 | ug/L | 5170.5 | ppb | 14:04:28 |
| 1 | Fe 238.204 Radial† | 358.5 | 355.2 | 5028.5 | ug/L | 5028.5 | ppb | 14:04:28 |
| 1 | K 766.490 Radial† | 29347.8 | 27361.6 | 5244.2 | ug/L | 5244.2 | ppb | 14:04:08 |
| 1 | Mg 279.077 IEC† | 108.8 | 107.1 | 5193.3 | ug/L | 5193.3 | ppb | 14:04:28 |
| 1 | Na 589.592 Radial† | 32043.9 | 33577.1 | 10353 | ug/L | 10353 | ppb | 14:04:08 |
| 1 | Sr 421.552† | 71002.9 | 72548.1 | 501.96 | ug/L | 501.96 | ppb | 14:04:08 |
| 1 | Sc 361.383 | 889079.5 | 889079.5 | 101.35 | % | | | 14:05:25 |
| 1 | Y 371.029 | 740429.7 | 740429.7 | 97.961 | % | | | 14:05:25 |
| 1 | Ag 328.068† | 107283.0 | 105612.9 | 492.35 | ug/L | 492.35 | ppb | 14:05:30 |
| 1 | As 188.979† | 1165.0 | 1167.7 | 525.67 | ug/L | 525.67 | ppb | 14:05:50 |
| 1 | B 249.677† | 21245.2 | 21360.3 | 515.65 | ug/L | 515.65 | ppb | 14:05:30 |
| 1 | Ba 233.527† | 63506.2 | 62661.3 | 492.95 | ug/L | 492.95 | ppb | 14:05:30 |
| 1 | Be 313.107† | 1313103.7 | 1299366.8 | 489.40 | ug/L | 489.40 | ppb | 14:05:25 |
| 1 | Cd 226.502† | 43099.5 | 42721.4 | 494.60 | ug/L | 494.60 | ppb | 14:05:30 |
| 1 | Co 228.616† | 23840.3 | 23589.1 | 494.22 | ug/L | 494.22 | ppb | 14:05:30 |
| 1 | Cr 267.716† | 44460.3 | 43790.1 | 492.55 | ug/L | 492.55 | ppb | 14:05:30 |
| 1 | Cu 324.752† | 167969.2 | 159740.0 | 486.10 | ug/L | 486.10 | ppb | 14:05:30 |
| 1 | Mn 257.610† | 437818.1 | 431524.8 | 491.33 | ug/L | 491.33 | ppb | 14:05:25 |
| 1 | Mo 202.031† | 6739.0 | 6639.1 | 487.87 | ug/L | 487.87 | ppb | 14:05:50 |
| 1 | Ni 231.604† | 19747.3 | 19421.7 | 493.65 | ug/L | 493.65 | ppb | 14:05:30 |
| 1 | P 214.914† | 4296.1 | 4028.3 | 2330.3 | ug/L | 2330.3 | ppb | 14:05:50 |
| 1 | Pb 220.353† | 4047.6 | 4051.8 | 499.83 | ug/L | 499.83 | ppb | 14:05:50 |
| 1 | S 181.975 Axial† | 743.1 | 692.4 | 995.41 | ug/L | 995.41 | ppb | 14:05:50 |
| 1 | Sb 206.836† | 1481.6 | 1425.2 | 515.75 | ug/L | 515.75 | ppb | 14:05:50 |
| 1 | Se 196.026† | 727.5 | 745.5 | 505.50 | ug/L | 505.50 | ppb | 14:05:50 |
| 1 | Si 251.611† | 77428.7 | 75838.5 | 2448.0 | ug/L | 2448.0 | ppb | 14:05:30 |
| 1 | Sn 189.927† | 2773.6 | 2726.2 | 489.78 | ug/L | 489.78 | ppb | 14:05:50 |
| 1 | Ti 334.940† | 312897.5 | 310101.7 | 487.17 | ug/L | 487.17 | ppb | 14:05:30 |
| 1 | Tl 190.801† | 1510.5 | 1522.9 | 490.21 | ug/L | 490.21 | ppb | 14:05:50 |
| 1 | U 409.014† | 15037.5 | 17723.7 | 487.75 | ug/L | 487.75 | ppb | 14:05:30 |
| 1 | V 292.402† | 69425.5 | 70006.0 | 494.64 | ug/L | 494.64 | ppb | 14:05:30 |
| 1 | Zn 213.857† | 50577.8 | 49297.7 | 491.70 | ug/L | 491.70 | ppb | 14:05:30 |
| 1 | SiO2† | 77322.4 | 75737.6 | 5250.1 | ug/L | 5250.1 | ppb | 14:06:58 |
| 2 | Sc Radial | 3795.3 | 3795.3 | 96.8 | % | | | 14:04:53 |
| 2 | Y RADIAL | 4344.0 | 4344.0 | 98.48 | % | | | 14:04:33 |
| 2 | Al 396.153Radial† | 5215.6 | 5497.7 | 5132.5 | ug/L | 5132.5 | ppb | 14:04:33 |
| 2 | Ca 317.933Radial† | 2425.2 | 2484.4 | 5193.6 | ug/L | 5193.6 | ppb | 14:04:53 |
| 2 | Fe 238.204 Radial† | 356.9 | 357.2 | 5056.7 | ug/L | 5056.7 | ppb | 14:04:53 |
| 2 | K 766.490 Radial† | 29771.1 | 28100.0 | 5385.8 | ug/L | 5385.8 | ppb | 14:04:33 |
| 2 | Mg 279.077 IEC† | 109.5 | 109.0 | 5285.0 | ug/L | 5285.0 | ppb | 14:04:53 |
| 2 | Na 589.592 Radial† | 32466.0 | 34341.9 | 10589 | ug/L | 10589 | ppb | 14:04:33 |
| 2 | Sr 421.552† | 71942.8 | 74247.5 | 513.72 | ug/L | 513.72 | ppb | 14:04:33 |
| 2 | Sc 361.383 | 896321.6 | 896321.6 | 102.18 | % | | | 14:05:56 |
| 2 | Y 371.029 | 747444.8 | 747444.8 | 98.889 | % | | | 14:05:56 |
| 2 | Ag 328.068† | 107173.2 | 104650.2 | 487.89 | ug/L | 487.89 | ppb | 14:06:01 |
| 2 | As 188.979† | 1153.5 | 1147.2 | 516.49 | ug/L | 516.49 | ppb | 14:06:21 |
| 2 | B 249.677† | 21168.3 | 21115.7 | 509.74 | ug/L | 509.74 | ppb | 14:06:01 |
| 2 | Ba 233.527† | 63467.3 | 62116.9 | 488.68 | ug/L | 488.68 | ppb | 14:06:01 |
| 2 | Be 313.107† | 1321919.5 | 1297526.6 | 488.70 | ug/L | 488.70 | ppb | 14:05:56 |
| 2 | Cd 226.502† | 43082.9 | 42361.5 | 490.43 | ug/L | 490.43 | ppb | 14:06:01 |
| 2 | Co 228.616† | 23765.2 | 23325.6 | 488.70 | ug/L | 488.70 | ppb | 14:06:01 |
| 2 | Cr 267.716† | 44397.2 | 43373.9 | 487.88 | ug/L | 487.88 | ppb | 14:06:01 |
| 2 | Cu 324.752† | 167536.0 | 157976.9 | 480.74 | ug/L | 480.74 | ppb | 14:06:01 |
| 2 | Mn 257.610† | 439584.9 | 429763.6 | 489.33 | ug/L | 489.33 | ppb | 14:05:56 |
| 2 | Mo 202.031† | 6775.7 | 6621.2 | 486.56 | ug/L | 486.56 | ppb | 14:06:21 |
| 2 | Ni 231.604† | 19775.7 | 19292.1 | 490.36 | ug/L | 490.36 | ppb | 14:06:01 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4344.4 | 4041.4 | 2339.2 ug/L | 2339.2 ppb | 14:06:21 |
| 2 | Pb 220.353† | 4056.8 | 4028.5 | 496.99 ug/L | 496.99 ppb | 14:06:21 |
| 2 | S 181.975 Axial† | 752.7 | 695.9 | 1000.4 ug/L | 1000.4 ppb | 14:06:21 |
| 2 | Sb 206.836† | 1480.8 | 1412.5 | 511.27 ug/L | 511.27 ppb | 14:06:21 |
| 2 | Se 196.026† | 742.9 | 754.8 | 511.68 ug/L | 511.68 ppb | 14:06:21 |
| 2 | Si 251.611† | 77312.0 | 75107.1 | 2424.4 ug/L | 2424.4 ppb | 14:06:01 |
| 2 | Sn 189.927† | 2786.4 | 2716.5 | 488.05 ug/L | 488.05 ppb | 14:06:21 |
| 2 | Ti 334.940† | 312816.0 | 307527.5 | 483.13 ug/L | 483.13 ppb | 14:06:01 |
| 2 | Tl 190.801† | 1531.3 | 1531.3 | 492.88 ug/L | 492.88 ppb | 14:06:21 |
| 2 | U 409.014† | 14962.7 | 17530.6 | 482.43 ug/L | 482.43 ppb | 14:06:01 |
| 2 | V 292.402† | 69546.2 | 69570.6 | 491.58 ug/L | 491.58 ppb | 14:06:01 |
| 2 | Zn 213.857† | 50377.3 | 48698.3 | 485.69 ug/L | 485.69 ppb | 14:06:01 |
| 2 | SiO2† | 76690.7 | 74502.9 | 5164.4 ug/L | 5164.4 ppb | 14:07:03 |
| 3 | Sc Radial | 3784.2 | 3784.2 | 96.6 % | | 14:05:18 |
| 3 | Y RADIAL | 4338.3 | 4338.3 | 98.35 % | | 14:04:58 |
| 3 | Al 396.153Radial† | 5230.2 | 5528.6 | 5161.4 ug/L | 5161.4 ppb | 14:04:58 |
| 3 | Ca 317.933Radial† | 2411.6 | 2477.7 | 5179.6 ug/L | 5179.6 ppb | 14:05:18 |
| 3 | Fe 238.204 Radial† | 357.4 | 358.8 | 5078.9 ug/L | 5078.9 ppb | 14:05:18 |
| 3 | K 766.490 Radial† | 29550.1 | 27961.3 | 5359.2 ug/L | 5359.2 ppb | 14:04:58 |
| 3 | Mg 279.077 IEC† | 108.6 | 108.3 | 5253.0 ug/L | 5253.0 ppb | 14:05:18 |
| 3 | Na 589.592 Radial† | 32234.9 | 34201.0 | 10545 ug/L | 10545 ppb | 14:04:58 |
| 3 | Sr 421.552† | 71668.6 | 74181.4 | 513.26 ug/L | 513.26 ppb | 14:04:58 |
| 3 | Sc 361.383 | 894225.6 | 894225.6 | 101.94 % | | 14:06:27 |
| 3 | Y 371.029 | 746441.3 | 746441.3 | 98.756 % | | 14:06:27 |
| 3 | Ag 328.068† | 107579.6 | 105294.7 | 490.90 ug/L | 490.90 ppb | 14:06:32 |
| 3 | As 188.979† | 1168.7 | 1164.8 | 524.35 ug/L | 524.35 ppb | 14:06:53 |
| 3 | B 249.677† | 21172.1 | 21168.0 | 510.99 ug/L | 510.99 ppb | 14:06:32 |
| 3 | Ba 233.527† | 63649.9 | 62441.6 | 491.23 ug/L | 491.23 ppb | 14:06:32 |
| 3 | Be 313.107† | 1322527.0 | 1301155.0 | 490.07 ug/L | 490.07 ppb | 14:06:27 |
| 3 | Cd 226.502† | 43299.7 | 42673.0 | 494.03 ug/L | 494.03 ppb | 14:06:32 |
| 3 | Co 228.616† | 23872.3 | 23485.2 | 492.05 ug/L | 492.05 ppb | 14:06:32 |
| 3 | Cr 267.716† | 44612.2 | 43686.7 | 491.40 ug/L | 491.40 ppb | 14:06:32 |
| 3 | Cu 324.752† | 167868.2 | 158687.2 | 482.90 ug/L | 482.90 ppb | 14:06:32 |
| 3 | Mn 257.610† | 439438.9 | 430628.8 | 490.32 ug/L | 490.32 ppb | 14:06:27 |
| 3 | Mo 202.031† | 6797.4 | 6658.1 | 489.27 ug/L | 489.27 ppb | 14:06:53 |
| 3 | Ni 231.604† | 19835.6 | 19396.2 | 493.01 ug/L | 493.01 ppb | 14:06:32 |
| 3 | P 214.914† | 4359.8 | 4066.4 | 2353.9 ug/L | 2353.9 ppb | 14:06:53 |
| 3 | Pb 220.353† | 4077.3 | 4057.9 | 500.62 ug/L | 500.62 ppb | 14:06:53 |
| 3 | S 181.975 Axial† | 742.6 | 687.7 | 988.69 ug/L | 988.69 ppb | 14:06:53 |
| 3 | Sb 206.836† | 1500.0 | 1434.8 | 519.16 ug/L | 519.16 ppb | 14:06:53 |
| 3 | Se 196.026† | 749.0 | 762.5 | 516.80 ug/L | 516.80 ppb | 14:06:53 |
| 3 | Si 251.611† | 77715.2 | 75679.9 | 2442.9 ug/L | 2442.9 ppb | 14:06:32 |
| 3 | Sn 189.927† | 2802.8 | 2739.0 | 492.08 ug/L | 492.08 ppb | 14:06:53 |
| 3 | Ti 334.940† | 313382.3 | 308800.7 | 485.13 ug/L | 485.13 ppb | 14:06:32 |
| 3 | Tl 190.801† | 1529.6 | 1533.1 | 493.46 ug/L | 493.46 ppb | 14:06:53 |
| 3 | U 409.014† | 14645.9 | 17254.1 | 474.78 ug/L | 474.78 ppb | 14:06:32 |
| 3 | V 292.402† | 69568.2 | 69751.8 | 492.86 ug/L | 492.86 ppb | 14:06:32 |
| 3 | Zn 213.857† | 50536.9 | 48970.4 | 488.40 ug/L | 488.40 ppb | 14:06:32 |
| 3 | SiO2† | 76671.2 | 74659.7 | 5175.2 ug/L | 5175.2 ppb | 14:07:08 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 893208.9 | 101.82 | % | 0.425 | | | | 0.42% |
| Sc Radial | 3804.4 | 97.1 | % | 0.66 | | | | 0.68% |
| Y 371.029 | 744771.9 | 98.535 | % | 0.5019 | | | | 0.51% |
| Y RADIAL | 4323.5 | 98.02 | % | 0.694 | | | | 0.71% |
| Ag 328.068† | 105185.9 | 490.38 | ug/L | 2.274 | 490.38 | ppb | 2.274 | 0.46% |
| QC value within limits for Ag 328.068 Recovery = 98.08% | | | | | | | | |
| Al 396.153Radial† | 5471.8 | 5108.2 | ug/L | 68.69 | 5108.2 | ppb | 68.69 | 1.34% |
| QC value within limits for Al 396.153Radial Recovery = 102.16% | | | | | | | | |
| As 188.979† | 1159.9 | 522.17 | ug/L | 4.961 | 522.17 | ppb | 4.961 | 0.95% |
| QC value within limits for As 188.979 Recovery = 104.43% | | | | | | | | |
| B 249.677† | 21214.7 | 512.13 | ug/L | 3.119 | 512.13 | ppb | 3.119 | 0.61% |
| QC value within limits for B 249.677 Recovery = 102.43% | | | | | | | | |
| Ba 233.527† | 62406.6 | 490.95 | ug/L | 2.152 | 490.95 | ppb | 2.152 | 0.44% |
| QC value within limits for Ba 233.527 Recovery = 98.19% | | | | | | | | |
| Be 313.107† | 1299349.5 | 489.39 | ug/L | 0.684 | 489.39 | ppb | 0.684 | 0.14% |
| QC value within limits for Be 313.107 Recovery = 97.88% | | | | | | | | |
| Ca 317.933Radial† | 2478.5 | 5181.2 | ug/L | 11.62 | 5181.2 | ppb | 11.62 | 0.22% |

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   QC value within limits for Ca 317.933Radial  Recovery = 103.62%
Cd 226.502†            42585.3      493.02 ug/L         2.263      493.02 ppb          2.263   0.46%
   QC value within limits for Cd 226.502  Recovery = 98.60%
Co 228.616†            23466.6      491.65 ug/L         2.779      491.65 ppb          2.779   0.57%
   QC value within limits for Co 228.616  Recovery = 98.33%
Cr 267.716†            43616.9      490.61 ug/L         2.433      490.61 ppb          2.433   0.50%
   QC value within limits for Cr 267.716  Recovery = 98.12%
Cu 324.752†           158801.4      483.24 ug/L         2.697      483.24 ppb          2.697   0.56%
   QC value within limits for Cu 324.752  Recovery = 96.65%
Fe 238.204 Radial†       357.1      5054.7 ug/L        25.24      5054.7 ppb         25.24   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.09%
K 766.490 Radial†      27807.6      5329.7 ug/L        75.26      5329.7 ppb         75.26   1.41%
   QC value within limits for K 766.490 Radial  Recovery = 106.59%
Mg 279.077 IEC†          108.2      5243.8 ug/L        46.57      5243.8 ppb         46.57   0.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.88%
Mn 257.610†           430639.0      490.33 ug/L         1.003      490.33 ppb          1.003   0.20%
   QC value within limits for Mn 257.610  Recovery = 98.07%
Mo 202.031†             6639.5      487.90 ug/L         1.354      487.90 ppb          1.354   0.28%
   QC value within limits for Mo 202.031  Recovery = 97.58%
Na 589.592 Radial†     34040.0       10495 ug/L        125.5       10495 ppb         125.5   1.20%
   QC value within limits for Na 589.592 Radial  Recovery = 104.95%
Ni 231.604†            19370.0      492.34 ug/L         1.745      492.34 ppb          1.745   0.35%
   QC value within limits for Ni 231.604  Recovery = 98.47%
P 214.914†              4045.4      2341.1 ug/L        11.91      2341.1 ppb         11.91   0.51%
   QC value within limits for P 214.914  Recovery = 93.64%
Pb 220.353†             4046.1      499.15 ug/L         1.906      499.15 ppb          1.906   0.38%
   QC value within limits for Pb 220.353  Recovery = 99.83%
S 181.975 Axial†         692.0      994.83 ug/L         5.874      994.83 ppb          5.874   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 99.48%
Sb 206.836†             1424.2      515.39 ug/L         3.959      515.39 ppb          3.959   0.77%
   QC value within limits for Sb 206.836  Recovery = 103.08%
Se 196.026†              754.3      511.33 ug/L         5.660      511.33 ppb          5.660   1.11%
   QC value within limits for Se 196.026  Recovery = 102.27%
Si 251.611†            75541.8      2438.4 ug/L        12.44      2438.4 ppb         12.44   0.51%
   QC value within limits for Si 251.611  Recovery = 97.54%
Sn 189.927†             2727.2      489.97 ug/L         2.021      489.97 ppb          2.021   0.41%
   QC value within limits for Sn 189.927  Recovery = 97.99%
Sr 421.552†            73659.0      509.65 ug/L         6.661      509.65 ppb          6.661   1.31%
   QC value within limits for Sr 421.552  Recovery = 101.93%
Ti 334.940†           308810.0      485.14 ug/L         2.023      485.14 ppb          2.023   0.42%
   QC value within limits for Ti 334.940  Recovery = 97.03%
Tl 190.801†             1529.1      492.19 ug/L         1.732      492.19 ppb          1.732   0.35%
   QC value within limits for Tl 190.801  Recovery = 98.44%
U 409.014†             17502.8      481.65 ug/L         6.520      481.65 ppb          6.520   1.35%
   QC value within limits for U 409.014  Recovery = 96.33%
V 292.402†             69776.1      493.03 ug/L         1.537      493.03 ppb          1.537   0.31%
   QC value within limits for V 292.402  Recovery = 98.61%
Zn 213.857†            48988.8      488.60 ug/L         3.009      488.60 ppb          3.009   0.62%
   QC value within limits for Zn 213.857  Recovery = 97.72%
SiO2†                  74966.7      5196.6 ug/L        46.71      5196.6 ppb         46.71   0.90%
   QC value within limits for SiO2  Recovery = 97.18%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 14:09:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3915.0 | 3915.0 | 99.9 | % | | | 14:11:32 |
| 1 | Y RADIAL | 4487.3 | 4487.3 | 101.7 | % | | | 14:11:12 |
| 1 | Al 396.153Radial† | -103.6 | 8.8 | 8.1442 | ug/L | 8.1442 | ppb | 14:11:12 |
| 1 | Ca 317.933Radial† | 18.1 | -1.6 | -3.2969 | ug/L | -3.2969 | ppb | 14:11:32 |
| 1 | Fe 238.204 Radial† | 9.2 | -2.1 | -29.731 | ug/L | -29.731 | ppb | 14:11:32 |
| 1 | K 766.490 Radial† | 3144.3 | 507.7 | 97.413 | ug/L | 97.413 | ppb | 14:11:12 |
| 1 | Mg 279.077 IEC† | 3.0 | -1.1 | -51.712 | ug/L | -51.712 | ppb | 14:11:32 |
| 1 | Na 589.592 Radial† | -618.1 | 201.1 | 62.009 | ug/L | 62.009 | ppb | 14:11:12 |
| 1 | Sr 421.552† | 55.2 | 19.5 | 0.1352 | ug/L | 0.1352 | ppb | 14:11:12 |
| 1 | Sc 361.383 | 875131.7 | 875131.7 | 99.761 | % | | | 14:12:28 |
| 1 | Y 371.029 | 751129.4 | 751129.4 | 99.376 | % | | | 14:12:28 |
| 1 | Ag 328.068† | 295.7 | 56.0 | 0.2515 | ug/L | 0.2515 | ppb | 14:12:28 |
| 1 | As 188.979† | 3.0 | 21.3 | 9.4927 | ug/L | 9.4927 | ppb | 14:12:48 |
| 1 | B 249.677† | 301.4 | 700.3 | 16.985 | ug/L | 16.985 | ppb | 14:12:28 |
| 1 | Ba 233.527† | 21.8 | 23.3 | 0.1822 | ug/L | 0.1822 | ppb | 14:12:48 |
| 1 | Be 313.107† | -3672.0 | 81.3 | 0.0302 | ug/L | 0.0302 | ppb | 14:12:28 |
| 1 | Cd 226.502† | -137.0 | 58.9 | 0.6853 | ug/L | 0.6853 | ppb | 14:12:48 |
| 1 | Co 228.616† | -64.3 | 2.1 | 0.0471 | ug/L | 0.0471 | ppb | 14:12:48 |
| 1 | Cr 267.716† | 96.4 | 19.0 | 0.2107 | ug/L | 0.2107 | ppb | 14:12:48 |
| 1 | Cu 324.752† | 6170.2 | 194.2 | 0.5899 | ug/L | 0.5899 | ppb | 14:12:28 |
| 1 | Mn 257.610† | 503.6 | 46.1 | 0.0516 | ug/L | 0.0516 | ppb | 14:12:48 |
| 1 | Mo 202.031† | 27.6 | 17.5 | 1.2836 | ug/L | 1.2836 | ppb | 14:12:48 |
| 1 | Ni 231.604† | 66.6 | 4.4 | 0.1106 | ug/L | 0.1106 | ppb | 14:12:48 |
| 1 | P 214.914† | 208.0 | -2.0 | -1.2717 | ug/L | -1.2717 | ppb | 14:12:48 |
| 1 | Pb 220.353† | -13.6 | 44.5 | 5.4815 | ug/L | 5.4815 | ppb | 14:12:48 |
| 1 | S 181.975 Axial† | 37.1 | -3.6 | -5.2194 | ug/L | -5.2194 | ppb | 14:12:48 |
| 1 | Sb 206.836† | 55.8 | 19.2 | 6.7557 | ug/L | 6.7557 | ppb | 14:12:48 |
| 1 | Se 196.026† | -15.5 | 12.2 | 7.9006 | ug/L | 7.9006 | ppb | 14:12:48 |
| 1 | Si 251.611† | 686.7 | 130.0 | 4.1915 | ug/L | 4.1915 | ppb | 14:12:48 |
| 1 | Sn 189.927† | 18.3 | 7.8 | 1.4029 | ug/L | 1.4029 | ppb | 14:12:48 |
| 1 | Ti 334.940† | -1483.4 | -112.9 | -0.1734 | ug/L | -0.1734 | ppb | 14:12:28 |
| 1 | Tl 190.801† | -29.0 | 3.5 | 1.1061 | ug/L | 1.1061 | ppb | 14:12:48 |
| 1 | U 409.014† | -2906.3 | -26.6 | -0.7325 | ug/L | -0.7325 | ppb | 14:12:28 |
| 1 | V 292.402† | -1476.5 | 25.6 | 0.1990 | ug/L | 0.1990 | ppb | 14:12:28 |
| 1 | Zn 213.857† | 771.9 | 167.7 | 1.6913 | ug/L | 1.6913 | ppb | 14:12:48 |
| 1 | SiO2† | 677.2 | 124.5 | 8.6144 | ug/L | 8.6144 | ppb | 14:13:45 |
| 2 | Sc Radial | 3899.3 | 3899.3 | 99.5 | % | | | 14:11:57 |
| 2 | Y RADIAL | 4476.7 | 4476.7 | 101.5 | % | | | 14:11:37 |
| 2 | Al 396.153Radial† | -132.6 | -20.9 | -19.589 | ug/L | -19.589 | ppb | 14:11:37 |
| 2 | Ca 317.933Radial† | 21.3 | 1.7 | 3.5520 | ug/L | 3.5520 | ppb | 14:11:57 |
| 2 | Fe 238.204 Radial† | 12.8 | 1.6 | 21.930 | ug/L | 21.930 | ppb | 14:11:57 |
| 2 | K 766.490 Radial† | 3272.7 | 649.5 | 124.62 | ug/L | 124.62 | ppb | 14:11:37 |
| 2 | Mg 279.077 IEC† | 2.9 | -1.2 | -56.011 | ug/L | -56.011 | ppb | 14:11:57 |
| 2 | Na 589.592 Radial† | -685.1 | 131.2 | 40.466 | ug/L | 40.466 | ppb | 14:11:37 |
| 2 | Sr 421.552† | 48.2 | 12.7 | 0.0882 | ug/L | 0.0882 | ppb | 14:11:37 |
| 2 | Sc 361.383 | 878637.4 | 878637.4 | 100.16 | % | | | 14:12:54 |
| 2 | Y 371.029 | 758602.1 | 758602.1 | 100.36 | % | | | 14:12:54 |
| 2 | Ag 328.068† | 209.1 | -31.7 | -0.1422 | ug/L | -0.1422 | ppb | 14:12:54 |
| 2 | As 188.979† | -0.1 | 18.2 | 8.1167 | ug/L | 8.1167 | ppb | 14:13:14 |
| 2 | B 249.677† | 348.6 | 746.2 | 18.088 | ug/L | 18.088 | ppb | 14:12:54 |
| 2 | Ba 233.527† | 14.5 | 15.9 | 0.1238 | ug/L | 0.1238 | ppb | 14:13:14 |
| 2 | Be 313.107† | -3699.0 | 69.1 | 0.0256 | ug/L | 0.0256 | ppb | 14:12:54 |
| 2 | Cd 226.502† | -147.0 | 49.6 | 0.5717 | ug/L | 0.5717 | ppb | 14:13:14 |
| 2 | Co 228.616† | -57.3 | 9.3 | 0.1957 | ug/L | 0.1957 | ppb | 14:13:14 |
| 2 | Cr 267.716† | 83.4 | 5.6 | 0.0639 | ug/L | 0.0639 | ppb | 14:13:14 |
| 2 | Cu 324.752† | 5936.0 | -64.2 | -0.1942 | ug/L | -0.1942 | ppb | 14:12:54 |
| 2 | Mn 257.610† | 494.5 | 34.9 | 0.0442 | ug/L | 0.0442 | ppb | 14:13:14 |
| 2 | Mo 202.031† | 17.0 | 6.9 | 0.5056 | ug/L | 0.5056 | ppb | 14:13:14 |
| 2 | Ni 231.604† | 75.9 | 13.4 | 0.3401 | ug/L | 0.3401 | ppb | 14:13:14 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 205.6 | -5.3 | -3.1380 | ug/L | -3.1380 ppb | 14:13:14 |
| 2 | Pb 220.353† | -7.5 | 50.6 | 6.2233 | ug/L | 6.2233 ppb | 14:13:14 |
| 2 | S 181.975 Axial† | 49.5 | 8.6 | 12.352 | ug/L | 12.352 ppb | 14:13:14 |
| 2 | Sb 206.836† | 56.8 | 20.0 | 7.0381 | ug/L | 7.0381 ppb | 14:13:14 |
| 2 | Se 196.026† | -19.0 | 8.8 | 5.8099 | ug/L | 5.8099 ppb | 14:13:14 |
| 2 | Si 251.611† | 699.6 | 140.1 | 4.5277 | ug/L | 4.5277 ppb | 14:13:14 |
| 2 | Sn 189.927† | 22.0 | 11.5 | 2.0645 | ug/L | 2.0645 ppb | 14:13:14 |
| 2 | Ti 334.940† | -1462.5 | -86.1 | -0.1302 | ug/L | -0.1302 ppb | 14:12:54 |
| 2 | Tl 190.801† | -25.3 | 7.4 | 2.3529 | ug/L | 2.3529 ppb | 14:13:14 |
| 2 | U 409.014† | -2896.0 | -4.8 | -0.1345 | ug/L | -0.1345 ppb | 14:12:54 |
| 2 | V 292.402† | -1587.8 | -79.6 | -0.5521 | ug/L | -0.5521 ppb | 14:12:54 |
| 2 | Zn 213.857† | 788.1 | 180.9 | 1.8154 | ug/L | 1.8154 ppb | 14:13:14 |
| 2 | SiO2† | 723.3 | 167.8 | 11.646 | ug/L | 11.646 ppb | 14:13:50 |
| 3 | Sc Radial | 3841.4 | 3841.4 | 98.0 | % | | 14:12:22 |
| 3 | Y RADIAL | 4383.9 | 4383.9 | 99.39 | % | | 14:12:02 |
| 3 | Al 396.153Radial† | -96.4 | 14.1 | 13.186 | ug/L | 13.186 ppb | 14:12:02 |
| 3 | Ca 317.933Radial† | 22.3 | 3.1 | 6.5002 | ug/L | 6.5002 ppb | 14:12:22 |
| 3 | Fe 238.204 Radial† | 11.6 | 0.5 | 7.4480 | ug/L | 7.4480 ppb | 14:12:22 |
| 3 | K 766.490 Radial† | 3148.9 | 572.7 | 109.88 | ug/L | 109.88 ppb | 14:12:02 |
| 3 | Mg 279.077 IEC† | 3.3 | -0.7 | -31.994 | ug/L | -31.994 ppb | 14:12:22 |
| 3 | Na 589.592 Radial† | -650.0 | 156.7 | 48.306 | ug/L | 48.306 ppb | 14:12:02 |
| 3 | Sr 421.552† | 74.8 | 40.6 | 0.2808 | ug/L | 0.2808 ppb | 14:12:02 |
| 3 | Sc 361.383 | 872334.1 | 872334.1 | 99.442 | % | | 14:13:19 |
| 3 | Y 371.029 | 751244.0 | 751244.0 | 99.391 | % | | 14:13:19 |
| 3 | Ag 328.068† | 253.4 | 14.4 | 0.0742 | ug/L | 0.0742 ppb | 14:13:19 |
| 3 | As 188.979† | 5.6 | 23.8 | 10.641 | ug/L | 10.641 ppb | 14:13:39 |
| 3 | B 249.677† | 326.7 | 726.7 | 17.619 | ug/L | 17.619 ppb | 14:13:19 |
| 3 | Ba 233.527† | 10.8 | 12.2 | 0.0960 | ug/L | 0.0960 ppb | 14:13:39 |
| 3 | Be 313.107† | -3587.8 | 154.3 | 0.0575 | ug/L | 0.0575 ppb | 14:13:19 |
| 3 | Cd 226.502† | -170.7 | 24.7 | 0.2833 | ug/L | 0.2833 ppb | 14:13:39 |
| 3 | Co 228.616† | -68.1 | -1.9 | -0.0376 | ug/L | -0.0376 ppb | 14:13:39 |
| 3 | Cr 267.716† | 96.7 | 19.5 | 0.2225 | ug/L | 0.2225 ppb | 14:13:39 |
| 3 | Cu 324.752† | 5973.1 | 15.9 | 0.0525 | ug/L | 0.0525 ppb | 14:13:19 |
| 3 | Mn 257.610† | 487.8 | 31.8 | 0.0382 | ug/L | 0.0382 ppb | 14:13:39 |
| 3 | Mo 202.031† | 23.3 | 13.3 | 0.9794 | ug/L | 0.9794 ppb | 14:13:39 |
| 3 | Ni 231.604† | 57.8 | -4.3 | -0.1092 | ug/L | -0.1092 ppb | 14:13:39 |
| 3 | P 214.914† | 192.1 | -17.4 | -10.454 | ug/L | -10.454 ppb | 14:13:39 |
| 3 | Pb 220.353† | -17.9 | 40.2 | 4.9428 | ug/L | 4.9428 ppb | 14:13:39 |
| 3 | S 181.975 Axial† | 39.0 | -1.6 | -2.3318 | ug/L | -2.3318 ppb | 14:13:39 |
| 3 | Sb 206.836† | 57.1 | 20.7 | 7.2786 | ug/L | 7.2786 ppb | 14:13:39 |
| 3 | Se 196.026† | -16.2 | 11.5 | 7.5398 | ug/L | 7.5398 ppb | 14:13:39 |
| 3 | Si 251.611† | 674.1 | 119.6 | 3.8565 | ug/L | 3.8565 ppb | 14:13:39 |
| 3 | Sn 189.927† | 21.3 | 10.9 | 1.9641 | ug/L | 1.9641 ppb | 14:13:39 |
| 3 | Ti 334.940† | -1498.1 | -132.5 | -0.2017 | ug/L | -0.2017 ppb | 14:13:19 |
| 3 | Tl 190.801† | -38.8 | -6.5 | -2.0738 | ug/L | -2.0738 ppb | 14:13:39 |
| 3 | U 409.014† | -3119.6 | -250.5 | -6.9178 | ug/L | -6.9178 ppb | 14:13:19 |
| 3 | V 292.402† | -1511.1 | -13.9 | -0.0980 | ug/L | -0.0980 ppb | 14:13:19 |
| 3 | Zn 213.857† | 791.7 | 190.1 | 1.9135 | ug/L | 1.9135 ppb | 14:13:39 |
| 3 | SiO2† | 679.9 | 129.3 | 8.9599 | ug/L | 8.9599 ppb | 14:13:55 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 875367.7 | 99.788 | % | 0.3600 | | | | 0.36% |
| Sc Radial | 3885.3 | 99.1 | % | 0.99 | | | | 1.00% |
| Y 371.029 | 753658.5 | 99.711 | % | 0.5665 | | | | 0.57% |
| Y RADIAL | 4449.3 | 100.9 | % | 1.29 | | | | 1.28% |
| Ag 328.068† | 12.9 | 0.0612 | ug/L | 0.19715 | 0.0612 | ppb | 0.19715 | 322.37% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 0.7 | 0.5802 | ug/L | 17.64831 | 0.5802 | ppb | 17.64831 | >999.9% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | 21.1 | 9.4167 | ug/L | 1.26369 | 9.4167 | ppb | 1.26369 | 13.42% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 724.4 | 17.564 | ug/L | 0.5539 | 17.564 | ppb | 0.5539 | 3.15% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 17.1 | 0.1340 | ug/L | 0.04400 | 0.1340 | ppb | 0.04400 | 32.84% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 101.6 | 0.0378 | ug/L | 0.01723 | 0.0378 | ppb | 0.01723 | 45.63% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 1.1 | 2.2518 | ug/L | 5.02630 | 2.2518 | ppb | 5.02630 | 223.21% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                44.4      0.5134 ug/L       0.20725      0.5134 ppb        0.20725  40.37%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.1      0.0684 ug/L       0.11807      0.0684 ppb        0.11807 172.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.7      0.1657 ug/L       0.08840      0.1657 ppb        0.08840  53.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                48.6      0.1494 ug/L       0.40095      0.1494 ppb        0.40095 268.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.1176 ug/L      26.64871     -0.1176 ppb       26.64871 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         576.6      110.64 ug/L        13.619      110.64 ppb         13.619  12.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0     -46.572 ug/L       12.8072     -46.572 ppb        12.8072  27.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                37.6      0.0447 ug/L       0.00673      0.0447 ppb        0.00673  15.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.6      0.9229 ug/L       0.39207      0.9229 ppb        0.39207  42.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        163.0      50.260 ug/L       10.9036      50.260 ppb        10.9036  21.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.5      0.1138 ug/L       0.22467      0.1138 ppb        0.22467 197.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.2     -4.9545 ug/L       4.85312     -4.9545 ppb        4.85312  97.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                45.1      5.5492 ug/L       0.64290      5.5492 ppb        0.64290  11.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.1      1.6001 ug/L       9.42233      1.6001 ppb        9.42233 588.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                20.0      7.0241 ug/L       0.26176      7.0241 ppb        0.26176   3.73%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.8      7.0834 ug/L       1.11755      7.0834 ppb        1.11755  15.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               129.9      4.1919 ug/L       0.33561      4.1919 ppb        0.33561   8.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.1      1.8105 ug/L       0.35656      1.8105 ppb        0.35656  19.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                24.3      0.1681 ug/L       0.10046      0.1681 ppb        0.10046  59.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -110.5     -0.1684 ug/L       0.03603     -0.1684 ppb        0.03603  21.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.4      0.4617 ug/L       2.28263      0.4617 ppb        2.28263 494.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -94.0     -2.5949 ug/L       3.75567     -2.5949 ppb        3.75567 144.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -22.6     -0.1504 ug/L       0.37829     -0.1504 ppb        0.37829 251.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               179.6      1.8067 ug/L       0.11135      1.8067 ppb        0.11135   6.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     140.5      9.7401 ug/L       1.65962      9.7401 ppb        1.65962  17.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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**Analysis Begun**

**Start Time: 2/24/2010 14:25:36** **Plasma On Time: 00:00:00**
**Logged In Analyst: Optima3** **Technique: ICP Continuous**
**Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10**

**Sample Information File: C:\pe\Optima3\Sample Information\022410.sif**
**Batch ID:**
**Results Data Set: 022410**
**Results Library: C:\pe\Optima3\Results\Results.mdb**

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**Method Loaded**
**Method Name: General Eng.2AX** **Method Last Saved: 2/24/2010 12:00:19**
**IEC File: 011110.iec** **MSF File:**
**Method Description:**

| Analyte | Calibration Equation | Processing | View | Internal Standard | IEC |
|---|---|---|---|---|---|
| Ag 328.068 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Al 396.153Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| As 188.979 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| B 249.677 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Ba 233.527 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Be 313.107 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Ca 317.933Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | No |
| Cd 226.502 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Co 228.616 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Cr 267.716 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Cu 324.752 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Fe 238.204 Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| K 766.490 Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| Mg 279.077 IEC | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| Mn 257.610 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Mo 202.031 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Na 589.592 Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | No |
| Ni 231.604 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| P 214.914 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Pb 220.353 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| S 181.975 Axial | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sb 206.836 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sc 361.383 | Lin Thru 0 | Peak Area | Axial | n/a | n/a |
| Sc Radial | Lin, Calc Int | Peak Area | Radial | n/a | n/a |
| Se 196.026 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Si 251.611 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sn 189.927 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sr 421.552 | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| Ti 334.940 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Tl 190.801 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| U 409.014 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| V 292.402 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Y 371.029 | Lin, Calc Int | Peak Area | Axial | n/a | n/a |
| Zn 213.857 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Y RADIAL | Lin, Calc Int | Peak Area | Radial | n/a | n/a |
| SiO2 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |

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**Sequence No.: 1** **Autosampler Location: 36**
**Sample ID: LR1** **Date Collected: 2/24/2010 14:25:37**
**Analyst: HSC** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**

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**Replicate Data: LR1**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Sample Conc. | Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3815.2 | 3815.2 | 97.4 | % | | | 14:27:31 |
| 1 | Y RADIAL | 4260.9 | 4260.9 | 96.60 | % | | | 14:27:31 |
| 1 | Al 396.153Radial† | -126.4 | -17.5 | -15.092 | ug/L | -15.092 | ppb | 14:27:31 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Ca 317.933Radial† | 22.0 | 2.9 | 6.0589 ug/L | 6.0589 ppb | 14:27:51 |
| 1 | Fe 238.204 Radial† | 25520.2 | 26201.8 | 369850 ug/L | 369850 ppb | 14:27:31 |
| 1 | K 766.490 Radial† | 2681.6 | 114.8 | 22.061 ug/L | 22.061 ppb | 14:27:31 |
| 1 | Mg 279.077 IEC† | 12.4 | 8.7 | 32.450 ug/L | 32.450 ppb | 14:27:51 |
| 1 | Na 589.592 Radial† | -637.2 | 165.3 | 50.954 ug/L | 50.954 ppb | 14:27:31 |
| 1 | Sr 421.552† | 139.2 | 107.3 | 0.7424 ug/L | 0.7424 ppb | 14:27:31 |
| 1 | Sc 361.383 | 868251.3 | 868251.3 | 98.976 % | | 14:28:48 |
| 1 | Y 371.029 | 730637.8 | 730637.8 | 96.665 % | | 14:28:48 |
| 1 | Ag 328.068† | -25133.1 | -25633.5 | -4.9088 ug/L | -4.9088 ppb | 14:28:48 |
| 1 | As 188.979† | -197.8 | -181.6 | 5.6062 ug/L | 5.6062 ppb | 14:29:08 |
| 1 | B 249.677† | 2055.0 | 2474.5 | -0.1135 ug/L | -0.1135 ppb | 14:28:48 |
| 1 | Ba 233.527† | -1749.1 | -1765.7 | -2.4777 ug/L | -2.4777 ppb | 14:28:48 |
| 1 | Be 313.107† | -3624.2 | 100.5 | 0.0375 ug/L | 0.0375 ppb | 14:28:48 |
| 1 | Cd 226.502† | 2941.5 | 3168.2 | -1.4997 ug/L | -1.4997 ppb | 14:28:48 |
| 1 | Co 228.616† | 716.8 | 790.7 | 11.158 ug/L | 11.158 ppb | 14:29:08 |
| 1 | Cr 267.716† | -602.7 | -686.7 | 27.516 ug/L | 27.516 ppb | 14:28:48 |
| 1 | Cu 324.752† | -898.4 | -6898.5 | -1.4577 ug/L | -1.4577 ppb | 14:28:48 |
| 1 | Mn 257.610† | -32391.6 | -33185.4 | -1.2521 ug/L | -1.2521 ppb | 14:28:48 |
| 1 | Mo 202.031† | -344.3 | -358.0 | 2.4277 ug/L | 2.4277 ppb | 14:28:48 |
| 1 | Ni 231.604† | 133.9 | 72.9 | 1.8435 ug/L | 1.8435 ppb | 14:29:08 |
| 1 | P 214.914† | 664.5 | 460.8 | -16.342 ug/L | -16.342 ppb | 14:29:08 |
| 1 | Pb 220.353† | 213.4 | 273.8 | -6.3651 ug/L | -6.3651 ppb | 14:29:08 |
| 1 | S 181.975 Axial† | 54.7 | 14.5 | 20.860 ug/L | 20.860 ppb | 14:29:08 |
| 1 | Sb 206.836† | 33.2 | -3.2 | -5.6674 ug/L | -5.6674 ppb | 14:29:08 |
| 1 | Se 196.026† | -1671.2 | -1660.7 | 65.515 ug/L | 65.515 ppb | 14:29:08 |
| 1 | Si 251.611† | -527.3 | -1091.0 | -34.981 ug/L | -34.981 ppb | 14:28:48 |
| 1 | Sn 189.927† | -14.1 | -24.7 | -25.668 ug/L | -25.668 ppb | 14:29:08 |
| 1 | Ti 334.940† | -1423.0 | -63.7 | -0.1632 ug/L | -0.1632 ppb | 14:28:48 |
| 1 | Tl 190.801† | -43.2 | -11.1 | -3.8950 ug/L | -3.8950 ppb | 14:29:08 |
| 1 | U 409.014† | -202.3 | 2682.2 | 31.921 ug/L | 31.921 ppb | 14:28:48 |
| 1 | V 292.402† | 6640.4 | 8214.7 | 3.1969 ug/L | 3.1969 ppb | 14:28:48 |
| 1 | Zn 213.857† | 4062.2 | 3498.2 | -20.117 ug/L | -20.117 ppb | 14:29:08 |
| 1 | SiO2† | -463.0 | -1022.2 | -70.320 ug/L | -70.320 ppb | 14:30:05 |
| 2 | Sc Radial | 3865.8 | 3865.8 | 98.6 % | | 14:27:56 |
| 2 | Y RADIAL | 4274.0 | 4274.0 | 96.90 % | | 14:27:56 |
| 2 | Al 396.153Radial† | -128.4 | -17.8 | -15.426 ug/L | -15.426 ppb | 14:27:56 |
| 2 | Ca 317.933Radial† | 20.0 | 0.6 | 1.2557 ug/L | 1.2557 ppb | 14:28:16 |
| 2 | Fe 238.204 Radial† | 25670.8 | 26011.6 | 367160 ug/L | 367160 ppb | 14:27:56 |
| 2 | K 766.490 Radial† | 2652.8 | 49.5 | 9.5321 ug/L | 9.5321 ppb | 14:27:56 |
| 2 | Mg 279.077 IEC† | 9.9 | 5.9 | -97.232 ug/L | -97.232 ppb | 14:28:16 |
| 2 | Na 589.592 Radial† | -642.2 | 168.8 | 52.030 ug/L | 52.030 ppb | 14:27:56 |
| 2 | Sr 421.552† | 140.2 | 106.4 | 0.7363 ug/L | 0.7363 ppb | 14:27:56 |
| 2 | Sc 361.383 | 868044.1 | 868044.1 | 98.953 % | | 14:29:14 |
| 2 | Y 371.029 | 729533.9 | 729533.9 | 96.519 % | | 14:29:14 |
| 2 | Ag 328.068† | -25207.2 | -25714.4 | -6.1038 ug/L | -6.1038 ppb | 14:29:14 |
| 2 | As 188.979† | -192.0 | -175.8 | 7.5739 ug/L | 7.5739 ppb | 14:29:34 |
| 2 | B 249.677† | 2100.3 | 2520.7 | 1.4424 ug/L | 1.4424 ppb | 14:29:14 |
| 2 | Ba 233.527† | -1821.8 | -1839.7 | -3.1400 ug/L | -3.1400 ppb | 14:29:14 |
| 2 | Be 313.107† | -3663.9 | 59.5 | 0.0217 ug/L | 0.0217 ppb | 14:29:14 |
| 2 | Cd 226.502† | 2956.7 | 3184.3 | -1.0372 ug/L | -1.0372 ppb | 14:29:14 |
| 2 | Co 228.616† | 712.9 | 787.0 | 11.121 ug/L | 11.121 ppb | 14:29:34 |
| 2 | Cr 267.716† | -562.2 | -645.8 | 27.721 ug/L | 27.721 ppb | 14:29:14 |
| 2 | Cu 324.752† | -881.3 | -6881.4 | -1.5443 ug/L | -1.5443 ppb | 14:29:14 |
| 2 | Mn 257.610† | -32193.8 | -32993.3 | -1.2932 ug/L | -1.2932 ppb | 14:29:14 |
| 2 | Mo 202.031† | -329.9 | -343.5 | 3.2835 ug/L | 3.2835 ppb | 14:29:14 |
| 2 | Ni 231.604† | 127.8 | 66.7 | 1.6856 ug/L | 1.6856 ppb | 14:29:34 |
| 2 | P 214.914† | 653.2 | 449.6 | -20.948 ug/L | -20.948 ppb | 14:29:34 |
| 2 | Pb 220.353† | 210.9 | 271.2 | -6.3836 ug/L | -6.3836 ppb | 14:29:34 |
| 2 | S 181.975 Axial† | 38.7 | -1.7 | -2.4662 ug/L | -2.4662 ppb | 14:29:34 |
| 2 | Sb 206.836† | 33.5 | -2.9 | -5.5268 ug/L | -5.5268 ppb | 14:29:34 |
| 2 | Se 196.026† | -1674.4 | -1664.4 | 54.714 ug/L | 54.714 ppb | 14:29:34 |
| 2 | Si 251.611† | -573.4 | -1137.8 | -36.507 ug/L | -36.507 ppb | 14:29:14 |
| 2 | Sn 189.927† | -18.0 | -28.7 | -26.218 ug/L | -26.218 ppb | 14:29:34 |
| 2 | Ti 334.940† | -1558.5 | -200.9 | -0.3661 ug/L | -0.3661 ppb | 14:29:14 |
| 2 | Tl 190.801† | -43.0 | -10.9 | -3.8401 ug/L | -3.8401 ppb | 14:29:34 |
| 2 | U 409.014† | -430.1 | 2452.0 | 25.867 ug/L | 25.867 ppb | 14:29:14 |
| 2 | V 292.402† | 6631.4 | 8207.2 | 3.5360 ug/L | 3.5360 ppb | 14:29:14 |
| 2 | Zn 213.857† | 4092.5 | 3529.8 | -19.396 ug/L | -19.396 ppb | 14:29:34 |
| 2 | SiO2† | -527.4 | -1087.3 | -74.878 ug/L | -74.878 ppb | 14:30:11 |
| 3 | Sc Radial | 3918.9 | 3918.9 | 100 % | | 14:28:21 |
| 3 | Y RADIAL | 4324.4 | 4324.4 | 98.04 % | | 14:28:21 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | Al 396.153Radial† | -135.1 | -22.7 | -19.994 ug/L | -19.994 ppb | 14:28:21 |
| 3 | Ca 317.933Radial† | 14.8 | -4.9 | -10.250 ug/L | -10.250 ppb | 14:28:41 |
| 3 | Fe 238.204 Radial† | 25752.7 | 25740.7 | 363340 ug/L | 363340 ppb | 14:28:21 |
| 3 | K 766.490 Radial† | 2662.1 | 22.5 | 4.3457 ug/L | 4.3457 ppb | 14:28:21 |
| 3 | Mg 279.077 IEC† | 10.3 | 6.2 | -79.162 ug/L | -79.162 ppb | 14:28:41 |
| 3 | Na 589.592 Radial† | -709.0 | 110.7 | 34.146 ug/L | 34.146 ppb | 14:28:21 |
| 3 | Sr 421.552† | 100.3 | 64.6 | 0.4471 ug/L | 0.4471 ppb | 14:28:21 |
| 3 | Sc 361.383 | 868469.9 | 868469.9 | 99.001 % | | 14:29:40 |
| 3 | Y 371.029 | 729469.5 | 729469.5 | 96.511 % | | 14:29:40 |
| 3 | Ag 328.068† | -25196.2 | -25690.8 | -7.1714 ug/L | -7.1714 ppb | 14:29:40 |
| 3 | As 188.979† | -208.3 | -192.2 | -0.6545 ug/L | -0.6545 ppb | 14:30:00 |
| 3 | B 249.677† | 2130.9 | 2550.6 | 2.7890 ug/L | 2.7890 ppb | 14:29:40 |
| 3 | Ba 233.527† | -1770.5 | -1787.0 | -2.8428 ug/L | -2.8428 ppb | 14:29:40 |
| 3 | Be 313.107† | -3638.3 | 87.2 | 0.0323 ug/L | 0.0323 ppb | 14:29:40 |
| 3 | Cd 226.502† | 2939.0 | 3164.9 | -0.8661 ug/L | -0.8661 ppb | 14:29:40 |
| 3 | Co 228.616† | 718.7 | 792.5 | 11.287 ug/L | 11.287 ppb | 14:30:00 |
| 3 | Cr 267.716† | -606.6 | -690.4 | 26.857 ug/L | 26.857 ppb | 14:29:40 |
| 3 | Cu 324.752† | -923.9 | -6923.9 | -1.8769 ug/L | -1.8769 ppb | 14:29:40 |
| 3 | Mn 257.610† | -32222.7 | -33006.5 | -1.6865 ug/L | -1.6865 ppb | 14:29:40 |
| 3 | Mo 202.031† | -354.9 | -368.6 | 1.1440 ug/L | 1.1440 ppb | 14:29:40 |
| 3 | Ni 231.604† | 147.5 | 86.6 | 2.1913 ug/L | 2.1913 ppb | 14:30:00 |
| 3 | P 214.914† | 673.5 | 469.8 | -5.7264 ug/L | -5.7264 ppb | 14:30:00 |
| 3 | Pb 220.353† | 215.6 | 275.8 | -5.4080 ug/L | -5.4080 ppb | 14:30:00 |
| 3 | S 181.975 Axial† | 51.8 | 11.5 | 16.524 ug/L | 16.524 ppb | 14:30:00 |
| 3 | Sb 206.836† | 24.8 | -11.7 | -8.5985 ug/L | -8.5985 ppb | 14:30:00 |
| 3 | Se 196.026† | -1661.9 | -1650.9 | 51.625 ug/L | 51.625 ppb | 14:30:00 |
| 3 | Si 251.611† | -456.1 | -1019.1 | -32.643 ug/L | -32.643 ppb | 14:29:40 |
| 3 | Sn 189.927† | -20.8 | -31.5 | -26.506 ug/L | -26.506 ppb | 14:30:00 |
| 3 | Ti 334.940† | -1501.2 | -142.2 | -0.2770 ug/L | -0.2770 ppb | 14:29:40 |
| 3 | Tl 190.801† | -46.3 | -14.1 | -4.8844 ug/L | -4.8844 ppb | 14:30:00 |
| 3 | U 409.014† | -384.8 | 2497.9 | 27.574 ug/L | 27.574 ppb | 14:29:40 |
| 3 | V 292.402† | 6607.1 | 8179.5 | 3.8763 ug/L | 3.8763 ppb | 14:29:40 |
| 3 | Zn 213.857† | 4037.0 | 3471.7 | -19.411 ug/L | -19.411 ppb | 14:30:00 |
| 3 | SiO2† | -570.3 | -1130.4 | -77.824 ug/L | -77.824 ppb | 14:30:16 |

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**Mean Data: LR1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 868255.1 | 98.977 | % | 0.0243 | | | | 0.02% |
| Sc Radial | 3866.6 | 98.7 | % | 1.32 | | | | 1.34% |
| Y 371.029 | 729880.4 | 96.565 | % | 0.0869 | | | | 0.09% |
| Y RADIAL | 4286.4 | 97.18 | % | 0.761 | | | | 0.78% |
| Ag 328.068† | -25679.6 | -6.0613 | ug/L | 1.13191 | -6.0613 | ppb | 1.13191 | 18.67% |
| Al 396.153Radial† | -19.3 | -16.837 | ug/L | 2.7385 | -16.837 | ppb | 2.7385 | 16.26% |
| As 188.979† | -183.2 | 4.1752 | ug/L | 4.29678 | 4.1752 | ppb | 4.29678 | 102.91% |
| B 249.677† | 2515.3 | 1.3726 | ug/L | 1.45253 | 1.3726 | ppb | 1.45253 | 105.82% |
| Ba 233.527† | -1797.5 | -2.8202 | ug/L | 0.33174 | -2.8202 | ppb | 0.33174 | 11.76% |
| Be 313.107† | 82.4 | 0.0305 | ug/L | 0.00809 | 0.0305 | ppb | 0.00809 | 26.54% |
| Ca 317.933Radial† | -0.5 | -0.9785 | ug/L | 8.38093 | -0.9785 | ppb | 8.38093 | 856.47% |
| Cd 226.502† | 3172.4 | -1.1343 | ug/L | 0.32777 | -1.1343 | ppb | 0.32777 | 28.90% |
| Co 228.616† | 790.0 | 11.189 | ug/L | 0.0872 | 11.189 | ppb | 0.0872 | 0.78% |
| Cr 267.716† | -674.3 | 27.365 | ug/L | 0.4519 | 27.365 | ppb | 0.4519 | 1.65% |
| Cu 324.752† | -6901.3 | -1.6263 | ug/L | 0.22129 | -1.6263 | ppb | 0.22129 | 13.61% |
| Fe 238.204 Radial† | 25984.7 | 366780 | ug/L | 3270.9 | 366780 | ppb | 3270.9 | 0.89% |
| K 766.490 Radial† | 62.3 | 11.980 | ug/L | 9.1077 | 11.980 | ppb | 9.1077 | 76.03% |
| Mg 279.077 IEC† | 6.9 | -47.981 | ug/L | 70.2390 | -47.981 | ppb | 70.2390 | 146.39% |
| Mn 257.610† | -33061.7 | -1.4106 | ug/L | 0.23983 | -1.4106 | ppb | 0.23983 | 17.00% |
| Mo 202.031† | -356.7 | 2.2850 | ug/L | 1.07689 | 2.2850 | ppb | 1.07689 | 47.13% |
| Na 589.592 Radial† | 148.3 | 45.710 | ug/L | 10.0293 | 45.710 | ppb | 10.0293 | 21.94% |
| Ni 231.604† | 75.4 | 1.9068 | ug/L | 0.25871 | 1.9068 | ppb | 0.25871 | 13.57% |
| P 214.914† | 460.1 | -14.339 | ug/L | 7.8061 | -14.339 | ppb | 7.8061 | 54.44% |
| Pb 220.353† | 273.6 | -6.0522 | ug/L | 0.55801 | -6.0522 | ppb | 0.55801 | 9.22% |
| S 181.975 Axial† | 8.1 | 11.639 | ug/L | 12.4064 | 11.639 | ppb | 12.4064 | 106.59% |
| Sb 206.836† | -5.9 | -6.5975 | ug/L | 1.73429 | -6.5975 | ppb | 1.73429 | 26.29% |
| Se 196.026† | -1658.7 | 57.285 | ug/L | 7.2930 | 57.285 | ppb | 7.2930 | 12.73% |
| Si 251.611† | -1082.6 | -34.710 | ug/L | 1.9464 | -34.710 | ppb | 1.9464 | 5.61% |
| Sn 189.927† | -28.3 | -26.131 | ug/L | 0.4257 | -26.131 | ppb | 0.4257 | 1.63% |
| Sr 421.552† | 92.8 | 0.6419 | ug/L | 0.16875 | 0.6419 | ppb | 0.16875 | 26.29% |
| Ti 334.940† | -135.6 | -0.2688 | ug/L | 0.10169 | -0.2688 | ppb | 0.10169 | 37.83% |
| Tl 190.801† | -12.0 | -4.2065 | ug/L | 0.58771 | -4.2065 | ppb | 0.58771 | 13.97% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| U 409.014† | 2544.0 | 28.454 | ug/L | 3.1211 | 28.454 | ppb | 3.1211 | 10.97% |
| V 292.402† | 8200.5 | 3.5364 | ug/L | 0.33968 | 3.5364 | ppb | 0.33968 | 9.61% |
| Zn 213.857† | 3499.9 | -19.641 | ug/L | 0.4119 | -19.641 | ppb | 0.4119 | 2.10% |
| SiO2† | -1080.0 | -74.341 | ug/L | 3.7807 | -74.341 | ppb | 3.7807 | 5.09% |

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 2/24/2010 14:32:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3829.7 | 3829.7 | 97.7 | % | | | 14:34:41 |
| 1 | Y RADIAL | 4261.6 | 4261.6 | 96.62 | % | | | 14:34:21 |
| 1 | Al 396.153Radial† | -126.7 | -17.2 | -16.187 | ug/L | -16.187 | ppb | 14:34:21 |
| 1 | Ca 317.933Radial† | 20.6 | 1.4 | 2.8867 | ug/L | 2.8867 | ppb | 14:34:41 |
| 1 | Fe 238.204 Radial† | 10.3 | -0.8 | -11.290 | ug/L | -11.290 | ppb | 14:34:41 |
| 1 | K 766.490 Radial† | 2831.9 | 258.2 | 49.543 | ug/L | 49.543 | ppb | 14:34:21 |
| 1 | Mg 279.077 IEC† | -0.6 | -4.7 | -227.51 | ug/L | -227.51 | ppb | 14:34:41 |
| 1 | Na 589.592 Radial† | -766.7 | 35.3 | 10.880 | ug/L | 10.880 | ppb | 14:34:21 |
| 1 | Sr 421.552† | 47.1 | 12.4 | 0.0859 | ug/L | 0.0859 | ppb | 14:34:21 |
| 1 | Sc 361.383 | 902919.9 | 902919.9 | 102.93 | % | | | 14:35:38 |
| 1 | Y 371.029 | 764651.5 | 764651.5 | 101.17 | % | | | 14:35:38 |
| 1 | Ag 328.068† | 242.6 | -4.7 | -0.0105 | ug/L | -0.0105 | ppb | 14:35:43 |
| 1 | As 188.979† | -8.4 | 10.1 | 4.5036 | ug/L | 4.5036 | ppb | 14:36:03 |
| 1 | B 249.677† | -240.7 | 164.3 | 3.9979 | ug/L | 3.9979 | ppb | 14:36:03 |
| 1 | Ba 233.527† | 1268344.7 | 1232260.8 | 9670.0 | ug/L | 9670.0 | ppb | 14:35:38 |
| 1 | Be 313.107† | -3678.8 | 188.0 | 0.0706 | ug/L | 0.0706 | ppb | 14:35:43 |
| 1 | Cd 226.502† | -165.8 | 35.2 | 0.4052 | ug/L | 0.4052 | ppb | 14:36:03 |
| 1 | Co 228.616† | -274.0 | -199.7 | 0.4738 | ug/L | 0.4738 | ppb | 14:36:03 |
| 1 | Cr 267.716† | 92.8 | 12.4 | 0.1459 | ug/L | 0.1459 | ppb | 14:36:03 |
| 1 | Cu 324.752† | 6070.7 | -92.8 | -0.2730 | ug/L | -0.2730 | ppb | 14:35:43 |
| 1 | Mn 257.610† | 478.4 | 6.0 | 0.0150 | ug/L | 0.0150 | ppb | 14:36:03 |
| 1 | Mo 202.031† | 13.1 | 2.6 | 0.1894 | ug/L | 0.1894 | ppb | 14:36:03 |
| 1 | Ni 231.604† | 59.7 | -4.5 | -0.1111 | ug/L | -0.1111 | ppb | 14:36:03 |
| 1 | P 214.914† | 218.6 | 1.9 | 1.2048 | ug/L | 1.2048 | ppb | 14:36:03 |
| 1 | Pb 220.353† | -67.9 | -7.9 | -0.9689 | ug/L | -0.9689 | ppb | 14:36:03 |
| 1 | S 181.975 Axial† | 40.0 | -1.9 | -2.7547 | ug/L | -2.7547 | ppb | 14:36:03 |
| 1 | Sb 206.836† | 41.4 | 3.6 | 1.2606 | ug/L | 1.2606 | ppb | 14:36:03 |
| 1 | Se 196.026† | -21.2 | 7.1 | 4.6308 | ug/L | 4.6308 | ppb | 14:36:03 |
| 1 | Si 251.611† | 608.5 | 32.9 | 1.0610 | ug/L | 1.0610 | ppb | 14:36:03 |
| 1 | Sn 189.927† | 16.0 | 5.1 | 0.9165 | ug/L | 0.9165 | ppb | 14:36:03 |
| 1 | Ti 334.940† | -1428.4 | -13.7 | 0.0054 | ug/L | 0.0054 | ppb | 14:35:43 |
| 1 | Tl 190.801† | -39.0 | -5.3 | -1.6870 | ug/L | -1.6870 | ppb | 14:36:03 |
| 1 | U 409.014† | -3647.6 | -657.2 | -18.146 | ug/L | -18.146 | ppb | 14:35:38 |
| 1 | V 292.402† | -1548.5 | 1.2 | -0.0263 | ug/L | -0.0263 | ppb | 14:35:43 |
| 1 | Zn 213.857† | 623.8 | 0.0 | 0.0031 | ug/L | 0.0031 | ppb | 14:36:03 |
| 1 | SiO2† | 590.1 | 18.9 | 1.3113 | ug/L | 1.3113 | ppb | 14:37:09 |
| 2 | Sc Radial | 3860.9 | 3860.9 | 98.5 | % | | | 14:35:06 |
| 2 | Y RADIAL | 4356.5 | 4356.5 | 98.77 | % | | | 14:34:46 |
| 2 | Al 396.153Radial† | -107.2 | 3.6 | 3.3425 | ug/L | 3.3425 | ppb | 14:34:46 |
| 2 | Ca 317.933Radial† | 24.5 | 5.2 | 10.883 | ug/L | 10.883 | ppb | 14:35:06 |
| 2 | Fe 238.204 Radial† | 11.8 | 0.7 | 9.2609 | ug/L | 9.2609 | ppb | 14:35:06 |
| 2 | K 766.490 Radial† | 2981.7 | 386.8 | 74.218 | ug/L | 74.218 | ppb | 14:34:46 |
| 2 | Mg 279.077 IEC† | 0.1 | -3.9 | -190.26 | ug/L | -190.26 | ppb | 14:35:06 |
| 2 | Na 589.592 Radial† | -742.8 | 65.9 | 20.305 | ug/L | 20.305 | ppb | 14:34:46 |
| 2 | Sr 421.552† | 54.5 | 19.6 | 0.1358 | ug/L | 0.1358 | ppb | 14:34:46 |
| 2 | Sc 361.383 | 901041.5 | 901041.5 | 102.71 | % | | | 14:36:08 |
| 2 | Y 371.029 | 761397.1 | 761397.1 | 100.73 | % | | | 14:36:08 |
| 2 | Ag 328.068† | 272.3 | 24.7 | 0.1317 | ug/L | 0.1317 | ppb | 14:36:13 |
| 2 | As 188.979† | -11.5 | 7.0 | 3.1307 | ug/L | 3.1307 | ppb | 14:36:33 |
| 2 | B 249.677† | -247.4 | 157.4 | 3.8264 | ug/L | 3.8264 | ppb | 14:36:33 |
| 2 | Ba 233.527† | 1270090.4 | 1236529.3 | 9703.5 | ug/L | 9703.5 | ppb | 14:36:08 |
| 2 | Be 313.107† | -3645.0 | 213.5 | 0.0798 | ug/L | 0.0798 | ppb | 14:36:13 |
| 2 | Cd 226.502† | -168.8 | 31.9 | 0.3656 | ug/L | 0.3656 | ppb | 14:36:33 |
| 2 | Co 228.616† | -280.0 | -206.1 | 0.3553 | ug/L | 0.3553 | ppb | 14:36:33 |
| 2 | Cr 267.716† | 87.8 | 7.8 | 0.0950 | ug/L | 0.0950 | ppb | 14:36:33 |
| 2 | Cu 324.752† | 5880.9 | -265.3 | -0.7980 | ug/L | -0.7980 | ppb | 14:36:13 |
| 2 | Mn 257.610† | 451.9 | -18.8 | -0.0127 | ug/L | -0.0127 | ppb | 14:36:33 |
| 2 | Mo 202.031† | 12.7 | 2.2 | 0.1645 | ug/L | 0.1645 | ppb | 14:36:33 |
| 2 | Ni 231.604† | 80.2 | 15.6 | 0.3997 | ug/L | 0.3997 | ppb | 14:36:33 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 205.8 | -10.1 | -5.9263 ug/L | -5.9263 ppb | 14:36:33 |
| 2 | Pb 220.353† | -40.3 | 18.9 | 2.3272 ug/L | 2.3272 ppb | 14:36:33 |
| 2 | S 181.975 Axial† | 40.0 | -1.8 | -2.6595 ug/L | -2.6595 ppb | 14:36:33 |
| 2 | Sb 206.836† | 40.1 | 2.4 | 0.8471 ug/L | 0.8471 ppb | 14:36:33 |
| 2 | Se 196.026† | -22.7 | 5.7 | 3.7529 ug/L | 3.7529 ppb | 14:36:33 |
| 2 | Si 251.611† | 561.2 | -11.9 | -0.3886 ug/L | -0.3886 ppb | 14:36:33 |
| 2 | Sn 189.927† | 15.4 | 4.5 | 0.8111 ug/L | 0.8111 ppb | 14:36:33 |
| 2 | Ti 334.940† | -1533.4 | -118.8 | -0.1628 ug/L | -0.1628 ppb | 14:36:13 |
| 2 | Tl 190.801† | -32.0 | 1.4 | 0.4730 ug/L | 0.4730 ppb | 14:36:33 |
| 2 | U 409.014† | -3552.7 | -572.2 | -15.803 ug/L | -15.803 ppb | 14:36:08 |
| 2 | V 292.402† | -1491.4 | 53.7 | 0.3417 ug/L | 0.3417 ppb | 14:36:13 |
| 2 | Zn 213.857† | 625.0 | 2.5 | 0.0222 ug/L | 0.0222 ppb | 14:36:33 |
| 2 | SiO2† | 641.3 | 70.0 | 4.8600 ug/L | 4.8600 ppb | 14:37:15 |
| 3 | Sc Radial | 3860.5 | 3860.5 | 98.5 % | | 14:35:31 |
| 3 | Y RADIAL | 4376.3 | 4376.3 | 99.22 % | | 14:35:11 |
| 3 | Al 396.153Radial† | -134.0 | -23.6 | -22.081 ug/L | -22.081 ppb | 14:35:11 |
| 3 | Ca 317.933Radial† | 19.7 | 0.3 | 0.6806 ug/L | 0.6806 ppb | 14:35:31 |
| 3 | Fe 238.204 Radial† | 12.2 | 1.1 | 15.397 ug/L | 15.397 ppb | 14:35:31 |
| 3 | K 766.490 Radial† | 2735.9 | 137.6 | 26.405 ug/L | 26.405 ppb | 14:35:11 |
| 3 | Mg 279.077 IEC† | 2.5 | -1.5 | -73.448 ug/L | -73.448 ppb | 14:35:31 |
| 3 | Na 589.592 Radial† | -747.7 | 60.7 | 18.724 ug/L | 18.724 ppb | 14:35:11 |
| 3 | Sr 421.552† | 27.4 | -7.9 | -0.0544 ug/L | -0.0544 ppb | 14:35:11 |
| 3 | Sc 361.383 | 900331.6 | 900331.6 | 102.63 % | | 14:36:39 |
| 3 | Y 371.029 | 760478.0 | 760478.0 | 100.61 % | | 14:36:39 |
| 3 | Ag 328.068† | 245.9 | -0.8 | 0.0182 ug/L | 0.0182 ppb | 14:36:44 |
| 3 | As 188.979† | -20.5 | -1.7 | -0.7568 ug/L | -0.7568 ppb | 14:37:04 |
| 3 | B 249.677† | -231.9 | 172.3 | 4.1865 ug/L | 4.1865 ppb | 14:37:04 |
| 3 | Ba 233.527† | 1266018.5 | 1233536.9 | 9680.0 ug/L | 9680.0 ppb | 14:36:39 |
| 3 | Be 313.107† | -3728.4 | 129.4 | 0.0485 ug/L | 0.0485 ppb | 14:36:44 |
| 3 | Cd 226.502† | -153.7 | 46.5 | 0.5336 ug/L | 0.5336 ppb | 14:37:04 |
| 3 | Co 228.616† | -277.3 | -203.6 | 0.3944 ug/L | 0.3944 ppb | 14:37:04 |
| 3 | Cr 267.716† | 106.7 | 26.3 | 0.3047 ug/L | 0.3047 ppb | 14:37:04 |
| 3 | Cu 324.752† | 6125.7 | -22.3 | -0.0572 ug/L | -0.0572 ppb | 14:36:44 |
| 3 | Mn 257.610† | 465.5 | -5.2 | -0.0014 ug/L | -0.0014 ppb | 14:37:04 |
| 3 | Mo 202.031† | 6.6 | -3.7 | -0.2735 ug/L | -0.2735 ppb | 14:37:04 |
| 3 | Ni 231.604† | 70.2 | 5.9 | 0.1529 ug/L | 0.1529 ppb | 14:37:04 |
| 3 | P 214.914† | 208.8 | -7.1 | -4.2655 ug/L | -4.2655 ppb | 14:37:04 |
| 3 | Pb 220.353† | -41.4 | 17.8 | 2.1849 ug/L | 2.1849 ppb | 14:37:04 |
| 3 | S 181.975 Axial† | 38.6 | -3.2 | -4.6504 ug/L | -4.6504 ppb | 14:37:04 |
| 3 | Sb 206.836† | 31.2 | -6.3 | -2.2044 ug/L | -2.2044 ppb | 14:37:04 |
| 3 | Se 196.026† | -19.9 | 8.4 | 5.5368 ug/L | 5.5368 ppb | 14:37:04 |
| 3 | Si 251.611† | 572.9 | -0.1 | -0.0003 ug/L | -0.0003 ppb | 14:37:04 |
| 3 | Sn 189.927† | 11.8 | 1.0 | 0.1836 ug/L | 0.1836 ppb | 14:37:04 |
| 3 | Ti 334.940† | -1436.3 | -25.4 | -0.0261 ug/L | -0.0261 ppb | 14:36:44 |
| 3 | Tl 190.801† | -40.2 | -6.6 | -2.0880 ug/L | -2.0880 ppb | 14:37:04 |
| 3 | U 409.014† | -3616.7 | -637.3 | -17.600 ug/L | -17.600 ppb | 14:36:39 |
| 3 | V 292.402† | -1445.9 | 96.9 | 0.6341 ug/L | 0.6341 ppb | 14:36:44 |
| 3 | Zn 213.857† | 640.2 | 17.8 | 0.1756 ug/L | 0.1756 ppb | 14:37:04 |
| 3 | SiO2† | 586.1 | 16.7 | 1.1660 ug/L | 1.1660 ppb | 14:37:20 |

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**Mean Data: LR2**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 901431.0 | 102.76 | % | 0.152 | | | | 0.15% |
| Sc Radial | 3850.4 | 98.3 | % | 0.46 | | | | 0.46% |
| Y 371.029 | 762175.5 | 100.84 | % | 0.290 | | | | 0.29% |
| Y RADIAL | 4331.5 | 98.20 | % | 1.390 | | | | 1.42% |
| Ag 328.068† | 6.4 | 0.0465 | ug/L | 0.07523 | 0.0465 | ppb | 0.07523 | 161.94% |
| Al 396.153Radial† | -12.4 | -11.642 | ug/L | 13.3074 | -11.642 | ppb | 13.3074 | 114.31% |
| As 188.979† | 5.1 | 2.2925 | ug/L | 2.72852 | 2.2925 | ppb | 2.72852 | 119.02% |
| B 249.677† | 164.7 | 4.0036 | ug/L | 0.18013 | 4.0036 | ppb | 0.18013 | 4.50% |
| Ba 233.527† | 1234109.0 | 9684.5 | ug/L | 17.19 | 9684.5 | ppb | 17.19 | 0.18% |
| Be 313.107† | 177.0 | 0.0663 | ug/L | 0.01607 | 0.0663 | ppb | 0.01607 | 24.23% |
| Ca 317.933Radial† | 2.3 | 4.8168 | ug/L | 5.36809 | 4.8168 | ppb | 5.36809 | 111.45% |
| Cd 226.502† | 37.9 | 0.4348 | ug/L | 0.08779 | 0.4348 | ppb | 0.08779 | 20.19% |
| Co 228.616† | -203.1 | 0.4078 | ug/L | 0.06035 | 0.4078 | ppb | 0.06035 | 14.80% |
| Cr 267.716† | 15.5 | 0.1818 | ug/L | 0.10938 | 0.1818 | ppb | 0.10938 | 60.15% |
| Cu 324.752† | -126.8 | -0.3761 | ug/L | 0.38102 | -0.3761 | ppb | 0.38102 | 101.32% |
| Fe 238.204 Radial† | 0.3 | 4.4561 | ug/L | 13.97703 | 4.4561 | ppb | 13.97703 | 313.66% |
| K 766.490 Radial† | 260.9 | 50.056 | ug/L | 23.9107 | 50.056 | ppb | 23.9107 | 47.77% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | -3.4 | -163.74 | ug/L | 80.383 | -163.74 | ppb | 80.383 49.09% |
| Mn 257.610† | -6.0 | 0.0003 | ug/L | 0.01395 | 0.0003 | ppb | 0.01395 >999.9% |
| Mo 202.031† | 0.4 | 0.0268 | ug/L | 0.26038 | 0.0268 | ppb | 0.26038 971.71% |
| Na 589.592 Radial† | 54.0 | 16.636 | ug/L | 5.0473 | 16.636 | ppb | 5.0473 30.34% |
| Ni 231.604† | 5.7 | 0.1472 | ug/L | 0.25546 | 0.1472 | ppb | 0.25546 173.58% |
| P 214.914† | -5.1 | -2.9957 | ug/L | 3.73127 | -2.9957 | ppb | 3.73127 124.56% |
| Pb 220.353† | 9.6 | 1.1811 | ug/L | 1.86330 | 1.1811 | ppb | 1.86330 157.76% |
| S 181.975 Axial† | -2.3 | -3.3548 | ug/L | 1.12297 | -3.3548 | ppb | 1.12297 33.47% |
| Sb 206.836† | -0.1 | -0.0322 | ug/L | 1.89244 | -0.0322 | ppb | 1.89244 >999.9% |
| Se 196.026† | 7.1 | 4.6402 | ug/L | 0.89196 | 4.6402 | ppb | 0.89196 19.22% |
| Si 251.611† | 6.9 | 0.2241 | ug/L | 0.75039 | 0.2241 | ppb | 0.75039 334.91% |
| Sn 189.927† | 3.5 | 0.6371 | ug/L | 0.39622 | 0.6371 | ppb | 0.39622 62.19% |
| Sr 421.552† | 8.1 | 0.0558 | ug/L | 0.09862 | 0.0558 | ppb | 0.09862 176.89% |
| Ti 334.940† | -52.6 | -0.0612 | ug/L | 0.08943 | -0.0612 | ppb | 0.08943 146.15% |
| Tl 190.801† | -3.5 | -1.1007 | ug/L | 1.37751 | -1.1007 | ppb | 1.37751 125.15% |
| U 409.014† | -622.2 | -17.183 | ug/L | 1.2262 | -17.183 | ppb | 1.2262 7.14% |
| V 292.402† | 50.6 | 0.3165 | ug/L | 0.33093 | 0.3165 | ppb | 0.33093 104.56% |
| Zn 213.857† | 6.8 | 0.0670 | ug/L | 0.09459 | 0.0670 | ppb | 0.09459 141.20% |
| SiO2† | 35.2 | 2.4458 | ug/L | 2.09207 | 2.4458 | ppb | 2.09207 85.54% |

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 14:39:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3813.6 | 3813.6 | 97.3 | % | | | 14:41:43 |
| 1 | Y RADIAL | 4271.0 | 4271.0 | 96.83 | % | | | 14:41:23 |
| 1 | Al 396.153Radial† | 5208.5 | 5464.7 | 5101.7 | ug/L | 5101.7 | ppb | 14:41:23 |
| 1 | Ca 317.933Radial† | 2425.6 | 2472.9 | 5169.5 | ug/L | 5169.5 | ppb | 14:41:43 |
| 1 | Fe 238.204 Radial† | 357.8 | 356.3 | 5044.2 | ug/L | 5044.2 | ppb | 14:41:43 |
| 1 | K 766.490 Radial† | 28527.0 | 26674.4 | 5112.3 | ug/L | 5112.3 | ppb | 14:41:23 |
| 1 | Mg 279.077 IEC† | 105.5 | 104.3 | 5058.9 | ug/L | 5058.9 | ppb | 14:41:43 |
| 1 | Na 589.592 Radial† | 31800.0 | 33497.1 | 10328 | ug/L | 10328 | ppb | 14:41:23 |
| 1 | Sr 421.552† | 71096.1 | 73021.8 | 505.24 | ug/L | 505.24 | ppb | 14:41:23 |
| 1 | Sc 361.383 | 897318.0 | 897318.0 | 102.29 | % | | | 14:42:40 |
| 1 | Y 371.029 | 748412.4 | 748412.4 | 99.017 | % | | | 14:42:40 |
| 1 | Ag 328.068† | 107466.1 | 104820.0 | 488.68 | ug/L | 488.68 | ppb | 14:42:45 |
| 1 | As 188.979† | 1091.7 | 1085.5 | 488.93 | ug/L | 488.93 | ppb | 14:43:05 |
| 1 | B 249.677† | 19987.5 | 19938.3 | 481.19 | ug/L | 481.19 | ppb | 14:42:45 |
| 1 | Ba 233.527† | 63683.8 | 62259.6 | 489.80 | ug/L | 489.80 | ppb | 14:42:45 |
| 1 | Be 313.107† | 1334439.9 | 1308330.1 | 492.77 | ug/L | 492.77 | ppb | 14:42:40 |
| 1 | Cd 226.502† | 43040.7 | 42273.4 | 489.41 | ug/L | 489.41 | ppb | 14:42:45 |
| 1 | Co 228.616† | 23858.7 | 23391.2 | 490.07 | ug/L | 490.07 | ppb | 14:42:45 |
| 1 | Cr 267.716† | 44493.9 | 43420.2 | 488.40 | ug/L | 488.40 | ppb | 14:42:45 |
| 1 | Cu 324.752† | 168486.9 | 158724.5 | 483.01 | ug/L | 483.01 | ppb | 14:42:45 |
| 1 | Mn 257.610† | 443160.9 | 432781.8 | 492.77 | ug/L | 492.77 | ppb | 14:42:40 |
| 1 | Mo 202.031† | 6762.2 | 6600.7 | 485.05 | ug/L | 485.05 | ppb | 14:43:05 |
| 1 | Ni 231.604† | 19832.5 | 19326.1 | 491.23 | ug/L | 491.23 | ppb | 14:42:45 |
| 1 | P 214.914† | 4313.8 | 4006.8 | 2317.9 | ug/L | 2317.9 | ppb | 14:43:05 |
| 1 | Pb 220.353† | 4001.0 | 3969.5 | 489.73 | ug/L | 489.73 | ppb | 14:43:05 |
| 1 | S 181.975 Axial† | 741.7 | 684.3 | 983.78 | ug/L | 983.78 | ppb | 14:43:05 |
| 1 | Sb 206.836† | 1426.6 | 1358.0 | 492.08 | ug/L | 492.08 | ppb | 14:43:05 |
| 1 | Se 196.026† | 730.5 | 741.9 | 503.19 | ug/L | 503.19 | ppb | 14:43:05 |
| 1 | Si 251.611† | 77333.7 | 75044.2 | 2422.4 | ug/L | 2422.4 | ppb | 14:42:45 |
| 1 | Sn 189.927† | 2752.7 | 2680.6 | 481.60 | ug/L | 481.60 | ppb | 14:43:05 |
| 1 | Ti 334.940† | 313933.6 | 308280.1 | 484.32 | ug/L | 484.32 | ppb | 14:42:45 |
| 1 | Tl 190.801† | 1524.2 | 1522.7 | 490.16 | ug/L | 490.16 | ppb | 14:43:05 |
| 1 | U 409.014† | 14843.8 | 17398.1 | 478.77 | ug/L | 478.77 | ppb | 14:42:45 |
| 1 | V 292.402† | 69782.5 | 69726.1 | 492.63 | ug/L | 492.63 | ppb | 14:42:45 |
| 1 | Zn 213.857† | 50248.6 | 48517.7 | 483.86 | ug/L | 483.86 | ppb | 14:42:45 |
| 1 | SiO2† | 76980.2 | 74702.6 | 5178.3 | ug/L | 5178.3 | ppb | 14:44:13 |
| 2 | Sc Radial | 3801.6 | 3801.6 | 97.0 | % | | | 14:42:08 |
| 2 | Y RADIAL | 4267.4 | 4267.4 | 96.75 | % | | | 14:41:48 |
| 2 | Al 396.153Radial† | 5185.3 | 5457.6 | 5094.9 | ug/L | 5094.9 | ppb | 14:41:48 |
| 2 | Ca 317.933Radial† | 2420.4 | 2475.3 | 5174.7 | ug/L | 5174.7 | ppb | 14:42:08 |
| 2 | Fe 238.204 Radial† | 356.8 | 356.5 | 5046.7 | ug/L | 5046.7 | ppb | 14:42:08 |
| 2 | K 766.490 Radial† | 28525.8 | 26765.4 | 5129.8 | ug/L | 5129.8 | ppb | 14:41:48 |
| 2 | Mg 279.077 IEC† | 110.3 | 109.6 | 5316.2 | ug/L | 5316.2 | ppb | 14:42:08 |
| 2 | Na 589.592 Radial† | 31683.7 | 33480.1 | 10323 | ug/L | 10323 | ppb | 14:41:48 |
| 2 | Sr 421.552† | 70922.6 | 73072.9 | 505.59 | ug/L | 505.59 | ppb | 14:41:48 |
| 2 | Sc 361.383 | 897850.4 | 897850.4 | 102.35 | % | | | 14:43:11 |
| 2 | Y 371.029 | 747514.0 | 747514.0 | 98.898 | % | | | 14:43:11 |
| 2 | Ag 328.068† | 107690.3 | 104976.8 | 489.40 | ug/L | 489.40 | ppb | 14:43:16 |
| 2 | As 188.979† | 1097.8 | 1090.8 | 491.30 | ug/L | 491.30 | ppb | 14:43:36 |
| 2 | B 249.677† | 20055.8 | 19993.5 | 482.52 | ug/L | 482.52 | ppb | 14:43:16 |
| 2 | Ba 233.527† | 63750.8 | 62288.1 | 490.02 | ug/L | 490.02 | ppb | 14:43:16 |
| 2 | Be 313.107† | 1336788.7 | 1309851.4 | 493.34 | ug/L | 493.34 | ppb | 14:43:11 |
| 2 | Cd 226.502† | 43138.2 | 42343.8 | 490.22 | ug/L | 490.22 | ppb | 14:43:16 |
| 2 | Co 228.616† | 23940.2 | 23456.9 | 491.45 | ug/L | 491.45 | ppb | 14:43:16 |
| 2 | Cr 267.716† | 44587.4 | 43485.8 | 489.14 | ug/L | 489.14 | ppb | 14:43:16 |
| 2 | Cu 324.752† | 168542.3 | 158681.0 | 482.88 | ug/L | 482.88 | ppb | 14:43:16 |
| 2 | Mn 257.610† | 444660.3 | 433989.9 | 494.13 | ug/L | 494.13 | ppb | 14:43:11 |
| 2 | Mo 202.031† | 6792.1 | 6626.0 | 486.91 | ug/L | 486.91 | ppb | 14:43:36 |
| 2 | Ni 231.604† | 19773.0 | 19256.4 | 489.45 | ug/L | 489.45 | ppb | 14:43:16 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4360.6 | 4049.9 | 2343.9 ug/L | 2343.9 ppb | 14:43:36 |
| 2 | Pb 220.353† | 4021.3 | 3987.1 | 491.89 ug/L | 491.89 ppb | 14:43:36 |
| 2 | S 181.975 Axial† | 742.4 | 684.6 | 984.14 ug/L | 984.14 ppb | 14:43:36 |
| 2 | Sb 206.836† | 1453.3 | 1383.2 | 501.03 ug/L | 501.03 ppb | 14:43:36 |
| 2 | Se 196.026† | 748.6 | 759.2 | 514.51 ug/L | 514.51 ppb | 14:43:36 |
| 2 | Si 251.611† | 77481.0 | 75143.4 | 2425.6 ug/L | 2425.6 ppb | 14:43:16 |
| 2 | Sn 189.927† | 2795.1 | 2720.4 | 488.75 ug/L | 488.75 ppb | 14:43:36 |
| 2 | Ti 334.940† | 313873.3 | 308039.3 | 483.92 ug/L | 483.92 ppb | 14:43:16 |
| 2 | Tl 190.801† | 1531.9 | 1529.3 | 492.26 ug/L | 492.26 ppb | 14:43:36 |
| 2 | U 409.014† | 14953.9 | 17497.1 | 481.50 ug/L | 481.50 ppb | 14:43:16 |
| 2 | V 292.402† | 69592.1 | 69499.6 | 491.09 ug/L | 491.09 ppb | 14:43:16 |
| 2 | Zn 213.857† | 50418.8 | 48654.8 | 485.25 ug/L | 485.25 ppb | 14:43:16 |
| 2 | SiO2† | 76690.2 | 74374.6 | 5155.5 ug/L | 5155.5 ppb | 14:44:18 |
| 3 | Sc Radial | 3795.4 | 3795.4 | 96.9 % | | 14:42:33 |
| 3 | Y RADIAL | 4265.4 | 4265.4 | 96.70 % | | 14:42:13 |
| 3 | Al 396.153Radial† | 5173.9 | 5454.6 | 5092.0 ug/L | 5092.0 ppb | 14:42:13 |
| 3 | Ca 317.933Radial† | 2424.4 | 2483.5 | 5191.9 ug/L | 5191.9 ppb | 14:42:33 |
| 3 | Fe 238.204 Radial† | 355.3 | 355.5 | 5032.9 ug/L | 5032.9 ppb | 14:42:33 |
| 3 | K 766.490 Radial† | 28354.5 | 26637.0 | 5105.1 ug/L | 5105.1 ppb | 14:42:13 |
| 3 | Mg 279.077 IEC† | 105.9 | 105.2 | 5102.2 ug/L | 5102.2 ppb | 14:42:33 |
| 3 | Na 589.592 Radial† | 31397.3 | 33238.1 | 10248 ug/L | 10248 ppb | 14:42:13 |
| 3 | Sr 421.552† | 70498.2 | 72755.1 | 503.39 ug/L | 503.39 ppb | 14:42:13 |
| 3 | Sc 361.383 | 888451.7 | 888451.7 | 101.28 % | | 14:43:42 |
| 3 | Y 371.029 | 740912.2 | 740912.2 | 98.024 % | | 14:43:42 |
| 3 | Ag 328.068† | 107485.0 | 105887.1 | 493.63 ug/L | 493.63 ppb | 14:43:47 |
| 3 | As 188.979† | 1102.4 | 1106.8 | 498.45 ug/L | 498.45 ppb | 14:44:08 |
| 3 | B 249.677† | 19977.4 | 20123.3 | 485.67 ug/L | 485.67 ppb | 14:43:47 |
| 3 | Ba 233.527† | 63409.9 | 62610.5 | 492.56 ug/L | 492.56 ppb | 14:43:47 |
| 3 | Be 313.107† | 1315040.4 | 1302194.5 | 490.47 ug/L | 490.47 ppb | 14:43:42 |
| 3 | Cd 226.502† | 42954.6 | 42608.4 | 493.29 ug/L | 493.29 ppb | 14:43:47 |
| 3 | Co 228.616† | 23716.2 | 23483.3 | 492.00 ug/L | 492.00 ppb | 14:43:47 |
| 3 | Cr 267.716† | 44432.6 | 43793.8 | 492.60 ug/L | 492.60 ppb | 14:43:47 |
| 3 | Cu 324.752† | 168005.5 | 159892.9 | 486.57 ug/L | 486.57 ppb | 14:43:47 |
| 3 | Mn 257.610† | 438325.3 | 432330.8 | 492.25 ug/L | 492.25 ppb | 14:43:42 |
| 3 | Mo 202.031† | 6776.8 | 6681.1 | 490.95 ug/L | 490.95 ppb | 14:44:08 |
| 3 | Ni 231.604† | 19707.0 | 19395.7 | 492.99 ug/L | 492.99 ppb | 14:43:47 |
| 3 | P 214.914† | 4353.0 | 4087.5 | 2365.8 ug/L | 2365.8 ppb | 14:44:08 |
| 3 | Pb 220.353† | 3999.9 | 4007.5 | 494.41 ug/L | 494.41 ppb | 14:44:08 |
| 3 | S 181.975 Axial† | 736.1 | 686.0 | 986.27 ug/L | 986.27 ppb | 14:44:08 |
| 3 | Sb 206.836† | 1447.1 | 1392.1 | 504.21 ug/L | 504.21 ppb | 14:44:08 |
| 3 | Se 196.026† | 740.1 | 758.5 | 514.01 ug/L | 514.01 ppb | 14:44:08 |
| 3 | Si 251.611† | 77186.3 | 75653.2 | 2442.0 ug/L | 2442.0 ppb | 14:43:47 |
| 3 | Sn 189.927† | 2764.6 | 2719.2 | 488.52 ug/L | 488.52 ppb | 14:44:08 |
| 3 | Ti 334.940† | 313106.9 | 310526.6 | 487.85 ug/L | 487.85 ppb | 14:43:47 |
| 3 | Tl 190.801† | 1532.7 | 1545.9 | 497.60 ug/L | 497.60 ppb | 14:44:08 |
| 3 | U 409.014† | 14747.7 | 17448.0 | 480.14 ug/L | 480.14 ppb | 14:43:47 |
| 3 | V 292.402† | 69442.5 | 70071.2 | 495.12 ug/L | 495.12 ppb | 14:43:47 |
| 3 | Zn 213.857† | 50140.7 | 48901.4 | 487.71 ug/L | 487.71 ppb | 14:43:47 |
| 3 | SiO2† | 76994.2 | 75467.4 | 5231.3 ug/L | 5231.3 ppb | 14:44:23 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 894540.0 | 101.97 | % | 0.602 | | | | 0.59% |
| Sc Radial | 3803.5 | 97.1 | % | 0.24 | | | | 0.24% |
| Y 371.029 | 745612.9 | 98.646 | % | 0.5419 | | | | 0.55% |
| Y RADIAL | 4267.9 | 96.76 | % | 0.065 | | | | 0.07% |
| Ag 328.068† | 105228.0 | 490.57 | ug/L | 2.674 | 490.57 | ppb | 2.674 | 0.55% |
| QC value within limits for Ag 328.068 Recovery = 98.11% | | | | | | | | |
| Al 396.153Radial† | 5458.9 | 5096.2 | ug/L | 4.98 | 5096.2 | ppb | 4.98 | 0.10% |
| QC value within limits for Al 396.153Radial Recovery = 101.92% | | | | | | | | |
| As 188.979† | 1094.3 | 492.89 | ug/L | 4.955 | 492.89 | ppb | 4.955 | 1.01% |
| QC value within limits for As 188.979 Recovery = 98.58% | | | | | | | | |
| B 249.677† | 20018.4 | 483.13 | ug/L | 2.301 | 483.13 | ppb | 2.301 | 0.48% |
| QC value within limits for B 249.677 Recovery = 96.63% | | | | | | | | |
| Ba 233.527† | 62386.1 | 490.79 | ug/L | 1.533 | 490.79 | ppb | 1.533 | 0.31% |
| QC value within limits for Ba 233.527 Recovery = 98.16% | | | | | | | | |
| Be 313.107† | 1306792.0 | 492.19 | ug/L | 1.518 | 492.19 | ppb | 1.518 | 0.31% |
| QC value within limits for Be 313.107 Recovery = 98.44% | | | | | | | | |
| Ca 317.933Radial† | 2477.2 | 5178.7 | ug/L | 11.69 | 5178.7 | ppb | 11.69 | 0.23% |

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   QC value within limits for Ca 317.933Radial  Recovery = 103.57%
Cd 226.502†            42408.6      490.97 ug/L         2.047      490.97 ppb          2.047   0.42%
   QC value within limits for Cd 226.502  Recovery = 98.19%
Co 228.616†            23443.8      491.18 ug/L         0.997      491.18 ppb          0.997   0.20%
   QC value within limits for Co 228.616  Recovery = 98.24%
Cr 267.716†            43566.6      490.05 ug/L         2.241      490.05 ppb          2.241   0.46%
   QC value within limits for Cr 267.716  Recovery = 98.01%
Cu 324.752†           159099.5      484.15 ug/L         2.092      484.15 ppb          2.092   0.43%
   QC value within limits for Cu 324.752  Recovery = 96.83%
Fe 238.204 Radial†       356.1      5041.3 ug/L          7.36      5041.3 ppb           7.36   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      26692.3      5115.7 ug/L         12.67      5115.7 ppb          12.67   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 102.31%
Mg 279.077 IEC†          106.4      5159.1 ug/L        137.75      5159.1 ppb         137.75   2.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.18%
Mn 257.610†           433034.1      493.05 ug/L         0.972      493.05 ppb          0.972   0.20%
   QC value within limits for Mn 257.610  Recovery = 98.61%
Mo 202.031†             6635.9      487.64 ug/L         3.017      487.64 ppb          3.017   0.62%
   QC value within limits for Mo 202.031  Recovery = 97.53%
Na 589.592 Radial†     33405.1       10300 ug/L          44.7       10300 ppb           44.7   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 103.00%
Ni 231.604†            19326.1      491.22 ug/L         1.771      491.22 ppb          1.771   0.36%
   QC value within limits for Ni 231.604  Recovery = 98.24%
P 214.914†              4048.1      2342.5 ug/L         24.01      2342.5 ppb          24.01   1.03%
   QC value within limits for P 214.914  Recovery = 93.70%
Pb 220.353†             3988.0      492.01 ug/L         2.345      492.01 ppb          2.345   0.48%
   QC value within limits for Pb 220.353  Recovery = 98.40%
S 181.975 Axial†         685.0      984.73 ug/L         1.346      984.73 ppb          1.346   0.14%
   QC value within limits for S 181.975 Axial  Recovery = 98.47%
Sb 206.836†             1377.8      499.10 ug/L         6.292      499.10 ppb          6.292   1.26%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†              753.2      510.57 ug/L         6.397      510.57 ppb          6.397   1.25%
   QC value within limits for Se 196.026  Recovery = 102.11%
Si 251.611†            75280.3      2430.0 ug/L         10.54      2430.0 ppb          10.54   0.43%
   QC value within limits for Si 251.611  Recovery = 97.20%
Sn 189.927†             2706.7      486.29 ug/L         4.066      486.29 ppb          4.066   0.84%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†            72949.9      504.74 ug/L         1.181      504.74 ppb          1.181   0.23%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†           308948.7      485.37 ug/L         2.161      485.37 ppb          2.161   0.45%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†             1532.6      493.34 ug/L         3.838      493.34 ppb          3.838   0.78%
   QC value within limits for Tl 190.801  Recovery = 98.67%
U 409.014†             17447.7      480.13 ug/L         1.366      480.13 ppb          1.366   0.28%
   QC value within limits for U 409.014  Recovery = 96.03%
V 292.402†             69765.6      492.95 ug/L         2.035      492.95 ppb          2.035   0.41%
   QC value within limits for V 292.402  Recovery = 98.59%
Zn 213.857†            48691.3      485.61 ug/L         1.948      485.61 ppb          1.948   0.40%
   QC value within limits for Zn 213.857  Recovery = 97.12%
SiO2†                  74848.2      5188.3 ug/L         38.90      5188.3 ppb          38.90   0.75%
   QC value within limits for SiO2  Recovery = 97.02%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 14:46:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3682.8 | 3682.8 | 94.0 | % | | | 14:48:46 |
| 1 | Y RADIAL | 4067.2 | 4067.2 | 92.21 | % | | | 14:48:26 |
| 1 | Al 396.153Radial† | -98.8 | 7.2 | 6.7744 | ug/L | 6.7744 | ppb | 14:48:26 |
| 1 | Ca 317.933Radial† | 16.7 | -1.9 | -3.9722 | ug/L | -3.9722 | ppb | 14:48:46 |
| 1 | Fe 238.204 Radial† | 9.7 | -1.0 | -14.139 | ug/L | -14.139 | ppb | 14:48:46 |
| 1 | K 766.490 Radial† | 2748.3 | 284.9 | 54.664 | ug/L | 54.664 | ppb | 14:48:26 |
| 1 | Mg 279.077 IEC† | 2.9 | -1.0 | -49.993 | ug/L | -49.993 | ppb | 14:48:46 |
| 1 | Na 589.592 Radial† | -718.7 | 55.0 | 16.959 | ug/L | 16.959 | ppb | 14:48:26 |
| 1 | Sr 421.552† | 41.3 | 8.2 | 0.0570 | ug/L | 0.0570 | ppb | 14:48:26 |
| 1 | Sc 361.383 | 895247.1 | 895247.1 | 102.05 | % | | | 14:49:43 |
| 1 | Y 371.029 | 758562.0 | 758562.0 | 100.36 | % | | | 14:49:43 |
| 1 | Ag 328.068† | 198.4 | -46.0 | -0.2156 | ug/L | -0.2156 | ppb | 14:49:43 |
| 1 | As 188.979† | -17.6 | 1.0 | 0.4478 | ug/L | 0.4478 | ppb | 14:50:03 |
| 1 | B 249.677† | -209.5 | 193.0 | 4.6808 | ug/L | 4.6808 | ppb | 14:50:03 |
| 1 | Ba 233.527† | 29.4 | 30.2 | 0.2380 | ug/L | 0.2380 | ppb | 14:50:03 |
| 1 | Be 313.107† | -3586.5 | 247.9 | 0.0933 | ug/L | 0.0933 | ppb | 14:49:43 |
| 1 | Cd 226.502† | -179.4 | 20.5 | 0.2394 | ug/L | 0.2394 | ppb | 14:50:03 |
| 1 | Co 228.616† | -64.7 | 3.1 | 0.0665 | ug/L | 0.0665 | ppb | 14:50:03 |
| 1 | Cr 267.716† | 73.5 | -5.7 | -0.0646 | ug/L | -0.0646 | ppb | 14:50:03 |
| 1 | Cu 324.752† | 5986.4 | -124.8 | -0.3813 | ug/L | -0.3813 | ppb | 14:49:43 |
| 1 | Mn 257.610† | 448.7 | -19.1 | -0.0211 | ug/L | -0.0211 | ppb | 14:50:03 |
| 1 | Mo 202.031† | 16.9 | 6.4 | 0.4684 | ug/L | 0.4684 | ppb | 14:50:03 |
| 1 | Ni 231.604† | 74.2 | 10.2 | 0.2604 | ug/L | 0.2604 | ppb | 14:50:03 |
| 1 | P 214.914† | 206.4 | -8.3 | -4.8584 | ug/L | -4.8584 | ppb | 14:50:03 |
| 1 | Pb 220.353† | -61.6 | -2.3 | -0.2752 | ug/L | -0.2752 | ppb | 14:50:03 |
| 1 | S 181.975 Axial† | 35.4 | -6.1 | -8.8491 | ug/L | -8.8491 | ppb | 14:50:03 |
| 1 | Sb 206.836† | 42.3 | 4.7 | 1.6931 | ug/L | 1.6931 | ppb | 14:50:03 |
| 1 | Se 196.026† | -28.5 | -0.2 | -0.1591 | ug/L | -0.1591 | ppb | 14:50:03 |
| 1 | Si 251.611† | 578.2 | 8.3 | 0.2613 | ug/L | 0.2613 | ppb | 14:50:03 |
| 1 | Sn 189.927† | 23.4 | 12.5 | 2.2394 | ug/L | 2.2394 | ppb | 14:50:03 |
| 1 | Ti 334.940† | -1358.1 | 43.3 | 0.0710 | ug/L | 0.0710 | ppb | 14:49:43 |
| 1 | Tl 190.801† | -31.9 | 1.4 | 0.4307 | ug/L | 0.4307 | ppb | 14:50:03 |
| 1 | U 409.014† | -2900.2 | 44.8 | 1.2389 | ug/L | 1.2389 | ppb | 14:49:43 |
| 1 | V 292.402† | -1430.6 | 103.9 | 0.7346 | ug/L | 0.7346 | ppb | 14:49:43 |
| 1 | Zn 213.857† | 661.7 | 42.3 | 0.4268 | ug/L | 0.4268 | ppb | 14:50:03 |
| 1 | SiO2† | 627.2 | 60.2 | 4.1714 | ug/L | 4.1714 | ppb | 14:50:59 |
| 2 | Sc Radial | 3902.0 | 3902.0 | 99.6 | % | | | 14:49:11 |
| 2 | Y RADIAL | 4377.1 | 4377.1 | 99.24 | % | | | 14:48:51 |
| 2 | Al 396.153Radial† | -126.9 | -15.0 | -14.101 | ug/L | -14.101 | ppb | 14:48:51 |
| 2 | Ca 317.933Radial† | 21.8 | 2.2 | 4.5475 | ug/L | 4.5475 | ppb | 14:49:11 |
| 2 | Fe 238.204 Radial† | 12.5 | 1.2 | 16.803 | ug/L | 16.803 | ppb | 14:49:11 |
| 2 | K 766.490 Radial† | 2756.1 | 128.4 | 24.634 | ug/L | 24.634 | ppb | 14:48:51 |
| 2 | Mg 279.077 IEC† | 0.6 | -3.5 | -168.77 | ug/L | -168.77 | ppb | 14:49:11 |
| 2 | Na 589.592 Radial† | -774.7 | 41.8 | 12.877 | ug/L | 12.877 | ppb | 14:48:51 |
| 2 | Sr 421.552† | 25.9 | -9.8 | -0.0676 | ug/L | -0.0676 | ppb | 14:48:51 |
| 2 | Sc 361.383 | 889931.0 | 889931.0 | 101.45 | % | | | 14:50:08 |
| 2 | Y 371.029 | 753903.0 | 753903.0 | 99.743 | % | | | 14:50:08 |
| 2 | Ag 328.068† | 289.7 | 45.2 | 0.2204 | ug/L | 0.2204 | ppb | 14:50:08 |
| 2 | As 188.979† | -23.1 | -4.5 | -1.9988 | ug/L | -1.9988 | ppb | 14:50:28 |
| 2 | B 249.677† | -228.0 | 173.5 | 4.2030 | ug/L | 4.2030 | ppb | 14:50:28 |
| 2 | Ba 233.527† | 32.9 | 33.8 | 0.2675 | ug/L | 0.2675 | ppb | 14:50:28 |
| 2 | Be 313.107† | -3670.0 | 144.6 | 0.0540 | ug/L | 0.0540 | ppb | 14:50:08 |
| 2 | Cd 226.502† | -167.9 | 30.8 | 0.3542 | ug/L | 0.3542 | ppb | 14:50:28 |
| 2 | Co 228.616† | -62.3 | 5.1 | 0.1074 | ug/L | 0.1074 | ppb | 14:50:28 |
| 2 | Cr 267.716† | 74.3 | -4.4 | -0.0454 | ug/L | -0.0454 | ppb | 14:50:28 |
| 2 | Cu 324.752† | 6105.8 | 27.9 | 0.0878 | ug/L | 0.0878 | ppb | 14:50:08 |
| 2 | Mn 257.610† | 444.9 | -20.2 | -0.0144 | ug/L | -0.0144 | ppb | 14:50:28 |
| 2 | Mo 202.031† | 13.3 | 3.0 | 0.2214 | ug/L | 0.2214 | ppb | 14:50:28 |
| 2 | Ni 231.604† | 57.9 | -5.4 | -0.1370 | ug/L | -0.1370 | ppb | 14:50:28 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 197.6 | -15.7 | -9.4878 ug/L | -9.4878 ppb | 14:50:28 |
| 2 | Pb 220.353† | -48.9 | 9.9 | 1.2151 ug/L | 1.2151 ppb | 14:50:28 |
| 2 | S 181.975 Axial† | 37.6 | -3.7 | -5.3510 ug/L | -5.3510 ppb | 14:50:28 |
| 2 | Sb 206.836† | 48.0 | 10.6 | 3.7416 ug/L | 3.7416 ppb | 14:50:28 |
| 2 | Se 196.026† | -21.0 | 7.1 | 4.6764 ug/L | 4.6764 ppb | 14:50:28 |
| 2 | Si 251.611† | 586.1 | 19.4 | 0.6263 ug/L | 0.6263 ppb | 14:50:28 |
| 2 | Sn 189.927† | 25.9 | 15.0 | 2.6994 ug/L | 2.6994 ppb | 14:50:28 |
| 2 | Ti 334.940† | -1498.5 | -103.0 | -0.1459 ug/L | -0.1459 ppb | 14:50:08 |
| 2 | Tl 190.801† | -35.5 | -2.4 | -0.7751 ug/L | -0.7751 ppb | 14:50:28 |
| 2 | U 409.014† | -3065.5 | -135.2 | -3.7348 ug/L | -3.7348 ppb | 14:50:08 |
| 2 | V 292.402† | -1421.2 | 104.7 | 0.7206 ug/L | 0.7206 ppb | 14:50:08 |
| 2 | Zn 213.857† | 662.5 | 47.0 | 0.4714 ug/L | 0.4714 ppb | 14:50:28 |
| 2 | SiO2† | 619.8 | 56.5 | 3.9239 ug/L | 3.9239 ppb | 14:51:04 |
| 3 | Sc Radial | 3896.8 | 3896.8 | 99.4 % | | 14:49:36 |
| 3 | Y RADIAL | 4548.4 | 4548.4 | 103.1 % | | 14:49:16 |
| 3 | Al 396.153Radial† | -99.8 | 12.1 | 11.328 ug/L | 11.328 ppb | 14:49:16 |
| 3 | Ca 317.933Radial† | 19.9 | 0.4 | 0.7604 ug/L | 0.7604 ppb | 14:49:36 |
| 3 | Fe 238.204 Radial† | 10.7 | -0.6 | -8.1655 ug/L | -8.1655 ppb | 14:49:36 |
| 3 | K 766.490 Radial† | 2738.7 | 114.5 | 21.975 ug/L | 21.975 ppb | 14:49:16 |
| 3 | Mg 279.077 IEC† | 4.7 | 0.7 | 32.689 ug/L | 32.689 ppb | 14:49:36 |
| 3 | Na 589.592 Radial† | -766.2 | 49.2 | 15.174 ug/L | 15.174 ppb | 14:49:16 |
| 3 | Sr 421.552† | 66.1 | 30.7 | 0.2127 ug/L | 0.2127 ppb | 14:49:16 |
| 3 | Sc 361.383 | 900462.2 | 900462.2 | 102.65 % | | 14:50:33 |
| 3 | Y 371.029 | 761741.5 | 761741.5 | 100.78 % | | 14:50:33 |
| 3 | Ag 328.068† | 290.7 | 42.8 | 0.1976 ug/L | 0.1976 ppb | 14:50:33 |
| 3 | As 188.979† | -23.4 | -4.5 | -2.0280 ug/L | -2.0280 ppb | 14:50:53 |
| 3 | B 249.677† | -241.7 | 162.7 | 3.9456 ug/L | 3.9456 ppb | 14:50:53 |
| 3 | Ba 233.527† | 33.7 | 34.2 | 0.2693 ug/L | 0.2693 ppb | 14:50:53 |
| 3 | Be 313.107† | -3760.7 | 98.5 | 0.0369 ug/L | 0.0369 ppb | 14:50:33 |
| 3 | Cd 226.502† | -173.8 | 27.0 | 0.3130 ug/L | 0.3130 ppb | 14:50:53 |
| 3 | Co 228.616† | -53.8 | 14.1 | 0.2956 ug/L | 0.2956 ppb | 14:50:53 |
| 3 | Cr 267.716† | 92.9 | 12.8 | 0.1433 ug/L | 0.1433 ppb | 14:50:53 |
| 3 | Cu 324.752† | 6036.2 | -110.3 | -0.3361 ug/L | -0.3361 ppb | 14:50:33 |
| 3 | Mn 257.610† | 439.1 | -30.9 | -0.0373 ug/L | -0.0373 ppb | 14:50:53 |
| 3 | Mo 202.031† | 9.9 | -0.5 | -0.0345 ug/L | -0.0345 ppb | 14:50:53 |
| 3 | Ni 231.604† | 63.2 | -0.9 | -0.0223 ug/L | -0.0223 ppb | 14:50:53 |
| 3 | P 214.914† | 200.8 | -14.9 | -8.8541 ug/L | -8.8541 ppb | 14:50:53 |
| 3 | Pb 220.353† | -56.3 | 3.2 | 0.4003 ug/L | 0.4003 ppb | 14:50:53 |
| 3 | S 181.975 Axial† | 38.4 | -3.4 | -4.9324 ug/L | -4.9324 ppb | 14:50:53 |
| 3 | Sb 206.836† | 50.0 | 12.0 | 4.2034 ug/L | 4.2034 ppb | 14:50:53 |
| 3 | Se 196.026† | -24.1 | 4.2 | 2.7418 ug/L | 2.7418 ppb | 14:50:53 |
| 3 | Si 251.611† | 568.1 | -4.9 | -0.1587 ug/L | -0.1587 ppb | 14:50:53 |
| 3 | Sn 189.927† | 16.6 | 5.6 | 1.0137 ug/L | 1.0137 ppb | 14:50:53 |
| 3 | Ti 334.940† | -1433.9 | -22.8 | -0.0384 ug/L | -0.0384 ppb | 14:50:33 |
| 3 | Tl 190.801† | -28.3 | 5.0 | 1.5859 ug/L | 1.5859 ppb | 14:50:53 |
| 3 | U 409.014† | -2971.3 | -8.1 | -0.2222 ug/L | -0.2222 ppb | 14:50:33 |
| 3 | V 292.402† | -1486.5 | 57.5 | 0.4017 ug/L | 0.4017 ppb | 14:50:33 |
| 3 | Zn 213.857† | 665.1 | 41.9 | 0.4237 ug/L | 0.4237 ppb | 14:50:53 |
| 3 | SiO2† | 602.1 | 32.2 | 2.2358 ug/L | 2.2358 ppb | 14:51:09 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 895213.4 | 102.05 | % | 0.600 | | | | 0.59% |
| Sc Radial | 3827.2 | 97.7 | % | 3.19 | | | | 3.27% |
| Y 371.029 | 758068.8 | 100.29 | % | 0.522 | | | | 0.52% |
| Y RADIAL | 4330.9 | 98.19 | % | 5.530 | | | | 5.63% |
| Ag 328.068† | 14.0 | 0.0675 | ug/L | 0.24541 | 0.0675 | ppb | 0.24541 | 363.82% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 1.4 | 1.3337 | ug/L | 13.55939 | 1.3337 | ppb | 13.55939 | >999.9% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -2.7 | -1.1930 | ug/L | 1.42102 | -1.1930 | ppb | 1.42102 | 119.11% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 176.4 | 4.2765 | ug/L | 0.37307 | 4.2765 | ppb | 0.37307 | 8.72% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 32.7 | 0.2583 | ug/L | 0.01757 | 0.2583 | ppb | 0.01757 | 6.80% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 163.6 | 0.0614 | ug/L | 0.02891 | 0.0614 | ppb | 0.02891 | 47.10% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 0.2 | 0.4452 | ug/L | 4.26860 | 0.4452 | ppb | 4.26860 | 958.76% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                26.1      0.3022 ug/L       0.05816      0.3022 ppb        0.05816  19.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.4      0.1565 ug/L       0.12221      0.1565 ppb        0.12221  78.10%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.9      0.0111 ug/L       0.11487      0.0111 ppb        0.11487 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.1     -0.2099 ug/L       0.25882     -0.2099 ppb        0.25882 123.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -1.8337 ug/L      16.41405     -1.8337 ppb       16.41405 895.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         175.9      33.758 ug/L       18.1542      33.758 ppb        18.1542  53.78%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.3     -62.024 ug/L      101.2660     -62.024 ppb       101.2660 163.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -23.4     -0.0243 ug/L       0.01179     -0.0243 ppb        0.01179  48.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.0      0.2184 ug/L       0.25146      0.2184 ppb        0.25146 115.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         48.7      15.003 ug/L        2.0464      15.003 ppb         2.0464  13.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.3      0.0337 ug/L       0.20455      0.0337 ppb        0.20455 606.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.9     -7.7335 ug/L       2.50992     -7.7335 ppb        2.50992  32.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.6      0.4468 ug/L       0.74623      0.4468 ppb        0.74623 167.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.4     -6.3775 ug/L       2.15070     -6.3775 ppb        2.15070  33.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.1      3.2127 ug/L       1.33610      3.2127 ppb        1.33610  41.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.7      2.4197 ug/L       2.43378      2.4197 ppb        2.43378 100.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 7.6      0.2430 ug/L       0.39286      0.2430 ppb        0.39286 161.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.1      1.9842 ug/L       0.87138      1.9842 ppb        0.87138  43.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.7      0.0674 ug/L       0.14043      0.0674 ppb        0.14043 208.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -27.5     -0.0377 ug/L       0.10845     -0.0377 ppb        0.10845 287.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.3      0.4138 ug/L       1.18060      0.4138 ppb        1.18060 285.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -32.8     -0.9060 ug/L       2.55637     -0.9060 ppb        2.55637 282.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 88.7      0.6190 ug/L       0.18828      0.6190 ppb        0.18828  30.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                43.7      0.4406 ug/L       0.02666      0.4406 ppb        0.02666   6.05%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      49.6      3.4437 ug/L       1.05336      3.4437 ppb        1.05336  30.59%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 16:03:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3841.1 | 3841.1 | 98.0 | % | | | 16:05:54 |
| 1 | Y RADIAL | 4330.5 | 4330.5 | 98.18 | % | | | 16:05:34 |
| 1 | Al 396.153Radial† | 5213.3 | 5431.1 | 5070.2 | ug/L | 5070.2 | ppb | 16:05:34 |
| 1 | Ca 317.933Radial† | 2445.7 | 2475.5 | 5175.1 | ug/L | 5175.1 | ppb | 16:05:54 |
| 1 | Fe 238.204 Radial† | 358.5 | 354.4 | 5017.6 | ug/L | 5017.6 | ppb | 16:05:54 |
| 1 | K 766.490 Radial† | 28720.2 | 26661.5 | 5109.8 | ug/L | 5109.8 | ppb | 16:05:34 |
| 1 | Mg 279.077 IEC† | 105.2 | 103.3 | 5007.4 | ug/L | 5007.4 | ppb | 16:05:54 |
| 1 | Na 589.592 Radial† | 32199.8 | 33670.9 | 10382 | ug/L | 10382 | ppb | 16:05:34 |
| 1 | Sr 421.552† | 71792.3 | 73208.6 | 506.53 | ug/L | 506.53 | ppb | 16:05:34 |
| 1 | Sc 361.383 | 902357.4 | 902357.4 | 102.86 | % | | | 16:06:51 |
| 1 | Y 371.029 | 751235.4 | 751235.4 | 99.390 | % | | | 16:06:51 |
| 1 | Ag 328.068† | 107390.8 | 104160.1 | 485.60 | ug/L | 485.60 | ppb | 16:06:56 |
| 1 | As 188.979† | 1088.0 | 1075.9 | 484.63 | ug/L | 484.63 | ppb | 16:07:16 |
| 1 | B 249.677† | 19507.4 | 19362.5 | 467.24 | ug/L | 467.24 | ppb | 16:06:56 |
| 1 | Ba 233.527† | 63509.9 | 61742.9 | 485.73 | ug/L | 485.73 | ppb | 16:06:56 |
| 1 | Be 313.107† | 1340459.0 | 1306896.0 | 492.22 | ug/L | 492.22 | ppb | 16:06:51 |
| 1 | Cd 226.502† | 42994.2 | 41993.3 | 486.16 | ug/L | 486.16 | ppb | 16:06:56 |
| 1 | Co 228.616† | 23824.9 | 23228.0 | 486.66 | ug/L | 486.66 | ppb | 16:06:56 |
| 1 | Cr 267.716† | 44373.9 | 43060.6 | 484.36 | ug/L | 484.36 | ppb | 16:06:56 |
| 1 | Cu 324.752† | 167995.8 | 157327.2 | 478.76 | ug/L | 478.76 | ppb | 16:06:56 |
| 1 | Mn 257.610† | 447043.3 | 434136.6 | 494.31 | ug/L | 494.31 | ppb | 16:06:51 |
| 1 | Mo 202.031† | 6800.2 | 6600.7 | 485.05 | ug/L | 485.05 | ppb | 16:07:16 |
| 1 | Ni 231.604† | 19731.3 | 19119.4 | 485.97 | ug/L | 485.97 | ppb | 16:06:56 |
| 1 | P 214.914† | 4336.4 | 4005.2 | 2317.8 | ug/L | 2317.8 | ppb | 16:07:16 |
| 1 | Pb 220.353† | 3989.6 | 3936.7 | 485.68 | ug/L | 485.68 | ppb | 16:07:16 |
| 1 | S 181.975 Axial† | 721.1 | 660.3 | 949.18 | ug/L | 949.18 | ppb | 16:07:16 |
| 1 | Sb 206.836† | 1439.3 | 1362.5 | 493.67 | ug/L | 493.67 | ppb | 16:07:16 |
| 1 | Se 196.026† | 733.5 | 740.9 | 502.41 | ug/L | 502.41 | ppb | 16:07:16 |
| 1 | Si 251.611† | 77075.7 | 74371.2 | 2400.6 | ug/L | 2400.6 | ppb | 16:06:56 |
| 1 | Sn 189.927† | 2771.5 | 2683.8 | 482.18 | ug/L | 482.18 | ppb | 16:07:16 |
| 1 | Ti 334.940† | 313695.9 | 306335.0 | 481.27 | ug/L | 481.27 | ppb | 16:06:56 |
| 1 | Tl 190.801† | 1512.6 | 1503.1 | 483.89 | ug/L | 483.89 | ppb | 16:07:16 |
| 1 | U 409.014† | 15037.1 | 17505.0 | 481.73 | ug/L | 481.73 | ppb | 16:06:56 |
| 1 | V 292.402† | 69513.5 | 69083.5 | 488.17 | ug/L | 488.17 | ppb | 16:06:56 |
| 1 | Zn 213.857† | 50103.7 | 48102.5 | 479.73 | ug/L | 479.73 | ppb | 16:06:56 |
| 1 | SiO2† | 77571.6 | 74857.2 | 5189.0 | ug/L | 5189.0 | ppb | 16:08:24 |
| 2 | Sc Radial | 3834.5 | 3834.5 | 97.8 | % | | | 16:06:19 |
| 2 | Y RADIAL | 4298.3 | 4298.3 | 97.45 | % | | | 16:05:59 |
| 2 | Al 396.153Radial† | 5173.1 | 5399.2 | 5040.4 | ug/L | 5040.4 | ppb | 16:05:59 |
| 2 | Ca 317.933Radial† | 2451.7 | 2485.9 | 5196.8 | ug/L | 5196.8 | ppb | 16:06:19 |
| 2 | Fe 238.204 Radial† | 364.8 | 361.5 | 5116.5 | ug/L | 5116.5 | ppb | 16:06:19 |
| 2 | K 766.490 Radial† | 28536.2 | 26523.8 | 5083.4 | ug/L | 5083.4 | ppb | 16:05:59 |
| 2 | Mg 279.077 IEC† | 105.5 | 103.7 | 5028.3 | ug/L | 5028.3 | ppb | 16:06:19 |
| 2 | Na 589.592 Radial† | 31734.1 | 33251.4 | 10252 | ug/L | 10252 | ppb | 16:05:59 |
| 2 | Sr 421.552† | 70979.7 | 72503.9 | 501.66 | ug/L | 501.66 | ppb | 16:05:59 |
| 2 | Sc 361.383 | 900895.4 | 900895.4 | 102.70 | % | | | 16:07:22 |
| 2 | Y 371.029 | 750805.6 | 750805.6 | 99.333 | % | | | 16:07:22 |
| 2 | Ag 328.068† | 107666.1 | 104597.6 | 487.66 | ug/L | 487.66 | ppb | 16:07:27 |
| 2 | As 188.979† | 1089.6 | 1079.2 | 486.15 | ug/L | 486.15 | ppb | 16:07:47 |
| 2 | B 249.677† | 19683.4 | 19564.6 | 472.13 | ug/L | 472.13 | ppb | 16:07:27 |
| 2 | Ba 233.527† | 63487.9 | 61821.7 | 486.35 | ug/L | 486.35 | ppb | 16:07:27 |
| 2 | Be 313.107† | 1336402.5 | 1305060.8 | 491.53 | ug/L | 491.53 | ppb | 16:07:22 |
| 2 | Cd 226.502† | 42944.5 | 42012.7 | 486.38 | ug/L | 486.38 | ppb | 16:07:27 |
| 2 | Co 228.616† | 23767.9 | 23210.1 | 486.27 | ug/L | 486.27 | ppb | 16:07:27 |
| 2 | Cr 267.716† | 44293.0 | 43051.9 | 484.27 | ug/L | 484.27 | ppb | 16:07:27 |
| 2 | Cu 324.752† | 168429.2 | 158014.2 | 480.85 | ug/L | 480.85 | ppb | 16:07:27 |
| 2 | Mn 257.610† | 444761.5 | 432620.0 | 492.59 | ug/L | 492.59 | ppb | 16:07:22 |
| 2 | Mo 202.031† | 6757.0 | 6569.4 | 482.76 | ug/L | 482.76 | ppb | 16:07:47 |
| 2 | Ni 231.604† | 19703.6 | 19123.5 | 486.08 | ug/L | 486.08 | ppb | 16:07:27 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4327.9 | 4003.7 | 2316.4 ug/L | 2316.4 ppb | 16:07:47 |
| 2 | Pb 220.353† | 3987.1 | 3940.5 | 486.13 ug/L | 486.13 ppb | 16:07:47 |
| 2 | S 181.975 Axial† | 730.7 | 670.7 | 964.20 ug/L | 964.20 ppb | 16:07:47 |
| 2 | Sb 206.836† | 1447.9 | 1373.1 | 497.31 ug/L | 497.31 ppb | 16:07:47 |
| 2 | Se 196.026† | 732.3 | 740.8 | 502.70 ug/L | 502.70 ppb | 16:07:47 |
| 2 | Si 251.611† | 77198.1 | 74612.0 | 2408.4 ug/L | 2408.4 ppb | 16:07:27 |
| 2 | Sn 189.927† | 2768.1 | 2684.9 | 482.38 ug/L | 482.38 ppb | 16:07:47 |
| 2 | Ti 334.940† | 313857.3 | 306987.1 | 482.30 ug/L | 482.30 ppb | 16:07:27 |
| 2 | Tl 190.801† | 1523.9 | 1516.4 | 488.15 ug/L | 488.15 ppb | 16:07:47 |
| 2 | U 409.014† | 14941.6 | 17435.7 | 479.81 ug/L | 479.81 ppb | 16:07:27 |
| 2 | V 292.402† | 69460.5 | 69141.6 | 488.52 ug/L | 488.52 ppb | 16:07:27 |
| 2 | Zn 213.857† | 49985.0 | 48066.0 | 479.34 ug/L | 479.34 ppb | 16:07:27 |
| 2 | SiO2† | 78536.4 | 75919.0 | 5262.9 ug/L | 5262.9 ppb | 16:08:29 |
| 3 | Sc Radial | 3779.8 | 3779.8 | 96.5 % | | 16:06:44 |
| 3 | Y RADIAL | 4247.4 | 4247.4 | 96.29 % | | 16:06:24 |
| 3 | Al 396.153Radial† | 5109.2 | 5409.5 | 5049.9 ug/L | 5049.9 ppb | 16:06:24 |
| 3 | Ca 317.933Radial† | 2420.0 | 2489.4 | 5204.0 ug/L | 5204.0 ppb | 16:06:44 |
| 3 | Fe 238.204 Radial† | 354.6 | 356.4 | 5044.7 ug/L | 5044.7 ppb | 16:06:44 |
| 3 | K 766.490 Radial† | 28088.4 | 26481.6 | 5075.3 ug/L | 5075.3 ppb | 16:06:24 |
| 3 | Mg 279.077 IEC† | 109.6 | 109.6 | 5313.2 ug/L | 5313.2 ppb | 16:06:44 |
| 3 | Na 589.592 Radial† | 31453.5 | 33429.9 | 10307 ug/L | 10307 ppb | 16:06:24 |
| 3 | Sr 421.552† | 70139.8 | 72683.3 | 502.90 ug/L | 502.90 ppb | 16:06:24 |
| 3 | Sc 361.383 | 897093.6 | 897093.6 | 102.26 % | | 16:07:53 |
| 3 | Y 371.029 | 748254.4 | 748254.4 | 98.996 % | | 16:07:53 |
| 3 | Ag 328.068† | 107614.9 | 104991.8 | 489.47 ug/L | 489.47 ppb | 16:07:58 |
| 3 | As 188.979† | 1084.3 | 1078.6 | 485.86 ug/L | 485.86 ppb | 16:08:18 |
| 3 | B 249.677† | 19676.2 | 19638.7 | 473.93 ug/L | 473.93 ppb | 16:07:58 |
| 3 | Ba 233.527† | 63449.4 | 62046.0 | 488.12 ug/L | 488.12 ppb | 16:07:58 |
| 3 | Be 313.107† | 1337824.5 | 1311966.1 | 494.13 ug/L | 494.13 ppb | 16:07:53 |
| 3 | Cd 226.502† | 42925.9 | 42171.7 | 488.23 ug/L | 488.23 ppb | 16:07:58 |
| 3 | Co 228.616† | 23790.7 | 23330.5 | 488.80 ug/L | 488.80 ppb | 16:07:58 |
| 3 | Cr 267.716† | 44526.3 | 43462.8 | 488.88 ug/L | 488.88 ppb | 16:07:58 |
| 3 | Cu 324.752† | 168129.0 | 158415.7 | 482.07 ug/L | 482.07 ppb | 16:07:58 |
| 3 | Mn 257.610† | 444244.4 | 433949.7 | 494.09 ug/L | 494.09 ppb | 16:07:53 |
| 3 | Mo 202.031† | 6755.4 | 6595.7 | 484.69 ug/L | 484.69 ppb | 16:08:18 |
| 3 | Ni 231.604† | 19698.0 | 19199.4 | 488.00 ug/L | 488.00 ppb | 16:07:58 |
| 3 | P 214.914† | 4341.5 | 4034.9 | 2335.0 ug/L | 2335.0 ppb | 16:08:18 |
| 3 | Pb 220.353† | 3982.6 | 3952.5 | 487.62 ug/L | 487.62 ppb | 16:08:18 |
| 3 | S 181.975 Axial† | 739.8 | 682.7 | 981.43 ug/L | 981.43 ppb | 16:08:18 |
| 3 | Sb 206.836† | 1439.1 | 1370.5 | 496.50 ug/L | 496.50 ppb | 16:08:18 |
| 3 | Se 196.026† | 737.3 | 748.7 | 507.62 ug/L | 507.62 ppb | 16:08:18 |
| 3 | Si 251.611† | 77059.1 | 74794.6 | 2414.3 ug/L | 2414.3 ppb | 16:07:58 |
| 3 | Sn 189.927† | 2772.3 | 2700.5 | 485.17 ug/L | 485.17 ppb | 16:08:18 |
| 3 | Ti 334.940† | 314103.5 | 308523.0 | 484.69 ug/L | 484.69 ppb | 16:07:58 |
| 3 | Tl 190.801† | 1518.4 | 1517.3 | 488.45 ug/L | 488.45 ppb | 16:08:18 |
| 3 | U 409.014† | 14995.9 | 17550.5 | 482.97 ug/L | 482.97 ppb | 16:07:58 |
| 3 | V 292.402† | 69613.4 | 69577.7 | 491.61 ug/L | 491.61 ppb | 16:07:58 |
| 3 | Zn 213.857† | 50031.8 | 48318.0 | 481.87 ug/L | 481.87 ppb | 16:07:58 |
| 3 | SiO2† | 77394.1 | 75126.1 | 5207.7 ug/L | 5207.7 ppb | 16:08:34 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 900115.5 | 102.61 | % | 0.310 | | | | 0.30% |
| Sc Radial | 3818.5 | 97.4 | % | 0.86 | | | | 0.88% |
| Y 371.029 | 750098.5 | 99.240 | % | 0.2132 | | | | 0.21% |
| Y RADIAL | 4292.0 | 97.31 | % | 0.950 | | | | 0.98% |
| Ag 328.068† | 104583.2 | 487.57 | ug/L | 1.938 | 487.57 | ppb | 1.938 | 0.40% |
| QC value within limits for Ag 328.068 Recovery = 97.51% | | | | | | | | |
| Al 396.153Radial† | 5413.3 | 5053.5 | ug/L | 15.26 | 5053.5 | ppb | 15.26 | 0.30% |
| QC value within limits for Al 396.153Radial Recovery = 101.07% | | | | | | | | |
| As 188.979† | 1077.9 | 485.55 | ug/L | 0.809 | 485.55 | ppb | 0.809 | 0.17% |
| QC value within limits for As 188.979 Recovery = 97.11% | | | | | | | | |
| B 249.677† | 19521.9 | 471.10 | ug/L | 3.460 | 471.10 | ppb | 3.460 | 0.73% |
| QC value within limits for B 249.677 Recovery = 94.22% | | | | | | | | |
| Ba 233.527† | 61870.2 | 486.73 | ug/L | 1.238 | 486.73 | ppb | 1.238 | 0.25% |
| QC value within limits for Ba 233.527 Recovery = 97.35% | | | | | | | | |
| Be 313.107† | 1307974.3 | 492.63 | ug/L | 1.348 | 492.63 | ppb | 1.348 | 0.27% |
| QC value within limits for Be 313.107 Recovery = 98.53% | | | | | | | | |
| Ca 317.933Radial† | 2483.6 | 5192.0 | ug/L | 15.06 | 5192.0 | ppb | 15.06 | 0.29% |

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   QC value within limits for Ca 317.933Radial  Recovery = 103.84%
Cd 226.502†            42059.2      486.92 ug/L         1.136      486.92 ppb          1.136   0.23%
   QC value within limits for Cd 226.502  Recovery = 97.38%
Co 228.616†            23256.2      487.24 ug/L         1.358      487.24 ppb          1.358   0.28%
   QC value within limits for Co 228.616  Recovery = 97.45%
Cr 267.716†            43191.8      485.84 ug/L         2.636      485.84 ppb          2.636   0.54%
   QC value within limits for Cr 267.716  Recovery = 97.17%
Cu 324.752†           157919.0      480.56 ug/L         1.676      480.56 ppb          1.676   0.35%
   QC value within limits for Cu 324.752  Recovery = 96.11%
Fe 238.204 Radial†       357.4      5059.6 ug/L        51.12      5059.6 ppb         51.12   1.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.19%
K 766.490 Radial†      26555.6      5089.5 ug/L        18.03      5089.5 ppb         18.03   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 101.79%
Mg 279.077 IEC†          105.5      5116.3 ug/L       170.84      5116.3 ppb        170.84   3.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.33%
Mn 257.610†           433568.7      493.67 ug/L         0.934      493.67 ppb          0.934   0.19%
   QC value within limits for Mn 257.610  Recovery = 98.73%
Mo 202.031†             6588.6      484.17 ug/L         1.232      484.17 ppb          1.232   0.25%
   QC value within limits for Mo 202.031  Recovery = 96.83%
Na 589.592 Radial†     33450.7       10314 ug/L        64.9        10314 ppb         64.9   0.63%
   QC value within limits for Na 589.592 Radial  Recovery = 103.14%
Ni 231.604†            19147.5      486.68 ug/L         1.145      486.68 ppb          1.145   0.24%
   QC value within limits for Ni 231.604  Recovery = 97.34%
P 214.914†              4014.6      2323.0 ug/L        10.39      2323.0 ppb         10.39   0.45%
   QC value within limits for P 214.914  Recovery = 92.92%
Pb 220.353†             3943.2      486.48 ug/L         1.014      486.48 ppb          1.014   0.21%
   QC value within limits for Pb 220.353  Recovery = 97.30%
S 181.975 Axial†         671.2      964.94 ug/L        16.136      964.94 ppb         16.136   1.67%
   QC value within limits for S 181.975 Axial  Recovery = 96.49%
Sb 206.836†             1368.7      495.83 ug/L         1.913      495.83 ppb          1.913   0.39%
   QC value within limits for Sb 206.836  Recovery = 99.17%
Se 196.026†              743.5      504.24 ug/L         2.923      504.24 ppb          2.923   0.58%
   QC value within limits for Se 196.026  Recovery = 100.85%
Si 251.611†            74592.6      2407.8 ug/L         6.88      2407.8 ppb          6.88   0.29%
   QC value within limits for Si 251.611  Recovery = 96.31%
Sn 189.927†             2689.7      483.24 ug/L         1.670      483.24 ppb          1.670   0.35%
   QC value within limits for Sn 189.927  Recovery = 96.65%
Sr 421.552†            72798.6      503.69 ug/L         2.534      503.69 ppb          2.534   0.50%
   QC value within limits for Sr 421.552  Recovery = 100.74%
Ti 334.940†           307281.7      482.75 ug/L         1.752      482.75 ppb          1.752   0.36%
   QC value within limits for Ti 334.940  Recovery = 96.55%
Tl 190.801†             1512.3      486.83 ug/L         2.549      486.83 ppb          2.549   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.37%
U 409.014†             17497.1      481.50 ug/L         1.596      481.50 ppb          1.596   0.33%
   QC value within limits for U 409.014  Recovery = 96.30%
V 292.402†             69267.6      489.43 ug/L         1.892      489.43 ppb          1.892   0.39%
   QC value within limits for V 292.402  Recovery = 97.89%
Zn 213.857†            48162.2      480.31 ug/L         1.365      480.31 ppb          1.365   0.28%
   QC value within limits for Zn 213.857  Recovery = 96.06%
SiO2†                  75300.8      5219.9 ug/L        38.40      5219.9 ppb         38.40   0.74%
   QC value within limits for SiO2  Recovery = 97.61%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 16:10:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3909.4 | 3909.4 | 99.8 | % | | | 16:12:57 |
| 1 | Y RADIAL | 4434.3 | 4434.3 | 100.5 | % | | | 16:12:37 |
| 1 | Al 396.153Radial† | -128.8 | -16.7 | -15.623 | ug/L | -15.623 | ppb | 16:12:37 |
| 1 | Ca 317.933Radial† | 17.3 | -2.3 | -4.8296 | ug/L | -4.8296 | ppb | 16:12:57 |
| 1 | Fe 238.204 Radial† | 8.7 | -2.6 | -37.022 | ug/L | -37.022 | ppb | 16:12:57 |
| 1 | K 766.490 Radial† | 2699.8 | 66.7 | 12.793 | ug/L | 12.793 | ppb | 16:12:37 |
| 1 | Mg 279.077 IEC† | 5.3 | 1.2 | 59.058 | ug/L | 59.058 | ppb | 16:12:57 |
| 1 | Na 589.592 Radial† | -721.7 | 96.3 | 29.691 | ug/L | 29.691 | ppb | 16:12:37 |
| 1 | Sr 421.552† | 49.5 | 13.9 | 0.0963 | ug/L | 0.0963 | ppb | 16:12:37 |
| 1 | Sc 361.383 | 888069.3 | 888069.3 | 101.24 | % | | | 16:13:54 |
| 1 | Y 371.029 | 752015.1 | 752015.1 | 99.493 | % | | | 16:13:54 |
| 1 | Ag 328.068† | 309.0 | 64.8 | 0.2892 | ug/L | 0.2892 | ppb | 16:13:54 |
| 1 | As 188.979† | -18.0 | 0.4 | 0.1817 | ug/L | 0.1817 | ppb | 16:14:14 |
| 1 | B 249.677† | -407.6 | -4.5 | -0.1026 | ug/L | -0.1026 | ppb | 16:14:14 |
| 1 | Ba 233.527† | 25.7 | 26.8 | 0.2091 | ug/L | 0.2091 | ppb | 16:14:14 |
| 1 | Be 313.107† | -3718.2 | 89.3 | 0.0334 | ug/L | 0.0334 | ppb | 16:13:54 |
| 1 | Cd 226.502† | -192.5 | 6.2 | 0.0751 | ug/L | 0.0751 | ppb | 16:14:14 |
| 1 | Co 228.616† | -55.1 | 12.1 | 0.2528 | ug/L | 0.2528 | ppb | 16:14:14 |
| 1 | Cr 267.716† | 65.5 | -13.0 | -0.1491 | ug/L | -0.1491 | ppb | 16:14:14 |
| 1 | Cu 324.752† | 5932.4 | -130.8 | -0.3995 | ug/L | -0.3995 | ppb | 16:13:54 |
| 1 | Mn 257.610† | 458.0 | -6.3 | -0.0133 | ug/L | -0.0133 | ppb | 16:14:14 |
| 1 | Mo 202.031† | 5.3 | -4.9 | -0.3632 | ug/L | -0.3632 | ppb | 16:14:14 |
| 1 | Ni 231.604† | 71.0 | 7.7 | 0.1951 | ug/L | 0.1951 | ppb | 16:14:14 |
| 1 | P 214.914† | 224.9 | 11.6 | 7.0984 | ug/L | 7.0984 | ppb | 16:14:14 |
| 1 | Pb 220.353† | -53.1 | 5.7 | 0.7017 | ug/L | 0.7017 | ppb | 16:14:14 |
| 1 | S 181.975 Axial† | 34.8 | -6.4 | -9.2214 | ug/L | -9.2214 | ppb | 16:14:14 |
| 1 | Sb 206.836† | 38.3 | 1.2 | 0.4075 | ug/L | 0.4075 | ppb | 16:14:14 |
| 1 | Se 196.026† | -17.7 | 10.2 | 6.5978 | ug/L | 6.5978 | ppb | 16:14:14 |
| 1 | Si 251.611† | 554.1 | -11.0 | -0.3501 | ug/L | -0.3501 | ppb | 16:14:14 |
| 1 | Sn 189.927† | 12.7 | 2.1 | 0.3714 | ug/L | 0.3714 | ppb | 16:14:14 |
| 1 | Ti 334.940† | -1438.0 | -46.4 | -0.0779 | ug/L | -0.0779 | ppb | 16:13:54 |
| 1 | Tl 190.801† | -19.5 | 13.3 | 4.2655 | ug/L | 4.2655 | ppb | 16:14:14 |
| 1 | U 409.014† | -2954.2 | -31.6 | -0.8671 | ug/L | -0.8671 | ppb | 16:13:54 |
| 1 | V 292.402† | -1540.4 | -15.9 | -0.1111 | ug/L | -0.1111 | ppb | 16:13:54 |
| 1 | Zn 213.857† | 628.9 | 15.2 | 0.1576 | ug/L | 0.1576 | ppb | 16:14:14 |
| 1 | SiO2† | 542.1 | -18.9 | -1.3044 | ug/L | -1.3044 | ppb | 16:15:10 |
| 2 | Sc Radial | 3921.9 | 3921.9 | 100 | % | | | 16:13:22 |
| 2 | Y RADIAL | 4392.9 | 4392.9 | 99.59 | % | | | 16:13:02 |
| 2 | Al 396.153Radial† | -102.0 | 10.4 | 9.8029 | ug/L | 9.8029 | ppb | 16:13:02 |
| 2 | Ca 317.933Radial† | 20.5 | 0.8 | 1.6838 | ug/L | 1.6838 | ppb | 16:13:22 |
| 2 | Fe 238.204 Radial† | 13.3 | 2.0 | 27.919 | ug/L | 27.919 | ppb | 16:13:22 |
| 2 | K 766.490 Radial† | 2735.2 | 93.5 | 17.924 | ug/L | 17.924 | ppb | 16:13:02 |
| 2 | Mg 279.077 IEC† | 2.2 | -1.8 | -89.541 | ug/L | -89.541 | ppb | 16:13:22 |
| 2 | Na 589.592 Radial† | -750.1 | 70.3 | 21.673 | ug/L | 21.673 | ppb | 16:13:02 |
| 2 | Sr 421.552† | 71.6 | 35.8 | 0.2475 | ug/L | 0.2475 | ppb | 16:13:02 |
| 2 | Sc 361.383 | 879313.6 | 879313.6 | 100.24 | % | | | 16:14:19 |
| 2 | Y 371.029 | 744024.7 | 744024.7 | 98.436 | % | | | 16:14:19 |
| 2 | Ag 328.068† | 352.9 | 111.7 | 0.5289 | ug/L | 0.5289 | ppb | 16:14:19 |
| 2 | As 188.979† | -11.5 | 6.8 | 3.0231 | ug/L | 3.0231 | ppb | 16:14:39 |
| 2 | B 249.677† | -415.8 | -16.6 | -0.4061 | ug/L | -0.4061 | ppb | 16:14:39 |
| 2 | Ba 233.527† | -7.0 | -5.6 | -0.0421 | ug/L | -0.0421 | ppb | 16:14:39 |
| 2 | Be 313.107† | -3658.2 | 112.6 | 0.0420 | ug/L | 0.0420 | ppb | 16:14:19 |
| 2 | Cd 226.502† | -184.2 | 12.5 | 0.1414 | ug/L | 0.1414 | ppb | 16:14:39 |
| 2 | Co 228.616† | -69.1 | -2.4 | -0.0504 | ug/L | -0.0504 | ppb | 16:14:39 |
| 2 | Cr 267.716† | 69.3 | -8.6 | -0.0922 | ug/L | -0.0922 | ppb | 16:14:39 |
| 2 | Cu 324.752† | 5898.0 | -106.7 | -0.3227 | ug/L | -0.3227 | ppb | 16:14:19 |
| 2 | Mn 257.610† | 466.7 | 6.9 | 0.0142 | ug/L | 0.0142 | ppb | 16:14:39 |
| 2 | Mo 202.031† | 9.3 | -0.9 | -0.0624 | ug/L | -0.0624 | ppb | 16:14:39 |
| 2 | Ni 231.604† | 62.8 | 0.2 | 0.0060 | ug/L | 0.0060 | ppb | 16:14:39 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 195.7 | -15.2 | -9.1169 ug/L | -9.1169 ppb | 16:14:39 |
| 2 | Pb 220.353† | -64.1 | -5.9 | -0.7229 ug/L | -0.7229 ppb | 16:14:39 |
| 2 | S 181.975 Axial† | 41.0 | 0.1 | 0.1469 ug/L | 0.1469 ppb | 16:14:39 |
| 2 | Sb 206.836† | 50.0 | 13.2 | 4.6398 ug/L | 4.6398 ppb | 16:14:39 |
| 2 | Se 196.026† | -19.5 | 8.3 | 5.4936 ug/L | 5.4936 ppb | 16:14:39 |
| 2 | Si 251.611† | 559.5 | -0.1 | -0.0025 ug/L | -0.0025 ppb | 16:14:39 |
| 2 | Sn 189.927† | 18.7 | 8.2 | 1.4718 ug/L | 1.4718 ppb | 16:14:39 |
| 2 | Ti 334.940† | -1469.0 | -91.4 | -0.1356 ug/L | -0.1356 ppb | 16:14:19 |
| 2 | Tl 190.801† | -27.0 | 5.6 | 1.7947 ug/L | 1.7947 ppb | 16:14:39 |
| 2 | U 409.014† | -2938.0 | -44.5 | -1.2310 ug/L | -1.2310 ppb | 16:14:19 |
| 2 | V 292.402† | -1441.9 | 67.1 | 0.4594 ug/L | 0.4594 ppb | 16:14:19 |
| 2 | Zn 213.857† | 627.3 | 19.8 | 0.1953 ug/L | 0.1953 ppb | 16:14:39 |
| 2 | SiO2† | 535.3 | -20.4 | -1.4163 ug/L | -1.4163 ppb | 16:15:15 |
| 3 | Sc Radial | 3903.4 | 3903.4 | 99.6 % | | 16:13:47 |
| 3 | Y RADIAL | 4392.0 | 4392.0 | 99.57 % | | 16:13:27 |
| 3 | Al 396.153Radial† | -130.4 | -18.5 | -17.375 ug/L | -17.375 ppb | 16:13:27 |
| 3 | Ca 317.933Radial† | 16.2 | -3.4 | -7.1550 ug/L | -7.1550 ppb | 16:13:47 |
| 3 | Fe 238.204 Radial† | 11.4 | 0.2 | 2.3723 ug/L | 2.3723 ppb | 16:13:47 |
| 3 | K 766.490 Radial† | 2730.8 | 102.0 | 19.569 ug/L | 19.569 ppb | 16:13:27 |
| 3 | Mg 279.077 IEC† | 0.3 | -3.8 | -185.31 ug/L | -185.31 ppb | 16:13:47 |
| 3 | Na 589.592 Radial† | -759.8 | 57.0 | 17.572 ug/L | 17.572 ppb | 16:13:27 |
| 3 | Sr 421.552† | 79.2 | 43.8 | 0.3033 ug/L | 0.3033 ppb | 16:13:27 |
| 3 | Sc 361.383 | 898768.4 | 898768.4 | 102.46 % | | 16:14:44 |
| 3 | Y 371.029 | 761250.3 | 761250.3 | 100.72 % | | 16:14:44 |
| 3 | Ag 328.068† | 368.1 | 118.9 | 0.5555 ug/L | 0.5555 ppb | 16:14:44 |
| 3 | As 188.979† | -29.5 | -10.6 | -4.7208 ug/L | -4.7208 ppb | 16:15:04 |
| 3 | B 249.677† | -431.5 | -23.0 | -0.5572 ug/L | -0.5572 ppb | 16:15:04 |
| 3 | Ba 233.527† | 12.7 | 13.9 | 0.1116 ug/L | 0.1116 ppb | 16:15:04 |
| 3 | Be 313.107† | -3665.7 | 184.3 | 0.0691 ug/L | 0.0691 ppb | 16:14:44 |
| 3 | Cd 226.502† | -177.7 | 22.9 | 0.2651 ug/L | 0.2651 ppb | 16:15:04 |
| 3 | Co 228.616† | -62.1 | 5.9 | 0.1236 ug/L | 0.1236 ppb | 16:15:04 |
| 3 | Cr 267.716† | 71.9 | -7.5 | -0.0826 ug/L | -0.0826 ppb | 16:15:04 |
| 3 | Cu 324.752† | 6104.8 | -32.3 | -0.0989 ug/L | -0.0989 ppb | 16:14:44 |
| 3 | Mn 257.610† | 454.2 | -15.4 | -0.0098 ug/L | -0.0098 ppb | 16:15:04 |
| 3 | Mo 202.031† | 9.4 | -1.0 | -0.0711 ug/L | -0.0711 ppb | 16:15:04 |
| 3 | Ni 231.604† | 80.5 | 16.1 | 0.4089 ug/L | 0.4089 ppb | 16:15:04 |
| 3 | P 214.914† | 201.5 | -13.9 | -8.3280 ug/L | -8.3280 ppb | 16:15:04 |
| 3 | Pb 220.353† | -58.8 | 0.7 | 0.0831 ug/L | 0.0831 ppb | 16:15:04 |
| 3 | S 181.975 Axial† | 41.7 | -0.1 | -0.0892 ug/L | -0.0892 ppb | 16:15:04 |
| 3 | Sb 206.836† | 37.3 | -0.3 | -0.0662 ug/L | -0.0662 ppb | 16:15:04 |
| 3 | Se 196.026† | -26.9 | 1.5 | 0.9995 ug/L | 0.9995 ppb | 16:15:04 |
| 3 | Si 251.611† | 543.4 | -28.0 | -0.9037 ug/L | -0.9037 ppb | 16:15:04 |
| 3 | Sn 189.927† | 18.8 | 7.9 | 1.4164 ug/L | 1.4164 ppb | 16:15:04 |
| 3 | Ti 334.940† | -1457.8 | -48.7 | -0.0630 ug/L | -0.0630 ppb | 16:14:44 |
| 3 | Tl 190.801† | -28.5 | 4.8 | 1.5278 ug/L | 1.5278 ppb | 16:15:04 |
| 3 | U 409.014† | -2907.2 | 49.1 | 1.3562 ug/L | 1.3562 ppb | 16:14:44 |
| 3 | V 292.402† | -1356.3 | 181.9 | 1.2661 ug/L | 1.2661 ppb | 16:14:44 |
| 3 | Zn 213.857† | 632.2 | 11.0 | 0.1083 ug/L | 0.1083 ppb | 16:15:04 |
| 3 | SiO2† | 600.6 | 31.8 | 2.2124 ug/L | 2.2124 ppb | 16:15:20 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 888717.1 | 101.31 | % | 1.111 | | | | 1.10% |
| Sc Radial | 3911.6 | 99.8 | % | 0.24 | | | | 0.24% |
| Y 371.029 | 752430.0 | 99.548 | % | 1.1405 | | | | 1.15% |
| Y RADIAL | 4406.4 | 99.90 | % | 0.548 | | | | 0.55% |
| Ag 328.068† | 98.5 | 0.4579 | ug/L | 0.14672 | 0.4579 | ppb | 0.14672 | 32.04% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -8.3 | -7.7317 | ug/L | 15.21069 | -7.7317 | ppb | 15.21069 | 196.73% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.1 | -0.5053 | ug/L | 3.91738 | -0.5053 | ppb | 3.91738 | 775.22% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -14.7 | -0.3553 | ug/L | 0.23149 | -0.3553 | ppb | 0.23149 | 65.15% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 11.7 | 0.0929 | ug/L | 0.12665 | 0.0929 | ppb | 0.12665 | 136.37% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 128.7 | 0.0482 | ug/L | 0.01862 | 0.0482 | ppb | 0.01862 | 38.67% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -1.6 | -3.4336 | ug/L | 4.58179 | -3.4336 | ppb | 4.58179 | 133.44% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.8      0.1605 ug/L       0.09644      0.1605 ppb        0.09644  60.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 5.2      0.1087 ug/L       0.15217      0.1087 ppb        0.15217 140.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -9.7     -0.1079 ug/L       0.03595     -0.1079 ppb        0.03595  33.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -89.9     -0.2737 ug/L       0.15619     -0.2737 ppb        0.15619  57.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.2     -2.2437 ug/L      32.71547     -2.2437 ppb       32.71547 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         87.4      16.762 ug/L        3.5344      16.762 ppb         3.5344  21.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.5     -71.931 ug/L      123.1320     -71.931 ppb      123.1320 171.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -5.0     -0.0029 ug/L       0.01498     -0.0029 ppb        0.01498 508.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -2.3     -0.1656 ug/L       0.17119     -0.1656 ppb        0.17119 103.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        74.5      22.979 ug/L        6.1638      22.979 ppb         6.1638  26.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.0      0.2033 ug/L       0.20159      0.2033 ppb        0.20159  99.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.8     -3.4489 ug/L       9.14267     -3.4489 ppb        9.14267 265.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                0.2      0.0206 ug/L       0.71433      0.0206 ppb        0.71433 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.1     -3.0546 ug/L       5.34192     -3.0546 ppb        5.34192 174.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.7      1.6604 ug/L       2.59115      1.6604 ppb        2.59115 156.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                6.7      4.3636 ug/L       2.96529      4.3636 ppb        2.96529  67.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -13.0     -0.4188 ug/L       0.45452     -0.4188 ppb        0.45452 108.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.1      1.0865 ug/L       0.61997      1.0865 ppb        0.61997  57.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               31.2      0.2157 ug/L       0.10710      0.2157 ppb        0.10710  49.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -62.2     -0.0922 ug/L       0.03832     -0.0922 ppb        0.03832  41.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                7.9      2.5293 ug/L       1.50950      2.5293 ppb        1.50950  59.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -9.0     -0.2473 ug/L       1.40053     -0.2473 ppb        1.40053 566.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                77.7      0.5381 ug/L       0.69197      0.5381 ppb        0.69197 128.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               15.3      0.1537 ug/L       0.04364      0.1537 ppb        0.04364  28.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -2.5     -0.1694 ug/L       2.06350     -0.1694 ppb        2.06350 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 16:32:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3853.4 | 3853.4 | 98.3 | % | | | 16:34:22 |
| 1 | Y RADIAL | 4424.2 | 4424.2 | 100.3 | % | | | 16:34:02 |
| 1 | Al 396.153Radial† | 5304.3 | 5506.8 | 5141.0 | ug/L | 5141.0 | ppb | 16:34:02 |
| 1 | Ca 317.933Radial† | 2466.3 | 2488.5 | 5202.2 | ug/L | 5202.2 | ppb | 16:34:22 |
| 1 | Fe 238.204 Radial† | 365.6 | 360.4 | 5102.3 | ug/L | 5102.3 | ppb | 16:34:22 |
| 1 | K 766.490 Radial† | 29180.7 | 27036.7 | 5181.7 | ug/L | 5181.7 | ppb | 16:34:02 |
| 1 | Mg 279.077 IEC† | 111.6 | 109.4 | 5303.4 | ug/L | 5303.4 | ppb | 16:34:22 |
| 1 | Na 589.592 Radial† | 33016.6 | 34397.1 | 10606 | ug/L | 10606 | ppb | 16:34:02 |
| 1 | Sr 421.552† | 72921.7 | 74124.3 | 512.87 | ug/L | 512.87 | ppb | 16:34:02 |
| 1 | Sc 361.383 | 901308.0 | 901308.0 | 102.74 | % | | | 16:35:19 |
| 1 | Y 371.029 | 750322.1 | 750322.1 | 99.269 | % | | | 16:35:19 |
| 1 | Ag 328.068† | 107679.0 | 104562.1 | 487.49 | ug/L | 487.49 | ppb | 16:35:24 |
| 1 | As 188.979† | 1114.6 | 1103.1 | 496.79 | ug/L | 496.79 | ppb | 16:35:44 |
| 1 | B 249.677† | 19767.7 | 19637.8 | 473.90 | ug/L | 473.90 | ppb | 16:35:24 |
| 1 | Ba 233.527† | 63808.6 | 62105.5 | 488.58 | ug/L | 488.58 | ppb | 16:35:24 |
| 1 | Be 313.107† | 1335058.8 | 1303157.3 | 490.82 | ug/L | 490.82 | ppb | 16:35:19 |
| 1 | Cd 226.502† | 43267.4 | 42307.9 | 489.80 | ug/L | 489.80 | ppb | 16:35:24 |
| 1 | Co 228.616† | 23882.2 | 23310.8 | 488.40 | ug/L | 488.40 | ppb | 16:35:24 |
| 1 | Cr 267.716† | 44640.8 | 43370.6 | 487.85 | ug/L | 487.85 | ppb | 16:35:24 |
| 1 | Cu 324.752† | 168309.1 | 157822.3 | 480.27 | ug/L | 480.27 | ppb | 16:35:24 |
| 1 | Mn 257.610† | 444999.6 | 432653.5 | 492.62 | ug/L | 492.62 | ppb | 16:35:19 |
| 1 | Mo 202.031† | 6849.3 | 6656.2 | 489.13 | ug/L | 489.13 | ppb | 16:35:44 |
| 1 | Ni 231.604† | 19833.2 | 19241.0 | 489.06 | ug/L | 489.06 | ppb | 16:35:24 |
| 1 | P 214.914† | 4400.2 | 4072.1 | 2357.8 | ug/L | 2357.8 | ppb | 16:35:44 |
| 1 | Pb 220.353† | 4052.5 | 4002.4 | 493.78 | ug/L | 493.78 | ppb | 16:35:44 |
| 1 | S 181.975 Axial† | 754.6 | 693.6 | 997.20 | ug/L | 997.20 | ppb | 16:35:44 |
| 1 | Sb 206.836† | 1452.5 | 1377.0 | 498.90 | ug/L | 498.90 | ppb | 16:35:44 |
| 1 | Se 196.026† | 754.3 | 761.9 | 516.46 | ug/L | 516.46 | ppb | 16:35:44 |
| 1 | Si 251.611† | 77439.0 | 74812.0 | 2414.8 | ug/L | 2414.8 | ppb | 16:35:24 |
| 1 | Sn 189.927† | 2800.2 | 2715.0 | 487.77 | ug/L | 487.77 | ppb | 16:35:44 |
| 1 | Ti 334.940† | 314411.8 | 307386.9 | 482.90 | ug/L | 482.90 | ppb | 16:35:24 |
| 1 | Tl 190.801† | 1548.9 | 1540.1 | 495.73 | ug/L | 495.73 | ppb | 16:35:44 |
| 1 | U 409.014† | 14982.1 | 17468.5 | 480.70 | ug/L | 480.70 | ppb | 16:35:24 |
| 1 | V 292.402† | 69674.2 | 69318.7 | 489.85 | ug/L | 489.85 | ppb | 16:35:24 |
| 1 | Zn 213.857† | 50309.0 | 48359.0 | 482.27 | ug/L | 482.27 | ppb | 16:35:24 |
| 1 | SiO2† | 77254.5 | 74636.4 | 5173.6 | ug/L | 5173.6 | ppb | 16:36:52 |
| 2 | Sc Radial | 3866.7 | 3866.7 | 98.7 | % | | | 16:34:47 |
| 2 | Y RADIAL | 4351.8 | 4351.8 | 98.66 | % | | | 16:34:27 |
| 2 | Al 396.153Radial† | 5255.4 | 5438.7 | 5077.2 | ug/L | 5077.2 | ppb | 16:34:27 |
| 2 | Ca 317.933Radial† | 2498.1 | 2512.1 | 5251.6 | ug/L | 5251.6 | ppb | 16:34:47 |
| 2 | Fe 238.204 Radial† | 367.8 | 361.4 | 5116.1 | ug/L | 5116.1 | ppb | 16:34:47 |
| 2 | K 766.490 Radial† | 28697.8 | 26445.0 | 5068.2 | ug/L | 5068.2 | ppb | 16:34:27 |
| 2 | Mg 279.077 IEC† | 106.7 | 104.1 | 5047.5 | ug/L | 5047.5 | ppb | 16:34:47 |
| 2 | Na 589.592 Radial† | 32554.4 | 33812.9 | 10425 | ug/L | 10425 | ppb | 16:34:27 |
| 2 | Sr 421.552† | 71796.4 | 72728.4 | 503.21 | ug/L | 503.21 | ppb | 16:34:27 |
| 2 | Sc 361.383 | 900354.2 | 900354.2 | 102.64 | % | | | 16:35:50 |
| 2 | Y 371.029 | 750012.2 | 750012.2 | 99.228 | % | | | 16:35:50 |
| 2 | Ag 328.068† | 108731.7 | 105698.8 | 492.78 | ug/L | 492.78 | ppb | 16:35:55 |
| 2 | As 188.979† | 1098.6 | 1088.7 | 490.40 | ug/L | 490.40 | ppb | 16:36:15 |
| 2 | B 249.677† | 20067.6 | 19950.4 | 481.46 | ug/L | 481.46 | ppb | 16:35:55 |
| 2 | Ba 233.527† | 64499.6 | 62844.5 | 494.40 | ug/L | 494.40 | ppb | 16:35:55 |
| 2 | Be 313.107† | 1336059.5 | 1305508.8 | 491.72 | ug/L | 491.72 | ppb | 16:35:50 |
| 2 | Cd 226.502† | 43705.3 | 42779.1 | 495.26 | ug/L | 495.26 | ppb | 16:35:55 |
| 2 | Co 228.616† | 24163.0 | 23609.0 | 494.63 | ug/L | 494.63 | ppb | 16:35:55 |
| 2 | Cr 267.716† | 45019.4 | 43785.6 | 492.51 | ug/L | 492.51 | ppb | 16:35:55 |
| 2 | Cu 324.752† | 170258.0 | 159894.7 | 486.57 | ug/L | 486.57 | ppb | 16:35:55 |
| 2 | Mn 257.610† | 444794.7 | 432912.7 | 492.93 | ug/L | 492.93 | ppb | 16:35:50 |
| 2 | Mo 202.031† | 6798.7 | 6614.0 | 486.04 | ug/L | 486.04 | ppb | 16:36:15 |
| 2 | Ni 231.604† | 20052.8 | 19475.4 | 495.02 | ug/L | 495.02 | ppb | 16:35:55 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4378.9 | 4056.0 | 2346.8 ug/L | 2346.8 ppb | 16:36:15 |
| 2 | Pb 220.353† | 4027.4 | 3982.1 | 491.26 ug/L | 491.26 ppb | 16:36:15 |
| 2 | S 181.975 Axial† | 741.9 | 682.1 | 980.55 ug/L | 980.55 ppb | 16:36:15 |
| 2 | Sb 206.836† | 1461.6 | 1387.4 | 502.49 ug/L | 502.49 ppb | 16:36:15 |
| 2 | Se 196.026† | 743.1 | 751.7 | 509.85 ug/L | 509.85 ppb | 16:36:15 |
| 2 | Si 251.611† | 78425.0 | 75852.6 | 2448.5 ug/L | 2448.5 ppb | 16:35:55 |
| 2 | Sn 189.927† | 2808.4 | 2725.8 | 489.72 ug/L | 489.72 ppb | 16:36:15 |
| 2 | Ti 334.940† | 317758.5 | 310971.9 | 488.56 ug/L | 488.56 ppb | 16:35:55 |
| 2 | Tl 190.801† | 1535.5 | 1528.6 | 492.06 ug/L | 492.06 ppb | 16:36:15 |
| 2 | U 409.014† | 15128.6 | 17626.6 | 485.06 ug/L | 485.06 ppb | 16:35:55 |
| 2 | V 292.402† | 70473.6 | 70169.4 | 495.73 ug/L | 495.73 ppb | 16:35:55 |
| 2 | Zn 213.857† | 50906.2 | 48992.8 | 488.61 ug/L | 488.61 ppb | 16:35:55 |
| 2 | SiO2† | 77229.7 | 74691.8 | 5177.5 ug/L | 5177.5 ppb | 16:36:57 |
| 3 | Sc Radial | 3865.6 | 3865.6 | 98.6 % | | 16:35:12 |
| 3 | Y RADIAL | 4300.0 | 4300.0 | 97.49 % | | 16:34:52 |
| 3 | Al 396.153Radial† | 5207.1 | 5391.1 | 5032.5 ug/L | 5032.5 ppb | 16:34:52 |
| 3 | Ca 317.933Radial† | 2482.6 | 2497.1 | 5220.2 ug/L | 5220.2 ppb | 16:35:12 |
| 3 | Fe 238.204 Radial† | 362.1 | 355.7 | 5036.1 ug/L | 5036.1 ppb | 16:35:12 |
| 3 | K 766.490 Radial† | 28576.3 | 26329.8 | 5046.1 ug/L | 5046.1 ppb | 16:34:52 |
| 3 | Mg 279.077 IEC† | 108.7 | 106.1 | 5145.5 ug/L | 5145.5 ppb | 16:35:12 |
| 3 | Na 589.592 Radial† | 32323.8 | 33588.2 | 10356 ug/L | 10356 ppb | 16:34:52 |
| 3 | Sr 421.552† | 71283.5 | 72228.4 | 499.75 ug/L | 499.75 ppb | 16:34:52 |
| 3 | Sc 361.383 | 902180.9 | 902180.9 | 102.84 % | | 16:36:21 |
| 3 | Y 371.029 | 749784.8 | 749784.8 | 99.198 % | | 16:36:21 |
| 3 | Ag 328.068† | 109651.1 | 106378.3 | 495.91 ug/L | 495.91 ppb | 16:36:26 |
| 3 | As 188.979† | 1112.2 | 1099.7 | 495.31 ug/L | 495.31 ppb | 16:36:46 |
| 3 | B 249.677† | 20203.0 | 20042.6 | 483.69 ug/L | 483.69 ppb | 16:36:26 |
| 3 | Ba 233.527† | 64876.6 | 63083.8 | 496.27 ug/L | 496.27 ppb | 16:36:26 |
| 3 | Be 313.107† | 1335885.2 | 1302703.6 | 490.67 ug/L | 490.67 ppb | 16:36:21 |
| 3 | Cd 226.502† | 44068.7 | 43046.3 | 498.36 ug/L | 498.36 ppb | 16:36:26 |
| 3 | Co 228.616† | 24377.4 | 23769.7 | 497.99 ug/L | 497.99 ppb | 16:36:26 |
| 3 | Cr 267.716† | 45340.8 | 44009.2 | 495.02 ug/L | 495.02 ppb | 16:36:26 |
| 3 | Cu 324.752† | 171734.6 | 160994.5 | 489.91 ug/L | 489.91 ppb | 16:36:26 |
| 3 | Mn 257.610† | 446112.7 | 433316.8 | 493.37 ug/L | 493.37 ppb | 16:36:21 |
| 3 | Mo 202.031† | 6840.8 | 6641.4 | 488.04 ug/L | 488.04 ppb | 16:36:46 |
| 3 | Ni 231.604† | 20175.0 | 19554.6 | 497.03 ug/L | 497.03 ppb | 16:36:26 |
| 3 | P 214.914† | 4406.9 | 4074.5 | 2357.3 ug/L | 2357.3 ppb | 16:36:46 |
| 3 | Pb 220.353† | 4060.2 | 4006.1 | 494.21 ug/L | 494.21 ppb | 16:36:46 |
| 3 | S 181.975 Axial† | 745.9 | 684.4 | 983.98 ug/L | 983.98 ppb | 16:36:46 |
| 3 | Sb 206.836† | 1467.9 | 1390.6 | 503.62 ug/L | 503.62 ppb | 16:36:46 |
| 3 | Se 196.026† | 744.1 | 751.3 | 509.31 ug/L | 509.31 ppb | 16:36:46 |
| 3 | Si 251.611† | 79050.2 | 76305.8 | 2463.2 ug/L | 2463.2 ppb | 16:36:26 |
| 3 | Sn 189.927† | 2807.8 | 2719.7 | 488.62 ug/L | 488.62 ppb | 16:36:46 |
| 3 | Ti 334.940† | 320019.6 | 312543.6 | 491.02 ug/L | 491.02 ppb | 16:36:26 |
| 3 | Tl 190.801† | 1542.0 | 1531.9 | 493.12 ug/L | 493.12 ppb | 16:36:46 |
| 3 | U 409.014† | 15277.4 | 17741.5 | 488.24 ug/L | 488.24 ppb | 16:36:26 |
| 3 | V 292.402† | 70853.3 | 70399.5 | 497.38 ug/L | 497.38 ppb | 16:36:26 |
| 3 | Zn 213.857† | 51225.1 | 49202.4 | 490.71 ug/L | 490.71 ppb | 16:36:26 |
| 3 | SiO2† | 77939.4 | 75229.6 | 5214.8 ug/L | 5214.8 ppb | 16:37:02 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 901281.0 | 102.74 | % | 0.104 | | | | 0.10% |
| Sc Radial | 3861.9 | 98.5 | % | 0.19 | | | | 0.19% |
| Y 371.029 | 750039.7 | 99.232 | % | 0.0357 | | | | 0.04% |
| Y RADIAL | 4358.6 | 98.82 | % | 1.414 | | | | 1.43% |
| Ag 328.068† | 105546.4 | 492.06 | ug/L | 4.255 | 492.06 | ppb | 4.255 | 0.86% |
| QC value within limits for Ag 328.068 Recovery = 98.41% | | | | | | | | |
| Al 396.153Radial† | 5445.5 | 5083.6 | ug/L | 54.50 | 5083.6 | ppb | 54.50 | 1.07% |
| QC value within limits for Al 396.153Radial Recovery = 101.67% | | | | | | | | |
| As 188.979† | 1097.1 | 494.17 | ug/L | 3.344 | 494.17 | ppb | 3.344 | 0.68% |
| QC value within limits for As 188.979 Recovery = 98.83% | | | | | | | | |
| B 249.677† | 19876.9 | 479.68 | ug/L | 5.133 | 479.68 | ppb | 5.133 | 1.07% |
| QC value within limits for B 249.677 Recovery = 95.94% | | | | | | | | |
| Ba 233.527† | 62678.0 | 493.08 | ug/L | 4.010 | 493.08 | ppb | 4.010 | 0.81% |
| QC value within limits for Ba 233.527 Recovery = 98.62% | | | | | | | | |
| Be 313.107† | 1303789.9 | 491.07 | ug/L | 0.567 | 491.07 | ppb | 0.567 | 0.12% |
| QC value within limits for Be 313.107 Recovery = 98.21% | | | | | | | | |
| Ca 317.933Radial† | 2499.2 | 5224.7 | ug/L | 25.01 | 5224.7 | ppb | 25.01 | 0.48% |

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   QC value within limits for Ca 317.933Radial  Recovery = 104.49%
Cd 226.502†            42711.1      494.48 ug/L         4.336      494.48 ppb          4.336   0.88%
   QC value within limits for Cd 226.502  Recovery = 98.90%
Co 228.616†            23563.2      493.67 ug/L         4.869      493.67 ppb          4.869   0.99%
   QC value within limits for Co 228.616  Recovery = 98.73%
Cr 267.716†            43721.8      491.79 ug/L         3.639      491.79 ppb          3.639   0.74%
   QC value within limits for Cr 267.716  Recovery = 98.36%
Cu 324.752†           159570.5      485.59 ug/L         4.898      485.59 ppb          4.898   1.01%
   QC value within limits for Cu 324.752  Recovery = 97.12%
Fe 238.204 Radial†       359.2      5084.9 ug/L        42.74      5084.9 ppb         42.74   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.70%
K 766.490 Radial†      26603.8      5098.7 ug/L        72.73      5098.7 ppb         72.73   1.43%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†          106.5      5165.5 ug/L       129.08      5165.5 ppb        129.08   2.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.31%
Mn 257.610†           432961.0      492.97 ug/L         0.380      492.97 ppb          0.380   0.08%
   QC value within limits for Mn 257.610  Recovery = 98.59%
Mo 202.031†             6637.2      487.74 ug/L         1.571      487.74 ppb          1.571   0.32%
   QC value within limits for Mo 202.031  Recovery = 97.55%
Na 589.592 Radial†     33932.7       10462 ug/L       128.7         10462 ppb        128.7   1.23%
   QC value within limits for Na 589.592 Radial  Recovery = 104.62%
Ni 231.604†            19423.6      493.70 ug/L         4.144      493.70 ppb          4.144   0.84%
   QC value within limits for Ni 231.604  Recovery = 98.74%
P 214.914†              4067.5      2354.0 ug/L         6.22      2354.0 ppb          6.22   0.26%
   QC value within limits for P 214.914  Recovery = 94.16%
Pb 220.353†             3996.8      493.08 ug/L         1.596      493.08 ppb          1.596   0.32%
   QC value within limits for Pb 220.353  Recovery = 98.62%
S 181.975 Axial†         686.7      987.24 ug/L         8.790      987.24 ppb          8.790   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 98.72%
Sb 206.836†             1385.0      501.67 ug/L         2.468      501.67 ppb          2.468   0.49%
   QC value within limits for Sb 206.836  Recovery = 100.33%
Se 196.026†              755.0      511.87 ug/L         3.980      511.87 ppb          3.980   0.78%
   QC value within limits for Se 196.026  Recovery = 102.37%
Si 251.611†            75656.8      2442.2 ug/L        24.79      2442.2 ppb         24.79   1.02%
   QC value within limits for Si 251.611  Recovery = 97.69%
Sn 189.927†             2720.1      488.70 ug/L         0.978      488.70 ppb          0.978   0.20%
   QC value within limits for Sn 189.927  Recovery = 97.74%
Sr 421.552†            73027.0      505.28 ug/L         6.799      505.28 ppb          6.799   1.35%
   QC value within limits for Sr 421.552  Recovery = 101.06%
Ti 334.940†           310300.8      487.49 ug/L         4.160      487.49 ppb          4.160   0.85%
   QC value within limits for Ti 334.940  Recovery = 97.50%
Tl 190.801†             1533.6      493.64 ug/L         1.890      493.64 ppb          1.890   0.38%
   QC value within limits for Tl 190.801  Recovery = 98.73%
U 409.014†             17612.2      484.67 ug/L         3.781      484.67 ppb          3.781   0.78%
   QC value within limits for U 409.014  Recovery = 96.93%
V 292.402†             69962.5      494.32 ug/L         3.959      494.32 ppb          3.959   0.80%
   QC value within limits for V 292.402  Recovery = 98.86%
Zn 213.857†            48851.4      487.20 ug/L         4.391      487.20 ppb          4.391   0.90%
   QC value within limits for Zn 213.857  Recovery = 97.44%
SiO2†                  74852.6      5188.6 ug/L        22.77      5188.6 ppb         22.77   0.44%
   QC value within limits for SiO2  Recovery = 97.03%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 16:39:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3847.2 | 3847.2 | 98.2 | % | | | 16:41:25 |
| 1 | Y RADIAL | 4338.5 | 4338.5 | 98.36 | % | | | 16:41:05 |
| 1 | Al 396.153Radial† | -107.9 | 2.5 | 2.3419 | ug/L | 2.3419 | ppb | 16:41:05 |
| 1 | Ca 317.933Radial† | 26.6 | 7.4 | 15.478 | ug/L | 15.478 | ppb | 16:41:25 |
| 1 | Fe 238.204 Radial† | 11.4 | 0.3 | 3.5917 | ug/L | 3.5917 | ppb | 16:41:25 |
| 1 | K 766.490 Radial† | 2656.1 | 65.9 | 12.634 | ug/L | 12.634 | ppb | 16:41:05 |
| 1 | Mg 279.077 IEC† | 5.4 | 1.4 | 68.977 | ug/L | 68.977 | ppb | 16:41:25 |
| 1 | Na 589.592 Radial† | -767.7 | 37.7 | 11.635 | ug/L | 11.635 | ppb | 16:41:05 |
| 1 | Sr 421.552† | 87.5 | 53.4 | 0.3694 | ug/L | 0.3694 | ppb | 16:41:05 |
| 1 | Sc 361.383 | 882214.3 | 882214.3 | 100.57 | % | | | 16:42:22 |
| 1 | Y 371.029 | 746032.5 | 746032.5 | 98.702 | % | | | 16:42:22 |
| 1 | Ag 328.068† | 229.8 | -11.9 | -0.0508 | ug/L | -0.0508 | ppb | 16:42:22 |
| 1 | As 188.979† | -27.7 | -9.3 | -4.1508 | ug/L | -4.1508 | ppb | 16:42:42 |
| 1 | B 249.677† | -422.9 | -22.3 | -0.5418 | ug/L | -0.5418 | ppb | 16:42:42 |
| 1 | Ba 233.527† | 0.8 | 2.2 | 0.0188 | ug/L | 0.0188 | ppb | 16:42:42 |
| 1 | Be 313.107† | -3723.1 | 60.1 | 0.0224 | ug/L | 0.0224 | ppb | 16:42:22 |
| 1 | Cd 226.502† | -192.4 | 5.0 | 0.0570 | ug/L | 0.0570 | ppb | 16:42:42 |
| 1 | Co 228.616† | -69.1 | -2.2 | -0.0466 | ug/L | -0.0466 | ppb | 16:42:42 |
| 1 | Cr 267.716† | 65.5 | -12.5 | -0.1389 | ug/L | -0.1389 | ppb | 16:42:42 |
| 1 | Cu 324.752† | 5968.2 | -56.3 | -0.1701 | ug/L | -0.1701 | ppb | 16:42:22 |
| 1 | Mn 257.610† | 447.4 | -13.8 | -0.0182 | ug/L | -0.0182 | ppb | 16:42:42 |
| 1 | Mo 202.031† | 7.2 | -3.0 | -0.2222 | ug/L | -0.2222 | ppb | 16:42:42 |
| 1 | Ni 231.604† | 54.7 | -8.1 | -0.2059 | ug/L | -0.2059 | ppb | 16:42:42 |
| 1 | P 214.914† | 202.5 | -9.1 | -5.4517 | ug/L | -5.4517 | ppb | 16:42:42 |
| 1 | Pb 220.353† | -42.1 | 16.3 | 1.9991 | ug/L | 1.9991 | ppb | 16:42:42 |
| 1 | S 181.975 Axial† | 47.9 | 6.8 | 9.7815 | ug/L | 9.7815 | ppb | 16:42:42 |
| 1 | Sb 206.836† | 47.0 | 10.0 | 3.5256 | ug/L | 3.5256 | ppb | 16:42:42 |
| 1 | Se 196.026† | -22.4 | 5.5 | 3.6271 | ug/L | 3.6271 | ppb | 16:42:42 |
| 1 | Si 251.611† | 546.0 | -15.4 | -0.4943 | ug/L | -0.4943 | ppb | 16:42:42 |
| 1 | Sn 189.927† | 18.0 | 7.5 | 1.3400 | ug/L | 1.3400 | ppb | 16:42:42 |
| 1 | Ti 334.940† | -1428.9 | -46.8 | -0.0762 | ug/L | -0.0762 | ppb | 16:42:22 |
| 1 | Tl 190.801† | -39.1 | -6.3 | -2.0129 | ug/L | -2.0129 | ppb | 16:42:42 |
| 1 | U 409.014† | -2972.9 | -69.5 | -1.9188 | ug/L | -1.9188 | ppb | 16:42:22 |
| 1 | V 292.402† | -1444.1 | 69.7 | 0.4801 | ug/L | 0.4801 | ppb | 16:42:22 |
| 1 | Zn 213.857† | 630.8 | 21.2 | 0.2144 | ug/L | 0.2144 | ppb | 16:42:42 |
| 1 | SiO2† | 563.6 | 6.0 | 0.4238 | ug/L | 0.4238 | ppb | 16:43:38 |
| 2 | Sc Radial | 3840.5 | 3840.5 | 98.0 | % | | | 16:41:50 |
| 2 | Y RADIAL | 4332.1 | 4332.1 | 98.21 | % | | | 16:41:30 |
| 2 | Al 396.153Radial† | -118.7 | -8.7 | -8.1576 | ug/L | -8.1576 | ppb | 16:41:30 |
| 2 | Ca 317.933Radial† | 24.4 | 5.2 | 10.948 | ug/L | 10.948 | ppb | 16:41:50 |
| 2 | Fe 238.204 Radial† | 12.2 | 1.1 | 15.961 | ug/L | 15.961 | ppb | 16:41:50 |
| 2 | K 766.490 Radial† | 2839.3 | 257.6 | 49.429 | ug/L | 49.429 | ppb | 16:41:30 |
| 2 | Mg 279.077 IEC† | 3.3 | -0.7 | -32.415 | ug/L | -32.415 | ppb | 16:41:50 |
| 2 | Na 589.592 Radial† | -829.3 | -26.4 | -8.1372 | ug/L | -8.1372 | ppb | 16:41:30 |
| 2 | Sr 421.552† | 49.5 | 14.8 | 0.1022 | ug/L | 0.1022 | ppb | 16:41:30 |
| 2 | Sc 361.383 | 907960.1 | 907960.1 | 103.50 | % | | | 16:42:47 |
| 2 | Y 371.029 | 768066.0 | 768066.0 | 101.62 | % | | | 16:42:47 |
| 2 | Ag 328.068† | 339.1 | 87.2 | 0.4113 | ug/L | 0.4113 | ppb | 16:42:47 |
| 2 | As 188.979† | -21.2 | -2.3 | -1.0083 | ug/L | -1.0083 | ppb | 16:43:07 |
| 2 | B 249.677† | -347.9 | 62.1 | 1.5044 | ug/L | 1.5044 | ppb | 16:43:07 |
| 2 | Ba 233.527† | 95.8 | 94.0 | 0.7400 | ug/L | 0.7400 | ppb | 16:43:07 |
| 2 | Be 313.107† | -3863.4 | 29.5 | 0.0113 | ug/L | 0.0113 | ppb | 16:42:47 |
| 2 | Cd 226.502† | -187.6 | 15.0 | 0.1725 | ug/L | 0.1725 | ppb | 16:43:07 |
| 2 | Co 228.616† | -76.2 | -7.1 | -0.1471 | ug/L | -0.1471 | ppb | 16:43:07 |
| 2 | Cr 267.716† | 72.6 | -7.5 | -0.0820 | ug/L | -0.0820 | ppb | 16:43:07 |
| 2 | Cu 324.752† | 6100.4 | -96.8 | -0.2946 | ug/L | -0.2946 | ppb | 16:42:47 |
| 2 | Mn 257.610† | 529.5 | 52.8 | 0.0630 | ug/L | 0.0630 | ppb | 16:43:07 |
| 2 | Mo 202.031† | 14.7 | 4.1 | 0.3023 | ug/L | 0.3023 | ppb | 16:43:07 |
| 2 | Ni 231.604† | 68.9 | 4.2 | 0.1061 | ug/L | 0.1061 | ppb | 16:43:07 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 208.5 | -9.1 | -5.4381 | ug/L | -5.4381 ppb | 16:43:07 |
| 2 | Pb 220.353† | -47.7 | 12.0 | 1.4725 | ug/L | 1.4725 ppb | 16:43:07 |
| 2 | S 181.975 Axial† | 40.9 | -1.2 | -1.7952 | ug/L | -1.7952 ppb | 16:43:07 |
| 2 | Sb 206.836† | 40.4 | 2.4 | 0.8321 | ug/L | 0.8321 ppb | 16:43:07 |
| 2 | Se 196.026† | -27.2 | 1.5 | 1.0025 | ug/L | 1.0025 ppb | 16:43:07 |
| 2 | Si 251.611† | 607.3 | 28.4 | 0.9148 | ug/L | 0.9148 ppb | 16:43:07 |
| 2 | Sn 189.927† | 11.4 | 0.5 | 0.0913 | ug/L | 0.0913 ppb | 16:43:07 |
| 2 | Ti 334.940† | -1367.6 | 52.8 | 0.0863 | ug/L | 0.0863 ppb | 16:42:47 |
| 2 | Tl 190.801† | -28.4 | 5.1 | 1.6415 | ug/L | 1.6415 ppb | 16:43:07 |
| 2 | U 409.014† | -2926.4 | 59.2 | 1.6333 | ug/L | 1.6333 ppb | 16:42:47 |
| 2 | V 292.402† | -1421.1 | 132.7 | 0.9293 | ug/L | 0.9293 ppb | 16:42:47 |
| 2 | Zn 213.857† | 654.5 | 26.3 | 0.2623 | ug/L | 0.2623 ppb | 16:43:07 |
| 2 | SiO2† | 548.9 | -24.1 | -1.6825 | ug/L | -1.6825 ppb | 16:43:43 |
| 3 | Sc Radial | 3854.5 | 3854.5 | 98.4 | % | | 16:42:15 |
| 3 | Y RADIAL | 4387.9 | 4387.9 | 99.48 | % | | 16:41:55 |
| 3 | Al 396.153Radial† | -123.6 | -13.3 | -12.481 | ug/L | -12.481 ppb | 16:41:55 |
| 3 | Ca 317.933Radial† | 23.6 | 4.3 | 8.9288 | ug/L | 8.9288 ppb | 16:42:15 |
| 3 | Fe 238.204 Radial† | 10.7 | -0.4 | -5.9007 | ug/L | -5.9007 ppb | 16:42:15 |
| 3 | K 766.490 Radial† | 2772.7 | 179.3 | 34.404 | ug/L | 34.404 ppb | 16:41:55 |
| 3 | Mg 279.077 IEC† | 2.2 | -1.9 | -90.064 | ug/L | -90.064 ppb | 16:42:15 |
| 3 | Na 589.592 Radial† | -748.1 | 59.2 | 18.254 | ug/L | 18.254 ppb | 16:41:55 |
| 3 | Sr 421.552† | 50.4 | 15.5 | 0.1073 | ug/L | 0.1073 ppb | 16:41:55 |
| 3 | Sc 361.383 | 890931.8 | 890931.8 | 101.56 | % | | 16:43:12 |
| 3 | Y 371.029 | 754044.7 | 754044.7 | 99.762 | % | | 16:43:12 |
| 3 | Ag 328.068† | 298.4 | 53.4 | 0.2538 | ug/L | 0.2538 ppb | 16:43:12 |
| 3 | As 188.979† | -29.4 | -10.7 | -4.7749 | ug/L | -4.7749 ppb | 16:43:32 |
| 3 | B 249.677† | -376.7 | 27.3 | 0.6627 | ug/L | 0.6627 ppb | 16:43:32 |
| 3 | Ba 233.527† | 22.4 | 23.4 | 0.1852 | ug/L | 0.1852 ppb | 16:43:32 |
| 3 | Be 313.107† | -3661.4 | 157.1 | 0.0591 | ug/L | 0.0591 ppb | 16:43:12 |
| 3 | Cd 226.502† | -173.9 | 25.0 | 0.2890 | ug/L | 0.2890 ppb | 16:43:32 |
| 3 | Co 228.616† | -71.4 | -3.8 | -0.0789 | ug/L | -0.0789 ppb | 16:43:32 |
| 3 | Cr 267.716† | 81.4 | 2.5 | 0.0308 | ug/L | 0.0308 ppb | 16:43:32 |
| 3 | Cu 324.752† | 6028.7 | -54.8 | -0.1632 | ug/L | -0.1632 ppb | 16:43:12 |
| 3 | Mn 257.610† | 472.9 | 6.9 | 0.0109 | ug/L | 0.0109 ppb | 16:43:32 |
| 3 | Mo 202.031† | 16.8 | 6.4 | 0.4686 | ug/L | 0.4686 ppb | 16:43:32 |
| 3 | Ni 231.604† | 75.8 | 12.2 | 0.3108 | ug/L | 0.3108 ppb | 16:43:32 |
| 3 | P 214.914† | 210.3 | -3.4 | -2.0373 | ug/L | -2.0373 ppb | 16:43:32 |
| 3 | Pb 220.353† | -61.0 | -1.9 | -0.2377 | ug/L | -0.2377 ppb | 16:43:32 |
| 3 | S 181.975 Axial† | 43.8 | 2.4 | 3.4054 | ug/L | 3.4054 ppb | 16:43:32 |
| 3 | Sb 206.836† | 40.8 | 3.4 | 1.2035 | ug/L | 1.2035 ppb | 16:43:32 |
| 3 | Se 196.026† | -25.5 | 2.6 | 1.6989 | ug/L | 1.6989 ppb | 16:43:32 |
| 3 | Si 251.611† | 556.5 | -10.3 | -0.3401 | ug/L | -0.3401 ppb | 16:43:32 |
| 3 | Sn 189.927† | 8.4 | -2.2 | -0.3951 | ug/L | -0.3951 ppb | 16:43:32 |
| 3 | Ti 334.940† | -1373.1 | 22.1 | 0.0463 | ug/L | 0.0463 ppb | 16:43:12 |
| 3 | Tl 190.801† | -32.9 | 0.2 | 0.0615 | ug/L | 0.0615 ppb | 16:43:32 |
| 3 | U 409.014† | -3188.9 | -253.3 | -6.9938 | ug/L | -6.9938 ppb | 16:43:12 |
| 3 | V 292.402† | -1436.0 | 91.8 | 0.6321 | ug/L | 0.6321 ppb | 16:43:12 |
| 3 | Zn 213.857† | 636.3 | 20.5 | 0.2053 | ug/L | 0.2053 ppb | 16:43:32 |
| 3 | SiO2† | 579.6 | 16.3 | 1.1216 | ug/L | 1.1216 ppb | 16:43:48 |

**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 893702.1 | 101.88 | % | 1.493 | | | | 1.47% |
| Sc Radial | 3847.4 | 98.2 | % | 0.18 | | | | 0.18% |
| Y 371.029 | 756047.7 | 100.03 | % | 1.475 | | | | 1.48% |
| Y RADIAL | 4352.8 | 98.68 | % | 0.692 | | | | 0.70% |
| Ag 328.068† | 42.9 | 0.2048 | ug/L | 0.23492 | 0.2048 | ppb | 0.23492 | 114.72% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -6.5 | -6.0990 | ug/L | 7.62303 | -6.0990 | ppb | 7.62303 | 124.99% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -7.4 | -3.3113 | ug/L | 2.01876 | -3.3113 | ppb | 2.01876 | 60.97% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 22.4 | 0.5417 | ug/L | 1.02842 | 0.5417 | ppb | 1.02842 | 189.84% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 39.9 | 0.3147 | ug/L | 0.37765 | 0.3147 | ppb | 0.37765 | 120.02% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 82.2 | 0.0309 | ug/L | 0.02502 | 0.0309 | ppb | 0.02502 | 80.89% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 5.6 | 11.785 | ug/L | 3.3536 | 11.785 | ppb | 3.3536 | 28.46% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              15.0      0.1729 ug/L       0.11604      0.1729 ppb        0.11604  67.13%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -4.4     -0.0909 ug/L       0.05127     -0.0909 ppb        0.05127  56.43%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.9     -0.0634 ug/L       0.08641     -0.0634 ppb        0.08641 136.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -69.3     -0.2093 ug/L       0.07399     -0.2093 ppb        0.07399  35.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      4.5508 ug/L      10.96251      4.5508 ppb       10.96251 240.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       167.6     32.156 ug/L       18.5000     32.156 ppb        18.5000  57.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.4    -17.834 ug/L       80.5169    -17.834 ppb        80.5169 451.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.3      0.0186 ug/L       0.04115      0.0186 ppb        0.04115 221.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.5      0.1829 ug/L       0.36053      0.1829 ppb        0.36053 197.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       23.5      7.2507 ug/L      13.73103      7.2507 ppb       13.73103 189.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.8      0.0703 ug/L       0.26023      0.0703 ppb        0.26023 370.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.2     -4.3090 ug/L       1.96737     -4.3090 ppb        1.96737  45.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.8      1.0780 ug/L       1.16941      1.0780 ppb        1.16941 108.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.6      3.7972 ug/L       5.79828      3.7972 ppb        5.79828 152.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.3      1.8537 ug/L       1.45977      1.8537 ppb        1.45977  78.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.2      2.1095 ug/L       1.35961      2.1095 ppb        1.35961  64.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               0.9      0.0268 ug/L       0.77289      0.0268 ppb        0.77289 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.9      0.3454 ug/L       0.89502      0.3454 ppb        0.89502 259.14%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              27.9      0.1930 ug/L       0.15281      0.1930 ppb        0.15281  79.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               9.4      0.0188 ug/L       0.08466      0.0188 ppb        0.08466 449.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.3     -0.1033 ug/L       1.83278     -0.1033 ppb        1.83278 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -87.9     -2.4264 ug/L       4.33588     -2.4264 ppb        4.33588 178.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               98.0      0.6805 ug/L       0.22849      0.6805 ppb        0.22849  33.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.7      0.2273 ug/L       0.03064      0.2273 ppb        0.03064  13.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -0.6     -0.0457 ug/L       1.45981     -0.0457 ppb        1.45981 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/24/2010 16:52:57 Plasma On Time: 00:00:00
Logged In Analyst: Optima3 Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 Autosampler Location: 1
Sample ID: CCV Date Collected: 2/24/2010 16:52:58
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

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Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3874.5 | 3874.5 | 98.9 | % | | | 16:54:51 |
| 1 | Y RADIAL | 4228.4 | 4228.4 | 95.86 | % | | | 16:54:51 |
| 1 | Al 396.153Radial† | 5087.0 | 5257.7 | 4907.9 | ug/L | 4907.9 | ppb | 16:54:51 |
| 1 | Ca 317.933Radial† | 2422.1 | 2430.1 | 5080.2 | ug/L | 5080.2 | ppb | 16:55:11 |
| 1 | Fe 238.204 Radial† | 358.6 | 351.4 | 4974.4 | ug/L | 4974.4 | ppb | 16:55:11 |
| 1 | K 766.490 Radial† | 28051.4 | 25733.0 | 4931.9 | ug/L | 4931.9 | ppb | 16:54:51 |
| 1 | Mg 279.077 IEC† | 104.0 | 101.1 | 4902.6 | ug/L | 4902.6 | ppb | 16:55:11 |
| 1 | Na 589.592 Radial† | 30584.6 | 31754.6 | 9790.8 | ug/L | 9790.8 | ppb | 16:54:51 |
| 1 | Sr 421.552† | 68864.7 | 69617.5 | 481.68 | ug/L | 481.68 | ppb | 16:54:51 |
| 1 | Sc 361.383 | 900794.5 | 900794.5 | 102.69 | % | | | 16:56:08 |
| 1 | Y 371.029 | 747978.0 | 747978.0 | 98.959 | % | | | 16:56:08 |
| 1 | Ag 328.068† | 105774.9 | 102767.5 | 479.11 | ug/L | 479.11 | ppb | 16:56:14 |
| 1 | As 188.979† | 1082.4 | 1072.3 | 483.11 | ug/L | 483.11 | ppb | 16:56:34 |
| 1 | B 249.677† | 19361.3 | 19253.1 | 464.61 | ug/L | 464.61 | ppb | 16:56:14 |
| 1 | Ba 233.527† | 62708.4 | 61069.4 | 480.43 | ug/L | 480.43 | ppb | 16:56:14 |
| 1 | Be 313.107† | 1318956.9 | 1288217.3 | 485.22 | ug/L | 485.22 | ppb | 16:56:08 |
| 1 | Cd 226.502† | 42591.0 | 41673.2 | 482.46 | ug/L | 482.46 | ppb | 16:56:14 |
| 1 | Co 228.616† | 23606.0 | 23055.1 | 483.00 | ug/L | 483.00 | ppb | 16:56:14 |
| 1 | Cr 267.716† | 43734.7 | 42512.9 | 478.20 | ug/L | 478.20 | ppb | 16:56:14 |
| 1 | Cu 324.752† | 165690.3 | 155365.4 | 472.79 | ug/L | 472.79 | ppb | 16:56:14 |
| 1 | Mn 257.610† | 440704.6 | 428717.7 | 488.15 | ug/L | 488.15 | ppb | 16:56:08 |
| 1 | Mo 202.031† | 6682.9 | 6497.9 | 477.50 | ug/L | 477.50 | ppb | 16:56:34 |
| 1 | Ni 231.604† | 19517.2 | 18944.2 | 481.52 | ug/L | 481.52 | ppb | 16:56:14 |
| 1 | P 214.914† | 4323.8 | 4000.2 | 2315.9 | ug/L | 2315.9 | ppb | 16:56:34 |
| 1 | Pb 220.353† | 3980.4 | 3934.4 | 485.35 | ug/L | 485.35 | ppb | 16:56:34 |
| 1 | S 181.975 Axial† | 731.5 | 671.6 | 965.50 | ug/L | 965.50 | ppb | 16:56:34 |
| 1 | Sb 206.836† | 1432.1 | 1357.9 | 491.83 | ug/L | 491.83 | ppb | 16:56:34 |
| 1 | Se 196.026† | 725.3 | 734.0 | 497.79 | ug/L | 497.79 | ppb | 16:56:34 |
| 1 | Si 251.611† | 76328.8 | 73773.8 | 2381.4 | ug/L | 2381.4 | ppb | 16:56:14 |
| 1 | Sn 189.927† | 2759.7 | 2677.0 | 480.94 | ug/L | 480.94 | ppb | 16:56:34 |
| 1 | Ti 334.940† | 319498.4 | 312514.9 | 490.99 | ug/L | 490.99 | ppb | 16:56:08 |
| 1 | Tl 190.801† | 1514.1 | 1507.0 | 485.23 | ug/L | 485.23 | ppb | 16:56:34 |
| 1 | U 409.014† | 14604.0 | 17108.6 | 470.80 | ug/L | 470.80 | ppb | 16:56:14 |
| 1 | V 292.402† | 68353.2 | 68070.9 | 480.97 | ug/L | 480.97 | ppb | 16:56:14 |
| 1 | Zn 213.857† | 49584.7 | 47681.6 | 475.53 | ug/L | 475.53 | ppb | 16:56:14 |
| 1 | SiO2† | 75891.3 | 73351.7 | 5084.6 | ug/L | 5084.6 | ppb | 16:57:42 |
| 2 | Sc Radial | 3897.9 | 3897.9 | 99.5 | % | | | 16:55:16 |
| 2 | Y RADIAL | 4283.1 | 4283.1 | 97.10 | % | | | 16:55:16 |
| 2 | Al 396.153Radial† | 5112.2 | 5252.1 | 4902.6 | ug/L | 4902.6 | ppb | 16:55:16 |
| 2 | Ca 317.933Radial† | 2426.7 | 2420.0 | 5059.1 | ug/L | 5059.1 | ppb | 16:55:36 |
| 2 | Fe 238.204 Radial† | 352.7 | 343.3 | 4860.0 | ug/L | 4860.0 | ppb | 16:55:36 |
| 2 | K 766.490 Radial† | 28235.2 | 25747.2 | 4934.6 | ug/L | 4934.6 | ppb | 16:55:16 |
| 2 | Mg 279.077 IEC† | 108.5 | 105.0 | 5093.3 | ug/L | 5093.3 | ppb | 16:55:36 |
| 2 | Na 589.592 Radial† | 30796.8 | 31782.0 | 9799.2 | ug/L | 9799.2 | ppb | 16:55:16 |
| 2 | Sr 421.552† | 69281.5 | 69617.9 | 481.69 | ug/L | 481.69 | ppb | 16:55:16 |
| 2 | Sc 361.383 | 896537.7 | 896537.7 | 102.20 | % | | | 16:56:40 |
| 2 | Y 371.029 | 745698.4 | 745698.4 | 98.658 | % | | | 16:56:40 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Ag 328.068† | 106225.4 | 103697.4 | 483.40 ug/L | 483.40 ppb | 16:56:45 |
| 2 | As 188.979† | 1082.0 | 1076.9 | 485.12 ug/L | 485.12 ppb | 16:57:05 |
| 2 | B 249.677† | 19604.5 | 19580.6 | 472.55 ug/L | 472.55 ppb | 16:56:45 |
| 2 | Ba 233.527† | 63095.5 | 61738.2 | 485.68 ug/L | 485.68 ppb | 16:56:45 |
| 2 | Be 313.107† | 1312700.1 | 1288193.9 | 485.21 ug/L | 485.21 ppb | 16:56:40 |
| 2 | Cd 226.502† | 42788.6 | 42063.4 | 486.99 ug/L | 486.99 ppb | 16:56:45 |
| 2 | Co 228.616† | 23694.6 | 23250.9 | 487.11 ug/L | 487.11 ppb | 16:56:45 |
| 2 | Cr 267.716† | 44056.5 | 43030.0 | 484.00 ug/L | 484.00 ppb | 16:56:45 |
| 2 | Cu 324.752† | 166290.3 | 156718.6 | 476.90 ug/L | 476.90 ppb | 16:56:45 |
| 2 | Mn 257.610† | 437477.9 | 427598.2 | 486.85 ug/L | 486.85 ppb | 16:56:40 |
| 2 | Mo 202.031† | 6684.4 | 6530.3 | 479.87 ug/L | 479.87 ppb | 16:57:05 |
| 2 | Ni 231.604† | 19572.9 | 19088.9 | 485.19 ug/L | 485.19 ppb | 16:56:45 |
| 2 | P 214.914† | 4324.1 | 4020.5 | 2327.4 ug/L | 2327.4 ppb | 16:57:05 |
| 2 | Pb 220.353† | 3967.1 | 3939.8 | 486.04 ug/L | 486.04 ppb | 16:57:05 |
| 2 | S 181.975 Axial† | 732.2 | 675.6 | 971.30 ug/L | 971.30 ppb | 16:57:05 |
| 2 | Sb 206.836† | 1427.2 | 1359.8 | 492.58 ug/L | 492.58 ppb | 16:57:05 |
| 2 | Se 196.026† | 726.0 | 738.1 | 500.07 ug/L | 500.07 ppb | 16:57:05 |
| 2 | Si 251.611† | 76736.4 | 74525.6 | 2405.7 ug/L | 2405.7 ppb | 16:56:45 |
| 2 | Sn 189.927† | 2759.1 | 2689.2 | 483.13 ug/L | 483.13 ppb | 16:57:05 |
| 2 | Ti 334.940† | 316820.6 | 311372.1 | 489.17 ug/L | 489.17 ppb | 16:56:40 |
| 2 | Tl 190.801† | 1525.1 | 1524.9 | 490.88 ug/L | 490.88 ppb | 16:57:05 |
| 2 | U 409.014† | 14523.9 | 17097.7 | 470.50 ug/L | 470.50 ppb | 16:56:45 |
| 2 | V 292.402† | 68650.1 | 68677.5 | 485.26 ug/L | 485.26 ppb | 16:56:45 |
| 2 | Zn 213.857† | 49793.9 | 48115.5 | 479.89 ug/L | 479.89 ppb | 16:56:45 |
| 2 | SiO2† | 76285.1 | 74087.9 | 5135.7 ug/L | 5135.7 ppb | 16:57:47 |
| 3 | Sc Radial | 3889.2 | 3889.2 | 99.2 % | | 16:55:41 |
| 3 | Y RADIAL | 4279.8 | 4279.8 | 97.03 % | | 16:55:41 |
| 3 | Al 396.153Radial† | 5112.7 | 5264.0 | 4913.5 ug/L | 4913.5 ppb | 16:55:41 |
| 3 | Ca 317.933Radial† | 2391.8 | 2390.4 | 4997.1 ug/L | 4997.1 ppb | 16:56:01 |
| 3 | Fe 238.204 Radial† | 349.1 | 340.5 | 4820.6 ug/L | 4820.6 ppb | 16:56:01 |
| 3 | K 766.490 Radial† | 28327.7 | 25903.6 | 4964.6 ug/L | 4964.6 ppb | 16:55:41 |
| 3 | Mg 279.077 IEC† | 104.3 | 101.0 | 4895.9 ug/L | 4895.9 ppb | 16:56:01 |
| 3 | Na 589.592 Radial† | 30968.1 | 32023.4 | 9873.7 ug/L | 9873.7 ppb | 16:55:41 |
| 3 | Sr 421.552† | 69314.1 | 69805.5 | 482.99 ug/L | 482.99 ppb | 16:55:41 |
| 3 | Sc 361.383 | 887434.2 | 887434.2 | 101.16 % | | 16:57:11 |
| 3 | Y 371.029 | 737924.1 | 737924.1 | 97.629 % | | 16:57:11 |
| 3 | Ag 328.068† | 105879.3 | 104421.6 | 486.76 ug/L | 486.76 ppb | 16:57:16 |
| 3 | As 188.979† | 1085.1 | 1090.9 | 491.37 ug/L | 491.37 ppb | 16:57:36 |
| 3 | B 249.677† | 19499.3 | 19673.3 | 474.80 ug/L | 474.80 ppb | 16:57:16 |
| 3 | Ba 233.527† | 62800.9 | 62080.3 | 488.37 ug/L | 488.37 ppb | 16:57:16 |
| 3 | Be 313.107† | 1302369.7 | 1291158.3 | 486.33 ug/L | 486.33 ppb | 16:57:11 |
| 3 | Cd 226.502† | 42781.2 | 42485.6 | 491.89 ug/L | 491.89 ppb | 16:57:16 |
| 3 | Co 228.616† | 23644.5 | 23439.1 | 491.06 ug/L | 491.06 ppb | 16:57:16 |
| 3 | Cr 267.716† | 43894.5 | 43312.1 | 487.17 ug/L | 487.17 ppb | 16:57:16 |
| 3 | Cu 324.752† | 165499.8 | 157606.3 | 479.60 ug/L | 479.60 ppb | 16:57:16 |
| 3 | Mn 257.610† | 435384.8 | 429920.4 | 489.50 ug/L | 489.50 ppb | 16:57:11 |
| 3 | Mo 202.031† | 6671.3 | 6584.4 | 483.84 ug/L | 483.84 ppb | 16:57:36 |
| 3 | Ni 231.604† | 19565.8 | 19278.4 | 490.01 ug/L | 490.01 ppb | 16:57:16 |
| 3 | P 214.914† | 4311.6 | 4051.5 | 2345.6 ug/L | 2345.6 ppb | 16:57:36 |
| 3 | Pb 220.353† | 3950.2 | 3962.9 | 488.89 ug/L | 488.89 ppb | 16:57:36 |
| 3 | S 181.975 Axial† | 732.3 | 683.1 | 982.04 ug/L | 982.04 ppb | 16:57:36 |
| 3 | Sb 206.836† | 1432.1 | 1378.9 | 499.40 ug/L | 499.40 ppb | 16:57:36 |
| 3 | Se 196.026† | 727.7 | 747.1 | 505.86 ug/L | 505.86 ppb | 16:57:36 |
| 3 | Si 251.611† | 76288.7 | 74853.3 | 2416.2 ug/L | 2416.2 ppb | 16:57:16 |
| 3 | Sn 189.927† | 2748.0 | 2705.9 | 486.13 ug/L | 486.13 ppb | 16:57:36 |
| 3 | Ti 334.940† | 314858.3 | 312612.4 | 491.13 ug/L | 491.13 ppb | 16:57:11 |
| 3 | Tl 190.801† | 1507.3 | 1522.6 | 490.16 ug/L | 490.16 ppb | 16:57:36 |
| 3 | U 409.014† | 14397.3 | 17118.4 | 471.07 ug/L | 471.07 ppb | 16:57:16 |
| 3 | V 292.402† | 68487.9 | 69206.1 | 489.00 ug/L | 489.00 ppb | 16:57:16 |
| 3 | Zn 213.857† | 49701.0 | 48523.5 | 483.97 ug/L | 483.97 ppb | 16:57:16 |
| 3 | SiO2† | 77026.9 | 75586.9 | 5239.8 ug/L | 5239.8 ppb | 16:57:52 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 894922.1 | 102.02 | % | 0.778 | | | | 0.76% |
| Sc Radial | 3887.2 | 99.2 | % | 0.30 | | | | 0.30% |
| Y 371.029 | 743866.8 | 98.415 | % | 0.6974 | | | | 0.71% |
| Y RADIAL | 4263.8 | 96.67 | % | 0.696 | | | | 0.72% |
| Ag 328.068† | 103628.8 | 483.09 | ug/L | 3.834 | 483.09 | ppb | 3.834 | 0.79% |

```
   QC value within limits for Ag 328.068  Recovery = 96.62%
Al 396.153Radial†       5257.9      4908.0 ug/L          5.47      4908.0 ppb          5.47   0.11%
   QC value within limits for Al 396.153Radial  Recovery = 98.16%
As 188.979†             1080.0      486.53 ug/L         4.309      486.53 ppb         4.309   0.89%
   QC value within limits for As 188.979  Recovery = 97.31%
B 249.677†             19502.3      470.65 ug/L         5.354      470.65 ppb         5.354   1.14%
   QC value within limits for B 249.677  Recovery = 94.13%
Ba 233.527†            61629.3      484.83 ug/L         4.041      484.83 ppb         4.041   0.83%
   QC value within limits for Ba 233.527  Recovery = 96.97%
Be 313.107†          1289189.8      485.59 ug/L         0.642      485.59 ppb         0.642   0.13%
   QC value within limits for Be 313.107  Recovery = 97.12%
Ca 317.933Radial†       2413.5      5045.4 ug/L         43.21      5045.4 ppb         43.21   0.86%
   QC value within limits for Ca 317.933Radial  Recovery = 100.91%
Cd 226.502†            42074.1      487.11 ug/L         4.716      487.11 ppb         4.716   0.97%
   QC value within limits for Cd 226.502  Recovery = 97.42%
Co 228.616†            23248.4      487.06 ug/L         4.031      487.06 ppb         4.031   0.83%
   QC value within limits for Co 228.616  Recovery = 97.41%
Cr 267.716†            42951.7      483.12 ug/L         4.548      483.12 ppb         4.548   0.94%
   QC value within limits for Cr 267.716  Recovery = 96.62%
Cu 324.752†           156563.4      476.43 ug/L         3.430      476.43 ppb         3.430   0.72%
   QC value within limits for Cu 324.752  Recovery = 95.29%
Fe 238.204 Radial†       345.0      4885.0 ug/L         79.92      4885.0 ppb         79.92   1.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.70%
K 766.490 Radial†      25794.6      4943.7 ug/L         18.16      4943.7 ppb         18.16   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 98.87%
Mg 279.077 IEC†          102.4      4963.9 ug/L        112.06      4963.9 ppb        112.06   2.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.28%
Mn 257.610†           428745.4      488.17 ug/L         1.323      488.17 ppb         1.323   0.27%
   QC value within limits for Mn 257.610  Recovery = 97.63%
Mo 202.031†             6537.5      480.40 ug/L         3.203      480.40 ppb         3.203   0.67%
   QC value within limits for Mo 202.031  Recovery = 96.08%
Na 589.592 Radial†     31853.3      9821.2 ug/L         45.61      9821.2 ppb         45.61   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 98.21%
Ni 231.604†            19103.8      485.57 ug/L         4.261      485.57 ppb         4.261   0.88%
   QC value within limits for Ni 231.604  Recovery = 97.11%
P 214.914†              4024.1      2329.7 ug/L         14.98      2329.7 ppb         14.98   0.64%
   QC value within limits for P 214.914  Recovery = 93.19%
Pb 220.353†             3945.7      486.76 ug/L         1.877      486.76 ppb         1.877   0.39%
   QC value within limits for Pb 220.353  Recovery = 97.35%
S 181.975 Axial†         676.8      972.95 ug/L         8.392      972.95 ppb         8.392   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 97.29%
Sb 206.836†             1365.5      494.60 ug/L         4.171      494.60 ppb         4.171   0.84%
   QC value within limits for Sb 206.836  Recovery = 98.92%
Se 196.026†              739.7      501.24 ug/L         4.159      501.24 ppb         4.159   0.83%
   QC value within limits for Se 196.026  Recovery = 100.25%
Si 251.611†            74384.3      2401.1 ug/L         17.87      2401.1 ppb         17.87   0.74%
   QC value within limits for Si 251.611  Recovery = 96.04%
Sn 189.927†             2690.7      483.40 ug/L         2.602      483.40 ppb         2.602   0.54%
   QC value within limits for Sn 189.927  Recovery = 96.68%
Sr 421.552†            69680.3      482.12 ug/L         0.751      482.12 ppb         0.751   0.16%
   QC value within limits for Sr 421.552  Recovery = 96.42%
Ti 334.940†           312166.4      490.43 ug/L         1.091      490.43 ppb         1.091   0.22%
   QC value within limits for Ti 334.940  Recovery = 98.09%
Tl 190.801†             1518.2      488.76 ug/L         3.077      488.76 ppb         3.077   0.63%
   QC value within limits for Tl 190.801  Recovery = 97.75%
U 409.014†             17108.2      470.79 ug/L         0.284      470.79 ppb         0.284   0.06%
   QC value within limits for U 409.014  Recovery = 94.16%
V 292.402†             68651.5      485.08 ug/L         4.016      485.08 ppb         4.016   0.83%
   QC value within limits for V 292.402  Recovery = 97.02%
Zn 213.857†            48106.9      479.80 ug/L         4.218      479.80 ppb         4.218   0.88%
   QC value within limits for Zn 213.857  Recovery = 95.96%
SiO2†                  74342.2      5153.4 ug/L         79.07      5153.4 ppb         79.07   1.53%
   QC value within limits for SiO2  Recovery = 96.37%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 17:00:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3852.2 | 3852.2 | 98.3 | % | | | 17:02:13 |
| 1 | Y RADIAL | 4377.8 | 4377.8 | 99.25 | % | | | 17:01:53 |
| 1 | Al 396.153Radial† | -110.2 | 0.3 | 0.2697 | ug/L | 0.2697 | ppb | 17:01:53 |
| 1 | Ca 317.933Radial† | 24.1 | 4.8 | 10.091 | ug/L | 10.091 | ppb | 17:02:13 |
| 1 | Fe 238.204 Radial† | 11.8 | 0.7 | 9.7941 | ug/L | 9.7941 | ppb | 17:02:13 |
| 1 | K 766.490 Radial† | 2757.5 | 165.6 | 31.763 | ug/L | 31.763 | ppb | 17:01:53 |
| 1 | Mg 279.077 IEC† | 0.3 | -3.7 | -181.48 | ug/L | -181.48 | ppb | 17:02:13 |
| 1 | Na 589.592 Radial† | -777.0 | 29.3 | 9.0403 | ug/L | 9.0403 | ppb | 17:01:53 |
| 1 | Sr 421.552† | 76.4 | 42.0 | 0.2907 | ug/L | 0.2907 | ppb | 17:01:53 |
| 1 | Sc 361.383 | 900409.9 | 900409.9 | 102.64 | % | | | 17:03:10 |
| 1 | Y 371.029 | 760595.5 | 760595.5 | 100.63 | % | | | 17:03:10 |
| 1 | Ag 328.068† | 340.0 | 90.8 | 0.4225 | ug/L | 0.4225 | ppb | 17:03:15 |
| 1 | As 188.979† | -24.7 | -5.8 | -2.5798 | ug/L | -2.5798 | ppb | 17:03:35 |
| 1 | B 249.677† | -362.4 | 45.1 | 1.0929 | ug/L | 1.0929 | ppb | 17:03:35 |
| 1 | Ba 233.527† | -5.1 | -3.5 | -0.0274 | ug/L | -0.0274 | ppb | 17:03:35 |
| 1 | Be 313.107† | -3767.8 | 91.4 | 0.0342 | ug/L | 0.0342 | ppb | 17:03:15 |
| 1 | Cd 226.502† | -182.4 | 18.5 | 0.2142 | ug/L | 0.2142 | ppb | 17:03:35 |
| 1 | Co 228.616† | -74.8 | -6.3 | -0.1327 | ug/L | -0.1327 | ppb | 17:03:35 |
| 1 | Cr 267.716† | 74.4 | -5.2 | -0.0575 | ug/L | -0.0575 | ppb | 17:03:35 |
| 1 | Cu 324.752† | 6038.4 | -107.8 | -0.3282 | ug/L | -0.3282 | ppb | 17:03:15 |
| 1 | Mn 257.610† | 467.6 | -3.2 | 0.0048 | ug/L | 0.0048 | ppb | 17:03:35 |
| 1 | Mo 202.031† | 8.8 | -1.6 | -0.1154 | ug/L | -0.1154 | ppb | 17:03:35 |
| 1 | Ni 231.604† | 82.5 | 17.9 | 0.4558 | ug/L | 0.4558 | ppb | 17:03:35 |
| 1 | P 214.914† | 211.6 | -4.3 | -2.5174 | ug/L | -2.5174 | ppb | 17:03:35 |
| 1 | Pb 220.353† | -62.4 | -2.6 | -0.3254 | ug/L | -0.3254 | ppb | 17:03:35 |
| 1 | S 181.975 Axial† | 43.8 | 1.8 | 2.6235 | ug/L | 2.6235 | ppb | 17:03:35 |
| 1 | Sb 206.836† | 40.3 | 2.6 | 0.9401 | ug/L | 0.9401 | ppb | 17:03:35 |
| 1 | Se 196.026† | -22.3 | 6.1 | 3.9981 | ug/L | 3.9981 | ppb | 17:03:35 |
| 1 | Si 251.611† | 569.3 | -3.7 | -0.1183 | ug/L | -0.1183 | ppb | 17:03:35 |
| 1 | Sn 189.927† | 29.3 | 18.0 | 3.2339 | ug/L | 3.2339 | ppb | 17:03:35 |
| 1 | Ti 334.940† | -1438.0 | -26.9 | -0.0266 | ug/L | -0.0266 | ppb | 17:03:15 |
| 1 | Tl 190.801† | -28.1 | 5.2 | 1.6536 | ug/L | 1.6536 | ppb | 17:03:35 |
| 1 | U 409.014† | -2916.7 | 45.0 | 1.2410 | ug/L | 1.2410 | ppb | 17:03:10 |
| 1 | V 292.402† | -1552.0 | -6.4 | -0.0485 | ug/L | -0.0485 | ppb | 17:03:15 |
| 1 | Zn 213.857† | 838.0 | 210.3 | 2.1135 | ug/L | 2.1135 | ppb | 17:03:35 |
| 1 | SiO2† | 569.5 | 0.5 | 0.0351 | ug/L | 0.0351 | ppb | 17:04:41 |
| 2 | Sc Radial | 3844.3 | 3844.3 | 98.1 | % | | | 17:02:38 |
| 2 | Y RADIAL | 4449.9 | 4449.9 | 100.9 | % | | | 17:02:18 |
| 2 | Al 396.153Radial† | -116.9 | -6.8 | -6.3661 | ug/L | -6.3661 | ppb | 17:02:18 |
| 2 | Ca 317.933Radial† | 16.2 | -3.2 | -6.6141 | ug/L | -6.6141 | ppb | 17:02:38 |
| 2 | Fe 238.204 Radial† | 10.8 | -0.3 | -4.1409 | ug/L | -4.1409 | ppb | 17:02:38 |
| 2 | K 766.490 Radial† | 2663.2 | 75.2 | 14.419 | ug/L | 14.419 | ppb | 17:02:18 |
| 2 | Mg 279.077 IEC† | 1.9 | -2.2 | -105.81 | ug/L | -105.81 | ppb | 17:02:38 |
| 2 | Na 589.592 Radial† | -750.4 | 54.8 | 16.909 | ug/L | 16.909 | ppb | 17:02:18 |
| 2 | Sr 421.552† | 27.9 | -7.3 | -0.0503 | ug/L | -0.0503 | ppb | 17:02:18 |
| 2 | Sc 361.383 | 901998.5 | 901998.5 | 102.82 | % | | | 17:03:40 |
| 2 | Y 371.029 | 761476.1 | 761476.1 | 100.75 | % | | | 17:03:40 |
| 2 | Ag 328.068† | 326.6 | 77.3 | 0.3584 | ug/L | 0.3584 | ppb | 17:03:45 |
| 2 | As 188.979† | -27.2 | -8.2 | -3.6601 | ug/L | -3.6601 | ppb | 17:04:06 |
| 2 | B 249.677† | -390.4 | 18.5 | 0.4488 | ug/L | 0.4488 | ppb | 17:04:06 |
| 2 | Ba 233.527† | 6.5 | 7.7 | 0.0618 | ug/L | 0.0618 | ppb | 17:04:06 |
| 2 | Be 313.107† | -3797.5 | 68.9 | 0.0255 | ug/L | 0.0255 | ppb | 17:03:45 |
| 2 | Cd 226.502† | -182.6 | 18.7 | 0.2169 | ug/L | 0.2169 | ppb | 17:04:06 |
| 2 | Co 228.616† | -53.7 | 14.3 | 0.3013 | ug/L | 0.3013 | ppb | 17:04:06 |
| 2 | Cr 267.716† | 65.5 | -14.0 | -0.1568 | ug/L | -0.1568 | ppb | 17:04:06 |
| 2 | Cu 324.752† | 6039.0 | -117.6 | -0.3586 | ug/L | -0.3586 | ppb | 17:03:45 |
| 2 | Mn 257.610† | 467.4 | -4.2 | -0.0009 | ug/L | -0.0009 | ppb | 17:04:06 |
| 2 | Mo 202.031† | 17.9 | 7.3 | 0.5340 | ug/L | 0.5340 | ppb | 17:04:06 |
| 2 | Ni 231.604† | 84.5 | 19.7 | 0.5017 | ug/L | 0.5017 | ppb | 17:04:06 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 214.8 | -1.6 | -0.9130 ug/L | -0.9130 ppb | 17:04:06 |
| 2 | Pb 220.353† | -59.5 | 0.2 | 0.0301 ug/L | 0.0301 ppb | 17:04:06 |
| 2 | S 181.975 Axial† | 38.5 | -3.3 | -4.7860 ug/L | -4.7860 ppb | 17:04:06 |
| 2 | Sb 206.836† | 56.7 | 18.4 | 6.4562 ug/L | 6.4562 ppb | 17:04:06 |
| 2 | Se 196.026† | -24.3 | 4.1 | 2.6565 ug/L | 2.6565 ppb | 17:04:06 |
| 2 | Si 251.611† | 562.5 | -11.3 | -0.3708 ug/L | -0.3708 ppb | 17:04:06 |
| 2 | Sn 189.927† | 13.3 | 2.4 | 0.4323 ug/L | 0.4323 ppb | 17:04:06 |
| 2 | Ti 334.940† | -1522.1 | -106.2 | -0.1594 ug/L | -0.1594 ppb | 17:03:45 |
| 2 | Tl 190.801† | -38.9 | -5.2 | -1.6802 ug/L | -1.6802 ppb | 17:04:06 |
| 2 | U 409.014† | -2936.9 | 30.4 | 0.8394 ug/L | 0.8394 ppb | 17:03:40 |
| 2 | V 292.402† | -1462.2 | 83.6 | 0.5912 ug/L | 0.5912 ppb | 17:03:45 |
| 2 | Zn 213.857† | 834.6 | 205.6 | 2.0681 ug/L | 2.0681 ppb | 17:04:06 |
| 2 | SiO2† | 601.4 | 30.5 | 2.1033 ug/L | 2.1033 ppb | 17:04:46 |
| 3 | Sc Radial | 3832.9 | 3832.9 | 97.8 % | | 17:03:04 |
| 3 | Y RADIAL | 4350.0 | 4350.0 | 98.62 % | | 17:02:44 |
| 3 | Al 396.153Radial† | -123.5 | -13.8 | -12.957 ug/L | -12.957 ppb | 17:02:44 |
| 3 | Ca 317.933Radial† | 20.2 | 0.9 | 1.9596 ug/L | 1.9596 ppb | 17:03:04 |
| 3 | Fe 238.204 Radial† | 12.6 | 1.6 | 22.079 ug/L | 22.079 ppb | 17:03:04 |
| 3 | K 766.490 Radial† | 2846.6 | 270.7 | 51.962 ug/L | 51.962 ppb | 17:02:44 |
| 3 | Mg 279.077 IEC† | 1.5 | -2.5 | -122.52 ug/L | -122.52 ppb | 17:03:04 |
| 3 | Na 589.592 Radial† | -889.2 | -89.3 | -27.540 ug/L | -27.540 ppb | 17:02:44 |
| 3 | Sr 421.552† | 29.9 | -5.2 | -0.0357 ug/L | -0.0357 ppb | 17:02:44 |
| 3 | Sc 361.383 | 903980.0 | 903980.0 | 103.05 % | | 17:04:11 |
| 3 | Y 371.029 | 762638.1 | 762638.1 | 100.90 % | | 17:04:11 |
| 3 | Ag 328.068† | 344.8 | 94.2 | 0.4434 ug/L | 0.4434 ppb | 17:04:16 |
| 3 | As 188.979† | -21.5 | -2.6 | -1.1479 ug/L | -1.1479 ppb | 17:04:36 |
| 3 | B 249.677† | -397.4 | 12.6 | 0.3017 ug/L | 0.3017 ppb | 17:04:36 |
| 3 | Ba 233.527† | 12.6 | 13.6 | 0.1076 ug/L | 0.1076 ppb | 17:04:36 |
| 3 | Be 313.107† | -3797.5 | 77.1 | 0.0289 ug/L | 0.0289 ppb | 17:04:16 |
| 3 | Cd 226.502† | -189.2 | 12.6 | 0.1438 ug/L | 0.1438 ppb | 17:04:36 |
| 3 | Co 228.616† | -67.4 | 1.1 | 0.0226 ug/L | 0.0226 ppb | 17:04:36 |
| 3 | Cr 267.716† | 79.4 | -0.6 | -0.0048 ug/L | -0.0048 ppb | 17:04:36 |
| 3 | Cu 324.752† | 6022.9 | -146.1 | -0.4436 ug/L | -0.4436 ppb | 17:04:16 |
| 3 | Mn 257.610† | 504.4 | 30.7 | 0.0421 ug/L | 0.0421 ppb | 17:04:36 |
| 3 | Mo 202.031† | 11.1 | 0.6 | 0.0449 ug/L | 0.0449 ppb | 17:04:36 |
| 3 | Ni 231.604† | 57.6 | -6.6 | -0.1673 ug/L | -0.1673 ppb | 17:04:36 |
| 3 | P 214.914† | 214.8 | -2.1 | -1.1683 ug/L | -1.1683 ppb | 17:04:36 |
| 3 | Pb 220.353† | -40.0 | 19.3 | 2.3688 ug/L | 2.3688 ppb | 17:04:36 |
| 3 | S 181.975 Axial† | 39.7 | -2.3 | -3.2499 ug/L | -3.2499 ppb | 17:04:36 |
| 3 | Sb 206.836† | 38.6 | 0.7 | 0.2578 ug/L | 0.2578 ppb | 17:04:36 |
| 3 | Se 196.026† | -23.3 | 5.2 | 3.4507 ug/L | 3.4507 ppb | 17:04:36 |
| 3 | Si 251.611† | 567.9 | -7.2 | -0.2350 ug/L | -0.2350 ppb | 17:04:36 |
| 3 | Sn 189.927† | 14.3 | 3.4 | 0.6142 ug/L | 0.6142 ppb | 17:04:36 |
| 3 | Ti 334.940† | -1437.6 | -21.0 | -0.0229 ug/L | -0.0229 ppb | 17:04:16 |
| 3 | Tl 190.801† | -32.5 | 1.0 | 0.3191 ug/L | 0.3191 ppb | 17:04:36 |
| 3 | U 409.014† | -2967.8 | 6.7 | 0.1816 ug/L | 0.1816 ppb | 17:04:11 |
| 3 | V 292.402† | -1537.0 | 14.2 | 0.0943 ug/L | 0.0943 ppb | 17:04:16 |
| 3 | Zn 213.857† | 815.8 | 185.6 | 1.8668 ug/L | 1.8668 ppb | 17:04:36 |
| 3 | SiO2† | 572.6 | 1.2 | 0.0855 ug/L | 0.0855 ppb | 17:04:51 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 902129.5 | 102.84 | % | 0.204 | | | | 0.20% |
| Sc Radial | 3843.2 | 98.1 | % | 0.25 | | | | 0.25% |
| Y 371.029 | 761569.9 | 100.76 | % | 0.136 | | | | 0.13% |
| Y RADIAL | 4392.5 | 99.58 | % | 1.169 | | | | 1.17% |
| Ag 328.068† | 87.4 | 0.4081 | ug/L | 0.04427 | 0.4081 | ppb | 0.04427 | 10.85% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -6.8 | -6.3511 | ug/L | 6.61330 | -6.3511 | ppb | 6.61330 | 104.13% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -5.5 | -2.4626 | ug/L | 1.26019 | -2.4626 | ppb | 1.26019 | 51.17% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 25.4 | 0.6145 | ug/L | 0.42084 | 0.6145 | ppb | 0.42084 | 68.49% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 5.9 | 0.0473 | ug/L | 0.06867 | 0.0473 | ppb | 0.06867 | 145.08% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 79.1 | 0.0296 | ug/L | 0.00440 | 0.0296 | ppb | 0.00440 | 14.89% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 0.9 | 1.8121 | ug/L | 8.35340 | 1.8121 | ppb | 8.35340 | 460.98% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.6      0.1916 ug/L       0.04145      0.1916 ppb        0.04145  21.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.0      0.0637 ug/L       0.21988      0.0637 ppb        0.21988 344.96%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.6     -0.0730 ug/L       0.07716     -0.0730 ppb        0.07716 105.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -123.8     -0.3768 ug/L       0.05982     -0.3768 ppb        0.05982  15.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      9.2439 ug/L      13.11841      9.2439 ppb       13.11841 141.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         170.5     32.715 ug/L       18.7895     32.715 ppb        18.7895  57.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8   -136.60 ug/L        39.756   -136.60 ppb         39.756  29.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 7.8      0.0154 ug/L       0.02337      0.0154 ppb        0.02337 152.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.1      0.1545 ug/L       0.33830      0.1545 ppb        0.33830 218.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -1.7     -0.5305 ug/L      23.71980     -0.5305 ppb       23.71980 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.4      0.2634 ug/L       0.37373      0.2634 ppb        0.37373 141.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.7     -1.5329 ug/L       0.86212     -1.5329 ppb        0.86212  56.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.6      0.6912 ug/L       1.46373      0.6912 ppb        1.46373 211.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.3     -1.8042 ug/L       3.91063     -1.8042 ppb        3.91063 216.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.2      2.5514 ug/L       3.39886      2.5514 ppb        3.39886 133.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.1      3.3684 ug/L       0.67455      3.3684 ppb        0.67455  20.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -7.4     -0.2414 ug/L       0.12639     -0.2414 ppb        0.12639  52.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.0      1.4268 ug/L       1.56764      1.4268 ppb        1.56764 109.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.9      0.0682 ug/L       0.19277      0.0682 ppb        0.19277 282.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -51.4     -0.0696 ug/L       0.07779     -0.0696 ppb        0.07779 111.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.3      0.0975 ug/L       1.67795      0.0975 ppb        1.67795 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 27.3      0.7540 ug/L       0.53483      0.7540 ppb        0.53483  70.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 30.5      0.2123 ug/L       0.33577      0.2123 ppb        0.33577 158.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               200.5      2.0161 ug/L       0.13130      2.0161 ppb        0.13130   6.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      10.7      0.7413 ug/L       1.17979      0.7413 ppb        1.17979 159.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 18:15:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4007.2 | 4007.2 | 102 | % | | | 18:17:17 |
| 1 | Y RADIAL | 4427.1 | 4427.1 | 100.4 | % | | | 18:17:17 |
| 1 | Al 396.153Radial† | 5205.1 | 5202.8 | 4856.0 | ug/L | 4856.0 | ppb | 18:17:17 |
| 1 | Ca 317.933Radial† | 2451.6 | 2377.8 | 4970.9 | ug/L | 4970.9 | ppb | 18:17:37 |
| 1 | Fe 238.204 Radial† | 363.8 | 344.5 | 4878.0 | ug/L | 4878.0 | ppb | 18:17:37 |
| 1 | K 766.490 Radial† | 28844.7 | 25569.2 | 4900.4 | ug/L | 4900.4 | ppb | 18:17:17 |
| 1 | Mg 279.077 IEC† | 109.2 | 102.7 | 4979.4 | ug/L | 4979.4 | ppb | 18:17:37 |
| 1 | Na 589.592 Radial† | 32811.6 | 32908.0 | 10146 | ug/L | 10146 | ppb | 18:17:17 |
| 1 | Sr 421.552† | 71918.3 | 70297.0 | 486.39 | ug/L | 486.39 | ppb | 18:17:17 |
| 1 | Sc 361.383 | 900772.2 | 900772.2 | 102.68 | % | | | 18:18:35 |
| 1 | Y 371.029 | 746520.2 | 746520.2 | 98.766 | % | | | 18:18:35 |
| 1 | Ag 328.068† | 110303.0 | 107179.9 | 499.61 | ug/L | 499.61 | ppb | 18:18:40 |
| 1 | As 188.979† | 1110.8 | 1100.0 | 495.49 | ug/L | 495.49 | ppb | 18:19:00 |
| 1 | B 249.677† | 20331.5 | 20198.4 | 487.47 | ug/L | 487.47 | ppb | 18:18:40 |
| 1 | Ba 233.527† | 65882.3 | 64162.0 | 504.75 | ug/L | 504.75 | ppb | 18:18:40 |
| 1 | Be 313.107† | 1345256.2 | 1313861.1 | 494.88 | ug/L | 494.88 | ppb | 18:18:35 |
| 1 | Cd 226.502† | 44997.0 | 44017.3 | 509.63 | ug/L | 509.63 | ppb | 18:18:40 |
| 1 | Co 228.616† | 24898.3 | 24314.2 | 509.38 | ug/L | 509.38 | ppb | 18:18:40 |
| 1 | Cr 267.716† | 46063.9 | 44782.4 | 503.69 | ug/L | 503.69 | ppb | 18:18:40 |
| 1 | Cu 324.752† | 173440.5 | 162916.9 | 495.76 | ug/L | 495.76 | ppb | 18:18:40 |
| 1 | Mn 257.610† | 451130.3 | 438881.6 | 499.70 | ug/L | 499.70 | ppb | 18:18:35 |
| 1 | Mo 202.031† | 6811.9 | 6623.7 | 486.73 | ug/L | 486.73 | ppb | 18:19:00 |
| 1 | Ni 231.604† | 20620.4 | 20019.1 | 508.84 | ug/L | 508.84 | ppb | 18:18:40 |
| 1 | P 214.914† | 4436.6 | 4110.1 | 2377.7 | ug/L | 2377.7 | ppb | 18:19:00 |
| 1 | Pb 220.353† | 4061.1 | 4013.1 | 495.04 | ug/L | 495.04 | ppb | 18:19:00 |
| 1 | S 181.975 Axial† | 747.2 | 686.9 | 987.54 | ug/L | 987.54 | ppb | 18:19:00 |
| 1 | Sb 206.836† | 1470.0 | 1394.9 | 505.23 | ug/L | 505.23 | ppb | 18:19:00 |
| 1 | Se 196.026† | 741.3 | 749.7 | 507.74 | ug/L | 507.74 | ppb | 18:19:00 |
| 1 | Si 251.611† | 80233.3 | 77578.1 | 2504.3 | ug/L | 2504.3 | ppb | 18:18:40 |
| 1 | Sn 189.927† | 2842.8 | 2758.1 | 495.47 | ug/L | 495.47 | ppb | 18:19:00 |
| 1 | Ti 334.940† | 324453.0 | 317347.7 | 498.54 | ug/L | 498.54 | ppb | 18:18:40 |
| 1 | Tl 190.801† | 1553.9 | 1545.9 | 497.61 | ug/L | 497.61 | ppb | 18:19:00 |
| 1 | U 409.014† | 15252.1 | 17740.1 | 488.20 | ug/L | 488.20 | ppb | 18:18:40 |
| 1 | V 292.402† | 71727.8 | 71358.9 | 504.06 | ug/L | 504.06 | ppb | 18:18:40 |
| 1 | Zn 213.857† | 52252.8 | 50281.2 | 501.51 | ug/L | 501.51 | ppb | 18:18:40 |
| 1 | SiO2† | 78244.6 | 75645.3 | 5243.8 | ug/L | 5243.8 | ppb | 18:20:07 |
| 2 | Sc Radial | 3906.6 | 3906.6 | 99.7 | % | | | 18:17:42 |
| 2 | Y RADIAL | 4280.9 | 4280.9 | 97.05 | % | | | 18:17:42 |
| 2 | Al 396.153Radial† | 5145.4 | 5273.9 | 4922.6 | ug/L | 4922.6 | ppb | 18:17:42 |
| 2 | Ca 317.933Radial† | 2469.9 | 2458.0 | 5138.4 | ug/L | 5138.4 | ppb | 18:18:02 |
| 2 | Fe 238.204 Radial† | 363.6 | 353.4 | 5003.1 | ug/L | 5003.1 | ppb | 18:18:02 |
| 2 | K 766.490 Radial† | 28194.8 | 25643.5 | 4914.5 | ug/L | 4914.5 | ppb | 18:17:42 |
| 2 | Mg 279.077 IEC† | 109.5 | 105.7 | 5127.1 | ug/L | 5127.1 | ppb | 18:18:02 |
| 2 | Na 589.592 Radial† | 32140.8 | 33061.3 | 10194 | ug/L | 10194 | ppb | 18:17:42 |
| 2 | Sr 421.552† | 70756.3 | 70942.4 | 490.85 | ug/L | 490.85 | ppb | 18:17:42 |
| 2 | Sc 361.383 | 904006.0 | 904006.0 | 103.05 | % | | | 18:19:06 |
| 2 | Y 371.029 | 749349.6 | 749349.6 | 99.141 | % | | | 18:19:06 |
| 2 | Ag 328.068† | 108179.6 | 104735.1 | 488.28 | ug/L | 488.28 | ppb | 18:19:11 |
| 2 | As 188.979† | 1118.4 | 1103.5 | 496.96 | ug/L | 496.96 | ppb | 18:19:31 |
| 2 | B 249.677† | 19877.4 | 19686.9 | 475.08 | ug/L | 475.08 | ppb | 18:19:11 |
| 2 | Ba 233.527† | 64530.8 | 62620.9 | 492.63 | ug/L | 492.63 | ppb | 18:19:11 |
| 2 | Be 313.107† | 1339035.3 | 1303138.0 | 490.82 | ug/L | 490.82 | ppb | 18:19:06 |
| 2 | Cd 226.502† | 44007.8 | 42900.6 | 496.68 | ug/L | 496.68 | ppb | 18:19:11 |
| 2 | Co 228.616† | 24371.3 | 23716.0 | 496.88 | ug/L | 496.88 | ppb | 18:19:11 |
| 2 | Cr 267.716† | 44890.2 | 43482.9 | 489.10 | ug/L | 489.10 | ppb | 18:19:11 |
| 2 | Cu 324.752† | 169242.2 | 158238.9 | 481.54 | ug/L | 481.54 | ppb | 18:19:11 |
| 2 | Mn 257.610† | 448671.0 | 434923.5 | 495.20 | ug/L | 495.20 | ppb | 18:19:06 |
| 2 | Mo 202.031† | 6855.6 | 6642.4 | 488.11 | ug/L | 488.11 | ppb | 18:19:31 |
| 2 | Ni 231.604† | 20115.7 | 19457.5 | 494.56 | ug/L | 494.56 | ppb | 18:19:11 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4463.4 | 4120.7 | 2386.8 ug/L | 2386.8 ppb | 18:19:31 |
| 2 | Pb 220.353† | 4098.9 | 4035.6 | 497.83 ug/L | 497.83 ppb | 18:19:31 |
| 2 | S 181.975 Axial† | 754.1 | 691.0 | 993.38 ug/L | 993.38 ppb | 18:19:31 |
| 2 | Sb 206.836† | 1497.1 | 1416.0 | 512.60 ug/L | 512.60 ppb | 18:19:31 |
| 2 | Se 196.026† | 737.4 | 743.3 | 503.95 ug/L | 503.95 ppb | 18:19:31 |
| 2 | Si 251.611† | 78408.5 | 75527.8 | 2438.0 ug/L | 2438.0 ppb | 18:19:11 |
| 2 | Sn 189.927† | 2836.5 | 2742.0 | 492.62 ug/L | 492.62 ppb | 18:19:31 |
| 2 | Ti 334.940† | 316707.3 | 308701.2 | 484.98 ug/L | 484.98 ppb | 18:19:11 |
| 2 | Tl 190.801† | 1565.5 | 1551.7 | 499.43 ug/L | 499.43 ppb | 18:19:31 |
| 2 | U 409.014† | 14653.4 | 17106.0 | 470.70 ug/L | 470.70 ppb | 18:19:11 |
| 2 | V 292.402† | 70012.4 | 69444.4 | 490.70 ug/L | 490.70 ppb | 18:19:11 |
| 2 | Zn 213.857† | 51078.0 | 48959.1 | 488.29 ug/L | 488.29 ppb | 18:19:11 |
| 2 | SiO2† | 78790.6 | 75902.6 | 5261.6 ug/L | 5261.6 ppb | 18:20:13 |
| 3 | Sc Radial | 3918.5 | 3918.5 | 100.0 % | | 18:18:08 |
| 3 | Y RADIAL | 4310.4 | 4310.4 | 97.72 % | | 18:18:08 |
| 3 | Al 396.153Radial† | 5243.1 | 5356.0 | 4998.1 ug/L | 4998.1 ppb | 18:18:08 |
| 3 | Ca 317.933Radial† | 2467.6 | 2448.1 | 5117.8 ug/L | 5117.8 ppb | 18:18:28 |
| 3 | Fe 238.204 Radial† | 364.3 | 353.1 | 4999.5 ug/L | 4999.5 ppb | 18:18:28 |
| 3 | K 766.490 Radial† | 28596.9 | 25959.7 | 4975.2 ug/L | 4975.2 ppb | 18:18:08 |
| 3 | Mg 279.077 IEC† | 109.4 | 105.3 | 5106.4 ug/L | 5106.4 ppb | 18:18:28 |
| 3 | Na 589.592 Radial† | 32437.9 | 33260.5 | 10255 ug/L | 10255 ppb | 18:18:08 |
| 3 | Sr 421.552† | 71686.1 | 71656.5 | 495.79 ug/L | 495.79 ppb | 18:18:08 |
| 3 | Sc 361.383 | 846314.1 | 846314.1 | 96.476 % | | 18:19:37 |
| 3 | Y 371.029 | 702011.8 | 702011.8 | 92.878 % | | 18:19:37 |
| 3 | Ag 328.068† | 109395.2 | 113151.1 | 527.40 ug/L | 527.40 ppb | 18:19:42 |
| 3 | As 188.979† | 1108.4 | 1167.2 | 525.67 ug/L | 525.67 ppb | 18:20:02 |
| 3 | B 249.677† | 20208.9 | 21345.4 | 515.18 ug/L | 515.18 ppb | 18:19:42 |
| 3 | Ba 233.527† | 65352.4 | 67741.2 | 532.89 ug/L | 532.89 ppb | 18:19:42 |
| 3 | Be 313.107† | 1345878.2 | 1398807.2 | 526.86 ug/L | 526.86 ppb | 18:19:37 |
| 3 | Cd 226.502† | 44497.7 | 46319.5 | 536.30 ug/L | 536.30 ppb | 18:19:42 |
| 3 | Co 228.616† | 24653.6 | 25620.7 | 536.77 ug/L | 536.77 ppb | 18:19:42 |
| 3 | Cr 267.716† | 45547.9 | 47134.2 | 530.13 ug/L | 530.13 ppb | 18:19:42 |
| 3 | Cu 324.752† | 171682.2 | 171963.2 | 523.28 ug/L | 523.28 ppb | 18:19:42 |
| 3 | Mn 257.610† | 450107.7 | 466092.0 | 530.67 ug/L | 530.67 ppb | 18:19:37 |
| 3 | Mo 202.031† | 6810.2 | 7048.8 | 517.95 ug/L | 517.95 ppb | 18:20:02 |
| 3 | Ni 231.604† | 20259.6 | 20937.3 | 532.17 ug/L | 532.17 ppb | 18:19:42 |
| 3 | P 214.914† | 4432.7 | 4384.2 | 2537.4 ug/L | 2537.4 ppb | 18:20:02 |
| 3 | Pb 220.353† | 4035.0 | 4240.5 | 523.10 ug/L | 523.10 ppb | 18:20:02 |
| 3 | S 181.975 Axial† | 743.7 | 730.1 | 1049.7 ug/L | 1049.7 ppb | 18:20:02 |
| 3 | Sb 206.836† | 1459.4 | 1476.1 | 534.65 ug/L | 534.65 ppb | 18:20:02 |
| 3 | Se 196.026† | 761.1 | 816.7 | 552.12 ug/L | 552.12 ppb | 18:20:02 |
| 3 | Si 251.611† | 79523.7 | 81870.5 | 2642.9 ug/L | 2642.9 ppb | 18:19:42 |
| 3 | Sn 189.927† | 2812.6 | 2904.9 | 521.84 ug/L | 521.84 ppb | 18:20:02 |
| 3 | Ti 334.940† | 321086.3 | 334190.1 | 525.00 ug/L | 525.00 ppb | 18:19:42 |
| 3 | Tl 190.801† | 1537.0 | 1625.8 | 523.35 ug/L | 523.35 ppb | 18:20:02 |
| 3 | U 409.014† | 15003.5 | 18438.2 | 507.40 ug/L | 507.40 ppb | 18:19:42 |
| 3 | V 292.402† | 71004.7 | 75104.3 | 530.61 ug/L | 530.61 ppb | 18:19:42 |
| 3 | Zn 213.857† | 51669.4 | 52950.9 | 528.18 ug/L | 528.18 ppb | 18:19:42 |
| 3 | SiO2† | 78130.5 | 80430.3 | 5575.5 ug/L | 5575.5 ppb | 18:20:18 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 883697.4 | 100.74 | % | 3.695 | | | | 3.67% |
| Sc Radial | 3944.1 | 101 | % | 1.4 | | | | 1.39% |
| Y 371.029 | 732627.2 | 96.928 | % | 3.5128 | | | | 3.62% |
| Y RADIAL | 4339.5 | 98.38 | % | 1.753 | | | | 1.78% |
| Ag 328.068† | 108355.4 | 505.09 | ug/L | 20.129 | 505.09 | ppb | 20.129 | 3.99% |
| QC value within limits for Ag 328.068 Recovery = 101.02% | | | | | | | | |
| Al 396.153Radial† | 5277.6 | 4925.6 | ug/L | 71.12 | 4925.6 | ppb | 71.12 | 1.44% |
| QC value within limits for Al 396.153Radial Recovery = 98.51% | | | | | | | | |
| As 188.979† | 1123.5 | 506.04 | ug/L | 17.020 | 506.04 | ppb | 17.020 | 3.36% |
| QC value within limits for As 188.979 Recovery = 101.21% | | | | | | | | |
| B 249.677† | 20410.3 | 492.57 | ug/L | 20.530 | 492.57 | ppb | 20.530 | 4.17% |
| QC value within limits for B 249.677 Recovery = 98.51% | | | | | | | | |
| Ba 233.527† | 64841.4 | 510.09 | ug/L | 20.659 | 510.09 | ppb | 20.659 | 4.05% |
| QC value within limits for Ba 233.527 Recovery = 102.02% | | | | | | | | |
| Be 313.107† | 1338602.1 | 504.18 | ug/L | 19.742 | 504.18 | ppb | 19.742 | 3.92% |
| QC value within limits for Be 313.107 Recovery = 100.84% | | | | | | | | |
| Ca 317.933Radial† | 2428.0 | 5075.7 | ug/L | 91.34 | 5075.7 | ppb | 91.34 | 1.80% |

```
   QC value within limits for Ca 317.933Radial  Recovery = 101.51%
Cd 226.502†            44412.5      514.20 ug/L        20.202      514.20 ppb        20.202   3.93%
   QC value within limits for Cd 226.502  Recovery = 102.84%
Co 228.616†            24550.3      514.34 ug/L        20.402      514.34 ppb        20.402   3.97%
   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            45133.2      507.64 ug/L        20.798      507.64 ppb        20.798   4.10%
   QC value within limits for Cr 267.716  Recovery = 101.53%
Cu 324.752†           164373.0      500.19 ug/L        21.222      500.19 ppb        21.222   4.24%
   QC value within limits for Cu 324.752  Recovery = 100.04%
Fe 238.204 Radial†       350.3      4960.2 ug/L         71.22      4960.2 ppb         71.22   1.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.20%
K 766.490 Radial†      25724.2      4930.0 ug/L         39.73      4930.0 ppb         39.73   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 98.60%
Mg 279.077 IEC†          104.6      5071.0 ug/L         80.01      5071.0 ppb         80.01   1.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.42%
Mn 257.610†           446632.4      508.52 ug/L        19.311      508.52 ppb        19.311   3.80%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†            6771.6      497.60 ug/L        17.639      497.60 ppb        17.639   3.54%
   QC value within limits for Mo 202.031  Recovery = 99.52%
Na 589.592 Radial†     33076.6       10198 ug/L          54.5       10198 ppb          54.5   0.53%
   QC value within limits for Na 589.592 Radial  Recovery = 101.98%
Ni 231.604†            20138.0      511.86 ug/L        18.987      511.86 ppb        18.987   3.71%
   QC value within limits for Ni 231.604  Recovery = 102.37%
P 214.914†              4205.0      2434.0 ug/L         89.69      2434.0 ppb         89.69   3.69%
   QC value within limits for P 214.914  Recovery = 97.36%
Pb 220.353†             4096.4      505.32 ug/L        15.456      505.32 ppb        15.456   3.06%
   QC value within limits for Pb 220.353  Recovery = 101.06%
S 181.975 Axial†         702.7      1010.2 ug/L         34.33      1010.2 ppb         34.33   3.40%
   QC value within limits for S 181.975 Axial  Recovery = 101.02%
Sb 206.836†             1429.0      517.49 ug/L        15.305      517.49 ppb        15.305   2.96%
   QC value within limits for Sb 206.836  Recovery = 103.50%
Se 196.026†              769.9      521.27 ug/L        26.782      521.27 ppb        26.782   5.14%
   QC value within limits for Se 196.026  Recovery = 104.25%
Si 251.611†            78325.5      2528.4 ug/L        104.53      2528.4 ppb        104.53   4.13%
   QC value within limits for Si 251.611  Recovery = 101.14%
Sn 189.927†             2801.7      503.31 ug/L        16.109      503.31 ppb        16.109   3.20%
   QC value within limits for Sn 189.927  Recovery = 100.66%
Sr 421.552†            70965.3      491.01 ug/L         4.705      491.01 ppb         4.705   0.96%
   QC value within limits for Sr 421.552  Recovery = 98.20%
Ti 334.940†           320079.7      502.84 ug/L        20.354      502.84 ppb        20.354   4.05%
   QC value within limits for Ti 334.940  Recovery = 100.57%
Tl 190.801†             1574.5      506.80 ug/L        14.362      506.80 ppb        14.362   2.83%
   QC value within limits for Tl 190.801  Recovery = 101.36%
U 409.014†             17761.5      488.77 ug/L        18.354      488.77 ppb        18.354   3.76%
   QC value within limits for U 409.014  Recovery = 97.75%
V 292.402†             71969.2      508.46 ug/L        20.310      508.46 ppb        20.310   3.99%
   QC value within limits for V 292.402  Recovery = 101.69%
Zn 213.857†            50730.4      505.99 ug/L        20.319      505.99 ppb        20.319   4.02%
   QC value within limits for Zn 213.857  Recovery = 101.20%
SiO2†                  77326.1      5360.3 ug/L        186.56      5360.3 ppb        186.56   3.48%
   QC value within limits for SiO2  Recovery = 100.24%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 18:22:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3866.6 | 3866.6 | 98.7 | % | | | 18:24:39 |
| 1 | Y RADIAL | 4306.0 | 4306.0 | 97.62 | % | | | 18:24:19 |
| 1 | Al 396.153Radial† | -103.1 | 7.9 | 7.4068 | ug/L | 7.4068 | ppb | 18:24:19 |
| 1 | Ca 317.933Radial† | 20.5 | 1.1 | 2.3703 | ug/L | 2.3703 | ppb | 18:24:39 |
| 1 | Fe 238.204 Radial† | 10.7 | -0.5 | -7.4116 | ug/L | -7.4116 | ppb | 18:24:39 |
| 1 | K 766.490 Radial† | 2776.0 | 173.9 | 33.366 | ug/L | 33.366 | ppb | 18:24:19 |
| 1 | Mg 279.077 IEC† | 5.0 | 1.0 | 46.301 | ug/L | 46.301 | ppb | 18:24:39 |
| 1 | Na 589.592 Radial† | -775.2 | 34.1 | 10.522 | ug/L | 10.522 | ppb | 18:24:19 |
| 1 | Sr 421.552† | 40.9 | 5.7 | 0.0395 | ug/L | 0.0395 | ppb | 18:24:19 |
| 1 | Sc 361.383 | 912740.2 | 912740.2 | 104.05 | % | | | 18:25:36 |
| 1 | Y 371.029 | 767528.5 | 767528.5 | 101.55 | % | | | 18:25:36 |
| 1 | Ag 328.068† | 335.8 | 82.4 | 0.3785 | ug/L | 0.3785 | ppb | 18:25:41 |
| 1 | As 188.979† | -24.0 | -4.8 | -2.1542 | ug/L | -2.1542 | ppb | 18:26:01 |
| 1 | B 249.677† | -471.9 | -55.3 | -1.3401 | ug/L | -1.3401 | ppb | 18:26:01 |
| 1 | Ba 233.527† | 14.2 | 15.1 | 0.1196 | ug/L | 0.1196 | ppb | 18:26:01 |
| 1 | Be 313.107† | -3792.0 | 117.7 | 0.0441 | ug/L | 0.0441 | ppb | 18:25:41 |
| 1 | Cd 226.502† | -190.6 | 13.1 | 0.1534 | ug/L | 0.1534 | ppb | 18:26:01 |
| 1 | Co 228.616† | -66.4 | 2.8 | 0.0579 | ug/L | 0.0579 | ppb | 18:26:01 |
| 1 | Cr 267.716† | 90.0 | 8.8 | 0.0970 | ug/L | 0.0970 | ppb | 18:26:01 |
| 1 | Cu 324.752† | 5923.7 | -297.6 | -0.9081 | ug/L | -0.9081 | ppb | 18:25:41 |
| 1 | Mn 257.610† | 447.8 | -28.3 | -0.0349 | ug/L | -0.0349 | ppb | 18:26:01 |
| 1 | Mo 202.031† | 9.8 | -0.8 | -0.0570 | ug/L | -0.0570 | ppb | 18:26:01 |
| 1 | Ni 231.604† | 73.3 | 8.0 | 0.2045 | ug/L | 0.2045 | ppb | 18:26:01 |
| 1 | P 214.914† | 214.0 | -4.8 | -2.6866 | ug/L | -2.6866 | ppb | 18:26:01 |
| 1 | Pb 220.353† | -57.5 | 2.9 | 0.3576 | ug/L | 0.3576 | ppb | 18:26:01 |
| 1 | S 181.975 Axial† | 44.9 | 2.3 | 3.3471 | ug/L | 3.3471 | ppb | 18:26:01 |
| 1 | Sb 206.836† | 41.6 | 3.3 | 1.1617 | ug/L | 1.1617 | ppb | 18:26:01 |
| 1 | Se 196.026† | -21.8 | 6.8 | 4.4580 | ug/L | 4.4580 | ppb | 18:26:01 |
| 1 | Si 251.611† | 580.6 | -0.3 | -0.0085 | ug/L | -0.0085 | ppb | 18:26:01 |
| 1 | Sn 189.927† | 20.0 | 8.8 | 1.5755 | ug/L | 1.5755 | ppb | 18:26:01 |
| 1 | Ti 334.940† | -1479.5 | -47.9 | -0.0805 | ug/L | -0.0805 | ppb | 18:25:41 |
| 1 | Tl 190.801† | -44.9 | -10.6 | -3.3780 | ug/L | -3.3780 | ppb | 18:26:01 |
| 1 | U 409.014† | -2857.0 | 140.7 | 3.8867 | ug/L | 3.8867 | ppb | 18:25:36 |
| 1 | V 292.402† | -1477.5 | 85.7 | 0.6062 | ug/L | 0.6062 | ppb | 18:25:41 |
| 1 | Zn 213.857† | 807.9 | 170.4 | 1.7163 | ug/L | 1.7163 | ppb | 18:26:01 |
| 1 | SiO2† | 570.9 | -5.7 | -0.3975 | ug/L | -0.3975 | ppb | 18:27:07 |
| 2 | Sc Radial | 3849.9 | 3849.9 | 98.2 | % | | | 18:25:04 |
| 2 | Y RADIAL | 4397.0 | 4397.0 | 99.69 | % | | | 18:24:44 |
| 2 | Al 396.153Radial† | -115.7 | -5.3 | -4.9982 | ug/L | -4.9982 | ppb | 18:24:44 |
| 2 | Ca 317.933Radial† | 18.8 | -0.5 | -1.0274 | ug/L | -1.0274 | ppb | 18:25:04 |
| 2 | Fe 238.204 Radial† | 13.8 | 2.8 | 38.959 | ug/L | 38.959 | ppb | 18:25:04 |
| 2 | K 766.490 Radial† | 2723.9 | 133.1 | 25.535 | ug/L | 25.535 | ppb | 18:24:44 |
| 2 | Mg 279.077 IEC† | 2.3 | -1.8 | -86.396 | ug/L | -86.396 | ppb | 18:25:04 |
| 2 | Na 589.592 Radial† | -799.8 | 5.7 | 1.7573 | ug/L | 1.7573 | ppb | 18:24:44 |
| 2 | Sr 421.552† | 28.9 | -6.3 | -0.0437 | ug/L | -0.0437 | ppb | 18:24:44 |
| 2 | Sc 361.383 | 908778.7 | 908778.7 | 103.60 | % | | | 18:26:06 |
| 2 | Y 371.029 | 764914.1 | 764914.1 | 101.20 | % | | | 18:26:06 |
| 2 | Ag 328.068† | 373.1 | 119.8 | 0.5667 | ug/L | 0.5667 | ppb | 18:26:11 |
| 2 | As 188.979† | -21.9 | -2.9 | -1.2848 | ug/L | -1.2848 | ppb | 18:26:31 |
| 2 | B 249.677† | -473.4 | -58.7 | -1.4304 | ug/L | -1.4304 | ppb | 18:26:31 |
| 2 | Ba 233.527† | -5.9 | -4.3 | -0.0320 | ug/L | -0.0320 | ppb | 18:26:31 |
| 2 | Be 313.107† | -3831.2 | 64.0 | 0.0237 | ug/L | 0.0237 | ppb | 18:26:11 |
| 2 | Cd 226.502† | -183.1 | 19.5 | 0.2218 | ug/L | 0.2218 | ppb | 18:26:31 |
| 2 | Co 228.616† | -64.1 | 4.7 | 0.0974 | ug/L | 0.0974 | ppb | 18:26:31 |
| 2 | Cr 267.716† | 55.3 | -24.3 | -0.2698 | ug/L | -0.2698 | ppb | 18:26:31 |
| 2 | Cu 324.752† | 5966.5 | -231.4 | -0.7029 | ug/L | -0.7029 | ppb | 18:26:11 |
| 2 | Mn 257.610† | 487.0 | 11.4 | 0.0203 | ug/L | 0.0203 | ppb | 18:26:31 |
| 2 | Mo 202.031† | 11.3 | 0.8 | 0.0601 | ug/L | 0.0601 | ppb | 18:26:31 |
| 2 | Ni 231.604† | 58.6 | -5.9 | -0.1502 | ug/L | -0.1502 | ppb | 18:26:31 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 216.0 | -2.0 | -1.0630 ug/L | -1.0630 ppb | 18:26:31 |
| 2 | Pb 220.353† | -64.2 | -3.9 | -0.4845 ug/L | -0.4845 ppb | 18:26:31 |
| 2 | S 181.975 Axial† | 43.5 | 1.2 | 1.6986 ug/L | 1.6986 ppb | 18:26:31 |
| 2 | Sb 206.836† | 44.3 | 6.1 | 2.1669 ug/L | 2.1669 ppb | 18:26:31 |
| 2 | Se 196.026† | -23.9 | 4.7 | 3.2101 ug/L | 3.2101 ppb | 18:26:31 |
| 2 | Si 251.611† | 551.1 | -26.3 | -0.8519 ug/L | -0.8519 ppb | 18:26:31 |
| 2 | Sn 189.927† | 28.0 | 16.5 | 2.9653 ug/L | 2.9653 ppb | 18:26:31 |
| 2 | Ti 334.940† | -1516.2 | -89.5 | -0.1343 ug/L | -0.1343 ppb | 18:26:11 |
| 2 | Tl 190.801† | -34.2 | -0.5 | -0.1567 ug/L | -0.1567 ppb | 18:26:31 |
| 2 | U 409.014† | -2936.3 | 52.3 | 1.4398 ug/L | 1.4398 ppb | 18:26:06 |
| 2 | V 292.402† | -1524.4 | 34.2 | 0.2346 ug/L | 0.2346 ppb | 18:26:11 |
| 2 | Zn 213.857† | 830.3 | 195.5 | 1.9639 ug/L | 1.9639 ppb | 18:26:31 |
| 2 | SiO2† | 591.7 | 16.8 | 1.1651 ug/L | 1.1651 ppb | 18:27:12 |
| 3 | Sc Radial | 3831.7 | 3831.7 | 97.8 % | | 18:25:29 |
| 3 | Y RADIAL | 4372.3 | 4372.3 | 99.13 % | | 18:25:09 |
| 3 | Al 396.153Radial† | -141.4 | -32.2 | -30.227 ug/L | -30.227 ppb | 18:25:09 |
| 3 | Ca 317.933Radial† | 17.5 | -1.8 | -3.6608 ug/L | -3.6608 ppb | 18:25:29 |
| 3 | Fe 238.204 Radial† | 11.1 | -0.0 | -0.1367 ug/L | -0.1367 ppb | 18:25:29 |
| 3 | K 766.490 Radial† | 2801.4 | 225.5 | 43.271 ug/L | 43.271 ppb | 18:25:09 |
| 3 | Mg 279.077 IEC† | 1.3 | -2.7 | -132.68 ug/L | -132.68 ppb | 18:25:29 |
| 3 | Na 589.592 Radial† | -762.7 | 39.7 | 12.251 ug/L | 12.251 ppb | 18:25:09 |
| 3 | Sr 421.552† | 56.8 | 22.3 | 0.1546 ug/L | 0.1546 ppb | 18:25:09 |
| 3 | Sc 361.383 | 905741.5 | 905741.5 | 103.25 % | | 18:26:36 |
| 3 | Y 371.029 | 763648.4 | 763648.4 | 101.03 % | | 18:26:36 |
| 3 | Ag 328.068† | 313.9 | 63.6 | 0.2958 ug/L | 0.2958 ppb | 18:26:42 |
| 3 | As 188.979† | -25.0 | -6.0 | -2.6860 ug/L | -2.6860 ppb | 18:27:02 |
| 3 | B 249.677† | -475.0 | -61.9 | -1.4997 ug/L | -1.4997 ppb | 18:27:02 |
| 3 | Ba 233.527† | -0.8 | 0.6 | 0.0058 ug/L | 0.0058 ppb | 18:27:02 |
| 3 | Be 313.107† | -3892.6 | -7.9 | -0.0032 ug/L | -0.0032 ppb | 18:26:42 |
| 3 | Cd 226.502† | -205.0 | -2.3 | -0.0271 ug/L | -0.0271 ppb | 18:27:02 |
| 3 | Co 228.616† | -66.7 | 1.9 | 0.0418 ug/L | 0.0418 ppb | 18:27:02 |
| 3 | Cr 267.716† | 69.5 | -10.4 | -0.1160 ug/L | -0.1160 ppb | 18:27:02 |
| 3 | Cu 324.752† | 6023.7 | -156.7 | -0.4770 ug/L | -0.4770 ppb | 18:26:42 |
| 3 | Mn 257.610† | 481.4 | 7.5 | 0.0140 ug/L | 0.0140 ppb | 18:27:02 |
| 3 | Mo 202.031† | 16.3 | 5.6 | 0.4113 ug/L | 0.4113 ppb | 18:27:02 |
| 3 | Ni 231.604† | 44.0 | -19.8 | -0.5034 ug/L | -0.5034 ppb | 18:27:02 |
| 3 | P 214.914† | 217.1 | -0.3 | -0.0499 ug/L | -0.0499 ppb | 18:27:02 |
| 3 | Pb 220.353† | -56.9 | 3.0 | 0.3693 ug/L | 0.3693 ppb | 18:27:02 |
| 3 | S 181.975 Axial† | 51.3 | 8.8 | 12.722 ug/L | 12.722 ppb | 18:27:02 |
| 3 | Sb 206.836† | 43.9 | 5.8 | 2.0753 ug/L | 2.0753 ppb | 18:27:02 |
| 3 | Se 196.026† | -33.1 | -4.4 | -2.8544 ug/L | -2.8544 ppb | 18:27:02 |
| 3 | Si 251.611† | 571.6 | -4.8 | -0.1588 ug/L | -0.1588 ppb | 18:27:02 |
| 3 | Sn 189.927† | 22.2 | 11.0 | 1.9694 ug/L | 1.9694 ppb | 18:27:02 |
| 3 | Ti 334.940† | -1476.5 | -56.0 | -0.0778 ug/L | -0.0778 ppb | 18:26:42 |
| 3 | Tl 190.801† | -24.4 | 8.9 | 2.8458 ug/L | 2.8458 ppb | 18:27:02 |
| 3 | U 409.014† | -2961.9 | 17.9 | 0.4958 ug/L | 0.4958 ppb | 18:26:36 |
| 3 | V 292.402† | -1501.5 | 51.4 | 0.3628 ug/L | 0.3628 ppb | 18:26:42 |
| 3 | Zn 213.857† | 832.3 | 200.0 | 2.0176 ug/L | 2.0176 ppb | 18:27:02 |
| 3 | SiO2† | 603.2 | 29.8 | 2.0593 ug/L | 2.0593 ppb | 18:27:17 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 909086.8 | 103.63 | % | 0.400 | | | | 0.39% |
| Sc Radial | 3849.4 | 98.2 | % | 0.45 | | | | 0.45% |
| Y 371.029 | 765363.7 | 101.26 | % | 0.262 | | | | 0.26% |
| Y RADIAL | 4358.4 | 98.81 | % | 1.068 | | | | 1.08% |
| Ag 328.068† | 88.6 | 0.4137 | ug/L | 0.13885 | 0.4137 | ppb | 0.13885 | 33.56% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -9.9 | -9.2730 | ug/L | 19.17786 | -9.2730 | ppb | 19.17786 | 206.81% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -4.6 | -2.0417 | ug/L | 0.70734 | -2.0417 | ppb | 0.70734 | 34.65% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -58.6 | -1.4234 | ug/L | 0.08000 | -1.4234 | ppb | 0.08000 | 5.62% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 3.8 | 0.0311 | ug/L | 0.07889 | 0.0311 | ppb | 0.07889 | 253.40% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 57.9 | 0.0215 | ug/L | 0.02369 | 0.0215 | ppb | 0.02369 | 109.93% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -0.4 | -0.7726 | ug/L | 3.02359 | -0.7726 | ppb | 3.02359 | 391.34% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.1      0.1160 ug/L       0.12856      0.1160 ppb        0.12856 110.79%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.1      0.0657 ug/L       0.02863      0.0657 ppb        0.02863  43.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -8.6     -0.0963 ug/L       0.18422     -0.0963 ppb        0.18422 191.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -228.5     -0.6960 ug/L       0.21563     -0.6960 ppb        0.21563  30.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.7      10.470 ug/L       24.9388      10.470 ppb        24.9388 238.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       177.5      34.057 ug/L        8.8879      34.057 ppb         8.8879  26.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -57.593 ug/L       92.9040     -57.593 ppb        92.9040 161.31%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -3.2     -0.0002 ug/L       0.03019     -0.0002 ppb        0.03019 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.9      0.1382 ug/L       0.24371      0.1382 ppb        0.24371 176.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       26.5      8.1769 ug/L       5.62635      8.1769 ppb        5.62635  68.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -5.9     -0.1497 ug/L       0.35396     -0.1497 ppb        0.35396 236.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.3     -1.2665 ug/L       1.33007     -1.2665 ppb        1.33007 105.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.7      0.0808 ug/L       0.48960      0.0808 ppb        0.48960 605.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.1      5.9226 ug/L       5.94605      5.9226 ppb        5.94605 100.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.0      1.8013 ug/L       0.55582      1.8013 ppb        0.55582  30.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.4      1.6046 ug/L       3.91166      1.6046 ppb        3.91166 243.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -10.4     -0.3397 ug/L       0.44983     -0.3397 ppb        0.44983 132.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.1      2.1700 ug/L       0.71630      2.1700 ppb        0.71630  33.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.2      0.0501 ug/L       0.09956      0.0501 ppb        0.09956 198.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -64.5     -0.0975 ug/L       0.03188     -0.0975 ppb        0.03188  32.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.7     -0.2296 ug/L       3.11254     -0.2296 ppb        3.11254 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               70.3      1.9408 ug/L       1.75006      1.9408 ppb        1.75006  90.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               57.1      0.4012 ug/L       0.18874      0.4012 ppb        0.18874  47.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             188.6      1.8993 ug/L       0.16069      1.8993 ppb        0.16069   8.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    13.6      0.9423 ug/L       1.24345      0.9423 ppb        1.24345 131.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 19:39:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4022.1 | 4022.1 | 103 | % | | | 19:41:01 |
| 1 | Y RADIAL | 4407.0 | 4407.0 | 99.91 | % | | | 19:41:01 |
| 1 | Al 396.153Radial† | 5328.8 | 5304.4 | 4951.0 | ug/L | 4951.0 | ppb | 19:41:01 |
| 1 | Ca 317.933Radial† | 2477.1 | 2393.8 | 5004.3 | ug/L | 5004.3 | ppb | 19:41:21 |
| 1 | Fe 238.204 Radial† | 365.4 | 344.7 | 4880.4 | ug/L | 4880.4 | ppb | 19:41:21 |
| 1 | K 766.490 Radial† | 29126.9 | 25739.4 | 4933.1 | ug/L | 4933.1 | ppb | 19:41:01 |
| 1 | Mg 279.077 IEC† | 109.6 | 102.7 | 4980.0 | ug/L | 4980.0 | ppb | 19:41:21 |
| 1 | Na 589.592 Radial† | 32398.5 | 32386.4 | 9985.6 | ug/L | 9985.6 | ppb | 19:41:01 |
| 1 | Sr 421.552† | 72276.7 | 70385.2 | 487.00 | ug/L | 487.00 | ppb | 19:41:01 |
| 1 | Sc 361.383 | 901596.9 | 901596.9 | 102.78 | % | | | 19:42:18 |
| 1 | Y 371.029 | 748196.3 | 748196.3 | 98.988 | % | | | 19:42:18 |
| 1 | Ag 328.068† | 108458.1 | 105286.6 | 490.80 | ug/L | 490.80 | ppb | 19:42:24 |
| 1 | As 188.979† | 1117.3 | 1105.3 | 497.78 | ug/L | 497.78 | ppb | 19:42:44 |
| 1 | B 249.677† | 19931.8 | 19791.3 | 477.62 | ug/L | 477.62 | ppb | 19:42:24 |
| 1 | Ba 233.527† | 64643.9 | 62898.3 | 494.81 | ug/L | 494.81 | ppb | 19:42:24 |
| 1 | Be 313.107† | 1346231.1 | 1313611.4 | 494.76 | ug/L | 494.76 | ppb | 19:42:18 |
| 1 | Cd 226.502† | 44054.0 | 43059.7 | 498.53 | ug/L | 498.53 | ppb | 19:42:24 |
| 1 | Co 228.616† | 24420.4 | 23827.0 | 499.21 | ug/L | 499.21 | ppb | 19:42:24 |
| 1 | Cr 267.716† | 45041.5 | 43746.6 | 492.06 | ug/L | 492.06 | ppb | 19:42:24 |
| 1 | Cu 324.752† | 169860.7 | 159279.5 | 484.69 | ug/L | 484.69 | ppb | 19:42:24 |
| 1 | Mn 257.610† | 450768.3 | 438127.5 | 498.84 | ug/L | 498.84 | ppb | 19:42:18 |
| 1 | Mo 202.031† | 6885.2 | 6689.0 | 491.52 | ug/L | 491.52 | ppb | 19:42:44 |
| 1 | Ni 231.604† | 20223.6 | 19614.6 | 498.56 | ug/L | 498.56 | ppb | 19:42:24 |
| 1 | P 214.914† | 4491.3 | 4159.4 | 2409.6 | ug/L | 2409.6 | ppb | 19:42:44 |
| 1 | Pb 220.353† | 4102.2 | 4049.4 | 499.55 | ug/L | 499.55 | ppb | 19:42:44 |
| 1 | S 181.975 Axial† | 756.7 | 695.4 | 999.79 | ug/L | 999.79 | ppb | 19:42:44 |
| 1 | Sb 206.836† | 1476.5 | 1399.9 | 507.06 | ug/L | 507.06 | ppb | 19:42:44 |
| 1 | Se 196.026† | 759.7 | 766.9 | 519.04 | ug/L | 519.04 | ppb | 19:42:44 |
| 1 | Si 251.611† | 78554.5 | 75873.3 | 2449.1 | ug/L | 2449.1 | ppb | 19:42:24 |
| 1 | Sn 189.927† | 2837.2 | 2750.1 | 494.04 | ug/L | 494.04 | ppb | 19:42:44 |
| 1 | Ti 334.940† | 317840.6 | 310625.0 | 487.99 | ug/L | 487.99 | ppb | 19:42:24 |
| 1 | Tl 190.801† | 1561.3 | 1551.7 | 499.45 | ug/L | 499.45 | ppb | 19:42:44 |
| 1 | U 409.014† | 14712.4 | 17201.4 | 473.34 | ug/L | 473.34 | ppb | 19:42:24 |
| 1 | V 292.402† | 70268.0 | 69874.7 | 493.77 | ug/L | 493.77 | ppb | 19:42:24 |
| 1 | Zn 213.857† | 51139.7 | 49151.6 | 490.22 | ug/L | 490.22 | ppb | 19:42:24 |
| 1 | SiO2† | 79027.1 | 76337.0 | 5291.7 | ug/L | 5291.7 | ppb | 19:43:51 |
| 2 | Sc Radial | 4019.7 | 4019.7 | 103 | % | | | 19:41:26 |
| 2 | Y RADIAL | 4423.9 | 4423.9 | 100.3 | % | | | 19:41:26 |
| 2 | Al 396.153Radial† | 5264.8 | 5245.1 | 4895.6 | ug/L | 4895.6 | ppb | 19:41:26 |
| 2 | Ca 317.933Radial† | 2470.9 | 2389.3 | 4994.8 | ug/L | 4994.8 | ppb | 19:41:46 |
| 2 | Fe 238.204 Radial† | 361.0 | 340.7 | 4823.2 | ug/L | 4823.2 | ppb | 19:41:46 |
| 2 | K 766.490 Radial† | 28982.2 | 25615.5 | 4909.4 | ug/L | 4909.4 | ppb | 19:41:26 |
| 2 | Mg 279.077 IEC† | 108.8 | 102.0 | 4944.4 | ug/L | 4944.4 | ppb | 19:41:46 |
| 2 | Na 589.592 Radial† | 31761.6 | 31784.5 | 9800.0 | ug/L | 9800.0 | ppb | 19:41:26 |
| 2 | Sr 421.552† | 70977.5 | 69160.9 | 478.53 | ug/L | 478.53 | ppb | 19:41:26 |
| 2 | Sc 361.383 | 912302.5 | 912302.5 | 104.00 | % | | | 19:42:49 |
| 2 | Y 371.029 | 757281.3 | 757281.3 | 100.19 | % | | | 19:42:49 |
| 2 | Ag 328.068† | 107959.2 | 103568.5 | 482.81 | ug/L | 482.81 | ppb | 19:42:55 |
| 2 | As 188.979† | 1114.0 | 1089.5 | 490.61 | ug/L | 490.61 | ppb | 19:43:15 |
| 2 | B 249.677† | 19809.4 | 19446.1 | 469.29 | ug/L | 469.29 | ppb | 19:42:55 |
| 2 | Ba 233.527† | 64444.9 | 61968.9 | 487.50 | ug/L | 487.50 | ppb | 19:42:55 |
| 2 | Be 313.107† | 1344485.9 | 1296562.4 | 488.33 | ug/L | 488.33 | ppb | 19:42:49 |
| 2 | Cd 226.502† | 43930.4 | 42437.8 | 491.33 | ug/L | 491.33 | ppb | 19:42:55 |
| 2 | Co 228.616† | 24252.6 | 23386.8 | 490.00 | ug/L | 490.00 | ppb | 19:42:55 |
| 2 | Cr 267.716† | 44948.8 | 43143.2 | 485.27 | ug/L | 485.27 | ppb | 19:42:55 |
| 2 | Cu 324.752† | 169034.2 | 156545.3 | 476.38 | ug/L | 476.38 | ppb | 19:42:55 |
| 2 | Mn 257.610† | 449773.9 | 432024.6 | 491.89 | ug/L | 491.89 | ppb | 19:42:49 |
| 2 | Mo 202.031† | 6903.2 | 6627.7 | 487.02 | ug/L | 487.02 | ppb | 19:43:15 |
| 2 | Ni 231.604† | 20115.1 | 19279.3 | 490.04 | ug/L | 490.04 | ppb | 19:42:55 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4506.7 | 4123.0 | 2389.4 ug/L | 2389.4 ppb | 19:43:15 |
| 2 | Pb 220.353† | 4108.2 | 4008.4 | 494.49 ug/L | 494.49 ppb | 19:43:15 |
| 2 | S 181.975 Axial† | 755.3 | 685.5 | 985.53 ug/L | 985.53 ppb | 19:43:15 |
| 2 | Sb 206.836† | 1485.4 | 1391.6 | 504.04 ug/L | 504.04 ppb | 19:43:15 |
| 2 | Se 196.026† | 766.0 | 764.3 | 517.17 ug/L | 517.17 ppb | 19:43:15 |
| 2 | Si 251.611† | 78286.8 | 74718.9 | 2411.8 ug/L | 2411.8 ppb | 19:42:55 |
| 2 | Sn 189.927† | 2862.2 | 2741.7 | 492.54 ug/L | 492.54 ppb | 19:43:15 |
| 2 | Ti 334.940† | 316161.6 | 305381.5 | 479.76 ug/L | 479.76 ppb | 19:42:55 |
| 2 | Tl 190.801† | 1559.9 | 1532.5 | 493.26 ug/L | 493.26 ppb | 19:43:15 |
| 2 | U 409.014† | 14517.3 | 16845.8 | 463.55 ug/L | 463.55 ppb | 19:42:55 |
| 2 | V 292.402† | 70052.2 | 68864.9 | 486.66 ug/L | 486.66 ppb | 19:42:55 |
| 2 | Zn 213.857† | 51008.2 | 48441.2 | 483.14 ug/L | 483.14 ppb | 19:42:55 |
| 2 | SiO2† | 79371.5 | 75765.9 | 5252.1 ug/L | 5252.1 ppb | 19:43:56 |
| 3 | Sc Radial | 3895.9 | 3895.9 | 99.4 % | | 19:41:51 |
| 3 | Y RADIAL | 4289.0 | 4289.0 | 97.24 % | | 19:41:51 |
| 3 | Al 396.153Radial† | 5216.5 | 5359.6 | 5003.0 ug/L | 5003.0 ppb | 19:41:51 |
| 3 | Ca 317.933Radial† | 2474.7 | 2469.6 | 5162.7 ug/L | 5162.7 ppb | 19:42:11 |
| 3 | Fe 238.204 Radial† | 359.6 | 350.4 | 4960.8 ug/L | 4960.8 ppb | 19:42:11 |
| 3 | K 766.490 Radial† | 28817.2 | 26347.1 | 5049.6 ug/L | 5049.6 ppb | 19:41:51 |
| 3 | Mg 279.077 IEC† | 106.5 | 103.0 | 4995.5 ug/L | 4995.5 ppb | 19:42:11 |
| 3 | Na 589.592 Radial† | 32020.1 | 33028.3 | 10184 ug/L | 10184 ppb | 19:41:51 |
| 3 | Sr 421.552† | 71150.6 | 71533.5 | 494.94 ug/L | 494.94 ppb | 19:41:51 |
| 3 | Sc 361.383 | 903666.2 | 903666.2 | 103.01 % | | 19:43:20 |
| 3 | Y 371.029 | 749820.8 | 749820.8 | 99.203 % | | 19:43:20 |
| 3 | Ag 328.068† | 109605.0 | 106158.3 | 494.88 ug/L | 494.88 ppb | 19:43:26 |
| 3 | As 188.979† | 1116.5 | 1102.1 | 496.38 ug/L | 496.38 ppb | 19:43:46 |
| 3 | B 249.677† | 20272.1 | 20077.3 | 484.54 ug/L | 484.54 ppb | 19:43:26 |
| 3 | Ba 233.527† | 65320.9 | 63411.5 | 498.85 ug/L | 498.85 ppb | 19:43:26 |
| 3 | Be 313.107† | 1347492.1 | 1311835.9 | 494.10 ug/L | 494.10 ppb | 19:43:20 |
| 3 | Cd 226.502† | 44676.7 | 43566.0 | 504.39 ug/L | 504.39 ppb | 19:43:26 |
| 3 | Co 228.616† | 24633.8 | 23979.7 | 502.39 ug/L | 502.39 ppb | 19:43:26 |
| 3 | Cr 267.716† | 45624.4 | 44212.1 | 497.29 ug/L | 497.29 ppb | 19:43:26 |
| 3 | Cu 324.752† | 171509.2 | 160501.3 | 488.41 ug/L | 488.41 ppb | 19:43:26 |
| 3 | Mn 257.610† | 450845.0 | 437197.6 | 497.79 ug/L | 497.79 ppb | 19:43:20 |
| 3 | Mo 202.031† | 6836.4 | 6626.3 | 486.93 ug/L | 486.93 ppb | 19:43:46 |
| 3 | Ni 231.604† | 20434.7 | 19774.5 | 502.62 ug/L | 502.62 ppb | 19:43:26 |
| 3 | P 214.914† | 4440.0 | 4099.6 | 2372.8 ug/L | 2372.8 ppb | 19:43:46 |
| 3 | Pb 220.353† | 4067.2 | 4006.4 | 494.25 ug/L | 494.25 ppb | 19:43:46 |
| 3 | S 181.975 Axial† | 746.5 | 683.9 | 983.21 ug/L | 983.21 ppb | 19:43:46 |
| 3 | Sb 206.836† | 1468.0 | 1388.4 | 502.92 ug/L | 502.92 ppb | 19:43:46 |
| 3 | Se 196.026† | 735.6 | 741.8 | 502.87 ug/L | 502.87 ppb | 19:43:46 |
| 3 | Si 251.611† | 79512.4 | 76628.1 | 2473.6 ug/L | 2473.6 ppb | 19:43:26 |
| 3 | Sn 189.927† | 2839.6 | 2746.0 | 493.34 ug/L | 493.34 ppb | 19:43:46 |
| 3 | Ti 334.940† | 320934.7 | 312920.5 | 491.62 ug/L | 491.62 ppb | 19:43:26 |
| 3 | Tl 190.801† | 1560.9 | 1547.8 | 498.19 ug/L | 498.19 ppb | 19:43:46 |
| 3 | U 409.014† | 14949.1 | 17398.4 | 478.76 ug/L | 478.76 ppb | 19:43:26 |
| 3 | V 292.402† | 71043.9 | 70471.3 | 497.86 ug/L | 497.86 ppb | 19:43:26 |
| 3 | Zn 213.857† | 51746.7 | 49626.9 | 494.96 ug/L | 494.96 ppb | 19:43:26 |
| 3 | SiO2† | 78594.9 | 75741.3 | 5250.4 ug/L | 5250.4 ppb | 19:44:01 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 905855.2 | 103.26 | % | 0.647 | | | | 0.63% |
| Sc Radial | 3979.2 | 102 | % | 1.8 | | | | 1.81% |
| Y 371.029 | 751766.1 | 99.460 | % | 0.6410 | | | | 0.64% |
| Y RADIAL | 4373.3 | 99.15 | % | 1.666 | | | | 1.68% |
| Ag 328.068† | 105004.5 | 489.50 | ug/L | 6.141 | 489.50 | ppb | 6.141 | 1.25% |
| QC value within limits for Ag 328.068 Recovery = 97.90% | | | | | | | | |
| Al 396.153Radial† | 5303.0 | 4949.9 | ug/L | 53.70 | 4949.9 | ppb | 53.70 | 1.08% |
| QC value within limits for Al 396.153Radial Recovery = 99.00% | | | | | | | | |
| As 188.979† | 1099.0 | 494.93 | ug/L | 3.798 | 494.93 | ppb | 3.798 | 0.77% |
| QC value within limits for As 188.979 Recovery = 98.99% | | | | | | | | |
| B 249.677† | 19771.6 | 477.15 | ug/L | 7.634 | 477.15 | ppb | 7.634 | 1.60% |
| QC value within limits for B 249.677 Recovery = 95.43% | | | | | | | | |
| Ba 233.527† | 62759.6 | 493.72 | ug/L | 5.753 | 493.72 | ppb | 5.753 | 1.17% |
| QC value within limits for Ba 233.527 Recovery = 98.74% | | | | | | | | |
| Be 313.107† | 1307336.6 | 492.40 | ug/L | 3.535 | 492.40 | ppb | 3.535 | 0.72% |
| QC value within limits for Be 313.107 Recovery = 98.48% | | | | | | | | |
| Ca 317.933Radial† | 2417.6 | 5053.9 | ug/L | 94.33 | 5053.9 | ppb | 94.33 | 1.87% |

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   QC value within limits for Ca 317.933Radial  Recovery = 101.08%
Cd 226.502†            43021.2      498.09 ug/L         6.542      498.09 ppb          6.542   1.31%
   QC value within limits for Cd 226.502  Recovery = 99.62%
Co 228.616†            23731.2      497.20 ug/L         6.437      497.20 ppb          6.437   1.29%
   QC value within limits for Co 228.616  Recovery = 99.44%
Cr 267.716†            43700.6      491.54 ug/L         6.028      491.54 ppb          6.028   1.23%
   QC value within limits for Cr 267.716  Recovery = 98.31%
Cu 324.752†           158775.3      483.16 ug/L         6.163      483.16 ppb          6.163   1.28%
   QC value within limits for Cu 324.752  Recovery = 96.63%
Fe 238.204 Radial†       345.2      4888.1 ug/L        69.14      4888.1 ppb         69.14   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.76%
K 766.490 Radial†      25900.7      4964.0 ug/L        75.04      4964.0 ppb         75.04   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 99.28%
Mg 279.077 IEC†          102.6      4973.3 ug/L        26.21      4973.3 ppb         26.21   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.47%
Mn 257.610†           435783.3      496.17 ug/L         3.746      496.17 ppb          3.746   0.75%
   QC value within limits for Mn 257.610  Recovery = 99.23%
Mo 202.031†             6647.7      488.49 ug/L         2.629      488.49 ppb          2.629   0.54%
   QC value within limits for Mo 202.031  Recovery = 97.70%
Na 589.592 Radial†     32399.7      9989.7 ug/L       191.78      9989.7 ppb        191.78   1.92%
   QC value within limits for Na 589.592 Radial  Recovery = 99.90%
Ni 231.604†            19556.1      497.07 ug/L         6.423      497.07 ppb          6.423   1.29%
   QC value within limits for Ni 231.604  Recovery = 99.41%
P 214.914†              4127.3      2390.6 ug/L        18.45      2390.6 ppb         18.45   0.77%
   QC value within limits for P 214.914  Recovery = 95.62%
Pb 220.353†             4021.4      496.10 ug/L         2.995      496.10 ppb          2.995   0.60%
   QC value within limits for Pb 220.353  Recovery = 99.22%
S 181.975 Axial†         688.3      989.51 ug/L         8.982      989.51 ppb          8.982   0.91%
   QC value within limits for S 181.975 Axial  Recovery = 98.95%
Sb 206.836†             1393.3      504.67 ug/L         2.141      504.67 ppb          2.141   0.42%
   QC value within limits for Sb 206.836  Recovery = 100.93%
Se 196.026†              757.7      513.03 ug/L         8.844      513.03 ppb          8.844   1.72%
   QC value within limits for Se 196.026  Recovery = 102.61%
Si 251.611†            75740.1      2444.8 ug/L        31.11      2444.8 ppb         31.11   1.27%
   QC value within limits for Si 251.611  Recovery = 97.79%
Sn 189.927†             2745.9      493.31 ug/L         0.751      493.31 ppb          0.751   0.15%
   QC value within limits for Sn 189.927  Recovery = 98.66%
Sr 421.552†            70359.9      486.82 ug/L         8.209      486.82 ppb          8.209   1.69%
   QC value within limits for Sr 421.552  Recovery = 97.36%
Ti 334.940†           309642.3      486.46 ug/L         6.074      486.46 ppb          6.074   1.25%
   QC value within limits for Ti 334.940  Recovery = 97.29%
Tl 190.801†             1544.0      496.97 ug/L         3.270      496.97 ppb          3.270   0.66%
   QC value within limits for Tl 190.801  Recovery = 99.39%
U 409.014†             17148.5      471.89 ug/L         7.712      471.89 ppb          7.712   1.63%
   QC value within limits for U 409.014  Recovery = 94.38%
V 292.402†             69737.0      492.76 ug/L         5.664      492.76 ppb          5.664   1.15%
   QC value within limits for V 292.402  Recovery = 98.55%
Zn 213.857†            49073.2      489.44 ug/L         5.948      489.44 ppb          5.948   1.22%
   QC value within limits for Zn 213.857  Recovery = 97.89%
SiO2†                  75948.0      5264.8 ug/L        23.35      5264.8 ppb         23.35   0.44%
   QC value within limits for SiO2  Recovery = 98.45%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 19:46:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4019.3 | 4019.3 | 103 | % | | | 19:48:03 |
| 1 | Y RADIAL | 4457.9 | 4457.9 | 101.1 | % | | | 19:48:03 |
| 1 | Al 396.153Radial† | -113.6 | 1.6 | 1.5545 | ug/L | 1.5545 | ppb | 19:48:03 |
| 1 | Ca 317.933Radial† | 23.0 | 2.8 | 5.8395 | ug/L | 5.8395 | ppb | 19:48:23 |
| 1 | Fe 238.204 Radial† | 12.7 | 1.1 | 15.023 | ug/L | 15.023 | ppb | 19:48:23 |
| 1 | K 766.490 Radial† | 2671.1 | -35.3 | -6.7737 | ug/L | -6.7737 | ppb | 19:48:03 |
| 1 | Mg 279.077 IEC† | 3.0 | -1.1 | -54.278 | ug/L | -54.278 | ppb | 19:48:23 |
| 1 | Na 589.592 Radial† | -819.9 | 20.4 | 6.2805 | ug/L | 6.2805 | ppb | 19:48:03 |
| 1 | Sr 421.552† | 33.8 | -2.7 | -0.0189 | ug/L | -0.0189 | ppb | 19:48:03 |
| 1 | Sc 361.383 | 903727.8 | 903727.8 | 103.02 | % | | | 19:49:20 |
| 1 | Y 371.029 | 761295.1 | 761295.1 | 100.72 | % | | | 19:49:20 |
| 1 | Ag 328.068† | 282.7 | 34.0 | 0.1624 | ug/L | 0.1624 | ppb | 19:49:25 |
| 1 | As 188.979† | -28.2 | -9.2 | -4.0843 | ug/L | -4.0843 | ppb | 19:49:45 |
| 1 | B 249.677† | -476.8 | -64.6 | -1.5689 | ug/L | -1.5689 | ppb | 19:49:45 |
| 1 | Ba 233.527† | 6.6 | 7.8 | 0.0616 | ug/L | 0.0616 | ppb | 19:49:45 |
| 1 | Be 313.107† | -3844.3 | 30.6 | 0.0112 | ug/L | 0.0112 | ppb | 19:49:25 |
| 1 | Cd 226.502† | -174.3 | 27.0 | 0.3114 | ug/L | 0.3114 | ppb | 19:49:45 |
| 1 | Co 228.616† | -76.7 | -8.0 | -0.1670 | ug/L | -0.1670 | ppb | 19:49:45 |
| 1 | Cr 267.716† | 66.1 | -13.5 | -0.1504 | ug/L | -0.1504 | ppb | 19:49:45 |
| 1 | Cu 324.752† | 5894.2 | -269.4 | -0.8182 | ug/L | -0.8182 | ppb | 19:49:25 |
| 1 | Mn 257.610† | 463.3 | -9.1 | -0.0066 | ug/L | -0.0066 | ppb | 19:49:45 |
| 1 | Mo 202.031† | 7.1 | -3.2 | -0.2368 | ug/L | -0.2368 | ppb | 19:49:45 |
| 1 | Ni 231.604† | 64.2 | -0.1 | -0.0032 | ug/L | -0.0032 | ppb | 19:49:45 |
| 1 | P 214.914† | 206.9 | -9.7 | -5.6603 | ug/L | -5.6603 | ppb | 19:49:45 |
| 1 | Pb 220.353† | -75.3 | -15.0 | -1.8471 | ug/L | -1.8471 | ppb | 19:49:45 |
| 1 | S 181.975 Axial† | 41.1 | -0.9 | -1.2792 | ug/L | -1.2792 | ppb | 19:49:45 |
| 1 | Sb 206.836† | 28.7 | -8.8 | -3.0810 | ug/L | -3.0810 | ppb | 19:49:45 |
| 1 | Se 196.026† | -29.0 | -0.4 | -0.2003 | ug/L | -0.2003 | ppb | 19:49:45 |
| 1 | Si 251.611† | 555.0 | -19.6 | -0.6301 | ug/L | -0.6301 | ppb | 19:49:45 |
| 1 | Sn 189.927† | 16.6 | 5.7 | 1.0153 | ug/L | 1.0153 | ppb | 19:49:45 |
| 1 | Ti 334.940† | -1505.1 | -86.9 | -0.1307 | ug/L | -0.1307 | ppb | 19:49:25 |
| 1 | Tl 190.801† | -33.0 | 0.5 | 0.1676 | ug/L | 0.1676 | ppb | 19:49:45 |
| 1 | U 409.014† | -3020.8 | -45.6 | -1.2606 | ug/L | -1.2606 | ppb | 19:49:20 |
| 1 | V 292.402† | -1579.6 | -27.6 | -0.2016 | ug/L | -0.2016 | ppb | 19:49:25 |
| 1 | Zn 213.857† | 830.4 | 200.0 | 2.0121 | ug/L | 2.0121 | ppb | 19:49:45 |
| 1 | SiO2† | 564.6 | -6.4 | -0.4380 | ug/L | -0.4380 | ppb | 19:50:51 |
| 2 | Sc Radial | 3955.1 | 3955.1 | 101 | % | | | 19:48:28 |
| 2 | Y RADIAL | 4385.2 | 4385.2 | 99.42 | % | | | 19:48:28 |
| 2 | Al 396.153Radial† | -124.9 | -11.3 | -10.640 | ug/L | -10.640 | ppb | 19:48:28 |
| 2 | Ca 317.933Radial† | 17.8 | -2.0 | -4.2251 | ug/L | -4.2251 | ppb | 19:48:48 |
| 2 | Fe 238.204 Radial† | 10.5 | -0.9 | -12.950 | ug/L | -12.950 | ppb | 19:48:48 |
| 2 | K 766.490 Radial† | 2714.5 | 50.0 | 9.5871 | ug/L | 9.5871 | ppb | 19:48:28 |
| 2 | Mg 279.077 IEC† | 2.4 | -1.7 | -84.438 | ug/L | -84.438 | ppb | 19:48:48 |
| 2 | Na 589.592 Radial† | -786.5 | 40.4 | 12.468 | ug/L | 12.468 | ppb | 19:48:28 |
| 2 | Sr 421.552† | 47.9 | 11.7 | 0.0810 | ug/L | 0.0810 | ppb | 19:48:28 |
| 2 | Sc 361.383 | 921254.5 | 921254.5 | 105.02 | % | | | 19:49:50 |
| 2 | Y 371.029 | 775340.2 | 775340.2 | 102.58 | % | | | 19:49:50 |
| 2 | Ag 328.068† | 227.7 | -23.6 | -0.1156 | ug/L | -0.1156 | ppb | 19:49:55 |
| 2 | As 188.979† | -19.7 | -0.5 | -0.2467 | ug/L | -0.2467 | ppb | 19:50:15 |
| 2 | B 249.677† | -486.9 | -65.4 | -1.5835 | ug/L | -1.5835 | ppb | 19:50:15 |
| 2 | Ba 233.527† | -1.5 | -0.0 | 0.0004 | ug/L | 0.0004 | ppb | 19:50:15 |
| 2 | Be 313.107† | -3875.8 | 71.6 | 0.0269 | ug/L | 0.0269 | ppb | 19:49:55 |
| 2 | Cd 226.502† | -183.5 | 21.6 | 0.2517 | ug/L | 0.2517 | ppb | 19:50:15 |
| 2 | Co 228.616† | -70.2 | -0.4 | -0.0064 | ug/L | -0.0064 | ppb | 19:50:15 |
| 2 | Cr 267.716† | 65.5 | -15.3 | -0.1746 | ug/L | -0.1746 | ppb | 19:50:15 |
| 2 | Cu 324.752† | 5988.8 | -288.1 | -0.8802 | ug/L | -0.8802 | ppb | 19:49:55 |
| 2 | Mn 257.610† | 472.5 | -8.8 | -0.0078 | ug/L | -0.0078 | ppb | 19:50:15 |
| 2 | Mo 202.031† | 15.8 | 4.9 | 0.3593 | ug/L | 0.3593 | ppb | 19:50:15 |
| 2 | Ni 231.604† | 56.9 | -8.3 | -0.2109 | ug/L | -0.2109 | ppb | 19:50:15 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 211.8 | -8.8 | -5.1297 | ug/L | -5.1297 ppb | 19:50:15 |
| 2 | Pb 220.353† | -67.3 | -6.0 | -0.7323 | ug/L | -0.7323 ppb | 19:50:15 |
| 2 | S 181.975 Axial† | 41.2 | -1.5 | -2.2136 | ug/L | -2.2136 ppb | 19:50:15 |
| 2 | Sb 206.836† | 48.9 | 9.8 | 3.4557 | ug/L | 3.4557 ppb | 19:50:15 |
| 2 | Se 196.026† | -35.1 | -5.6 | -3.7342 | ug/L | -3.7342 ppb | 19:50:15 |
| 2 | Si 251.611† | 587.8 | 1.4 | 0.0421 | ug/L | 0.0421 ppb | 19:50:15 |
| 2 | Sn 189.927† | 13.7 | 2.5 | 0.4572 | ug/L | 0.4572 ppb | 19:50:15 |
| 2 | Ti 334.940† | -1455.2 | -11.6 | -0.0139 | ug/L | -0.0139 ppb | 19:49:55 |
| 2 | Tl 190.801† | -36.2 | -1.9 | -0.6217 | ug/L | -0.6217 ppb | 19:50:15 |
| 2 | U 409.014† | -2848.4 | 174.4 | 4.8170 | ug/L | 4.8170 ppb | 19:49:50 |
| 2 | V 292.402† | -1514.1 | 63.9 | 0.4604 | ug/L | 0.4604 ppb | 19:49:55 |
| 2 | Zn 213.857† | 822.0 | 176.7 | 1.7828 | ug/L | 1.7828 ppb | 19:50:15 |
| 2 | SiO2† | 606.0 | 22.7 | 1.5652 | ug/L | 1.5652 ppb | 19:50:56 |
| 3 | Sc Radial | 3920.9 | 3920.9 | 100 | % | | 19:48:53 |
| 3 | Y RADIAL | 4339.7 | 4339.7 | 98.39 | % | | 19:48:53 |
| 3 | Al 396.153Radial† | -106.8 | 5.7 | 5.3103 | ug/L | 5.3103 ppb | 19:48:53 |
| 3 | Ca 317.933Radial† | 23.4 | 3.7 | 7.6982 | ug/L | 7.6982 ppb | 19:49:14 |
| 3 | Fe 238.204 Radial† | 10.2 | -1.1 | -15.373 | ug/L | -15.373 ppb | 19:49:14 |
| 3 | K 766.490 Radial† | 2811.1 | 170.0 | 32.620 | ug/L | 32.620 ppb | 19:48:53 |
| 3 | Mg 279.077 IEC† | 1.7 | -2.4 | -117.26 | ug/L | -117.26 ppb | 19:49:14 |
| 3 | Na 589.592 Radial† | -802.1 | 18.1 | 5.5653 | ug/L | 5.5653 ppb | 19:48:53 |
| 3 | Sr 421.552† | 57.1 | 21.3 | 0.1475 | ug/L | 0.1475 ppb | 19:48:53 |
| 3 | Sc 361.383 | 908750.7 | 908750.7 | 103.59 | % | | 19:50:21 |
| 3 | Y 371.029 | 765115.4 | 765115.4 | 101.23 | % | | 19:50:21 |
| 3 | Ag 328.068† | 252.8 | 3.7 | 0.0125 | ug/L | 0.0125 ppb | 19:50:26 |
| 3 | As 188.979† | -31.5 | -12.1 | -5.4158 | ug/L | -5.4158 ppb | 19:50:46 |
| 3 | B 249.677† | -509.8 | -93.9 | -2.2723 | ug/L | -2.2723 ppb | 19:50:46 |
| 3 | Ba 233.527† | 4.8 | 6.1 | 0.0475 | ug/L | 0.0475 ppb | 19:50:46 |
| 3 | Be 313.107† | -3847.0 | 48.6 | 0.0179 | ug/L | 0.0179 ppb | 19:50:26 |
| 3 | Cd 226.502† | -170.7 | 31.5 | 0.3664 | ug/L | 0.3664 ppb | 19:50:46 |
| 3 | Co 228.616† | -88.1 | -18.5 | -0.3847 | ug/L | -0.3847 ppb | 19:50:46 |
| 3 | Cr 267.716† | 76.8 | -3.6 | -0.0417 | ug/L | -0.0417 ppb | 19:50:46 |
| 3 | Cu 324.752† | 6021.7 | -177.9 | -0.5426 | ug/L | -0.5426 ppb | 19:50:26 |
| 3 | Mn 257.610† | 474.6 | -0.6 | 0.0026 | ug/L | 0.0026 ppb | 19:50:46 |
| 3 | Mo 202.031† | 19.7 | 8.9 | 0.6535 | ug/L | 0.6535 ppb | 19:50:46 |
| 3 | Ni 231.604† | 76.1 | 11.0 | 0.2811 | ug/L | 0.2811 ppb | 19:50:46 |
| 3 | P 214.914† | 197.4 | -20.0 | -11.882 | ug/L | -11.882 ppb | 19:50:46 |
| 3 | Pb 220.353† | -49.3 | 10.6 | 1.3036 | ug/L | 1.3036 ppb | 19:50:46 |
| 3 | S 181.975 Axial† | 41.4 | -0.9 | -1.2586 | ug/L | -1.2586 ppb | 19:50:46 |
| 3 | Sb 206.836† | 43.1 | 4.9 | 1.7445 | ug/L | 1.7445 ppb | 19:50:46 |
| 3 | Se 196.026† | -31.3 | -2.4 | -1.6425 | ug/L | -1.6425 ppb | 19:50:46 |
| 3 | Si 251.611† | 584.8 | 6.2 | 0.1918 | ug/L | 0.1918 ppb | 19:50:46 |
| 3 | Sn 189.927† | 16.4 | 5.4 | 0.9633 | ug/L | 0.9633 ppb | 19:50:46 |
| 3 | Ti 334.940† | -1545.1 | -117.4 | -0.1741 | ug/L | -0.1741 ppb | 19:50:26 |
| 3 | Tl 190.801† | -31.9 | 1.7 | 0.5585 | ug/L | 0.5585 ppb | 19:50:46 |
| 3 | U 409.014† | -2967.3 | 22.2 | 0.6148 | ug/L | 0.6148 ppb | 19:50:21 |
| 3 | V 292.402† | -1528.1 | 30.6 | 0.2239 | ug/L | 0.2239 ppb | 19:50:26 |
| 3 | Zn 213.857† | 811.2 | 177.0 | 1.7831 | ug/L | 1.7831 ppb | 19:50:46 |
| 3 | SiO2† | 600.1 | 24.9 | 1.7135 | ug/L | 1.7135 ppb | 19:51:01 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 911244.4 | 103.88 | % | 1.029 | | | | 0.99% |
| Sc Radial | 3965.1 | 101 | % | 1.3 | | | | 1.26% |
| Y 371.029 | 767250.3 | 101.51 | % | 0.961 | | | | 0.95% |
| Y RADIAL | 4394.3 | 99.62 | % | 1.352 | | | | 1.36% |
| Ag 328.068† | 4.7 | 0.0198 | ug/L | 0.13912 | 0.0198 | ppb | 0.13912 | 703.69% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -1.3 | -1.2584 | ug/L | 8.33889 | -1.2584 | ppb | 8.33889 | 662.65% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -7.3 | -3.2489 | ug/L | 2.68390 | -3.2489 | ppb | 2.68390 | 82.61% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -74.6 | -1.8083 | ug/L | 0.40197 | -1.8083 | ppb | 0.40197 | 22.23% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 4.6 | 0.0365 | ug/L | 0.03203 | 0.0365 | ppb | 0.03203 | 87.72% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 50.3 | 0.0186 | ug/L | 0.00787 | 0.0186 | ppb | 0.00787 | 42.21% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 1.5 | 3.1042 | ug/L | 6.41502 | 3.1042 | ppb | 6.41502 | 206.66% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              26.7      0.3098 ug/L       0.05734      0.3098 ppb        0.05734  18.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -8.9     -0.1861 ug/L       0.18984     -0.1861 ppb        0.18984 102.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -10.8     -0.1222 ug/L       0.07081     -0.1222 ppb        0.07081  57.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -245.1     -0.7470 ug/L       0.17970     -0.7470 ppb        0.17970  24.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -4.4333 ug/L      16.89277     -4.4333 ppb       16.89277 381.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        61.6      11.811 ug/L       19.7909      11.811 ppb        19.7909 167.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.8     -85.326 ug/L       31.5006     -85.326 ppb        31.5006  36.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -6.1     -0.0039 ug/L       0.00571     -0.0039 ppb        0.00571 144.74%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.5      0.2587 ug/L       0.45357      0.2587 ppb        0.45357 175.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       26.3      8.1046 ug/L       3.79559      8.1046 ppb        3.79559  46.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.9      0.0223 ug/L       0.24701      0.0223 ppb        0.24701 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -12.8     -7.5573 ug/L       3.75467     -7.5573 ppb        3.75467  49.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.5     -0.4252 ug/L       1.59764     -0.4252 ppb        1.59764 375.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.1     -1.5838 ug/L       0.54551     -1.5838 ppb        0.54551  34.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      0.7064 ug/L       3.38975      0.7064 ppb        3.38975 479.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.8     -1.8590 ug/L       1.77687     -1.8590 ppb        1.77687  95.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -4.0     -0.1321 ug/L       0.43776     -0.1321 ppb        0.43776 331.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.8119 ug/L       0.30833      0.8119 ppb        0.30833  37.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              10.1      0.0699 ug/L       0.08374      0.0699 ppb        0.08374 119.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -72.0     -0.1063 ug/L       0.08288     -0.1063 ppb        0.08288  78.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.1      0.0348 ug/L       0.60123      0.0348 ppb        0.60123 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               50.3      1.3904 ug/L       3.11214      1.3904 ppb        3.11214 223.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               22.3      0.1609 ug/L       0.33545      0.1609 ppb        0.33545 208.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             184.6      1.8593 ug/L       0.13232      1.8593 ppb        0.13232   7.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    13.7      0.9469 ug/L       1.20162      0.9469 ppb        1.20162 126.90%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 21:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3858.0 | 3858.0 | 98.4 | % | | | 21:03:18 |
| 1 | Y RADIAL | 4233.7 | 4233.7 | 95.98 | % | | | 21:03:18 |
| 1 | Al 396.153Radial† | 5186.6 | 5380.8 | 5022.6 | ug/L | 5022.6 | ppb | 21:03:18 |
| 1 | Ca 317.933Radial† | 2413.8 | 2432.2 | 5084.5 | ug/L | 5084.5 | ppb | 21:03:38 |
| 1 | Fe 238.204 Radial† | 342.7 | 336.7 | 4767.9 | ug/L | 4767.9 | ppb | 21:03:38 |
| 1 | K 766.490 Radial† | 28347.6 | 26155.1 | 5013.0 | ug/L | 5013.0 | ppb | 21:03:18 |
| 1 | Mg 279.077 IEC† | 106.8 | 104.4 | 5061.6 | ug/L | 5061.6 | ppb | 21:03:38 |
| 1 | Na 589.592 Radial† | 29637.4 | 30924.7 | 9534.9 | ug/L | 9534.9 | ppb | 21:03:18 |
| 1 | Sr 421.552† | 68707.9 | 69756.0 | 482.64 | ug/L | 482.64 | ppb | 21:03:18 |
| 1 | Sc 361.383 | 896787.2 | 896787.2 | 102.23 | % | | | 21:04:36 |
| 1 | Y 371.029 | 744443.2 | 744443.2 | 98.492 | % | | | 21:04:36 |
| 1 | Ag 328.068† | 106580.8 | 104016.2 | 484.87 | ug/L | 484.87 | ppb | 21:04:41 |
| 1 | As 188.979† | 1138.0 | 1131.4 | 509.31 | ug/L | 509.31 | ppb | 21:05:01 |
| 1 | B 249.677† | 19369.9 | 19345.7 | 466.86 | ug/L | 466.86 | ppb | 21:04:41 |
| 1 | Ba 233.527† | 63470.6 | 62088.0 | 488.43 | ug/L | 488.43 | ppb | 21:04:41 |
| 1 | Be 313.107† | 1340598.8 | 1315126.9 | 495.31 | ug/L | 495.31 | ppb | 21:04:36 |
| 1 | Cd 226.502† | 43391.9 | 42641.9 | 493.70 | ug/L | 493.70 | ppb | 21:04:41 |
| 1 | Co 228.616† | 23916.2 | 23461.2 | 491.57 | ug/L | 491.57 | ppb | 21:04:41 |
| 1 | Cr 267.716† | 44335.1 | 43290.6 | 486.92 | ug/L | 486.92 | ppb | 21:04:41 |
| 1 | Cu 324.752† | 166346.0 | 156727.8 | 476.93 | ug/L | 476.93 | ppb | 21:04:41 |
| 1 | Mn 257.610† | 447548.3 | 437330.0 | 497.92 | ug/L | 497.92 | ppb | 21:04:36 |
| 1 | Mo 202.031† | 6875.4 | 6715.3 | 493.44 | ug/L | 493.44 | ppb | 21:05:01 |
| 1 | Ni 231.604† | 19794.7 | 19300.6 | 490.58 | ug/L | 490.58 | ppb | 21:04:41 |
| 1 | P 214.914† | 4474.5 | 4166.4 | 2415.5 | ug/L | 2415.5 | ppb | 21:05:01 |
| 1 | Pb 220.353† | 4098.3 | 4067.0 | 501.76 | ug/L | 501.76 | ppb | 21:05:01 |
| 1 | S 181.975 Axial† | 758.7 | 701.3 | 1008.3 | ug/L | 1008.3 | ppb | 21:05:01 |
| 1 | Sb 206.836† | 1473.5 | 1404.7 | 508.79 | ug/L | 508.79 | ppb | 21:05:01 |
| 1 | Se 196.026† | 756.3 | 767.6 | 519.15 | ug/L | 519.15 | ppb | 21:05:01 |
| 1 | Si 251.611† | 77038.5 | 74800.2 | 2414.4 | ug/L | 2414.4 | ppb | 21:04:41 |
| 1 | Sn 189.927† | 2829.5 | 2757.3 | 495.36 | ug/L | 495.36 | ppb | 21:05:01 |
| 1 | Ti 334.940† | 311388.1 | 305971.8 | 480.69 | ug/L | 480.69 | ppb | 21:04:41 |
| 1 | Tl 190.801† | 1554.3 | 1553.0 | 499.83 | ug/L | 499.83 | ppb | 21:05:01 |
| 1 | U 409.014† | 14381.9 | 16954.9 | 466.56 | ug/L | 466.56 | ppb | 21:04:41 |
| 1 | V 292.402† | 69168.2 | 69165.5 | 488.87 | ug/L | 488.87 | ppb | 21:04:41 |
| 1 | Zn 213.857† | 50298.5 | 48595.6 | 484.70 | ug/L | 484.70 | ppb | 21:04:41 |
| 1 | SiO2† | 77483.3 | 75239.2 | 5215.4 | ug/L | 5215.4 | ppb | 21:06:08 |
| 2 | Sc Radial | 3806.9 | 3806.9 | 97.1 | % | | | 21:03:43 |
| 2 | Y RADIAL | 4214.9 | 4214.9 | 95.56 | % | | | 21:03:43 |
| 2 | Al 396.153Radial† | 5182.2 | 5446.9 | 5084.8 | ug/L | 5084.8 | ppb | 21:03:43 |
| 2 | Ca 317.933Radial† | 2408.8 | 2459.9 | 5142.4 | ug/L | 5142.4 | ppb | 21:04:03 |
| 2 | Fe 238.204 Radial† | 343.5 | 342.3 | 4846.2 | ug/L | 4846.2 | ppb | 21:04:03 |
| 2 | K 766.490 Radial† | 28222.4 | 26412.4 | 5062.3 | ug/L | 5062.3 | ppb | 21:03:43 |
| 2 | Mg 279.077 IEC† | 108.5 | 107.6 | 5215.9 | ug/L | 5215.9 | ppb | 21:04:03 |
| 2 | Na 589.592 Radial† | 29409.2 | 31093.4 | 9586.9 | ug/L | 9586.9 | ppb | 21:03:43 |
| 2 | Sr 421.552† | 68252.7 | 70223.2 | 485.87 | ug/L | 485.87 | ppb | 21:03:43 |
| 2 | Sc 361.383 | 899900.0 | 899900.0 | 102.58 | % | | | 21:05:07 |
| 2 | Y 371.029 | 747247.5 | 747247.5 | 98.863 | % | | | 21:05:07 |
| 2 | Ag 328.068† | 108993.2 | 106007.2 | 494.14 | ug/L | 494.14 | ppb | 21:05:12 |
| 2 | As 188.979† | 1112.5 | 1102.7 | 496.63 | ug/L | 496.63 | ppb | 21:05:32 |
| 2 | B 249.677† | 20072.8 | 19965.4 | 481.84 | ug/L | 481.84 | ppb | 21:05:12 |
| 2 | Ba 233.527† | 64998.3 | 63362.4 | 498.45 | ug/L | 498.45 | ppb | 21:05:12 |
| 2 | Be 313.107† | 1346836.2 | 1316671.1 | 495.91 | ug/L | 495.91 | ppb | 21:05:07 |
| 2 | Cd 226.502† | 44217.7 | 43300.1 | 501.32 | ug/L | 501.32 | ppb | 21:05:12 |
| 2 | Co 228.616† | 24498.1 | 23947.5 | 501.73 | ug/L | 501.73 | ppb | 21:05:12 |
| 2 | Cr 267.716† | 45203.1 | 43986.7 | 494.75 | ug/L | 494.75 | ppb | 21:05:12 |
| 2 | Cu 324.752† | 170725.7 | 160434.3 | 488.20 | ug/L | 488.20 | ppb | 21:05:12 |
| 2 | Mn 257.610† | 450137.9 | 438340.1 | 499.07 | ug/L | 499.07 | ppb | 21:05:07 |
| 2 | Mo 202.031† | 6837.9 | 6655.5 | 489.06 | ug/L | 489.06 | ppb | 21:05:32 |
| 2 | Ni 231.604† | 20246.1 | 19673.7 | 500.06 | ug/L | 500.06 | ppb | 21:05:12 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4450.2 | 4127.6 | 2389.8 ug/L | 2389.8 ppb | 21:05:32 |
| 2 | Pb 220.353† | 4059.1 | 4015.0 | 495.34 ug/L | 495.34 ppb | 21:05:32 |
| 2 | S 181.975 Axial† | 752.1 | 692.4 | 995.39 ug/L | 995.39 ppb | 21:05:32 |
| 2 | Sb 206.836† | 1473.6 | 1399.8 | 506.95 ug/L | 506.95 ppb | 21:05:32 |
| 2 | Se 196.026† | 747.5 | 756.5 | 512.10 ug/L | 512.10 ppb | 21:05:32 |
| 2 | Si 251.611† | 79016.0 | 76467.3 | 2468.4 ug/L | 2468.4 ppb | 21:05:12 |
| 2 | Sn 189.927† | 2829.6 | 2747.8 | 493.66 ug/L | 493.66 ppb | 21:05:32 |
| 2 | Ti 334.940† | 318823.6 | 312166.4 | 490.41 ug/L | 490.41 ppb | 21:05:12 |
| 2 | Tl 190.801† | 1544.2 | 1537.9 | 495.03 ug/L | 495.03 ppb | 21:05:32 |
| 2 | U 409.014† | 14837.4 | 17350.2 | 477.45 ug/L | 477.45 ppb | 21:05:12 |
| 2 | V 292.402† | 70439.7 | 70171.0 | 495.81 ug/L | 495.81 ppb | 21:05:12 |
| 2 | Zn 213.857† | 51420.1 | 49518.7 | 493.91 ug/L | 493.91 ppb | 21:05:12 |
| 2 | SiO2† | 78157.9 | 75634.7 | 5243.0 ug/L | 5243.0 ppb | 21:06:13 |
| 3 | Sc Radial | 3883.5 | 3883.5 | 99.1 % | | 21:04:08 |
| 3 | Y RADIAL | 4270.0 | 4270.0 | 96.81 % | | 21:04:08 |
| 3 | Al 396.153Radial† | 5252.3 | 5412.5 | 5052.4 ug/L | 5052.4 ppb | 21:04:08 |
| 3 | Ca 317.933Radial† | 2439.8 | 2442.4 | 5105.8 ug/L | 5105.8 ppb | 21:04:28 |
| 3 | Fe 238.204 Radial† | 347.7 | 339.5 | 4807.2 ug/L | 4807.2 ppb | 21:04:28 |
| 3 | K 766.490 Radial† | 28536.0 | 26156.1 | 5013.2 ug/L | 5013.2 ppb | 21:04:08 |
| 3 | Mg 279.077 IEC† | 111.1 | 108.1 | 5240.8 ug/L | 5240.8 ppb | 21:04:28 |
| 3 | Na 589.592 Radial† | 29516.4 | 30604.8 | 9436.3 ug/L | 9436.3 ppb | 21:04:08 |
| 3 | Sr 421.552† | 68898.4 | 69489.7 | 480.80 ug/L | 480.80 ppb | 21:04:08 |
| 3 | Sc 361.383 | 897279.5 | 897279.5 | 102.29 % | | 21:05:38 |
| 3 | Y 371.029 | 744168.1 | 744168.1 | 98.455 % | | 21:05:38 |
| 3 | Ag 328.068† | 107879.4 | 105228.6 | 490.51 ug/L | 490.51 ppb | 21:05:43 |
| 3 | As 188.979† | 1119.0 | 1112.3 | 500.85 ug/L | 500.85 ppb | 21:06:03 |
| 3 | B 249.677† | 19811.0 | 19766.5 | 477.05 ug/L | 477.05 ppb | 21:05:43 |
| 3 | Ba 233.527† | 64059.2 | 62629.4 | 492.69 ug/L | 492.69 ppb | 21:05:43 |
| 3 | Be 313.107† | 1340467.4 | 1314278.9 | 495.01 ug/L | 495.01 ppb | 21:05:38 |
| 3 | Cd 226.502† | 43570.8 | 42793.5 | 495.46 ug/L | 495.46 ppb | 21:05:43 |
| 3 | Co 228.616† | 24110.3 | 23638.2 | 495.26 ug/L | 495.26 ppb | 21:05:43 |
| 3 | Cr 267.716† | 44674.2 | 43598.3 | 490.38 ug/L | 490.38 ppb | 21:05:43 |
| 3 | Cu 324.752† | 168898.9 | 159134.4 | 484.25 ug/L | 484.25 ppb | 21:05:43 |
| 3 | Mn 257.610† | 448556.4 | 438075.3 | 498.76 ug/L | 498.76 ppb | 21:05:38 |
| 3 | Mo 202.031† | 6855.6 | 6692.3 | 491.76 ug/L | 491.76 ppb | 21:06:03 |
| 3 | Ni 231.604† | 19978.7 | 19469.8 | 494.88 ug/L | 494.88 ppb | 21:05:43 |
| 3 | P 214.914† | 4466.2 | 4155.9 | 2407.7 ug/L | 2407.7 ppb | 21:06:03 |
| 3 | Pb 220.353† | 4066.1 | 4033.3 | 497.60 ug/L | 497.60 ppb | 21:06:03 |
| 3 | S 181.975 Axial† | 754.1 | 696.4 | 1001.2 ug/L | 1001.2 ppb | 21:06:03 |
| 3 | Sb 206.836† | 1468.1 | 1398.6 | 506.62 ug/L | 506.62 ppb | 21:06:03 |
| 3 | Se 196.026† | 745.6 | 756.7 | 512.14 ug/L | 512.14 ppb | 21:06:03 |
| 3 | Si 251.611† | 77901.8 | 75602.9 | 2440.4 ug/L | 2440.4 ppb | 21:05:43 |
| 3 | Sn 189.927† | 2835.0 | 2761.2 | 496.06 ug/L | 496.06 ppb | 21:06:03 |
| 3 | Ti 334.940† | 315218.2 | 309549.2 | 486.30 ug/L | 486.30 ppb | 21:05:43 |
| 3 | Tl 190.801† | 1550.4 | 1548.3 | 498.36 ug/L | 498.36 ppb | 21:06:03 |
| 3 | U 409.014† | 14672.4 | 17231.1 | 474.18 ug/L | 474.18 ppb | 21:05:43 |
| 3 | V 292.402† | 69817.2 | 69762.9 | 493.01 ug/L | 493.01 ppb | 21:05:43 |
| 3 | Zn 213.857† | 50735.0 | 48995.4 | 488.68 ug/L | 488.68 ppb | 21:05:43 |
| 3 | SiO2† | 79150.3 | 76827.4 | 5325.8 ug/L | 5325.8 ppb | 21:06:19 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 897988.9 | 102.37 | % | 0.191 | | | | 0.19% |
| Sc Radial | 3849.5 | 98.2 | % | 0.99 | | | | 1.01% |
| Y 371.029 | 745286.2 | 98.603 | % | 0.2254 | | | | 0.23% |
| Y RADIAL | 4239.5 | 96.12 | % | 0.636 | | | | 0.66% |
| Ag 328.068† | 105084.0 | 489.84 | ug/L | 4.670 | 489.84 | ppb | 4.670 | 0.95% |
| QC value within limits for Ag 328.068 Recovery = 97.97% | | | | | | | | |
| Al 396.153Radial† | 5413.4 | 5053.3 | ug/L | 31.11 | 5053.3 | ppb | 31.11 | 0.62% |
| QC value within limits for Al 396.153Radial Recovery = 101.07% | | | | | | | | |
| As 188.979† | 1115.5 | 502.26 | ug/L | 6.460 | 502.26 | ppb | 6.460 | 1.29% |
| QC value within limits for As 188.979 Recovery = 100.45% | | | | | | | | |
| B 249.677† | 19692.5 | 475.25 | ug/L | 7.652 | 475.25 | ppb | 7.652 | 1.61% |
| QC value within limits for B 249.677 Recovery = 95.05% | | | | | | | | |
| Ba 233.527† | 62693.2 | 493.19 | ug/L | 5.028 | 493.19 | ppb | 5.028 | 1.02% |
| QC value within limits for Ba 233.527 Recovery = 98.64% | | | | | | | | |
| Be 313.107† | 1315359.0 | 495.41 | ug/L | 0.462 | 495.41 | ppb | 0.462 | 0.09% |
| QC value within limits for Be 313.107 Recovery = 99.08% | | | | | | | | |
| Ca 317.933Radial† | 2444.8 | 5110.9 | ug/L | 29.31 | 5110.9 | ppb | 29.31 | 0.57% |

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   QC value within limits for Ca 317.933Radial  Recovery = 102.22%
Cd 226.502†            42911.8      496.83 ug/L         3.991      496.83 ppb          3.991   0.80%
   QC value within limits for Cd 226.502  Recovery = 99.37%
Co 228.616†            23682.3      496.18 ug/L         5.142      496.18 ppb          5.142   1.04%
   QC value within limits for Co 228.616  Recovery = 99.24%
Cr 267.716†            43625.2      490.68 ug/L         3.923      490.68 ppb          3.923   0.80%
   QC value within limits for Cr 267.716  Recovery = 98.14%
Cu 324.752†           158765.5      483.13 ug/L         5.722      483.13 ppb          5.722   1.18%
   QC value within limits for Cu 324.752  Recovery = 96.63%
Fe 238.204 Radial†       339.5      4807.1 ug/L        39.13      4807.1 ppb         39.13   0.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.14%
K 766.490 Radial†      26241.2      5029.5 ug/L        28.42      5029.5 ppb         28.42   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 100.59%
Mg 279.077 IEC†          106.7      5172.7 ug/L        97.06      5172.7 ppb         97.06   1.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.45%
Mn 257.610†           437915.1      498.58 ug/L         0.596      498.58 ppb          0.596   0.12%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†             6687.7      491.42 ug/L         2.211      491.42 ppb          2.211   0.45%
   QC value within limits for Mo 202.031  Recovery = 98.28%
Na 589.592 Radial†     30874.3      9519.4 ug/L        76.51      9519.4 ppb         76.51   0.80%
   QC value within limits for Na 589.592 Radial  Recovery = 95.19%
Ni 231.604†            19481.4      495.17 ug/L         4.748      495.17 ppb          4.748   0.96%
   QC value within limits for Ni 231.604  Recovery = 99.03%
P 214.914†              4150.0      2404.3 ug/L        13.17      2404.3 ppb         13.17   0.55%
   QC value within limits for P 214.914  Recovery = 96.17%
Pb 220.353†             4038.5      498.23 ug/L         3.253      498.23 ppb          3.253   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.65%
S 181.975 Axial†         696.7      1001.6 ug/L         6.45      1001.6 ppb          6.45   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 100.16%
Sb 206.836†             1401.0      507.45 ug/L         1.168      507.45 ppb          1.168   0.23%
   QC value within limits for Sb 206.836  Recovery = 101.49%
Se 196.026†              760.2      514.46 ug/L         4.061      514.46 ppb          4.061   0.79%
   QC value within limits for Se 196.026  Recovery = 102.89%
Si 251.611†            75623.5      2441.0 ug/L        27.01      2441.0 ppb         27.01   1.11%
   QC value within limits for Si 251.611  Recovery = 97.64%
Sn 189.927†             2755.4      495.03 ug/L         1.234      495.03 ppb          1.234   0.25%
   QC value within limits for Sn 189.927  Recovery = 99.01%
Sr 421.552†            69823.0      483.11 ug/L         2.569      483.11 ppb          2.569   0.53%
   QC value within limits for Sr 421.552  Recovery = 96.62%
Ti 334.940†           309229.1      485.80 ug/L         4.880      485.80 ppb          4.880   1.00%
   QC value within limits for Ti 334.940  Recovery = 97.16%
Tl 190.801†             1546.4      497.74 ug/L         2.458      497.74 ppb          2.458   0.49%
   QC value within limits for Tl 190.801  Recovery = 99.55%
U 409.014†             17178.8      472.73 ug/L         5.587      472.73 ppb          5.587   1.18%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             69699.8      492.56 ug/L         3.496      492.56 ppb          3.496   0.71%
   QC value within limits for V 292.402  Recovery = 98.51%
Zn 213.857†            49036.6      489.10 ug/L         4.617      489.10 ppb          4.617   0.94%
   QC value within limits for Zn 213.857  Recovery = 97.82%
SiO2†                  75900.4      5261.4 ug/L        57.47      5261.4 ppb         57.47   1.09%
   QC value within limits for SiO2  Recovery = 98.39%
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 21:08:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3831.7 | 3831.7 | 97.8 | % | | | 21:10:40 |
| 1 | Y RADIAL | 4302.3 | 4302.3 | 97.54 | % | | | 21:10:20 |
| 1 | Al 396.153Radial† | -116.2 | -6.4 | -5.9973 | ug/L | -5.9973 | ppb | 21:10:20 |
| 1 | Ca 317.933Radial† | 10.9 | -8.5 | -17.804 | ug/L | -17.804 | ppb | 21:10:40 |
| 1 | Fe 238.204 Radial† | 11.6 | 0.5 | 6.9759 | ug/L | 6.9759 | ppb | 21:10:40 |
| 1 | K 766.490 Radial† | 2755.0 | 178.0 | 34.163 | ug/L | 34.163 | ppb | 21:10:20 |
| 1 | Mg 279.077 IEC† | 1.6 | -2.5 | -120.62 | ug/L | -120.62 | ppb | 21:10:40 |
| 1 | Na 589.592 Radial† | -818.6 | -17.4 | -5.3608 | ug/L | -5.3608 | ppb | 21:10:20 |
| 1 | Sr 421.552† | 34.5 | -0.4 | -0.0029 | ug/L | -0.0029 | ppb | 21:10:20 |
| 1 | Sc 361.383 | 917543.4 | 917543.4 | 104.60 | % | | | 21:11:37 |
| 1 | Y 371.029 | 774367.1 | 774367.1 | 102.45 | % | | | 21:11:37 |
| 1 | Ag 328.068† | 226.1 | -24.2 | -0.1128 | ug/L | -0.1128 | ppb | 21:11:42 |
| 1 | As 188.979† | -25.4 | -6.0 | -2.6739 | ug/L | -2.6739 | ppb | 21:12:02 |
| 1 | B 249.677† | -441.6 | -24.0 | -0.5821 | ug/L | -0.5821 | ppb | 21:12:02 |
| 1 | Ba 233.527† | 16.6 | 17.2 | 0.1363 | ug/L | 0.1363 | ppb | 21:12:02 |
| 1 | Be 313.107† | -3792.7 | 136.2 | 0.0508 | ug/L | 0.0508 | ppb | 21:11:42 |
| 1 | Cd 226.502† | -183.1 | 21.2 | 0.2457 | ug/L | 0.2457 | ppb | 21:12:02 |
| 1 | Co 228.616† | -66.0 | 3.5 | 0.0725 | ug/L | 0.0725 | ppb | 21:12:02 |
| 1 | Cr 267.716† | 85.0 | 3.6 | 0.0397 | ug/L | 0.0397 | ppb | 21:12:02 |
| 1 | Cu 324.752† | 6027.1 | -228.4 | -0.6977 | ug/L | -0.6977 | ppb | 21:11:42 |
| 1 | Mn 257.610† | 477.5 | -2.2 | 0.0031 | ug/L | 0.0031 | ppb | 21:12:02 |
| 1 | Mo 202.031† | 9.2 | -1.4 | -0.1015 | ug/L | -0.1015 | ppb | 21:12:02 |
| 1 | Ni 231.604† | 74.0 | 8.3 | 0.2119 | ug/L | 0.2119 | ppb | 21:12:02 |
| 1 | P 214.914† | 211.4 | -8.4 | -4.9457 | ug/L | -4.9457 | ppb | 21:12:02 |
| 1 | Pb 220.353† | -67.3 | -6.3 | -0.7730 | ug/L | -0.7730 | ppb | 21:12:02 |
| 1 | S 181.975 Axial† | 41.5 | -1.2 | -1.6659 | ug/L | -1.6659 | ppb | 21:12:02 |
| 1 | Sb 206.836† | 43.1 | 4.5 | 1.5437 | ug/L | 1.5437 | ppb | 21:12:02 |
| 1 | Se 196.026† | -23.0 | 5.8 | 3.8248 | ug/L | 3.8248 | ppb | 21:12:02 |
| 1 | Si 251.611† | 575.1 | -8.5 | -0.2722 | ug/L | -0.2722 | ppb | 21:12:02 |
| 1 | Sn 189.927† | 2.2 | -8.3 | -1.5008 | ug/L | -1.5008 | ppb | 21:12:02 |
| 1 | Ti 334.940† | -1551.6 | -109.3 | -0.1667 | ug/L | -0.1667 | ppb | 21:11:42 |
| 1 | Tl 190.801† | -27.9 | 5.9 | 1.8704 | ug/L | 1.8704 | ppb | 21:12:02 |
| 1 | U 409.014† | -2818.0 | 192.4 | 5.3119 | ug/L | 5.3119 | ppb | 21:11:37 |
| 1 | V 292.402† | -1523.5 | 49.1 | 0.3477 | ug/L | 0.3477 | ppb | 21:11:42 |
| 1 | Zn 213.857† | 818.3 | 176.3 | 1.7730 | ug/L | 1.7730 | ppb | 21:12:02 |
| 1 | SiO2† | 584.5 | 4.4 | 0.3098 | ug/L | 0.3098 | ppb | 21:13:08 |
| 2 | Sc Radial | 3844.7 | 3844.7 | 98.1 | % | | | 21:11:05 |
| 2 | Y RADIAL | 4390.6 | 4390.6 | 99.54 | % | | | 21:10:45 |
| 2 | Al 396.153Radial† | -113.3 | -3.0 | -2.8759 | ug/L | -2.8759 | ppb | 21:10:45 |
| 2 | Ca 317.933Radial† | 20.6 | 1.3 | 2.7728 | ug/L | 2.7728 | ppb | 21:11:05 |
| 2 | Fe 238.204 Radial† | 10.0 | -1.1 | -16.198 | ug/L | -16.198 | ppb | 21:11:05 |
| 2 | K 766.490 Radial† | 2764.6 | 178.2 | 34.197 | ug/L | 34.197 | ppb | 21:10:45 |
| 2 | Mg 279.077 IEC† | 1.8 | -2.3 | -109.25 | ug/L | -109.25 | ppb | 21:11:05 |
| 2 | Na 589.592 Radial† | -793.7 | 10.8 | 3.3209 | ug/L | 3.3209 | ppb | 21:10:45 |
| 2 | Sr 421.552† | 17.6 | -17.8 | -0.1231 | ug/L | -0.1231 | ppb | 21:10:45 |
| 2 | Sc 361.383 | 907310.6 | 907310.6 | 103.43 | % | | | 21:12:07 |
| 2 | Y 371.029 | 764712.4 | 764712.4 | 101.17 | % | | | 21:12:07 |
| 2 | Ag 328.068† | 278.1 | 28.5 | 0.1286 | ug/L | 0.1286 | ppb | 21:12:12 |
| 2 | As 188.979† | -16.7 | 2.1 | 0.9348 | ug/L | 0.9348 | ppb | 21:12:32 |
| 2 | B 249.677† | -471.3 | -57.4 | -1.3902 | ug/L | -1.3902 | ppb | 21:12:32 |
| 2 | Ba 233.527† | 11.6 | 12.6 | 0.0991 | ug/L | 0.0991 | ppb | 21:12:32 |
| 2 | Be 313.107† | -3804.5 | 83.8 | 0.0316 | ug/L | 0.0316 | ppb | 21:12:12 |
| 2 | Cd 226.502† | -182.3 | 20.0 | 0.2336 | ug/L | 0.2336 | ppb | 21:12:32 |
| 2 | Co 228.616† | -68.7 | 0.1 | 0.0040 | ug/L | 0.0040 | ppb | 21:12:32 |
| 2 | Cr 267.716† | 74.4 | -5.7 | -0.0651 | ug/L | -0.0651 | ppb | 21:12:32 |
| 2 | Cu 324.752† | 6011.4 | -178.7 | -0.5440 | ug/L | -0.5440 | ppb | 21:12:12 |
| 2 | Mn 257.610† | 467.9 | -6.4 | -0.0044 | ug/L | -0.0044 | ppb | 21:12:32 |
| 2 | Mo 202.031† | 17.5 | 6.7 | 0.4929 | ug/L | 0.4929 | ppb | 21:12:32 |
| 2 | Ni 231.604† | 63.1 | -1.5 | -0.0373 | ug/L | -0.0373 | ppb | 21:12:32 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 208.6 | -8.8 | -5.1796 ug/L | -5.1796 ppb | 21:12:32 |
| 2 | Pb 220.353† | -54.4 | 5.5 | 0.6791 ug/L | 0.6791 ppb | 21:12:32 |
| 2 | S 181.975 Axial† | 44.3 | 2.1 | 2.9851 ug/L | 2.9851 ppb | 21:12:32 |
| 2 | Sb 206.836† | 38.3 | 0.4 | 0.1480 ug/L | 0.1480 ppb | 21:12:32 |
| 2 | Se 196.026† | -26.0 | 2.6 | 1.6778 ug/L | 1.6778 ppb | 21:12:32 |
| 2 | Si 251.611† | 564.7 | -12.3 | -0.4050 ug/L | -0.4050 ppb | 21:12:32 |
| 2 | Sn 189.927† | 14.3 | 3.4 | 0.6089 ug/L | 0.6089 ppb | 21:12:32 |
| 2 | Ti 334.940† | -1407.9 | 12.8 | 0.0300 ug/L | 0.0300 ppb | 21:12:12 |
| 2 | Tl 190.801† | -35.7 | -1.9 | -0.6133 ug/L | -0.6133 ppb | 21:12:32 |
| 2 | U 409.014† | -3026.8 | -39.9 | -1.0992 ug/L | -1.0992 ppb | 21:12:07 |
| 2 | V 292.402† | -1532.4 | 24.1 | 0.1730 ug/L | 0.1730 ppb | 21:12:12 |
| 2 | Zn 213.857† | 817.9 | 184.7 | 1.8631 ug/L | 1.8631 ppb | 21:12:32 |
| 2 | SiO2† | 599.3 | 25.0 | 1.7254 ug/L | 1.7254 ppb | 21:13:13 |
| 3 | Sc Radial | 3825.4 | 3825.4 | 97.6 % | | 21:11:30 |
| 3 | Y RADIAL | 4320.6 | 4320.6 | 97.95 % | | 21:11:10 |
| 3 | Al 396.153Radial† | -95.9 | 14.2 | 13.291 ug/L | 13.291 ppb | 21:11:10 |
| 3 | Ca 317.933Radial† | 14.3 | -5.0 | -10.424 ug/L | -10.424 ppb | 21:11:30 |
| 3 | Fe 238.204 Radial† | 7.9 | -3.2 | -44.934 ug/L | -44.934 ppb | 21:11:30 |
| 3 | K 766.490 Radial† | 2769.4 | 197.4 | 37.895 ug/L | 37.895 ppb | 21:11:10 |
| 3 | Mg 279.077 IEC† | 0.5 | -3.6 | -172.68 ug/L | -172.68 ppb | 21:11:30 |
| 3 | Na 589.592 Radial† | -888.4 | -90.4 | -27.865 ug/L | -27.865 ppb | 21:11:10 |
| 3 | Sr 421.552† | 26.8 | -8.2 | -0.0568 ug/L | -0.0568 ppb | 21:11:10 |
| 3 | Sc 361.383 | 895442.5 | 895442.5 | 102.08 % | | 21:12:37 |
| 3 | Y 371.029 | 755161.9 | 755161.9 | 99.910 % | | 21:12:37 |
| 3 | Ag 328.068† | 265.8 | 20.0 | 0.0753 ug/L | 0.0753 ppb | 21:12:42 |
| 3 | As 188.979† | -18.0 | 0.6 | 0.2589 ug/L | 0.2589 ppb | 21:13:02 |
| 3 | B 249.677† | -459.0 | -51.4 | -1.2389 ug/L | -1.2389 ppb | 21:13:02 |
| 3 | Ba 233.527† | -5.4 | -3.9 | -0.0322 ug/L | -0.0322 ppb | 21:13:02 |
| 3 | Be 313.107† | -3732.3 | 105.8 | 0.0397 ug/L | 0.0397 ppb | 21:12:42 |
| 3 | Cd 226.502† | -186.2 | 13.8 | 0.1656 ug/L | 0.1656 ppb | 21:13:02 |
| 3 | Co 228.616† | -69.0 | -1.1 | -0.0221 ug/L | -0.0221 ppb | 21:13:02 |
| 3 | Cr 267.716† | 82.9 | 3.5 | 0.0334 ug/L | 0.0334 ppb | 21:13:02 |
| 3 | Cu 324.752† | 6037.3 | -76.3 | -0.2370 ug/L | -0.2370 ppb | 21:12:42 |
| 3 | Mn 257.610† | 471.3 | 2.9 | 0.0060 ug/L | 0.0060 ppb | 21:13:02 |
| 3 | Mo 202.031† | 8.4 | -1.9 | -0.1434 ug/L | -0.1434 ppb | 21:13:02 |
| 3 | Ni 231.604† | 65.7 | 1.9 | 0.0478 ug/L | 0.0478 ppb | 21:13:02 |
| 3 | P 214.914† | 203.5 | -11.1 | -6.6160 ug/L | -6.6160 ppb | 21:13:02 |
| 3 | Pb 220.353† | -68.9 | -9.4 | -1.1472 ug/L | -1.1472 ppb | 21:13:02 |
| 3 | S 181.975 Axial† | 37.2 | -4.3 | -6.2514 ug/L | -6.2514 ppb | 21:13:02 |
| 3 | Sb 206.836† | 41.9 | 4.3 | 1.5156 ug/L | 1.5156 ppb | 21:13:02 |
| 3 | Se 196.026† | -24.9 | 3.3 | 2.0248 ug/L | 2.0248 ppb | 21:13:02 |
| 3 | Si 251.611† | 568.9 | -1.0 | -0.0313 ug/L | -0.0313 ppb | 21:13:02 |
| 3 | Sn 189.927† | 14.9 | 4.1 | 0.7372 ug/L | 0.7372 ppb | 21:13:02 |
| 3 | Ti 334.940† | -1418.1 | -15.2 | -0.0131 ug/L | -0.0131 ppb | 21:12:42 |
| 3 | Tl 190.801† | -34.4 | -1.1 | -0.3611 ug/L | -0.3611 ppb | 21:13:02 |
| 3 | U 409.014† | -2783.1 | 160.1 | 4.4273 ug/L | 4.4273 ppb | 21:12:37 |
| 3 | V 292.402† | -1538.9 | -1.9 | -0.0036 ug/L | -0.0036 ppb | 21:12:42 |
| 3 | Zn 213.857† | 808.4 | 186.0 | 1.8787 ug/L | 1.8787 ppb | 21:13:02 |
| 3 | SiO2† | 558.7 | -7.1 | -0.4888 ug/L | -0.4888 ppb | 21:13:18 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 906765.5 | 103.37 | % | 1.261 | | | | 1.22% |
| Sc Radial | 3833.9 | 97.8 | % | 0.25 | | | | 0.26% |
| Y 371.029 | 764747.1 | 101.18 | % | 1.270 | | | | 1.26% |
| Y RADIAL | 4337.8 | 98.34 | % | 1.056 | | | | 1.07% |
| Ag 328.068† | 8.1 | 0.0304 | ug/L | 0.12684 | 0.0304 | ppb | 0.12684 | 417.89% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 1.6 | 1.4725 | ug/L | 10.35311 | 1.4725 | ppb | 10.35311 | 703.11% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.1 | -0.4934 | ug/L | 1.91838 | -0.4934 | ppb | 1.91838 | 388.80% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -44.3 | -1.0704 | ug/L | 0.42958 | -1.0704 | ppb | 0.42958 | 40.13% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 8.7 | 0.0677 | ug/L | 0.08849 | 0.0677 | ppb | 0.08849 | 130.62% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 108.6 | 0.0407 | ug/L | 0.00965 | 0.0407 | ppb | 0.00965 | 23.73% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -4.1 | -8.4851 | ug/L | 10.42446 | -8.4851 | ppb | 10.42446 | 122.86% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.3      0.2149 ug/L       0.04319      0.2149 ppb        0.04319  20.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.8      0.0181 ug/L       0.04885      0.0181 ppb        0.04885 269.18%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.5      0.0027 ug/L       0.05877      0.0027 ppb        0.05877 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -161.1     -0.4929 ug/L       0.23456     -0.4929 ppb        0.23456  47.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.3     -18.052 ug/L       26.0046     -18.052 ppb        26.0046 144.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         184.5      35.418 ug/L        2.1451      35.418 ppb         2.1451   6.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8     -134.18 ug/L        33.819     -134.18 ppb         33.819  25.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -1.9      0.0016 ug/L       0.00536      0.0016 ppb        0.00536 342.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.1      0.0827 ug/L       0.35590      0.0827 ppb        0.35590 430.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -32.3     -9.9682 ug/L      16.09529     -9.9682 ppb       16.09529 161.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.9      0.0742 ug/L       0.12666      0.0742 ppb        0.12666 170.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.5     -5.5805 ug/L       0.90441     -5.5805 ppb        0.90441  16.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.4     -0.4137 ug/L       0.96472     -0.4137 ppb        0.96472 233.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.1     -1.6440 ug/L       4.61830     -1.6440 ppb        4.61830 280.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.1      1.0691 ug/L       0.79783      1.0691 ppb        0.79783  74.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.9      2.5091 ug/L       1.15258      2.5091 ppb        1.15258  45.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -7.3     -0.2362 ug/L       0.18946     -0.2362 ppb        0.18946  80.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.3     -0.0516 ug/L       1.25674     -0.0516 ppb        1.25674 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -8.8     -0.0609 ug/L       0.06024     -0.0609 ppb        0.06024  98.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -37.2     -0.0499 ug/L       0.10336     -0.0499 ppb        0.10336 206.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.2987 ug/L       1.36699      0.2987 ppb        1.36699 457.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                104.2      2.8800 ug/L       3.47433      2.8800 ppb        3.47433 120.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 23.7      0.1724 ug/L       0.17566      0.1724 ppb        0.17566 101.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               182.3      1.8383 ug/L       0.05704      1.8383 ppb        0.05704   3.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       7.5      0.5155 ug/L       1.12137      0.5155 ppb        1.12137 217.54%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 22:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3810.4 | 3810.4 | 97.2 | % | | | 22:19:02 |
| 1 | Y RADIAL | 4133.5 | 4133.5 | 93.71 | % | | | 22:18:42 |
| 1 | Al 396.153Radial† | 5311.6 | 5575.2 | 5204.9 | ug/L | 5204.9 | ppb | 22:18:42 |
| 1 | Ca 317.933Radial† | 2469.3 | 2519.9 | 5267.8 | ug/L | 5267.8 | ppb | 22:19:02 |
| 1 | Fe 238.204 Radial† | 357.4 | 356.3 | 5043.5 | ug/L | 5043.5 | ppb | 22:19:02 |
| 1 | K 766.490 Radial† | 29031.9 | 27218.3 | 5216.5 | ug/L | 5216.5 | ppb | 22:18:42 |
| 1 | Mg 279.077 IEC† | 108.0 | 107.0 | 5188.7 | ug/L | 5188.7 | ppb | 22:19:02 |
| 1 | Na 589.592 Radial† | 32927.6 | 34684.1 | 10694 | ug/L | 10694 | ppb | 22:18:42 |
| 1 | Sr 421.552† | 72851.9 | 74888.9 | 518.16 | ug/L | 518.16 | ppb | 22:18:42 |
| 1 | Sc 361.383 | 891177.9 | 891177.9 | 101.59 | % | | | 22:20:00 |
| 1 | Y 371.029 | 741068.6 | 741068.6 | 98.045 | % | | | 22:20:00 |
| 1 | Ag 328.068† | 107477.3 | 105554.9 | 492.10 | ug/L | 492.10 | ppb | 22:20:05 |
| 1 | As 188.979† | 1111.7 | 1112.6 | 501.04 | ug/L | 501.04 | ppb | 22:20:25 |
| 1 | B 249.677† | 19769.8 | 19858.6 | 479.24 | ug/L | 479.24 | ppb | 22:20:05 |
| 1 | Ba 233.527† | 63878.8 | 62880.6 | 494.67 | ug/L | 494.67 | ppb | 22:20:05 |
| 1 | Be 313.107† | 1318940.3 | 1302061.3 | 490.42 | ug/L | 490.42 | ppb | 22:20:00 |
| 1 | Cd 226.502† | 43583.8 | 43098.0 | 498.96 | ug/L | 498.96 | ppb | 22:20:05 |
| 1 | Co 228.616† | 23981.7 | 23673.0 | 495.98 | ug/L | 495.98 | ppb | 22:20:05 |
| 1 | Cr 267.716† | 44503.7 | 43729.5 | 491.88 | ug/L | 491.88 | ppb | 22:20:05 |
| 1 | Cu 324.752† | 167613.3 | 158999.4 | 483.85 | ug/L | 483.85 | ppb | 22:20:05 |
| 1 | Mn 257.610† | 441011.5 | 433651.0 | 493.75 | ug/L | 493.75 | ppb | 22:20:00 |
| 1 | Mo 202.031† | 6822.6 | 6705.7 | 492.76 | ug/L | 492.76 | ppb | 22:20:25 |
| 1 | Ni 231.604† | 19906.8 | 19532.8 | 496.48 | ug/L | 496.48 | ppb | 22:20:05 |
| 1 | P 214.914† | 4414.3 | 4134.7 | 2394.9 | ug/L | 2394.9 | ppb | 22:20:25 |
| 1 | Pb 220.353† | 4046.9 | 4041.7 | 498.64 | ug/L | 498.64 | ppb | 22:20:25 |
| 1 | S 181.975 Axial† | 737.2 | 684.9 | 984.56 | ug/L | 984.56 | ppb | 22:20:25 |
| 1 | Sb 206.836† | 1458.2 | 1398.7 | 506.66 | ug/L | 506.66 | ppb | 22:20:25 |
| 1 | Se 196.026† | 758.2 | 774.1 | 524.29 | ug/L | 524.29 | ppb | 22:20:25 |
| 1 | Si 251.611† | 77952.9 | 76174.6 | 2458.9 | ug/L | 2458.9 | ppb | 22:20:05 |
| 1 | Sn 189.927† | 2812.2 | 2757.7 | 495.45 | ug/L | 495.45 | ppb | 22:20:25 |
| 1 | Ti 334.940† | 313787.8 | 310251.1 | 487.42 | ug/L | 487.42 | ppb | 22:20:05 |
| 1 | Tl 190.801† | 1556.4 | 1564.6 | 503.56 | ug/L | 503.56 | ppb | 22:20:25 |
| 1 | U 409.014† | 14614.1 | 17272.0 | 475.28 | ug/L | 475.28 | ppb | 22:20:05 |
| 1 | V 292.402† | 69577.6 | 69994.4 | 494.61 | ug/L | 494.61 | ppb | 22:20:05 |
| 1 | Zn 213.857† | 50452.8 | 49057.2 | 489.26 | ug/L | 489.26 | ppb | 22:20:05 |
| 1 | SiO2† | 78410.5 | 76629.0 | 5312.0 | ug/L | 5312.0 | ppb | 22:21:32 |
| 2 | Sc Radial | 3840.5 | 3840.5 | 98.0 | % | | | 22:19:27 |
| 2 | Y RADIAL | 4329.4 | 4329.4 | 98.15 | % | | | 22:19:07 |
| 2 | Al 396.153Radial† | 5213.6 | 5432.4 | 5072.2 | ug/L | 5072.2 | ppb | 22:19:07 |
| 2 | Ca 317.933Radial† | 2453.9 | 2484.2 | 5193.3 | ug/L | 5193.3 | ppb | 22:19:27 |
| 2 | Fe 238.204 Radial† | 361.7 | 357.7 | 5063.4 | ug/L | 5063.4 | ppb | 22:19:27 |
| 2 | K 766.490 Radial† | 28672.0 | 26617.2 | 5101.3 | ug/L | 5101.3 | ppb | 22:19:07 |
| 2 | Mg 279.077 IEC† | 108.5 | 106.7 | 5171.4 | ug/L | 5171.4 | ppb | 22:19:27 |
| 2 | Na 589.592 Radial† | 32391.6 | 33872.1 | 10444 | ug/L | 10444 | ppb | 22:19:07 |
| 2 | Sr 421.552† | 71524.7 | 72947.9 | 504.73 | ug/L | 504.73 | ppb | 22:19:07 |
| 2 | Sc 361.383 | 940275.3 | 940275.3 | 107.19 | % | | | 22:20:31 |
| 2 | Y 371.029 | 782720.1 | 782720.1 | 103.56 | % | | | 22:20:31 |
| 2 | Ag 328.068† | 108052.7 | 100567.5 | 468.92 | ug/L | 468.92 | ppb | 22:20:36 |
| 2 | As 188.979† | 1116.0 | 1059.4 | 477.17 | ug/L | 477.17 | ppb | 22:20:56 |
| 2 | B 249.677† | 20019.5 | 19075.4 | 460.31 | ug/L | 460.31 | ppb | 22:20:36 |
| 2 | Ba 233.527† | 64174.4 | 59873.0 | 471.02 | ug/L | 471.02 | ppb | 22:20:36 |
| 2 | Be 313.107† | 1327038.3 | 1241824.4 | 467.73 | ug/L | 467.73 | ppb | 22:20:31 |
| 2 | Cd 226.502† | 43674.4 | 40942.3 | 473.98 | ug/L | 473.98 | ppb | 22:20:36 |
| 2 | Co 228.616† | 24088.6 | 22540.0 | 472.25 | ug/L | 472.25 | ppb | 22:20:36 |
| 2 | Cr 267.716† | 44683.9 | 41610.2 | 468.07 | ug/L | 468.07 | ppb | 22:20:36 |
| 2 | Cu 324.752† | 169016.0 | 151692.9 | 461.63 | ug/L | 461.63 | ppb | 22:20:36 |
| 2 | Mn 257.610† | 442501.0 | 412373.2 | 469.54 | ug/L | 469.54 | ppb | 22:20:31 |
| 2 | Mo 202.031† | 6864.9 | 6394.5 | 469.91 | ug/L | 469.91 | ppb | 22:20:56 |
| 2 | Ni 231.604† | 19941.9 | 18542.3 | 471.30 | ug/L | 471.30 | ppb | 22:20:36 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4458.3 | 3948.9 | 2287.2 ug/L | 2287.2 ppb | 22:20:56 |
| 2 | Pb 220.353† | 4060.4 | 3846.2 | 474.53 ug/L | 474.53 ppb | 22:20:56 |
| 2 | S 181.975 Axial† | 752.1 | 660.8 | 949.99 ug/L | 949.99 ppb | 22:20:56 |
| 2 | Sb 206.836† | 1466.1 | 1331.1 | 482.18 ug/L | 482.18 ppb | 22:20:56 |
| 2 | Se 196.026† | 755.1 | 732.2 | 496.84 ug/L | 496.84 ppb | 22:20:56 |
| 2 | Si 251.611† | 78523.3 | 72700.1 | 2346.7 ug/L | 2346.7 ppb | 22:20:36 |
| 2 | Sn 189.927† | 2822.2 | 2622.4 | 471.17 ug/L | 471.17 ppb | 22:20:56 |
| 2 | Ti 334.940† | 315407.5 | 295634.0 | 464.46 ug/L | 464.46 ppb | 22:20:36 |
| 2 | Tl 190.801† | 1546.6 | 1475.5 | 474.90 ug/L | 474.90 ppb | 22:20:56 |
| 2 | U 409.014† | 14645.5 | 16550.2 | 455.39 ug/L | 455.39 ppb | 22:20:36 |
| 2 | V 292.402† | 69775.3 | 66602.6 | 470.62 ug/L | 470.62 ppb | 22:20:36 |
| 2 | Zn 213.857† | 50757.9 | 46748.6 | 466.21 ug/L | 466.21 ppb | 22:20:36 |
| 2 | SiO2† | 78336.2 | 72529.4 | 5027.7 ug/L | 5027.7 ppb | 22:21:37 |
| 3 | Sc Radial | 3852.8 | 3852.8 | 98.3 % | | 22:19:52 |
| 3 | Y RADIAL | 4362.4 | 4362.4 | 98.90 % | | 22:19:32 |
| 3 | Al 396.153Radial† | 5285.0 | 5488.0 | 5123.5 ug/L | 5123.5 ppb | 22:19:32 |
| 3 | Ca 317.933Radial† | 2460.0 | 2482.4 | 5189.6 ug/L | 5189.6 ppb | 22:19:52 |
| 3 | Fe 238.204 Radial† | 360.9 | 355.7 | 5036.3 ug/L | 5036.3 ppb | 22:19:52 |
| 3 | K 766.490 Radial† | 28971.3 | 26828.1 | 5141.7 ug/L | 5141.7 ppb | 22:19:32 |
| 3 | Mg 279.077 IEC† | 105.8 | 103.5 | 5018.4 ug/L | 5018.4 ppb | 22:19:52 |
| 3 | Na 589.592 Radial† | 32943.2 | 34327.4 | 10584 ug/L | 10584 ppb | 22:19:32 |
| 3 | Sr 421.552† | 72590.8 | 73798.8 | 510.62 ug/L | 510.62 ppb | 22:19:32 |
| 3 | Sc 361.383 | 898053.4 | 898053.4 | 102.37 % | | 22:21:02 |
| 3 | Y 371.029 | 744982.0 | 744982.0 | 98.563 % | | 22:21:02 |
| 3 | Ag 328.068† | 109058.7 | 106289.7 | 495.51 ug/L | 495.51 ppb | 22:21:07 |
| 3 | As 188.979† | 1098.2 | 1091.0 | 491.46 ug/L | 491.46 ppb | 22:21:27 |
| 3 | B 249.677† | 20265.7 | 20194.0 | 487.35 ug/L | 487.35 ppb | 22:21:07 |
| 3 | Ba 233.527† | 64899.7 | 63396.4 | 498.73 ug/L | 498.73 ppb | 22:21:07 |
| 3 | Be 313.107† | 1339381.5 | 1312088.9 | 494.20 ug/L | 494.20 ppb | 22:21:02 |
| 3 | Cd 226.502† | 44166.0 | 43338.3 | 501.75 ug/L | 501.75 ppb | 22:21:07 |
| 3 | Co 228.616† | 24466.7 | 23966.0 | 502.10 ug/L | 502.10 ppb | 22:21:07 |
| 3 | Cr 267.716† | 45233.2 | 44106.8 | 496.12 ug/L | 496.12 ppb | 22:21:07 |
| 3 | Cu 324.752† | 170696.8 | 160748.3 | 489.17 ug/L | 489.17 ppb | 22:21:07 |
| 3 | Mn 257.610† | 447756.8 | 436916.4 | 497.48 ug/L | 497.48 ppb | 22:21:02 |
| 3 | Mo 202.031† | 6785.0 | 6617.5 | 486.29 ug/L | 486.29 ppb | 22:21:27 |
| 3 | Ni 231.604† | 20309.6 | 19776.3 | 502.67 ug/L | 502.67 ppb | 22:21:07 |
| 3 | P 214.914† | 4405.1 | 4092.5 | 2368.3 ug/L | 2368.3 ppb | 22:21:27 |
| 3 | Pb 220.353† | 4049.9 | 4014.1 | 495.21 ug/L | 495.21 ppb | 22:21:27 |
| 3 | S 181.975 Axial† | 739.4 | 681.4 | 979.62 ug/L | 979.62 ppb | 22:21:27 |
| 3 | Sb 206.836† | 1471.2 | 1400.4 | 507.05 ug/L | 507.05 ppb | 22:21:27 |
| 3 | Se 196.026† | 741.0 | 751.6 | 509.51 ug/L | 509.51 ppb | 22:21:27 |
| 3 | Si 251.611† | 79313.1 | 76915.9 | 2482.9 ug/L | 2482.9 ppb | 22:21:07 |
| 3 | Sn 189.927† | 2800.4 | 2725.0 | 489.56 ug/L | 489.56 ppb | 22:21:27 |
| 3 | Ti 334.940† | 319127.9 | 313102.7 | 491.90 ug/L | 491.90 ppb | 22:21:07 |
| 3 | Tl 190.801† | 1538.1 | 1535.0 | 494.12 ug/L | 494.12 ppb | 22:21:27 |
| 3 | U 409.014† | 14929.2 | 17469.6 | 480.73 ug/L | 480.73 ppb | 22:21:07 |
| 3 | V 292.402† | 70510.9 | 70381.7 | 497.22 ug/L | 497.22 ppb | 22:21:07 |
| 3 | Zn 213.857† | 51302.3 | 49506.8 | 493.74 ug/L | 493.74 ppb | 22:21:07 |
| 3 | SiO2† | 77938.1 | 75576.6 | 5239.0 ug/L | 5239.0 ppb | 22:21:43 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 909835.5 | 103.72 | % | 3.031 | | | | 2.92% |
| Sc Radial | 3834.6 | 97.9 | % | 0.56 | | | | 0.57% |
| Y 371.029 | 756256.9 | 100.05 | % | 3.043 | | | | 3.04% |
| Y RADIAL | 4275.1 | 96.92 | % | 2.806 | | | | 2.89% |
| Ag 328.068† | 104137.4 | 485.51 | ug/L | 14.467 | 485.51 | ppb | 14.467 | 2.98% |
| QC value within limits for Ag 328.068 Recovery = 97.10% | | | | | | | | |
| Al 396.153Radial† | 5498.5 | 5133.5 | ug/L | 66.96 | 5133.5 | ppb | 66.96 | 1.30% |
| QC value within limits for Al 396.153Radial Recovery = 102.67% | | | | | | | | |
| As 188.979† | 1087.7 | 489.89 | ug/L | 12.012 | 489.89 | ppb | 12.012 | 2.45% |
| QC value within limits for As 188.979 Recovery = 97.98% | | | | | | | | |
| B 249.677† | 19709.4 | 475.64 | ug/L | 13.875 | 475.64 | ppb | 13.875 | 2.92% |
| QC value within limits for B 249.677 Recovery = 95.13% | | | | | | | | |
| Ba 233.527† | 62050.0 | 488.14 | ug/L | 14.964 | 488.14 | ppb | 14.964 | 3.07% |
| QC value within limits for Ba 233.527 Recovery = 97.63% | | | | | | | | |
| Be 313.107† | 1285324.9 | 484.11 | ug/L | 14.315 | 484.11 | ppb | 14.315 | 2.96% |
| QC value within limits for Be 313.107 Recovery = 96.82% | | | | | | | | |
| Ca 317.933Radial† | 2495.5 | 5216.9 | ug/L | 44.11 | 5216.9 | ppb | 44.11 | 0.85% |

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   QC value within limits for Ca 317.933Radial  Recovery = 104.34%
Cd 226.502†            42459.5      491.56 ug/L        15.293      491.56 ppb        15.293   3.11%
   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†            23393.0      490.11 ug/L        15.770      490.11 ppb        15.770   3.22%
   QC value within limits for Co 228.616  Recovery = 98.02%
Cr 267.716†            43148.8      485.35 ug/L        15.121      485.35 ppb        15.121   3.12%
   QC value within limits for Cr 267.716  Recovery = 97.07%
Cu 324.752†           157146.9      478.22 ug/L        14.609      478.22 ppb        14.609   3.05%
   QC value within limits for Cu 324.752  Recovery = 95.64%
Fe 238.204 Radial†       356.6      5047.8 ug/L         14.05      5047.8 ppb         14.05   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      26887.9      5153.2 ug/L         58.45      5153.2 ppb         58.45   1.13%
   QC value within limits for K 766.490 Radial  Recovery = 103.06%
Mg 279.077 IEC†          105.7      5126.2 ug/L         93.72      5126.2 ppb         93.72   1.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.52%
Mn 257.610†           427646.9      486.92 ug/L        15.167      486.92 ppb        15.167   3.11%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†             6572.6      482.99 ug/L        11.777      482.99 ppb        11.777   2.44%
   QC value within limits for Mo 202.031  Recovery = 96.60%
Na 589.592 Radial†     34294.6       10574 ug/L         125.5       10574 ppb         125.5   1.19%
   QC value within limits for Na 589.592 Radial  Recovery = 105.74%
Ni 231.604†            19283.8      490.15 ug/L        16.613      490.15 ppb        16.613   3.39%
   QC value within limits for Ni 231.604  Recovery = 98.03%
P 214.914†              4058.7      2350.1 ug/L         56.11      2350.1 ppb         56.11   2.39%
   QC value within limits for P 214.914  Recovery = 94.00%
Pb 220.353†             3967.3      489.46 ug/L        13.045      489.46 ppb        13.045   2.67%
   QC value within limits for Pb 220.353  Recovery = 97.89%
S 181.975 Axial†         675.7      971.39 ug/L        18.694      971.39 ppb        18.694   1.92%
   QC value within limits for S 181.975 Axial  Recovery = 97.14%
Sb 206.836†             1376.7      498.63 ug/L        14.249      498.63 ppb        14.249   2.86%
   QC value within limits for Sb 206.836  Recovery = 99.73%
Se 196.026†              752.6      510.21 ug/L        13.738      510.21 ppb        13.738   2.69%
   QC value within limits for Se 196.026  Recovery = 102.04%
Si 251.611†            75263.5      2429.5 ug/L         72.70      2429.5 ppb         72.70   2.99%
   QC value within limits for Si 251.611  Recovery = 97.18%
Sn 189.927†             2701.7      485.39 ug/L        12.666      485.39 ppb        12.666   2.61%
   QC value within limits for Sn 189.927  Recovery = 97.08%
Sr 421.552†            73878.5      511.17 ug/L         6.732      511.17 ppb         6.732   1.32%
   QC value within limits for Sr 421.552  Recovery = 102.23%
Ti 334.940†           306329.3      481.26 ug/L        14.721      481.26 ppb        14.721   3.06%
   QC value within limits for Ti 334.940  Recovery = 96.25%
Tl 190.801†             1525.0      490.86 ug/L        14.606      490.86 ppb        14.606   2.98%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†             17097.3      470.47 ug/L        13.333      470.47 ppb        13.333   2.83%
   QC value within limits for U 409.014  Recovery = 94.09%
V 292.402†             68992.9      487.48 ug/L        14.658      487.48 ppb        14.658   3.01%
   QC value within limits for V 292.402  Recovery = 97.50%
Zn 213.857†            48437.5      483.07 ug/L        14.773      483.07 ppb        14.773   3.06%
   QC value within limits for Zn 213.857  Recovery = 96.61%
SiO2†                  74911.7      5192.9 ug/L        147.65      5192.9 ppb        147.65   2.84%
   QC value within limits for SiO2  Recovery = 97.11%
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 22:23:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3810.6 | 3810.6 | 97.2 | % | | | 22:26:05 |
| 1 | Y RADIAL | 4397.6 | 4397.6 | 99.70 | % | | | 22:25:45 |
| 1 | Al 396.153Radial† | -104.7 | 4.7 | 4.4551 | ug/L | 4.4551 | ppb | 22:25:45 |
| 1 | Ca 317.933Radial† | 23.8 | 4.8 | 10.068 | ug/L | 10.068 | ppb | 22:26:05 |
| 1 | Fe 238.204 Radial† | 11.6 | 0.6 | 8.0666 | ug/L | 8.0666 | ppb | 22:26:05 |
| 1 | K 766.490 Radial† | 2762.9 | 201.7 | 38.709 | ug/L | 38.709 | ppb | 22:25:45 |
| 1 | Mg 279.077 IEC† | 2.3 | -1.7 | -83.085 | ug/L | -83.085 | ppb | 22:26:05 |
| 1 | Na 589.592 Radial† | -815.9 | -19.3 | -5.9415 | ug/L | -5.9415 | ppb | 22:25:45 |
| 1 | Sr 421.552† | 58.1 | 24.0 | 0.1663 | ug/L | 0.1663 | ppb | 22:25:45 |
| 1 | Sc 361.383 | 890284.6 | 890284.6 | 101.49 | % | | | 22:27:01 |
| 1 | Y 371.029 | 751075.4 | 751075.4 | 99.369 | % | | | 22:27:01 |
| 1 | Ag 328.068† | 168.6 | -74.3 | -0.3393 | ug/L | -0.3393 | ppb | 22:27:06 |
| 1 | As 188.979† | -11.6 | 6.9 | 3.0670 | ug/L | 3.0670 | ppb | 22:27:26 |
| 1 | B 249.677† | -358.5 | 45.0 | 1.0900 | ug/L | 1.0900 | ppb | 22:27:26 |
| 1 | Ba 233.527† | -11.1 | -9.5 | -0.0724 | ug/L | -0.0724 | ppb | 22:27:26 |
| 1 | Be 313.107† | -3815.2 | 2.9 | 0.0009 | ug/L | 0.0009 | ppb | 22:27:06 |
| 1 | Cd 226.502† | -168.6 | 30.1 | 0.3481 | ug/L | 0.3481 | ppb | 22:27:26 |
| 1 | Co 228.616† | -77.4 | -9.7 | -0.2058 | ug/L | -0.2058 | ppb | 22:27:26 |
| 1 | Cr 267.716† | 64.6 | -14.0 | -0.1559 | ug/L | -0.1559 | ppb | 22:27:26 |
| 1 | Cu 324.752† | 6067.4 | -12.3 | -0.0377 | ug/L | -0.0377 | ppb | 22:27:06 |
| 1 | Mn 257.610† | 527.6 | 61.1 | 0.0737 | ug/L | 0.0737 | ppb | 22:27:26 |
| 1 | Mo 202.031† | 0.3 | -9.8 | -0.7223 | ug/L | -0.7223 | ppb | 22:27:26 |
| 1 | Ni 231.604† | 57.4 | -5.9 | -0.1496 | ug/L | -0.1496 | ppb | 22:27:26 |
| 1 | P 214.914† | 211.8 | -1.8 | -1.0715 | ug/L | -1.0715 | ppb | 22:27:26 |
| 1 | Pb 220.353† | -63.4 | -4.3 | -0.5363 | ug/L | -0.5363 | ppb | 22:27:26 |
| 1 | S 181.975 Axial† | 37.7 | -3.7 | -5.2704 | ug/L | -5.2704 | ppb | 22:27:26 |
| 1 | Sb 206.836† | 40.4 | 3.1 | 1.1055 | ug/L | 1.1055 | ppb | 22:27:26 |
| 1 | Se 196.026† | -21.8 | 6.3 | 4.1466 | ug/L | 4.1466 | ppb | 22:27:26 |
| 1 | Si 251.611† | 760.5 | 191.1 | 6.1916 | ug/L | 6.1916 | ppb | 22:27:26 |
| 1 | Sn 189.927† | 21.6 | 10.8 | 1.9452 | ug/L | 1.9452 | ppb | 22:27:26 |
| 1 | Ti 334.940† | -1461.6 | -66.1 | -0.0963 | ug/L | -0.0963 | ppb | 22:27:06 |
| 1 | Tl 190.801† | -28.4 | 4.6 | 1.4728 | ug/L | 1.4728 | ppb | 22:27:26 |
| 1 | U 409.014† | -2884.4 | 44.5 | 1.2292 | ug/L | 1.2292 | ppb | 22:27:01 |
| 1 | V 292.402† | -1401.3 | 124.9 | 0.8605 | ug/L | 0.8605 | ppb | 22:27:06 |
| 1 | Zn 213.857† | 831.6 | 213.3 | 2.1473 | ug/L | 2.1473 | ppb | 22:27:26 |
| 1 | SiO2† | 791.9 | 225.9 | 15.717 | ug/L | 15.717 | ppb | 22:28:32 |
| 2 | Sc Radial | 3807.4 | 3807.4 | 97.2 | % | | | 22:26:30 |
| 2 | Y RADIAL | 4284.6 | 4284.6 | 97.14 | % | | | 22:26:10 |
| 2 | Al 396.153Radial† | -129.0 | -20.3 | -19.055 | ug/L | -19.055 | ppb | 22:26:10 |
| 2 | Ca 317.933Radial† | 19.2 | 0.1 | 0.1254 | ug/L | 0.1254 | ppb | 22:26:30 |
| 2 | Fe 238.204 Radial† | 11.2 | 0.2 | 3.0851 | ug/L | 3.0851 | ppb | 22:26:30 |
| 2 | K 766.490 Radial† | 2826.0 | 269.1 | 51.636 | ug/L | 51.636 | ppb | 22:26:10 |
| 2 | Mg 279.077 IEC† | 4.4 | 0.4 | 21.619 | ug/L | 21.619 | ppb | 22:26:30 |
| 2 | Na 589.592 Radial† | -826.7 | -31.2 | -9.6056 | ug/L | -9.6056 | ppb | 22:26:10 |
| 2 | Sr 421.552† | 49.0 | 14.7 | 0.1018 | ug/L | 0.1018 | ppb | 22:26:10 |
| 2 | Sc 361.383 | 907108.3 | 907108.3 | 103.41 | % | | | 22:27:32 |
| 2 | Y 371.029 | 764442.6 | 764442.6 | 101.14 | % | | | 22:27:32 |
| 2 | Ag 328.068† | 240.7 | -7.6 | -0.0335 | ug/L | -0.0335 | ppb | 22:27:37 |
| 2 | As 188.979† | -19.0 | -0.2 | -0.0712 | ug/L | -0.0712 | ppb | 22:27:57 |
| 2 | B 249.677† | -362.6 | 47.6 | 1.1533 | ug/L | 1.1533 | ppb | 22:27:57 |
| 2 | Ba 233.527† | -18.4 | -16.4 | -0.1284 | ug/L | -0.1284 | ppb | 22:27:57 |
| 2 | Be 313.107† | -3759.3 | 126.7 | 0.0475 | ug/L | 0.0475 | ppb | 22:27:37 |
| 2 | Cd 226.502† | -189.0 | 13.4 | 0.1550 | ug/L | 0.1550 | ppb | 22:27:57 |
| 2 | Co 228.616† | -67.3 | 1.5 | 0.0301 | ug/L | 0.0301 | ppb | 22:27:57 |
| 2 | Cr 267.716† | 93.2 | 12.4 | 0.1402 | ug/L | 0.1402 | ppb | 22:27:57 |
| 2 | Cu 324.752† | 6026.5 | -162.7 | -0.4946 | ug/L | -0.4946 | ppb | 22:27:37 |
| 2 | Mn 257.610† | 513.2 | 37.6 | 0.0422 | ug/L | 0.0422 | ppb | 22:27:57 |
| 2 | Mo 202.031† | 8.0 | -2.4 | -0.1791 | ug/L | -0.1791 | ppb | 22:27:57 |
| 2 | Ni 231.604† | 48.8 | -15.2 | -0.3874 | ug/L | -0.3874 | ppb | 22:27:57 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 194.5 | -22.4 | -13.376 ug/L | -13.376 ppb | 22:27:57 |
| 2 | Pb 220.353† | -68.2 | -7.9 | -0.9746 ug/L | -0.9746 ppb | 22:27:57 |
| 2 | S 181.975 Axial† | 47.0 | 4.6 | 6.6842 ug/L | 6.6842 ppb | 22:27:57 |
| 2 | Sb 206.836† | 34.0 | -3.8 | -1.3246 ug/L | -1.3246 ppb | 22:27:57 |
| 2 | Se 196.026† | -21.5 | 7.0 | 4.5760 ug/L | 4.5760 ppb | 22:27:57 |
| 2 | Si 251.611† | 767.1 | 183.6 | 5.9419 ug/L | 5.9419 ppb | 22:27:57 |
| 2 | Sn 189.927† | 15.7 | 4.7 | 0.8500 ug/L | 0.8500 ppb | 22:27:57 |
| 2 | Ti 334.940† | -1456.5 | -34.4 | -0.0556 ug/L | -0.0556 ppb | 22:27:37 |
| 2 | Tl 190.801† | -28.7 | 4.8 | 1.5347 ug/L | 1.5347 ppb | 22:27:57 |
| 2 | U 409.014† | -3010.7 | -25.0 | -0.6897 ug/L | -0.6897 ppb | 22:27:32 |
| 2 | V 292.402† | -1543.1 | 13.4 | 0.0894 ug/L | 0.0894 ppb | 22:27:37 |
| 2 | Zn 213.857† | 843.0 | 209.2 | 2.1090 ug/L | 2.1090 ppb | 22:27:57 |
| 2 | SiO2† | 765.6 | 186.0 | 12.929 ug/L | 12.929 ppb | 22:28:37 |
| 3 | Sc Radial | 3811.0 | 3811.0 | 97.2 % | | 22:26:55 |
| 3 | Y RADIAL | 4274.0 | 4274.0 | 96.90 % | | 22:26:35 |
| 3 | Al 396.153Radial† | -125.7 | -16.8 | -15.798 ug/L | -15.798 ppb | 22:26:35 |
| 3 | Ca 317.933Radial† | 18.3 | -0.8 | -1.7318 ug/L | -1.7318 ppb | 22:26:55 |
| 3 | Fe 238.204 Radial† | 11.5 | 0.5 | 7.0417 ug/L | 7.0417 ppb | 22:26:55 |
| 3 | K 766.490 Radial† | 2626.1 | 60.7 | 11.657 ug/L | 11.657 ppb | 22:26:35 |
| 3 | Mg 279.077 IEC† | 3.9 | -0.1 | -3.4089 ug/L | -3.4089 ppb | 22:26:55 |
| 3 | Na 589.592 Radial† | -799.0 | -1.8 | -0.5630 ug/L | -0.5630 ppb | 22:26:35 |
| 3 | Sr 421.552† | 45.3 | 10.8 | 0.0750 ug/L | 0.0750 ppb | 22:26:35 |
| 3 | Sc 361.383 | 908326.4 | 908326.4 | 103.54 % | | 22:28:02 |
| 3 | Y 371.029 | 765068.3 | 765068.3 | 101.22 % | | 22:28:02 |
| 3 | Ag 328.068† | 233.0 | -15.4 | -0.0730 ug/L | -0.0730 ppb | 22:28:07 |
| 3 | As 188.979† | -25.8 | -6.7 | -2.9978 ug/L | -2.9978 ppb | 22:28:27 |
| 3 | B 249.677† | -331.2 | 78.3 | 1.8989 ug/L | 1.8989 ppb | 22:28:27 |
| 3 | Ba 233.527† | 16.0 | 16.9 | 0.1332 ug/L | 0.1332 ppb | 22:28:27 |
| 3 | Be 313.107† | -3785.9 | 105.9 | 0.0398 ug/L | 0.0398 ppb | 22:28:07 |
| 3 | Cd 226.502† | -186.5 | 16.2 | 0.1876 ug/L | 0.1876 ppb | 22:28:27 |
| 3 | Co 228.616† | -79.4 | -10.1 | -0.2114 ug/L | -0.2114 ppb | 22:28:27 |
| 3 | Cr 267.716† | 75.8 | -4.4 | -0.0513 ug/L | -0.0513 ppb | 22:28:27 |
| 3 | Cu 324.752† | 6032.0 | -165.3 | -0.5060 ug/L | -0.5060 ppb | 22:28:07 |
| 3 | Mn 257.610† | 496.0 | 20.3 | 0.0240 ug/L | 0.0240 ppb | 22:28:27 |
| 3 | Mo 202.031† | 16.2 | 5.5 | 0.4055 ug/L | 0.4055 ppb | 22:28:27 |
| 3 | Ni 231.604† | 67.7 | 2.9 | 0.0745 ug/L | 0.0745 ppb | 22:28:27 |
| 3 | P 214.914† | 205.0 | -12.6 | -7.4574 ug/L | -7.4574 ppb | 22:28:27 |
| 3 | Pb 220.353† | -56.9 | 3.1 | 0.3836 ug/L | 0.3836 ppb | 22:28:27 |
| 3 | S 181.975 Axial† | 49.2 | 6.7 | 9.6140 ug/L | 9.6140 ppb | 22:28:27 |
| 3 | Sb 206.836† | 40.0 | 1.9 | 0.6909 ug/L | 0.6909 ppb | 22:28:27 |
| 3 | Se 196.026† | -19.2 | 9.2 | 6.0305 ug/L | 6.0305 ppb | 22:28:27 |
| 3 | Si 251.611† | 759.8 | 175.5 | 5.6726 ug/L | 5.6726 ppb | 22:28:27 |
| 3 | Sn 189.927† | 19.6 | 8.4 | 1.5129 ug/L | 1.5129 ppb | 22:28:27 |
| 3 | Ti 334.940† | -1431.2 | -8.1 | -0.0154 ug/L | -0.0154 ppb | 22:28:07 |
| 3 | Tl 190.801† | -32.2 | 1.5 | 0.4801 ug/L | 0.4801 ppb | 22:28:27 |
| 3 | U 409.014† | -2756.9 | 224.1 | 6.1875 ug/L | 6.1875 ppb | 22:28:02 |
| 3 | V 292.402† | -1512.1 | 45.4 | 0.3327 ug/L | 0.3327 ppb | 22:28:07 |
| 3 | Zn 213.857† | 843.2 | 208.3 | 2.0957 ug/L | 2.0957 ppb | 22:28:27 |
| 3 | SiO2† | 766.0 | 185.4 | 12.874 ug/L | 12.874 ppb | 22:28:42 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 901906.4 | 102.81 | % | 1.149 | | | | 1.12% |
| Sc Radial | 3809.7 | 97.2 | % | 0.05 | | | | 0.05% |
| Y 371.029 | 760195.4 | 100.58 | % | 1.046 | | | | 1.04% |
| Y RADIAL | 4318.8 | 97.91 | % | 1.553 | | | | 1.59% |
| Ag 328.068† | -32.4 | -0.1486 | ug/L | 0.16628 | -0.1486 | ppb | 0.16628 | 111.89% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -10.8 | -10.133 | ug/L | 12.7378 | -10.133 | ppb | 12.7378 | 125.71% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -0.0 | -0.0007 | ug/L | 3.03305 | -0.0007 | ppb | 3.03305 | >999.9% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 57.0 | 1.3807 | ug/L | 0.44987 | 1.3807 | ppb | 0.44987 | 32.58% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | -3.0 | -0.0225 | ug/L | 0.13777 | -0.0225 | ppb | 0.13777 | 611.77% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 78.5 | 0.0294 | ug/L | 0.02499 | 0.0294 | ppb | 0.02499 | 85.06% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 1.3 | 2.8205 | ug/L | 6.34473 | 2.8205 | ppb | 6.34473 | 224.95% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                19.9      0.2302 ug/L       0.10336      0.2302 ppb        0.10336  44.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.1     -0.1290 ug/L       0.13786     -0.1290 ppb        0.13786 106.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.0     -0.0223 ug/L       0.15017     -0.0223 ppb        0.15017 673.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -113.4     -0.3461 ug/L       0.26715     -0.3461 ppb        0.26715  77.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      6.0645 ug/L       2.63059      6.0645 ppb        2.63059  43.38%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         177.2      34.000 ug/L       20.4013      34.000 ppb        20.4013  60.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -21.625 ug/L       54.6772     -21.625 ppb        54.6772 252.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                39.7      0.0466 ug/L       0.02517      0.0466 ppb        0.02517  54.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.3     -0.1653 ug/L       0.56403     -0.1653 ppb        0.56403 341.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -17.4     -5.3700 ug/L       4.54834     -5.3700 ppb        4.54834  84.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.1     -0.1542 ug/L       0.23096     -0.1542 ppb        0.23096 149.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.3     -7.3017 ug/L       6.15378     -7.3017 ppb        6.15378  84.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.0     -0.3758 ug/L       0.69319     -0.3758 ppb        0.69319 184.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      3.6759 ug/L       7.88500      3.6759 ppb        7.88500 214.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1573 ug/L       1.29998      0.1573 ppb        1.29998 826.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.5      4.9177 ug/L       0.98736      4.9177 ppb        0.98736  20.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               183.4      5.9354 ug/L       0.25953      5.9354 ppb        0.25953   4.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.0      1.4360 ug/L       0.55164      1.4360 ppb        0.55164  38.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.5      0.1144 ug/L       0.04690      0.1144 ppb        0.04690  41.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -36.2     -0.0557 ug/L       0.04044     -0.0557 ppb        0.04044  72.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.6      1.1625 ug/L       0.59180      1.1625 ppb        0.59180  50.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 81.2      2.2424 ug/L       3.54878      2.2424 ppb        3.54878 158.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 61.2      0.4276 ug/L       0.39419      0.4276 ppb        0.39419  92.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               210.3      2.1173 ug/L       0.02678      2.1173 ppb        0.02678   1.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     199.1      13.840 ug/L        1.6257      13.840 ppb         1.6257  11.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 59
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 23:34:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3861.9 | 3861.9 | 98.5 | % | | | 23:36:39 |
| 1 | Y RADIAL | 4265.2 | 4265.2 | 96.70 | % | | | 23:36:39 |
| 1 | Al 396.153Radial† | 5231.1 | 5420.6 | 5060.1 | ug/L | 5060.1 | ppb | 23:36:39 |
| 1 | Ca 317.933Radial† | 2459.6 | 2476.2 | 5176.5 | ug/L | 5176.5 | ppb | 23:36:59 |
| 1 | Fe 238.204 Radial† | 354.7 | 348.6 | 4936.0 | ug/L | 4936.0 | ppb | 23:36:59 |
| 1 | K 766.490 Radial† | 28383.3 | 26162.4 | 5014.2 | ug/L | 5014.2 | ppb | 23:36:39 |
| 1 | Mg 279.077 IEC† | 106.5 | 104.0 | 5042.7 | ug/L | 5042.7 | ppb | 23:36:59 |
| 1 | Na 589.592 Radial† | 31056.7 | 32334.6 | 9969.6 | ug/L | 9969.6 | ppb | 23:36:39 |
| 1 | Sr 421.552† | 70201.6 | 71201.4 | 492.64 | ug/L | 492.64 | ppb | 23:36:39 |
| 1 | Sc 361.383 | 901214.8 | 901214.8 | 102.73 | % | | | 23:37:56 |
| 1 | Y 371.029 | 749764.9 | 749764.9 | 99.196 | % | | | 23:37:56 |
| 1 | Ag 328.068† | 107960.0 | 104846.5 | 488.77 | ug/L | 488.77 | ppb | 23:38:02 |
| 1 | As 188.979† | 1121.5 | 1109.9 | 499.80 | ug/L | 499.80 | ppb | 23:38:22 |
| 1 | B 249.677† | 19598.8 | 19475.5 | 469.98 | ug/L | 469.98 | ppb | 23:38:02 |
| 1 | Ba 233.527† | 63969.9 | 62268.9 | 489.86 | ug/L | 489.86 | ppb | 23:38:02 |
| 1 | Be 313.107† | 1343428.8 | 1311438.9 | 493.93 | ug/L | 493.93 | ppb | 23:37:56 |
| 1 | Cd 226.502† | 43643.1 | 42677.9 | 494.11 | ug/L | 494.11 | ppb | 23:38:02 |
| 1 | Co 228.616† | 24038.2 | 23465.1 | 491.63 | ug/L | 491.63 | ppb | 23:38:02 |
| 1 | Cr 267.716† | 44781.1 | 43511.7 | 489.42 | ug/L | 489.42 | ppb | 23:38:02 |
| 1 | Cu 324.752† | 168385.4 | 157913.5 | 480.54 | ug/L | 480.54 | ppb | 23:38:02 |
| 1 | Mn 257.610† | 447827.0 | 435450.4 | 495.80 | ug/L | 495.80 | ppb | 23:37:56 |
| 1 | Mo 202.031† | 6883.7 | 6690.4 | 491.63 | ug/L | 491.63 | ppb | 23:38:22 |
| 1 | Ni 231.604† | 20019.4 | 19424.2 | 493.72 | ug/L | 493.72 | ppb | 23:38:02 |
| 1 | P 214.914† | 4459.9 | 4130.7 | 2393.1 | ug/L | 2393.1 | ppb | 23:38:22 |
| 1 | Pb 220.353† | 4105.6 | 4054.5 | 500.19 | ug/L | 500.19 | ppb | 23:38:22 |
| 1 | S 181.975 Axial† | 747.0 | 686.3 | 986.70 | ug/L | 986.70 | ppb | 23:38:22 |
| 1 | Sb 206.836† | 1489.3 | 1413.0 | 511.60 | ug/L | 511.60 | ppb | 23:38:22 |
| 1 | Se 196.026† | 753.7 | 761.4 | 515.62 | ug/L | 515.62 | ppb | 23:38:22 |
| 1 | Si 251.611† | 77972.2 | 75338.8 | 2431.8 | ug/L | 2431.8 | ppb | 23:38:02 |
| 1 | Sn 189.927† | 2825.6 | 2739.9 | 492.25 | ug/L | 492.25 | ppb | 23:38:22 |
| 1 | Ti 334.940† | 315308.0 | 308290.9 | 484.34 | ug/L | 484.34 | ppb | 23:38:02 |
| 1 | Tl 190.801† | 1545.3 | 1536.7 | 494.66 | ug/L | 494.66 | ppb | 23:38:22 |
| 1 | U 409.014† | 14971.7 | 17459.9 | 480.48 | ug/L | 480.48 | ppb | 23:38:02 |
| 1 | V 292.402† | 69981.8 | 69625.1 | 492.04 | ug/L | 492.04 | ppb | 23:38:02 |
| 1 | Zn 213.857† | 50731.5 | 48775.4 | 486.46 | ug/L | 486.46 | ppb | 23:38:02 |
| 1 | SiO2† | 79023.2 | 76365.8 | 5293.7 | ug/L | 5293.7 | ppb | 23:39:29 |
| 2 | Sc Radial | 3941.0 | 3941.0 | 101 | % | | | 23:37:04 |
| 2 | Y RADIAL | 4324.0 | 4324.0 | 98.03 | % | | | 23:37:04 |
| 2 | Al 396.153Radial† | 5306.6 | 5389.1 | 5030.9 | ug/L | 5030.9 | ppb | 23:37:04 |
| 2 | Ca 317.933Radial† | 2460.1 | 2426.6 | 5072.8 | ug/L | 5072.8 | ppb | 23:37:24 |
| 2 | Fe 238.204 Radial† | 356.8 | 343.5 | 4863.0 | ug/L | 4863.0 | ppb | 23:37:24 |
| 2 | K 766.490 Radial† | 28903.2 | 26100.9 | 5002.5 | ug/L | 5002.5 | ppb | 23:37:04 |
| 2 | Mg 279.077 IEC† | 113.2 | 108.5 | 5258.5 | ug/L | 5258.5 | ppb | 23:37:24 |
| 2 | Na 589.592 Radial† | 31430.7 | 32073.5 | 9889.1 | ug/L | 9889.1 | ppb | 23:37:04 |
| 2 | Sr 421.552† | 71135.6 | 70699.4 | 489.17 | ug/L | 489.17 | ppb | 23:37:04 |
| 2 | Sc 361.383 | 919929.9 | 919929.9 | 104.87 | % | | | 23:38:27 |
| 2 | Y 371.029 | 763583.0 | 763583.0 | 101.02 | % | | | 23:38:27 |
| 2 | Ag 328.068† | 109292.8 | 103979.5 | 484.73 | ug/L | 484.73 | ppb | 23:38:33 |
| 2 | As 188.979† | 1130.6 | 1096.3 | 493.71 | ug/L | 493.71 | ppb | 23:38:53 |
| 2 | B 249.677† | 20108.6 | 19573.4 | 472.37 | ug/L | 472.37 | ppb | 23:38:33 |
| 2 | Ba 233.527† | 65121.1 | 62099.9 | 488.53 | ug/L | 488.53 | ppb | 23:38:33 |
| 2 | Be 313.107† | 1371644.8 | 1311741.8 | 494.04 | ug/L | 494.04 | ppb | 23:38:27 |
| 2 | Cd 226.502† | 44416.4 | 42551.1 | 492.64 | ug/L | 492.64 | ppb | 23:38:33 |
| 2 | Co 228.616† | 24531.9 | 23459.8 | 491.51 | ug/L | 491.51 | ppb | 23:38:33 |
| 2 | Cr 267.716† | 45497.5 | 43308.0 | 487.13 | ug/L | 487.13 | ppb | 23:38:33 |
| 2 | Cu 324.752† | 171084.5 | 157152.8 | 478.22 | ug/L | 478.22 | ppb | 23:38:33 |
| 2 | Mn 257.610† | 458267.0 | 436537.7 | 497.02 | ug/L | 497.02 | ppb | 23:38:27 |
| 2 | Mo 202.031† | 6915.4 | 6584.3 | 483.83 | ug/L | 483.83 | ppb | 23:38:53 |
| 2 | Ni 231.604† | 20297.9 | 19293.3 | 490.39 | ug/L | 490.39 | ppb | 23:38:33 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4463.1 | 4045.4 | 2342.2 ug/L | 2342.2 ppb | 23:38:53 |
| 2 | Pb 220.353† | 4093.5 | 3961.6 | 488.76 ug/L | 488.76 ppb | 23:38:53 |
| 2 | S 181.975 Axial† | 748.0 | 672.5 | 966.83 ug/L | 966.83 ppb | 23:38:53 |
| 2 | Sb 206.836† | 1469.3 | 1364.4 | 494.30 ug/L | 494.30 ppb | 23:38:53 |
| 2 | Se 196.026† | 752.7 | 745.5 | 504.95 ug/L | 504.95 ppb | 23:38:53 |
| 2 | Si 251.611† | 79259.9 | 75022.7 | 2421.7 ug/L | 2421.7 ppb | 23:38:33 |
| 2 | Sn 189.927† | 2829.2 | 2687.4 | 482.81 ug/L | 482.81 ppb | 23:38:53 |
| 2 | Ti 334.940† | 320011.7 | 306532.4 | 481.55 ug/L | 481.55 ppb | 23:38:33 |
| 2 | Tl 190.801† | 1557.7 | 1518.0 | 488.66 ug/L | 488.66 ppb | 23:38:53 |
| 2 | U 409.014† | 14850.8 | 17048.1 | 469.12 ug/L | 469.12 ppb | 23:38:33 |
| 2 | V 292.402† | 71009.2 | 69219.0 | 489.10 ug/L | 489.10 ppb | 23:38:33 |
| 2 | Zn 213.857† | 51578.4 | 48578.3 | 484.51 ug/L | 484.51 ppb | 23:38:33 |
| 2 | SiO2† | 79362.0 | 75124.0 | 5207.6 ug/L | 5207.6 ppb | 23:39:34 |
| 3 | Sc Radial | 3907.0 | 3907.0 | 99.7 % | | 23:37:29 |
| 3 | Y RADIAL | 4286.3 | 4286.3 | 97.18 % | | 23:37:29 |
| 3 | Al 396.153Radial† | 5264.4 | 5392.7 | 5033.8 ug/L | 5033.8 ppb | 23:37:29 |
| 3 | Ca 317.933Radial† | 2433.2 | 2420.9 | 5060.9 ug/L | 5060.9 ppb | 23:37:49 |
| 3 | Fe 238.204 Radial† | 349.2 | 338.9 | 4798.5 ug/L | 4798.5 ppb | 23:37:49 |
| 3 | K 766.490 Radial† | 28498.9 | 25945.3 | 4972.6 ug/L | 4972.6 ppb | 23:37:29 |
| 3 | Mg 279.077 IEC† | 102.4 | 98.6 | 4781.7 ug/L | 4781.7 ppb | 23:37:49 |
| 3 | Na 589.592 Radial† | 30923.6 | 31836.7 | 9816.1 ug/L | 9816.1 ppb | 23:37:29 |
| 3 | Sr 421.552† | 70551.2 | 70728.4 | 489.37 ug/L | 489.37 ppb | 23:37:29 |
| 3 | Sc 361.383 | 898849.8 | 898849.8 | 102.46 % | | 23:38:58 |
| 3 | Y 371.029 | 746977.6 | 746977.6 | 98.827 % | | 23:38:58 |
| 3 | Ag 328.068† | 108084.7 | 105244.7 | 490.58 ug/L | 490.58 ppb | 23:39:04 |
| 3 | As 188.979† | 1108.7 | 1100.3 | 495.49 ug/L | 495.49 ppb | 23:39:24 |
| 3 | B 249.677† | 19715.1 | 19639.2 | 473.96 ug/L | 473.96 ppb | 23:39:04 |
| 3 | Ba 233.527† | 64176.9 | 62634.8 | 492.74 ug/L | 492.74 ppb | 23:39:04 |
| 3 | Be 313.107† | 1336376.7 | 1307997.2 | 492.65 ug/L | 492.65 ppb | 23:38:58 |
| 3 | Cd 226.502† | 43719.4 | 42864.1 | 496.28 ug/L | 496.28 ppb | 23:39:04 |
| 3 | Co 228.616† | 24121.7 | 23608.1 | 494.63 ug/L | 494.63 ppb | 23:39:04 |
| 3 | Cr 267.716† | 44943.0 | 43784.4 | 492.47 ug/L | 492.47 ppb | 23:39:04 |
| 3 | Cu 324.752†● | 168733.1 | 158684.1 | 482.88 ug/L | 482.88 ppb | 23:39:04 |
| 3 | Mn 257.610† | 446146.1 | 434956.9 | 495.23 ug/L | 495.23 ppb | 23:38:58 |
| 3 | Mo 202.031† | 6863.2 | 6688.0 | 491.44 ug/L | 491.44 ppb | 23:39:24 |
| 3 | Ni 231.604† | 20088.9 | 19543.2 | 496.75 ug/L | 496.75 ppb | 23:39:04 |
| 3 | P 214.914† | 4437.3 | 4120.0 | 2386.3 ug/L | 2386.3 ppb | 23:39:24 |
| 3 | Pb 220.353† | 4058.1 | 4018.6 | 495.79 ug/L | 495.79 ppb | 23:39:24 |
| 3 | S 181.975 Axial† | 748.4 | 689.6 | 991.35 ug/L | 991.35 ppb | 23:39:24 |
| 3 | Sb 206.836† | 1462.7 | 1390.8 | 503.80 ug/L | 503.80 ppb | 23:39:24 |
| 3 | Se 196.026† | 743.9 | 753.8 | 510.20 ug/L | 510.20 ppb | 23:39:24 |
| 3 | Si 251.611† | 78236.0 | 75796.0 | 2446.6 ug/L | 2446.6 ppb | 23:39:04 |
| 3 | Sn 189.927† | 2798.5 | 2720.7 | 488.79 ug/L | 488.79 ppb | 23:39:24 |
| 3 | Ti 334.940† | 315790.0 | 309568.9 | 486.36 ug/L | 486.36 ppb | 23:39:04 |
| 3 | Tl 190.801† | 1540.9 | 1536.4 | 494.56 ug/L | 494.56 ppb | 23:39:24 |
| 3 | U 409.014† | 14687.8 | 17221.1 | 473.90 ug/L | 473.90 ppb | 23:39:04 |
| 3 | V 292.402† | 69991.1 | 69813.4 | 493.35 ug/L | 493.35 ppb | 23:39:04 |
| 3 | Zn 213.857† | 50780.5 | 48953.1 | 488.25 ug/L | 488.25 ppb | 23:39:04 |
| 3 | SiO2† | 79845.2 | 77370.4 | 5363.5 ug/L | 5363.5 ppb | 23:39:39 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 906664.8 | 103.36 | % | 1.316 | | | | 1.27% |
| Sc Radial | 3903.3 | 99.6 | % | 1.01 | | | | 1.02% |
| Y 371.029 | 753441.8 | 99.682 | % | 1.1765 | | | | 1.18% |
| Y RADIAL | 4291.8 | 97.30 | % | 0.676 | | | | 0.69% |
| Ag 328.068† | 104690.2 | 488.03 | ug/L | 2.997 | 488.03 | ppb | 2.997 | 0.61% |
| QC value within limits for Ag 328.068 Recovery = 97.61% | | | | | | | | |
| Al 396.153Radial† | 5400.8 | 5041.6 | ug/L | 16.06 | 5041.6 | ppb | 16.06 | 0.32% |
| QC value within limits for Al 396.153Radial Recovery = 100.83% | | | | | | | | |
| As 188.979† | 1102.2 | 496.33 | ug/L | 3.131 | 496.33 | ppb | 3.131 | 0.63% |
| QC value within limits for As 188.979 Recovery = 99.27% | | | | | | | | |
| B 249.677† | 19562.7 | 472.10 | ug/L | 2.005 | 472.10 | ppb | 2.005 | 0.42% |
| QC value within limits for B 249.677 Recovery = 94.42% | | | | | | | | |
| Ba 233.527† | 62334.5 | 490.38 | ug/L | 2.149 | 490.38 | ppb | 2.149 | 0.44% |
| QC value within limits for Ba 233.527 Recovery = 98.08% | | | | | | | | |
| Be 313.107† | 1310392.6 | 493.54 | ug/L | 0.777 | 493.54 | ppb | 0.777 | 0.16% |
| QC value within limits for Be 313.107 Recovery = 98.71% | | | | | | | | |
| Ca 317.933Radial† | 2441.2 | 5103.4 | ug/L | 63.56 | 5103.4 | ppb | 63.56 | 1.25% |

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   QC value within limits for Ca 317.933Radial  Recovery = 102.07%
Cd 226.502†            42697.7      494.34 ug/L         1.830      494.34 ppb          1.830   0.37%
   QC value within limits for Cd 226.502  Recovery = 98.87%
Co 228.616†            23511.0      492.59 ug/L         1.764      492.59 ppb          1.764   0.36%
   QC value within limits for Co 228.616  Recovery = 98.52%
Cr 267.716†            43534.7      489.67 ug/L         2.682      489.67 ppb          2.682   0.55%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           157916.8      480.55 ug/L         2.327      480.55 ppb          2.327   0.48%
   QC value within limits for Cu 324.752  Recovery = 96.11%
Fe 238.204 Radial†       343.7      4865.8 ug/L        68.78      4865.8 ppb         68.78   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.32%
K 766.490 Radial†      26069.5      4996.4 ug/L        21.42      4996.4 ppb         21.42   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 99.93%
Mg 279.077 IEC†          103.7      5027.6 ug/L       238.77      5027.6 ppb        238.77   4.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.55%
Mn 257.610†           435648.3      496.02 ug/L         0.913      496.02 ppb          0.913   0.18%
   QC value within limits for Mn 257.610  Recovery = 99.20%
Mo 202.031†             6654.2      488.97 ug/L         4.449      488.97 ppb          4.449   0.91%
   QC value within limits for Mo 202.031  Recovery = 97.79%
Na 589.592 Radial†     32081.6      9891.6 ug/L        76.79      9891.6 ppb         76.79   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 98.92%
Ni 231.604†            19420.3      493.62 ug/L         3.178      493.62 ppb          3.178   0.64%
   QC value within limits for Ni 231.604  Recovery = 98.72%
P 214.914†              4098.7      2373.9 ug/L        27.63      2373.9 ppb         27.63   1.16%
   QC value within limits for P 214.914  Recovery = 94.96%
Pb 220.353†             4011.6      494.92 ug/L         5.767      494.92 ppb          5.767   1.17%
   QC value within limits for Pb 220.353  Recovery = 98.98%
S 181.975 Axial†         682.8      981.63 ug/L        13.021      981.63 ppb         13.021   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†             1389.4      503.23 ug/L         8.666      503.23 ppb          8.666   1.72%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†              753.5      510.26 ug/L         5.336      510.26 ppb          5.336   1.05%
   QC value within limits for Se 196.026  Recovery = 102.05%
Si 251.611†            75385.8      2433.4 ug/L        12.54      2433.4 ppb         12.54   0.52%
   QC value within limits for Si 251.611  Recovery = 97.34%
Sn 189.927†             2716.0      487.95 ug/L         4.774      487.95 ppb          4.774   0.98%
   QC value within limits for Sn 189.927  Recovery = 97.59%
Sr 421.552†            70876.4      490.39 ug/L         1.950      490.39 ppb          1.950   0.40%
   QC value within limits for Sr 421.552  Recovery = 98.08%
Ti 334.940†           308130.7      484.08 ug/L         2.413      484.08 ppb          2.413   0.50%
   QC value within limits for Ti 334.940  Recovery = 96.82%
Tl 190.801†             1530.4      492.62 ug/L         3.435      492.62 ppb          3.435   0.70%
   QC value within limits for Tl 190.801  Recovery = 98.52%
U 409.014†             17243.0      474.50 ug/L         5.704      474.50 ppb          5.704   1.20%
   QC value within limits for U 409.014  Recovery = 94.90%
V 292.402†             69552.5      491.50 ug/L         2.179      491.50 ppb          2.179   0.44%
   QC value within limits for V 292.402  Recovery = 98.30%
Zn 213.857†            48768.9      486.41 ug/L         1.869      486.41 ppb          1.869   0.38%
   QC value within limits for Zn 213.857  Recovery = 97.28%
SiO2†                  76286.7      5288.3 ug/L        78.10      5288.3 ppb         78.10   1.48%
   QC value within limits for SiO2  Recovery = 98.89%
All analyte(s) passed QC.
```

Sequence No.: 60
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 23:41:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3861.2 | 3861.2 | 98.5 | % | | | 23:44:01 |
| 1 | Y RADIAL | 4266.9 | 4266.9 | 96.74 | % | | | 23:43:41 |
| 1 | Al 396.153Radial† | -102.0 | 8.9 | 8.2760 | ug/L | 8.2760 | ppb | 23:43:41 |
| 1 | Ca 317.933Radial† | 17.4 | -2.0 | -4.2512 | ug/L | -4.2512 | ppb | 23:44:01 |
| 1 | Fe 238.204 Radial† | 9.2 | -1.9 | -27.494 | ug/L | -27.494 | ppb | 23:44:01 |
| 1 | K 766.490 Radial† | 2739.7 | 141.0 | 27.060 | ug/L | 27.060 | ppb | 23:43:41 |
| 1 | Mg 279.077 IEC† | 5.1 | 1.1 | 51.068 | ug/L | 51.068 | ppb | 23:44:01 |
| 1 | Na 589.592 Radial† | -822.4 | -14.9 | -4.6061 | ug/L | -4.6061 | ppb | 23:43:41 |
| 1 | Sr 421.552† | 44.2 | 9.1 | 0.0629 | ug/L | 0.0629 | ppb | 23:43:41 |
| 1 | Sc 361.383 | 892687.0 | 892687.0 | 101.76 | % | | | 23:44:58 |
| 1 | Y 371.029 | 754727.0 | 754727.0 | 99.852 | % | | | 23:44:58 |
| 1 | Ag 328.068† | 155.4 | -87.7 | -0.4105 | ug/L | -0.4105 | ppb | 23:44:58 |
| 1 | As 188.979† | -28.6 | -9.9 | -4.4270 | ug/L | -4.4270 | ppb | 23:45:18 |
| 1 | B 249.677† | -496.8 | -90.0 | -2.1781 | ug/L | -2.1781 | ppb | 23:45:18 |
| 1 | Ba 233.527† | 6.1 | 7.4 | 0.0579 | ug/L | 0.0579 | ppb | 23:45:18 |
| 1 | Be 313.107† | -3683.5 | 142.5 | 0.0533 | ug/L | 0.0533 | ppb | 23:44:58 |
| 1 | Cd 226.502† | -183.9 | 15.5 | 0.1819 | ug/L | 0.1819 | ppb | 23:45:18 |
| 1 | Co 228.616† | -67.4 | 0.3 | 0.0090 | ug/L | 0.0090 | ppb | 23:45:18 |
| 1 | Cr 267.716† | 61.9 | -16.8 | -0.1894 | ug/L | -0.1894 | ppb | 23:45:18 |
| 1 | Cu 324.752† | 5950.3 | -143.5 | -0.4357 | ug/L | -0.4357 | ppb | 23:44:58 |
| 1 | Mn 257.610† | 496.4 | 29.0 | 0.0282 | ug/L | 0.0282 | ppb | 23:45:18 |
| 1 | Mo 202.031† | 17.7 | 7.3 | 0.5302 | ug/L | 0.5302 | ppb | 23:45:18 |
| 1 | Ni 231.604† | 52.5 | -10.8 | -0.2752 | ug/L | -0.2752 | ppb | 23:45:18 |
| 1 | P 214.914† | 215.6 | 1.4 | 0.9500 | ug/L | 0.9500 | ppb | 23:45:18 |
| 1 | Pb 220.353† | -72.2 | -12.9 | -1.5753 | ug/L | -1.5753 | ppb | 23:45:18 |
| 1 | S 181.975 Axial† | 36.6 | -4.8 | -6.9570 | ug/L | -6.9570 | ppb | 23:45:18 |
| 1 | Sb 206.836† | 34.5 | -2.8 | -0.9509 | ug/L | -0.9509 | ppb | 23:45:18 |
| 1 | Se 196.026† | -24.2 | 3.9 | 2.4986 | ug/L | 2.4986 | ppb | 23:45:18 |
| 1 | Si 251.611† | 641.6 | 72.2 | 2.3295 | ug/L | 2.3295 | ppb | 23:45:18 |
| 1 | Sn 189.927† | 13.6 | 2.9 | 0.5185 | ug/L | 0.5185 | ppb | 23:45:18 |
| 1 | Ti 334.940† | -1466.0 | -66.6 | -0.1075 | ug/L | -0.1075 | ppb | 23:44:58 |
| 1 | Tl 190.801† | -39.5 | -6.2 | -1.9828 | ug/L | -1.9828 | ppb | 23:45:18 |
| 1 | U 409.014† | -3091.6 | -151.4 | -4.1784 | ug/L | -4.1784 | ppb | 23:44:58 |
| 1 | V 292.402† | -1499.2 | 32.4 | 0.2309 | ug/L | 0.2309 | ppb | 23:44:58 |
| 1 | Zn 213.857† | 839.1 | 218.5 | 2.2062 | ug/L | 2.2062 | ppb | 23:45:18 |
| 1 | SiO2† | 680.6 | 114.4 | 7.9354 | ug/L | 7.9354 | ppb | 23:46:14 |
| 2 | Sc Radial | 3889.2 | 3889.2 | 99.2 | % | | | 23:44:26 |
| 2 | Y RADIAL | 4521.5 | 4521.5 | 102.5 | % | | | 23:44:06 |
| 2 | Al 396.153Radial† | -121.4 | -9.9 | -9.2769 | ug/L | -9.2769 | ppb | 23:44:06 |
| 2 | Ca 317.933Radial† | 17.6 | -1.9 | -4.0132 | ug/L | -4.0132 | ppb | 23:44:26 |
| 2 | Fe 238.204 Radial† | 10.3 | -1.0 | -14.065 | ug/L | -14.065 | ppb | 23:44:26 |
| 2 | K 766.490 Radial† | 2761.7 | 143.1 | 27.466 | ug/L | 27.466 | ppb | 23:44:06 |
| 2 | Mg 279.077 IEC† | 3.2 | -0.8 | -40.636 | ug/L | -40.636 | ppb | 23:44:26 |
| 2 | Na 589.592 Radial† | -867.5 | -54.3 | -16.755 | ug/L | -16.755 | ppb | 23:44:06 |
| 2 | Sr 421.552† | 31.9 | -3.6 | -0.0250 | ug/L | -0.0250 | ppb | 23:44:06 |
| 2 | Sc 361.383 | 898607.6 | 898607.6 | 102.44 | % | | | 23:45:23 |
| 2 | Y 371.029 | 759669.5 | 759669.5 | 100.51 | % | | | 23:45:23 |
| 2 | Ag 328.068† | 278.6 | 31.6 | 0.1492 | ug/L | 0.1492 | ppb | 23:45:23 |
| 2 | As 188.979† | -24.2 | -5.4 | -2.4145 | ug/L | -2.4145 | ppb | 23:45:43 |
| 2 | B 249.677† | -471.7 | -62.2 | -1.5062 | ug/L | -1.5062 | ppb | 23:45:43 |
| 2 | Ba 233.527† | -9.5 | -7.9 | -0.0608 | ug/L | -0.0608 | ppb | 23:45:43 |
| 2 | Be 313.107† | -3778.1 | 74.0 | 0.0279 | ug/L | 0.0279 | ppb | 23:45:23 |
| 2 | Cd 226.502† | -193.5 | 7.3 | 0.0851 | ug/L | 0.0851 | ppb | 23:45:43 |
| 2 | Co 228.616† | -64.1 | 3.9 | 0.0816 | ug/L | 0.0816 | ppb | 23:45:43 |
| 2 | Cr 267.716† | 63.9 | -15.3 | -0.1697 | ug/L | -0.1697 | ppb | 23:45:43 |
| 2 | Cu 324.752† | 6024.9 | -109.2 | -0.3299 | ug/L | -0.3299 | ppb | 23:45:23 |
| 2 | Mn 257.610† | 527.0 | 55.8 | 0.0637 | ug/L | 0.0637 | ppb | 23:45:43 |
| 2 | Mo 202.031† | 7.4 | -3.0 | -0.2184 | ug/L | -0.2184 | ppb | 23:45:43 |
| 2 | Ni 231.604† | 54.5 | -9.3 | -0.2357 | ug/L | -0.2357 | ppb | 23:45:43 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 215.9 | 0.3 | 0.2565 ug/L | 0.2565 ppb | 23:45:43 |
| 2 | Pb 220.353† | -59.6 | -0.1 | -0.0085 ug/L | -0.0085 ppb | 23:45:43 |
| 2 | S 181.975 Axial† | 39.5 | -2.2 | -3.1953 ug/L | -3.1953 ppb | 23:45:43 |
| 2 | Sb 206.836† | 41.4 | 3.7 | 1.2870 ug/L | 1.2870 ppb | 23:45:43 |
| 2 | Se 196.026† | -24.7 | 3.7 | 2.3641 ug/L | 2.3641 ppb | 23:45:43 |
| 2 | Si 251.611† | 646.3 | 72.6 | 2.3519 ug/L | 2.3519 ppb | 23:45:43 |
| 2 | Sn 189.927† | 12.9 | 2.1 | 0.3768 ug/L | 0.3768 ppb | 23:45:43 |
| 2 | Ti 334.940† | -1385.4 | 21.6 | 0.0393 ug/L | 0.0393 ppb | 23:45:23 |
| 2 | Tl 190.801† | -39.5 | -6.0 | -1.9077 ug/L | -1.9077 ppb | 23:45:43 |
| 2 | U 409.014† | -3172.7 | -210.6 | -5.8139 ug/L | -5.8139 ppb | 23:45:23 |
| 2 | V 292.402† | -1450.4 | 89.8 | 0.6134 ug/L | 0.6134 ppb | 23:45:23 |
| 2 | Zn 213.857† | 839.2 | 213.2 | 2.1501 ug/L | 2.1501 ppb | 23:45:43 |
| 2 | SiO2† | 649.7 | 79.8 | 5.5539 ug/L | 5.5539 ppb | 23:46:19 |
| 3 | Sc Radial | 3895.0 | 3895.0 | 99.4 % | | 23:44:51 |
| 3 | Y RADIAL | 4413.6 | 4413.6 | 100.1 % | | 23:44:31 |
| 3 | Al 396.153Radial† | -147.5 | -36.0 | -33.797 ug/L | -33.797 ppb | 23:44:31 |
| 3 | Ca 317.933Radial† | 18.0 | -1.5 | -3.1918 ug/L | -3.1918 ppb | 23:44:51 |
| 3 | Fe 238.204 Radial† | 8.5 | -2.8 | -39.059 ug/L | -39.059 ppb | 23:44:51 |
| 3 | K 766.490 Radial† | 2739.8 | 117.0 | 22.458 ug/L | 22.458 ppb | 23:44:31 |
| 3 | Mg 279.077 IEC† | 2.1 | -2.0 | -95.317 ug/L | -95.317 ppb | 23:44:51 |
| 3 | Na 589.592 Radial† | -873.1 | -58.7 | -18.105 ug/L | -18.105 ppb | 23:44:31 |
| 3 | Sr 421.552† | 55.5 | 20.1 | 0.1392 ug/L | 0.1392 ppb | 23:44:31 |
| 3 | Sc 361.383 | 893412.1 | 893412.1 | 101.84 % | | 23:45:49 |
| 3 | Y 371.029 | 754487.6 | 754487.6 | 99.821 % | | 23:45:49 |
| 3 | Ag 328.068† | 242.9 | -1.9 | -0.0215 ug/L | -0.0215 ppb | 23:45:49 |
| 3 | As 188.979† | -21.3 | -2.7 | -1.2155 ug/L | -1.2155 ppb | 23:46:09 |
| 3 | B 249.677† | -481.8 | -74.9 | -1.8088 ug/L | -1.8088 ppb | 23:46:09 |
| 3 | Ba 233.527† | 0.3 | 1.7 | 0.0121 ug/L | 0.0121 ppb | 23:46:09 |
| 3 | Be 313.107† | -3788.1 | 42.7 | 0.0161 ug/L | 0.0161 ppb | 23:45:49 |
| 3 | Cd 226.502† | -198.1 | 1.7 | 0.0240 ug/L | 0.0240 ppb | 23:46:09 |
| 3 | Co 228.616† | -66.9 | 0.8 | 0.0185 ug/L | 0.0185 ppb | 23:46:09 |
| 3 | Cr 267.716† | 55.4 | -23.3 | -0.2656 ug/L | -0.2656 ppb | 23:46:09 |
| 3 | Cu 324.752† | 6069.2 | -31.5 | -0.0982 ug/L | -0.0982 ppb | 23:45:49 |
| 3 | Mn 257.610† | 514.4 | 46.3 | 0.0528 ug/L | 0.0528 ppb | 23:46:09 |
| 3 | Mo 202.031† | 12.9 | 2.6 | 0.1855 ug/L | 0.1855 ppb | 23:46:09 |
| 3 | Ni 231.604† | 68.3 | 4.6 | 0.1172 ug/L | 0.1172 ppb | 23:46:09 |
| 3 | P 214.914† | 207.8 | -6.4 | -3.8186 ug/L | -3.8186 ppb | 23:46:09 |
| 3 | Pb 220.353† | -55.0 | 4.1 | 0.5074 ug/L | 0.5074 ppb | 23:46:09 |
| 3 | S 181.975 Axial† | 43.0 | 1.4 | 2.0914 ug/L | 2.0914 ppb | 23:46:09 |
| 3 | Sb 206.836† | 38.9 | 1.5 | 0.5412 ug/L | 0.5412 ppb | 23:46:09 |
| 3 | Se 196.026† | -29.1 | -0.8 | -0.6668 ug/L | -0.6668 ppb | 23:46:09 |
| 3 | Si 251.611† | 625.4 | 55.8 | 1.8032 ug/L | 1.8032 ppb | 23:46:09 |
| 3 | Sn 189.927† | 16.7 | 6.0 | 1.0698 ug/L | 1.0698 ppb | 23:46:09 |
| 3 | Ti 334.940† | -1391.9 | 7.4 | 0.0189 ug/L | 0.0189 ppb | 23:45:49 |
| 3 | Tl 190.801† | -32.4 | 0.7 | 0.2337 ug/L | 0.2337 ppb | 23:46:09 |
| 3 | U 409.014† | -2924.3 | 15.3 | 0.4279 ug/L | 0.4279 ppb | 23:45:49 |
| 3 | V 292.402† | -1552.8 | -19.0 | -0.1249 ug/L | -0.1249 ppb | 23:45:49 |
| 3 | Zn 213.857† | 819.2 | 198.3 | 2.0012 ug/L | 2.0012 ppb | 23:46:09 |
| 3 | SiO2† | 697.8 | 130.8 | 9.0854 ug/L | 9.0854 ppb | 23:46:24 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 894902.2 | 102.01 | % | 0.368 | | | | 0.36% |
| Sc Radial | 3881.8 | 99.1 | % | 0.46 | | | | 0.47% |
| Y 371.029 | 756294.7 | 100.06 | % | 0.387 | | | | 0.39% |
| Y RADIAL | 4400.7 | 99.77 | % | 2.897 | | | | 2.90% |
| Ag 328.068† | -19.3 | -0.0943 | ug/L | 0.28684 | -0.0943 | ppb | 0.28684 | 304.29% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -12.4 | -11.599 | ug/L | 21.1322 | -11.599 | ppb | 21.1322 | 182.19% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -6.0 | -2.6857 | ug/L | 1.62282 | -2.6857 | ppb | 1.62282 | 60.43% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -75.7 | -1.8310 | ug/L | 0.33649 | -1.8310 | ppb | 0.33649 | 18.38% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 0.4 | 0.0031 | ug/L | 0.05991 | 0.0031 | ppb | 0.05991 | >999.9% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 86.4 | 0.0324 | ug/L | 0.01904 | 0.0324 | ppb | 0.01904 | 58.72% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -1.8 | -3.8187 | ug/L | 0.55583 | -3.8187 | ppb | 0.55583 | 14.56% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.2      0.0970 ug/L       0.07960      0.0970 ppb        0.07960  82.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.7      0.0364 ug/L       0.03948      0.0364 ppb        0.03948 108.59%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -18.5     -0.2082 ug/L       0.05068     -0.2082 ppb        0.05068  24.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -94.7     -0.2879 ug/L       0.17265     -0.2879 ppb        0.17265  59.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.9     -26.873 ug/L      12.5090     -26.873 ppb       12.5090  46.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         133.7      25.661 ug/L       2.7815      25.661 ppb        2.7815  10.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -28.295 ug/L      73.9688     -28.295 ppb       73.9688 261.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                43.7      0.0482 ug/L       0.01818      0.0482 ppb        0.01818  37.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.3      0.1658 ug/L       0.37468      0.1658 ppb        0.37468 226.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -42.7     -13.156 ug/L       7.4348     -13.156 ppb        7.4348  56.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.2     -0.1312 ug/L       0.21604     -0.1312 ppb        0.21604 164.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.6     -0.8707 ug/L       2.57641     -0.8707 ppb        2.57641 295.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.9     -0.3588 ug/L       1.08464     -0.3588 ppb        1.08464 302.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.9     -2.6870 ug/L       4.54554     -2.6870 ppb        4.54554 169.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.8      0.2924 ug/L       1.13948      0.2924 ppb        1.13948 389.64%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.3986 ug/L       1.78999      1.3986 ppb        1.78999 127.98%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                66.9      2.1615 ug/L       0.31056      2.1615 ppb        0.31056  14.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.6      0.6550 ug/L       0.36614      0.6550 ppb        0.36614  55.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.5      0.0590 ug/L       0.08217      0.0590 ppb        0.08217 139.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -12.5     -0.0164 ug/L       0.07951     -0.0164 ppb        0.07951 484.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.8     -1.2189 ug/L       1.25858     -1.2189 ppb        1.25858 103.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -115.6     -3.1881 ug/L       3.23658     -3.1881 ppb        3.23658 101.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                34.4      0.2398 ug/L       0.36922      0.2398 ppb        0.36922 153.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               210.0      2.1192 ug/L       0.10593      2.1192 ppb        0.10593   5.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     108.3      7.5249 ug/L       1.80117      7.5249 ppb        1.80117  23.94%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/25/2010 00:37:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3810.9 | 3810.9 | 97.2 | % | | | 00:39:15 |
| 1 | Y RADIAL | 4201.0 | 4201.0 | 95.24 | % | | | 00:39:15 |
| 1 | Al 396.153Radial† | 5137.1 | 5394.9 | 5035.7 | ug/L | 5035.7 | ppb | 00:39:15 |
| 1 | Ca 317.933Radial† | 2378.2 | 2425.8 | 5071.2 | ug/L | 5071.2 | ppb | 00:39:35 |
| 1 | Fe 238.204 Radial† | 338.1 | 336.3 | 4762.3 | ug/L | 4762.3 | ppb | 00:39:35 |
| 1 | K 766.490 Radial† | 28167.4 | 26325.1 | 5045.4 | ug/L | 5045.4 | ppb | 00:39:15 |
| 1 | Mg 279.077 IEC† | 104.2 | 103.1 | 4999.7 | ug/L | 4999.7 | ppb | 00:39:35 |
| 1 | Na 589.592 Radial† | 31376.0 | 33083.9 | 10201 | ug/L | 10201 | ppb | 00:39:15 |
| 1 | Sr 421.552† | 69868.8 | 71810.8 | 496.86 | ug/L | 496.86 | ppb | 00:39:15 |
| 1 | Sc 361.383 | 878818.4 | 878818.4 | 100.18 | % | | | 00:40:32 |
| 1 | Y 371.029 | 731972.8 | 731972.8 | 96.842 | % | | | 00:40:32 |
| 1 | Ag 328.068† | 106234.8 | 105802.6 | 493.16 | ug/L | 493.16 | ppb | 00:40:37 |
| 1 | As 188.979† | 1092.4 | 1108.7 | 499.22 | ug/L | 499.22 | ppb | 00:40:57 |
| 1 | B 249.677† | 19447.4 | 19810.5 | 478.12 | ug/L | 478.12 | ppb | 00:40:37 |
| 1 | Ba 233.527† | 62969.0 | 62856.7 | 494.48 | ug/L | 494.48 | ppb | 00:40:37 |
| 1 | Be 313.107† | 1313043.2 | 1314433.9 | 495.07 | ug/L | 495.07 | ppb | 00:40:32 |
| 1 | Cd 226.502† | 42958.6 | 43077.3 | 498.75 | ug/L | 498.75 | ppb | 00:40:37 |
| 1 | Co 228.616† | 23633.3 | 23657.1 | 495.66 | ug/L | 495.66 | ppb | 00:40:37 |
| 1 | Cr 267.716† | 44043.2 | 43885.9 | 493.61 | ug/L | 493.61 | ppb | 00:40:37 |
| 1 | Cu 324.752† | 165545.4 | 159255.6 | 484.62 | ug/L | 484.62 | ppb | 00:40:37 |
| 1 | Mn 257.610† | 438085.5 | 436835.5 | 497.36 | ug/L | 497.36 | ppb | 00:40:32 |
| 1 | Mo 202.031† | 6760.4 | 6738.0 | 495.11 | ug/L | 495.11 | ppb | 00:40:57 |
| 1 | Ni 231.604† | 19647.0 | 19549.1 | 496.89 | ug/L | 496.89 | ppb | 00:40:37 |
| 1 | P 214.914† | 4385.7 | 4167.3 | 2414.5 | ug/L | 2414.5 | ppb | 00:40:57 |
| 1 | Pb 220.353† | 5541.8 | 5589.9 | 689.06 | ug/L | 689.06 | ppb | 00:40:57 |
| 1 | S 181.975 Axial† | 730.2 | 688.1 | 989.18 | ug/L | 989.18 | ppb | 00:40:57 |
| 1 | Sb 206.836† | 1447.1 | 1407.8 | 509.93 | ug/L | 509.93 | ppb | 00:40:57 |
| 1 | Se 196.026† | 752.8 | 779.2 | 526.77 | ug/L | 526.77 | ppb | 00:40:57 |
| 1 | Si 251.611† | 76837.2 | 76140.1 | 2457.7 | ug/L | 2457.7 | ppb | 00:40:37 |
| 1 | Sn 189.927† | 2782.3 | 2766.8 | 497.06 | ug/L | 497.06 | ppb | 00:40:57 |
| 1 | Ti 334.940† | 309374.8 | 310190.1 | 487.32 | ug/L | 487.32 | ppb | 00:40:37 |
| 1 | Tl 190.801† | 1528.4 | 1558.2 | 501.52 | ug/L | 501.52 | ppb | 00:40:57 |
| 1 | U 409.014† | 14294.6 | 17155.4 | 472.08 | ug/L | 472.08 | ppb | 00:40:37 |
| 1 | V 292.402† | 68593.0 | 69974.8 | 494.53 | ug/L | 494.53 | ppb | 00:40:37 |
| 1 | Zn 213.857† | 49998.1 | 49301.8 | 491.76 | ug/L | 491.76 | ppb | 00:40:37 |
| 1 | SiO2† | 78789.3 | 78092.6 | 5413.6 | ug/L | 5413.6 | ppb | 00:42:05 |
| 2 | Sc Radial | 3860.5 | 3860.5 | 98.5 | % | | | 00:39:40 |
| 2 | Y RADIAL | 4286.6 | 4286.6 | 97.18 | % | | | 00:39:40 |
| 2 | Al 396.153Radial† | 5192.2 | 5383.1 | 5024.6 | ug/L | 5024.6 | ppb | 00:39:40 |
| 2 | Ca 317.933Radial† | 2382.2 | 2398.5 | 5014.0 | ug/L | 5014.0 | ppb | 00:40:00 |
| 2 | Fe 238.204 Radial† | 335.5 | 329.2 | 4661.9 | ug/L | 4661.9 | ppb | 00:40:00 |
| 2 | K 766.490 Radial† | 28455.5 | 26245.8 | 5030.2 | ug/L | 5030.2 | ppb | 00:39:40 |
| 2 | Mg 279.077 IEC† | 103.0 | 100.5 | 4871.2 | ug/L | 4871.2 | ppb | 00:40:00 |
| 2 | Na 589.592 Radial† | 31503.2 | 32798.9 | 10113 | ug/L | 10113 | ppb | 00:39:40 |
| 2 | Sr 421.552† | 70492.0 | 71521.2 | 494.86 | ug/L | 494.86 | ppb | 00:39:40 |
| 2 | Sc 361.383 | 869965.8 | 869965.8 | 99.172 | % | | | 00:41:03 |
| 2 | Y 371.029 | 723572.4 | 723572.4 | 95.730 | % | | | 00:41:03 |
| 2 | Ag 328.068† | 107870.8 | 108531.3 | 505.82 | ug/L | 505.82 | ppb | 00:41:08 |
| 2 | As 188.979† | 1087.7 | 1115.0 | 502.15 | ug/L | 502.15 | ppb | 00:41:28 |
| 2 | B 249.677† | 19943.6 | 20508.4 | 495.02 | ug/L | 495.02 | ppb | 00:41:08 |
| 2 | Ba 233.527† | 63851.8 | 64386.5 | 506.51 | ug/L | 506.51 | ppb | 00:41:08 |
| 2 | Be 313.107† | 1316445.0 | 1331201.2 | 501.40 | ug/L | 501.40 | ppb | 00:41:03 |
| 2 | Cd 226.502† | 43442.4 | 44001.5 | 509.47 | ug/L | 509.47 | ppb | 00:41:08 |
| 2 | Co 228.616† | 24020.2 | 24287.3 | 508.84 | ug/L | 508.84 | ppb | 00:41:08 |
| 2 | Cr 267.716† | 44733.8 | 45029.7 | 506.45 | ug/L | 506.45 | ppb | 00:41:08 |
| 2 | Cu 324.752† | 168744.9 | 164163.4 | 499.54 | ug/L | 499.54 | ppb | 00:41:08 |
| 2 | Mn 257.610† | 440309.1 | 443527.6 | 504.97 | ug/L | 504.97 | ppb | 00:41:03 |
| 2 | Mo 202.031† | 6713.4 | 6759.4 | 496.67 | ug/L | 496.67 | ppb | 00:41:28 |
| 2 | Ni 231.604† | 19895.1 | 19998.8 | 508.32 | ug/L | 508.32 | ppb | 00:41:08 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4299.4 | 4124.8 | 2386.0 ug/L | 2386.0 ppb | 00:41:28 |
| 2 | Pb 220.353† | 5490.5 | 5594.5 | 689.62 ug/L | 689.62 ppb | 00:41:28 |
| 2 | S 181.975 Axial† | 731.1 | 696.4 | 1001.3 ug/L | 1001.3 ppb | 00:41:28 |
| 2 | Sb 206.836† | 1419.0 | 1394.1 | 505.15 ug/L | 505.15 ppb | 00:41:28 |
| 2 | Se 196.026† | 722.3 | 756.1 | 511.31 ug/L | 511.31 ppb | 00:41:28 |
| 2 | Si 251.611† | 77969.0 | 78061.8 | 2519.9 ug/L | 2519.9 ppb | 00:41:08 |
| 2 | Sn 189.927† | 2742.7 | 2755.1 | 494.97 ug/L | 494.97 ppb | 00:41:28 |
| 2 | Ti 334.940† | 314368.5 | 318368.0 | 500.16 ug/L | 500.16 ppb | 00:41:08 |
| 2 | Tl 190.801† | 1524.7 | 1570.1 | 505.38 ug/L | 505.38 ppb | 00:41:28 |
| 2 | U 409.014† | 14557.9 | 17566.0 | 483.41 ug/L | 483.41 ppb | 00:41:08 |
| 2 | V 292.402† | 69764.4 | 71852.7 | 507.67 ug/L | 507.67 ppb | 00:41:08 |
| 2 | Zn 213.857† | 50733.4 | 50551.0 | 504.26 ug/L | 504.26 ppb | 00:41:08 |
| 2 | SiO2† | 78454.8 | 78555.6 | 5445.7 ug/L | 5445.7 ppb | 00:42:10 |
| 3 | Sc Radial | 3786.5 | 3786.5 | 96.6 % | | 00:40:05 |
| 3 | Y RADIAL | 4152.9 | 4152.9 | 94.15 % | | 00:40:05 |
| 3 | Al 396.153Radial† | 5131.9 | 5423.7 | 5062.3 ug/L | 5062.3 ppb | 00:40:05 |
| 3 | Ca 317.933Radial† | 2358.6 | 2421.4 | 5061.9 ug/L | 5061.9 ppb | 00:40:25 |
| 3 | Fe 238.204 Radial† | 333.6 | 333.9 | 4728.7 ug/L | 4728.7 ppb | 00:40:25 |
| 3 | K 766.490 Radial† | 28070.6 | 26412.0 | 5062.1 ug/L | 5062.1 ppb | 00:40:05 |
| 3 | Mg 279.077 IEC† | 101.9 | 101.4 | 4917.1 ug/L | 4917.1 ppb | 00:40:25 |
| 3 | Na 589.592 Radial† | 30904.9 | 32804.8 | 10115 ug/L | 10115 ppb | 00:40:05 |
| 3 | Sr 421.552† | 69192.9 | 71575.5 | 495.23 ug/L | 495.23 ppb | 00:40:05 |
| 3 | Sc 361.383 | 875247.0 | 875247.0 | 99.774 % | | 00:41:34 |
| 3 | Y 371.029 | 729645.0 | 729645.0 | 96.534 % | | 00:41:34 |
| 3 | Ag 328.068† | 107549.5 | 107552.9 | 501.29 ug/L | 501.29 ppb | 00:41:39 |
| 3 | As 188.979† | 1118.7 | 1139.5 | 513.04 ug/L | 513.04 ppb | 00:41:59 |
| 3 | B 249.677† | 19849.1 | 20292.3 | 489.78 ug/L | 489.78 ppb | 00:41:39 |
| 3 | Ba 233.527† | 63681.9 | 63827.7 | 502.12 ug/L | 502.12 ppb | 00:41:39 |
| 3 | Be 313.107† | 1308613.1 | 1315341.9 | 495.43 ug/L | 495.43 ppb | 00:41:34 |
| 3 | Cd 226.502† | 43392.0 | 43686.6 | 505.82 ug/L | 505.82 ppb | 00:41:39 |
| 3 | Co 228.616† | 23900.6 | 24021.3 | 503.30 ug/L | 503.30 ppb | 00:41:39 |
| 3 | Cr 267.716† | 44652.7 | 44676.2 | 502.49 ug/L | 502.49 ppb | 00:41:39 |
| 3 | Cu 324.752† | 167962.8 | 162352.8 | 494.03 ug/L | 494.03 ppb | 00:41:39 |
| 3 | Mn 257.610† | 435898.9 | 436428.4 | 496.89 ug/L | 496.89 ppb | 00:41:34 |
| 3 | Mo 202.031† | 6876.2 | 6881.6 | 505.65 ug/L | 505.65 ppb | 00:41:59 |
| 3 | Ni 231.604† | 19948.3 | 19931.1 | 506.60 ug/L | 506.60 ppb | 00:41:39 |
| 3 | P 214.914† | 4450.1 | 4249.7 | 2462.4 ug/L | 2462.4 ppb | 00:41:59 |
| 3 | Pb 220.353† | 5513.0 | 5583.6 | 688.31 ug/L | 688.31 ppb | 00:41:59 |
| 3 | S 181.975 Axial† | 743.7 | 704.6 | 1013.0 ug/L | 1013.0 ppb | 00:41:59 |
| 3 | Sb 206.836† | 1476.7 | 1443.3 | 522.72 ug/L | 522.72 ppb | 00:41:59 |
| 3 | Se 196.026† | 751.4 | 780.8 | 527.77 ug/L | 527.77 ppb | 00:41:59 |
| 3 | Si 251.611† | 77762.9 | 77380.8 | 2497.7 ug/L | 2497.7 ppb | 00:41:39 |
| 3 | Sn 189.927† | 2829.8 | 2825.8 | 507.65 ug/L | 507.65 ppb | 00:41:59 |
| 3 | Ti 334.940† | 313931.7 | 316017.5 | 496.47 ug/L | 496.47 ppb | 00:41:39 |
| 3 | Tl 190.801† | 1553.8 | 1589.9 | 511.69 ug/L | 511.69 ppb | 00:41:59 |
| 3 | U 409.014† | 14717.3 | 17637.3 | 485.37 ug/L | 485.37 ppb | 00:41:39 |
| 3 | V 292.402† | 69660.1 | 71323.7 | 504.10 ug/L | 504.10 ppb | 00:41:39 |
| 3 | Zn 213.857† | 50650.4 | 50159.2 | 500.32 ug/L | 500.32 ppb | 00:41:39 |
| 3 | SiO2† | 76820.5 | 76440.3 | 5298.5 ug/L | 5298.5 ppb | 00:42:15 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 874677.1 | 99.709 | % | 0.5077 | | | | 0.51% |
| Sc Radial | 3819.3 | 97.5 | % | 0.96 | | | | 0.99% |
| Y 371.029 | 728396.8 | 96.369 | % | 0.5738 | | | | 0.60% |
| Y RADIAL | 4213.5 | 95.53 | % | 1.535 | | | | 1.61% |
| Ag 328.068† | 107295.6 | 500.09 | ug/L | 6.412 | 500.09 | ppb | 6.412 | 1.28% |
| QC value within limits for Ag 328.068 Recovery = 100.02% | | | | | | | | |
| Al 396.153Radial† | 5400.6 | 5040.9 | ug/L | 19.35 | 5040.9 | ppb | 19.35 | 0.38% |
| QC value within limits for Al 396.153Radial Recovery = 100.82% | | | | | | | | |
| As 188.979† | 1121.1 | 504.80 | ug/L | 7.282 | 504.80 | ppb | 7.282 | 1.44% |
| QC value within limits for As 188.979 Recovery = 100.96% | | | | | | | | |
| B 249.677† | 20203.7 | 487.64 | ug/L | 8.651 | 487.64 | ppb | 8.651 | 1.77% |
| QC value within limits for B 249.677 Recovery = 97.53% | | | | | | | | |
| Ba 233.527† | 63690.3 | 501.03 | ug/L | 6.088 | 501.03 | ppb | 6.088 | 1.22% |
| QC value within limits for Ba 233.527 Recovery = 100.21% | | | | | | | | |
| Be 313.107† | 1320325.7 | 497.30 | ug/L | 3.555 | 497.30 | ppb | 3.555 | 0.71% |
| QC value within limits for Be 313.107 Recovery = 99.46% | | | | | | | | |
| Ca 317.933Radial† | 2415.2 | 5049.0 | ug/L | 30.66 | 5049.0 | ppb | 30.66 | 0.61% |

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   QC value within limits for Ca 317.933Radial  Recovery = 100.98%
Cd 226.502†            43588.5      504.68 ug/L         5.451      504.68 ppb          5.451   1.08%
   QC value within limits for Cd 226.502  Recovery = 100.94%
Co 228.616†            23988.6      502.60 ug/L         6.617      502.60 ppb          6.617   1.32%
   QC value within limits for Co 228.616  Recovery = 100.52%
Cr 267.716†            44530.6      500.85 ug/L         6.577      500.85 ppb          6.577   1.31%
   QC value within limits for Cr 267.716  Recovery = 100.17%
Cu 324.752†           161923.9      492.73 ug/L         7.546      492.73 ppb          7.546   1.53%
   QC value within limits for Cu 324.752  Recovery = 98.55%
Fe 238.204 Radial†       333.2      4717.6 ug/L        51.09      4717.6 ppb          51.09   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.35%
K 766.490 Radial†      26327.6      5045.9 ug/L        15.94      5045.9 ppb          15.94   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†          101.7      4929.3 ug/L        65.08      4929.3 ppb          65.08   1.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.59%
Mn 257.610†           438930.5      499.74 ug/L         4.534      499.74 ppb          4.534   0.91%
   QC value within limits for Mn 257.610  Recovery = 99.95%
Mo 202.031†             6793.0      499.15 ug/L         5.688      499.15 ppb          5.688   1.14%
   QC value within limits for Mo 202.031  Recovery = 99.83%
Na 589.592 Radial†     32895.9       10143 ug/L          50.2       10143 ppb           50.2   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 101.43%
Ni 231.604†            19826.3      503.94 ug/L         6.163      503.94 ppb          6.163   1.22%
   QC value within limits for Ni 231.604  Recovery = 100.79%
P 214.914†              4180.6      2421.0 ug/L        38.59      2421.0 ppb          38.59   1.59%
   QC value within limits for P 214.914  Recovery = 96.84%
Pb 220.353†             5589.4      689.00 ug/L         0.655      689.00 ppb          0.655   0.10%
   QC value greater than the upper limit for Pb 220.353  Recovery = 137.80%
S 181.975 Axial†         696.4      1001.2 ug/L        11.92      1001.2 ppb          11.92   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 100.12%
Sb 206.836†             1415.1      512.60 ug/L         9.088      512.60 ppb          9.088   1.77%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†              772.0      521.95 ug/L         9.227      521.95 ppb          9.227   1.77%
   QC value within limits for Se 196.026  Recovery = 104.39%
Si 251.611†            77194.2      2491.8 ug/L        31.51      2491.8 ppb          31.51   1.26%
   QC value within limits for Si 251.611  Recovery = 99.67%
Sn 189.927†             2782.6      499.89 ug/L         6.798      499.89 ppb          6.798   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.98%
Sr 421.552†            71635.8      495.65 ug/L         1.065      495.65 ppb          1.065   0.21%
   QC value within limits for Sr 421.552  Recovery = 99.13%
Ti 334.940†           314858.5      494.65 ug/L         6.613      494.65 ppb          6.613   1.34%
   QC value within limits for Ti 334.940  Recovery = 98.93%
Tl 190.801†             1572.7      506.19 ug/L         5.135      506.19 ppb          5.135   1.01%
   QC value within limits for Tl 190.801  Recovery = 101.24%
U 409.014†             17452.9      480.29 ug/L         7.173      480.29 ppb          7.173   1.49%
   QC value within limits for U 409.014  Recovery = 96.06%
V 292.402†             71050.4      502.10 ug/L         6.791      502.10 ppb          6.791   1.35%
   QC value within limits for V 292.402  Recovery = 100.42%
Zn 213.857†            50004.0      498.78 ug/L         6.390      498.78 ppb          6.390   1.28%
   QC value within limits for Zn 213.857  Recovery = 99.76%
SiO2†                  77696.1      5385.9 ug/L        77.42      5385.9 ppb          77.42   1.44%
   QC value within limits for SiO2  Recovery = 100.72%
QC Failed.  Continue with analysis.
```

Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/25/2010 00:44:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3793.2 | 3793.2 | 96.8 | % | | | 00:46:37 |
| 1 | Y RADIAL | 4340.6 | 4340.6 | 98.41 | % | | | 00:46:17 |
| 1 | Al 396.153Radial† | -100.2 | 8.9 | 8.3036 | ug/L | 8.3036 | ppb | 00:46:17 |
| 1 | Ca 317.933Radial† | 15.5 | -3.6 | -7.6126 | ug/L | -7.6126 | ppb | 00:46:37 |
| 1 | Fe 238.204 Radial† | 11.8 | 0.9 | 12.332 | ug/L | 12.332 | ppb | 00:46:37 |
| 1 | K 766.490 Radial† | 2772.0 | 224.1 | 43.020 | ug/L | 43.020 | ppb | 00:46:17 |
| 1 | Mg 279.077 IEC† | 3.9 | -0.0 | -0.6866 | ug/L | -0.6866 | ppb | 00:46:37 |
| 1 | Na 589.592 Radial† | -837.2 | -45.1 | -13.916 | ug/L | -13.916 | ppb | 00:46:17 |
| 1 | Sr 421.552† | 40.5 | 6.1 | 0.0426 | ug/L | 0.0426 | ppb | 00:46:17 |
| 1 | Sc 361.383 | 894458.3 | 894458.3 | 101.96 | % | | | 00:47:34 |
| 1 | Y 371.029 | 753878.7 | 753878.7 | 99.740 | % | | | 00:47:34 |
| 1 | Ag 328.068† | 272.6 | 26.9 | 0.1276 | ug/L | 0.1276 | ppb | 00:47:39 |
| 1 | As 188.979† | -16.4 | 2.2 | 0.9872 | ug/L | 0.9872 | ppb | 00:47:59 |
| 1 | B 249.677† | -277.9 | 125.6 | 3.0445 | ug/L | 3.0445 | ppb | 00:47:59 |
| 1 | Ba 233.527† | 16.7 | 17.8 | 0.1396 | ug/L | 0.1396 | ppb | 00:47:59 |
| 1 | Be 313.107† | -3727.1 | 106.9 | 0.0400 | ug/L | 0.0400 | ppb | 00:47:39 |
| 1 | Cd 226.502† | -174.3 | 25.3 | 0.2921 | ug/L | 0.2921 | ppb | 00:47:59 |
| 1 | Co 228.616† | -76.6 | -8.5 | -0.1775 | ug/L | -0.1775 | ppb | 00:47:59 |
| 1 | Cr 267.716† | 81.6 | 2.3 | 0.0270 | ug/L | 0.0270 | ppb | 00:47:59 |
| 1 | Cu 324.752† | 6033.1 | -73.9 | -0.2244 | ug/L | -0.2244 | ppb | 00:47:39 |
| 1 | Mn 257.610† | 525.4 | 56.6 | 0.0656 | ug/L | 0.0656 | ppb | 00:47:59 |
| 1 | Mo 202.031† | 19.2 | 8.7 | 0.6412 | ug/L | 0.6412 | ppb | 00:47:59 |
| 1 | Ni 231.604† | 60.6 | -3.1 | -0.0775 | ug/L | -0.0775 | ppb | 00:47:59 |
| 1 | P 214.914† | 208.5 | -6.1 | -3.5959 | ug/L | -3.5959 | ppb | 00:47:59 |
| 1 | Pb 220.353† | 1410.1 | 1441.1 | 177.24 | ug/L | 177.24 | ppb | 00:47:59 |
| 1 | S 181.975 Axial† | 38.9 | -2.7 | -3.8791 | ug/L | -3.8791 | ppb | 00:47:59 |
| 1 | Sb 206.836† | 43.0 | 5.4 | 1.9458 | ug/L | 1.9458 | ppb | 00:47:59 |
| 1 | Se 196.026† | -20.1 | 8.1 | 5.3176 | ug/L | 5.3176 | ppb | 00:47:59 |
| 1 | Si 251.611† | 680.4 | 109.0 | 3.5183 | ug/L | 3.5183 | ppb | 00:47:59 |
| 1 | Sn 189.927† | 22.7 | 11.8 | 2.1179 | ug/L | 2.1179 | ppb | 00:47:59 |
| 1 | Ti 334.940† | -1449.2 | -47.2 | -0.0753 | ug/L | -0.0753 | ppb | 00:47:39 |
| 1 | Tl 190.801† | -32.2 | 1.0 | 0.3167 | ug/L | 0.3167 | ppb | 00:47:59 |
| 1 | U 409.014† | -2927.8 | 15.2 | 0.4183 | ug/L | 0.4183 | ppb | 00:47:34 |
| 1 | V 292.402† | -1560.3 | -24.6 | -0.1631 | ug/L | -0.1631 | ppb | 00:47:39 |
| 1 | Zn 213.857† | 965.3 | 340.6 | 3.4280 | ug/L | 3.4280 | ppb | 00:47:59 |
| 1 | SiO2† | 673.3 | 106.0 | 7.3468 | ug/L | 7.3468 | ppb | 00:49:05 |
| 2 | Sc Radial | 3823.9 | 3823.9 | 97.6 | % | | | 00:47:02 |
| 2 | Y RADIAL | 4348.7 | 4348.7 | 98.59 | % | | | 00:46:42 |
| 2 | Al 396.153Radial† | -119.4 | -10.0 | -9.3726 | ug/L | -9.3726 | ppb | 00:46:42 |
| 2 | Ca 317.933Radial† | 19.6 | 0.4 | 0.8983 | ug/L | 0.8983 | ppb | 00:47:02 |
| 2 | Fe 238.204 Radial† | 13.5 | 2.5 | 35.843 | ug/L | 35.843 | ppb | 00:47:02 |
| 2 | K 766.490 Radial† | 2867.2 | 298.7 | 57.331 | ug/L | 57.331 | ppb | 00:46:42 |
| 2 | Mg 279.077 IEC† | 3.2 | -0.8 | -36.743 | ug/L | -36.743 | ppb | 00:47:02 |
| 2 | Na 589.592 Radial† | -889.2 | -91.4 | -28.196 | ug/L | -28.196 | ppb | 00:46:42 |
| 2 | Sr 421.552† | 46.4 | 11.9 | 0.0821 | ug/L | 0.0821 | ppb | 00:46:42 |
| 2 | Sc 361.383 | 898915.6 | 898915.6 | 102.47 | % | | | 00:48:04 |
| 2 | Y 371.029 | 758223.6 | 758223.6 | 100.31 | % | | | 00:48:04 |
| 2 | Ag 328.068† | 244.6 | -1.8 | 0.0008 | ug/L | 0.0008 | ppb | 00:48:09 |
| 2 | As 188.979† | -20.7 | -2.0 | -0.8727 | ug/L | -0.8727 | ppb | 00:48:29 |
| 2 | B 249.677† | -295.1 | 110.3 | 2.6681 | ug/L | 2.6681 | ppb | 00:48:29 |
| 2 | Ba 233.527† | 11.0 | 12.1 | 0.0960 | ug/L | 0.0960 | ppb | 00:48:29 |
| 2 | Be 313.107† | -3622.4 | 227.2 | 0.0853 | ug/L | 0.0853 | ppb | 00:48:09 |
| 2 | Cd 226.502† | -174.9 | 25.6 | 0.2931 | ug/L | 0.2931 | ppb | 00:48:29 |
| 2 | Co 228.616† | -80.9 | -12.5 | -0.2612 | ug/L | -0.2612 | ppb | 00:48:29 |
| 2 | Cr 267.716† | 80.4 | 0.7 | 0.0107 | ug/L | 0.0107 | ppb | 00:48:29 |
| 2 | Cu 324.752† | 5882.1 | -250.5 | -0.7618 | ug/L | -0.7618 | ppb | 00:48:09 |
| 2 | Mn 257.610† | 513.0 | 41.9 | 0.0527 | ug/L | 0.0527 | ppb | 00:48:29 |
| 2 | Mo 202.031† | 11.7 | 1.2 | 0.0928 | ug/L | 0.0928 | ppb | 00:48:29 |
| 2 | Ni 231.604† | 65.6 | 1.6 | 0.0399 | ug/L | 0.0399 | ppb | 00:48:29 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 208.1 | -7.4 | -4.3339 ug/L | -4.3339 ppb | 00:48:29 |
| 2 | Pb 220.353† | 1382.3 | 1407.1 | 173.05 ug/L | 173.05 ppb | 00:48:29 |
| 2 | S 181.975 Axial† | 45.7 | 3.8 | 5.4226 ug/L | 5.4226 ppb | 00:48:29 |
| 2 | Sb 206.836† | 42.1 | 4.3 | 1.5614 ug/L | 1.5614 ppb | 00:48:29 |
| 2 | Se 196.026† | -25.8 | 2.5 | 1.7679 ug/L | 1.7679 ppb | 00:48:29 |
| 2 | Si 251.611† | 673.6 | 99.0 | 3.2024 ug/L | 3.2024 ppb | 00:48:29 |
| 2 | Sn 189.927† | 25.4 | 14.3 | 2.5624 ug/L | 2.5624 ppb | 00:48:29 |
| 2 | Ti 334.940† | -1416.0 | -7.8 | -0.0102 ug/L | -0.0102 ppb | 00:48:09 |
| 2 | Tl 190.801† | -35.4 | -2.0 | -0.6427 ug/L | -0.6427 ppb | 00:48:29 |
| 2 | U 409.014† | -2867.0 | 88.7 | 2.4461 ug/L | 2.4461 ppb | 00:48:04 |
| 2 | V 292.402† | -1547.8 | -4.8 | -0.0332 ug/L | -0.0332 ppb | 00:48:09 |
| 2 | Zn 213.857† | 954.9 | 325.8 | 3.2752 ug/L | 3.2752 ppb | 00:48:29 |
| 2 | SiO2† | 689.6 | 118.5 | 8.2357 ug/L | 8.2357 ppb | 00:49:10 |
| 3 | Sc Radial | 3791.0 | 3791.0 | 96.7 % | | 00:47:27 |
| 3 | Y RADIAL | 4415.1 | 4415.1 | 100.1 % | | 00:47:07 |
| 3 | Al 396.153Radial† | -114.0 | -5.4 | -5.0747 ug/L | -5.0747 ppb | 00:47:07 |
| 3 | Ca 317.933Radial† | 22.0 | 3.1 | 6.4381 ug/L | 6.4381 ppb | 00:47:27 |
| 3 | Fe 238.204 Radial† | 10.9 | -0.1 | -1.1097 ug/L | -1.1097 ppb | 00:47:27 |
| 3 | K 766.490 Radial† | 2799.8 | 254.6 | 48.862 ug/L | 48.862 ppb | 00:47:07 |
| 3 | Mg 279.077 IEC† | 6.6 | 2.8 | 134.90 ug/L | 134.90 ppb | 00:47:27 |
| 3 | Na 589.592 Radial† | -883.9 | -93.9 | -28.954 ug/L | -28.954 ppb | 00:47:07 |
| 3 | Sr 421.552† | 50.1 | 16.1 | 0.1112 ug/L | 0.1112 ppb | 00:47:07 |
| 3 | Sc 361.383 | 907115.8 | 907115.8 | 103.41 % | | 00:48:34 |
| 3 | Y 371.029 | 766249.5 | 766249.5 | 101.38 % | | 00:48:34 |
| 3 | Ag 328.068† | 239.6 | -8.7 | -0.0378 ug/L | -0.0378 ppb | 00:48:39 |
| 3 | As 188.979† | -14.2 | 4.5 | 2.0231 ug/L | 2.0231 ppb | 00:48:59 |
| 3 | B 249.677† | -305.7 | 102.6 | 2.4883 ug/L | 2.4883 ppb | 00:48:59 |
| 3 | Ba 233.527† | -0.8 | 0.6 | 0.0056 ug/L | 0.0056 ppb | 00:48:59 |
| 3 | Be 313.107† | -3661.4 | 221.5 | 0.0831 ug/L | 0.0831 ppb | 00:48:39 |
| 3 | Cd 226.502† | -181.4 | 20.8 | 0.2410 ug/L | 0.2410 ppb | 00:48:59 |
| 3 | Co 228.616† | -65.7 | 3.0 | 0.0638 ug/L | 0.0638 ppb | 00:48:59 |
| 3 | Cr 267.716† | 65.1 | -14.7 | -0.1644 ug/L | -0.1644 ppb | 00:48:59 |
| 3 | Cu 324.752† | 5998.8 | -189.6 | -0.5759 ug/L | -0.5759 ppb | 00:48:39 |
| 3 | Mn 257.610† | 513.5 | 37.9 | 0.0375 ug/L | 0.0375 ppb | 00:48:59 |
| 3 | Mo 202.031† | 10.7 | 0.2 | 0.0164 ug/L | 0.0164 ppb | 00:48:59 |
| 3 | Ni 231.604† | 65.6 | 1.0 | 0.0250 ug/L | 0.0250 ppb | 00:48:59 |
| 3 | P 214.914† | 213.6 | -4.0 | -2.2665 ug/L | -2.2665 ppb | 00:48:59 |
| 3 | Pb 220.353† | 1359.0 | 1372.3 | 168.78 ug/L | 168.78 ppb | 00:48:59 |
| 3 | S 181.975 Axial† | 33.7 | -8.3 | -11.885 ug/L | -11.885 ppb | 00:48:59 |
| 3 | Sb 206.836† | 38.3 | 0.4 | 0.1667 ug/L | 0.1667 ppb | 00:48:59 |
| 3 | Se 196.026† | -18.8 | 9.6 | 6.2780 ug/L | 6.2780 ppb | 00:48:59 |
| 3 | Si 251.611† | 653.1 | 73.3 | 2.3707 ug/L | 2.3707 ppb | 00:48:59 |
| 3 | Sn 189.927† | 23.1 | 11.9 | 2.1345 ug/L | 2.1345 ppb | 00:48:59 |
| 3 | Ti 334.940† | -1457.5 | -35.4 | -0.0648 ug/L | -0.0648 ppb | 00:48:39 |
| 3 | Tl 190.801† | -33.5 | 0.1 | 0.0436 ug/L | 0.0436 ppb | 00:48:59 |
| 3 | U 409.014† | -3063.1 | -75.6 | -2.0874 ug/L | -2.0874 ppb | 00:48:34 |
| 3 | V 292.402† | -1511.1 | 44.3 | 0.3082 ug/L | 0.3082 ppb | 00:48:39 |
| 3 | Zn 213.857† | 944.1 | 307.0 | 3.0911 ug/L | 3.0911 ppb | 00:48:59 |
| 3 | SiO2† | 664.0 | 87.8 | 6.0985 ug/L | 6.0985 ppb | 00:49:15 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 900163.2 | 102.61 | % | 0.732 | | | | 0.71% |
| Sc Radial | 3802.7 | 97.0 | % | 0.47 | | | | 0.48% |
| Y 371.029 | 759450.6 | 100.48 | % | 0.830 | | | | 0.83% |
| Y RADIAL | 4368.1 | 99.03 | % | 0.928 | | | | 0.94% |
| Ag 328.068† | 5.5 | 0.0302 | ug/L | 0.08651 | 0.0302 | ppb | 0.08651 | 286.48% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -2.2 | -2.0479 | ug/L | 9.21862 | -2.0479 | ppb | 9.21862 | 450.14% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | 1.6 | 0.7125 | ug/L | 1.46735 | 0.7125 | ppb | 1.46735 | 205.93% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 112.8 | 2.7336 | ug/L | 0.28385 | 2.7336 | ppb | 0.28385 | 10.38% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 10.2 | 0.0804 | ug/L | 0.06834 | 0.0804 | ppb | 0.06834 | 84.96% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 185.2 | 0.0695 | ug/L | 0.02556 | 0.0695 | ppb | 0.02556 | 36.79% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -0.0 | -0.0921 | ug/L | 7.07752 | -0.0921 | ppb | 7.07752 | >999.9% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.9      0.2754 ug/L       0.02979      0.2754 ppb        0.02979  10.81%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.0     -0.1250 ug/L       0.16874     -0.1250 ppb        0.16874 135.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.9     -0.0422 ug/L       0.10613     -0.0422 ppb        0.10613 251.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -171.3     -0.5207 ug/L       0.27290     -0.5207 ppb        0.27290  52.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1      15.688 ug/L       18.7035      15.688 ppb        18.7035 119.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         259.1      49.738 ug/L        7.1958      49.738 ppb         7.1958  14.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      32.490 ug/L       90.5024      32.490 ppb        90.5024 278.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                45.5      0.0519 ug/L       0.01409      0.0519 ppb        0.01409  27.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.2501 ug/L       0.34083      0.2501 ppb        0.34083 136.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -76.8     -23.689 ug/L        8.4718     -23.689 ppb         8.4718  35.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.2     -0.0042 ug/L       0.06393     -0.0042 ppb        0.06393 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.8     -3.3988 ug/L       1.04768     -3.3988 ppb        1.04768  30.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              1406.8      173.02 ug/L         4.231      173.02 ppb          4.231   2.45%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.4     -3.4472 ug/L       8.66187     -3.4472 ppb        8.66187 251.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.4      1.2246 ug/L       0.93613      1.2246 ppb        0.93613  76.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.7      4.4545 ug/L       2.37574      4.4545 ppb        2.37574  53.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                93.7      3.0305 ug/L       0.59284      3.0305 ppb        0.59284  19.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                12.7      2.2716 ug/L       0.25197      2.2716 ppb        0.25197  11.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.4      0.0786 ug/L       0.03442      0.0786 ppb        0.03442  43.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -30.1     -0.0501 ug/L       0.03496     -0.0501 ppb        0.03496  69.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.0942 ug/L       0.49432     -0.0942 ppb        0.49432 524.94%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  9.4      0.2590 ug/L       2.27096      0.2590 ppb        2.27096 876.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  5.0      0.0373 ug/L       0.24342      0.0373 ppb        0.24342 652.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               324.5      3.2648 ug/L       0.16870      3.2648 ppb        0.16870   5.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     104.1      7.2270 ug/L       1.07362      7.2270 ppb        1.07362  14.86%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 78
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 01:48:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3751.5 | 3751.5 | 95.7 | % | | | 01:50:23 |
| 1 | Y RADIAL | 4178.2 | 4178.2 | 94.72 | % | | | 01:50:03 |
| 1 | Al 396.153Radial† | 5311.3 | 5660.6 | 5284.6 | ug/L | 5284.6 | ppb | 01:50:03 |
| 1 | Ca 317.933Radial† | 2454.1 | 2543.9 | 5318.0 | ug/L | 5318.0 | ppb | 01:50:23 |
| 1 | Fe 238.204 Radial† | 343.3 | 347.3 | 4916.7 | ug/L | 4916.7 | ppb | 01:50:23 |
| 1 | K 766.490 Radial† | 29141.5 | 27801.7 | 5328.6 | ug/L | 5328.6 | ppb | 01:50:03 |
| 1 | Mg 279.077 IEC† | 106.6 | 107.3 | 5201.9 | ug/L | 5201.9 | ppb | 01:50:23 |
| 1 | Na 589.592 Radial† | 31291.4 | 33506.9 | 10331 | ug/L | 10331 | ppb | 01:50:03 |
| 1 | Sr 421.552† | 71387.4 | 74535.9 | 515.72 | ug/L | 515.72 | ppb | 01:50:03 |
| 1 | Sc 361.383 | 893450.3 | 893450.3 | 101.85 | % | | | 01:51:20 |
| 1 | Y 371.029 | 742912.7 | 742912.7 | 98.289 | % | | | 01:51:20 |
| 1 | Ag 328.068† | 109836.4 | 107602.1 | 501.57 | ug/L | 501.57 | ppb | 01:51:26 |
| 1 | As 188.979† | 1141.3 | 1138.8 | 512.77 | ug/L | 512.77 | ppb | 01:51:46 |
| 1 | B 249.677† | 19904.4 | 19941.3 | 481.24 | ug/L | 481.24 | ppb | 01:51:26 |
| 1 | Ba 233.527† | 65002.3 | 63823.7 | 502.09 | ug/L | 502.09 | ppb | 01:51:26 |
| 1 | Be 313.107† | 1372437.5 | 1351285.4 | 508.94 | ug/L | 508.94 | ppb | 01:51:20 |
| 1 | Cd 226.502† | 44130.0 | 43525.2 | 503.93 | ug/L | 503.93 | ppb | 01:51:26 |
| 1 | Co 228.616† | 24419.2 | 24042.4 | 503.73 | ug/L | 503.73 | ppb | 01:51:26 |
| 1 | Cr 267.716† | 45420.6 | 44518.4 | 500.73 | ug/L | 500.73 | ppb | 01:51:26 |
| 1 | Cu 324.752† | 171346.6 | 162245.3 | 493.71 | ug/L | 493.71 | ppb | 01:51:26 |
| 1 | Mn 257.610† | 457591.3 | 448825.8 | 511.01 | ug/L | 511.01 | ppb | 01:51:20 |
| 1 | Mo 202.031† | 6969.2 | 6832.5 | 502.06 | ug/L | 502.06 | ppb | 01:51:46 |
| 1 | Ni 231.604† | 20230.3 | 19800.6 | 503.29 | ug/L | 503.29 | ppb | 01:51:26 |
| 1 | P 214.914† | 4464.1 | 4172.5 | 2415.8 | ug/L | 2415.8 | ppb | 01:51:46 |
| 1 | Pb 220.353† | 5442.5 | 5401.8 | 665.97 | ug/L | 665.97 | ppb | 01:51:46 |
| 1 | S 181.975 Axial† | 750.5 | 696.1 | 1000.7 | ug/L | 1000.7 | ppb | 01:51:46 |
| 1 | Sb 206.836† | 1497.3 | 1433.4 | 519.04 | ug/L | 519.04 | ppb | 01:51:46 |
| 1 | Se 196.026† | 760.1 | 774.0 | 523.87 | ug/L | 523.87 | ppb | 01:51:46 |
| 1 | Si 251.611† | 79292.3 | 77294.6 | 2495.0 | ug/L | 2495.0 | ppb | 01:51:26 |
| 1 | Sn 189.927† | 2842.4 | 2780.3 | 499.53 | ug/L | 499.53 | ppb | 01:51:46 |
| 1 | Ti 334.940† | 320493.1 | 316049.1 | 496.53 | ug/L | 496.53 | ppb | 01:51:26 |
| 1 | Tl 190.801† | 1572.3 | 1576.3 | 507.40 | ug/L | 507.40 | ppb | 01:51:46 |
| 1 | U 409.014† | 15147.8 | 17759.5 | 488.73 | ug/L | 488.73 | ppb | 01:51:26 |
| 1 | V 292.402† | 71059.4 | 71275.1 | 503.70 | ug/L | 503.70 | ppb | 01:51:26 |
| 1 | Zn 213.857† | 51472.1 | 49931.7 | 498.02 | ug/L | 498.02 | ppb | 01:51:26 |
| 1 | SiO2† | 80686.3 | 78667.1 | 5453.3 | ug/L | 5453.3 | ppb | 01:52:53 |
| 2 | Sc Radial | 3789.7 | 3789.7 | 96.7 | % | | | 01:50:48 |
| 2 | Y RADIAL | 4263.3 | 4263.3 | 96.65 | % | | | 01:50:28 |
| 2 | Al 396.153Radial† | 5431.5 | 5729.0 | 5348.6 | ug/L | 5348.6 | ppb | 01:50:28 |
| 2 | Ca 317.933Radial† | 2472.4 | 2536.9 | 5303.5 | ug/L | 5303.5 | ppb | 01:50:48 |
| 2 | Fe 238.204 Radial† | 345.5 | 346.0 | 4898.7 | ug/L | 4898.7 | ppb | 01:50:48 |
| 2 | K 766.490 Radial† | 29501.6 | 27867.3 | 5341.2 | ug/L | 5341.2 | ppb | 01:50:28 |
| 2 | Mg 279.077 IEC† | 110.0 | 109.6 | 5315.9 | ug/L | 5315.9 | ppb | 01:50:48 |
| 2 | Na 589.592 Radial† | 31572.3 | 33468.0 | 10319 | ug/L | 10319 | ppb | 01:50:28 |
| 2 | Sr 421.552† | 72571.3 | 75008.6 | 518.99 | ug/L | 518.99 | ppb | 01:50:28 |
| 2 | Sc 361.383 | 894788.0 | 894788.0 | 102.00 | % | | | 01:51:51 |
| 2 | Y 371.029 | 744407.6 | 744407.6 | 98.487 | % | | | 01:51:51 |
| 2 | Ag 328.068† | 110561.7 | 108151.9 | 504.12 | ug/L | 504.12 | ppb | 01:51:57 |
| 2 | As 188.979† | 1140.0 | 1135.9 | 511.49 | ug/L | 511.49 | ppb | 01:52:17 |
| 2 | B 249.677† | 20105.9 | 20109.7 | 485.32 | ug/L | 485.32 | ppb | 01:51:57 |
| 2 | Ba 233.527† | 65433.0 | 64150.6 | 504.66 | ug/L | 504.66 | ppb | 01:51:57 |
| 2 | Be 313.107† | 1378804.9 | 1355513.2 | 510.53 | ug/L | 510.53 | ppb | 01:51:51 |
| 2 | Cd 226.502† | 44339.2 | 43665.5 | 505.55 | ug/L | 505.55 | ppb | 01:51:57 |
| 2 | Co 228.616† | 24574.4 | 24158.7 | 506.16 | ug/L | 506.16 | ppb | 01:51:57 |
| 2 | Cr 267.716† | 45759.3 | 44783.8 | 503.71 | ug/L | 503.71 | ppb | 01:51:57 |
| 2 | Cu 324.752† | 172514.9 | 163139.2 | 496.43 | ug/L | 496.43 | ppb | 01:51:57 |
| 2 | Mn 257.610† | 459182.8 | 449714.3 | 512.01 | ug/L | 512.01 | ppb | 01:51:51 |
| 2 | Mo 202.031† | 7008.7 | 6861.0 | 504.15 | ug/L | 504.15 | ppb | 01:52:17 |
| 2 | Ni 231.604† | 20350.7 | 19888.9 | 505.53 | ug/L | 505.53 | ppb | 01:51:57 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4498.2 | 4199.4 | 2431.5 ug/L | 2431.5 ppb | 01:52:17 |
| 2 | Pb 220.353† | 5402.1 | 5354.2 | 660.13 ug/L | 660.13 ppb | 01:52:17 |
| 2 | S 181.975 Axial† | 763.0 | 707.2 | 1016.7 ug/L | 1016.7 ppb | 01:52:17 |
| 2 | Sb 206.836† | 1496.2 | 1430.2 | 517.99 ug/L | 517.99 ppb | 01:52:17 |
| 2 | Se 196.026† | 767.3 | 780.0 | 527.72 ug/L | 527.72 ppb | 01:52:17 |
| 2 | Si 251.611† | 79742.2 | 77619.2 | 2505.5 ug/L | 2505.5 ppb | 01:51:57 |
| 2 | Sn 189.927† | 2853.1 | 2786.7 | 500.66 ug/L | 500.66 ppb | 01:52:17 |
| 2 | Ti 334.940† | 323054.1 | 318089.4 | 499.73 ug/L | 499.73 ppb | 01:51:57 |
| 2 | Tl 190.801† | 1591.1 | 1592.4 | 512.57 ug/L | 512.57 ppb | 01:52:17 |
| 2 | U 409.014† | 15122.9 | 17712.7 | 487.44 ug/L | 487.44 ppb | 01:51:57 |
| 2 | V 292.402† | 71660.4 | 71760.0 | 507.11 ug/L | 507.11 ppb | 01:51:57 |
| 2 | Zn 213.857† | 51610.1 | 49991.4 | 498.61 ug/L | 498.61 ppb | 01:51:57 |
| 2 | SiO2† | 80393.2 | 78261.4 | 5425.1 ug/L | 5425.1 ppb | 01:52:58 |
| 3 | Sc Radial | 3711.3 | 3711.3 | 94.7 % | | 01:51:13 |
| 3 | Y RADIAL | 4245.6 | 4245.6 | 96.25 % | | 01:50:53 |
| 3 | Al 396.153Radial† | 5434.8 | 5851.0 | 5462.6 ug/L | 5462.6 ppb | 01:50:53 |
| 3 | Ca 317.933Radial† | 2430.1 | 2546.3 | 5323.0 ug/L | 5323.0 ppb | 01:51:13 |
| 3 | Fe 238.204 Radial† | 339.7 | 347.4 | 4919.0 ug/L | 4919.0 ppb | 01:51:13 |
| 3 | K 766.490 Radial† | 29530.0 | 28541.2 | 5470.4 ug/L | 5470.4 ppb | 01:50:53 |
| 3 | Mg 279.077 IEC† | 104.7 | 106.5 | 5163.1 ug/L | 5163.1 ppb | 01:51:13 |
| 3 | Na 589.592 Radial† | 31563.7 | 34148.0 | 10529 ug/L | 10529 ppb | 01:50:53 |
| 3 | Sr 421.552† | 72483.8 | 76500.1 | 529.31 ug/L | 529.31 ppb | 01:50:53 |
| 3 | Sc 361.383 | 880564.6 | 880564.6 | 100.38 % | | 01:52:22 |
| 3 | Y 371.029 | 733791.9 | 733791.9 | 97.082 % | | 01:52:22 |
| 3 | Ag 328.068† | 112054.0 | 111389.4 | 519.18 ug/L | 519.18 ppb | 01:52:28 |
| 3 | As 188.979† | 1154.7 | 1168.6 | 526.19 ug/L | 526.19 ppb | 01:52:48 |
| 3 | B 249.677† | 20514.2 | 20834.8 | 502.86 ug/L | 502.86 ppb | 01:52:28 |
| 3 | Ba 233.527† | 66402.8 | 66152.9 | 520.41 ug/L | 520.41 ppb | 01:52:28 |
| 3 | Be 313.107† | 1354270.1 | 1352905.6 | 509.59 ug/L | 509.59 ppb | 01:52:22 |
| 3 | Cd 226.502† | 45006.9 | 45032.8 | 521.40 ug/L | 521.40 ppb | 01:52:28 |
| 3 | Co 228.616† | 24846.4 | 24818.8 | 519.99 ug/L | 519.99 ppb | 01:52:28 |
| 3 | Cr 267.716† | 46538.8 | 46285.0 | 520.58 ug/L | 520.58 ppb | 01:52:28 |
| 3 | Cu 324.752† | 175449.2 | 168794.2 | 513.63 ug/L | 513.63 ppb | 01:52:28 |
| 3 | Mn 257.610† | 450004.9 | 447842.7 | 509.89 ug/L | 509.89 ppb | 01:52:22 |
| 3 | Mo 202.031† | 7054.5 | 7017.7 | 515.66 ug/L | 515.66 ppb | 01:52:48 |
| 3 | Ni 231.604† | 20658.2 | 20517.5 | 521.51 ug/L | 521.51 ppb | 01:52:28 |
| 3 | P 214.914† | 4517.1 | 4289.5 | 2482.5 ug/L | 2482.5 ppb | 01:52:48 |
| 3 | Pb 220.353† | 5373.8 | 5411.6 | 667.23 ug/L | 667.23 ppb | 01:52:48 |
| 3 | S 181.975 Axial† | 764.1 | 720.4 | 1035.7 ug/L | 1035.7 ppb | 01:52:48 |
| 3 | Sb 206.836† | 1509.4 | 1467.0 | 531.29 ug/L | 531.29 ppb | 01:52:48 |
| 3 | Se 196.026† | 780.4 | 805.2 | 544.35 ug/L | 544.35 ppb | 01:52:48 |
| 3 | Si 251.611† | 80834.2 | 79969.9 | 2581.4 ug/L | 2581.4 ppb | 01:52:28 |
| 3 | Sn 189.927† | 2882.4 | 2861.0 | 514.01 ug/L | 514.01 ppb | 01:52:48 |
| 3 | Ti 334.940† | 327691.7 | 327825.3 | 515.03 ug/L | 515.03 ppb | 01:52:28 |
| 3 | Tl 190.801† | 1591.0 | 1617.6 | 520.64 ug/L | 520.64 ppb | 01:52:48 |
| 3 | U 409.014† | 15537.5 | 18365.3 | 505.42 ug/L | 505.42 ppb | 01:52:28 |
| 3 | V 292.402† | 72801.4 | 74031.5 | 523.12 ug/L | 523.12 ppb | 01:52:28 |
| 3 | Zn 213.857† | 52424.5 | 51620.0 | 514.88 ug/L | 514.88 ppb | 01:52:28 |
| 3 | SiO2† | 79202.4 | 78348.1 | 5430.8 ug/L | 5430.8 ppb | 01:53:03 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 889601.0 | 101.41 | % | 0.895 | | | | 0.88% |
| Sc Radial | 3750.8 | 95.7 | % | 1.00 | | | | 1.04% |
| Y 371.029 | 740370.8 | 97.953 | % | 0.7602 | | | | 0.78% |
| Y RADIAL | 4229.0 | 95.88 | % | 1.018 | | | | 1.06% |
| Ag 328.068† | 109047.8 | 508.29 | ug/L | 9.516 | 508.29 | ppb | 9.516 | 1.87% |
| QC value within limits for Ag 328.068 Recovery = 101.66% | | | | | | | | |
| Al 396.153Radial† | 5746.9 | 5365.3 | ug/L | 90.13 | 5365.3 | ppb | 90.13 | 1.68% |
| QC value within limits for Al 396.153Radial Recovery = 107.31% | | | | | | | | |
| As 188.979† | 1147.7 | 516.82 | ug/L | 8.141 | 516.82 | ppb | 8.141 | 1.58% |
| QC value within limits for As 188.979 Recovery = 103.36% | | | | | | | | |
| B 249.677† | 20295.3 | 489.81 | ug/L | 11.486 | 489.81 | ppb | 11.486 | 2.34% |
| QC value within limits for B 249.677 Recovery = 97.96% | | | | | | | | |
| Ba 233.527† | 64709.0 | 509.05 | ug/L | 9.919 | 509.05 | ppb | 9.919 | 1.95% |
| QC value within limits for Ba 233.527 Recovery = 101.81% | | | | | | | | |
| Be 313.107† | 1353234.8 | 509.69 | ug/L | 0.803 | 509.69 | ppb | 0.803 | 0.16% |
| QC value within limits for Be 313.107 Recovery = 101.94% | | | | | | | | |
| Ca 317.933Radial† | 2542.4 | 5314.8 | ug/L | 10.14 | 5314.8 | ppb | 10.14 | 0.19% |

```
   QC value within limits for Ca 317.933Radial  Recovery = 106.30%
Cd 226.502†            44074.5      510.29 ug/L         9.653      510.29 ppb          9.653   1.89%
   QC value within limits for Cd 226.502  Recovery = 102.06%
Co 228.616†            24340.0      509.96 ug/L         8.768      509.96 ppb          8.768   1.72%
   QC value within limits for Co 228.616  Recovery = 101.99%
Cr 267.716†            45195.7      508.34 ug/L        10.705      508.34 ppb         10.705   2.11%
   QC value within limits for Cr 267.716  Recovery = 101.67%
Cu 324.752†           164726.2      501.26 ug/L        10.801      501.26 ppb         10.801   2.15%
   QC value within limits for Cu 324.752  Recovery = 100.25%
Fe 238.204 Radial†       346.9      4911.5 ug/L        11.13      4911.5 ppb          11.13   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.23%
K 766.490 Radial†      28070.1      5380.0 ug/L        78.49      5380.0 ppb          78.49   1.46%
   QC value within limits for K 766.490 Radial  Recovery = 107.60%
Mg 279.077 IEC†          107.8      5227.0 ug/L        79.44      5227.0 ppb          79.44   1.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.54%
Mn 257.610†           448794.2      510.97 ug/L         1.061      510.97 ppb          1.061   0.21%
   QC value within limits for Mn 257.610  Recovery = 102.19%
Mo 202.031†             6903.7      507.29 ug/L         7.320      507.29 ppb          7.320   1.44%
   QC value within limits for Mo 202.031  Recovery = 101.46%
Na 589.592 Radial†     33707.6       10393 ug/L        117.7       10393 ppb          117.7   1.13%
   QC value within limits for Na 589.592 Radial  Recovery = 103.93%
Ni 231.604†            20069.0      510.11 ug/L         9.937      510.11 ppb          9.937   1.95%
   QC value within limits for Ni 231.604  Recovery = 102.02%
P 214.914†              4220.5      2443.3 ug/L        34.82      2443.3 ppb          34.82   1.43%
   QC value within limits for P 214.914  Recovery = 97.73%
Pb 220.353†             5389.2      664.44 ug/L         3.787      664.44 ppb          3.787   0.57%
   QC value greater than the upper limit for Pb 220.353  Recovery = 132.89%
S 181.975 Axial†         707.9      1017.7 ug/L        17.51      1017.7 ppb          17.51   1.72%
   QC value within limits for S 181.975 Axial  Recovery = 101.77%
Sb 206.836†             1443.5      522.77 ug/L         7.395      522.77 ppb          7.395   1.41%
   QC value within limits for Sb 206.836  Recovery = 104.55%
Se 196.026†              786.4      531.98 ug/L        10.884      531.98 ppb         10.884   2.05%
   QC value within limits for Se 196.026  Recovery = 106.40%
Si 251.611†            78294.6      2527.3 ug/L        47.15      2527.3 ppb          47.15   1.87%
   QC value within limits for Si 251.611  Recovery = 101.09%
Sn 189.927†             2809.3      504.73 ug/L         8.052      504.73 ppb          8.052   1.60%
   QC value within limits for Sn 189.927  Recovery = 100.95%
Sr 421.552†            75348.2      521.34 ug/L         7.094      521.34 ppb          7.094   1.36%
   QC value within limits for Sr 421.552  Recovery = 104.27%
Ti 334.940†           320654.6      503.76 ug/L         9.886      503.76 ppb          9.886   1.96%
   QC value within limits for Ti 334.940  Recovery = 100.75%
Tl 190.801†             1595.4      513.54 ug/L         6.676      513.54 ppb          6.676   1.30%
   QC value within limits for Tl 190.801  Recovery = 102.71%
U 409.014†             17945.8      493.86 ug/L        10.027      493.86 ppb         10.027   2.03%
   QC value within limits for U 409.014  Recovery = 98.77%
V 292.402†             72355.5      511.31 ug/L        10.367      511.31 ppb         10.367   2.03%
   QC value within limits for V 292.402  Recovery = 102.26%
Zn 213.857†            50514.4      503.84 ug/L         9.565      503.84 ppb          9.565   1.90%
   QC value within limits for Zn 213.857  Recovery = 100.77%
SiO2†                  78425.5      5436.4 ug/L        14.94      5436.4 ppb          14.94   0.27%
   QC value within limits for SiO2  Recovery = 101.66%
QC Failed.  Continue with analysis.
```

Sequence No.: 79
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 01:55:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3904.2 | 3904.2 | 99.6 | % | | | 01:57:26 |
| 1 | Y RADIAL | 4278.1 | 4278.1 | 96.99 | % | | | 01:57:06 |
| 1 | Al 396.153Radial† | -92.0 | 20.1 | 18.802 | ug/L | 18.802 | ppb | 01:57:06 |
| 1 | Ca 317.933Radial† | 19.9 | 0.3 | 0.5597 | ug/L | 0.5597 | ppb | 01:57:26 |
| 1 | Fe 238.204 Radial† | 11.8 | 0.5 | 7.5867 | ug/L | 7.5867 | ppb | 01:57:26 |
| 1 | K 766.490 Radial† | 2841.1 | 212.1 | 40.688 | ug/L | 40.688 | ppb | 01:57:06 |
| 1 | Mg 279.077 IEC† | 3.7 | -0.3 | -15.760 | ug/L | -15.760 | ppb | 01:57:26 |
| 1 | Na 589.592 Radial† | -757.7 | 59.2 | 18.252 | ug/L | 18.252 | ppb | 01:57:06 |
| 1 | Sr 421.552† | 26.9 | -8.7 | -0.0601 | ug/L | -0.0601 | ppb | 01:57:06 |
| 1 | Sc 361.383 | 878431.0 | 878431.0 | 100.14 | % | | | 01:58:23 |
| 1 | Y 371.029 | 741529.1 | 741529.1 | 98.106 | % | | | 01:58:23 |
| 1 | Ag 328.068† | 260.7 | 20.0 | 0.0981 | ug/L | 0.0981 | ppb | 01:58:23 |
| 1 | As 188.979† | -23.1 | -4.8 | -2.1303 | ug/L | -2.1303 | ppb | 01:58:43 |
| 1 | B 249.677† | -456.4 | -57.6 | -1.3977 | ug/L | -1.3977 | ppb | 01:58:43 |
| 1 | Ba 233.527† | 19.4 | 20.8 | 0.1634 | ug/L | 0.1634 | ppb | 01:58:43 |
| 1 | Be 313.107† | -3735.2 | 32.1 | 0.0118 | ug/L | 0.0118 | ppb | 01:58:23 |
| 1 | Cd 226.502† | -181.3 | 15.2 | 0.1751 | ug/L | 0.1751 | ppb | 01:58:43 |
| 1 | Co 228.616† | -59.4 | 7.2 | 0.1522 | ug/L | 0.1522 | ppb | 01:58:43 |
| 1 | Cr 267.716† | 82.7 | 4.9 | 0.0570 | ug/L | 0.0570 | ppb | 01:58:43 |
| 1 | Cu 324.752† | 5947.6 | -51.3 | -0.1540 | ug/L | -0.1540 | ppb | 01:58:23 |
| 1 | Mn 257.610† | 525.9 | 66.4 | 0.0770 | ug/L | 0.0770 | ppb | 01:58:43 |
| 1 | Mo 202.031† | 14.0 | 3.8 | 0.2804 | ug/L | 0.2804 | ppb | 01:58:43 |
| 1 | Ni 231.604† | 63.8 | 1.2 | 0.0315 | ug/L | 0.0315 | ppb | 01:58:43 |
| 1 | P 214.914† | 203.1 | -7.7 | -4.6008 | ug/L | -4.6008 | ppb | 01:58:43 |
| 1 | Pb 220.353† | 849.2 | 906.1 | 111.45 | ug/L | 111.45 | ppb | 01:58:43 |
| 1 | S 181.975 Axial† | 41.5 | 0.7 | 0.9818 | ug/L | 0.9818 | ppb | 01:58:43 |
| 1 | Sb 206.836† | 52.1 | 15.3 | 5.3843 | ug/L | 5.3843 | ppb | 01:58:43 |
| 1 | Se 196.026† | -25.9 | 1.9 | 1.2899 | ug/L | 1.2899 | ppb | 01:58:43 |
| 1 | Si 251.611† | 611.0 | 51.8 | 1.6739 | ug/L | 1.6739 | ppb | 01:58:43 |
| 1 | Sn 189.927† | 16.1 | 5.6 | 1.0023 | ug/L | 1.0023 | ppb | 01:58:43 |
| 1 | Ti 334.940† | -1439.6 | -63.6 | -0.0971 | ug/L | -0.0971 | ppb | 01:58:23 |
| 1 | Tl 190.801† | -27.7 | 4.9 | 1.5635 | ug/L | 1.5635 | ppb | 01:58:43 |
| 1 | U 409.014† | -3005.7 | -115.0 | -3.1775 | ug/L | -3.1775 | ppb | 01:58:23 |
| 1 | V 292.402† | -1486.9 | 20.8 | 0.1416 | ug/L | 0.1416 | ppb | 01:58:23 |
| 1 | Zn 213.857† | 780.0 | 172.9 | 1.7390 | ug/L | 1.7390 | ppb | 01:58:43 |
| 1 | SiO2† | 615.9 | 60.6 | 4.2068 | ug/L | 4.2068 | ppb | 01:59:39 |
| 2 | Sc Radial | 3807.5 | 3807.5 | 97.2 | % | | | 01:57:51 |
| 2 | Y RADIAL | 4388.9 | 4388.9 | 99.50 | % | | | 01:57:31 |
| 2 | Al 396.153Radial† | -109.2 | 0.0 | 0.0381 | ug/L | 0.0381 | ppb | 01:57:31 |
| 2 | Ca 317.933Radial† | 19.1 | 0.0 | 0.0552 | ug/L | 0.0552 | ppb | 01:57:51 |
| 2 | Fe 238.204 Radial† | 10.2 | -0.8 | -11.336 | ug/L | -11.336 | ppb | 01:57:51 |
| 2 | K 766.490 Radial† | 2689.5 | 128.6 | 24.682 | ug/L | 24.682 | ppb | 01:57:31 |
| 2 | Mg 279.077 IEC† | 1.6 | -2.5 | -118.97 | ug/L | -118.97 | ppb | 01:57:51 |
| 2 | Na 589.592 Radial† | -858.8 | -64.1 | -19.777 | ug/L | -19.777 | ppb | 01:57:31 |
| 2 | Sr 421.552† | 4.4 | -31.2 | -0.2156 | ug/L | -0.2156 | ppb | 01:57:31 |
| 2 | Sc 361.383 | 891701.1 | 891701.1 | 101.65 | % | | | 01:58:48 |
| 2 | Y 371.029 | 753557.3 | 753557.3 | 99.697 | % | | | 01:58:48 |
| 2 | Ag 328.068† | 251.7 | 7.2 | 0.0327 | ug/L | 0.0327 | ppb | 01:58:48 |
| 2 | As 188.979† | -24.2 | -5.5 | -2.4633 | ug/L | -2.4633 | ppb | 01:59:08 |
| 2 | B 249.677† | -450.7 | -45.2 | -1.0939 | ug/L | -1.0939 | ppb | 01:59:08 |
| 2 | Ba 233.527† | 0.3 | 1.7 | 0.0121 | ug/L | 0.0121 | ppb | 01:59:08 |
| 2 | Be 313.107† | -3785.2 | 38.4 | 0.0146 | ug/L | 0.0146 | ppb | 01:58:48 |
| 2 | Cd 226.502† | -178.4 | 20.8 | 0.2406 | ug/L | 0.2406 | ppb | 01:59:08 |
| 2 | Co 228.616† | -62.7 | 4.8 | 0.1009 | ug/L | 0.1009 | ppb | 01:59:08 |
| 2 | Cr 267.716† | 96.0 | 16.8 | 0.1888 | ug/L | 0.1888 | ppb | 01:59:08 |
| 2 | Cu 324.752† | 6037.9 | -50.8 | -0.1526 | ug/L | -0.1526 | ppb | 01:58:48 |
| 2 | Mn 257.610† | 523.9 | 56.7 | 0.0682 | ug/L | 0.0682 | ppb | 01:59:08 |
| 2 | Mo 202.031† | 8.4 | -1.8 | -0.1366 | ug/L | -0.1366 | ppb | 01:59:08 |
| 2 | Ni 231.604† | 59.7 | -3.7 | -0.0943 | ug/L | -0.0943 | ppb | 01:59:08 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 211.8 | -2.2 | -1.2692 ug/L | -1.2692 ppb | 01:59:08 |
| 2 | Pb 220.353† | 831.1 | 875.8 | 107.71 ug/L | 107.71 ppb | 01:59:08 |
| 2 | S 181.975 Axial† | 41.2 | -0.2 | -0.3414 ug/L | -0.3414 ppb | 01:59:08 |
| 2 | Sb 206.836† | 38.2 | 0.9 | 0.3113 ug/L | 0.3113 ppb | 01:59:08 |
| 2 | Se 196.026† | -26.9 | 1.3 | 0.7834 ug/L | 0.7834 ppb | 01:59:08 |
| 2 | Si 251.611† | 607.6 | 39.4 | 1.2774 ug/L | 1.2774 ppb | 01:59:08 |
| 2 | Sn 189.927† | 11.6 | 0.9 | 0.1665 ug/L | 0.1665 ppb | 01:59:08 |
| 2 | Ti 334.940† | -1337.0 | 58.8 | 0.1042 ug/L | 0.1042 ppb | 01:58:48 |
| 2 | Tl 190.801† | -31.6 | 1.5 | 0.4837 ug/L | 0.4837 ppb | 01:59:08 |
| 2 | U 409.014† | -3111.5 | -174.4 | -4.8146 ug/L | -4.8146 ppb | 01:58:48 |
| 2 | V 292.402† | -1576.8 | -45.6 | -0.3297 ug/L | -0.3297 ppb | 01:58:48 |
| 2 | Zn 213.857† | 797.4 | 178.4 | 1.7982 ug/L | 1.7982 ppb | 01:59:08 |
| 2 | SiO2† | 629.4 | 64.8 | 4.5044 ug/L | 4.5044 ppb | 01:59:44 |
| 3 | Sc Radial | 3794.1 | 3794.1 | 96.8 % | | 01:58:16 |
| 3 | Y RADIAL | 4276.4 | 4276.4 | 96.95 % | | 01:57:56 |
| 3 | Al 396.153Radial† | -102.8 | 6.3 | 5.8953 ug/L | 5.8953 ppb | 01:57:56 |
| 3 | Ca 317.933Radial† | 23.1 | 4.2 | 8.7458 ug/L | 8.7458 ppb | 01:58:16 |
| 3 | Fe 238.204 Radial† | 10.3 | -0.7 | -10.062 ug/L | -10.062 ppb | 01:58:16 |
| 3 | K 766.490 Radial† | 2770.7 | 222.2 | 42.646 ug/L | 42.646 ppb | 01:57:56 |
| 3 | Mg 279.077 IEC† | 1.6 | -2.4 | -116.03 ug/L | -116.03 ppb | 01:58:16 |
| 3 | Na 589.592 Radial† | -833.1 | -40.7 | -12.548 ug/L | -12.548 ppb | 01:57:56 |
| 3 | Sr 421.552† | 75.3 | 42.0 | 0.2907 ug/L | 0.2907 ppb | 01:57:56 |
| 3 | Sc 361.383 | 900277.4 | 900277.4 | 102.63 % | | 01:59:13 |
| 3 | Y 371.029 | 761244.3 | 761244.3 | 100.71 % | | 01:59:13 |
| 3 | Ag 328.068† | 219.0 | -27.0 | -0.1230 ug/L | -0.1230 ppb | 01:59:13 |
| 3 | As 188.979† | -19.2 | -0.4 | -0.1866 ug/L | -0.1866 ppb | 01:59:33 |
| 3 | B 249.677† | -459.8 | -49.8 | -1.2058 ug/L | -1.2058 ppb | 01:59:33 |
| 3 | Ba 233.527† | -1.7 | -0.3 | -0.0013 ug/L | -0.0013 ppb | 01:59:33 |
| 3 | Be 313.107† | -3731.5 | 126.2 | 0.0474 ug/L | 0.0474 ppb | 01:59:13 |
| 3 | Cd 226.502† | -164.8 | 35.6 | 0.4132 ug/L | 0.4132 ppb | 01:59:33 |
| 3 | Co 228.616† | -54.8 | 13.2 | 0.2751 ug/L | 0.2751 ppb | 01:59:33 |
| 3 | Cr 267.716† | 69.9 | -9.6 | -0.1066 ug/L | -0.1066 ppb | 01:59:33 |
| 3 | Cu 324.752† | 6073.0 | -73.2 | -0.2213 ug/L | -0.2213 ppb | 01:59:13 |
| 3 | Mn 257.610† | 524.9 | 52.8 | 0.0638 ug/L | 0.0638 ppb | 01:59:33 |
| 3 | Mo 202.031† | 6.1 | -4.2 | -0.3073 ug/L | -0.3073 ppb | 01:59:33 |
| 3 | Ni 231.604† | 72.2 | 7.9 | 0.2020 ug/L | 0.2020 ppb | 01:59:33 |
| 3 | P 214.914† | 206.1 | -9.7 | -5.7786 ug/L | -5.7786 ppb | 01:59:33 |
| 3 | Pb 220.353† | 799.8 | 837.4 | 102.99 ug/L | 102.99 ppb | 01:59:33 |
| 3 | S 181.975 Axial† | 41.5 | -0.4 | -0.5192 ug/L | -0.5192 ppb | 01:59:33 |
| 3 | Sb 206.836† | 50.4 | 12.4 | 4.3208 ug/L | 4.3208 ppb | 01:59:33 |
| 3 | Se 196.026† | -26.4 | 2.0 | 1.2824 ug/L | 1.2824 ppb | 01:59:33 |
| 3 | Si 251.611† | 613.2 | 39.2 | 1.2724 ug/L | 1.2724 ppb | 01:59:33 |
| 3 | Sn 189.927† | 5.0 | -5.6 | -0.9990 ug/L | -0.9990 ppb | 01:59:33 |
| 3 | Ti 334.940† | -1416.7 | -6.3 | 0.0024 ug/L | 0.0024 ppb | 01:59:13 |
| 3 | Tl 190.801† | -28.0 | 5.3 | 1.7054 ug/L | 1.7054 ppb | 01:59:33 |
| 3 | U 409.014† | -3103.6 | -137.5 | -3.7954 ug/L | -3.7954 ppb | 01:59:13 |
| 3 | V 292.402† | -1463.3 | 79.8 | 0.5442 ug/L | 0.5442 ppb | 01:59:13 |
| 3 | Zn 213.857† | 789.1 | 162.9 | 1.6404 ug/L | 1.6404 ppb | 01:59:33 |
| 3 | SiO2† | 606.5 | 36.6 | 2.5493 ug/L | 2.5493 ppb | 01:59:49 |

**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 890136.5 | 101.47 | % | 1.255 | | | | 1.24% |
| Sc Radial | 3835.3 | 97.9 | % | 1.53 | | | | 1.57% |
| Y 371.029 | 752110.2 | 99.506 | % | 1.3147 | | | | 1.32% |
| Y RADIAL | 4314.5 | 97.81 | % | 1.462 | | | | 1.49% |
| Ag 328.068† | 0.1 | 0.0026 | ug/L | 0.11359 | 0.0026 | ppb | 0.11359 | >999.9% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 8.8 | 8.2452 | ug/L | 9.60018 | 8.2452 | ppb | 9.60018 | 116.43% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -3.6 | -1.5934 | ug/L | 1.22964 | -1.5934 | ppb | 1.22964 | 77.17% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -50.8 | -1.2325 | ug/L | 0.15366 | -1.2325 | ppb | 0.15366 | 12.47% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 7.4 | 0.0581 | ug/L | 0.09149 | 0.0581 | ppb | 0.09149 | 157.56% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 65.6 | 0.0246 | ug/L | 0.01978 | 0.0246 | ppb | 0.01978 | 80.33% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 1.5 | 3.1202 | ug/L | 4.87843 | 3.1202 | ppb | 4.87843 | 156.35% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.9      0.2763 ug/L       0.12298      0.2763 ppb        0.12298  44.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.4      0.1761 ug/L       0.08956      0.1761 ppb        0.08956  50.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.0      0.0464 ug/L       0.14801      0.0464 ppb        0.14801 319.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -58.5     -0.1760 ug/L       0.03928     -0.1760 ppb        0.03928  22.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -4.6036 ug/L      10.57633     -4.6036 ppb       10.57633 229.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         187.6      36.005 ug/L        9.8552      36.005 ppb         9.8552  27.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.7     -83.589 ug/L       58.7599     -83.589 ppb        58.7599  70.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                58.6      0.0697 ug/L       0.00670      0.0697 ppb        0.00670   9.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.7     -0.0545 ug/L       0.30231     -0.0545 ppb        0.30231 554.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -15.2     -4.6910 ug/L      20.19557     -4.6910 ppb       20.19557 430.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.8      0.0464 ug/L       0.14870      0.0464 ppb        0.14870 320.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.5     -3.8829 ug/L       2.33884     -3.8829 ppb        2.33884  60.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               873.1      107.38 ug/L         4.238      107.38 ppb          4.238   3.95%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.0404 ug/L       0.82010      0.0404 ppb        0.82010 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.6      3.3388 ug/L       2.67528      3.3388 ppb        2.67528  80.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7      1.1185 ug/L       0.29028      1.1185 ppb        0.29028  25.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                43.5      1.4079 ug/L       0.23037      1.4079 ppb        0.23037  16.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.3      0.0566 ug/L       1.00515      0.0566 ppb        1.00515 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.7      0.0050 ug/L       0.25935      0.0050 ppb        0.25935 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -3.7      0.0032 ug/L       0.10067      0.0032 ppb        0.10067 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.9      1.2509 ug/L       0.66819      1.2509 ppb        0.66819  53.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -142.3     -3.9292 ug/L       0.82674     -3.9292 ppb        0.82674  21.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.3      0.1187 ug/L       0.43742      0.1187 ppb        0.43742 368.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               171.4      1.7259 ug/L       0.07971      1.7259 ppb        0.07971   4.62%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      54.0      3.7535 ug/L       1.05345      3.7535 ppb        1.05345  28.07%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 89
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 03:04:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4065.6 | 4065.6 | 104 | % | | | 03:06:50 |
| 1 | Y RADIAL | 4474.7 | 4474.7 | 101.4 | % | | | 03:06:50 |
| 1 | Al 396.153Radial† | 5404.7 | 5322.0 | 4966.6 | ug/L | 4966.6 | ppb | 03:06:50 |
| 1 | Ca 317.933Radial† | 2441.3 | 2333.5 | 4878.2 | ug/L | 4878.2 | ppb | 03:07:10 |
| 1 | Fe 238.204 Radial† | 338.4 | 314.9 | 4460.2 | ug/L | 4460.2 | ppb | 03:07:10 |
| 1 | K 766.490 Radial† | 29493.9 | 25789.3 | 4942.9 | ug/L | 4942.9 | ppb | 03:06:50 |
| 1 | Mg 279.077 IEC† | 107.4 | 99.5 | 4823.1 | ug/L | 4823.1 | ppb | 03:07:10 |
| 1 | Na 589.592 Radial† | 30990.7 | 30691.4 | 9463.0 | ug/L | 9463.0 | ppb | 03:06:50 |
| 1 | Sr 421.552† | 71434.0 | 68818.9 | 476.16 | ug/L | 476.16 | ppb | 03:06:50 |
| 1 | Sc 361.383 | 894644.9 | 894644.9 | 101.99 | % | | | 03:08:07 |
| 1 | Y 371.029 | 744690.0 | 744690.0 | 98.524 | % | | | 03:08:07 |
| 1 | Ag 328.068† | 113030.7 | 110590.2 | 515.32 | ug/L | 515.32 | ppb | 03:08:12 |
| 1 | As 188.979† | 1154.5 | 1150.2 | 517.92 | ug/L | 517.92 | ppb | 03:08:33 |
| 1 | B 249.677† | 20852.1 | 20844.4 | 503.17 | ug/L | 503.17 | ppb | 03:08:12 |
| 1 | Ba 233.527† | 66842.6 | 65542.9 | 515.60 | ug/L | 515.60 | ppb | 03:08:12 |
| 1 | Be 313.107† | 1380668.5 | 1357556.9 | 511.34 | ug/L | 511.34 | ppb | 03:08:07 |
| 1 | Cd 226.502† | 45359.2 | 44672.6 | 517.27 | ug/L | 517.27 | ppb | 03:08:12 |
| 1 | Co 228.616† | 25114.9 | 24692.6 | 517.34 | ug/L | 517.34 | ppb | 03:08:12 |
| 1 | Cr 267.716† | 46823.4 | 45834.3 | 515.47 | ug/L | 515.47 | ppb | 03:08:12 |
| 1 | Cu 324.752† | 176815.2 | 167382.8 | 509.32 | ug/L | 509.32 | ppb | 03:08:12 |
| 1 | Mn 257.610† | 459519.7 | 450116.7 | 512.45 | ug/L | 512.45 | ppb | 03:08:07 |
| 1 | Mo 202.031† | 7105.8 | 6957.4 | 511.19 | ug/L | 511.19 | ppb | 03:08:33 |
| 1 | Ni 231.604† | 20809.3 | 20341.8 | 517.04 | ug/L | 517.04 | ppb | 03:08:12 |
| 1 | P 214.914† | 4579.6 | 4280.0 | 2477.8 | ug/L | 2477.8 | ppb | 03:08:33 |
| 1 | Pb 220.353† | 4372.7 | 4345.7 | 536.07 | ug/L | 536.07 | ppb | 03:08:33 |
| 1 | S 181.975 Axial† | 773.2 | 717.4 | 1031.4 | ug/L | 1031.4 | ppb | 03:08:33 |
| 1 | Sb 206.836† | 1529.2 | 1462.8 | 529.72 | ug/L | 529.72 | ppb | 03:08:33 |
| 1 | Se 196.026† | 788.7 | 801.1 | 540.23 | ug/L | 540.23 | ppb | 03:08:33 |
| 1 | Si 251.611† | 81535.4 | 79390.0 | 2562.7 | ug/L | 2562.7 | ppb | 03:08:12 |
| 1 | Sn 189.927† | 2924.4 | 2857.0 | 513.23 | ug/L | 513.23 | ppb | 03:08:33 |
| 1 | Ti 334.940† | 333303.1 | 328189.6 | 515.57 | ug/L | 515.57 | ppb | 03:08:07 |
| 1 | Tl 190.801† | 1602.8 | 1604.2 | 516.39 | ug/L | 516.39 | ppb | 03:08:33 |
| 1 | U 409.014† | 15585.5 | 18168.7 | 500.05 | ug/L | 500.05 | ppb | 03:08:12 |
| 1 | V 292.402† | 73158.8 | 73240.5 | 517.59 | ug/L | 517.59 | ppb | 03:08:12 |
| 1 | Zn 213.857† | 52924.1 | 51288.0 | 511.64 | ug/L | 511.64 | ppb | 03:08:12 |
| 1 | SiO2† | 79943.4 | 77832.9 | 5395.1 | ug/L | 5395.1 | ppb | 03:09:40 |
| 2 | Sc Radial | 3923.0 | 3923.0 | 100 | % | | | 03:07:15 |
| 2 | Y RADIAL | 4322.6 | 4322.6 | 98.00 | % | | | 03:07:15 |
| 2 | Al 396.153Radial† | 5424.2 | 5530.8 | 5162.7 | ug/L | 5162.7 | ppb | 03:07:15 |
| 2 | Ca 317.933Radial† | 2466.3 | 2444.0 | 5109.1 | ug/L | 5109.1 | ppb | 03:07:35 |
| 2 | Fe 238.204 Radial† | 343.3 | 331.6 | 4695.5 | ug/L | 4695.5 | ppb | 03:07:35 |
| 2 | K 766.490 Radial† | 29569.4 | 26898.2 | 5155.5 | ug/L | 5155.5 | ppb | 03:07:15 |
| 2 | Mg 279.077 IEC† | 108.8 | 104.6 | 5074.1 | ug/L | 5074.1 | ppb | 03:07:35 |
| 2 | Na 589.592 Radial† | 30848.0 | 31634.8 | 9753.9 | ug/L | 9753.9 | ppb | 03:07:15 |
| 2 | Sr 421.552† | 71392.9 | 71281.0 | 493.19 | ug/L | 493.19 | ppb | 03:07:15 |
| 2 | Sc 361.383 | 899506.6 | 899506.6 | 102.54 | % | | | 03:08:38 |
| 2 | Y 371.029 | 747149.5 | 747149.5 | 98.850 | % | | | 03:08:38 |
| 2 | Ag 328.068† | 112007.2 | 108993.0 | 507.97 | ug/L | 507.97 | ppb | 03:08:44 |
| 2 | As 188.979† | 1155.3 | 1144.9 | 515.52 | ug/L | 515.52 | ppb | 03:09:04 |
| 2 | B 249.677† | 20669.6 | 20556.0 | 496.15 | ug/L | 496.15 | ppb | 03:08:44 |
| 2 | Ba 233.527† | 66507.4 | 64861.8 | 510.25 | ug/L | 510.25 | ppb | 03:08:44 |
| 2 | Be 313.107† | 1355962.8 | 1326145.9 | 499.51 | ug/L | 499.51 | ppb | 03:08:38 |
| 2 | Cd 226.502† | 45216.6 | 44293.1 | 512.85 | ug/L | 512.85 | ppb | 03:08:44 |
| 2 | Co 228.616† | 25014.7 | 24461.8 | 512.51 | ug/L | 512.51 | ppb | 03:08:44 |
| 2 | Cr 267.716† | 46404.9 | 45178.0 | 508.12 | ug/L | 508.12 | ppb | 03:08:44 |
| 2 | Cu 324.752† | 174971.9 | 164648.1 | 501.01 | ug/L | 501.01 | ppb | 03:08:44 |
| 2 | Mn 257.610† | 453646.1 | 441953.2 | 503.17 | ug/L | 503.17 | ppb | 03:08:38 |
| 2 | Mo 202.031† | 7065.9 | 6880.8 | 505.59 | ug/L | 505.59 | ppb | 03:09:04 |
| 2 | Ni 231.604† | 20669.2 | 20094.9 | 510.76 | ug/L | 510.76 | ppb | 03:08:44 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4562.7 | 4239.2 | 2454.7 ug/L | 2454.7 ppb | 03:09:04 |
| 2 | Pb 220.353† | 4383.9 | 4333.5 | 534.58 ug/L | 534.58 ppb | 03:09:04 |
| 2 | S 181.975 Axial† | 782.3 | 722.1 | 1038.2 ug/L | 1038.2 ppb | 03:09:04 |
| 2 | Sb 206.836† | 1511.0 | 1436.9 | 520.44 ug/L | 520.44 ppb | 03:09:04 |
| 2 | Se 196.026† | 772.4 | 781.0 | 527.76 ug/L | 527.76 ppb | 03:09:04 |
| 2 | Si 251.611† | 81175.6 | 78607.1 | 2537.4 ug/L | 2537.4 ppb | 03:08:44 |
| 2 | Sn 189.927† | 2899.9 | 2817.6 | 506.20 ug/L | 506.20 ppb | 03:09:04 |
| 2 | Ti 334.940† | 328248.1 | 321493.4 | 505.06 ug/L | 505.06 ppb | 03:08:38 |
| 2 | Tl 190.801† | 1605.8 | 1598.6 | 514.51 ug/L | 514.51 ppb | 03:09:04 |
| 2 | U 409.014† | 15446.7 | 17950.8 | 494.02 ug/L | 494.02 ppb | 03:08:44 |
| 2 | V 292.402† | 72601.9 | 72309.7 | 510.99 ug/L | 510.99 ppb | 03:08:44 |
| 2 | Zn 213.857† | 52585.7 | 50677.4 | 505.51 ug/L | 505.51 ppb | 03:08:44 |
| 2 | SiO2† | 80024.0 | 77487.9 | 5371.3 ug/L | 5371.3 ppb | 03:09:46 |
| 3 | Sc Radial | 3830.9 | 3830.9 | 97.8 % | | 03:07:40 |
| 3 | Y RADIAL | 4238.3 | 4238.3 | 96.09 % | | 03:07:40 |
| 3 | Al 396.153Radial† | 5400.6 | 5637.0 | 5262.7 ug/L | 5262.7 ppb | 03:07:40 |
| 3 | Ca 317.933Radial† | 2460.5 | 2497.3 | 5220.6 ug/L | 5220.6 ppb | 03:08:00 |
| 3 | Fe 238.204 Radial† | 342.5 | 339.0 | 4800.1 ug/L | 4800.1 ppb | 03:08:00 |
| 3 | K 766.490 Radial† | 29417.6 | 27453.2 | 5261.9 ug/L | 5261.9 ppb | 03:07:40 |
| 3 | Mg 279.077 IEC† | 105.7 | 104.0 | 5044.1 ug/L | 5044.1 ppb | 03:08:00 |
| 3 | Na 589.592 Radial† | 30723.2 | 32248.1 | 9943.0 ug/L | 9943.0 ppb | 03:07:40 |
| 3 | Sr 421.552† | 71354.8 | 72956.7 | 504.79 ug/L | 504.79 ppb | 03:07:40 |
| 3 | Sc 361.383 | 912475.1 | 912475.1 | 104.02 % | | 03:09:10 |
| 3 | Y 371.029 | 757066.0 | 757066.0 | 100.16 % | | 03:09:10 |
| 3 | Ag 328.068† | 112365.2 | 107784.8 | 502.38 ug/L | 502.38 ppb | 03:09:15 |
| 3 | As 188.979† | 1130.0 | 1104.6 | 497.66 ug/L | 497.66 ppb | 03:09:35 |
| 3 | B 249.677† | 20760.2 | 20356.6 | 491.32 ug/L | 491.32 ppb | 03:09:15 |
| 3 | Ba 233.527† | 66685.6 | 64111.3 | 504.35 ug/L | 504.35 ppb | 03:09:15 |
| 3 | Be 313.107† | 1405148.2 | 1354637.3 | 510.24 ug/L | 510.24 ppb | 03:09:10 |
| 3 | Cd 226.502† | 45313.5 | 43759.5 | 506.65 ug/L | 506.65 ppb | 03:09:15 |
| 3 | Co 228.616† | 25138.6 | 24234.1 | 507.69 ug/L | 507.69 ppb | 03:09:15 |
| 3 | Cr 267.716† | 46514.2 | 44640.0 | 502.09 ug/L | 502.09 ppb | 03:09:15 |
| 3 | Cu 324.752† | 175499.9 | 162730.5 | 495.18 ug/L | 495.18 ppb | 03:09:15 |
| 3 | Mn 257.610† | 469642.6 | 451044.1 | 513.53 ug/L | 513.53 ppb | 03:09:10 |
| 3 | Mo 202.031† | 7033.7 | 6751.9 | 496.14 ug/L | 496.14 ppb | 03:09:35 |
| 3 | Ni 231.604† | 20721.4 | 19858.6 | 504.76 ug/L | 504.76 ppb | 03:09:15 |
| 3 | P 214.914† | 4542.0 | 4156.0 | 2405.7 ug/L | 2405.7 ppb | 03:09:35 |
| 3 | Pb 220.353† | 4370.2 | 4259.5 | 525.48 ug/L | 525.48 ppb | 03:09:35 |
| 3 | S 181.975 Axial† | 777.6 | 706.8 | 1016.1 ug/L | 1016.1 ppb | 03:09:35 |
| 3 | Sb 206.836† | 1500.0 | 1405.3 | 509.02 ug/L | 509.02 ppb | 03:09:35 |
| 3 | Se 196.026† | 772.6 | 770.5 | 521.17 ug/L | 521.17 ppb | 03:09:35 |
| 3 | Si 251.611† | 81238.6 | 77542.4 | 2503.1 ug/L | 2503.1 ppb | 03:09:15 |
| 3 | Sn 189.927† | 2885.6 | 2763.6 | 496.52 ug/L | 496.52 ppb | 03:09:35 |
| 3 | Ti 334.940† | 340609.7 | 328827.9 | 516.61 ug/L | 516.61 ppb | 03:09:10 |
| 3 | Tl 190.801† | 1594.6 | 1565.6 | 504.14 ug/L | 504.14 ppb | 03:09:35 |
| 3 | U 409.014† | 15561.9 | 17847.4 | 491.17 ug/L | 491.17 ppb | 03:09:15 |
| 3 | V 292.402† | 72805.1 | 71498.7 | 505.17 ug/L | 505.17 ppb | 03:09:15 |
| 3 | Zn 213.857† | 52689.2 | 50048.1 | 499.20 ug/L | 499.20 ppb | 03:09:15 |
| 3 | SiO2† | 80189.4 | 76537.7 | 5305.5 ug/L | 5305.5 ppb | 03:09:51 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 902208.8 | 102.85 | % | 1.051 | | | | 1.02% |
| Sc Radial | 3939.8 | 101 | % | 3.0 | | | | 3.00% |
| Y 371.029 | 749635.1 | 99.179 | % | 0.8668 | | | | 0.87% |
| Y RADIAL | 4345.2 | 98.51 | % | 2.716 | | | | 2.76% |
| Ag 328.068† | 109122.7 | 508.56 | ug/L | 6.490 | 508.56 | ppb | 6.490 | 1.28% |
| QC value within limits for Ag 328.068 Recovery = 101.71% | | | | | | | | |
| Al 396.153Radial† | 5496.6 | 5130.7 | ug/L | 150.64 | 5130.7 | ppb | 150.64 | 2.94% |
| QC value within limits for Al 396.153Radial Recovery = 102.61% | | | | | | | | |
| As 188.979† | 1133.2 | 510.37 | ug/L | 11.068 | 510.37 | ppb | 11.068 | 2.17% |
| QC value within limits for As 188.979 Recovery = 102.07% | | | | | | | | |
| B 249.677† | 20585.7 | 496.88 | ug/L | 5.961 | 496.88 | ppb | 5.961 | 1.20% |
| QC value within limits for B 249.677 Recovery = 99.38% | | | | | | | | |
| Ba 233.527† | 64838.7 | 510.06 | ug/L | 5.628 | 510.06 | ppb | 5.628 | 1.10% |
| QC value within limits for Ba 233.527 Recovery = 102.01% | | | | | | | | |
| Be 313.107† | 1346113.3 | 507.03 | ug/L | 6.536 | 507.03 | ppb | 6.536 | 1.29% |
| QC value within limits for Be 313.107 Recovery = 101.41% | | | | | | | | |
| Ca 317.933Radial† | 2424.9 | 5069.3 | ug/L | 174.66 | 5069.3 | ppb | 174.66 | 3.45% |

```
   QC value within limits for Ca 317.933Radial  Recovery = 101.39%
Cd 226.502†            44241.7      512.26 ug/L         5.334      512.26 ppb          5.334   1.04%
   QC value within limits for Cd 226.502  Recovery = 102.45%
Co 228.616†            24462.9      512.51 ug/L         4.823      512.51 ppb          4.823   0.94%
   QC value within limits for Co 228.616  Recovery = 102.50%
Cr 267.716†            45217.4      508.56 ug/L         6.705      508.56 ppb          6.705   1.32%
   QC value within limits for Cr 267.716  Recovery = 101.71%
Cu 324.752†           164920.5      501.84 ug/L         7.103      501.84 ppb          7.103   1.42%
   QC value within limits for Cu 324.752  Recovery = 100.37%
Fe 238.204 Radial†       328.5      4651.9 ug/L       174.12      4651.9 ppb        174.12   3.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.04%
K 766.490 Radial†      26713.6      5120.1 ug/L       162.43      5120.1 ppb        162.43   3.17%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          102.7      4980.4 ug/L       137.05      4980.4 ppb        137.05   2.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.61%
Mn 257.610†           447704.7      509.72 ug/L         5.693      509.72 ppb          5.693   1.12%
   QC value within limits for Mn 257.610  Recovery = 101.94%
Mo 202.031†             6863.4      504.31 ug/L         7.608      504.31 ppb          7.608   1.51%
   QC value within limits for Mo 202.031  Recovery = 100.86%
Na 589.592 Radial†     31524.8      9719.9 ug/L       241.78      9719.9 ppb        241.78   2.49%
   QC value within limits for Na 589.592 Radial  Recovery = 97.20%
Ni 231.604†            20098.4      510.85 ug/L         6.142      510.85 ppb          6.142   1.20%
   QC value within limits for Ni 231.604  Recovery = 102.17%
P 214.914†              4225.1      2446.1 ug/L        36.85      2446.1 ppb         36.85   1.51%
   QC value within limits for P 214.914  Recovery = 97.84%
Pb 220.353†             4312.9      532.04 ug/L         5.734      532.04 ppb          5.734   1.08%
   QC value within limits for Pb 220.353  Recovery = 106.41%
S 181.975 Axial†         715.4      1028.5 ug/L        11.32      1028.5 ppb         11.32   1.10%
   QC value within limits for S 181.975 Axial  Recovery = 102.85%
Sb 206.836†             1435.0      519.73 ug/L        10.371      519.73 ppb         10.371   2.00%
   QC value within limits for Sb 206.836  Recovery = 103.95%
Se 196.026†              784.2      529.72 ug/L         9.678      529.72 ppb          9.678   1.83%
   QC value within limits for Se 196.026  Recovery = 105.94%
Si 251.611†            78513.2      2534.4 ug/L        29.91      2534.4 ppb         29.91   1.18%
   QC value within limits for Si 251.611  Recovery = 101.38%
Sn 189.927†             2812.7      505.31 ug/L         8.387      505.31 ppb          8.387   1.66%
   QC value within limits for Sn 189.927  Recovery = 101.06%
Sr 421.552†            71018.9      491.38 ug/L        14.401      491.38 ppb         14.401   2.93%
   QC value within limits for Sr 421.552  Recovery = 98.28%
Ti 334.940†           326170.3      512.42 ug/L         6.387      512.42 ppb          6.387   1.25%
   QC value within limits for Ti 334.940  Recovery = 102.48%
Tl 190.801†             1589.5      511.68 ug/L         6.597      511.68 ppb          6.597   1.29%
   QC value within limits for Tl 190.801  Recovery = 102.34%
U 409.014†             17989.0      495.08 ug/L         4.534      495.08 ppb          4.534   0.92%
   QC value within limits for U 409.014  Recovery = 99.02%
V 292.402†             72349.6      511.25 ug/L         6.212      511.25 ppb          6.212   1.22%
   QC value within limits for V 292.402  Recovery = 102.25%
Zn 213.857†            50671.2      505.45 ug/L         6.217      505.45 ppb          6.217   1.23%
   QC value within limits for Zn 213.857  Recovery = 101.09%
SiO2†                  77286.2      5357.3 ug/L        46.41      5357.3 ppb         46.41   0.87%
   QC value within limits for SiO2  Recovery = 100.18%
All analyte(s) passed QC.
```

Sequence No.: 90
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 03:12:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3911.8 | 3911.8 | 99.8 | % | | | 03:14:16 |
| 1 | Y RADIAL | 4632.2 | 4632.2 | 105.0 | % | | | 03:13:56 |
| 1 | Al 396.153Radial† | -94.0 | 18.3 | 17.128 | ug/L | 17.128 | ppb | 03:13:56 |
| 1 | Ca 317.933Radial† | 27.3 | 7.7 | 16.068 | ug/L | 16.068 | ppb | 03:14:16 |
| 1 | Fe 238.204 Radial† | 13.6 | 2.3 | 32.455 | ug/L | 32.455 | ppb | 03:14:16 |
| 1 | K 766.490 Radial† | 2910.3 | 276.0 | 52.950 | ug/L | 52.950 | ppb | 03:13:56 |
| 1 | Mg 279.077 IEC† | 2.8 | -1.3 | -61.093 | ug/L | -61.093 | ppb | 03:14:16 |
| 1 | Na 589.592 Radial† | -821.4 | -3.1 | -0.9709 | ug/L | -0.9709 | ppb | 03:13:56 |
| 1 | Sr 421.552† | 39.6 | 3.9 | 0.0272 | ug/L | 0.0272 | ppb | 03:13:56 |
| 1 | Sc 361.383 | 891465.9 | 891465.9 | 101.62 | % | | | 03:15:13 |
| 1 | Y 371.029 | 752397.8 | 752397.8 | 99.544 | % | | | 03:15:13 |
| 1 | Ag 328.068† | 257.4 | 12.9 | 0.0713 | ug/L | 0.0713 | ppb | 03:15:13 |
| 1 | As 188.979† | -25.7 | -7.1 | -3.1514 | ug/L | -3.1514 | ppb | 03:15:33 |
| 1 | B 249.677† | -383.7 | 20.7 | 0.4963 | ug/L | 0.4963 | ppb | 03:15:33 |
| 1 | Ba 233.527† | 15.2 | 16.4 | 0.1296 | ug/L | 0.1296 | ppb | 03:15:33 |
| 1 | Be 313.107† | -3768.8 | 53.6 | 0.0201 | ug/L | 0.0201 | ppb | 03:15:13 |
| 1 | Cd 226.502† | -164.6 | 34.3 | 0.3932 | ug/L | 0.3932 | ppb | 03:15:33 |
| 1 | Co 228.616† | -63.1 | 4.5 | 0.0936 | ug/L | 0.0936 | ppb | 03:15:33 |
| 1 | Cr 267.716† | 55.7 | -22.9 | -0.2530 | ug/L | -0.2530 | ppb | 03:15:33 |
| 1 | Cu 324.752† | 6000.7 | -85.9 | -0.2582 | ug/L | -0.2582 | ppb | 03:15:13 |
| 1 | Mn 257.610† | 551.7 | 84.2 | 0.1015 | ug/L | 0.1015 | ppb | 03:15:33 |
| 1 | Mo 202.031† | 12.1 | 1.8 | 0.1341 | ug/L | 0.1341 | ppb | 03:15:33 |
| 1 | Ni 231.604† | 59.7 | -3.7 | -0.0934 | ug/L | -0.0934 | ppb | 03:15:33 |
| 1 | P 214.914† | 201.1 | -12.6 | -7.5508 | ug/L | -7.5508 | ppb | 03:15:33 |
| 1 | Pb 220.353† | 142.4 | 198.2 | 24.377 | ug/L | 24.377 | ppb | 03:15:33 |
| 1 | S 181.975 Axial† | 45.7 | 4.2 | 6.0323 | ug/L | 6.0323 | ppb | 03:15:33 |
| 1 | Sb 206.836† | 37.0 | -0.3 | -0.1026 | ug/L | -0.1026 | ppb | 03:15:33 |
| 1 | Se 196.026† | -22.7 | 5.4 | 3.6162 | ug/L | 3.6162 | ppb | 03:15:33 |
| 1 | Si 251.611† | 620.6 | 52.3 | 1.6917 | ug/L | 1.6917 | ppb | 03:15:33 |
| 1 | Sn 189.927† | 11.0 | 0.3 | 0.0556 | ug/L | 0.0556 | ppb | 03:15:33 |
| 1 | Ti 334.940† | -1421.5 | -24.8 | -0.0305 | ug/L | -0.0305 | ppb | 03:15:13 |
| 1 | Tl 190.801† | -26.0 | 7.0 | 2.2435 | ug/L | 2.2435 | ppb | 03:15:33 |
| 1 | U 409.014† | -3026.7 | -91.8 | -2.5373 | ug/L | -2.5373 | ppb | 03:15:13 |
| 1 | V 292.402† | -1544.4 | -14.1 | -0.1070 | ug/L | -0.1070 | ppb | 03:15:13 |
| 1 | Zn 213.857† | 788.7 | 170.0 | 1.7077 | ug/L | 1.7077 | ppb | 03:15:33 |
| 1 | SiO2† | 622.3 | 58.0 | 4.0241 | ug/L | 4.0241 | ppb | 03:16:30 |
| 2 | Sc Radial | 3787.1 | 3787.1 | 96.6 | % | | | 03:14:41 |
| 2 | Y RADIAL | 4258.2 | 4258.2 | 96.54 | % | | | 03:14:21 |
| 2 | Al 396.153Radial† | -128.9 | -21.0 | -19.709 | ug/L | -19.709 | ppb | 03:14:21 |
| 2 | Ca 317.933Radial† | 22.9 | 4.0 | 8.3781 | ug/L | 8.3781 | ppb | 03:14:41 |
| 2 | Fe 238.204 Radial† | 7.5 | -3.6 | -50.813 | ug/L | -50.813 | ppb | 03:14:41 |
| 2 | K 766.490 Radial† | 2902.2 | 363.5 | 69.758 | ug/L | 69.758 | ppb | 03:14:21 |
| 2 | Mg 279.077 IEC† | 3.4 | -0.6 | -27.006 | ug/L | -27.006 | ppb | 03:14:41 |
| 2 | Na 589.592 Radial† | -785.7 | 6.7 | 2.0720 | ug/L | 2.0720 | ppb | 03:14:21 |
| 2 | Sr 421.552† | 3.2 | -32.4 | -0.2244 | ug/L | -0.2244 | ppb | 03:14:21 |
| 2 | Sc 361.383 | 887897.4 | 887897.4 | 101.22 | % | | | 03:15:39 |
| 2 | Y 371.029 | 749479.4 | 749479.4 | 99.158 | % | | | 03:15:39 |
| 2 | Ag 328.068† | 202.7 | -40.1 | -0.1957 | ug/L | -0.1957 | ppb | 03:15:39 |
| 2 | As 188.979† | -24.9 | -6.3 | -2.8317 | ug/L | -2.8317 | ppb | 03:15:59 |
| 2 | B 249.677† | -388.0 | 14.9 | 0.3689 | ug/L | 0.3689 | ppb | 03:15:59 |
| 2 | Ba 233.527† | 4.9 | 6.2 | 0.0488 | ug/L | 0.0488 | ppb | 03:15:59 |
| 2 | Be 313.107† | -3729.8 | 77.2 | 0.0288 | ug/L | 0.0288 | ppb | 03:15:39 |
| 2 | Cd 226.502† | -175.0 | 23.4 | 0.2750 | ug/L | 0.2750 | ppb | 03:15:59 |
| 2 | Co 228.616† | -63.6 | 3.7 | 0.0788 | ug/L | 0.0788 | ppb | 03:15:59 |
| 2 | Cr 267.716† | 56.9 | -21.5 | -0.2434 | ug/L | -0.2434 | ppb | 03:15:59 |
| 2 | Cu 324.752† | 5993.8 | -69.0 | -0.2102 | ug/L | -0.2102 | ppb | 03:15:39 |
| 2 | Mn 257.610† | 561.0 | 95.5 | 0.1047 | ug/L | 0.1047 | ppb | 03:15:59 |
| 2 | Mo 202.031† | 12.5 | 2.2 | 0.1562 | ug/L | 0.1562 | ppb | 03:15:59 |
| 2 | Ni 231.604† | 59.9 | -3.3 | -0.0829 | ug/L | -0.0829 | ppb | 03:15:59 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 208.9 | -4.1 | -2.3881 ug/L | -2.3881 ppb | 03:15:59 |
| 2 | Pb 220.353† | 138.5 | 195.0 | 23.981 ug/L | 23.981 ppb | 03:15:59 |
| 2 | S 181.975 Axial† | 46.0 | 4.6 | 6.6891 ug/L | 6.6891 ppb | 03:15:59 |
| 2 | Sb 206.836† | 52.7 | 15.3 | 5.3600 ug/L | 5.3600 ppb | 03:15:59 |
| 2 | Se 196.026† | -26.4 | 1.6 | 0.9086 ug/L | 0.9086 ppb | 03:15:59 |
| 2 | Si 251.611† | 613.8 | 48.1 | 1.5543 ug/L | 1.5543 ppb | 03:15:59 |
| 2 | Sn 189.927† | 10.1 | -0.5 | -0.0875 ug/L | -0.0875 ppb | 03:15:59 |
| 2 | Ti 334.940† | -1444.0 | -52.6 | -0.0773 ug/L | -0.0773 ppb | 03:15:39 |
| 2 | Tl 190.801† | -33.4 | -0.4 | -0.1276 ug/L | -0.1276 ppb | 03:15:59 |
| 2 | U 409.014† | -3076.5 | -153.0 | -4.2180 ug/L | -4.2180 ppb | 03:15:39 |
| 2 | V 292.402† | -1434.5 | 88.4 | 0.6177 ug/L | 0.6177 ppb | 03:15:39 |
| 2 | Zn 213.857† | 763.9 | 148.7 | 1.5048 ug/L | 1.5048 ppb | 03:15:59 |
| 2 | SiO2† | 633.2 | 71.2 | 4.9454 ug/L | 4.9454 ppb | 03:16:35 |
| 3 | Sc Radial | 3767.4 | 3767.4 | 96.1 % | | 03:15:07 |
| 3 | Y RADIAL | 4380.1 | 4380.1 | 99.30 % | | 03:14:47 |
| 3 | Al 396.153Radial† | -128.2 | -20.9 | -19.625 ug/L | -19.625 ppb | 03:14:47 |
| 3 | Ca 317.933Radial† | 27.5 | 8.9 | 18.657 ug/L | 18.657 ppb | 03:15:07 |
| 3 | Fe 238.204 Radial† | 10.5 | -0.4 | -5.5768 ug/L | -5.5768 ppb | 03:15:07 |
| 3 | K 766.490 Radial† | 3000.2 | 481.1 | 92.331 ug/L | 92.331 ppb | 03:14:47 |
| 3 | Mg 279.077 IEC† | 1.7 | -2.3 | -111.77 ug/L | -111.77 ppb | 03:15:07 |
| 3 | Na 589.592 Radial† | -853.6 | -68.2 | -21.020 ug/L | -21.020 ppb | 03:14:47 |
| 3 | Sr 421.552† | -4.0 | -39.9 | -0.2760 ug/L | -0.2760 ppb | 03:14:47 |
| 3 | Sc 361.383 | 876204.0 | 876204.0 | 99.883 % | | 03:16:04 |
| 3 | Y 371.029 | 739159.9 | 739159.9 | 97.793 % | | 03:16:04 |
| 3 | Ag 328.068† | 139.5 | -100.8 | -0.4623 ug/L | -0.4623 ppb | 03:16:04 |
| 3 | As 188.979† | -15.3 | 2.9 | 1.2945 ug/L | 1.2945 ppb | 03:16:24 |
| 3 | B 249.677† | -389.0 | 8.7 | 0.2129 ug/L | 0.2129 ppb | 03:16:24 |
| 3 | Ba 233.527† | 25.5 | 26.9 | 0.2123 ug/L | 0.2123 ppb | 03:16:24 |
| 3 | Be 313.107† | -3734.8 | 23.0 | 0.0086 ug/L | 0.0086 ppb | 03:16:04 |
| 3 | Cd 226.502† | -155.4 | 40.7 | 0.4709 ug/L | 0.4709 ppb | 03:16:24 |
| 3 | Co 228.616† | -71.0 | -4.5 | -0.0936 ug/L | -0.0936 ppb | 03:16:24 |
| 3 | Cr 267.716† | 84.3 | 6.7 | 0.0778 ug/L | 0.0778 ppb | 03:16:24 |
| 3 | Cu 324.752† | 6016.8 | 33.1 | 0.1033 ug/L | 0.1033 ppb | 03:16:04 |
| 3 | Mn 257.610† | 511.3 | 53.1 | 0.0645 ug/L | 0.0645 ppb | 03:16:24 |
| 3 | Mo 202.031† | 17.5 | 7.4 | 0.5428 ug/L | 0.5428 ppb | 03:16:24 |
| 3 | Ni 231.604† | 79.6 | 17.3 | 0.4392 ug/L | 0.4392 ppb | 03:16:24 |
| 3 | P 214.914† | 185.6 | -24.7 | -14.879 ug/L | -14.879 ppb | 03:16:24 |
| 3 | Pb 220.353† | 112.0 | 170.3 | 20.940 ug/L | 20.940 ppb | 03:16:24 |
| 3 | S 181.975 Axial† | 43.4 | 2.7 | 3.8563 ug/L | 3.8563 ppb | 03:16:24 |
| 3 | Sb 206.836† | 41.2 | 4.5 | 1.5923 ug/L | 1.5923 ppb | 03:16:24 |
| 3 | Se 196.026† | -21.1 | 6.7 | 4.3537 ug/L | 4.3537 ppb | 03:16:24 |
| 3 | Si 251.611† | 628.5 | 70.9 | 2.2888 ug/L | 2.2888 ppb | 03:16:24 |
| 3 | Sn 189.927† | 10.2 | -0.3 | -0.0544 ug/L | -0.0544 ppb | 03:16:24 |
| 3 | Ti 334.940† | -1384.4 | -11.9 | -0.0048 ug/L | -0.0048 ppb | 03:16:04 |
| 3 | Tl 190.801† | -33.9 | -1.4 | -0.4341 ug/L | -0.4341 ppb | 03:16:24 |
| 3 | U 409.014† | -3074.5 | -191.5 | -5.2864 ug/L | -5.2864 ppb | 03:16:04 |
| 3 | V 292.402† | -1421.5 | 82.5 | 0.5714 ug/L | 0.5714 ppb | 03:16:04 |
| 3 | Zn 213.857† | 777.8 | 172.7 | 1.7364 ug/L | 1.7364 ppb | 03:16:24 |
| 3 | SiO2† | 629.0 | 75.3 | 5.2175 ug/L | 5.2175 ppb | 03:16:40 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 885189.1 | 100.91 | % | 0.910 | | | | 0.90% |
| Sc Radial | 3822.1 | 97.5 | % | 2.00 | | | | 2.05% |
| Y 371.029 | 747012.4 | 98.832 | % | 0.9202 | | | | 0.93% |
| Y RADIAL | 4423.5 | 100.3 | % | 4.32 | | | | 4.31% |
| Ag 328.068† | -42.7 | -0.1956 | ug/L | 0.26680 | -0.1956 | ppb | 0.26680 | 136.42% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -7.9 | -7.4022 | ug/L | 21.24374 | -7.4022 | ppb | 21.24374 | 286.99% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -3.5 | -1.5629 | ug/L | 2.47969 | -1.5629 | ppb | 2.47969 | 158.66% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 14.8 | 0.3594 | ug/L | 0.14192 | 0.3594 | ppb | 0.14192 | 39.49% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 16.5 | 0.1302 | ug/L | 0.08176 | 0.1302 | ppb | 0.08176 | 62.79% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 51.3 | 0.0192 | ug/L | 0.01014 | 0.0192 | ppb | 0.01014 | 52.96% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 6.9 | 14.368 | ug/L | 5.3461 | 14.368 | ppb | 5.3461 | 37.21% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                32.8      0.3797 ug/L       0.09860      0.3797 ppb        0.09860  25.97%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.2      0.0263 ug/L       0.10409      0.0263 ppb        0.10409 395.75%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -12.5     -0.1395 ug/L       0.18831     -0.1395 ppb        0.18831 134.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -40.6     -0.1217 ug/L       0.19635     -0.1217 ppb        0.19635 161.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -7.9781 ug/L      41.68571     -7.9781 ppb       41.68571 522.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         373.5      71.680 ug/L       19.7604      71.680 ppb        19.7604  27.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.4     -66.623 ug/L       42.6518     -66.623 ppb        42.6518  64.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                77.6      0.0902 ug/L       0.02237      0.0902 ppb        0.02237  24.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.8      0.2777 ug/L       0.22983      0.2777 ppb        0.22983  82.77%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -21.5     -6.6397 ug/L      12.54640     -6.6397 ppb       12.54640 188.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.4      0.0876 ug/L       0.30451      0.0876 ppb        0.30451 347.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.8     -8.2727 ug/L       6.27676     -8.2727 ppb        6.27676  75.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               187.8      23.099 ug/L        1.8805      23.099 ppb         1.8805   8.14%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      5.5259 ug/L       1.48272      5.5259 ppb        1.48272  26.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.5      2.2832 ug/L       2.79605      2.2832 ppb        2.79605 122.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.6      2.9595 ug/L       1.81402      2.9595 ppb        1.81402  61.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                57.1      1.8449 ug/L       0.39053      1.8449 ppb        0.39053  21.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.2     -0.0288 ug/L       0.07495     -0.0288 ppb        0.07495 260.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -22.8     -0.1578 ug/L       0.16223     -0.1578 ppb        0.16223 102.82%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -29.7     -0.0376 ug/L       0.03677     -0.0376 ppb        0.03677  97.91%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.8      0.5606 ug/L       1.46547      0.5606 ppb        1.46547 261.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -145.4     -4.0139 ug/L       1.38586     -4.0139 ppb        1.38586  34.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                52.3      0.3607 ug/L       0.40569      0.3607 ppb        0.40569 112.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               163.8      1.6497 ug/L       0.12623      1.6497 ppb        0.12623   7.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     68.2      4.7290 ug/L       0.62543      4.7290 ppb        0.62543  13.23%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 100
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 04:23:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3798.4 | 3798.4 | 96.9 | % | | | 04:25:34 |
| 1 | Y RADIAL | 4215.3 | 4215.3 | 95.57 | % | | | 04:25:14 |
| 1 | Al 396.153Radial† | 5326.8 | 5608.1 | 5235.1 | ug/L | 5235.1 | ppb | 04:25:14 |
| 1 | Ca 317.933Radial† | 2490.0 | 2549.2 | 5329.2 | ug/L | 5329.2 | ppb | 04:25:34 |
| 1 | Fe 238.204 Radial† | 349.8 | 349.5 | 4949.4 | ug/L | 4949.4 | ppb | 04:25:34 |
| 1 | K 766.490 Radial† | 29367.8 | 27659.6 | 5301.3 | ug/L | 5301.3 | ppb | 04:25:14 |
| 1 | Mg 279.077 IEC† | 106.0 | 105.3 | 5105.0 | ug/L | 5105.0 | ppb | 04:25:34 |
| 1 | Na 589.592 Radial† | 31357.0 | 33171.3 | 10228 | ug/L | 10228 | ppb | 04:25:14 |
| 1 | Sr 421.552† | 71270.6 | 73495.3 | 508.51 | ug/L | 508.51 | ppb | 04:25:14 |
| 1 | Sc 361.383 | 884263.5 | 884263.5 | 100.80 | % | | | 04:26:31 |
| 1 | Y 371.029 | 734776.9 | 734776.9 | 97.213 | % | | | 04:26:31 |
| 1 | Ag 328.068† | 110806.4 | 109684.7 | 511.26 | ug/L | 511.26 | ppb | 04:26:37 |
| 1 | As 188.979† | 1151.9 | 1161.0 | 522.81 | ug/L | 522.81 | ppb | 04:26:57 |
| 1 | B 249.677† | 20143.2 | 20381.3 | 491.87 | ug/L | 491.87 | ppb | 04:26:37 |
| 1 | Ba 233.527† | 65853.4 | 65331.1 | 513.94 | ug/L | 513.94 | ppb | 04:26:37 |
| 1 | Be 313.107† | 1353085.4 | 1346086.8 | 507.02 | ug/L | 507.02 | ppb | 04:26:31 |
| 1 | Cd 226.502† | 44871.1 | 44710.5 | 517.66 | ug/L | 517.66 | ppb | 04:26:37 |
| 1 | Co 228.616† | 24716.8 | 24586.8 | 515.11 | ug/L | 515.11 | ppb | 04:26:37 |
| 1 | Cr 267.716† | 45946.6 | 45503.5 | 511.80 | ug/L | 511.80 | ppb | 04:26:37 |
| 1 | Cu 324.752† | 173034.0 | 165667.1 | 504.12 | ug/L | 504.12 | ppb | 04:26:37 |
| 1 | Mn 257.610† | 452313.6 | 448257.7 | 510.37 | ug/L | 510.37 | ppb | 04:26:31 |
| 1 | Mo 202.031† | 6988.7 | 6923.0 | 508.71 | ug/L | 508.71 | ppb | 04:26:57 |
| 1 | Ni 231.604† | 20488.4 | 20263.0 | 515.04 | ug/L | 515.04 | ppb | 04:26:37 |
| 1 | P 214.914† | 4541.5 | 4294.8 | 2487.4 | ug/L | 2487.4 | ppb | 04:26:57 |
| 1 | Pb 220.353† | 4288.8 | 4312.8 | 532.03 | ug/L | 532.03 | ppb | 04:26:57 |
| 1 | S 181.975 Axial† | 772.3 | 725.4 | 1042.8 | ug/L | 1042.8 | ppb | 04:26:57 |
| 1 | Sb 206.836† | 1492.4 | 1443.8 | 522.96 | ug/L | 522.96 | ppb | 04:26:57 |
| 1 | Se 196.026† | 763.9 | 785.6 | 531.58 | ug/L | 531.58 | ppb | 04:26:57 |
| 1 | Si 251.611† | 80285.2 | 79088.4 | 2552.9 | ug/L | 2552.9 | ppb | 04:26:37 |
| 1 | Sn 189.927† | 2861.4 | 2828.2 | 508.11 | ug/L | 508.11 | ppb | 04:26:57 |
| 1 | Ti 334.940† | 327228.8 | 326000.5 | 512.17 | ug/L | 512.17 | ppb | 04:26:31 |
| 1 | Tl 190.801† | 1589.4 | 1609.4 | 518.04 | ug/L | 518.04 | ppb | 04:26:57 |
| 1 | U 409.014† | 15267.0 | 18032.2 | 496.24 | ug/L | 496.24 | ppb | 04:26:37 |
| 1 | V 292.402† | 71676.6 | 72612.3 | 513.10 | ug/L | 513.10 | ppb | 04:26:37 |
| 1 | Zn 213.857† | 52100.0 | 51079.6 | 509.49 | ug/L | 509.49 | ppb | 04:26:37 |
| 1 | SiO2† | 79826.1 | 78636.8 | 5451.1 | ug/L | 5451.1 | ppb | 04:28:04 |
| 2 | Sc Radial | 3826.9 | 3826.9 | 97.7 | % | | | 04:25:59 |
| 2 | Y RADIAL | 4355.2 | 4355.2 | 98.74 | % | | | 04:25:39 |
| 2 | Al 396.153Radial† | 5451.8 | 5695.1 | 5316.7 | ug/L | 5316.7 | ppb | 04:25:39 |
| 2 | Ca 317.933Radial† | 2507.8 | 2548.3 | 5327.3 | ug/L | 5327.3 | ppb | 04:25:59 |
| 2 | Fe 238.204 Radial† | 350.4 | 347.5 | 4920.2 | ug/L | 4920.2 | ppb | 04:25:59 |
| 2 | K 766.490 Radial† | 29914.2 | 27992.9 | 5365.2 | ug/L | 5365.2 | ppb | 04:25:39 |
| 2 | Mg 279.077 IEC† | 112.5 | 111.1 | 5388.8 | ug/L | 5388.8 | ppb | 04:25:59 |
| 2 | Na 589.592 Radial† | 31895.0 | 33480.6 | 10323 | ug/L | 10323 | ppb | 04:25:39 |
| 2 | Sr 421.552† | 72629.5 | 74337.7 | 514.34 | ug/L | 514.34 | ppb | 04:25:39 |
| 2 | Sc 361.383 | 887618.8 | 887618.8 | 101.18 | % | | | 04:27:03 |
| 2 | Y 371.029 | 738348.7 | 738348.7 | 97.685 | % | | | 04:27:03 |
| 2 | Ag 328.068† | 111708.3 | 110160.5 | 513.46 | ug/L | 513.46 | ppb | 04:27:08 |
| 2 | As 188.979† | 1150.3 | 1155.1 | 520.17 | ug/L | 520.17 | ppb | 04:27:28 |
| 2 | B 249.677† | 20454.4 | 20613.2 | 497.49 | ug/L | 497.49 | ppb | 04:27:08 |
| 2 | Ba 233.527† | 66325.3 | 65550.5 | 515.67 | ug/L | 515.67 | ppb | 04:27:08 |
| 2 | Be 313.107† | 1362302.3 | 1350121.8 | 508.54 | ug/L | 508.54 | ppb | 04:27:03 |
| 2 | Cd 226.502† | 45016.5 | 44686.0 | 517.38 | ug/L | 517.38 | ppb | 04:27:08 |
| 2 | Co 228.616† | 24959.8 | 24734.2 | 518.20 | ug/L | 518.20 | ppb | 04:27:08 |
| 2 | Cr 267.716† | 46362.1 | 45741.9 | 514.48 | ug/L | 514.48 | ppb | 04:27:08 |
| 2 | Cu 324.752† | 174161.2 | 166132.2 | 505.54 | ug/L | 505.54 | ppb | 04:27:08 |
| 2 | Mn 257.610† | 454414.2 | 448637.5 | 510.79 | ug/L | 510.79 | ppb | 04:27:03 |
| 2 | Mo 202.031† | 7018.5 | 6926.2 | 508.94 | ug/L | 508.94 | ppb | 04:27:28 |
| 2 | Ni 231.604† | 20580.2 | 20276.9 | 515.39 | ug/L | 515.39 | ppb | 04:27:08 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4546.6 | 4282.9 | 2480.0 ug/L | 2480.0 ppb | 04:27:28 |
| 2 | Pb 220.353† | 4302.2 | 4309.9 | 531.70 ug/L | 531.70 ppb | 04:27:28 |
| 2 | S 181.975 Axial† | 775.8 | 725.9 | 1043.6 ug/L | 1043.6 ppb | 04:27:28 |
| 2 | Sb 206.836† | 1502.2 | 1447.9 | 524.40 ug/L | 524.40 ppb | 04:27:28 |
| 2 | Se 196.026† | 760.4 | 779.3 | 527.33 ug/L | 527.33 ppb | 04:27:28 |
| 2 | Si 251.611† | 80914.3 | 79409.1 | 2563.3 ug/L | 2563.3 ppb | 04:27:08 |
| 2 | Sn 189.927† | 2872.0 | 2827.9 | 508.07 ug/L | 508.07 ppb | 04:27:28 |
| 2 | Ti 334.940† | 328793.8 | 326320.1 | 512.65 ug/L | 512.65 ppb | 04:27:03 |
| 2 | Tl 190.801† | 1583.8 | 1597.8 | 514.32 ug/L | 514.32 ppb | 04:27:28 |
| 2 | U 409.014† | 15458.3 | 18164.0 | 499.87 ug/L | 499.87 ppb | 04:27:08 |
| 2 | V 292.402† | 72456.2 | 73114.0 | 516.62 ug/L | 516.62 ppb | 04:27:08 |
| 2 | Zn 213.857† | 52300.6 | 51082.5 | 509.52 ug/L | 509.52 ppb | 04:27:08 |
| 2 | SiO2† | 80483.8 | 78987.5 | 5475.4 ug/L | 5475.4 ppb | 04:28:10 |
| 3 | Sc Radial | 3800.6 | 3800.6 | 97.0 % | | 04:26:24 |
| 3 | Y RADIAL | 4285.2 | 4285.2 | 97.15 % | | 04:26:04 |
| 3 | Al 396.153Radial† | 5414.6 | 5695.4 | 5317.1 ug/L | 5317.1 ppb | 04:26:04 |
| 3 | Ca 317.933Radial† | 2493.0 | 2550.9 | 5332.6 ug/L | 5332.6 ppb | 04:26:24 |
| 3 | Fe 238.204 Radial† | 348.0 | 347.5 | 4919.7 ug/L | 4919.7 ppb | 04:26:24 |
| 3 | K 766.490 Radial† | 29503.5 | 27781.8 | 5324.7 ug/L | 5324.7 ppb | 04:26:04 |
| 3 | Mg 279.077 IEC† | 108.1 | 107.4 | 5206.8 ug/L | 5206.8 ppb | 04:26:24 |
| 3 | Na 589.592 Radial† | 31639.2 | 33443.4 | 10311 ug/L | 10311 ppb | 04:26:04 |
| 3 | Sr 421.552† | 71706.8 | 73902.0 | 511.33 ug/L | 511.33 ppb | 04:26:04 |
| 3 | Sc 361.383 | 893296.8 | 893296.8 | 101.83 % | | 04:27:34 |
| 3 | Y 371.029 | 743012.3 | 743012.3 | 98.302 % | | 04:27:34 |
| 3 | Ag 328.068† | 111615.1 | 109367.4 | 509.78 ug/L | 509.78 ppb | 04:27:39 |
| 3 | As 188.979† | 1151.3 | 1148.9 | 517.40 ug/L | 517.40 ppb | 04:27:59 |
| 3 | B 249.677† | 20437.4 | 20468.1 | 493.99 ug/L | 493.99 ppb | 04:27:39 |
| 3 | Ba 233.527† | 66103.9 | 64916.5 | 510.68 ug/L | 510.68 ppb | 04:27:39 |
| 3 | Be 313.107† | 1370390.7 | 1349506.9 | 508.30 ug/L | 508.30 ppb | 04:27:34 |
| 3 | Cd 226.502† | 45096.3 | 44481.6 | 515.01 ug/L | 515.01 ppb | 04:27:39 |
| 3 | Co 228.616† | 24844.0 | 24463.7 | 512.53 ug/L | 512.53 ppb | 04:27:39 |
| 3 | Cr 267.716† | 46286.8 | 45376.7 | 510.38 ug/L | 510.38 ppb | 04:27:39 |
| 3 | Cu 324.752† | 173897.9 | 164779.6 | 501.43 ug/L | 501.43 ppb | 04:27:39 |
| 3 | Mn 257.610† | 457061.5 | 448382.7 | 510.51 ug/L | 510.51 ppb | 04:27:34 |
| 3 | Mo 202.031† | 7027.7 | 6891.2 | 506.37 ug/L | 506.37 ppb | 04:27:59 |
| 3 | Ni 231.604† | 20619.0 | 20185.7 | 513.08 ug/L | 513.08 ppb | 04:27:39 |
| 3 | P 214.914† | 4560.9 | 4268.4 | 2472.1 ug/L | 2472.1 ppb | 04:27:59 |
| 3 | Pb 220.353† | 4295.5 | 4276.4 | 527.57 ug/L | 527.57 ppb | 04:27:59 |
| 3 | S 181.975 Axial† | 771.9 | 717.2 | 1031.1 ug/L | 1031.1 ppb | 04:27:59 |
| 3 | Sb 206.836† | 1505.7 | 1441.9 | 522.21 ug/L | 522.21 ppb | 04:27:59 |
| 3 | Se 196.026† | 777.1 | 790.9 | 534.92 ug/L | 534.92 ppb | 04:27:59 |
| 3 | Si 251.611† | 80619.6 | 78611.4 | 2537.5 ug/L | 2537.5 ppb | 04:27:39 |
| 3 | Sn 189.927† | 2887.5 | 2825.1 | 507.56 ug/L | 507.56 ppb | 04:27:59 |
| 3 | Ti 334.940† | 330717.3 | 326143.6 | 512.39 ug/L | 512.39 ppb | 04:27:34 |
| 3 | Tl 190.801† | 1598.5 | 1602.3 | 515.80 ug/L | 515.80 ppb | 04:27:59 |
| 3 | U 409.014† | 15148.0 | 17762.2 | 488.79 ug/L | 488.79 ppb | 04:27:39 |
| 3 | V 292.402† | 72238.9 | 72445.4 | 511.90 ug/L | 511.90 ppb | 04:27:39 |
| 3 | Zn 213.857† | 52266.4 | 50720.4 | 505.89 ug/L | 505.89 ppb | 04:27:39 |
| 3 | SiO2† | 80725.6 | 78719.4 | 5456.9 ug/L | 5456.9 ppb | 04:28:15 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 888393.0 | 101.27 | % | 0.521 | | | | 0.51% |
| Sc Radial | 3808.6 | 97.2 | % | 0.41 | | | | 0.42% |
| Y 371.029 | 738712.6 | 97.733 | % | 0.5464 | | | | 0.56% |
| Y RADIAL | 4285.2 | 97.15 | % | 1.585 | | | | 1.63% |
| Ag 328.068† | 109737.5 | 511.50 | ug/L | 1.854 | 511.50 | ppb | 1.854 | 0.36% |
| QC value within limits for Ag 328.068 Recovery = 102.30% | | | | | | | | |
| Al 396.153Radial† | 5666.2 | 5289.6 | ug/L | 47.22 | 5289.6 | ppb | 47.22 | 0.89% |
| QC value within limits for Al 396.153Radial Recovery = 105.79% | | | | | | | | |
| As 188.979† | 1155.0 | 520.13 | ug/L | 2.706 | 520.13 | ppb | 2.706 | 0.52% |
| QC value within limits for As 188.979 Recovery = 104.03% | | | | | | | | |
| B 249.677† | 20487.5 | 494.45 | ug/L | 2.838 | 494.45 | ppb | 2.838 | 0.57% |
| QC value within limits for B 249.677 Recovery = 98.89% | | | | | | | | |
| Ba 233.527† | 65266.0 | 513.43 | ug/L | 2.531 | 513.43 | ppb | 2.531 | 0.49% |
| QC value within limits for Ba 233.527 Recovery = 102.69% | | | | | | | | |
| Be 313.107† | 1348571.8 | 507.95 | ug/L | 0.817 | 507.95 | ppb | 0.817 | 0.16% |
| QC value within limits for Be 313.107 Recovery = 101.59% | | | | | | | | |
| Ca 317.933Radial† | 2549.5 | 5329.7 | ug/L | 2.71 | 5329.7 | ppb | 2.71 | 0.05% |

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   QC value within limits for Ca 317.933Radial  Recovery = 106.59%
Cd 226.502†            44626.0      516.68 ug/L         1.456      516.68 ppb          1.456   0.28%
   QC value within limits for Cd 226.502  Recovery = 103.34%
Co 228.616†            24594.9      515.28 ug/L         2.840      515.28 ppb          2.840   0.55%
   QC value within limits for Co 228.616  Recovery = 103.06%
Cr 267.716†            45540.7      512.22 ug/L         2.082      512.22 ppb          2.082   0.41%
   QC value within limits for Cr 267.716  Recovery = 102.44%
Cu 324.752†           165526.3      503.70 ug/L         2.088      503.70 ppb          2.088   0.41%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†       348.2      4929.8 ug/L        16.98      4929.8 ppb         16.98   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.60%
K 766.490 Radial†      27811.4      5330.4 ug/L        32.33      5330.4 ppb         32.33   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 106.61%
Mg 279.077 IEC†          107.9      5233.5 ug/L       143.76      5233.5 ppb        143.76   2.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.67%
Mn 257.610†           448426.0      510.55 ug/L         0.213      510.55 ppb          0.213   0.04%
   QC value within limits for Mn 257.610  Recovery = 102.11%
Mo 202.031†             6913.5      508.01 ug/L         1.421      508.01 ppb          1.421   0.28%
   QC value within limits for Mo 202.031  Recovery = 101.60%
Na 589.592 Radial†     33365.1       10287 ug/L        52.1        10287 ppb         52.1   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 102.87%
Ni 231.604†            20241.9      514.50 ug/L         1.247      514.50 ppb          1.247   0.24%
   QC value within limits for Ni 231.604  Recovery = 102.90%
P 214.914†              4282.0      2479.9 ug/L         7.67      2479.9 ppb          7.67   0.31%
   QC value within limits for P 214.914  Recovery = 99.19%
Pb 220.353†             4299.7      530.43 ug/L         2.486      530.43 ppb          2.486   0.47%
   QC value within limits for Pb 220.353  Recovery = 106.09%
S 181.975 Axial†         722.8      1039.2 ug/L         7.02      1039.2 ppb          7.02   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 103.92%
Sb 206.836†             1444.6      523.19 ug/L         1.114      523.19 ppb          1.114   0.21%
   QC value within limits for Sb 206.836  Recovery = 104.64%
Se 196.026†              785.2      531.28 ug/L         3.801      531.28 ppb          3.801   0.72%
   QC value within limits for Se 196.026  Recovery = 106.26%
Si 251.611†            79036.3      2551.3 ug/L        12.97      2551.3 ppb         12.97   0.51%
   QC value within limits for Si 251.611  Recovery = 102.05%
Sn 189.927†             2827.1      507.91 ug/L         0.310      507.91 ppb          0.310   0.06%
   QC value within limits for Sn 189.927  Recovery = 101.58%
Sr 421.552†            73911.7      511.40 ug/L         2.915      511.40 ppb          2.915   0.57%
   QC value within limits for Sr 421.552  Recovery = 102.28%
Ti 334.940†           326154.7      512.40 ug/L         0.238      512.40 ppb          0.238   0.05%
   QC value within limits for Ti 334.940  Recovery = 102.48%
Tl 190.801†             1603.2      516.05 ug/L         1.871      516.05 ppb          1.871   0.36%
   QC value within limits for Tl 190.801  Recovery = 103.21%
U 409.014†             17986.1      494.96 ug/L         5.651      494.96 ppb          5.651   1.14%
   QC value within limits for U 409.014  Recovery = 98.99%
V 292.402†             72723.9      513.87 ug/L         2.453      513.87 ppb          2.453   0.48%
   QC value within limits for V 292.402  Recovery = 102.77%
Zn 213.857†            50960.8      508.30 ug/L         2.085      508.30 ppb          2.085   0.41%
   QC value within limits for Zn 213.857  Recovery = 101.66%
SiO2†                  78781.2      5461.1 ug/L        12.73      5461.1 ppb         12.73   0.23%
   QC value within limits for SiO2  Recovery = 102.12%
All analyte(s) passed QC.
```

**Sequence No.:** 101
**Sample ID:** CCB
**Analyst:**
**Initial Sample Wt:**
**Dilution:**

**Autosampler Location:** 8
**Date Collected:** 2/25/2010 04:30:25
**Data Type:** Original
**Initial Sample Vol:**
**Sample Prep Vol:**

**Replicate Data: CCB**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3844.5 | 3844.5 | 98.1 | % | | | 04:32:38 |
| 1 | Y RADIAL | 4298.2 | 4298.2 | 97.45 | % | | | 04:32:18 |
| 1 | Al 396.153Radial† | -119.5 | -9.3 | -8.7750 | ug/L | -8.7750 | ppb | 04:32:18 |
| 1 | Ca 317.933Radial† | 27.4 | 8.3 | 17.284 | ug/L | 17.284 | ppb | 04:32:38 |
| 1 | Fe 238.204 Radial† | 12.0 | 0.9 | 13.363 | ug/L | 13.363 | ppb | 04:32:38 |
| 1 | K 766.490 Radial† | 2958.4 | 376.0 | 72.148 | ug/L | 72.148 | ppb | 04:32:18 |
| 1 | Mg 279.077 IEC† | 2.3 | -1.7 | -82.214 | ug/L | -82.214 | ppb | 04:32:38 |
| 1 | Na 589.592 Radial† | -794.3 | 10.1 | 3.1153 | ug/L | 3.1153 | ppb | 04:32:18 |
| 1 | Sr 421.552† | 54.8 | 20.2 | 0.1395 | ug/L | 0.1395 | ppb | 04:32:18 |
| 1 | Sc 361.383 | 891630.6 | 891630.6 | 101.64 | % | | | 04:33:34 |
| 1 | Y 371.029 | 750847.9 | 750847.9 | 99.339 | % | | | 04:33:34 |
| 1 | Ag 328.068† | 184.9 | -58.5 | -0.2677 | ug/L | -0.2677 | ppb | 04:33:39 |
| 1 | As 188.979† | -18.0 | 0.5 | 0.2221 | ug/L | 0.2221 | ppb | 04:33:59 |
| 1 | B 249.677† | -480.7 | -74.7 | -1.8129 | ug/L | -1.8129 | ppb | 04:33:59 |
| 1 | Ba 233.527† | 10.2 | 11.4 | 0.0901 | ug/L | 0.0901 | ppb | 04:33:59 |
| 1 | Be 313.107† | -3717.8 | 104.5 | 0.0391 | ug/L | 0.0391 | ppb | 04:33:39 |
| 1 | Cd 226.502† | -191.5 | 7.8 | 0.0896 | ug/L | 0.0896 | ppb | 04:33:59 |
| 1 | Co 228.616† | -68.9 | -1.2 | -0.0251 | ug/L | -0.0251 | ppb | 04:33:59 |
| 1 | Cr 267.716† | 51.1 | -27.4 | -0.3068 | ug/L | -0.3068 | ppb | 04:33:59 |
| 1 | Cu 324.752† | 5920.5 | -165.9 | -0.5044 | ug/L | -0.5044 | ppb | 04:33:39 |
| 1 | Mn 257.610† | 555.4 | 87.7 | 0.1045 | ug/L | 0.1045 | ppb | 04:33:59 |
| 1 | Mo 202.031† | 12.8 | 2.5 | 0.1839 | ug/L | 0.1839 | ppb | 04:33:59 |
| 1 | Ni 231.604† | 73.4 | 9.7 | 0.2473 | ug/L | 0.2473 | ppb | 04:33:59 |
| 1 | P 214.914† | 225.2 | 11.1 | 6.7553 | ug/L | 6.7553 | ppb | 04:33:59 |
| 1 | Pb 220.353† | 61.5 | 118.6 | 14.580 | ug/L | 14.580 | ppb | 04:33:59 |
| 1 | S 181.975 Axial† | 39.6 | -1.8 | -2.6499 | ug/L | -2.6499 | ppb | 04:33:59 |
| 1 | Sb 206.836† | 43.3 | 5.9 | 2.0906 | ug/L | 2.0906 | ppb | 04:33:59 |
| 1 | Se 196.026† | -24.6 | 3.5 | 2.3598 | ug/L | 2.3598 | ppb | 04:33:59 |
| 1 | Si 251.611† | 610.4 | 42.2 | 1.3647 | ug/L | 1.3647 | ppb | 04:33:59 |
| 1 | Sn 189.927† | 15.5 | 4.8 | 0.8631 | ug/L | 0.8631 | ppb | 04:33:59 |
| 1 | Ti 334.940† | -1442.9 | -45.5 | -0.0626 | ug/L | -0.0626 | ppb | 04:33:39 |
| 1 | Tl 190.801† | -30.9 | 2.2 | 0.6952 | ug/L | 0.6952 | ppb | 04:33:59 |
| 1 | U 409.014† | -2911.9 | 21.7 | 0.5982 | ug/L | 0.5982 | ppb | 04:33:34 |
| 1 | V 292.402† | -1536.7 | -6.2 | -0.0431 | ug/L | -0.0431 | ppb | 04:33:39 |
| 1 | Zn 213.857† | 765.4 | 147.0 | 1.4768 | ug/L | 1.4768 | ppb | 04:33:59 |
| 1 | SiO2† | 654.7 | 89.7 | 6.2312 | ug/L | 6.2312 | ppb | 04:35:05 |
| 2 | Sc Radial | 3827.7 | 3827.7 | 97.7 | % | | | 04:33:03 |
| 2 | Y RADIAL | 4299.5 | 4299.5 | 97.47 | % | | | 04:32:43 |
| 2 | Al 396.153Radial† | -137.4 | -28.3 | -26.539 | ug/L | -26.539 | ppb | 04:32:43 |
| 2 | Ca 317.933Radial† | 24.7 | 5.6 | 11.796 | ug/L | 11.796 | ppb | 04:33:03 |
| 2 | Fe 238.204 Radial† | 12.5 | 1.5 | 20.820 | ug/L | 20.820 | ppb | 04:33:03 |
| 2 | K 766.490 Radial† | 2970.2 | 401.3 | 77.009 | ug/L | 77.009 | ppb | 04:32:43 |
| 2 | Mg 279.077 IEC† | 0.9 | -3.2 | -154.25 | ug/L | -154.25 | ppb | 04:33:03 |
| 2 | Na 589.592 Radial† | -860.4 | -61.1 | -18.835 | ug/L | -18.835 | ppb | 04:32:43 |
| 2 | Sr 421.552† | 52.7 | 18.3 | 0.1263 | ug/L | 0.1263 | ppb | 04:32:43 |
| 2 | Sc 361.383 | 900214.6 | 900214.6 | 102.62 | % | | | 04:34:05 |
| 2 | Y 371.029 | 758714.0 | 758714.0 | 100.38 | % | | | 04:34:05 |
| 2 | Ag 328.068† | 197.6 | -47.9 | -0.2162 | ug/L | -0.2162 | ppb | 04:34:10 |
| 2 | As 188.979† | -22.8 | -4.0 | -1.7615 | ug/L | -1.7615 | ppb | 04:34:30 |
| 2 | B 249.677† | -494.9 | -84.1 | -2.0415 | ug/L | -2.0415 | ppb | 04:34:30 |
| 2 | Ba 233.527† | 21.9 | 22.8 | 0.1795 | ug/L | 0.1795 | ppb | 04:34:30 |
| 2 | Be 313.107† | -3739.6 | 118.1 | 0.0440 | ug/L | 0.0440 | ppb | 04:34:10 |
| 2 | Cd 226.502† | -157.2 | 43.1 | 0.4975 | ug/L | 0.4975 | ppb | 04:34:30 |
| 2 | Co 228.616† | -64.9 | 3.3 | 0.0696 | ug/L | 0.0696 | ppb | 04:34:30 |
| 2 | Cr 267.716† | 66.9 | -12.4 | -0.1381 | ug/L | -0.1381 | ppb | 04:34:30 |
| 2 | Cu 324.752† | 6035.5 | -109.4 | -0.3326 | ug/L | -0.3326 | ppb | 04:34:10 |
| 2 | Mn 257.610† | 570.3 | 97.0 | 0.1188 | ug/L | 0.1188 | ppb | 04:34:30 |
| 2 | Mo 202.031† | 11.0 | 0.6 | 0.0473 | ug/L | 0.0473 | ppb | 04:34:30 |
| 2 | Ni 231.604† | 70.1 | 5.9 | 0.1491 | ug/L | 0.1491 | ppb | 04:34:30 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 213.0 | -2.9 | -1.6987 | ug/L | -1.6987 ppb | 04:34:30 |
| 2 | Pb 220.353† | 49.6 | 106.5 | 13.090 | ug/L | 13.090 ppb | 04:34:30 |
| 2 | S 181.975 Axial† | 34.9 | -6.8 | -9.7380 | ug/L | -9.7380 ppb | 04:34:30 |
| 2 | Sb 206.836† | 39.9 | 2.1 | 0.7663 | ug/L | 0.7663 ppb | 04:34:30 |
| 2 | Se 196.026† | -28.1 | 0.3 | 0.2730 | ug/L | 0.2730 ppb | 04:34:30 |
| 2 | Si 251.611† | 621.0 | 46.8 | 1.5153 | ug/L | 1.5153 ppb | 04:34:30 |
| 2 | Sn 189.927† | 18.4 | 7.5 | 1.3407 | ug/L | 1.3407 ppb | 04:34:30 |
| 2 | Ti 334.940† | -1510.8 | -98.2 | -0.1406 | ug/L | -0.1406 ppb | 04:34:10 |
| 2 | Tl 190.801† | -42.4 | -8.8 | -2.7989 | ug/L | -2.7989 ppb | 04:34:30 |
| 2 | U 409.014† | -2913.4 | 47.6 | 1.3120 | ug/L | 1.3120 ppb | 04:34:05 |
| 2 | V 292.402† | -1527.9 | 16.8 | 0.1143 | ug/L | 0.1143 ppb | 04:34:10 |
| 2 | Zn 213.857† | 753.4 | 128.1 | 1.2863 | ug/L | 1.2863 ppb | 04:34:30 |
| 2 | SiO2† | 612.2 | 42.2 | 2.9285 | ug/L | 2.9285 ppb | 04:35:10 |
| 3 | Sc Radial | 3815.5 | 3815.5 | 97.4 | % | | 04:33:28 |
| 3 | Y RADIAL | 4377.5 | 4377.5 | 99.24 | % | | 04:33:08 |
| 3 | Al 396.153Radial† | -99.0 | 10.7 | 10.022 | ug/L | 10.022 ppb | 04:33:08 |
| 3 | Ca 317.933Radial† | 26.6 | 7.6 | 15.895 | ug/L | 15.895 ppb | 04:33:28 |
| 3 | Fe 238.204 Radial† | 9.6 | -1.5 | -21.066 | ug/L | -21.066 ppb | 04:33:28 |
| 3 | K 766.490 Radial† | 3021.0 | 463.1 | 88.874 | ug/L | 88.874 ppb | 04:33:08 |
| 3 | Mg 279.077 IEC† | 3.7 | -0.3 | -14.936 | ug/L | -14.936 ppb | 04:33:28 |
| 3 | Na 589.592 Radial† | -843.9 | -47.0 | -14.497 | ug/L | -14.497 ppb | 04:33:08 |
| 3 | Sr 421.552† | 41.4 | 6.7 | 0.0466 | ug/L | 0.0466 ppb | 04:33:08 |
| 3 | Sc 361.383 | 889140.8 | 889140.8 | 101.36 | % | | 04:34:35 |
| 3 | Y 371.029 | 749291.6 | 749291.6 | 99.133 | % | | 04:34:35 |
| 3 | Ag 328.068† | 295.4 | 51.0 | 0.2303 | ug/L | 0.2303 ppb | 04:34:40 |
| 3 | As 188.979† | -25.0 | -6.4 | -2.8505 | ug/L | -2.8505 ppb | 04:35:00 |
| 3 | B 249.677† | -505.3 | -100.3 | -2.4292 | ug/L | -2.4292 ppb | 04:35:00 |
| 3 | Ba 233.527† | 14.8 | 16.0 | 0.1258 | ug/L | 0.1258 ppb | 04:35:00 |
| 3 | Be 313.107† | -3859.7 | -45.8 | -0.0172 | ug/L | -0.0172 ppb | 04:34:40 |
| 3 | Cd 226.502† | -187.2 | 11.6 | 0.1368 | ug/L | 0.1368 ppb | 04:35:00 |
| 3 | Co 228.616† | -58.8 | 8.5 | 0.1789 | ug/L | 0.1789 ppb | 04:35:00 |
| 3 | Cr 267.716† | 79.5 | 0.7 | 0.0065 | ug/L | 0.0065 ppb | 04:35:00 |
| 3 | Cu 324.752† | 5996.4 | -74.6 | -0.2288 | ug/L | -0.2288 ppb | 04:34:40 |
| 3 | Mn 257.610† | 535.2 | 69.2 | 0.0773 | ug/L | 0.0773 ppb | 04:35:00 |
| 3 | Mo 202.031† | 10.2 | -0.1 | -0.0081 | ug/L | -0.0081 ppb | 04:35:00 |
| 3 | Ni 231.604† | 68.1 | 4.7 | 0.1194 | ug/L | 0.1194 ppb | 04:35:00 |
| 3 | P 214.914† | 200.6 | -12.6 | -7.5002 | ug/L | -7.5002 ppb | 04:35:00 |
| 3 | Pb 220.353† | 60.4 | 117.7 | 14.484 | ug/L | 14.484 ppb | 04:35:00 |
| 3 | S 181.975 Axial† | 45.6 | 4.2 | 6.0809 | ug/L | 6.0809 ppb | 04:35:00 |
| 3 | Sb 206.836† | 49.3 | 12.0 | 4.1986 | ug/L | 4.1986 ppb | 04:35:00 |
| 3 | Se 196.026† | -26.9 | 1.2 | 0.7363 | ug/L | 0.7363 ppb | 04:35:00 |
| 3 | Si 251.611† | 610.7 | 44.2 | 1.4298 | ug/L | 1.4298 ppb | 04:35:00 |
| 3 | Sn 189.927† | 16.5 | 5.8 | 1.0444 | ug/L | 1.0444 ppb | 04:35:00 |
| 3 | Ti 334.940† | -1398.9 | -6.1 | -0.0066 | ug/L | -0.0066 ppb | 04:34:40 |
| 3 | Tl 190.801† | -23.4 | 9.5 | 3.0287 | ug/L | 3.0287 ppb | 04:35:00 |
| 3 | U 409.014† | -2893.3 | 32.1 | 0.8874 | ug/L | 0.8874 ppb | 04:34:35 |
| 3 | V 292.402† | -1475.0 | 50.4 | 0.3561 | ug/L | 0.3561 ppb | 04:34:40 |
| 3 | Zn 213.857† | 762.9 | 146.6 | 1.4785 | ug/L | 1.4785 ppb | 04:35:00 |
| 3 | SiO2† | 624.2 | 61.4 | 4.2673 | ug/L | 4.2673 ppb | 04:35:15 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 893662.0 | 101.87 | % | 0.662 | | | | 0.65% |
| Sc Radial | 3829.3 | 97.7 | % | 0.37 | | | | 0.38% |
| Y 371.029 | 752951.2 | 99.617 | % | 0.6683 | | | | 0.67% |
| Y RADIAL | 4325.1 | 98.05 | % | 1.030 | | | | 1.05% |
| Ag 328.068† | -18.4 | -0.0845 | ug/L | 0.27385 | -0.0845 | ppb | 0.27385 | 324.03% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -9.0 | -8.4304 | ug/L | 18.28284 | -8.4304 | ppb | 18.28284 | 216.87% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -3.3 | -1.4633 | ug/L | 1.55786 | -1.4633 | ppb | 1.55786 | 106.46% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -86.4 | -2.0946 | ug/L | 0.31153 | -2.0946 | ppb | 0.31153 | 14.87% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 16.7 | 0.1318 | ug/L | 0.04503 | 0.1318 | ppb | 0.04503 | 34.16% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 58.9 | 0.0220 | ug/L | 0.03403 | 0.0220 | ppb | 0.03403 | 154.91% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 7.2 | 14.992 | ug/L | 2.8536 | 14.992 | ppb | 2.8536 | 19.03% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              20.9      0.2413 ug/L      0.22312      0.2413 ppb       0.22312  92.46%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.5      0.0745 ug/L      0.10209      0.0745 ppb       0.10209 137.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.0     -0.1461 ug/L      0.15682     -0.1461 ppb       0.15682 107.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -116.6     -0.3552 ug/L      0.13920     -0.3552 ppb       0.13920  39.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      4.3721 ug/L     22.34347      4.3721 ppb      22.34347 511.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       413.5     79.344 ug/L       8.6038     79.344 ppb        8.6038  10.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.7    -83.801 ug/L      69.6730    -83.801 ppb       69.6730  83.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              84.7      0.1002 ug/L      0.02106      0.1002 ppb       0.02106  21.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.0      0.0744 ug/L      0.09883      0.0744 ppb       0.09883 132.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -32.7    -10.072 ug/L      11.6250    -10.072 ppb       11.6250 115.42%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.8      0.1720 ug/L      0.06693      0.1720 ppb       0.06693  38.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.5     -0.8145 ug/L      7.16874     -0.8145 ppb       7.16874 880.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             114.3     14.052 ug/L        0.8340     14.052 ppb        0.8340   5.94%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -2.1023 ug/L      7.92366     -2.1023 ppb       7.92366 376.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.7      2.3518 ug/L      1.73100      2.3518 ppb       1.73100  73.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7      1.1230 ug/L      1.09584      1.1230 ppb       1.09584  97.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              44.4      1.4366 ug/L      0.07552      1.4366 ppb       0.07552   5.26%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.0      1.0827 ug/L      0.24107      1.0827 ppb       0.24107  22.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              15.1      0.1041 ug/L      0.05026      0.1041 ppb       0.05026  48.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -49.9     -0.0699 ug/L      0.06731     -0.0699 ppb       0.06731  96.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      0.3083 ug/L      2.93300      0.3083 ppb       2.93300 951.26%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               33.8      0.9325 ug/L      0.35906      0.9325 ppb       0.35906  38.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               20.3      0.1425 ug/L      0.20107      0.1425 ppb       0.20107 141.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             140.6      1.4139 ug/L      0.11050      1.4139 ppb       0.11050   7.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    64.4      4.4757 ug/L      1.66119      4.4757 ppb       1.66119  37.12%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 110
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 05:34:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Rep1# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3786.5 | 3786.5 | 96.6 | % | | | 05:37:02 |
| 1 | Y RADIAL | 4276.4 | 4276.4 | 96.95 | % | | | 05:36:42 |
| 1 | Al 396.153Radial† | 5497.7 | 5802.2 | 5417.8 | ug/L | 5417.8 | ppb | 05:36:42 |
| 1 | Ca 317.933Radial† | 2456.2 | 2522.4 | 5273.1 | ug/L | 5273.1 | ppb | 05:37:02 |
| 1 | Fe 238.204 Radial† | 340.0 | 340.6 | 4822.0 | ug/L | 4822.0 | ppb | 05:37:02 |
| 1 | K 766.490 Radial† | 29788.7 | 28190.1 | 5403.2 | ug/L | 5403.2 | ppb | 05:36:42 |
| 1 | Mg 279.077 IEC† | 108.6 | 108.4 | 5253.8 | ug/L | 5253.8 | ppb | 05:37:02 |
| 1 | Na 589.592 Radial† | 30978.7 | 32881.0 | 10138 | ug/L | 10138 | ppb | 05:36:42 |
| 1 | Sr 421.552† | 72013.6 | 74494.3 | 515.43 | ug/L | 515.43 | ppb | 05:36:42 |
| 1 | Sc 361.383 | 919927.0 | 919927.0 | 104.87 | % | | | 05:38:01 |
| 1 | Y 371.029 | 765904.3 | 765904.3 | 101.33 | % | | | 05:38:01 |
| 1 | Ag 328.068† | 111197.7 | 105796.4 | 493.17 | ug/L | 493.17 | ppb | 05:38:01 |
| 1 | As 188.979† | 1156.8 | 1121.4 | 505.03 | ug/L | 505.03 | ppb | 05:38:21 |
| 1 | B 249.677† | 20180.4 | 19642.0 | 474.04 | ug/L | 474.04 | ppb | 05:38:01 |
| 1 | Ba 233.527† | 66231.9 | 63159.3 | 496.86 | ug/L | 496.86 | ppb | 05:38:01 |
| 1 | Be 313.107† | 1387634.0 | 1326993.0 | 499.82 | ug/L | 499.82 | ppb | 05:38:01 |
| 1 | Cd 226.502† | 45161.2 | 43261.4 | 500.87 | ug/L | 500.87 | ppb | 05:38:01 |
| 1 | Co 228.616† | 24446.6 | 23378.5 | 489.79 | ug/L | 489.79 | ppb | 05:38:21 |
| 1 | Cr 267.716† | 46273.8 | 44048.5 | 495.45 | ug/L | 495.45 | ppb | 05:38:01 |
| 1 | Cu 324.752† | 174102.5 | 160031.2 | 486.99 | ug/L | 486.99 | ppb | 05:38:01 |
| 1 | Mn 257.610† | 459958.9 | 438152.4 | 498.85 | ug/L | 498.85 | ppb | 05:38:01 |
| 1 | Mo 202.031† | 7059.3 | 6721.5 | 493.91 | ug/L | 493.91 | ppb | 05:38:21 |
| 1 | Ni 231.604† | 20375.6 | 19367.5 | 492.28 | ug/L | 492.28 | ppb | 05:38:21 |
| 1 | P 214.914† | 4576.6 | 4153.7 | 2405.9 | ug/L | 2405.9 | ppb | 05:38:21 |
| 1 | Pb 220.353† | 4309.2 | 4167.4 | 514.17 | ug/L | 514.17 | ppb | 05:38:21 |
| 1 | S 181.975 Axial† | 774.3 | 697.6 | 1002.8 | ug/L | 1002.8 | ppb | 05:38:21 |
| 1 | Sb 206.836† | 1492.0 | 1386.0 | 502.12 | ug/L | 502.12 | ppb | 05:38:21 |
| 1 | Se 196.026† | 765.5 | 757.7 | 512.85 | ug/L | 512.85 | ppb | 05:38:21 |
| 1 | Si 251.611† | 80452.9 | 76160.6 | 2458.4 | ug/L | 2458.4 | ppb | 05:38:01 |
| 1 | Sn 189.927† | 2863.9 | 2720.5 | 488.79 | ug/L | 488.79 | ppb | 05:38:21 |
| 1 | Ti 334.940† | 332748.0 | 318678.5 | 500.67 | ug/L | 500.67 | ppb | 05:38:01 |
| 1 | Tl 190.801† | 1589.5 | 1548.3 | 498.50 | ug/L | 498.50 | ppb | 05:38:21 |
| 1 | U 409.014† | 14587.2 | 16796.8 | 462.17 | ug/L | 462.17 | ppb | 05:38:01 |
| 1 | V 292.402† | 72111.9 | 70270.7 | 496.54 | ug/L | 496.54 | ppb | 05:38:01 |
| 1 | Zn 213.857† | 52352.5 | 49316.7 | 491.93 | ug/L | 491.93 | ppb | 05:38:01 |
| 1 | SiO2† | 80941.8 | 76630.7 | 5312.1 | ug/L | 5312.1 | ppb | 05:39:22 |
| 2 | Sc Radial | 3861.7 | 3861.7 | 98.5 | % | | | 05:37:27 |
| 2 | Y RADIAL | 4418.6 | 4418.6 | 100.2 | % | | | 05:37:07 |
| 2 | Al 396.153Radial† | 5388.3 | 5580.4 | 5209.2 | ug/L | 5209.2 | ppb | 05:37:07 |
| 2 | Ca 317.933Radial† | 2455.1 | 2471.7 | 5167.1 | ug/L | 5167.1 | ppb | 05:37:27 |
| 2 | Fe 238.204 Radial† | 336.9 | 330.5 | 4680.7 | ug/L | 4680.7 | ppb | 05:37:27 |
| 2 | K 766.490 Radial† | 29470.9 | 27267.3 | 5226.3 | ug/L | 5226.3 | ppb | 05:37:07 |
| 2 | Mg 279.077 IEC† | 103.2 | 100.7 | 4881.7 | ug/L | 4881.7 | ppb | 05:37:27 |
| 2 | Na 589.592 Radial† | 30414.8 | 31684.6 | 9769.2 | ug/L | 9769.2 | ppb | 05:37:07 |
| 2 | Sr 421.552† | 70615.4 | 71624.5 | 495.57 | ug/L | 495.57 | ppb | 05:37:07 |
| 2 | Sc 361.383 | 908617.0 | 908617.0 | 103.58 | % | | | 05:38:29 |
| 2 | Y 371.029 | 755854.8 | 755854.8 | 100.00 | % | | | 05:38:29 |
| 2 | Ag 328.068† | 111985.3 | 107876.7 | 502.79 | ug/L | 502.79 | ppb | 05:38:29 |
| 2 | As 188.979† | 1145.7 | 1124.4 | 506.39 | ug/L | 506.39 | ppb | 05:38:49 |
| 2 | B 249.677† | 20359.5 | 20054.4 | 484.03 | ug/L | 484.03 | ppb | 05:38:29 |
| 2 | Ba 233.527† | 66818.0 | 64511.4 | 507.49 | ug/L | 507.49 | ppb | 05:38:29 |
| 2 | Be 313.107† | 1396453.2 | 1351978.5 | 509.23 | ug/L | 509.23 | ppb | 05:38:29 |
| 2 | Cd 226.502† | 45574.4 | 44196.4 | 511.72 | ug/L | 511.72 | ppb | 05:38:29 |
| 2 | Co 228.616† | 24700.9 | 23914.2 | 501.02 | ug/L | 501.02 | ppb | 05:38:49 |
| 2 | Cr 267.716† | 46641.8 | 44953.0 | 505.60 | ug/L | 505.60 | ppb | 05:38:29 |
| 2 | Cu 324.752† | 175513.4 | 163460.0 | 497.40 | ug/L | 497.40 | ppb | 05:38:29 |
| 2 | Mn 257.610† | 463832.2 | 447351.5 | 509.32 | ug/L | 509.32 | ppb | 05:38:29 |
| 2 | Mo 202.031† | 7139.0 | 6882.3 | 505.70 | ug/L | 505.70 | ppb | 05:38:49 |
| 2 | Ni 231.604† | 20553.2 | 19780.8 | 502.78 | ug/L | 502.78 | ppb | 05:38:49 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4587.9 | 4218.9 | 2443.2 ug/L | 2443.2 ppb | 05:38:49 |
| 2 | Pb 220.353† | 4336.1 | 4244.5 | 523.65 ug/L | 523.65 ppb | 05:38:49 |
| 2 | S 181.975 Axial† | 777.0 | 709.3 | 1019.7 ug/L | 1019.7 ppb | 05:38:49 |
| 2 | Sb 206.836† | 1507.8 | 1419.0 | 514.11 ug/L | 514.11 ppb | 05:38:49 |
| 2 | Se 196.026† | 764.9 | 766.2 | 518.03 ug/L | 518.03 ppb | 05:38:49 |
| 2 | Si 251.611† | 81150.1 | 77788.6 | 2510.9 ug/L | 2510.9 ppb | 05:38:29 |
| 2 | Sn 189.927† | 2909.3 | 2798.3 | 502.74 ug/L | 502.74 ppb | 05:38:49 |
| 2 | Ti 334.940† | 335525.1 | 325309.4 | 511.09 ug/L | 511.09 ppb | 05:38:29 |
| 2 | Tl 190.801† | 1600.3 | 1577.6 | 507.93 ug/L | 507.93 ppb | 05:38:49 |
| 2 | U 409.014† | 14918.4 | 17289.6 | 475.77 ug/L | 475.77 ppb | 05:38:29 |
| 2 | V 292.402† | 72707.4 | 71701.6 | 506.71 ug/L | 506.71 ppb | 05:38:29 |
| 2 | Zn 213.857† | 52718.7 | 50291.6 | 501.68 ug/L | 501.68 ppb | 05:38:29 |
| 2 | SiO2† | 81797.4 | 78417.5 | 5435.9 ug/L | 5435.9 ppb | 05:39:27 |
| 3 | Sc Radial | 3799.7 | 3799.7 | 97.0 % | | 05:37:52 |
| 3 | Y RADIAL | 4399.4 | 4399.4 | 99.74 % | | 05:37:32 |
| 3 | Al 396.153Radial† | 5521.4 | 5807.0 | 5421.4 ug/L | 5421.4 ppb | 05:37:32 |
| 3 | Ca 317.933Radial† | 2441.5 | 2498.4 | 5223.0 ug/L | 5223.0 ppb | 05:37:52 |
| 3 | Fe 238.204 Radial† | 337.2 | 336.5 | 4764.7 ug/L | 4764.7 ppb | 05:37:52 |
| 3 | K 766.490 Radial† | 30030.1 | 28332.1 | 5430.5 ug/L | 5430.5 ppb | 05:37:32 |
| 3 | Mg 279.077 IEC† | 105.0 | 104.2 | 5053.9 ug/L | 5053.9 ppb | 05:37:52 |
| 3 | Na 589.592 Radial† | 31005.6 | 32797.6 | 10112 ug/L | 10112 ppb | 05:37:32 |
| 3 | Sr 421.552† | 72537.1 | 74775.9 | 517.38 ug/L | 517.38 ppb | 05:37:32 |
| 3 | Sc 361.383 | 893474.7 | 893474.7 | 101.85 % | | 05:38:56 |
| 3 | Y 371.029 | 742884.1 | 742884.1 | 98.285 % | | 05:38:56 |
| 3 | Ag 328.068† | 110542.0 | 108292.0 | 504.75 ug/L | 504.75 ppb | 05:38:56 |
| 3 | As 188.979† | 1154.1 | 1151.3 | 518.46 ug/L | 518.46 ppb | 05:39:16 |
| 3 | B 249.677† | 20247.1 | 20277.2 | 489.40 ug/L | 489.40 ppb | 05:38:56 |
| 3 | Ba 233.527† | 65821.4 | 64626.1 | 508.39 ug/L | 508.39 ppb | 05:38:56 |
| 3 | Be 313.107† | 1375969.8 | 1354716.5 | 510.26 ug/L | 510.26 ppb | 05:38:56 |
| 3 | Cd 226.502† | 44849.1 | 44230.0 | 512.11 ug/L | 512.11 ppb | 05:38:56 |
| 3 | Co 228.616† | 24672.6 | 24290.6 | 508.92 ug/L | 508.92 ppb | 05:39:16 |
| 3 | Cr 267.716† | 45986.9 | 45073.2 | 506.96 ug/L | 506.96 ppb | 05:38:56 |
| 3 | Cu 324.752† | 173945.5 | 164792.3 | 501.46 ug/L | 501.46 ppb | 05:38:56 |
| 3 | Mn 257.610† | 457468.1 | 448692.5 | 510.85 ug/L | 510.85 ppb | 05:38:56 |
| 3 | Mo 202.031† | 7119.0 | 6979.5 | 512.84 ug/L | 512.84 ppb | 05:39:16 |
| 3 | Ni 231.604† | 20511.7 | 20076.3 | 510.29 ug/L | 510.29 ppb | 05:39:16 |
| 3 | P 214.914† | 4594.2 | 4300.2 | 2491.4 ug/L | 2491.4 ppb | 05:39:16 |
| 3 | Pb 220.353† | 4326.7 | 4306.2 | 531.29 ug/L | 531.29 ppb | 05:39:16 |
| 3 | S 181.975 Axial† | 780.2 | 725.2 | 1042.5 ug/L | 1042.5 ppb | 05:39:16 |
| 3 | Sb 206.836† | 1501.0 | 1437.0 | 520.65 ug/L | 520.65 ppb | 05:39:16 |
| 3 | Se 196.026† | 769.8 | 783.6 | 529.67 ug/L | 529.67 ppb | 05:39:16 |
| 3 | Si 251.611† | 80144.4 | 78129.1 | 2521.8 ug/L | 2521.8 ppb | 05:38:56 |
| 3 | Sn 189.927† | 2898.2 | 2835.0 | 509.33 ug/L | 509.33 ppb | 05:39:16 |
| 3 | Ti 334.940† | 331343.6 | 326693.7 | 513.26 ug/L | 513.26 ppb | 05:38:56 |
| 3 | Tl 190.801† | 1605.9 | 1609.3 | 518.07 ug/L | 518.07 ppb | 05:39:16 |
| 3 | U 409.014† | 14589.4 | 17210.8 | 473.58 ug/L | 473.58 ppb | 05:38:56 |
| 3 | V 292.402† | 71742.6 | 71943.9 | 508.49 ug/L | 508.49 ppb | 05:38:56 |
| 3 | Zn 213.857† | 51989.0 | 50437.8 | 503.09 ug/L | 503.09 ppb | 05:38:56 |
| 3 | SiO2† | 82306.6 | 80255.8 | 5563.5 ug/L | 5563.5 ppb | 05:39:32 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 907339.6 | 103.43 | % | 1.513 | | | | 1.46% |
| Sc Radial | 3816.0 | 97.4 | % | 1.02 | | | | 1.05% |
| Y 371.029 | 754881.1 | 99.873 | % | 1.5269 | | | | 1.53% |
| Y RADIAL | 4364.8 | 98.96 | % | 1.750 | | | | 1.77% |
| Ag 328.068† | 107321.7 | 500.23 | ug/L | 6.200 | 500.23 | ppb | 6.200 | 1.24% |
| QC value within limits for Ag 328.068 Recovery = 100.05% | | | | | | | | |
| Al 396.153Radial† | 5729.9 | 5349.5 | ug/L | 121.46 | 5349.5 | ppb | 121.46 | 2.27% |
| QC value within limits for Al 396.153Radial Recovery = 106.99% | | | | | | | | |
| As 188.979† | 1132.4 | 509.96 | ug/L | 7.392 | 509.96 | ppb | 7.392 | 1.45% |
| QC value within limits for As 188.979 Recovery = 101.99% | | | | | | | | |
| B 249.677† | 19991.2 | 482.49 | ug/L | 7.793 | 482.49 | ppb | 7.793 | 1.62% |
| QC value within limits for B 249.677 Recovery = 96.50% | | | | | | | | |
| Ba 233.527† | 64099.0 | 504.25 | ug/L | 6.414 | 504.25 | ppb | 6.414 | 1.27% |
| QC value within limits for Ba 233.527 Recovery = 100.85% | | | | | | | | |
| Be 313.107† | 1344562.6 | 506.44 | ug/L | 5.756 | 506.44 | ppb | 5.756 | 1.14% |
| QC value within limits for Be 313.107 Recovery = 101.29% | | | | | | | | |
| Ca 317.933Radial† | 2497.5 | 5221.1 | ug/L | 53.00 | 5221.1 | ppb | 53.00 | 1.02% |

```
   QC value within limits for Ca 317.933Radial  Recovery = 104.42%
Cd 226.502†            43895.9      508.23 ug/L        6.379      508.23 ppb        6.379   1.26%
   QC value within limits for Cd 226.502  Recovery = 101.65%
Co 228.616†            23861.1      499.91 ug/L        9.611      499.91 ppb        9.611   1.92%
   QC value within limits for Co 228.616  Recovery = 99.98%
Cr 267.716†            44691.5      502.67 ug/L        6.289      502.67 ppb        6.289   1.25%
   QC value within limits for Cr 267.716  Recovery = 100.53%
Cu 324.752†           162761.2      495.28 ug/L        7.469      495.28 ppb        7.469   1.51%
   QC value within limits for Cu 324.752  Recovery = 99.06%
Fe 238.204 Radial†       335.9      4755.8 ug/L       71.06      4755.8 ppb        71.06   1.49%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.12%
K 766.490 Radial†      27929.8      5353.3 ug/L      110.85      5353.3 ppb       110.85   2.07%
   QC value within limits for K 766.490 Radial  Recovery = 107.07%
Mg 279.077 IEC†          104.4      5063.2 ug/L      186.23      5063.2 ppb       186.23   3.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.26%
Mn 257.610†           444732.1      506.34 ug/L        6.530      506.34 ppb        6.530   1.29%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†             6861.1      504.15 ug/L        9.561      504.15 ppb        9.561   1.90%
   QC value within limits for Mo 202.031  Recovery = 100.83%
Na 589.592 Radial†     32454.4       10007 ug/L        206.0       10007 ppb        206.0   2.06%
   QC value within limits for Na 589.592 Radial  Recovery = 100.07%
Ni 231.604†            19741.5      501.79 ug/L        9.050      501.79 ppb        9.050   1.80%
   QC value within limits for Ni 231.604  Recovery = 100.36%
P 214.914†              4224.3      2446.8 ug/L       42.88      2446.8 ppb        42.88   1.75%
   QC value within limits for P 214.914  Recovery = 97.87%
Pb 220.353†             4239.3      523.03 ug/L        8.575      523.03 ppb        8.575   1.64%
   QC value within limits for Pb 220.353  Recovery = 104.61%
S 181.975 Axial†         710.7      1021.7 ug/L       19.92      1021.7 ppb        19.92   1.95%
   QC value within limits for S 181.975 Axial  Recovery = 102.17%
Sb 206.836†             1414.0      512.29 ug/L        9.400      512.29 ppb        9.400   1.83%
   QC value within limits for Sb 206.836  Recovery = 102.46%
Se 196.026†              769.2      520.18 ug/L        8.615      520.18 ppb        8.615   1.66%
   QC value within limits for Se 196.026  Recovery = 104.04%
Si 251.611†            77359.4      2497.1 ug/L       33.93      2497.1 ppb        33.93   1.36%
   QC value within limits for Si 251.611  Recovery = 99.88%
Sn 189.927†             2784.6      500.29 ug/L       10.486      500.29 ppb       10.486   2.10%
   QC value within limits for Sn 189.927  Recovery = 100.06%
Sr 421.552†            73631.6      509.46 ug/L       12.066      509.46 ppb       12.066   2.37%
   QC value within limits for Sr 421.552  Recovery = 101.89%
Ti 334.940†           323560.5      508.34 ug/L        6.734      508.34 ppb        6.734   1.32%
   QC value within limits for Ti 334.940  Recovery = 101.67%
Tl 190.801†             1578.4      508.17 ug/L        9.786      508.17 ppb        9.786   1.93%
   QC value within limits for Tl 190.801  Recovery = 101.63%
U 409.014†             17099.1      470.51 ug/L        7.304      470.51 ppb        7.304   1.55%
   QC value within limits for U 409.014  Recovery = 94.10%
V 292.402†             71305.4      503.91 ug/L        6.445      503.91 ppb        6.445   1.28%
   QC value within limits for V 292.402  Recovery = 100.78%
Zn 213.857†            50015.4      498.90 ug/L        6.078      498.90 ppb        6.078   1.22%
   QC value within limits for Zn 213.857  Recovery = 99.78%
SiO2†                  78434.7      5437.1 ug/L       125.71      5437.1 ppb       125.71   2.31%
   QC value within limits for SiO2  Recovery = 101.68%
All analyte(s) passed QC.
```

Sequence No.: 111
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 05:41:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3745.4 | 3745.4 | 95.6 | % | | | 05:43:54 |
| 1 | Y RADIAL | 4285.4 | 4285.4 | 97.16 | % | | | 05:43:34 |
| 1 | Al 396.153Radial† | -132.5 | -26.2 | -24.592 | ug/L | -24.592 | ppb | 05:43:34 |
| 1 | Ca 317.933Radial† | 26.8 | 8.3 | 17.439 | ug/L | 17.439 | ppb | 05:43:54 |
| 1 | Fe 238.204 Radial† | 10.0 | -0.9 | -12.734 | ug/L | -12.734 | ppb | 05:43:54 |
| 1 | K 766.490 Radial† | 3025.5 | 526.0 | 100.95 | ug/L | 100.95 | ppb | 05:43:34 |
| 1 | Mg 279.077 IEC† | 1.2 | -2.8 | -135.64 | ug/L | -135.64 | ppb | 05:43:54 |
| 1 | Na 589.592 Radial† | -846.3 | -65.7 | -20.262 | ug/L | -20.262 | ppb | 05:43:34 |
| 1 | Sr 421.552† | 9.1 | -26.2 | -0.1815 | ug/L | -0.1815 | ppb | 05:43:34 |
| 1 | Sc 361.383 | 893047.0 | 893047.0 | 101.80 | % | | | 05:44:51 |
| 1 | Y 371.029 | 755041.3 | 755041.3 | 99.894 | % | | | 05:44:51 |
| 1 | Ag 328.068† | 252.3 | 7.4 | 0.0383 | ug/L | 0.0383 | ppb | 05:44:51 |
| 1 | As 188.979† | -27.9 | -9.1 | -4.0716 | ug/L | -4.0716 | ppb | 05:45:11 |
| 1 | B 249.677† | -454.0 | -47.7 | -1.1547 | ug/L | -1.1547 | ppb | 05:45:11 |
| 1 | Ba 233.527† | 24.8 | 25.8 | 0.2016 | ug/L | 0.2016 | ppb | 05:45:11 |
| 1 | Be 313.107† | -3732.7 | 95.6 | 0.0359 | ug/L | 0.0359 | ppb | 05:44:51 |
| 1 | Cd 226.502† | -193.8 | 5.9 | 0.0674 | ug/L | 0.0674 | ppb | 05:45:11 |
| 1 | Co 228.616† | -66.6 | 1.1 | 0.0233 | ug/L | 0.0233 | ppb | 05:45:11 |
| 1 | Cr 267.716† | 68.6 | -10.3 | -0.1130 | ug/L | -0.1130 | ppb | 05:45:11 |
| 1 | Cu 324.752† | 5966.0 | -130.4 | -0.3915 | ug/L | -0.3915 | ppb | 05:44:51 |
| 1 | Mn 257.610† | 531.6 | 63.5 | 0.0765 | ug/L | 0.0765 | ppb | 05:45:11 |
| 1 | Mo 202.031† | 14.3 | 3.9 | 0.2850 | ug/L | 0.2850 | ppb | 05:45:11 |
| 1 | Ni 231.604† | 55.3 | -8.1 | -0.2059 | ug/L | -0.2059 | ppb | 05:45:11 |
| 1 | P 214.914† | 200.5 | -13.6 | -8.0911 | ug/L | -8.0911 | ppb | 05:45:11 |
| 1 | Pb 220.353† | 25.5 | 83.1 | 10.220 | ug/L | 10.220 | ppb | 05:45:11 |
| 1 | S 181.975 Axial† | 47.9 | 6.3 | 9.0497 | ug/L | 9.0497 | ppb | 05:45:11 |
| 1 | Sb 206.836† | 37.9 | 0.5 | 0.1924 | ug/L | 0.1924 | ppb | 05:45:11 |
| 1 | Se 196.026† | -28.3 | -0.0 | -0.0509 | ug/L | -0.0509 | ppb | 05:45:11 |
| 1 | Si 251.611† | 606.6 | 37.5 | 1.2110 | ug/L | 1.2110 | ppb | 05:45:11 |
| 1 | Sn 189.927† | 9.7 | -0.9 | -0.1607 | ug/L | -0.1607 | ppb | 05:45:11 |
| 1 | Ti 334.940† | -1402.1 | -3.2 | 0.0132 | ug/L | 0.0132 | ppb | 05:44:51 |
| 1 | Tl 190.801† | -45.4 | -12.1 | -3.8577 | ug/L | -3.8577 | ppb | 05:45:11 |
| 1 | U 409.014† | -3338.2 | -392.4 | -10.835 | ug/L | -10.835 | ppb | 05:44:51 |
| 1 | V 292.402† | -1553.9 | -20.7 | -0.1615 | ug/L | -0.1615 | ppb | 05:44:51 |
| 1 | Zn 213.857† | 747.3 | 128.1 | 1.2928 | ug/L | 1.2928 | ppb | 05:45:11 |
| 1 | SiO2† | 637.3 | 71.6 | 4.9660 | ug/L | 4.9660 | ppb | 05:46:07 |
| 2 | Sc Radial | 3750.4 | 3750.4 | 95.7 | % | | | 05:44:19 |
| 2 | Y RADIAL | 4233.7 | 4233.7 | 95.98 | % | | | 05:43:59 |
| 2 | Al 396.153Radial† | -126.0 | -19.3 | -18.117 | ug/L | -18.117 | ppb | 05:43:59 |
| 2 | Ca 317.933Radial† | 27.5 | 9.1 | 19.025 | ug/L | 19.025 | ppb | 05:44:19 |
| 2 | Fe 238.204 Radial† | 10.9 | 0.1 | 1.1854 | ug/L | 1.1854 | ppb | 05:44:19 |
| 2 | K 766.490 Radial† | 2968.1 | 461.8 | 88.607 | ug/L | 88.607 | ppb | 05:43:59 |
| 2 | Mg 279.077 IEC† | 2.3 | -1.7 | -81.696 | ug/L | -81.696 | ppb | 05:44:19 |
| 2 | Na 589.592 Radial† | -810.0 | -26.6 | -8.2107 | ug/L | -8.2107 | ppb | 05:43:59 |
| 2 | Sr 421.552† | 21.0 | -13.8 | -0.0956 | ug/L | -0.0956 | ppb | 05:43:59 |
| 2 | Sc 361.383 | 890981.8 | 890981.8 | 101.57 | % | | | 05:45:16 |
| 2 | Y 371.029 | 752653.1 | 752653.1 | 99.578 | % | | | 05:45:16 |
| 2 | Ag 328.068† | 252.4 | 8.1 | 0.0462 | ug/L | 0.0462 | ppb | 05:45:16 |
| 2 | As 188.979† | -23.7 | -5.1 | -2.2933 | ug/L | -2.2933 | ppb | 05:45:36 |
| 2 | B 249.677† | -469.3 | -63.8 | -1.5466 | ug/L | -1.5466 | ppb | 05:45:36 |
| 2 | Ba 233.527† | 2.6 | 3.9 | 0.0328 | ug/L | 0.0328 | ppb | 05:45:36 |
| 2 | Be 313.107† | -3779.9 | 40.6 | 0.0151 | ug/L | 0.0151 | ppb | 05:45:16 |
| 2 | Cd 226.502† | -180.0 | 19.0 | 0.2192 | ug/L | 0.2192 | ppb | 05:45:36 |
| 2 | Co 228.616† | -77.0 | -9.3 | -0.1936 | ug/L | -0.1936 | ppb | 05:45:36 |
| 2 | Cr 267.716† | 74.2 | -4.6 | -0.0482 | ug/L | -0.0482 | ppb | 05:45:36 |
| 2 | Cu 324.752† | 5967.7 | -115.2 | -0.3468 | ug/L | -0.3468 | ppb | 05:45:16 |
| 2 | Mn 257.610† | 529.2 | 62.3 | 0.0743 | ug/L | 0.0743 | ppb | 05:45:36 |
| 2 | Mo 202.031† | 18.0 | 7.6 | 0.5591 | ug/L | 0.5591 | ppb | 05:45:36 |
| 2 | Ni 231.604† | 69.6 | 6.0 | 0.1536 | ug/L | 0.1536 | ppb | 05:45:36 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 209.1 | -4.6 | -2.7012 ug/L | -2.7012 ppb | 05:45:36 |
| 2 | Pb 220.353† | 28.5 | 86.2 | 10.596 ug/L | 10.596 ppb | 05:45:36 |
| 2 | S 181.975 Axial† | 39.2 | -2.2 | -3.1812 ug/L | -3.1812 ppb | 05:45:36 |
| 2 | Sb 206.836† | 39.5 | 2.2 | 0.7670 ug/L | 0.7670 ppb | 05:45:36 |
| 2 | Se 196.026† | -30.1 | -1.9 | -1.2442 ug/L | -1.2442 ppb | 05:45:36 |
| 2 | Si 251.611† | 605.2 | 37.6 | 1.2094 ug/L | 1.2094 ppb | 05:45:36 |
| 2 | Sn 189.927† | 10.6 | -0.0 | -0.0044 ug/L | -0.0044 ppb | 05:45:36 |
| 2 | Ti 334.940† | -1427.8 | -31.7 | -0.0377 ug/L | -0.0377 ppb | 05:45:16 |
| 2 | Tl 190.801† | -46.7 | -13.4 | -4.2732 ug/L | -4.2732 ppb | 05:45:36 |
| 2 | U 409.014† | -3170.5 | -235.0 | -6.4888 ug/L | -6.4888 ppb | 05:45:16 |
| 2 | V 292.402† | -1409.6 | 117.8 | 0.8155 ug/L | 0.8155 ppb | 05:45:16 |
| 2 | Zn 213.857† | 757.7 | 140.0 | 1.4087 ug/L | 1.4087 ppb | 05:45:36 |
| 2 | SiO2† | 625.4 | 61.4 | 4.2508 ug/L | 4.2508 ppb | 05:46:12 |
| 3 | Sc Radial | 3739.4 | 3739.4 | 95.4 % | | 05:44:44 |
| 3 | Y RADIAL | 4201.5 | 4201.5 | 95.25 % | | 05:44:24 |
| 3 | Al 396.153Radial† | -118.1 | -11.4 | -10.682 ug/L | -10.682 ppb | 05:44:24 |
| 3 | Ca 317.933Radial† | 30.2 | 11.9 | 24.967 ug/L | 24.967 ppb | 05:44:44 |
| 3 | Fe 238.204 Radial† | 10.5 | -0.4 | -5.2246 ug/L | -5.2246 ppb | 05:44:44 |
| 3 | K 766.490 Radial† | 2957.8 | 460.1 | 88.302 ug/L | 88.302 ppb | 05:44:24 |
| 3 | Mg 279.077 IEC† | 2.9 | -1.0 | -49.271 ug/L | -49.271 ppb | 05:44:44 |
| 3 | Na 589.592 Radial† | -930.5 | -155.4 | -47.919 ug/L | -47.919 ppb | 05:44:24 |
| 3 | Sr 421.552† | 25.9 | -8.6 | -0.0594 ug/L | -0.0594 ppb | 05:44:24 |
| 3 | Sc 361.383 | 888844.4 | 888844.4 | 101.32 % | | 05:45:41 |
| 3 | Y 371.029 | 750348.4 | 750348.4 | 99.273 % | | 05:45:41 |
| 3 | Ag 328.068† | 319.2 | 74.6 | 0.3508 ug/L | 0.3508 ppb | 05:45:41 |
| 3 | As 188.979† | -25.8 | -7.2 | -3.2176 ug/L | -3.2176 ppb | 05:46:01 |
| 3 | B 249.677† | -510.5 | -105.6 | -2.5577 ug/L | -2.5577 ppb | 05:46:01 |
| 3 | Ba 233.527† | 15.7 | 16.9 | 0.1338 ug/L | 0.1338 ppb | 05:46:01 |
| 3 | Be 313.107† | -3741.1 | 70.0 | 0.0262 ug/L | 0.0262 ppb | 05:45:41 |
| 3 | Cd 226.502† | -200.6 | -1.7 | -0.0199 ug/L | -0.0199 ppb | 05:46:01 |
| 3 | Co 228.616† | -83.3 | -15.7 | -0.3285 ug/L | -0.3285 ppb | 05:46:01 |
| 3 | Cr 267.716† | 55.2 | -23.2 | -0.2577 ug/L | -0.2577 ppb | 05:46:01 |
| 3 | Cu 324.752† | 5987.4 | -81.6 | -0.2453 ug/L | -0.2453 ppb | 05:45:41 |
| 3 | Mn 257.610† | 544.3 | 78.5 | 0.0908 ug/L | 0.0908 ppb | 05:46:01 |
| 3 | Mo 202.031† | 11.2 | 0.9 | 0.0641 ug/L | 0.0641 ppb | 05:46:01 |
| 3 | Ni 231.604† | 89.3 | 25.7 | 0.6541 ug/L | 0.6541 ppb | 05:46:01 |
| 3 | P 214.914† | 201.3 | -11.8 | -7.0522 ug/L | -7.0522 ppb | 05:46:01 |
| 3 | Pb 220.353† | 26.5 | 84.2 | 10.360 ug/L | 10.360 ppb | 05:46:01 |
| 3 | S 181.975 Axial† | 42.8 | 1.5 | 2.0908 ug/L | 2.0908 ppb | 05:46:01 |
| 3 | Sb 206.836† | 46.5 | 9.2 | 3.2205 ug/L | 3.2205 ppb | 05:46:01 |
| 3 | Se 196.026† | -38.5 | -10.3 | -6.7407 ug/L | -6.7407 ppb | 05:46:01 |
| 3 | Si 251.611† | 637.0 | 70.4 | 2.2773 ug/L | 2.2773 ppb | 05:46:01 |
| 3 | Sn 189.927† | 11.8 | 1.2 | 0.2150 ug/L | 0.2150 ppb | 05:46:01 |
| 3 | Ti 334.940† | -1420.7 | -28.1 | -0.0340 ug/L | -0.0340 ppb | 05:45:41 |
| 3 | Tl 190.801† | -40.4 | -7.3 | -2.3365 ug/L | -2.3365 ppb | 05:46:01 |
| 3 | U 409.014† | -3150.9 | -223.1 | -6.1609 ug/L | -6.1609 ppb | 05:45:41 |
| 3 | V 292.402† | -1446.3 | 78.3 | 0.5350 ug/L | 0.5350 ppb | 05:45:41 |
| 3 | Zn 213.857† | 747.0 | 131.2 | 1.3173 ug/L | 1.3173 ppb | 05:46:01 |
| 3 | SiO2† | 626.6 | 64.0 | 4.4472 ug/L | 4.4472 ppb | 05:46:17 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 890957.7 | 101.56 | % | 0.240 | | | | 0.24% |
| Sc Radial | 3745.0 | 95.6 | % | 0.14 | | | | 0.15% |
| Y 371.029 | 752680.9 | 99.582 | % | 0.3105 | | | | 0.31% |
| Y RADIAL | 4240.2 | 96.13 | % | 0.961 | | | | 1.00% |
| Ag 328.068† | 30.0 | 0.1451 | ug/L | 0.17817 | 0.1451 | ppb | 0.17817 | 122.77% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -19.0 | -17.797 | ug/L | 6.9608 | -17.797 | ppb | 6.9608 | 39.11% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -7.1 | -3.1942 | ug/L | 0.88936 | -3.1942 | ppb | 0.88936 | 27.84% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -72.4 | -1.7530 | ug/L | 0.72390 | -1.7530 | ppb | 0.72390 | 41.29% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 15.5 | 0.1227 | ug/L | 0.08495 | 0.1227 | ppb | 0.08495 | 69.21% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 68.7 | 0.0257 | ug/L | 0.01039 | 0.0257 | ppb | 0.01039 | 40.35% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 9.8 | 20.477 | ug/L | 3.9685 | 20.477 | ppb | 3.9685 | 19.38% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.7      0.0889 ug/L       0.12101      0.0889 ppb        0.12101 136.15%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -8.0     -0.1663 ug/L       0.17745     -0.1663 ppb        0.17745 106.73%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -12.7     -0.1396 ug/L       0.10724     -0.1396 ppb        0.10724  76.79%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -109.1     -0.3279 ug/L       0.07492     -0.3279 ppb        0.07492  22.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -5.5912 ug/L       6.96718     -5.5912 ppb        6.96718 124.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         482.6      92.619 ug/L        7.2147      92.619 ppb         7.2147   7.79%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.8     -88.871 ug/L       43.6315     -88.871 ppb        43.6315  49.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                68.1      0.0806 ug/L       0.00893      0.0806 ppb        0.00893  11.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.1      0.3027 ug/L       0.24798      0.3027 ppb        0.24798  81.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -82.6     -25.464 ug/L       20.3590     -25.464 ppb        20.3590  79.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.9      0.2006 ug/L       0.43195      0.2006 ppb        0.43195 215.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.0     -5.9482 ug/L       2.85954     -5.9482 ppb        2.85954  48.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                84.5      10.392 ug/L        0.1905      10.392 ppb         0.1905   1.83%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.8      2.6531 ug/L       6.13481      2.6531 ppb        6.13481 231.23%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.0      1.3933 ug/L       1.60824      1.3933 ppb        1.60824 115.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.1     -2.6786 ug/L       3.56808     -2.6786 ppb        3.56808 133.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                48.5      1.5659 ug/L       0.61613      1.5659 ppb        0.61613  39.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.1      0.0166 ug/L       0.18873      0.0166 ppb        0.18873 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -16.2     -0.1122 ug/L       0.06271     -0.1122 ppb        0.06271  55.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -21.0     -0.0195 ug/L       0.02838     -0.0195 ppb        0.02838 145.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -10.9     -3.4891 ug/L       1.01962     -3.4891 ppb        1.01962  29.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -283.5     -7.8281 ug/L       2.60896     -7.8281 ppb        2.60896  33.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 58.5      0.3963 ug/L       0.50306      0.3963 ppb        0.50306 126.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               133.1      1.3396 ug/L       0.06107      1.3396 ppb        0.06107   4.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      65.7      4.5547 ug/L       0.36947      4.5547 ppb        0.36947   8.11%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 119
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 06:36:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3663.7 | 3663.7 | 93.5 | % | | | 06:38:51 |
| 1 | Y RADIAL | 4263.5 | 4263.5 | 96.66 | % | | | 06:38:31 |
| 1 | Al 396.153Radial† | 5504.5 | 6000.3 | 5603.2 | ug/L | 5603.2 | ppb | 06:38:31 |
| 1 | Ca 317.933Radial† | 2445.9 | 2596.6 | 5428.1 | ug/L | 5428.1 | ppb | 06:38:51 |
| 1 | Fe 238.204 Radial† | 334.2 | 346.1 | 4901.0 | ug/L | 4901.0 | ppb | 06:38:51 |
| 1 | K 766.490 Radial† | 29837.3 | 29275.7 | 5611.5 | ug/L | 5611.5 | ppb | 06:38:31 |
| 1 | Mg 279.077 IEC† | 106.1 | 109.4 | 5306.2 | ug/L | 5306.2 | ppb | 06:38:51 |
| 1 | Na 589.592 Radial† | 29988.1 | 32896.4 | 10143 | ug/L | 10143 | ppb | 06:38:31 |
| 1 | Sr 421.552† | 70738.8 | 75629.7 | 523.28 | ug/L | 523.28 | ppb | 06:38:31 |
| 1 | Sc 361.383 | 906609.3 | 906609.3 | 103.35 | % | | | 06:39:49 |
| 1 | Y 371.029 | 753058.2 | 753058.2 | 99.631 | % | | | 06:39:49 |
| 1 | Ag 328.068† | 111398.4 | 107548.2 | 501.32 | ug/L | 501.32 | ppb | 06:39:54 |
| 1 | As 188.979† | 1155.1 | 1135.9 | 511.64 | ug/L | 511.64 | ppb | 06:40:14 |
| 1 | B 249.677† | 20529.6 | 20262.6 | 489.03 | ug/L | 489.03 | ppb | 06:39:54 |
| 1 | Ba 233.527† | 66204.6 | 64060.7 | 503.95 | ug/L | 503.95 | ppb | 06:39:54 |
| 1 | Be 313.107† | 1403278.5 | 1361568.3 | 512.84 | ug/L | 512.84 | ppb | 06:39:49 |
| 1 | Cd 226.502† | 45192.5 | 43924.3 | 508.55 | ug/L | 508.55 | ppb | 06:39:54 |
| 1 | Co 228.616† | 24887.4 | 24147.5 | 505.89 | ug/L | 505.89 | ppb | 06:39:54 |
| 1 | Cr 267.716† | 46369.8 | 44789.6 | 503.78 | ug/L | 503.78 | ppb | 06:39:54 |
| 1 | Cu 324.752† | 173568.5 | 161953.3 | 492.83 | ug/L | 492.83 | ppb | 06:39:54 |
| 1 | Mn 257.610† | 465593.4 | 450047.4 | 512.39 | ug/L | 512.39 | ppb | 06:39:49 |
| 1 | Mo 202.031† | 7057.1 | 6818.2 | 501.02 | ug/L | 501.02 | ppb | 06:40:14 |
| 1 | Ni 231.604† | 20685.0 | 19952.3 | 507.14 | ug/L | 507.14 | ppb | 06:39:54 |
| 1 | P 214.914† | 4586.3 | 4227.2 | 2449.1 | ug/L | 2449.1 | ppb | 06:40:14 |
| 1 | Pb 220.353† | 4298.7 | 4217.5 | 520.38 | ug/L | 520.38 | ppb | 06:40:14 |
| 1 | S 181.975 Axial† | 778.7 | 712.7 | 1024.5 | ug/L | 1024.5 | ppb | 06:40:14 |
| 1 | Sb 206.836† | 1507.6 | 1422.1 | 515.08 | ug/L | 515.08 | ppb | 06:40:14 |
| 1 | Se 196.026† | 772.0 | 774.7 | 524.28 | ug/L | 524.28 | ppb | 06:40:14 |
| 1 | Si 251.611† | 80613.6 | 77443.0 | 2499.8 | ug/L | 2499.8 | ppb | 06:39:54 |
| 1 | Sn 189.927† | 2912.2 | 2807.3 | 504.39 | ug/L | 504.39 | ppb | 06:40:14 |
| 1 | Ti 334.940† | 336287.8 | 326764.7 | 513.38 | ug/L | 513.38 | ppb | 06:39:49 |
| 1 | Tl 190.801† | 1599.8 | 1580.5 | 508.89 | ug/L | 508.89 | ppb | 06:40:14 |
| 1 | U 409.014† | 15073.5 | 17471.6 | 480.78 | ug/L | 480.78 | ppb | 06:39:54 |
| 1 | V 292.402† | 72356.1 | 71517.2 | 505.34 | ug/L | 505.34 | ppb | 06:39:54 |
| 1 | Zn 213.857† | 52451.8 | 50146.1 | 500.16 | ug/L | 500.16 | ppb | 06:39:54 |
| 1 | SiO2† | 79773.9 | 76634.4 | 5312.1 | ug/L | 5312.1 | ppb | 06:41:22 |
| 2 | Sc Radial | 3693.8 | 3693.8 | 94.3 | % | | | 06:39:16 |
| 2 | Y RADIAL | 4161.9 | 4161.9 | 94.36 | % | | | 06:38:56 |
| 2 | Al 396.153Radial† | 5395.8 | 5837.0 | 5449.7 | ug/L | 5449.7 | ppb | 06:38:56 |
| 2 | Ca 317.933Radial† | 2449.0 | 2578.6 | 5390.5 | ug/L | 5390.5 | ppb | 06:39:16 |
| 2 | Fe 238.204 Radial† | 333.6 | 342.6 | 4851.9 | ug/L | 4851.9 | ppb | 06:39:16 |
| 2 | K 766.490 Radial† | 29314.9 | 28461.3 | 5455.3 | ug/L | 5455.3 | ppb | 06:38:56 |
| 2 | Mg 279.077 IEC† | 103.8 | 106.1 | 5143.2 | ug/L | 5143.2 | ppb | 06:39:16 |
| 2 | Na 589.592 Radial† | 29505.4 | 32122.8 | 9904.3 | ug/L | 9904.3 | ppb | 06:38:56 |
| 2 | Sr 421.552† | 69771.6 | 73986.8 | 511.92 | ug/L | 511.92 | ppb | 06:38:56 |
| 2 | Sc 361.383 | 889395.1 | 889395.1 | 101.39 | % | | | 06:40:20 |
| 2 | Y 371.029 | 739438.9 | 739438.9 | 97.830 | % | | | 06:40:20 |
| 2 | Ag 328.068† | 111690.9 | 109923.0 | 512.35 | ug/L | 512.35 | ppb | 06:40:25 |
| 2 | As 188.979† | 1144.1 | 1146.7 | 516.46 | ug/L | 516.46 | ppb | 06:40:45 |
| 2 | B 249.677† | 20670.7 | 20786.2 | 501.70 | ug/L | 501.70 | ppb | 06:40:25 |
| 2 | Ba 233.527† | 66265.5 | 65360.6 | 514.18 | ug/L | 514.18 | ppb | 06:40:25 |
| 2 | Be 313.107† | 1387877.5 | 1372658.3 | 517.02 | ug/L | 517.02 | ppb | 06:40:20 |
| 2 | Cd 226.502† | 45298.4 | 44875.1 | 519.58 | ug/L | 519.58 | ppb | 06:40:25 |
| 2 | Co 228.616† | 24916.5 | 24642.3 | 516.27 | ug/L | 516.27 | ppb | 06:40:25 |
| 2 | Cr 267.716† | 46502.6 | 45788.9 | 515.00 | ug/L | 515.00 | ppb | 06:40:25 |
| 2 | Cu 324.752† | 174138.3 | 165765.9 | 504.42 | ug/L | 504.42 | ppb | 06:40:25 |
| 2 | Mn 257.610† | 460630.0 | 453871.4 | 516.75 | ug/L | 516.75 | ppb | 06:40:20 |
| 2 | Mo 202.031† | 7040.1 | 6933.7 | 509.49 | ug/L | 509.49 | ppb | 06:40:45 |
| 2 | Ni 231.604† | 20757.6 | 20411.3 | 518.81 | ug/L | 518.81 | ppb | 06:40:25 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4557.1 | 4284.3 | 2481.2 ug/L | 2481.2 ppb | 06:40:45 |
| 2 | Pb 220.353† | 4252.3 | 4252.2 | 524.64 ug/L | 524.64 ppb | 06:40:45 |
| 2 | S 181.975 Axial† | 771.7 | 720.4 | 1035.6 ug/L | 1035.6 ppb | 06:40:45 |
| 2 | Sb 206.836† | 1494.2 | 1437.1 | 520.65 ug/L | 520.65 ppb | 06:40:45 |
| 2 | Se 196.026† | 766.0 | 783.3 | 529.77 ug/L | 529.77 ppb | 06:40:45 |
| 2 | Si 251.611† | 80785.8 | 79122.6 | 2554.0 ug/L | 2554.0 ppb | 06:40:25 |
| 2 | Sn 189.927† | 2901.6 | 2851.4 | 512.30 ug/L | 512.30 ppb | 06:40:45 |
| 2 | Ti 334.940† | 333084.0 | 329902.7 | 518.31 ug/L | 518.31 ppb | 06:40:20 |
| 2 | Tl 190.801† | 1598.6 | 1609.3 | 518.08 ug/L | 518.08 ppb | 06:40:45 |
| 2 | U 409.014† | 15084.2 | 17764.6 | 488.85 ug/L | 488.85 ppb | 06:40:25 |
| 2 | V 292.402† | 72501.8 | 73015.9 | 515.92 ug/L | 515.92 ppb | 06:40:25 |
| 2 | Zn 213.857† | 52526.4 | 51202.0 | 510.71 ug/L | 510.71 ppb | 06:40:25 |
| 2 | SiO2† | 81177.3 | 79512.6 | 5511.9 ug/L | 5511.9 ppb | 06:41:27 |
| 3 | Sc Radial | 3694.2 | 3694.2 | 94.3 % | | 06:39:41 |
| 3 | Y RADIAL | 4177.7 | 4177.7 | 94.71 % | | 06:39:21 |
| 3 | Al 396.153Radial† | 5464.3 | 5909.0 | 5517.1 ug/L | 5517.1 ppb | 06:39:21 |
| 3 | Ca 317.933Radial† | 2453.4 | 2582.9 | 5399.6 ug/L | 5399.6 ppb | 06:39:41 |
| 3 | Fe 238.204 Radial† | 328.7 | 337.4 | 4777.9 ug/L | 4777.9 ppb | 06:39:41 |
| 3 | K 766.490 Radial† | 29440.3 | 28590.6 | 5480.1 ug/L | 5480.1 ppb | 06:39:21 |
| 3 | Mg 279.077 IEC† | 106.9 | 109.3 | 5301.0 ug/L | 5301.0 ppb | 06:39:41 |
| 3 | Na 589.592 Radial† | 29485.0 | 32097.4 | 9896.5 ug/L | 9896.5 ppb | 06:39:21 |
| 3 | Sr 421.552† | 69941.7 | 74158.2 | 513.10 ug/L | 513.10 ppb | 06:39:21 |
| 3 | Sc 361.383 | 890322.5 | 890322.5 | 101.49 % | | 06:40:51 |
| 3 | Y 371.029 | 740396.9 | 740396.9 | 97.956 % | | 06:40:51 |
| 3 | Ag 328.068† | 111248.3 | 109372.1 | 509.76 ug/L | 509.76 ppb | 06:40:57 |
| 3 | As 188.979† | 1152.2 | 1153.5 | 519.46 ug/L | 519.46 ppb | 06:41:17 |
| 3 | B 249.677† | 20604.5 | 20699.8 | 499.63 ug/L | 499.63 ppb | 06:40:57 |
| 3 | Ba 233.527† | 65923.1 | 64955.2 | 510.98 ug/L | 510.98 ppb | 06:40:57 |
| 3 | Be 313.107† | 1391465.0 | 1374767.0 | 517.81 ug/L | 517.81 ppb | 06:40:51 |
| 3 | Cd 226.502† | 44996.2 | 44530.8 | 515.59 ug/L | 515.59 ppb | 06:40:57 |
| 3 | Co 228.616† | 24731.7 | 24434.6 | 511.92 ug/L | 511.92 ppb | 06:40:57 |
| 3 | Cr 267.716† | 46243.4 | 45485.8 | 511.59 ug/L | 511.59 ppb | 06:40:57 |
| 3 | Cu 324.752† | 173498.8 | 164956.9 | 501.96 ug/L | 501.96 ppb | 06:40:57 |
| 3 | Mn 257.610† | 461161.1 | 453921.5 | 516.79 ug/L | 516.79 ppb | 06:40:51 |
| 3 | Mo 202.031† | 7074.5 | 6960.3 | 511.43 ug/L | 511.43 ppb | 06:41:17 |
| 3 | Ni 231.604† | 20591.5 | 20226.3 | 514.11 ug/L | 514.11 ppb | 06:40:57 |
| 3 | P 214.914† | 4550.7 | 4273.3 | 2475.1 ug/L | 2475.1 ppb | 06:41:17 |
| 3 | Pb 220.353† | 4265.8 | 4261.2 | 525.77 ug/L | 525.77 ppb | 06:41:17 |
| 3 | S 181.975 Axial† | 781.0 | 728.7 | 1047.6 ug/L | 1047.6 ppb | 06:41:17 |
| 3 | Sb 206.836† | 1506.8 | 1447.9 | 524.47 ug/L | 524.47 ppb | 06:41:17 |
| 3 | Se 196.026† | 765.3 | 781.8 | 528.53 ug/L | 528.53 ppb | 06:41:17 |
| 3 | Si 251.611† | 80300.7 | 78561.7 | 2535.9 ug/L | 2535.9 ppb | 06:40:57 |
| 3 | Sn 189.927† | 2904.0 | 2850.8 | 512.19 ug/L | 512.19 ppb | 06:41:17 |
| 3 | Ti 334.940† | 333507.1 | 329977.3 | 518.42 ug/L | 518.42 ppb | 06:40:51 |
| 3 | Tl 190.801† | 1603.6 | 1612.6 | 519.15 ug/L | 519.15 ppb | 06:41:17 |
| 3 | U 409.014† | 15150.8 | 17814.6 | 490.25 ug/L | 490.25 ppb | 06:40:57 |
| 3 | V 292.402† | 72091.3 | 72536.9 | 512.63 ug/L | 512.63 ppb | 06:40:57 |
| 3 | Zn 213.857† | 52256.8 | 50882.4 | 507.54 ug/L | 507.54 ppb | 06:40:57 |
| 3 | SiO2† | 80488.0 | 78750.1 | 5458.9 ug/L | 5458.9 ppb | 06:41:32 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 895442.3 | 102.08 | % | 1.104 | | | | 1.08% |
| Sc Radial | 3683.9 | 94.0 | % | 0.45 | | | | 0.48% |
| Y 371.029 | 744298.0 | 98.472 | % | 1.0057 | | | | 1.02% |
| Y RADIAL | 4201.0 | 95.24 | % | 1.239 | | | | 1.30% |
| Ag 328.068† | 108947.8 | 507.81 | ug/L | 5.764 | 507.81 | ppb | 5.764 | 1.14% |
| QC value within limits for Ag 328.068 Recovery = 101.56% | | | | | | | | |
| Al 396.153Radial† | 5915.4 | 5523.3 | ug/L | 76.98 | 5523.3 | ppb | 76.98 | 1.39% |
| QC value greater than the upper limit for Al 396.153Radial Recovery = 110.47% | | | | | | | | |
| As 188.979† | 1145.4 | 515.85 | ug/L | 3.942 | 515.85 | ppb | 3.942 | 0.76% |
| QC value within limits for As 188.979 Recovery = 103.17% | | | | | | | | |
| B 249.677† | 20582.8 | 496.79 | ug/L | 6.799 | 496.79 | ppb | 6.799 | 1.37% |
| QC value within limits for B 249.677 Recovery = 99.36% | | | | | | | | |
| Ba 233.527† | 64792.2 | 509.71 | ug/L | 5.230 | 509.71 | ppb | 5.230 | 1.03% |
| QC value within limits for Ba 233.527 Recovery = 101.94% | | | | | | | | |
| Be 313.107† | 1369664.5 | 515.89 | ug/L | 2.671 | 515.89 | ppb | 2.671 | 0.52% |
| QC value within limits for Be 313.107 Recovery = 103.18% | | | | | | | | |
| Ca 317.933Radial† | 2586.0 | 5406.1 | ug/L | 19.61 | 5406.1 | ppb | 19.61 | 0.36% |

```
   QC value within limits for Ca 317.933Radial  Recovery = 108.12%
Cd 226.502†            44443.4      514.57 ug/L         5.582      514.57 ppb          5.582   1.08%
   QC value within limits for Cd 226.502  Recovery = 102.91%
Co 228.616†            24408.1      511.36 ug/L         5.210      511.36 ppb          5.210   1.02%
   QC value within limits for Co 228.616  Recovery = 102.27%
Cr 267.716†            45354.8      510.12 ug/L         5.754      510.12 ppb          5.754   1.13%
   QC value within limits for Cr 267.716  Recovery = 102.02%
Cu 324.752†           164225.4      499.74 ug/L         6.108      499.74 ppb          6.108   1.22%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†       342.1      4843.6 ug/L        61.98      4843.6 ppb         61.98   1.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.87%
K 766.490 Radial†      28775.9      5515.6 ug/L        83.94      5515.6 ppb         83.94   1.52%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 110.31%
Mg 279.077 IEC†          108.3      5250.1 ug/L        92.69      5250.1 ppb         92.69   1.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.00%
Mn 257.610†           452613.4      515.31 ug/L         2.526      515.31 ppb          2.526   0.49%
   QC value within limits for Mn 257.610  Recovery = 103.06%
Mo 202.031†             6904.1      507.31 ug/L         5.539      507.31 ppb          5.539   1.09%
   QC value within limits for Mo 202.031  Recovery = 101.46%
Na 589.592 Radial†     32372.2      9981.2 ug/L       140.03      9981.2 ppb        140.03   1.40%
   QC value within limits for Na 589.592 Radial  Recovery = 99.81%
Ni 231.604†            20196.6      513.35 ug/L         5.870      513.35 ppb          5.870   1.14%
   QC value within limits for Ni 231.604  Recovery = 102.67%
P 214.914†              4261.6      2468.5 ug/L        17.07      2468.5 ppb         17.07   0.69%
   QC value within limits for P 214.914  Recovery = 98.74%
Pb 220.353†             4243.6      523.60 ug/L         2.842      523.60 ppb          2.842   0.54%
   QC value within limits for Pb 220.353  Recovery = 104.72%
S 181.975 Axial†         720.6      1035.9 ug/L        11.56      1035.9 ppb         11.56   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 103.59%
Sb 206.836†             1435.7      520.07 ug/L         4.720      520.07 ppb          4.720   0.91%
   QC value within limits for Sb 206.836  Recovery = 104.01%
Se 196.026†              779.9      527.52 ug/L         2.879      527.52 ppb          2.879   0.55%
   QC value within limits for Se 196.026  Recovery = 105.50%
Si 251.611†            78375.8      2529.9 ug/L        27.61      2529.9 ppb         27.61   1.09%
   QC value within limits for Si 251.611  Recovery = 101.20%
Sn 189.927†             2836.5      509.63 ug/L         4.533      509.63 ppb          4.533   0.89%
   QC value within limits for Sn 189.927  Recovery = 101.93%
Sr 421.552†            74591.6      516.10 ug/L         6.249      516.10 ppb          6.249   1.21%
   QC value within limits for Sr 421.552  Recovery = 103.22%
Ti 334.940†           328881.5      516.70 ug/L         2.878      516.70 ppb          2.878   0.56%
   QC value within limits for Ti 334.940  Recovery = 103.34%
Tl 190.801†             1600.8      515.37 ug/L         5.639      515.37 ppb          5.639   1.09%
   QC value within limits for Tl 190.801  Recovery = 103.07%
U 409.014†             17683.6      486.62 ug/L         5.111      486.62 ppb          5.111   1.05%
   QC value within limits for U 409.014  Recovery = 97.32%
V 292.402†             72356.7      511.30 ug/L         5.414      511.30 ppb          5.414   1.06%
   QC value within limits for V 292.402  Recovery = 102.26%
Zn 213.857†            50743.5      506.14 ug/L         5.411      506.14 ppb          5.411   1.07%
   QC value within limits for Zn 213.857  Recovery = 101.23%
SiO2†                  78299.1      5427.6 ug/L       103.49      5427.6 ppb        103.49   1.91%
   QC value within limits for SiO2  Recovery = 101.50%
QC Failed.  Continue with analysis.
```

Sequence No.: 120
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 06:43:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3719.5 | 3719.5 | 94.9 | % | | | 06:45:55 |
| 1 | Y RADIAL | 4101.4 | 4101.4 | 92.98 | % | | | 06:45:35 |
| 1 | Al 396.153Radial† | -109.6 | -3.1 | -2.9022 | ug/L | -2.9022 | ppb | 06:45:35 |
| 1 | Ca 317.933Radial† | 25.5 | 7.1 | 14.926 | ug/L | 14.926 | ppb | 06:45:55 |
| 1 | Fe 238.204 Radial† | 10.7 | -0.0 | -0.3936 | ug/L | -0.3936 | ppb | 06:45:55 |
| 1 | K 766.490 Radial† | 2962.2 | 481.4 | 92.383 | ug/L | 92.383 | ppb | 06:45:35 |
| 1 | Mg 279.077 IEC† | 2.8 | -1.1 | -52.172 | ug/L | -52.172 | ppb | 06:45:55 |
| 1 | Na 589.592 Radial† | -845.3 | -70.8 | -21.839 | ug/L | -21.839 | ppb | 06:45:35 |
| 1 | Sr 421.552† | 56.5 | 23.8 | 0.1643 | ug/L | 0.1643 | ppb | 06:45:35 |
| 1 | Sc 361.383 | 884218.9 | 884218.9 | 100.80 | % | | | 06:46:52 |
| 1 | Y 371.029 | 746767.6 | 746767.6 | 98.799 | % | | | 06:46:52 |
| 1 | Ag 328.068† | 209.2 | -32.9 | -0.1470 | ug/L | -0.1470 | ppb | 06:46:52 |
| 1 | As 188.979† | -23.1 | -4.7 | -2.0995 | ug/L | -2.0995 | ppb | 06:47:12 |
| 1 | B 249.677† | -277.6 | 122.8 | 2.9775 | ug/L | 2.9775 | ppb | 06:47:12 |
| 1 | Ba 233.527† | 30.1 | 31.2 | 0.2443 | ug/L | 0.2443 | ppb | 06:47:12 |
| 1 | Be 313.107† | -3662.8 | 128.3 | 0.0480 | ug/L | 0.0480 | ppb | 06:46:52 |
| 1 | Cd 226.502† | -178.5 | 19.2 | 0.2203 | ug/L | 0.2203 | ppb | 06:47:12 |
| 1 | Co 228.616† | -64.0 | 3.0 | 0.0634 | ug/L | 0.0634 | ppb | 06:47:12 |
| 1 | Cr 267.716† | 74.5 | -3.8 | -0.0397 | ug/L | -0.0397 | ppb | 06:47:12 |
| 1 | Cu 324.752† | 5988.7 | -49.4 | -0.1455 | ug/L | -0.1455 | ppb | 06:46:52 |
| 1 | Mn 257.610† | 521.6 | 58.7 | 0.0689 | ug/L | 0.0689 | ppb | 06:47:12 |
| 1 | Mo 202.031† | 12.9 | 2.6 | 0.1929 | ug/L | 0.1929 | ppb | 06:47:12 |
| 1 | Ni 231.604† | 67.8 | 4.8 | 0.1226 | ug/L | 0.1226 | ppb | 06:47:12 |
| 1 | P 214.914† | 208.6 | -3.6 | -2.1093 | ug/L | -2.1093 | ppb | 06:47:12 |
| 1 | Pb 220.353† | 4.4 | 62.4 | 7.6796 | ug/L | 7.6796 | ppb | 06:47:12 |
| 1 | S 181.975 Axial† | 46.1 | 4.9 | 7.0930 | ug/L | 7.0930 | ppb | 06:47:12 |
| 1 | Sb 206.836† | 46.1 | 9.1 | 3.1740 | ug/L | 3.1740 | ppb | 06:47:12 |
| 1 | Se 196.026† | -30.7 | -2.7 | -1.7486 | ug/L | -1.7486 | ppb | 06:47:12 |
| 1 | Si 251.611† | 625.3 | 62.0 | 2.0051 | ug/L | 2.0051 | ppb | 06:47:12 |
| 1 | Sn 189.927† | 10.2 | -0.4 | -0.0686 | ug/L | -0.0686 | ppb | 06:47:12 |
| 1 | Ti 334.940† | -1448.3 | -62.7 | -0.0884 | ug/L | -0.0884 | ppb | 06:46:52 |
| 1 | Tl 190.801† | -38.7 | -5.8 | -1.8696 | ug/L | -1.8696 | ppb | 06:47:12 |
| 1 | U 409.014† | -3231.2 | -319.1 | -8.8114 | ug/L | -8.8114 | ppb | 06:46:52 |
| 1 | V 292.402† | -1573.3 | -55.2 | -0.3998 | ug/L | -0.3998 | ppb | 06:46:52 |
| 1 | Zn 213.857† | 792.4 | 180.1 | 1.8123 | ug/L | 1.8123 | ppb | 06:47:12 |
| 1 | SiO2† | 642.3 | 82.8 | 5.7518 | ug/L | 5.7518 | ppb | 06:48:08 |
| 2 | Sc Radial | 3729.8 | 3729.8 | 95.2 | % | | | 06:46:20 |
| 2 | Y RADIAL | 4203.7 | 4203.7 | 95.30 | % | | | 06:46:00 |
| 2 | Al 396.153Radial† | -116.6 | -10.1 | -9.5324 | ug/L | -9.5324 | ppb | 06:46:00 |
| 2 | Ca 317.933Radial† | 27.0 | 8.7 | 18.115 | ug/L | 18.115 | ppb | 06:46:20 |
| 2 | Fe 238.204 Radial† | 12.7 | 2.1 | 29.010 | ug/L | 29.010 | ppb | 06:46:20 |
| 2 | K 766.490 Radial† | 2909.4 | 417.2 | 80.072 | ug/L | 80.072 | ppb | 06:46:00 |
| 2 | Mg 279.077 IEC† | 1.8 | -2.2 | -105.33 | ug/L | -105.33 | ppb | 06:46:20 |
| 2 | Na 589.592 Radial† | -896.9 | -122.6 | -37.792 | ug/L | -37.792 | ppb | 06:46:00 |
| 2 | Sr 421.552† | 73.7 | 41.7 | 0.2885 | ug/L | 0.2885 | ppb | 06:46:00 |
| 2 | Sc 361.383 | 866218.9 | 866218.9 | 98.745 | % | | | 06:47:17 |
| 2 | Y 371.029 | 732138.4 | 732138.4 | 96.864 | % | | | 06:47:17 |
| 2 | Ag 328.068† | 213.0 | -24.7 | -0.0984 | ug/L | -0.0984 | ppb | 06:47:17 |
| 2 | As 188.979† | -20.7 | -2.7 | -1.1970 | ug/L | -1.1970 | ppb | 06:47:37 |
| 2 | B 249.677† | -301.3 | 93.1 | 2.2526 | ug/L | 2.2526 | ppb | 06:47:37 |
| 2 | Ba 233.527† | 9.0 | 10.5 | 0.0833 | ug/L | 0.0833 | ppb | 06:47:37 |
| 2 | Be 313.107† | -3643.8 | 72.0 | 0.0268 | ug/L | 0.0268 | ppb | 06:47:17 |
| 2 | Cd 226.502† | -169.4 | 24.7 | 0.2810 | ug/L | 0.2810 | ppb | 06:47:37 |
| 2 | Co 228.616† | -70.9 | -5.3 | -0.1090 | ug/L | -0.1090 | ppb | 06:47:37 |
| 2 | Cr 267.716† | 54.4 | -22.6 | -0.2469 | ug/L | -0.2469 | ppb | 06:47:37 |
| 2 | Cu 324.752† | 5837.0 | -79.5 | -0.2352 | ug/L | -0.2352 | ppb | 06:47:17 |
| 2 | Mn 257.610† | 512.6 | 60.3 | 0.0758 | ug/L | 0.0758 | ppb | 06:47:37 |
| 2 | Mo 202.031† | 21.2 | 11.3 | 0.8324 | ug/L | 0.8324 | ppb | 06:47:37 |
| 2 | Ni 231.604† | 72.7 | 11.2 | 0.2845 | ug/L | 0.2845 | ppb | 06:47:37 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 210.3 | 2.4 | 1.5021 ug/L | 1.5021 ppb | 06:47:37 |
| 2 | Pb 220.353† | 10.9 | 69.1 | 8.4978 ug/L | 8.4978 ppb | 06:47:37 |
| 2 | S 181.975 Axial† | 46.4 | 6.2 | 8.8568 ug/L | 8.8568 ppb | 06:47:37 |
| 2 | Sb 206.836† | 27.2 | -9.1 | -3.1477 ug/L | -3.1477 ppb | 06:47:37 |
| 2 | Se 196.026† | -32.7 | -5.3 | -3.3982 ug/L | -3.3982 ppb | 06:47:37 |
| 2 | Si 251.611† | 621.4 | 71.0 | 2.2862 ug/L | 2.2862 ppb | 06:47:37 |
| 2 | Sn 189.927† | 19.0 | 8.7 | 1.5657 ug/L | 1.5657 ppb | 06:47:37 |
| 2 | Ti 334.940† | -1432.7 | -76.8 | -0.1053 ug/L | -0.1053 ppb | 06:47:17 |
| 2 | Tl 190.801† | -26.1 | 6.2 | 1.9783 ug/L | 1.9783 ppb | 06:47:37 |
| 2 | U 409.014† | -3195.3 | -349.3 | -9.6483 ug/L | -9.6483 ppb | 06:47:17 |
| 2 | V 292.402† | -1509.7 | -23.2 | -0.1744 ug/L | -0.1744 ppb | 06:47:17 |
| 2 | Zn 213.857† | 785.5 | 189.5 | 1.9015 ug/L | 1.9015 ppb | 06:47:37 |
| 2 | SiO2† | 680.8 | 135.1 | 9.3634 ug/L | 9.3634 ppb | 06:48:13 |
| 3 | Sc Radial | 3741.9 | 3741.9 | 95.5 % | | 06:46:45 |
| 3 | Y RADIAL | 4323.1 | 4323.1 | 98.01 % | | 06:46:25 |
| 3 | Al 396.153Radial† | -105.2 | 2.2 | 2.1053 ug/L | 2.1053 ppb | 06:46:25 |
| 3 | Ca 317.933Radial† | 30.1 | 11.8 | 24.668 ug/L | 24.668 ppb | 06:46:45 |
| 3 | Fe 238.204 Radial† | 8.6 | -2.3 | -32.697 ug/L | -32.697 ppb | 06:46:45 |
| 3 | K 766.490 Radial† | 2956.8 | 457.0 | 87.704 ug/L | 87.704 ppb | 06:46:25 |
| 3 | Mg 279.077 IEC† | 0.5 | -3.6 | -172.59 ug/L | -172.59 ppb | 06:46:45 |
| 3 | Na 589.592 Radial† | -921.7 | -145.5 | -44.846 ug/L | -44.846 ppb | 06:46:25 |
| 3 | Sr 421.552† | 72.0 | 39.7 | 0.2743 ug/L | 0.2743 ppb | 06:46:25 |
| 3 | Sc 361.383 | 878184.1 | 878184.1 | 100.11 % | | 06:47:43 |
| 3 | Y 371.029 | 742511.5 | 742511.5 | 98.236 % | | 06:47:43 |
| 3 | Ag 328.068† | 228.4 | -12.3 | -0.0618 ug/L | -0.0618 ppb | 06:47:43 |
| 3 | As 188.979† | -23.4 | -5.2 | -2.3177 ug/L | -2.3177 ppb | 06:48:03 |
| 3 | B 249.677† | -300.6 | 98.0 | 2.3806 ug/L | 2.3806 ppb | 06:48:03 |
| 3 | Ba 233.527† | 5.8 | 7.2 | 0.0554 ug/L | 0.0554 ppb | 06:48:03 |
| 3 | Be 313.107† | -3557.2 | 208.8 | 0.0782 ug/L | 0.0782 ppb | 06:47:43 |
| 3 | Cd 226.502† | -176.3 | 20.1 | 0.2351 ug/L | 0.2351 ppb | 06:48:03 |
| 3 | Co 228.616† | -66.3 | 0.3 | 0.0058 ug/L | 0.0058 ppb | 06:48:03 |
| 3 | Cr 267.716† | 76.0 | -1.8 | -0.0202 ug/L | -0.0202 ppb | 06:48:03 |
| 3 | Cu 324.752† | 5873.9 | -123.2 | -0.3725 ug/L | -0.3725 ppb | 06:47:43 |
| 3 | Mn 257.610† | 544.2 | 84.8 | 0.1004 ug/L | 0.1004 ppb | 06:48:03 |
| 3 | Mo 202.031† | 3.9 | -6.2 | -0.4586 ug/L | -0.4586 ppb | 06:48:03 |
| 3 | Ni 231.604† | 72.2 | 9.6 | 0.2450 ug/L | 0.2450 ppb | 06:48:03 |
| 3 | P 214.914† | 195.1 | -15.6 | -9.3176 ug/L | -9.3176 ppb | 06:48:03 |
| 3 | Pb 220.353† | 11.2 | 69.3 | 8.5251 ug/L | 8.5251 ppb | 06:48:03 |
| 3 | S 181.975 Axial† | 38.4 | -2.5 | -3.5262 ug/L | -3.5262 ppb | 06:48:03 |
| 3 | Sb 206.836† | 41.3 | 4.6 | 1.5684 ug/L | 1.5684 ppb | 06:48:03 |
| 3 | Se 196.026† | -26.2 | 1.6 | 0.9206 ug/L | 0.9206 ppb | 06:48:03 |
| 3 | Si 251.611† | 619.0 | 60.0 | 1.9475 ug/L | 1.9475 ppb | 06:48:03 |
| 3 | Sn 189.927† | 2.3 | -8.2 | -1.4565 ug/L | -1.4565 ppb | 06:48:03 |
| 3 | Ti 334.940† | -1438.1 | -62.4 | -0.0773 ug/L | -0.0773 ppb | 06:47:43 |
| 3 | Tl 190.801† | -31.3 | 1.3 | 0.4214 ug/L | 0.4214 ppb | 06:48:03 |
| 3 | U 409.014† | -3166.1 | -276.0 | -7.6189 ug/L | -7.6189 ppb | 06:47:43 |
| 3 | V 292.402† | -1534.3 | -27.0 | -0.2078 ug/L | -0.2078 ppb | 06:47:43 |
| 3 | Zn 213.857† | 786.3 | 179.4 | 1.8101 ug/L | 1.8101 ppb | 06:48:03 |
| 3 | SiO2† | 704.4 | 149.2 | 10.382 ug/L | 10.382 ppb | 06:48:18 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 876207.3 | 99.883 | % | 1.0444 | | | | 1.05% |
| Sc Radial | 3730.4 | 95.2 | % | 0.29 | | | | 0.30% |
| Y 371.029 | 740472.5 | 97.966 | % | 0.9955 | | | | 1.02% |
| Y RADIAL | 4209.4 | 95.43 | % | 2.516 | | | | 2.64% |
| Ag 328.068† | -23.3 | -0.1024 | ug/L | 0.04275 | -0.1024 | ppb | 0.04275 | 41.75% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -3.7 | -3.4431 | ug/L | 5.83769 | -3.4431 | ppb | 5.83769 | 169.55% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -4.2 | -1.8714 | ug/L | 0.59412 | -1.8714 | ppb | 0.59412 | 31.75% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 104.6 | 2.5369 | ug/L | 0.38686 | 2.5369 | ppb | 0.38686 | 15.25% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 16.3 | 0.1277 | ug/L | 0.10198 | 0.1277 | ppb | 0.10198 | 79.87% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 136.4 | 0.0510 | ug/L | 0.02586 | 0.0510 | ppb | 0.02586 | 50.69% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 9.2 | 19.236 | ug/L | 4.9667 | 19.236 | ppb | 4.9667 | 25.82% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              21.3      0.2455 ug/L       0.03164      0.2455 ppb        0.03164  12.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.7     -0.0133 ug/L       0.08776     -0.0133 ppb        0.08776 662.08%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.4     -0.1023 ug/L       0.12565     -0.1023 ppb        0.12565 122.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.0     -0.2510 ug/L       0.11433     -0.2510 ppb        0.11433  45.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.1     -1.3600 ug/L      30.86476     -1.3600 ppb       30.86476 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       451.9      86.720 ug/L        6.2141      86.720 ppb         6.2141   7.17%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -110.03 ug/L        60.347     -110.03 ppb         60.347  54.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              68.0      0.0817 ug/L       0.01653      0.0817 ppb        0.01653  20.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.6      0.1889 ug/L       0.64547      0.1889 ppb        0.64547 341.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -113.0     -34.826 ug/L       11.7870     -34.826 ppb        11.7870  33.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.5      0.2174 ug/L       0.08440      0.2174 ppb        0.08440  38.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -5.6     -3.3083 ug/L       5.50858     -3.3083 ppb        5.50858 166.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              66.9      8.2341 ug/L       0.48047      8.2341 ppb        0.48047   5.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.9      4.1412 ug/L       6.69848      4.1412 ppb        6.69848 161.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.5      0.5316 ug/L       3.28590      0.5316 ppb        3.28590 618.16%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.1     -1.4087 ug/L       2.17936     -1.4087 ppb        2.17936 154.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              64.3      2.0796 ug/L       0.18120      2.0796 ppb        0.18120   8.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.1      0.0135 ug/L       1.51281      0.0135 ppb        1.51281 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              35.0      0.2424 ug/L       0.06801      0.2424 ppb        0.06801  28.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -67.3     -0.0904 ug/L       0.01410     -0.0904 ppb        0.01410  15.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.1767 ug/L       1.93560      0.1767 ppb        1.93560 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -314.8     -8.6929 ug/L       1.01990     -8.6929 ppb        1.01990  11.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -35.1     -0.2607 ug/L       0.12162     -0.2607 ppb        0.12162  46.66%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             183.0      1.8413 ug/L       0.05213      1.8413 ppb        0.05213   2.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   122.4      8.4992 ug/L       2.43330      8.4992 ppb        2.43330  28.63%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 121
Sample ID: 245969002|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:
User canceled analysis.

Autosampler Location: 134
Date Collected: 2/25/2010 06:50:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

**Analysis Begun**

Start Time: 2/25/2010 06:55:07
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601

Plasma On Time: 00:00:00
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 110
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 06:55:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

**Replicate Data: CCV**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3736.6 | 3736.6 | 95.4 | % | | | 06:57:19 |
| 1 | Y RADIAL | 4222.8 | 4222.8 | 95.74 | % | | | 06:56:59 |
| 1 | Al 396.153Radial† | 5170.1 | 5534.6 | 5166.9 | ug/L | 5166.9 | ppb | 06:56:59 |
| 1 | Ca 317.933Radial† | 2334.0 | 2428.2 | 5076.1 | ug/L | 5076.1 | ppb | 06:57:19 |
| 1 | Fe 238.204 Radial† | 323.6 | 328.0 | 4644.7 | ug/L | 4644.7 | ppb | 06:57:19 |
| 1 | K 766.490 Radial† | 28093.5 | 26823.6 | 5141.2 | ug/L | 5141.2 | ppb | 06:56:59 |
| 1 | Mg 279.077 IEC† | 99.7 | 100.5 | 4871.5 | ug/L | 4871.5 | ppb | 06:57:19 |
| 1 | Na 589.592 Radial† | 29468.6 | 31725.1 | 9781.7 | ug/L | 9781.7 | ppb | 06:56:59 |
| 1 | Sr 421.552† | 68031.0 | 71312.1 | 493.41 | ug/L | 493.41 | ppb | 06:56:59 |
| 1 | Sc 361.383 | 876888.1 | 876888.1 | 99.961 | % | | | 06:58:16 |
| 1 | Y 371.029 | 730319.6 | 730319.6 | 96.623 | % | | | 06:58:16 |
| 1 | Ag 328.068† | 106238.6 | 106039.8 | 494.23 | ug/L | 494.23 | ppb | 06:58:21 |
| 1 | As 188.979† | 1093.3 | 1112.0 | 500.70 | ug/L | 500.70 | ppb | 06:58:41 |
| 1 | B 249.677† | 19542.3 | 19948.1 | 481.47 | ug/L | 481.47 | ppb | 06:58:21 |
| 1 | Ba 233.527† | 62967.0 | 62993.1 | 495.55 | ug/L | 495.55 | ppb | 06:58:21 |
| 1 | Be 313.107† | 1317506.2 | 1321783.8 | 497.83 | ug/L | 497.83 | ppb | 06:58:16 |
| 1 | Cd 226.502† | 43036.0 | 43249.1 | 500.75 | ug/L | 500.75 | ppb | 06:58:21 |
| 1 | Co 228.616† | 23642.7 | 23718.5 | 496.94 | ug/L | 496.94 | ppb | 06:58:21 |
| 1 | Cr 267.716† | 44178.0 | 44117.6 | 496.20 | ug/L | 496.20 | ppb | 06:58:21 |
| 1 | Cu 324.752† | 165578.3 | 159652.3 | 485.82 | ug/L | 485.82 | ppb | 06:58:21 |
| 1 | Mn 257.610† | 437364.7 | 437077.0 | 497.63 | ug/L | 497.63 | ppb | 06:58:16 |
| 1 | Mo 202.031† | 6709.1 | 6701.6 | 492.43 | ug/L | 492.43 | ppb | 06:58:41 |
| 1 | Ni 231.604† | 19676.0 | 19621.2 | 498.73 | ug/L | 498.73 | ppb | 06:58:21 |
| 1 | P 214.914† | 4343.6 | 4134.7 | 2394.8 | ug/L | 2394.8 | ppb | 06:58:41 |
| 1 | Pb 220.353† | 4084.9 | 4144.6 | 511.33 | ug/L | 511.33 | ppb | 06:58:41 |
| 1 | S 181.975 Axial† | 746.0 | 705.5 | 1014.2 | ug/L | 1014.2 | ppb | 06:58:41 |
| 1 | Sb 206.836† | 1435.3 | 1399.1 | 506.81 | ug/L | 506.81 | ppb | 06:58:41 |
| 1 | Se 196.026† | 744.7 | 772.8 | 522.16 | ug/L | 522.16 | ppb | 06:58:41 |
| 1 | Si 251.611† | 76810.3 | 76282.0 | 2462.3 | ug/L | 2462.3 | ppb | 06:58:21 |
| 1 | Sn 189.927† | 2762.6 | 2753.2 | 494.64 | ug/L | 494.64 | ppb | 06:58:41 |
| 1 | Ti 334.940† | 309277.9 | 310773.0 | 488.24 | ug/L | 488.24 | ppb | 06:58:21 |
| 1 | Tl 190.801† | 1520.8 | 1554.0 | 500.17 | ug/L | 500.17 | ppb | 06:58:41 |
| 1 | U 409.014† | 14269.3 | 17161.5 | 472.26 | ug/L | 472.26 | ppb | 06:58:21 |
| 1 | V 292.402† | 68741.2 | 70273.7 | 496.59 | ug/L | 496.59 | ppb | 06:58:21 |
| 1 | Zn 213.857† | 50010.0 | 49423.5 | 492.99 | ug/L | 492.99 | ppb | 06:58:21 |
| 1 | SiO2† | 76188.3 | 75663.7 | 5244.9 | ug/L | 5244.9 | ppb | 06:59:49 |
| 2 | Sc Radial | 3759.1 | 3759.1 | 95.9 | % | | | 06:57:44 |
| 2 | Y RADIAL | 4272.1 | 4272.1 | 96.85 | % | | | 06:57:24 |
| 2 | Al 396.153Radial† | 5238.4 | 5573.4 | 5203.6 | ug/L | 5203.6 | ppb | 06:57:24 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Ca 317.933Radial† | 2323.6 | 2402.7 | 5022.9 ug/L | 5022.9 ppb | 06:57:44 |
| 2 | Fe 238.204 Radial† | 320.0 | 322.3 | 4563.5 ug/L | 4563.5 ppb | 06:57:44 |
| 2 | K 766.490 Radial† | 28499.1 | 27070.6 | 5188.6 ug/L | 5188.6 ppb | 06:57:24 |
| 2 | Mg 279.077 IEC† | 99.8 | 100.0 | 4849.3 ug/L | 4849.3 ppb | 06:57:44 |
| 2 | Na 589.592 Radial† | 29869.2 | 31958.3 | 9853.6 ug/L | 9853.6 ppb | 06:57:24 |
| 2 | Sr 421.552† | 69102.8 | 72003.7 | 498.20 ug/L | 498.20 ppb | 06:57:24 |
| 2 | Sc 361.383 | 884627.7 | 884627.7 | 100.84 % | | 06:58:47 |
| 2 | Y 371.029 | 735562.0 | 735562.0 | 97.317 % | | 06:58:47 |
| 2 | Ag 328.068† | 105988.3 | 104861.7 | 488.73 ug/L | 488.73 ppb | 06:58:52 |
| 2 | As 188.979† | 1087.5 | 1096.6 | 493.78 ug/L | 493.78 ppb | 06:59:12 |
| 2 | B 249.677† | 19530.8 | 19765.8 | 477.07 ug/L | 477.07 ppb | 06:58:52 |
| 2 | Ba 233.527† | 62867.8 | 62343.5 | 490.44 ug/L | 490.44 ppb | 06:58:52 |
| 2 | Be 313.107† | 1311537.1 | 1304333.2 | 491.26 ug/L | 491.26 ppb | 06:58:47 |
| 2 | Cd 226.502† | 42929.9 | 42767.2 | 495.18 ug/L | 495.18 ppb | 06:58:52 |
| 2 | Co 228.616† | 23654.3 | 23523.1 | 492.84 ug/L | 492.84 ppb | 06:58:52 |
| 2 | Cr 267.716† | 44028.5 | 43582.7 | 490.18 ug/L | 490.18 ppb | 06:58:52 |
| 2 | Cu 324.752† | 165523.7 | 158149.0 | 481.24 ug/L | 481.24 ppb | 06:58:52 |
| 2 | Mn 257.610† | 436614.7 | 432505.3 | 492.42 ug/L | 492.42 ppb | 06:58:47 |
| 2 | Mo 202.031† | 6683.1 | 6617.1 | 486.22 ug/L | 486.22 ppb | 06:59:12 |
| 2 | Ni 231.604† | 19711.0 | 19483.7 | 495.23 ug/L | 495.23 ppb | 06:58:52 |
| 2 | P 214.914† | 4324.0 | 4077.3 | 2361.1 ug/L | 2361.1 ppb | 06:59:12 |
| 2 | Pb 220.353† | 4039.1 | 4063.5 | 501.36 ug/L | 501.36 ppb | 06:59:12 |
| 2 | S 181.975 Axial† | 740.5 | 693.5 | 996.93 ug/L | 996.93 ppb | 06:59:12 |
| 2 | Sb 206.836† | 1414.2 | 1365.7 | 494.86 ug/L | 494.86 ppb | 06:59:12 |
| 2 | Se 196.026† | 739.2 | 760.8 | 514.04 ug/L | 514.04 ppb | 06:59:12 |
| 2 | Si 251.611† | 76607.9 | 75409.0 | 2434.2 ug/L | 2434.2 ppb | 06:58:52 |
| 2 | Sn 189.927† | 2735.7 | 2702.3 | 485.50 ug/L | 485.50 ppb | 06:59:12 |
| 2 | Ti 334.940† | 309002.4 | 307792.9 | 483.56 ug/L | 483.56 ppb | 06:58:52 |
| 2 | Tl 190.801† | 1501.7 | 1521.7 | 489.82 ug/L | 489.82 ppb | 06:59:12 |
| 2 | U 409.014† | 14340.1 | 17106.8 | 470.77 ug/L | 470.77 ppb | 06:58:52 |
| 2 | V 292.402† | 68664.2 | 69595.7 | 491.79 ug/L | 491.79 ppb | 06:58:52 |
| 2 | Zn 213.857† | 49964.7 | 48940.9 | 488.17 ug/L | 488.17 ppb | 06:58:52 |
| 2 | SiO2† | 77098.7 | 75899.7 | 5261.5 ug/L | 5261.5 ppb | 06:59:54 |
| 3 | Sc Radial | 3681.2 | 3681.2 | 93.9 % | | 06:58:09 |
| 3 | Y RADIAL | 4616.3 | 4616.3 | 104.7 % | | 06:57:49 |
| 3 | Al 396.153Radial† | 4936.1 | 5367.2 | 5009.8 ug/L | 5009.8 ppb | 06:57:49 |
| 3 | Ca 317.933Radial† | 2340.1 | 2471.5 | 5166.7 ug/L | 5166.7 ppb | 06:58:09 |
| 3 | Fe 238.204 Radial† | 322.1 | 331.5 | 4694.8 ug/L | 4694.8 ppb | 06:58:09 |
| 3 | K 766.490 Radial† | 27225.0 | 26342.7 | 5049.0 ug/L | 5049.0 ppb | 06:57:49 |
| 3 | Mg 279.077 IEC† | 99.8 | 102.2 | 4955.5 ug/L | 4955.5 ppb | 06:58:09 |
| 3 | Na 589.592 Radial† | 28289.2 | 30935.0 | 9538.1 ug/L | 9538.1 ppb | 06:57:49 |
| 3 | Sr 421.552† | 65265.7 | 69442.8 | 480.47 ug/L | 480.47 ppb | 06:57:49 |
| 3 | Sc 361.383 | 877994.2 | 877994.2 | 100.09 % | | 06:59:18 |
| 3 | Y 371.029 | 730600.0 | 730600.0 | 96.660 % | | 06:59:18 |
| 3 | Ag 328.068† | 106623.9 | 106290.8 | 495.41 ug/L | 495.41 ppb | 06:59:23 |
| 3 | As 188.979† | 1099.8 | 1117.1 | 503.02 ug/L | 503.02 ppb | 06:59:43 |
| 3 | B 249.677† | 19649.5 | 20030.6 | 483.45 ug/L | 483.45 ppb | 06:59:23 |
| 3 | Ba 233.527† | 63283.1 | 63229.5 | 497.41 ug/L | 497.41 ppb | 06:59:23 |
| 3 | Be 313.107† | 1301423.8 | 1304055.0 | 491.17 ug/L | 491.17 ppb | 06:59:18 |
| 3 | Cd 226.502† | 43230.1 | 43388.8 | 502.37 ug/L | 502.37 ppb | 06:59:23 |
| 3 | Co 228.616† | 23802.4 | 23848.2 | 499.66 ug/L | 499.66 ppb | 06:59:23 |
| 3 | Cr 267.716† | 44400.2 | 44283.9 | 498.07 ug/L | 498.07 ppb | 06:59:23 |
| 3 | Cu 324.752† | 166760.3 | 160624.6 | 488.78 ug/L | 488.78 ppb | 06:59:23 |
| 3 | Mn 257.610† | 432753.2 | 431918.4 | 491.76 ug/L | 491.76 ppb | 06:59:18 |
| 3 | Mo 202.031† | 6751.0 | 6735.0 | 494.89 ug/L | 494.89 ppb | 06:59:43 |
| 3 | Ni 231.604† | 19835.4 | 19755.7 | 502.15 ug/L | 502.15 ppb | 06:59:23 |
| 3 | P 214.914† | 4366.3 | 4152.0 | 2404.5 ug/L | 2404.5 ppb | 06:59:43 |
| 3 | Pb 220.353† | 4087.7 | 4142.2 | 511.01 ug/L | 511.01 ppb | 06:59:43 |
| 3 | S 181.975 Axial† | 747.6 | 706.2 | 1015.3 ug/L | 1015.3 ppb | 06:59:43 |
| 3 | Sb 206.836† | 1439.6 | 1401.6 | 507.81 ug/L | 507.81 ppb | 06:59:43 |
| 3 | Se 196.026† | 732.5 | 759.6 | 513.70 ug/L | 513.70 ppb | 06:59:43 |
| 3 | Si 251.611† | 77100.4 | 76475.1 | 2468.5 ug/L | 2468.5 ppb | 06:59:23 |
| 3 | Sn 189.927† | 2787.2 | 2774.3 | 498.43 ug/L | 498.43 ppb | 06:59:43 |
| 3 | Ti 334.940† | 310943.7 | 312047.5 | 490.25 ug/L | 490.25 ppb | 06:59:23 |
| 3 | Tl 190.801† | 1514.1 | 1545.4 | 497.40 ug/L | 497.40 ppb | 06:59:43 |
| 3 | U 409.014† | 14538.6 | 17412.6 | 479.18 ug/L | 479.18 ppb | 06:59:23 |
| 3 | V 292.402† | 69165.9 | 70611.5 | 498.99 ug/L | 498.99 ppb | 06:59:23 |
| 3 | Zn 213.857† | 50278.1 | 49628.4 | 495.02 ug/L | 495.02 ppb | 06:59:23 |
| 3 | SiO2† | 76980.6 | 76359.3 | 5293.2 ug/L | 5293.2 ppb | 06:59:59 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 879836.7 | 100.30 | % | 0.477 | | | | 0.48% |
| Sc Radial | 3725.6 | 95.1 | % | 1.02 | | | | 1.08% |
| Y 371.029 | 732160.5 | 96.867 | % | 0.3902 | | | | 0.40% |
| Y RADIAL | 4370.4 | 99.08 | % | 4.861 | | | | 4.91% |
| Ag 328.068† | 105730.8 | 492.79 | ug/L | 3.566 | 492.79 | ppb | 3.566 | 0.72% |
| QC value within limits for Ag 328.068 Recovery = 98.56% | | | | | | | | |
| Al 396.153Radial† | 5491.7 | 5126.8 | ug/L | 102.96 | 5126.8 | ppb | 102.96 | 2.01% |
| QC value within limits for Al 396.153Radial Recovery = 102.54% | | | | | | | | |
| As 188.979† | 1108.6 | 499.17 | ug/L | 4.803 | 499.17 | ppb | 4.803 | 0.96% |
| QC value within limits for As 188.979 Recovery = 99.83% | | | | | | | | |
| B 249.677† | 19914.8 | 480.67 | ug/L | 3.265 | 480.67 | ppb | 3.265 | 0.68% |
| QC value within limits for B 249.677 Recovery = 96.13% | | | | | | | | |
| Ba 233.527† | 62855.4 | 494.47 | ug/L | 3.610 | 494.47 | ppb | 3.610 | 0.73% |
| QC value within limits for Ba 233.527 Recovery = 98.89% | | | | | | | | |
| Be 313.107† | 1310057.3 | 493.42 | ug/L | 3.818 | 493.42 | ppb | 3.818 | 0.77% |
| QC value within limits for Be 313.107 Recovery = 98.68% | | | | | | | | |
| Ca 317.933Radial† | 2434.1 | 5088.5 | ug/L | 72.71 | 5088.5 | ppb | 72.71 | 1.43% |
| QC value within limits for Ca 317.933Radial Recovery = 101.77% | | | | | | | | |
| Cd 226.502† | 43135.0 | 499.43 | ug/L | 3.773 | 499.43 | ppb | 3.773 | 0.76% |
| QC value within limits for Cd 226.502 Recovery = 99.89% | | | | | | | | |
| Co 228.616† | 23696.6 | 496.48 | ug/L | 3.431 | 496.48 | ppb | 3.431 | 0.69% |
| QC value within limits for Co 228.616 Recovery = 99.30% | | | | | | | | |
| Cr 267.716† | 43994.7 | 494.82 | ug/L | 4.123 | 494.82 | ppb | 4.123 | 0.83% |
| QC value within limits for Cr 267.716 Recovery = 98.96% | | | | | | | | |
| Cu 324.752† | 159475.3 | 485.28 | ug/L | 3.797 | 485.28 | ppb | 3.797 | 0.78% |
| QC value within limits for Cu 324.752 Recovery = 97.06% | | | | | | | | |
| Fe 238.204 Radial† | 327.3 | 4634.3 | ug/L | 66.27 | 4634.3 | ppb | 66.27 | 1.43% |
| QC value within limits for Fe 238.204 Radial Recovery = 92.69% | | | | | | | | |
| K 766.490 Radial† | 26745.6 | 5126.2 | ug/L | 71.00 | 5126.2 | ppb | 71.00 | 1.38% |
| QC value within limits for K 766.490 Radial Recovery = 102.52% | | | | | | | | |
| Mg 279.077 IEC† | 100.9 | 4892.1 | ug/L | 55.97 | 4892.1 | ppb | 55.97 | 1.14% |
| QC value within limits for Mg 279.077 IEC Recovery = 97.84% | | | | | | | | |
| Mn 257.610† | 433833.6 | 493.93 | ug/L | 3.215 | 493.93 | ppb | 3.215 | 0.65% |
| QC value within limits for Mn 257.610 Recovery = 98.79% | | | | | | | | |
| Mo 202.031† | 6684.6 | 491.18 | ug/L | 4.468 | 491.18 | ppb | 4.468 | 0.91% |
| QC value within limits for Mo 202.031 Recovery = 98.24% | | | | | | | | |
| Na 589.592 Radial† | 31539.5 | 9724.5 | ug/L | 165.36 | 9724.5 | ppb | 165.36 | 1.70% |
| QC value within limits for Na 589.592 Radial Recovery = 97.24% | | | | | | | | |
| Ni 231.604† | 19620.2 | 498.70 | ug/L | 3.456 | 498.70 | ppb | 3.456 | 0.69% |
| QC value within limits for Ni 231.604 Recovery = 99.74% | | | | | | | | |
| P 214.914† | 4121.3 | 2386.8 | ug/L | 22.78 | 2386.8 | ppb | 22.78 | 0.95% |
| QC value within limits for P 214.914 Recovery = 95.47% | | | | | | | | |
| Pb 220.353† | 4116.8 | 507.90 | ug/L | 5.667 | 507.90 | ppb | 5.667 | 1.12% |
| QC value within limits for Pb 220.353 Recovery = 101.58% | | | | | | | | |
| S 181.975 Axial† | 701.7 | 1008.8 | ug/L | 10.31 | 1008.8 | ppb | 10.31 | 1.02% |
| QC value within limits for S 181.975 Axial Recovery = 100.88% | | | | | | | | |
| Sb 206.836† | 1388.8 | 503.16 | ug/L | 7.206 | 503.16 | ppb | 7.206 | 1.43% |
| QC value within limits for Sb 206.836 Recovery = 100.63% | | | | | | | | |
| Se 196.026† | 764.4 | 516.64 | ug/L | 4.789 | 516.64 | ppb | 4.789 | 0.93% |
| QC value within limits for Se 196.026 Recovery = 103.33% | | | | | | | | |
| Si 251.611† | 76055.4 | 2455.0 | ug/L | 18.33 | 2455.0 | ppb | 18.33 | 0.75% |
| QC value within limits for Si 251.611 Recovery = 98.20% | | | | | | | | |
| Sn 189.927† | 2743.3 | 492.86 | ug/L | 6.648 | 492.86 | ppb | 6.648 | 1.35% |
| QC value within limits for Sn 189.927 Recovery = 98.57% | | | | | | | | |
| Sr 421.552† | 70919.5 | 490.69 | ug/L | 9.167 | 490.69 | ppb | 9.167 | 1.87% |
| QC value within limits for Sr 421.552 Recovery = 98.14% | | | | | | | | |
| Ti 334.940† | 310204.5 | 487.35 | ug/L | 3.433 | 487.35 | ppb | 3.433 | 0.70% |
| QC value within limits for Ti 334.940 Recovery = 97.47% | | | | | | | | |
| Tl 190.801† | 1540.4 | 495.80 | ug/L | 5.362 | 495.80 | ppb | 5.362 | 1.08% |
| QC value within limits for Tl 190.801 Recovery = 99.16% | | | | | | | | |
| U 409.014† | 17227.0 | 474.07 | ug/L | 4.489 | 474.07 | ppb | 4.489 | 0.95% |
| QC value within limits for U 409.014 Recovery = 94.81% | | | | | | | | |
| V 292.402† | 70160.3 | 495.79 | ug/L | 3.664 | 495.79 | ppb | 3.664 | 0.74% |
| QC value within limits for V 292.402 Recovery = 99.16% | | | | | | | | |
| Zn 213.857† | 49330.9 | 492.06 | ug/L | 3.517 | 492.06 | ppb | 3.517 | 0.71% |
| QC value within limits for Zn 213.857 Recovery = 98.41% | | | | | | | | |
| SiO2† | 75974.2 | 5266.5 | ug/L | 24.53 | 5266.5 | ppb | 24.53 | 0.47% |
| QC value within limits for SiO2 Recovery = 98.49% | | | | | | | | |

Sequence No.: 111
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 07:02:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3669.1 | 3669.1 | 93.6 | % | | | 07:04:22 |
| 1 | Y RADIAL | 4112.9 | 4112.9 | 93.24 | % | | | 07:04:02 |
| 1 | Al 396.153Radial† | -138.3 | -35.3 | -33.107 | ug/L | -33.107 | ppb | 07:04:02 |
| 1 | Ca 317.933Radial† | 22.2 | 4.0 | 8.3823 | ug/L | 8.3823 | ppb | 07:04:22 |
| 1 | Fe 238.204 Radial† | 10.6 | 0.0 | 0.3320 | ug/L | 0.3320 | ppb | 07:04:22 |
| 1 | K 766.490 Radial† | 2986.4 | 550.0 | 105.55 | ug/L | 105.55 | ppb | 07:04:02 |
| 1 | Mg 279.077 IEC† | 3.9 | 0.1 | 3.7408 | ug/L | 3.7408 | ppb | 07:04:22 |
| 1 | Na 589.592 Radial† | -848.4 | -86.4 | -26.638 | ug/L | -26.638 | ppb | 07:04:02 |
| 1 | Sr 421.552† | 37.1 | 3.9 | 0.0272 | ug/L | 0.0272 | ppb | 07:04:02 |
| 1 | Sc 361.383 | 905496.7 | 905496.7 | 103.22 | % | | | 07:05:19 |
| 1 | Y 371.029 | 764527.5 | 764527.5 | 101.15 | % | | | 07:05:19 |
| 1 | Ag 328.068† | 302.5 | 52.7 | 0.2476 | ug/L | 0.2476 | ppb | 07:05:24 |
| 1 | As 188.979† | -20.7 | -1.8 | -0.8175 | ug/L | -0.8175 | ppb | 07:05:44 |
| 1 | B 249.677† | -324.7 | 83.6 | 2.0278 | ug/L | 2.0278 | ppb | 07:05:44 |
| 1 | Ba 233.527† | 13.5 | 14.5 | 0.1151 | ug/L | 0.1151 | ppb | 07:05:44 |
| 1 | Be 313.107† | -3665.8 | 210.8 | 0.0787 | ug/L | 0.0787 | ppb | 07:05:24 |
| 1 | Cd 226.502† | -191.4 | 10.8 | 0.1249 | ug/L | 0.1249 | ppb | 07:05:44 |
| 1 | Co 228.616† | -74.8 | -5.9 | -0.1236 | ug/L | -0.1236 | ppb | 07:05:44 |
| 1 | Cr 267.716† | 64.4 | -15.3 | -0.1700 | ug/L | -0.1700 | ppb | 07:05:44 |
| 1 | Cu 324.752† | 6097.4 | -83.8 | -0.2545 | ug/L | -0.2545 | ppb | 07:05:24 |
| 1 | Mn 257.610† | 529.2 | 54.0 | 0.0613 | ug/L | 0.0613 | ppb | 07:05:44 |
| 1 | Mo 202.031† | 10.5 | 0.1 | 0.0050 | ug/L | 0.0050 | ppb | 07:05:44 |
| 1 | Ni 231.604† | 67.7 | 3.2 | 0.0807 | ug/L | 0.0807 | ppb | 07:05:44 |
| 1 | P 214.914† | 195.3 | -21.3 | -12.786 | ug/L | -12.786 | ppb | 07:05:44 |
| 1 | Pb 220.353† | 11.4 | 69.1 | 8.4943 | ug/L | 8.4943 | ppb | 07:05:44 |
| 1 | S 181.975 Axial† | 49.6 | 7.2 | 10.375 | ug/L | 10.375 | ppb | 07:05:44 |
| 1 | Sb 206.836† | 41.5 | 3.5 | 1.2635 | ug/L | 1.2635 | ppb | 07:05:44 |
| 1 | Se 196.026† | -31.5 | -2.7 | -1.7925 | ug/L | -1.7925 | ppb | 07:05:44 |
| 1 | Si 251.611† | 587.1 | 10.5 | 0.3394 | ug/L | 0.3394 | ppb | 07:05:44 |
| 1 | Sn 189.927† | 22.0 | 10.8 | 1.9453 | ug/L | 1.9453 | ppb | 07:05:44 |
| 1 | Ti 334.940† | -1561.0 | -138.2 | -0.2160 | ug/L | -0.2160 | ppb | 07:05:24 |
| 1 | Tl 190.801† | -34.7 | -1.0 | -0.3252 | ug/L | -0.3252 | ppb | 07:05:44 |
| 1 | U 409.014† | -3003.0 | -22.6 | -0.6250 | ug/L | -0.6250 | ppb | 07:05:19 |
| 1 | V 292.402† | -1441.8 | 108.9 | 0.7582 | ug/L | 0.7582 | ppb | 07:05:24 |
| 1 | Zn 213.857† | 737.8 | 108.8 | 1.0947 | ug/L | 1.0947 | ppb | 07:05:44 |
| 1 | SiO2† | 603.3 | 30.1 | 2.0910 | ug/L | 2.0910 | ppb | 07:06:50 |
| 2 | Sc Radial | 3718.3 | 3718.3 | 94.9 | % | | | 07:04:47 |
| 2 | Y RADIAL | 4213.2 | 4213.2 | 95.52 | % | | | 07:04:27 |
| 2 | Al 396.153Radial† | -139.8 | -34.9 | -32.744 | ug/L | -32.744 | ppb | 07:04:27 |
| 2 | Ca 317.933Radial† | 26.3 | 8.0 | 16.739 | ug/L | 16.739 | ppb | 07:04:47 |
| 2 | Fe 238.204 Radial† | 12.7 | 2.1 | 29.107 | ug/L | 29.107 | ppb | 07:04:47 |
| 2 | K 766.490 Radial† | 2956.8 | 476.7 | 91.492 | ug/L | 91.492 | ppb | 07:04:27 |
| 2 | Mg 279.077 IEC† | 0.6 | -3.4 | -166.75 | ug/L | -166.75 | ppb | 07:04:47 |
| 2 | Na 589.592 Radial† | -887.7 | -115.9 | -35.720 | ug/L | -35.720 | ppb | 07:04:27 |
| 2 | Sr 421.552† | -5.0 | -41.0 | -0.2836 | ug/L | -0.2836 | ppb | 07:04:27 |
| 2 | Sc 361.383 | 896537.4 | 896537.4 | 102.20 | % | | | 07:05:49 |
| 2 | Y 371.029 | 756194.9 | 756194.9 | 100.05 | % | | | 07:05:49 |
| 2 | Ag 328.068† | 326.3 | 78.8 | 0.3771 | ug/L | 0.3771 | ppb | 07:05:54 |
| 2 | As 188.979† | -18.5 | 0.1 | 0.0685 | ug/L | 0.0685 | ppb | 07:06:14 |
| 2 | B 249.677† | -346.3 | 59.4 | 1.4360 | ug/L | 1.4360 | ppb | 07:06:14 |
| 2 | Ba 233.527† | 17.9 | 18.9 | 0.1497 | ug/L | 0.1497 | ppb | 07:06:14 |
| 2 | Be 313.107† | -3774.1 | 69.4 | 0.0258 | ug/L | 0.0258 | ppb | 07:05:54 |
| 2 | Cd 226.502† | -185.1 | 15.1 | 0.1718 | ug/L | 0.1718 | ppb | 07:06:14 |
| 2 | Co 228.616† | -67.5 | 0.5 | 0.0086 | ug/L | 0.0086 | ppb | 07:06:14 |
| 2 | Cr 267.716† | 72.5 | -6.8 | -0.0719 | ug/L | -0.0719 | ppb | 07:06:14 |
| 2 | Cu 324.752† | 6040.8 | -80.1 | -0.2406 | ug/L | -0.2406 | ppb | 07:05:54 |
| 2 | Mn 257.610† | 523.0 | 53.0 | 0.0700 | ug/L | 0.0700 | ppb | 07:06:14 |
| 2 | Mo 202.031† | 4.3 | -5.9 | -0.4343 | ug/L | -0.4343 | ppb | 07:06:14 |
| 2 | Ni 231.604† | 66.7 | 2.8 | 0.0716 | ug/L | 0.0716 | ppb | 07:06:14 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 214.1 | -1.0 | -0.5938 | ug/L | -0.5938 ppb | 07:06:14 |
| 2 | Pb 220.353† | 9.5 | 67.4 | 8.2759 | ug/L | 8.2759 ppb | 07:06:14 |
| 2 | S 181.975 Axial† | 41.1 | -0.5 | -0.7830 | ug/L | -0.7830 ppb | 07:06:14 |
| 2 | Sb 206.836† | 36.1 | -1.4 | -0.4728 | ug/L | -0.4728 ppb | 07:06:14 |
| 2 | Se 196.026† | -24.3 | 4.0 | 2.6858 | ug/L | 2.6858 ppb | 07:06:14 |
| 2 | Si 251.611† | 575.4 | 4.7 | 0.1579 | ug/L | 0.1579 ppb | 07:06:14 |
| 2 | Sn 189.927† | 17.6 | 6.8 | 1.2128 | ug/L | 1.2128 ppb | 07:06:14 |
| 2 | Ti 334.940† | -1477.8 | -71.9 | -0.0959 | ug/L | -0.0959 ppb | 07:05:54 |
| 2 | Tl 190.801† | -32.8 | 0.5 | 0.1644 | ug/L | 0.1644 ppb | 07:06:14 |
| 2 | U 409.014† | -3060.6 | -108.1 | -2.9888 | ug/L | -2.9888 ppb | 07:05:49 |
| 2 | V 292.402† | -1511.6 | 26.6 | 0.1663 | ug/L | 0.1663 ppb | 07:05:54 |
| 2 | Zn 213.857† | 742.4 | 120.3 | 1.2070 | ug/L | 1.2070 ppb | 07:06:14 |
| 2 | SiO2† | 615.6 | 47.9 | 3.3429 | ug/L | 3.3429 ppb | 07:06:55 |
| 3 | Sc Radial | 3725.5 | 3725.5 | 95.1 | % | | 07:05:12 |
| 3 | Y RADIAL | 4234.7 | 4234.7 | 96.01 | % | | 07:04:52 |
| 3 | Al 396.153Radial† | -119.3 | -13.0 | -12.230 | ug/L | -12.230 ppb | 07:04:52 |
| 3 | Ca 317.933Radial† | 25.9 | 7.6 | 15.825 | ug/L | 15.825 ppb | 07:05:12 |
| 3 | Fe 238.204 Radial† | 7.9 | -3.1 | -43.166 | ug/L | -43.166 ppb | 07:05:12 |
| 3 | K 766.490 Radial† | 2908.9 | 420.3 | 80.676 | ug/L | 80.676 ppb | 07:04:52 |
| 3 | Mg 279.077 IEC† | 3.3 | -0.6 | -30.126 | ug/L | -30.126 ppb | 07:05:12 |
| 3 | Na 589.592 Radial† | -968.0 | -198.4 | -61.186 | ug/L | -61.186 ppb | 07:04:52 |
| 3 | Sr 421.552† | 0.1 | -35.6 | -0.2465 | ug/L | -0.2465 ppb | 07:04:52 |
| 3 | Sc 361.383 | 901896.1 | 901896.1 | 102.81 | % | | 07:06:19 |
| 3 | Y 371.029 | 761425.3 | 761425.3 | 100.74 | % | | 07:06:19 |
| 3 | Ag 328.068† | 236.6 | -10.3 | -0.0630 | ug/L | -0.0630 ppb | 07:06:24 |
| 3 | As 188.979† | -21.3 | -2.5 | -1.1211 | ug/L | -1.1211 ppb | 07:06:44 |
| 3 | B 249.677† | -309.1 | 97.6 | 2.3735 | ug/L | 2.3735 ppb | 07:06:44 |
| 3 | Ba 233.527† | 5.2 | 6.5 | 0.0500 | ug/L | 0.0500 ppb | 07:06:44 |
| 3 | Be 313.107† | -3749.4 | 115.3 | 0.0436 | ug/L | 0.0436 ppb | 07:06:24 |
| 3 | Cd 226.502† | -195.5 | 6.1 | 0.0752 | ug/L | 0.0752 ppb | 07:06:44 |
| 3 | Co 228.616† | -71.0 | -2.6 | -0.0527 | ug/L | -0.0527 ppb | 07:06:44 |
| 3 | Cr 267.716† | 85.5 | 5.5 | 0.0568 | ug/L | 0.0568 ppb | 07:06:44 |
| 3 | Cu 324.752† | 6127.4 | -31.0 | -0.0979 | ug/L | -0.0979 ppb | 07:06:24 |
| 3 | Mn 257.610† | 537.7 | 64.3 | 0.0701 | ug/L | 0.0701 ppb | 07:06:44 |
| 3 | Mo 202.031† | 15.0 | 4.4 | 0.3213 | ug/L | 0.3213 ppb | 07:06:44 |
| 3 | Ni 231.604† | 61.5 | -2.6 | -0.0662 | ug/L | -0.0662 ppb | 07:06:44 |
| 3 | P 214.914† | 208.9 | -7.3 | -4.3309 | ug/L | -4.3309 ppb | 07:06:44 |
| 3 | Pb 220.353† | 8.5 | 66.4 | 8.1728 | ug/L | 8.1728 ppb | 07:06:44 |
| 3 | S 181.975 Axial† | 45.2 | 3.1 | 4.4895 | ug/L | 4.4895 ppb | 07:06:44 |
| 3 | Sb 206.836† | 33.2 | -4.4 | -1.5077 | ug/L | -1.5077 ppb | 07:06:44 |
| 3 | Se 196.026† | -24.5 | 3.9 | 2.4306 | ug/L | 2.4306 ppb | 07:06:44 |
| 3 | Si 251.611† | 590.2 | 15.7 | 0.5040 | ug/L | 0.5040 ppb | 07:06:44 |
| 3 | Sn 189.927† | 18.7 | 7.7 | 1.3921 | ug/L | 1.3921 ppb | 07:06:44 |
| 3 | Ti 334.940† | -1350.9 | 60.2 | 0.0980 | ug/L | 0.0980 ppb | 07:06:24 |
| 3 | Tl 190.801† | -32.4 | 1.1 | 0.3444 | ug/L | 0.3444 ppb | 07:06:44 |
| 3 | U 409.014† | -2874.0 | 91.2 | 2.5238 | ug/L | 2.5238 ppb | 07:06:19 |
| 3 | V 292.402† | -1531.8 | 15.8 | 0.1251 | ug/L | 0.1251 ppb | 07:06:24 |
| 3 | Zn 213.857† | 744.3 | 117.9 | 1.1939 | ug/L | 1.1939 ppb | 07:06:44 |
| 3 | SiO2† | 637.3 | 65.4 | 4.5391 | ug/L | 4.5391 ppb | 07:07:00 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 901310.0 | 102.74 | % | 0.514 | | | | 0.50% |
| Sc Radial | 3704.3 | 94.5 | % | 0.78 | | | | 0.83% |
| Y 371.029 | 760715.9 | 100.64 | % | 0.557 | | | | 0.55% |
| Y RADIAL | 4186.9 | 94.92 | % | 1.474 | | | | 1.55% |
| Ag 328.068† | 40.4 | 0.1872 | ug/L | 0.22615 | 0.1872 | ppb | 0.22615 | 120.78% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -27.8 | -26.027 | ug/L | 11.9496 | -26.027 | ppb | 11.9496 | 45.91% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.4 | -0.6234 | ug/L | 0.61807 | -0.6234 | ppb | 0.61807 | 99.15% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 80.2 | 1.9458 | ug/L | 0.47410 | 1.9458 | ppb | 0.47410 | 24.37% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 13.3 | 0.1049 | ug/L | 0.05060 | 0.1049 | ppb | 0.05060 | 48.22% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 131.8 | 0.0494 | ug/L | 0.02694 | 0.0494 | ppb | 0.02694 | 54.57% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 6.5 | 13.649 | ug/L | 4.5837 | 13.649 | ppb | 4.5837 | 33.58% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.7      0.1240 ug/L       0.04828      0.1240 ppb        0.04828  38.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -2.7     -0.0559 ug/L       0.06618     -0.0559 ppb        0.06618 118.40%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.5     -0.0617 ug/L       0.11372     -0.0617 ppb        0.11372 184.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -64.9     -0.1977 ug/L       0.08665     -0.1977 ppb        0.08665  43.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -4.5757 ug/L      36.38529     -4.5757 ppb       36.38529 795.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       482.3      92.573 ug/L       12.4727      92.573 ppb        12.4727  13.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.3     -64.379 ug/L       90.2598     -64.379 ppb        90.2598 140.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              57.1      0.0671 ug/L       0.00504      0.0671 ppb        0.00504   7.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.5     -0.0360 ug/L       0.37945     -0.0360 ppb        0.37945 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -133.6     -41.181 ug/L       17.9097     -41.181 ppb        17.9097  43.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.1      0.0287 ug/L       0.08228      0.0287 ppb        0.08228 286.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -9.9     -5.9036 ug/L       6.24639     -5.9036 ppb        6.24639 105.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              67.6      8.3143 ug/L       0.16420      8.3143 ppb        0.16420   1.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.3      4.6937 ug/L       5.58172      4.6937 ppb        5.58172 118.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.8     -0.2390 ug/L       1.40032     -0.2390 ppb        1.40032 585.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7      1.1079 ug/L       2.51511      1.1079 ppb        2.51511 227.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              10.3      0.3338 ug/L       0.17313      0.3338 ppb        0.17313  51.87%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.4      1.5167 ug/L       0.38185      1.5167 ppb        0.38185  25.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -24.2     -0.1676 ug/L       0.16972     -0.1676 ppb        0.16972 101.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -50.0     -0.0713 ug/L       0.15845     -0.0713 ppb        0.15845 222.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.2      0.0612 ug/L       0.34655      0.0612 ppb        0.34655 566.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -13.2     -0.3633 ug/L       2.76560     -0.3633 ppb        2.76560 761.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               50.4      0.3499 ug/L       0.35426      0.3499 ppb        0.35426 101.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             115.7      1.1652 ug/L       0.06138      1.1652 ppb        0.06138   5.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    47.8      3.3243 ug/L       1.22417      3.3243 ppb        1.22417  36.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 112
Sample ID: 1202032590|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 127
Date Collected: 2/25/2010 07:09:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032590|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3799.9 | 3799.9 | 97.0 | % | | | 07:11:24 |
| 1 | Y RADIAL | 4322.3 | 4322.3 | 97.99 | % | | | 07:11:04 |
| 1 | Al 396.153Radial† | -93.2 | 16.3 | 15.225 | ug/L | 15.225 | ppb | 07:11:04 |
| 1 | Ca 317.933Radial† | 33.4 | 14.8 | 30.908 | ug/L | 30.908 | ppb | 07:11:24 |
| 1 | Fe 238.204 Radial† | 14.3 | 3.4 | 47.982 | ug/L | 47.982 | ppb | 07:11:24 |
| 1 | K 766.490 Radial† | 2900.6 | 351.8 | 67.497 | ug/L | 67.497 | ppb | 07:11:04 |
| 1 | Mg 279.077 IEC† | -1.0 | -5.1 | -247.74 | ug/L | -247.74 | ppb | 07:11:24 |
| 1 | Na 589.592 Radial† | -829.5 | -35.6 | -10.988 | ug/L | -10.988 | ppb | 07:11:04 |
| 1 | Sr 421.552† | 106.3 | 73.9 | 0.5112 | ug/L | 0.5112 | ppb | 07:11:04 |
| 1 | Sc 361.383 | 884448.5 | 884448.5 | 100.82 | % | | | 07:12:21 |
| 1 | Y 371.029 | 746715.4 | 746715.4 | 98.792 | % | | | 07:12:21 |
| 1 | Ag 328.068† | 232.9 | -9.4 | -0.0198 | ug/L | -0.0198 | ppb | 07:12:21 |
| 1 | As 188.979† | -21.5 | -3.1 | -1.3760 | ug/L | -1.3760 | ppb | 07:12:41 |
| 1 | B 249.677† | -435.8 | -34.0 | -0.8331 | ug/L | -0.8331 | ppb | 07:12:41 |
| 1 | Ba 233.527† | 98.3 | 99.0 | 0.7789 | ug/L | 0.7789 | ppb | 07:12:41 |
| 1 | Be 313.107† | -3377.2 | 412.6 | 0.1571 | ug/L | 0.1571 | ppb | 07:12:21 |
| 1 | Cd 226.502† | -178.9 | 18.8 | 0.2119 | ug/L | 0.2119 | ppb | 07:12:41 |
| 1 | Co 228.616† | -60.2 | 6.8 | 0.1407 | ug/L | 0.1407 | ppb | 07:12:41 |
| 1 | Cr 267.716† | 150.4 | 71.5 | 0.8115 | ug/L | 0.8115 | ppb | 07:12:41 |
| 1 | Cu 324.752† | 5995.1 | -44.6 | -0.1281 | ug/L | -0.1281 | ppb | 07:12:21 |
| 1 | Mn 257.610† | 1862.6 | 1388.7 | 1.5951 | ug/L | 1.5951 | ppb | 07:12:21 |
| 1 | Mo 202.031† | 18.1 | 7.9 | 0.5806 | ug/L | 0.5806 | ppb | 07:12:41 |
| 1 | Ni 231.604† | 92.4 | 29.2 | 0.7435 | ug/L | 0.7435 | ppb | 07:12:41 |
| 1 | P 214.914† | 223.5 | 11.1 | 6.7526 | ug/L | 6.7526 | ppb | 07:12:41 |
| 1 | Pb 220.353† | 62.9 | 120.5 | 14.823 | ug/L | 14.823 | ppb | 07:12:41 |
| 1 | S 181.975 Axial† | 48.6 | 7.4 | 10.717 | ug/L | 10.717 | ppb | 07:12:41 |
| 1 | Sb 206.836† | 38.2 | 1.2 | 0.5034 | ug/L | 0.5034 | ppb | 07:12:41 |
| 1 | Se 196.026† | -24.4 | 3.6 | 2.4966 | ug/L | 2.4966 | ppb | 07:12:41 |
| 1 | Si 251.611† | 2111.0 | 1535.5 | 49.679 | ug/L | 49.679 | ppb | 07:12:41 |
| 1 | Sn 189.927† | 41.8 | 31.0 | 5.5607 | ug/L | 5.5607 | ppb | 07:12:41 |
| 1 | Ti 334.940† | -801.9 | 578.8 | 0.9377 | ug/L | 0.9377 | ppb | 07:12:21 |
| 1 | Tl 190.801† | -42.5 | -9.5 | -3.0386 | ug/L | -3.0386 | ppb | 07:12:41 |
| 1 | U 409.014† | -3255.2 | -342.1 | -9.4531 | ug/L | -9.4531 | ppb | 07:12:21 |
| 1 | V 292.402† | -1457.2 | 60.4 | 0.3979 | ug/L | 0.3979 | ppb | 07:12:21 |
| 1 | Zn 213.857† | 961.8 | 347.9 | 3.4904 | ug/L | 3.4904 | ppb | 07:12:41 |
| 1 | SiO2† | 2077.3 | 1505.9 | 104.64 | ug/L | 104.64 | ppb | 07:13:37 |
| 2 | Sc Radial | 3752.4 | 3752.4 | 95.8 | % | | | 07:11:49 |
| 2 | Y RADIAL | 4342.8 | 4342.8 | 98.46 | % | | | 07:11:29 |
| 2 | Al 396.153Radial† | -85.4 | 23.2 | 21.761 | ug/L | 21.761 | ppb | 07:11:29 |
| 2 | Ca 317.933Radial† | 32.9 | 14.7 | 30.793 | ug/L | 30.793 | ppb | 07:11:49 |
| 2 | Fe 238.204 Radial† | 14.3 | 3.6 | 50.409 | ug/L | 50.409 | ppb | 07:11:49 |
| 2 | K 766.490 Radial† | 2893.3 | 382.0 | 73.304 | ug/L | 73.304 | ppb | 07:11:29 |
| 2 | Mg 279.077 IEC† | 1.5 | -2.5 | -123.35 | ug/L | -123.35 | ppb | 07:11:49 |
| 2 | Na 589.592 Radial† | -861.9 | -80.3 | -24.764 | ug/L | -24.764 | ppb | 07:11:29 |
| 2 | Sr 421.552† | 117.8 | 87.3 | 0.6040 | ug/L | 0.6040 | ppb | 07:11:29 |
| 2 | Sc 361.383 | 880612.2 | 880612.2 | 100.39 | % | | | 07:12:46 |
| 2 | Y 371.029 | 742753.5 | 742753.5 | 98.268 | % | | | 07:12:46 |
| 2 | Ag 328.068† | 197.1 | -44.1 | -0.1829 | ug/L | -0.1829 | ppb | 07:12:46 |
| 2 | As 188.979† | -15.9 | 2.4 | 1.0785 | ug/L | 1.0785 | ppb | 07:13:06 |
| 2 | B 249.677† | -435.4 | -35.5 | -0.8697 | ug/L | -0.8697 | ppb | 07:13:06 |
| 2 | Ba 233.527† | 107.5 | 108.5 | 0.8538 | ug/L | 0.8538 | ppb | 07:13:06 |
| 2 | Be 313.107† | -3447.3 | 328.1 | 0.1257 | ug/L | 0.1257 | ppb | 07:12:46 |
| 2 | Cd 226.502† | -162.0 | 34.9 | 0.3983 | ug/L | 0.3983 | ppb | 07:13:06 |
| 2 | Co 228.616† | -55.8 | 10.9 | 0.2262 | ug/L | 0.2262 | ppb | 07:13:06 |
| 2 | Cr 267.716† | 160.0 | 81.7 | 0.9247 | ug/L | 0.9247 | ppb | 07:13:06 |
| 2 | Cu 324.752† | 6102.7 | 88.5 | 0.2755 | ug/L | 0.2755 | ppb | 07:12:46 |
| 2 | Mn 257.610† | 1903.5 | 1437.5 | 1.6458 | ug/L | 1.6458 | ppb | 07:12:46 |
| 2 | Mo 202.031† | 10.2 | 0.0 | 0.0058 | ug/L | 0.0058 | ppb | 07:13:06 |
| 2 | Ni 231.604† | 74.8 | 12.1 | 0.3064 | ug/L | 0.3064 | ppb | 07:13:06 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 223.4 | 12.0 | 7.1880 | ug/L | 7.1880 ppb | 07:13:06 |
| 2 | Pb 220.353† | 73.8 | 131.6 | 16.187 | ug/L | 16.187 ppb | 07:13:06 |
| 2 | S 181.975 Axial† | 42.7 | 1.7 | 2.4453 | ug/L | 2.4453 ppb | 07:13:06 |
| 2 | Sb 206.836† | 41.8 | 4.9 | 1.7796 | ug/L | 1.7796 ppb | 07:13:06 |
| 2 | Se 196.026† | -26.4 | 1.5 | 1.1262 | ug/L | 1.1262 ppb | 07:13:06 |
| 2 | Si 251.611† | 2021.9 | 1455.8 | 47.109 | ug/L | 47.109 ppb | 07:13:06 |
| 2 | Sn 189.927† | 38.0 | 27.4 | 4.9137 | ug/L | 4.9137 ppb | 07:13:06 |
| 2 | Ti 334.940† | -698.0 | 678.7 | 1.0831 | ug/L | 1.0831 ppb | 07:12:46 |
| 2 | Tl 190.801† | -34.5 | -1.8 | -0.5735 | ug/L | -0.5735 ppb | 07:13:06 |
| 2 | U 409.014† | -3120.6 | -222.0 | -6.1370 | ug/L | -6.1370 ppb | 07:12:46 |
| 2 | V 292.402† | -1467.5 | 43.9 | 0.2829 | ug/L | 0.2829 ppb | 07:12:46 |
| 2 | Zn 213.857† | 966.8 | 357.1 | 3.5847 | ug/L | 3.5847 ppb | 07:13:06 |
| 2 | SiO2† | 2111.2 | 1548.6 | 107.62 | ug/L | 107.62 ppb | 07:13:42 |
| 3 | Sc Radial | 3779.6 | 3779.6 | 96.4 | % | | 07:12:14 |
| 3 | Y RADIAL | 4346.0 | 4346.0 | 98.53 | % | | 07:11:54 |
| 3 | Al 396.153Radial† | -76.7 | 32.9 | 30.788 | ug/L | 30.788 ppb | 07:11:54 |
| 3 | Ca 317.933Radial† | 33.1 | 14.6 | 30.600 | ug/L | 30.600 ppb | 07:12:14 |
| 3 | Fe 238.204 Radial† | 15.7 | 5.0 | 70.646 | ug/L | 70.646 ppb | 07:12:14 |
| 3 | K 766.490 Radial† | 2914.7 | 382.4 | 73.395 | ug/L | 73.395 ppb | 07:11:54 |
| 3 | Mg 279.077 IEC† | 2.3 | -1.7 | -81.803 | ug/L | -81.803 ppb | 07:12:14 |
| 3 | Na 589.592 Radial† | -902.9 | -116.4 | -35.901 | ug/L | -35.901 ppb | 07:11:54 |
| 3 | Sr 421.552† | 119.4 | 88.1 | 0.6090 | ug/L | 0.6090 ppb | 07:11:54 |
| 3 | Sc 361.383 | 871798.9 | 871798.9 | 99.381 | % | | 07:13:12 |
| 3 | Y 371.029 | 736295.3 | 736295.3 | 97.414 | % | | 07:13:12 |
| 3 | Ag 328.068† | 210.8 | -28.3 | -0.1096 | ug/L | -0.1096 ppb | 07:13:12 |
| 3 | As 188.979† | -18.0 | 0.2 | 0.0948 | ug/L | 0.0948 ppb | 07:13:32 |
| 3 | B 249.677† | -365.2 | 30.7 | 0.7316 | ug/L | 0.7316 ppb | 07:13:32 |
| 3 | Ba 233.527† | 107.8 | 109.9 | 0.8637 | ug/L | 0.8637 ppb | 07:13:32 |
| 3 | Be 313.107† | -3293.0 | 448.7 | 0.1710 | ug/L | 0.1710 ppb | 07:13:12 |
| 3 | Cd 226.502† | -185.2 | 9.9 | 0.1070 | ug/L | 0.1070 ppb | 07:13:32 |
| 3 | Co 228.616† | -44.8 | 21.5 | 0.4487 | ug/L | 0.4487 ppb | 07:13:32 |
| 3 | Cr 267.716† | 164.6 | 87.9 | 0.9939 | ug/L | 0.9939 ppb | 07:13:32 |
| 3 | Cu 324.752† | 5914.2 | -39.7 | -0.1158 | ug/L | -0.1158 ppb | 07:13:12 |
| 3 | Mn 257.610† | 1843.3 | 1396.1 | 1.5989 | ug/L | 1.5989 ppb | 07:13:12 |
| 3 | Mo 202.031† | 19.4 | 9.4 | 0.6955 | ug/L | 0.6955 ppb | 07:13:32 |
| 3 | Ni 231.604† | 83.3 | 21.4 | 0.5432 | ug/L | 0.5432 ppb | 07:13:32 |
| 3 | P 214.914† | 202.6 | -6.7 | -3.9909 | ug/L | -3.9909 ppb | 07:13:32 |
| 3 | Pb 220.353† | 74.0 | 132.6 | 16.309 | ug/L | 16.309 ppb | 07:13:32 |
| 3 | S 181.975 Axial† | 38.6 | -2.0 | -2.8196 | ug/L | -2.8196 ppb | 07:13:32 |
| 3 | Sb 206.836† | 35.2 | -1.3 | -0.3617 | ug/L | -0.3617 ppb | 07:13:32 |
| 3 | Se 196.026† | -20.1 | 7.5 | 5.1470 | ug/L | 5.1470 ppb | 07:13:32 |
| 3 | Si 251.611† | 2039.8 | 1494.2 | 48.341 | ug/L | 48.341 ppb | 07:13:32 |
| 3 | Sn 189.927† | 38.4 | 28.2 | 5.0558 | ug/L | 5.0558 ppb | 07:13:32 |
| 3 | Ti 334.940† | -693.0 | 676.8 | 1.0749 | ug/L | 1.0749 ppb | 07:13:12 |
| 3 | Tl 190.801† | -36.2 | -3.9 | -1.2159 | ug/L | -1.2159 ppb | 07:13:32 |
| 3 | U 409.014† | -2949.4 | -81.2 | -2.2529 | ug/L | -2.2529 ppb | 07:13:12 |
| 3 | V 292.402† | -1559.4 | -63.4 | -0.4499 | ug/L | -0.4499 ppb | 07:13:12 |
| 3 | Zn 213.857† | 968.3 | 368.3 | 3.6933 | ug/L | 3.6933 ppb | 07:13:32 |
| 3 | SiO2† | 2116.7 | 1575.5 | 109.47 | ug/L | 109.47 ppb | 07:13:47 |

**Mean Data: 1202032590|948756|1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 878953.2 | 100.20 | % | 0.739 | | | | 0.74% |
| Sc Radial | 3777.3 | 96.4 | % | 0.61 | | | | 0.63% |
| Y 371.029 | 741921.4 | 98.158 | % | 0.6959 | | | | 0.71% |
| Y RADIAL | 4337.0 | 98.33 | % | 0.292 | | | | 0.30% |
| Ag 328.068† | -27.2 | -0.1041 | ug/L | 0.08169 | -0.1041 | ppb | 0.08169 | 78.47% |
| Al 396.153Radial† | 24.1 | 22.591 | ug/L | 7.8151 | 22.591 | ppb | 7.8151 | 34.59% |
| As 188.979† | -0.2 | -0.0676 | ug/L | 1.23531 | -0.0676 | ppb | 1.23531 | >999.9% |
| B 249.677† | -12.9 | -0.3237 | ug/L | 0.91412 | -0.3237 | ppb | 0.91412 | 282.36% |
| Ba 233.527† | 105.8 | 0.8321 | ug/L | 0.04634 | 0.8321 | ppb | 0.04634 | 5.57% |
| Be 313.107† | 396.5 | 0.1513 | ug/L | 0.02321 | 0.1513 | ppb | 0.02321 | 15.34% |
| Ca 317.933Radial† | 14.7 | 30.767 | ug/L | 0.1559 | 30.767 | ppb | 0.1559 | 0.51% |
| Cd 226.502† | 21.2 | 0.2391 | ug/L | 0.14757 | 0.2391 | ppb | 0.14757 | 61.72% |
| Co 228.616† | 13.1 | 0.2719 | ug/L | 0.15900 | 0.2719 | ppb | 0.15900 | 58.49% |
| Cr 267.716† | 80.4 | 0.9100 | ug/L | 0.09210 | 0.9100 | ppb | 0.09210 | 10.12% |
| Cu 324.752† | 1.4 | 0.0105 | ug/L | 0.22951 | 0.0105 | ppb | 0.22951 | >999.9% |
| Fe 238.204 Radial† | 4.0 | 56.346 | ug/L | 12.4438 | 56.346 | ppb | 12.4438 | 22.08% |
| K 766.490 Radial† | 372.1 | 71.399 | ug/L | 3.3790 | 71.399 | ppb | 3.3790 | 4.73% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | -3.1 | -150.96 | ug/L | 86.347 | -150.96 | ppb | 86.347 | 57.20% |
| Mn 257.610† | 1407.4 | 1.6133 | ug/L | 0.02822 | 1.6133 | ppb | 0.02822 | 1.75% |
| Mo 202.031† | 5.8 | 0.4273 | ug/L | 0.36952 | 0.4273 | ppb | 0.36952 | 86.48% |
| Na 589.592 Radial† | -77.5 | -23.884 | ug/L | 12.4795 | -23.884 | ppb | 12.4795 | 52.25% |
| Ni 231.604† | 20.9 | 0.5310 | ug/L | 0.21881 | 0.5310 | ppb | 0.21881 | 41.20% |
| P 214.914† | 5.5 | 3.3166 | ug/L | 6.33223 | 3.3166 | ppb | 6.33223 | 190.93% |
| Pb 220.353† | 128.2 | 15.773 | ug/L | 0.8252 | 15.773 | ppb | 0.8252 | 5.23% |
| S 181.975 Axial† | 2.4 | 3.4477 | ug/L | 6.82392 | 3.4477 | ppb | 6.82392 | 197.93% |
| Sb 206.836† | 1.6 | 0.6404 | ug/L | 1.07722 | 0.6404 | ppb | 1.07722 | 168.21% |
| Se 196.026† | 4.2 | 2.9233 | ug/L | 2.04408 | 2.9233 | ppb | 2.04408 | 69.92% |
| Si 251.611† | 1495.2 | 48.376 | ug/L | 1.2857 | 48.376 | ppb | 1.2857 | 2.66% |
| Sn 189.927† | 28.8 | 5.1767 | ug/L | 0.34001 | 5.1767 | ppb | 0.34001 | 6.57% |
| Sr 421.552† | 83.1 | 0.5748 | ug/L | 0.05507 | 0.5748 | ppb | 0.05507 | 9.58% |
| Ti 334.940† | 644.8 | 1.0319 | ug/L | 0.08170 | 1.0319 | ppb | 0.08170 | 7.92% |
| Tl 190.801† | -5.1 | -1.6093 | ug/L | 1.27876 | -1.6093 | ppb | 1.27876 | 79.46% |
| U 409.014† | -215.1 | -5.9477 | ug/L | 3.60384 | -5.9477 | ppb | 3.60384 | 60.59% |
| V 292.402† | 13.6 | 0.0770 | ug/L | 0.45991 | 0.0770 | ppb | 0.45991 | 597.61% |
| Zn 213.857† | 357.8 | 3.5895 | ug/L | 0.10153 | 3.5895 | ppb | 0.10153 | 2.83% |
| SiO2† | 1543.3 | 107.24 | ug/L | 2.439 | 107.24 | ppb | 2.439 | 2.27% |

Sequence No.: 113
Sample ID: 1202032595|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 128
Date Collected: 2/25/2010 07:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032595|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3914.4 | 3914.4 | 99.9 | % | | | 07:18:13 |
| 1 | Y RADIAL | 4702.1 | 4702.1 | 106.6 | % | | | 07:18:13 |
| 1 | Al 396.153Radial† | 97671.5 | 97893.0 | 91788 | ug/L | 91788 | ppb | 07:17:53 |
| 1 | Ca 317.933Radial† | 46156.6 | 46188.5 | 96557 | ug/L | 96557 | ppb | 07:17:53 |
| 1 | Fe 238.204 Radial† | 11183.3 | 11184.5 | 157900 | ug/L | 157900 | ppb | 07:18:13 |
| 1 | K 766.490 Radial† | 218539.3 | 216143.9 | 41440 | ug/L | 41440 | ppb | 07:17:53 |
| 1 | Mg 279.077 IEC† | 734.6 | 731.4 | 35303 | ug/L | 35303 | ppb | 07:18:13 |
| 1 | Na 589.592 Radial† | 30509.1 | 31363.0 | 9670.0 | ug/L | 9670.0 | ppb | 07:17:53 |
| 1 | Sr 421.552† | 321996.2 | 322320.2 | 2229.6 | ug/L | 2229.6 | ppb | 07:17:53 |
| 1 | Sc 361.383 | 898191.6 | 898191.6 | 102.39 | % | | | 07:19:15 |
| 1 | Y 371.029 | 813297.6 | 813297.6 | 107.60 | % | | | 07:19:15 |
| 1 | Ag 328.068† | 53839.8 | 52343.0 | 294.62 | ug/L | 294.62 | ppb | 07:19:15 |
| 1 | As 188.979† | 2235.8 | 2201.8 | 1065.6 | ug/L | 1065.6 | ppb | 07:19:20 |
| 1 | B 249.677† | 60904.9 | 59881.8 | 1423.6 | ug/L | 1423.6 | ppb | 07:19:15 |
| 1 | Ba 233.527† | 242692.1 | 237030.0 | 1867.5 | ug/L | 1867.5 | ppb | 07:19:15 |
| 1 | Be 313.107† | 2086324.3 | 2041399.6 | 779.33 | ug/L | 779.33 | ppb | 07:19:15 |
| 1 | Cd 226.502† | 53400.0 | 52350.1 | 590.71 | ug/L | 590.71 | ppb | 07:19:20 |
| 1 | Co 228.616† | 44066.6 | 43104.8 | 890.45 | ug/L | 890.45 | ppb | 07:19:20 |
| 1 | Cr 267.716† | 209152.1 | 204193.6 | 2309.0 | ug/L | 2309.0 | ppb | 07:19:15 |
| 1 | Cu 324.752† | 613359.6 | 593055.3 | 1813.2 | ug/L | 1813.2 | ppb | 07:19:15 |
| 1 | Mn 257.610† | 4581210.1 | 4473843.2 | 5105.1 | ug/L | 5105.1 | ppb | 07:19:15 |
| 1 | Mo 202.031† | 6693.3 | 6527.0 | 492.60 | ug/L | 492.60 | ppb | 07:19:20 |
| 1 | Ni 231.604† | 52815.6 | 51520.6 | 1309.8 | ug/L | 1309.8 | ppb | 07:19:20 |
| 1 | P 214.914† | 14138.9 | 13598.4 | 7732.9 | ug/L | 7732.9 | ppb | 07:19:20 |
| 1 | Pb 220.353† | 6755.5 | 6656.0 | 822.16 | ug/L | 822.16 | ppb | 07:19:20 |
| 1 | S 181.975 Axial† | 2852.3 | 2744.9 | 3932.8 | ug/L | 3932.8 | ppb | 07:19:20 |
| 1 | Sb 206.836† | 3592.3 | 3471.8 | 1221.4 | ug/L | 1221.4 | ppb | 07:19:20 |
| 1 | Se 196.026† | 3771.0 | 3710.7 | 2924.0 | ug/L | 2924.0 | ppb | 07:19:20 |
| 1 | Si 251.611† | 1249141.0 | 1219432.5 | 39453 | ug/L | 39453 | ppb | 07:19:15 |
| 1 | Sn 189.927† | 5717.7 | 5573.8 | 1008.2 | ug/L | 1008.2 | ppb | 07:19:20 |
| 1 | Ti 334.940† | 3494876.0 | 3414692.9 | 5375.1 | ug/L | 5375.1 | ppb | 07:19:15 |
| 1 | Tl 190.801† | 3604.6 | 3553.1 | 1198.7 | ug/L | 1198.7 | ppb | 07:19:20 |
| 1 | U 409.014† | -8579.4 | -5492.6 | -174.80 | ug/L | -174.80 | ppb | 07:19:15 |
| 1 | V 292.402† | 172041.5 | 169532.4 | 1159.8 | ug/L | 1159.8 | ppb | 07:19:15 |
| 1 | Zn 213.857† | 582389.7 | 568192.9 | 5685.3 | ug/L | 5685.3 | ppb | 07:19:15 |
| 1 | SiO2† | 1244385.8 | 1214792.2 | 84410 | ug/L | 84410 | ppb | 07:19:55 |
| 2 | Sc Radial | 3910.0 | 3910.0 | 99.8 | % | | | 07:18:39 |
| 2 | Y RADIAL | 4716.9 | 4716.9 | 106.9 | % | | | 07:18:39 |
| 2 | Al 396.153Radial† | 98538.4 | 98874.0 | 92709 | ug/L | 92709 | ppb | 07:18:19 |
| 2 | Ca 317.933Radial† | 46630.4 | 46716.4 | 97661 | ug/L | 97661 | ppb | 07:18:19 |
| 2 | Fe 238.204 Radial† | 11105.3 | 11119.1 | 156970 | ug/L | 156970 | ppb | 07:18:39 |
| 2 | K 766.490 Radial† | 221215.6 | 219076.9 | 42002 | ug/L | 42002 | ppb | 07:18:19 |
| 2 | Mg 279.077 IEC† | 733.9 | 731.5 | 35310 | ug/L | 35310 | ppb | 07:18:39 |
| 2 | Na 589.592 Radial† | 30647.0 | 31536.2 | 9723.5 | ug/L | 9723.5 | ppb | 07:18:19 |
| 2 | Sr 421.552† | 325253.6 | 325954.4 | 2254.7 | ug/L | 2254.7 | ppb | 07:18:19 |
| 2 | Sc 361.383 | 918596.5 | 918596.5 | 104.72 | % | | | 07:19:29 |
| 2 | Y 371.029 | 829639.7 | 829639.7 | 109.76 | % | | | 07:19:29 |
| 2 | Ag 328.068† | 54009.0 | 51336.5 | 289.57 | ug/L | 289.57 | ppb | 07:19:29 |
| 2 | As 188.979† | 2179.7 | 2099.8 | 1019.1 | ug/L | 1019.1 | ppb | 07:19:34 |
| 2 | B 249.677† | 61526.8 | 59154.4 | 1406.2 | ug/L | 1406.2 | ppb | 07:19:29 |
| 2 | Ba 233.527† | 244358.2 | 233355.9 | 1838.6 | ug/L | 1838.6 | ppb | 07:19:29 |
| 2 | Be 313.107† | 2097144.5 | 2006470.2 | 766.01 | ug/L | 766.01 | ppb | 07:19:29 |
| 2 | Cd 226.502† | 52020.0 | 49873.8 | 562.09 | ug/L | 562.09 | ppb | 07:19:34 |
| 2 | Co 228.616† | 43016.4 | 41145.8 | 849.56 | ug/L | 849.56 | ppb | 07:19:34 |
| 2 | Cr 267.716† | 210351.1 | 200801.0 | 2270.8 | ug/L | 2270.8 | ppb | 07:19:29 |
| 2 | Cu 324.752† | 616309.8 | 582566.0 | 1781.2 | ug/L | 1781.2 | ppb | 07:19:29 |
| 2 | Mn 257.610† | 4608651.7 | 4400660.7 | 5021.7 | ug/L | 5021.7 | ppb | 07:19:29 |
| 2 | Mo 202.031† | 6508.4 | 6205.1 | 468.91 | ug/L | 468.91 | ppb | 07:19:34 |
| 2 | Ni 231.604† | 51542.4 | 49158.9 | 1249.7 | ug/L | 1249.7 | ppb | 07:19:34 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 13678.7 | 12852.2 | 7290.5 | ug/L | 7290.5 ppb | 07:19:34 |
| 2 | Pb 220.353† | 6557.4 | 6320.3 | 781.14 | ug/L | 781.14 ppb | 07:19:34 |
| 2 | S 181.975 Axial† | 2776.1 | 2610.3 | 3738.9 | ug/L | 3738.9 ppb | 07:19:34 |
| 2 | Sb 206.836† | 3451.5 | 3259.3 | 1146.0 | ug/L | 1146.0 ppb | 07:19:34 |
| 2 | Se 196.026† | 3626.6 | 3491.0 | 2777.1 | ug/L | 2777.1 ppb | 07:19:34 |
| 2 | Si 251.611† | 1256504.5 | 1199364.5 | 38804 | ug/L | 38804 ppb | 07:19:29 |
| 2 | Sn 189.927† | 5554.5 | 5293.9 | 958.20 | ug/L | 958.20 ppb | 07:19:34 |
| 2 | Ti 334.940† | 3515288.1 | 3358365.1 | 5286.8 | ug/L | 5286.8 ppb | 07:19:29 |
| 2 | Tl 190.801† | 3510.5 | 3385.0 | 1144.0 | ug/L | 1144.0 ppb | 07:19:34 |
| 2 | U 409.014† | -8413.4 | -5147.9 | -165.09 | ug/L | -165.09 ppb | 07:19:29 |
| 2 | V 292.402† | 172960.9 | 166678.0 | 1139.8 | ug/L | 1139.8 ppb | 07:19:29 |
| 2 | Zn 213.857† | 586224.4 | 559220.1 | 5595.5 | ug/L | 5595.5 ppb | 07:19:29 |
| 2 | SiO2† | 1236351.2 | 1180122.6 | 82001 | ug/L | 82001 ppb | 07:20:01 |
| 3 | Sc Radial | 3924.2 | 3924.2 | 100 | % | | 07:19:04 |
| 3 | Y RADIAL | 4738.5 | 4738.5 | 107.4 | % | | 07:19:04 |
| 3 | Al 396.153Radial† | 98502.1 | 98478.4 | 92337 | ug/L | 92337 ppb | 07:18:44 |
| 3 | Ca 317.933Radial† | 46561.3 | 46477.3 | 97161 | ug/L | 97161 ppb | 07:18:44 |
| 3 | Fe 238.204 Radial† | 11232.3 | 11205.4 | 158190 | ug/L | 158190 ppb | 07:19:04 |
| 3 | K 766.490 Radial† | 220585.7 | 217641.3 | 41727 | ug/L | 41727 ppb | 07:18:44 |
| 3 | Mg 279.077 IEC† | 741.7 | 736.6 | 35556 | ug/L | 35556 ppb | 07:19:04 |
| 3 | Na 589.592 Radial† | 30405.3 | 31183.1 | 9614.6 | ug/L | 9614.6 ppb | 07:18:44 |
| 3 | Sr 421.552† | 324142.3 | 323658.7 | 2238.8 | ug/L | 2238.8 ppb | 07:18:44 |
| 3 | Sc 361.383 | 901289.0 | 901289.0 | 102.74 | % | | 07:19:43 |
| 3 | Y 371.029 | 814747.3 | 814747.3 | 107.79 | % | | 07:19:43 |
| 3 | Ag 328.068† | 53530.2 | 51860.9 | 292.43 | ug/L | 292.43 ppb | 07:19:43 |
| 3 | As 188.979† | 2226.3 | 2185.1 | 1057.8 | ug/L | 1057.8 ppb | 07:19:48 |
| 3 | B 249.677† | 60735.6 | 59512.6 | 1414.6 | ug/L | 1414.6 ppb | 07:19:43 |
| 3 | Ba 233.527† | 241943.8 | 235487.1 | 1855.3 | ug/L | 1855.3 ppb | 07:19:43 |
| 3 | Be 313.107† | 2072801.2 | 2021234.6 | 771.67 | ug/L | 771.67 ppb | 07:19:43 |
| 3 | Cd 226.502† | 53494.8 | 52263.2 | 589.67 | ug/L | 589.67 ppb | 07:19:48 |
| 3 | Co 228.616† | 44186.7 | 43073.7 | 889.87 | ug/L | 889.87 ppb | 07:19:48 |
| 3 | Cr 267.716† | 208314.6 | 202676.5 | 2292.0 | ug/L | 2292.0 ppb | 07:19:43 |
| 3 | Cu 324.752† | 609361.5 | 587105.2 | 1795.1 | ug/L | 1795.1 ppb | 07:19:43 |
| 3 | Mn 257.610† | 4564012.1 | 4441727.4 | 5068.6 | ug/L | 5068.6 ppb | 07:19:43 |
| 3 | Mo 202.031† | 6676.4 | 6488.0 | 489.76 | ug/L | 489.76 ppb | 07:19:48 |
| 3 | Ni 231.604† | 53000.8 | 51523.6 | 1309.9 | ug/L | 1309.9 ppb | 07:19:48 |
| 3 | P 214.914† | 14074.5 | 13488.4 | 7670.1 | ug/L | 7670.1 ppb | 07:19:48 |
| 3 | Pb 220.353† | 6655.2 | 6535.7 | 807.47 | ug/L | 807.47 ppb | 07:19:48 |
| 3 | S 181.975 Axial† | 2835.9 | 2719.4 | 3896.0 | ug/L | 3896.0 ppb | 07:19:48 |
| 3 | Sb 206.836† | 3563.3 | 3431.4 | 1207.3 | ug/L | 1207.3 ppb | 07:19:48 |
| 3 | Se 196.026† | 3747.0 | 3674.7 | 2901.3 | ug/L | 2901.3 ppb | 07:19:48 |
| 3 | Si 251.611† | 1243862.3 | 1210101.9 | 39151 | ug/L | 39151 ppb | 07:19:43 |
| 3 | Sn 189.927† | 5738.2 | 5574.6 | 1008.4 | ug/L | 1008.4 ppb | 07:19:48 |
| 3 | Ti 334.940† | 3481084.7 | 3389539.1 | 5335.7 | ug/L | 5335.7 ppb | 07:19:43 |
| 3 | Tl 190.801† | 3591.4 | 3528.1 | 1190.2 | ug/L | 1190.2 ppb | 07:19:48 |
| 3 | U 409.014† | -8348.4 | -5239.0 | -167.79 | ug/L | -167.79 ppb | 07:19:43 |
| 3 | V 292.402† | 171211.6 | 168147.2 | 1150.1 | ug/L | 1150.1 ppb | 07:19:43 |
| 3 | Zn 213.857† | 580265.0 | 564170.1 | 5644.7 | ug/L | 5644.7 ppb | 07:19:43 |
| 3 | SiO2† | 1250106.1 | 1216182.9 | 84506 | ug/L | 84506 ppb | 07:20:07 |

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**Mean Data: 1202032595|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 906025.7 | 103.28 | % | 1.254 | | | | 1.21% |
| Sc Radial | 3916.2 | 99.9 | % | 0.19 | | | | 0.19% |
| Y 371.029 | 819228.2 | 108.39 | % | 1.197 | | | | 1.10% |
| Y RADIAL | 4719.2 | 107.0 | % | 0.41 | | | | 0.39% |
| Ag 328.068† | 51846.8 | 292.21 | ug/L | 2.532 | 292.21 | ppb | 2.532 | 0.87% |
| Al 396.153Radial† | 98415.1 | 92278 | ug/L | 463.4 | 92278 | ppb | 463.4 | 0.50% |
| As 188.979† | 2162.2 | 1047.5 | ug/L | 24.91 | 1047.5 | ppb | 24.91 | 2.38% |
| B 249.677† | 59516.3 | 1414.8 | ug/L | 8.69 | 1414.8 | ppb | 8.69 | 0.61% |
| Ba 233.527† | 235291.0 | 1853.8 | ug/L | 14.51 | 1853.8 | ppb | 14.51 | 0.78% |
| Be 313.107† | 2023034.8 | 772.33 | ug/L | 6.689 | 772.33 | ppb | 6.689 | 0.87% |
| Ca 317.933Radial† | 46460.7 | 97126 | ug/L | 552.5 | 97126 | ppb | 552.5 | 0.57% |
| Cd 226.502† | 51495.7 | 580.82 | ug/L | 16.231 | 580.82 | ppb | 16.231 | 2.79% |
| Co 228.616† | 42441.4 | 876.63 | ug/L | 23.443 | 876.63 | ppb | 23.443 | 2.67% |
| Cr 267.716† | 202557.0 | 2290.6 | ug/L | 19.14 | 2290.6 | ppb | 19.14 | 0.84% |
| Cu 324.752† | 587575.5 | 1796.5 | ug/L | 16.03 | 1796.5 | ppb | 16.03 | 0.89% |
| Fe 238.204 Radial† | 11169.7 | 157690 | ug/L | 636.3 | 157690 | ppb | 636.3 | 0.40% |
| K 766.490 Radial† | 217620.7 | 41723 | ug/L | 281.3 | 41723 | ppb | 281.3 | 0.67% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 733.2 | 35390 | ug/L | 144.0 | 35390 | ppb | 144.0 | 0.41% |
| Mn 257.610† | 4438743.7 | 5065.2 | ug/L | 41.79 | 5065.2 | ppb | 41.79 | 0.83% |
| Mo 202.031† | 6406.7 | 483.75 | ug/L | 12.937 | 483.75 | ppb | 12.937 | 2.67% |
| Na 589.592 Radial† | 31360.8 | 9669.4 | ug/L | 54.44 | 9669.4 | ppb | 54.44 | 0.56% |
| Ni 231.604† | 50734.4 | 1289.8 | ug/L | 34.69 | 1289.8 | ppb | 34.69 | 2.69% |
| P 214.914† | 13313.0 | 7564.5 | ug/L | 239.36 | 7564.5 | ppb | 239.36 | 3.16% |
| Pb 220.353† | 6504.0 | 803.59 | ug/L | 20.784 | 803.59 | ppb | 20.784 | 2.59% |
| S 181.975 Axial† | 2691.5 | 3855.9 | ug/L | 103.01 | 3855.9 | ppb | 103.01 | 2.67% |
| Sb 206.836† | 3387.5 | 1191.6 | ug/L | 40.06 | 1191.6 | ppb | 40.06 | 3.36% |
| Se 196.026† | 3625.5 | 2867.5 | ug/L | 79.08 | 2867.5 | ppb | 79.08 | 2.76% |
| Si 251.611† | 1209633.0 | 39136 | ug/L | 324.8 | 39136 | ppb | 324.8 | 0.83% |
| Sn 189.927† | 5480.7 | 991.59 | ug/L | 28.921 | 991.59 | ppb | 28.921 | 2.92% |
| Sr 421.552† | 323977.8 | 2241.1 | ug/L | 12.71 | 2241.1 | ppb | 12.71 | 0.57% |
| Ti 334.940† | 3387532.4 | 5332.5 | ug/L | 44.26 | 5332.5 | ppb | 44.26 | 0.83% |
| Tl 190.801† | 3488.7 | 1177.6 | ug/L | 29.43 | 1177.6 | ppb | 29.43 | 2.50% |
| U 409.014† | -5293.2 | -169.23 | ug/L | 5.011 | -169.23 | ppb | 5.011 | 2.96% |
| V 292.402† | 168119.2 | 1149.9 | ug/L | 9.99 | 1149.9 | ppb | 9.99 | 0.87% |
| Zn 213.857† | 563861.0 | 5641.8 | ug/L | 44.95 | 5641.8 | ppb | 44.95 | 0.80% |
| SiO2† | 1203699.2 | 83639 | ug/L | 1419.4 | 83639 | ppb | 1419.4 | 1.70% |

Sequence No.: 114
Sample ID: 245969001|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 129
Date Collected: 2/25/2010 07:22:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969001|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Units | Sample Conc. | Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3824.0 | 3824.0 | 97.6 | % | | | 07:24:32 |
| 1 | Y RADIAL | 5430.8 | 5430.8 | 123.1 | % | | | 07:24:12 |
| 1 | Al 396.153Radial† | 15600.1 | 16099.4 | 15099 | ug/L | 15099 | ppb | 07:24:12 |
| 1 | Ca 317.933Radial† | 1360.5 | 1374.5 | 2873.5 | ug/L | 2873.5 | ppb | 07:24:32 |
| 1 | Fe 238.204 Radial† | 5138.8 | 5254.9 | 74176 | ug/L | 74176 | ppb | 07:24:12 |
| 1 | K 766.490 Radial† | 31432.7 | 29572.5 | 5671.7 | ug/L | 5671.7 | ppb | 07:24:12 |
| 1 | Mg 279.077 IEC† | 29.7 | 26.4 | 1203.1 | ug/L | 1203.1 | ppb | 07:24:32 |
| 1 | Na 589.592 Radial† | 11610.9 | 12718.6 | 3921.5 | ug/L | 3921.5 | ppb | 07:24:12 |
| 1 | Sr 421.552† | 2608.0 | 2637.0 | 18.225 | ug/L | 18.225 | ppb | 07:24:12 |
| 1 | Sc 361.383 | 910443.8 | 910443.8 | 103.79 | % | | | 07:25:29 |
| 1 | Y 371.029 | 952683.3 | 952683.3 | 126.04 | % | | | 07:25:29 |
| 1 | Ag 328.068† | -4847.9 | -4911.4 | 0.3453 | ug/L | 0.3453 | ppb | 07:25:35 |
| 1 | As 188.979† | -15.4 | 3.4 | 28.538 | ug/L | 28.538 | ppb | 07:25:55 |
| 1 | B 249.677† | 629.2 | 1004.5 | 12.170 | ug/L | 12.170 | ppb | 07:25:35 |
| 1 | Ba 233.527† | 24147.5 | 23268.0 | 184.92 | ug/L | 184.92 | ppb | 07:25:35 |
| 1 | Be 313.107† | -5795.4 | -1821.8 | 1.8395 | ug/L | 1.8395 | ppb | 07:25:35 |
| 1 | Cd 226.502† | 492.6 | 670.9 | 0.0924 | ug/L | 0.0924 | ppb | 07:25:55 |
| 1 | Co 228.616† | 2325.8 | 2307.5 | 45.000 | ug/L | 45.000 | ppb | 07:25:55 |
| 1 | Cr 267.716† | 6896.8 | 6567.5 | 80.928 | ug/L | 80.928 | ppb | 07:25:35 |
| 1 | Cu 324.752† | 16730.0 | 10128.9 | 34.891 | ug/L | 34.891 | ppb | 07:25:35 |
| 1 | Mn 257.610† | 1888487.8 | 1819137.7 | 2077.3 | ug/L | 2077.3 | ppb | 07:25:29 |
| 1 | Mo 202.031† | 57.4 | 45.2 | 9.1087 | ug/L | 9.1087 | ppb | 07:25:55 |
| 1 | Ni 231.604† | 2283.7 | 2138.0 | 54.346 | ug/L | 54.346 | ppb | 07:25:55 |
| 1 | P 214.914† | 861.8 | 619.9 | 311.13 | ug/L | 311.13 | ppb | 07:25:55 |
| 1 | Pb 220.353† | 2725.2 | 2683.9 | 325.25 | ug/L | 325.25 | ppb | 07:25:55 |
| 1 | S 181.975 Axial† | 52.2 | 9.5 | 10.780 | ug/L | 10.780 | ppb | 07:25:55 |
| 1 | Sb 206.836† | 47.4 | 8.9 | -1.4532 | ug/L | -1.4532 | ppb | 07:25:55 |
| 1 | Se 196.026† | -354.2 | -313.5 | 25.827 | ug/L | 25.827 | ppb | 07:25:55 |
| 1 | Si 251.611† | 791874.7 | 762429.1 | 24671 | ug/L | 24671 | ppb | 07:25:29 |
| 1 | Sn 189.927† | 58.0 | 45.4 | 4.3894 | ug/L | 4.3894 | ppb | 07:25:55 |
| 1 | Ti 334.940† | 732907.1 | 707545.0 | 1112.2 | ug/L | 1112.2 | ppb | 07:25:29 |
| 1 | Tl 190.801† | -115.6 | -78.8 | -6.3552 | ug/L | -6.3552 | ppb | 07:25:55 |
| 1 | U 409.014† | -12623.5 | -9276.3 | -264.78 | ug/L | -264.78 | ppb | 07:25:29 |
| 1 | V 292.402† | 3252.7 | 4639.8 | 19.926 | ug/L | 19.926 | ppb | 07:25:55 |
| 1 | Zn 213.857† | 24318.0 | 22824.9 | 218.28 | ug/L | 218.28 | ppb | 07:25:35 |
| 1 | SiO2† | 792761.8 | 763287.8 | 53045 | ug/L | 53045 | ppb | 07:27:03 |
| 2 | Sc Radial | 3764.3 | 3764.3 | 96.1 | % | | | 07:24:57 |
| 2 | Y RADIAL | 5565.6 | 5565.6 | 126.2 | % | | | 07:24:37 |
| 2 | Al 396.153Radial† | 15927.7 | 16694.0 | 15657 | ug/L | 15657 | ppb | 07:24:37 |
| 2 | Ca 317.933Radial† | 1366.4 | 1402.8 | 2932.6 | ug/L | 2932.6 | ppb | 07:24:57 |
| 2 | Fe 238.204 Radial† | 5252.0 | 5456.2 | 77018 | ug/L | 77018 | ppb | 07:24:37 |
| 2 | K 766.490 Radial† | 32069.7 | 30746.6 | 5896.9 | ug/L | 5896.9 | ppb | 07:24:37 |
| 2 | Mg 279.077 IEC† | 30.8 | 28.0 | 1275.3 | ug/L | 1275.3 | ppb | 07:24:57 |
| 2 | Na 589.592 Radial† | 11883.3 | 13190.9 | 4067.1 | ug/L | 4067.1 | ppb | 07:24:37 |
| 2 | Sr 421.552† | 2606.8 | 2678.1 | 18.509 | ug/L | 18.509 | ppb | 07:24:37 |
| 2 | Sc 361.383 | 919693.6 | 919693.6 | 104.84 | % | | | 07:26:01 |
| 2 | Y 371.029 | 960354.6 | 960354.6 | 127.06 | % | | | 07:26:01 |
| 2 | Ag 328.068† | -4869.4 | -4885.0 | 1.3326 | ug/L | 1.3326 | ppb | 07:26:06 |
| 2 | As 188.979† | -20.1 | -0.9 | 27.233 | ug/L | 27.233 | ppb | 07:26:26 |
| 2 | B 249.677† | 680.7 | 1047.5 | 12.752 | ug/L | 12.752 | ppb | 07:26:06 |
| 2 | Ba 233.527† | 24062.3 | 22952.7 | 182.53 | ug/L | 182.53 | ppb | 07:26:06 |
| 2 | Be 313.107† | -5699.3 | -1674.0 | 1.8917 | ug/L | 1.8917 | ppb | 07:26:06 |
| 2 | Cd 226.502† | 487.4 | 661.2 | -0.3135 | ug/L | -0.3135 | ppb | 07:26:26 |
| 2 | Co 228.616† | 2331.8 | 2290.6 | 44.609 | ug/L | 44.609 | ppb | 07:26:26 |
| 2 | Cr 267.716† | 6857.3 | 6463.0 | 80.021 | ug/L | 80.021 | ppb | 07:26:06 |
| 2 | Cu 324.752† | 16589.3 | 9832.6 | 34.136 | ug/L | 34.136 | ppb | 07:26:06 |
| 2 | Mn 257.610† | 1907541.1 | 1819010.8 | 2077.5 | ug/L | 2077.5 | ppb | 07:26:01 |
| 2 | Mo 202.031† | 58.1 | 45.3 | 9.3384 | ug/L | 9.3384 | ppb | 07:26:26 |
| 2 | Ni 231.604† | 2247.1 | 2080.9 | 52.896 | ug/L | 52.896 | ppb | 07:26:26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 867.7 | 617.1 | 307.51 ug/L | 307.51 ppb | 07:26:26 |
| 2 | Pb 220.353† | 2703.6 | 2636.8 | 319.27 ug/L | 319.27 ppb | 07:26:26 |
| 2 | S 181.975 Axial† | 73.5 | 29.3 | 39.231 ug/L | 39.231 ppb | 07:26:26 |
| 2 | Sb 206.836† | 50.6 | 11.6 | -0.5901 ug/L | -0.5901 ppb | 07:26:26 |
| 2 | Se 196.026† | -357.0 | -312.7 | 35.193 ug/L | 35.193 ppb | 07:26:26 |
| 2 | Si 251.611† | 800785.3 | 763254.6 | 24698 ug/L | 24698 ppb | 07:26:01 |
| 2 | Sn 189.927† | 50.3 | 37.5 | 2.8306 ug/L | 2.8306 ppb | 07:26:26 |
| 2 | Ti 334.940† | 739348.6 | 706586.8 | 1110.7 ug/L | 1110.7 ppb | 07:26:01 |
| 2 | Tl 190.801† | -108.4 | -70.8 | -3.7952 ug/L | -3.7952 ppb | 07:26:26 |
| 2 | U 409.014† | -12510.2 | -9046.0 | -258.74 ug/L | -258.74 ppb | 07:26:01 |
| 2 | V 292.402† | 3187.1 | 4545.6 | 18.872 ug/L | 18.872 ppb | 07:26:26 |
| 2 | Zn 213.857† | 24151.7 | 22430.5 | 213.89 ug/L | 213.89 ppb | 07:26:06 |
| 2 | SiO2† | 791386.8 | 754293.9 | 52420 ug/L | 52420 ppb | 07:27:09 |
| 3 | Sc Radial | 3821.2 | 3821.2 | 97.5 % | | 07:25:22 |
| 3 | Y RADIAL | 5425.1 | 5425.1 | 123.0 % | | 07:25:02 |
| 3 | Al 396.153Radial† | 15825.9 | 16342.8 | 15327 ug/L | 15327 ppb | 07:25:02 |
| 3 | Ca 317.933Radial† | 1358.3 | 1373.4 | 2871.1 ug/L | 2871.1 ppb | 07:25:22 |
| 3 | Fe 238.204 Radial† | 5191.8 | 5313.2 | 74998 ug/L | 74998 ppb | 07:25:02 |
| 3 | K 766.490 Radial† | 31827.5 | 30001.4 | 5754.0 ug/L | 5754.0 ppb | 07:25:02 |
| 3 | Mg 279.077 IEC† | 32.9 | 29.7 | 1360.9 ug/L | 1360.9 ppb | 07:25:22 |
| 3 | Na 589.592 Radial† | 11580.7 | 12696.5 | 3914.7 ug/L | 3914.7 ppb | 07:25:02 |
| 3 | Sr 421.552† | 2590.4 | 2620.9 | 18.114 ug/L | 18.114 ppb | 07:25:02 |
| 3 | Sc 361.383 | 911287.4 | 911287.4 | 103.88 % | | 07:26:32 |
| 3 | Y 371.029 | 951088.6 | 951088.6 | 125.83 % | | 07:26:32 |
| 3 | Ag 328.068† | -4790.2 | -4851.6 | 0.8769 ug/L | 0.8769 ppb | 07:26:37 |
| 3 | As 188.979† | -25.5 | -6.3 | 24.330 ug/L | 24.330 ppb | 07:26:57 |
| 3 | B 249.677† | 674.6 | 1047.6 | 13.084 ug/L | 13.084 ppb | 07:26:37 |
| 3 | Ba 233.527† | 23883.1 | 22992.0 | 182.78 ug/L | 182.78 ppb | 07:26:37 |
| 3 | Be 313.107† | -5699.6 | -1724.4 | 1.8686 ug/L | 1.8686 ppb | 07:26:37 |
| 3 | Cd 226.502† | 477.6 | 656.0 | -0.1663 ug/L | -0.1663 ppb | 07:26:57 |
| 3 | Co 228.616† | 2303.7 | 2284.1 | 44.507 ug/L | 44.507 ppb | 07:26:57 |
| 3 | Cr 267.716† | 6840.9 | 6507.6 | 80.334 ug/L | 80.334 ppb | 07:26:37 |
| 3 | Cu 324.752† | 16451.6 | 9846.1 | 34.075 ug/L | 34.075 ppb | 07:26:37 |
| 3 | Mn 257.610† | 1886471.5 | 1815512.3 | 2073.3 ug/L | 2073.3 ppb | 07:26:32 |
| 3 | Mo 202.031† | 66.5 | 53.9 | 9.8132 ug/L | 9.8132 ppb | 07:26:57 |
| 3 | Ni 231.604† | 2271.4 | 2124.1 | 53.993 ug/L | 53.993 ppb | 07:26:57 |
| 3 | P 214.914† | 865.8 | 622.9 | 312.54 ug/L | 312.54 ppb | 07:26:57 |
| 3 | Pb 220.353† | 2719.5 | 2675.9 | 324.23 ug/L | 324.23 ppb | 07:26:57 |
| 3 | S 181.975 Axial† | 66.8 | 23.5 | 30.913 ug/L | 30.913 ppb | 07:26:57 |
| 3 | Sb 206.836† | 61.5 | 22.5 | 3.2905 ug/L | 3.2905 ppb | 07:26:57 |
| 3 | Se 196.026† | -355.3 | -314.3 | 27.875 ug/L | 27.875 ppb | 07:26:57 |
| 3 | Si 251.611† | 791832.9 | 761682.5 | 24647 ug/L | 24647 ppb | 07:26:32 |
| 3 | Sn 189.927† | 54.9 | 42.4 | 3.8091 ug/L | 3.8091 ppb | 07:26:57 |
| 3 | Ti 334.940† | 731401.2 | 705441.7 | 1108.9 ug/L | 1108.9 ppb | 07:26:32 |
| 3 | Tl 190.801† | -102.3 | -65.9 | -2.2562 ug/L | -2.2562 ppb | 07:26:57 |
| 3 | U 409.014† | -12728.2 | -9365.9 | -267.34 ug/L | -267.34 ppb | 07:26:32 |
| 3 | V 292.402† | 3236.3 | 4621.0 | 19.687 ug/L | 19.687 ppb | 07:26:57 |
| 3 | Zn 213.857† | 23952.2 | 22451.0 | 214.39 ug/L | 214.39 ppb | 07:26:37 |
| 3 | SiO2† | 789480.9 | 759422.4 | 52776 ug/L | 52776 ppb | 07:27:15 |

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**Mean Data: 245969001|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 913808.2 | 104.17 | % | 0.583 | | | | 0.56% |
| Sc Radial | 3803.1 | 97.0 | % | 0.86 | | | | 0.89% |
| Y 371.029 | 954708.8 | 126.31 | % | 0.655 | | | | 0.52% |
| Y RADIAL | 5473.8 | 124.1 | % | 1.80 | | | | 1.45% |
| Ag 328.068† | -4882.7 | 0.8516 | ug/L | 0.49414 | 0.8516 | ppb | 0.49414 | 58.02% |
| Al 396.153Radial† | 16378.7 | 15361 | ug/L | 280.4 | 15361 | ppb | 280.4 | 1.83% |
| As 188.979† | -1.3 | 26.701 | ug/L | 2.1539 | 26.701 | ppb | 2.1539 | 8.07% |
| B 249.677† | 1033.2 | 12.669 | ug/L | 0.4625 | 12.669 | ppb | 0.4625 | 3.65% |
| Ba 233.527† | 23070.9 | 183.41 | ug/L | 1.314 | 183.41 | ppb | 1.314 | 0.72% |
| Be 313.107† | -1740.1 | 1.8666 | ug/L | 0.02613 | 1.8666 | ppb | 0.02613 | 1.40% |
| Ca 317.933Radial† | 1383.6 | 2892.4 | ug/L | 34.87 | 2892.4 | ppb | 34.87 | 1.21% |
| Cd 226.502† | 662.7 | -0.1291 | ug/L | 0.20544 | -0.1291 | ppb | 0.20544 | 159.10% |
| Co 228.616† | 2294.1 | 44.705 | ug/L | 0.2601 | 44.705 | ppb | 0.2601 | 0.58% |
| Cr 267.716† | 6512.7 | 80.427 | ug/L | 0.4607 | 80.427 | ppb | 0.4607 | 0.57% |
| Cu 324.752† | 9935.8 | 34.367 | ug/L | 0.4545 | 34.367 | ppb | 0.4545 | 1.32% |
| Fe 238.204 Radial† | 5341.4 | 75397 | ug/L | 1462.3 | 75397 | ppb | 1462.3 | 1.94% |
| K 766.490 Radial† | 30106.8 | 5774.2 | ug/L | 113.97 | 5774.2 | ppb | 113.97 | 1.97% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 28.0 | 1279.7 | ug/L | 79.00 | 1279.7 | ppb | 79.00 | 6.17% |
| Mn 257.610† | 1817887.0 | 2076.0 | ug/L | 2.38 | 2076.0 | ppb | 2.38 | 0.11% |
| Mo 202.031† | 48.1 | 9.4201 | ug/L | 0.35930 | 9.4201 | ppb | 0.35930 | 3.81% |
| Na 589.592 Radial† | 12868.6 | 3967.7 | ug/L | 86.11 | 3967.7 | ppb | 86.11 | 2.17% |
| Ni 231.604† | 2114.3 | 53.745 | ug/L | 0.7562 | 53.745 | ppb | 0.7562 | 1.41% |
| P 214.914† | 620.0 | 310.39 | ug/L | 2.596 | 310.39 | ppb | 2.596 | 0.84% |
| Pb 220.353† | 2665.6 | 322.92 | ug/L | 3.199 | 322.92 | ppb | 3.199 | 0.99% |
| S 181.975 Axial† | 20.7 | 26.975 | ug/L | 14.6289 | 26.975 | ppb | 14.6289 | 54.23% |
| Sb 206.836† | 14.3 | 0.4157 | ug/L | 2.52675 | 0.4157 | ppb | 2.52675 | 607.77% |
| Se 196.026† | -313.5 | 29.632 | ug/L | 4.9236 | 29.632 | ppb | 4.9236 | 16.62% |
| Si 251.611† | 762455.4 | 24672 | ug/L | 25.4 | 24672 | ppb | 25.4 | 0.10% |
| Sn 189.927† | 41.7 | 3.6763 | ug/L | 0.78784 | 3.6763 | ppb | 0.78784 | 21.43% |
| Sr 421.552† | 2645.3 | 18.283 | ug/L | 0.2039 | 18.283 | ppb | 0.2039 | 1.12% |
| Ti 334.940† | 706524.5 | 1110.6 | ug/L | 1.66 | 1110.6 | ppb | 1.66 | 0.15% |
| Tl 190.801† | -71.8 | -4.1355 | ug/L | 2.07058 | -4.1355 | ppb | 2.07058 | 50.07% |
| U 409.014† | -9229.4 | -263.62 | ug/L | 4.417 | -263.62 | ppb | 4.417 | 1.68% |
| V 292.402† | 4602.1 | 19.495 | ug/L | 0.5528 | 19.495 | ppb | 0.5528 | 2.84% |
| Zn 213.857† | 22568.8 | 215.52 | ug/L | 2.400 | 215.52 | ppb | 2.400 | 1.11% |
| SiO2† | 759001.3 | 52747 | ug/L | 313.5 | 52747 | ppb | 313.5 | 0.59% |

Sequence No.: 115
Sample ID: 1202032591|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 130
Date Collected: 2/25/2010 07:29:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032591|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4050.0 | 4050.0 | 103 | % | | | 07:31:22 |
| 1 | Y RADIAL | 5534.8 | 5534.8 | 125.5 | % | | | 07:31:22 |
| 1 | Al 396.153Radial† | 14707.9 | 14344.0 | 13453 | ug/L | 13453 | ppb | 07:31:22 |
| 1 | Ca 317.933Radial† | 1244.9 | 1184.9 | 2477.0 | ug/L | 2477.0 | ppb | 07:31:42 |
| 1 | Fe 238.204 Radial† | 4801.2 | 4634.4 | 65418 | ug/L | 65418 | ppb | 07:31:22 |
| 1 | K 766.490 Radial† | 30822.6 | 27184.7 | 5213.7 | ug/L | 5213.7 | ppb | 07:31:22 |
| 1 | Mg 279.077 IEC† | 30.8 | 25.7 | 1176.8 | ug/L | 1176.8 | ppb | 07:31:42 |
| 1 | Na 589.592 Radial† | 11022.6 | 11485.4 | 3541.2 | ug/L | 3541.2 | ppb | 07:31:22 |
| 1 | Sr 421.552† | 2108.7 | 2004.7 | 13.853 | ug/L | 13.853 | ppb | 07:31:22 |
| 1 | Sc 361.383 | 917846.1 | 917846.1 | 104.63 | % | | | 07:32:39 |
| 1 | Y 371.029 | 958230.6 | 958230.6 | 126.78 | % | | | 07:32:39 |
| 1 | Ag 328.068† | -4671.1 | -4704.8 | -1.3878 | ug/L | -1.3878 | ppb | 07:32:44 |
| 1 | As 188.979† | -20.7 | -1.5 | 23.865 | ug/L | 23.865 | ppb | 07:33:05 |
| 1 | B 249.677† | 410.6 | 790.6 | 8.3126 | ug/L | 8.3126 | ppb | 07:32:44 |
| 1 | Ba 233.527† | 22077.5 | 21101.9 | 167.65 | ug/L | 167.65 | ppb | 07:32:44 |
| 1 | Be 313.107† | -5664.5 | -1651.7 | 1.7977 | ug/L | 1.7977 | ppb | 07:32:44 |
| 1 | Cd 226.502† | 434.3 | 611.3 | 0.2976 | ug/L | 0.2976 | ppb | 07:33:05 |
| 1 | Co 228.616† | 3995.8 | 3885.6 | 78.289 | ug/L | 78.289 | ppb | 07:33:05 |
| 1 | Cr 267.716† | 4012.3 | 3757.1 | 48.544 | ug/L | 48.544 | ppb | 07:33:05 |
| 1 | Cu 324.752† | 14096.8 | 7482.3 | 26.376 | ug/L | 26.376 | ppb | 07:32:44 |
| 1 | Mn 257.610† | 2043466.8 | 1952584.2 | 2228.3 | ug/L | 2228.3 | ppb | 07:32:39 |
| 1 | Mo 202.031† | 57.8 | 45.1 | 8.4188 | ug/L | 8.4188 | ppb | 07:33:05 |
| 1 | Ni 231.604† | 1771.9 | 1631.1 | 41.434 | ug/L | 41.434 | ppb | 07:33:05 |
| 1 | P 214.914† | 879.5 | 630.1 | 325.54 | ug/L | 325.54 | ppb | 07:33:05 |
| 1 | Pb 220.353† | 2734.2 | 2671.4 | 324.31 | ug/L | 324.31 | ppb | 07:33:05 |
| 1 | S 181.975 Axial† | 50.5 | 7.5 | 8.2180 | ug/L | 8.2180 | ppb | 07:33:05 |
| 1 | Sb 206.836† | 36.9 | -1.5 | -4.8144 | ug/L | -4.8144 | ppb | 07:33:05 |
| 1 | Se 196.026† | -352.2 | -308.9 | 1.5783 | ug/L | 1.5783 | ppb | 07:33:05 |
| 1 | Si 251.611† | 776504.5 | 741585.6 | 23997 | ug/L | 23997 | ppb | 07:32:39 |
| 1 | Sn 189.927† | 56.9 | 43.9 | 4.5635 | ug/L | 4.5635 | ppb | 07:33:05 |
| 1 | Ti 334.940† | 707849.3 | 677900.9 | 1065.6 | ug/L | 1065.6 | ppb | 07:32:39 |
| 1 | Tl 190.801† | -105.3 | -68.1 | -2.7164 | ug/L | -2.7164 | ppb | 07:33:05 |
| 1 | U 409.014† | -12905.8 | -9448.1 | -268.45 | ug/L | -268.45 | ppb | 07:32:39 |
| 1 | V 292.402† | 2998.9 | 4371.8 | 19.385 | ug/L | 19.385 | ppb | 07:33:05 |
| 1 | Zn 213.857† | 23991.1 | 22323.4 | 214.63 | ug/L | 214.63 | ppb | 07:32:44 |
| 1 | SiO2† | 777181.3 | 742236.4 | 51582 | ug/L | 51582 | ppb | 07:34:13 |
| 2 | Sc Radial | 3606.4 | 3606.4 | 92.0 | % | | | 07:31:47 |
| 2 | Y RADIAL | 5074.8 | 5074.8 | 115.1 | % | | | 07:31:47 |
| 2 | Al 396.153Radial† | 14764.0 | 16155.6 | 15152 | ug/L | 15152 | ppb | 07:31:47 |
| 2 | Ca 317.933Radial† | 1293.4 | 1385.8 | 2897.0 | ug/L | 2897.0 | ppb | 07:32:07 |
| 2 | Fe 238.204 Radial† | 4815.4 | 5221.3 | 73703 | ug/L | 73703 | ppb | 07:31:47 |
| 2 | K 766.490 Radial† | 30802.7 | 30831.9 | 5913.3 | ug/L | 5913.3 | ppb | 07:31:47 |
| 2 | Mg 279.077 IEC† | 29.2 | 27.7 | 1266.2 | ug/L | 1266.2 | ppb | 07:32:07 |
| 2 | Na 589.592 Radial† | 11087.2 | 12867.6 | 3967.4 | ug/L | 3967.4 | ppb | 07:31:47 |
| 2 | Sr 421.552† | 2132.1 | 2281.1 | 15.763 | ug/L | 15.763 | ppb | 07:31:47 |
| 2 | Sc 361.383 | 909743.1 | 909743.1 | 103.71 | % | | | 07:33:10 |
| 2 | Y 371.029 | 948331.6 | 948331.6 | 125.47 | % | | | 07:33:10 |
| 2 | Ag 328.068† | -4636.0 | -4710.7 | 1.1242 | ug/L | 1.1242 | ppb | 07:33:16 |
| 2 | As 188.979† | -23.1 | -4.1 | 24.678 | ug/L | 24.678 | ppb | 07:33:36 |
| 2 | B 249.677† | 523.9 | 903.4 | 9.6987 | ug/L | 9.6987 | ppb | 07:33:16 |
| 2 | Ba 233.527† | 21802.0 | 21024.3 | 167.30 | ug/L | 167.30 | ppb | 07:33:16 |
| 2 | Be 313.107† | -5487.8 | -1529.5 | 1.8456 | ug/L | 1.8456 | ppb | 07:33:16 |
| 2 | Cd 226.502† | 434.5 | 615.2 | -0.5116 | ug/L | -0.5116 | ppb | 07:33:36 |
| 2 | Co 228.616† | 4032.0 | 3954.4 | 79.609 | ug/L | 79.609 | ppb | 07:33:36 |
| 2 | Cr 267.716† | 3997.9 | 3777.3 | 49.559 | ug/L | 49.559 | ppb | 07:33:36 |
| 2 | Cu 324.752† | 14100.3 | 7605.7 | 27.187 | ug/L | 27.187 | ppb | 07:33:16 |
| 2 | Mn 257.610† | 2028345.5 | 1955398.9 | 2232.4 | ug/L | 2232.4 | ppb | 07:33:10 |
| 2 | Mo 202.031† | 51.4 | 39.4 | 8.6498 | ug/L | 8.6498 | ppb | 07:33:36 |
| 2 | Ni 231.604† | 1793.9 | 1667.3 | 42.354 | ug/L | 42.354 | ppb | 07:33:36 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 880.3 | 638.3 | 324.16 | ug/L | 324.16 ppb | 07:33:36 |
| 2 | Pb 220.353† | 2779.1 | 2737.9 | 331.95 | ug/L | 331.95 ppb | 07:33:36 |
| 2 | S 181.975 Axial† | 51.6 | 9.0 | 10.100 | ug/L | 10.100 ppb | 07:33:36 |
| 2 | Sb 206.836† | 53.8 | 15.1 | 0.8187 | ug/L | 0.8187 ppb | 07:33:36 |
| 2 | Se 196.026† | -340.9 | -301.0 | 32.534 | ug/L | 32.534 ppb | 07:33:36 |
| 2 | Si 251.611† | 771065.4 | 742951.1 | 24041 | ug/L | 24041 ppb | 07:33:10 |
| 2 | Sn 189.927† | 47.8 | 35.6 | 2.6660 | ug/L | 2.6660 ppb | 07:33:36 |
| 2 | Ti 334.940† | 702186.8 | 678466.5 | 1066.5 | ug/L | 1066.5 ppb | 07:33:10 |
| 2 | Tl 190.801† | -109.7 | -73.2 | -4.3334 | ug/L | -4.3334 ppb | 07:33:36 |
| 2 | U 409.014† | -12605.7 | -9268.6 | -264.44 | ug/L | -264.44 ppb | 07:33:10 |
| 2 | V 292.402† | 3072.2 | 4468.1 | 18.853 | ug/L | 18.853 ppb | 07:33:36 |
| 2 | Zn 213.857† | 23692.9 | 22240.2 | 212.55 | ug/L | 212.55 ppb | 07:33:16 |
| 2 | SiO2† | 776660.7 | 748350.4 | 52007 | ug/L | 52007 ppb | 07:34:19 |
| 3 | Sc Radial | 3812.8 | 3812.8 | 97.3 | % | | 07:32:12 |
| 3 | Y RADIAL | 5292.9 | 5292.9 | 120.0 | % | | 07:32:12 |
| 3 | Al 396.153Radial† | 14408.5 | 14921.6 | 13994 | ug/L | 13994 ppb | 07:32:12 |
| 3 | Ca 317.933Radial† | 1300.8 | 1317.3 | 2753.9 | ug/L | 2753.9 ppb | 07:32:32 |
| 3 | Fe 238.204 Radial† | 4705.4 | 4824.9 | 68107 | ug/L | 68107 ppb | 07:32:12 |
| 3 | K 766.490 Radial† | 30310.2 | 28513.4 | 5468.5 | ug/L | 5468.5 ppb | 07:32:12 |
| 3 | Mg 279.077 IEC† | 32.6 | 29.5 | 1358.3 | ug/L | 1358.3 ppb | 07:32:32 |
| 3 | Na 589.592 Radial† | 10766.2 | 11885.4 | 3664.6 | ug/L | 3664.6 ppb | 07:32:12 |
| 3 | Sr 421.552† | 2090.5 | 2112.9 | 14.600 | ug/L | 14.600 ppb | 07:32:12 |
| 3 | Sc 361.383 | 904810.0 | 904810.0 | 103.14 | % | | 07:33:42 |
| 3 | Y 371.029 | 943271.1 | 943271.1 | 124.80 | % | | 07:33:42 |
| 3 | Ag 328.068† | -4529.0 | -4631.4 | -0.2264 | ug/L | -0.2264 ppb | 07:33:47 |
| 3 | As 188.979† | -26.2 | -7.2 | 21.982 | ug/L | 21.982 ppb | 07:34:07 |
| 3 | B 249.677† | 478.8 | 862.4 | 9.6138 | ug/L | 9.6138 ppb | 07:33:47 |
| 3 | Ba 233.527† | 21938.6 | 21271.3 | 169.06 | ug/L | 169.06 ppb | 07:33:47 |
| 3 | Be 313.107† | -5609.7 | -1676.6 | 1.7886 | ug/L | 1.7886 ppb | 07:33:47 |
| 3 | Cd 226.502† | 433.6 | 616.6 | 0.0828 | ug/L | 0.0828 ppb | 07:34:07 |
| 3 | Co 228.616† | 3998.0 | 3942.7 | 79.445 | ug/L | 79.445 ppb | 07:34:07 |
| 3 | Cr 267.716† | 4000.4 | 3800.7 | 49.289 | ug/L | 49.289 ppb | 07:34:07 |
| 3 | Cu 324.752† | 14216.8 | 7792.7 | 27.461 | ug/L | 27.461 ppb | 07:33:47 |
| 3 | Mn 257.610† | 2012503.7 | 1950703.4 | 2226.5 | ug/L | 2226.5 ppb | 07:33:42 |
| 3 | Mo 202.031† | 47.2 | 35.6 | 7.9331 | ug/L | 7.9331 ppb | 07:34:07 |
| 3 | Ni 231.604† | 1783.4 | 1666.6 | 42.337 | ug/L | 42.337 ppb | 07:34:07 |
| 3 | P 214.914† | 876.9 | 639.6 | 329.05 | ug/L | 329.05 ppb | 07:34:07 |
| 3 | Pb 220.353† | 2749.4 | 2723.7 | 330.57 | ug/L | 330.57 ppb | 07:34:07 |
| 3 | S 181.975 Axial† | 58.2 | 15.6 | 19.883 | ug/L | 19.883 ppb | 07:34:07 |
| 3 | Sb 206.836† | 46.1 | 8.0 | -1.5735 | ug/L | -1.5735 ppb | 07:34:07 |
| 3 | Se 196.026† | -346.9 | -308.6 | 10.117 | ug/L | 10.117 ppb | 07:34:07 |
| 3 | Si 251.611† | 766296.8 | 742381.6 | 24022 | ug/L | 24022 ppb | 07:33:42 |
| 3 | Sn 189.927† | 53.8 | 41.6 | 4.0502 | ug/L | 4.0502 ppb | 07:34:07 |
| 3 | Ti 334.940† | 697851.6 | 677955.0 | 1065.7 | ug/L | 1065.7 ppb | 07:33:42 |
| 3 | Tl 190.801† | -117.6 | -81.4 | -7.0099 | ug/L | -7.0099 ppb | 07:34:07 |
| 3 | U 409.014† | -12585.0 | -9314.8 | -265.08 | ug/L | -265.08 ppb | 07:33:42 |
| 3 | V 292.402† | 3010.6 | 4424.5 | 19.361 | ug/L | 19.361 ppb | 07:34:07 |
| 3 | Zn 213.857† | 23718.7 | 22389.7 | 214.89 | ug/L | 214.89 ppb | 07:33:47 |
| 3 | SiO2† | 777037.7 | 752799.0 | 52316 | ug/L | 52316 ppb | 07:34:25 |

**Mean Data: 1202032591|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 910799.7 | 103.83 | % | 0.750 | | | | 0.72% |
| Sc Radial | 3823.0 | 97.6 | % | 5.66 | | | | 5.81% |
| Y 371.029 | 949944.4 | 125.68 | % | 1.007 | | | | 0.80% |
| Y RADIAL | 5300.9 | 120.2 | % | 5.22 | | | | 4.34% |
| Ag 328.068† | -4682.3 | -0.1633 | ug/L | 1.25722 | -0.1633 | ppb | 1.25722 | 769.79% |
| Al 396.153Radial† | 15140.4 | 14200 | ug/L | 867.9 | 14200 | ppb | 867.9 | 6.11% |
| As 188.979† | -4.2 | 23.508 | ug/L | 1.3826 | 23.508 | ppb | 1.3826 | 5.88% |
| B 249.677† | 852.2 | 9.2084 | ug/L | 0.77693 | 9.2084 | ppb | 0.77693 | 8.44% |
| Ba 233.527† | 21132.5 | 168.00 | ug/L | 0.935 | 168.00 | ppb | 0.935 | 0.56% |
| Be 313.107† | -1619.3 | 1.8106 | ug/L | 0.03065 | 1.8106 | ppb | 0.03065 | 1.69% |
| Ca 317.933Radial† | 1296.0 | 2709.3 | ug/L | 213.50 | 2709.3 | ppb | 213.50 | 7.88% |
| Cd 226.502† | 614.4 | -0.0437 | ug/L | 0.41916 | -0.0437 | ppb | 0.41916 | 958.72% |
| Co 228.616† | 3927.6 | 79.114 | ug/L | 0.7197 | 79.114 | ppb | 0.7197 | 0.91% |
| Cr 267.716† | 3778.4 | 49.131 | ug/L | 0.5253 | 49.131 | ppb | 0.5253 | 1.07% |
| Cu 324.752† | 7626.9 | 27.008 | ug/L | 0.5642 | 27.008 | ppb | 0.5642 | 2.09% |
| Fe 238.204 Radial† | 4893.6 | 69076 | ug/L | 4226.5 | 69076 | ppb | 4226.5 | 6.12% |
| K 766.490 Radial† | 28843.3 | 5531.8 | ug/L | 354.07 | 5531.8 | ppb | 354.07 | 6.40% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 27.6 | 1267.1 | ug/L | 90.78 | 1267.1 | ppb | 90.78 | 7.16% |
| Mn 257.610† | 1952895.5 | 2229.0 | ug/L | 3.01 | 2229.0 | ppb | 3.01 | 0.14% |
| Mo 202.031† | 40.0 | 8.3339 | ug/L | 0.36583 | 8.3339 | ppb | 0.36583 | 4.39% |
| Na 589.592 Radial† | 12079.4 | 3724.4 | ug/L | 219.29 | 3724.4 | ppb | 219.29 | 5.89% |
| Ni 231.604† | 1655.0 | 42.042 | ug/L | 0.5264 | 42.042 | ppb | 0.5264 | 1.25% |
| P 214.914† | 636.0 | 326.25 | ug/L | 2.520 | 326.25 | ppb | 2.520 | 0.77% |
| Pb 220.353† | 2711.0 | 328.94 | ug/L | 4.072 | 328.94 | ppb | 4.072 | 1.24% |
| S 181.975 Axial† | 10.7 | 12.734 | ug/L | 6.2625 | 12.734 | ppb | 6.2625 | 49.18% |
| Sb 206.836† | 7.2 | -1.8564 | ug/L | 2.82716 | -1.8564 | ppb | 2.82716 | 152.29% |
| Se 196.026† | -306.2 | 14.743 | ug/L | 15.9882 | 14.743 | ppb | 15.9882 | 108.45% |
| Si 251.611† | 742306.1 | 24020 | ug/L | 22.2 | 24020 | ppb | 22.2 | 0.09% |
| Sn 189.927† | 40.4 | 3.7599 | ug/L | 0.98151 | 3.7599 | ppb | 0.98151 | 26.10% |
| Sr 421.552† | 2132.9 | 14.739 | ug/L | 0.9623 | 14.739 | ppb | 0.9623 | 6.53% |
| Ti 334.940† | 678107.5 | 1065.9 | ug/L | 0.51 | 1065.9 | ppb | 0.51 | 0.05% |
| Tl 190.801† | -74.2 | -4.6866 | ug/L | 2.16846 | -4.6866 | ppb | 2.16846 | 46.27% |
| U 409.014† | -9343.8 | -265.99 | ug/L | 2.155 | -265.99 | ppb | 2.155 | 0.81% |
| V 292.402† | 4421.5 | 19.200 | ug/L | 0.2999 | 19.200 | ppb | 0.2999 | 1.56% |
| Zn 213.857† | 22317.8 | 214.02 | ug/L | 1.284 | 214.02 | ppb | 1.284 | 0.60% |
| SiO2† | 747795.3 | 51968 | ug/L | 368.6 | 51968 | ppb | 368.6 | 0.71% |

Sequence No.: 116
Sample ID: 1202032593|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 131
Date Collected: 2/25/2010 07:36:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032593|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3763.7 | 3763.7 | 96.0 | % | | | 07:38:52 |
| 1 | Y RADIAL | 5519.8 | 5519.8 | 125.1 | % | | | 07:38:32 |
| 1 | Al 396.153Radial† | 28887.2 | 30189.9 | 28292 | ug/L | 28292 | ppb | 07:38:32 |
| 1 | Ca 317.933Radial† | 4209.7 | 4363.5 | 9121.8 | ug/L | 9121.8 | ppb | 07:38:32 |
| 1 | Fe 238.204 Radial† | 4985.3 | 5179.4 | 73123 | ug/L | 73123 | ppb | 07:38:32 |
| 1 | K 766.490 Radial† | 71297.7 | 71596.1 | 13730 | ug/L | 13730 | ppb | 07:38:32 |
| 1 | Mg 279.077 IEC† | 148.3 | 150.3 | 7216.0 | ug/L | 7216.0 | ppb | 07:38:52 |
| 1 | Na 589.592 Radial† | 34426.1 | 36664.5 | 11305 | ug/L | 11305 | ppb | 07:38:32 |
| 1 | Sr 421.552† | 70458.2 | 73325.9 | 507.31 | ug/L | 507.31 | ppb | 07:38:32 |
| 1 | Sc 361.383 | 898332.0 | 898332.0 | 102.41 | % | | | 07:39:51 |
| 1 | Y 371.029 | 970819.1 | 970819.1 | 128.44 | % | | | 07:39:51 |
| 1 | Ag 328.068† | 101165.1 | 98548.5 | 480.79 | ug/L | 480.79 | ppb | 07:39:51 |
| 1 | As 188.979† | 1083.7 | 1076.5 | 512.53 | ug/L | 512.53 | ppb | 07:40:11 |
| 1 | B 249.677† | 20120.6 | 20046.3 | 472.70 | ug/L | 472.70 | ppb | 07:39:51 |
| 1 | Ba 233.527† | 85944.5 | 83927.1 | 661.93 | ug/L | 661.93 | ppb | 07:39:51 |
| 1 | Be 313.107† | 1333810.2 | 1306242.6 | 495.03 | ug/L | 495.03 | ppb | 07:39:51 |
| 1 | Cd 226.502† | 42689.5 | 41883.0 | 477.81 | ug/L | 477.81 | ppb | 07:39:51 |
| 1 | Co 228.616† | 24650.9 | 24138.4 | 501.95 | ug/L | 501.95 | ppb | 07:40:11 |
| 1 | Cr 267.716† | 47964.5 | 46760.1 | 532.51 | ug/L | 532.51 | ppb | 07:39:51 |
| 1 | Cu 324.752† | 184064.9 | 173750.6 | 532.51 | ug/L | 532.51 | ppb | 07:39:51 |
| 1 | Mn 257.610† | 2257583.3 | 2204096.3 | 2515.1 | ug/L | 2515.1 | ppb | 07:39:51 |
| 1 | Mo 202.031† | 6512.0 | 6348.9 | 471.90 | ug/L | 471.90 | ppb | 07:40:11 |
| 1 | Ni 231.604† | 20839.9 | 20287.9 | 515.68 | ug/L | 515.68 | ppb | 07:40:11 |
| 1 | P 214.914† | 1711.8 | 1461.1 | 727.39 | ug/L | 727.39 | ppb | 07:40:11 |
| 1 | Pb 220.353† | 5133.4 | 5071.0 | 622.64 | ug/L | 622.64 | ppb | 07:40:11 |
| 1 | S 181.975 Axial† | 3601.0 | 3475.6 | 4996.2 | ug/L | 4996.2 | ppb | 07:40:11 |
| 1 | Sb 206.836† | 1371.6 | 1302.6 | 466.82 | ug/L | 466.82 | ppb | 07:40:11 |
| 1 | Se 196.026† | 399.8 | 418.2 | 503.15 | ug/L | 503.15 | ppb | 07:40:11 |
| 1 | Si 251.611† | 1258135.1 | 1228024.6 | 39732 | ug/L | 39732 | ppb | 07:39:51 |
| 1 | Sn 189.927† | 2841.7 | 2764.5 | 493.44 | ug/L | 493.44 | ppb | 07:40:11 |
| 1 | Ti 334.940† | 1188145.4 | 1161611.2 | 1825.7 | ug/L | 1825.7 | ppb | 07:39:51 |
| 1 | Tl 190.801† | 1421.4 | 1420.6 | 478.19 | ug/L | 478.19 | ppb | 07:40:11 |
| 1 | U 409.014† | 3849.7 | 6645.9 | 174.01 | ug/L | 174.01 | ppb | 07:39:51 |
| 1 | V 292.402† | 71673.3 | 71495.4 | 492.84 | ug/L | 492.84 | ppb | 07:39:51 |
| 1 | Zn 213.857† | 72984.9 | 70664.5 | 696.40 | ug/L | 696.40 | ppb | 07:39:51 |
| 1 | SiO2† | 1260406.1 | 1230246.1 | 85484 | ug/L | 85484 | ppb | 07:41:12 |
| 2 | Sc Radial | 3746.8 | 3746.8 | 95.6 | % | | | 07:39:17 |
| 2 | Y RADIAL | 5611.6 | 5611.6 | 127.2 | % | | | 07:38:57 |
| 2 | Al 396.153Radial† | 29358.6 | 30818.8 | 28882 | ug/L | 28882 | ppb | 07:38:57 |
| 2 | Ca 317.933Radial† | 4288.3 | 4465.5 | 9335.2 | ug/L | 9335.2 | ppb | 07:38:57 |
| 2 | Fe 238.204 Radial† | 5025.3 | 5244.7 | 74045 | ug/L | 74045 | ppb | 07:38:57 |
| 2 | K 766.490 Radial† | 72474.1 | 73161.8 | 14031 | ug/L | 14031 | ppb | 07:38:57 |
| 2 | Mg 279.077 IEC† | 146.0 | 148.7 | 7136.4 | ug/L | 7136.4 | ppb | 07:39:17 |
| 2 | Na 589.592 Radial† | 34862.3 | 37282.6 | 11495 | ug/L | 11495 | ppb | 07:38:57 |
| 2 | Sr 421.552† | 71709.7 | 74966.2 | 518.66 | ug/L | 518.66 | ppb | 07:38:57 |
| 2 | Sc 361.383 | 903667.1 | 903667.1 | 103.01 | % | | | 07:40:19 |
| 2 | Y 371.029 | 975989.2 | 975989.2 | 129.13 | % | | | 07:40:19 |
| 2 | Ag 328.068† | 101849.9 | 98630.0 | 481.44 | ug/L | 481.44 | ppb | 07:40:19 |
| 2 | As 188.979† | 1084.0 | 1070.6 | 510.12 | ug/L | 510.12 | ppb | 07:40:39 |
| 2 | B 249.677† | 20361.8 | 20164.3 | 475.43 | ug/L | 475.43 | ppb | 07:40:19 |
| 2 | Ba 233.527† | 86378.7 | 83853.2 | 661.38 | ug/L | 661.38 | ppb | 07:40:19 |
| 2 | Be 313.107† | 1339604.2 | 1304177.4 | 494.25 | ug/L | 494.25 | ppb | 07:40:19 |
| 2 | Cd 226.502† | 42956.1 | 41895.7 | 477.86 | ug/L | 477.86 | ppb | 07:40:19 |
| 2 | Co 228.616† | 24599.2 | 23946.1 | 497.90 | ug/L | 497.90 | ppb | 07:40:39 |
| 2 | Cr 267.716† | 48269.1 | 46779.3 | 532.81 | ug/L | 532.81 | ppb | 07:40:19 |
| 2 | Cu 324.752† | 185665.3 | 174243.1 | 534.05 | ug/L | 534.05 | ppb | 07:40:19 |
| 2 | Mn 257.610† | 2270926.1 | 2204033.5 | 2515.1 | ug/L | 2515.1 | ppb | 07:40:19 |
| 2 | Mo 202.031† | 6513.3 | 6312.7 | 469.31 | ug/L | 469.31 | ppb | 07:40:39 |
| 2 | Ni 231.604† | 20793.6 | 20122.9 | 511.48 | ug/L | 511.48 | ppb | 07:40:39 |

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|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1683.2 | 1423.4 | 703.76 ug/L | 703.76 ppb | 07:40:39 |
| 2 | Pb 220.353† | 5146.1 | 5053.7 | 620.54 ug/L | 620.54 ppb | 07:40:39 |
| 2 | S 181.975 Axial† | 3590.7 | 3444.9 | 4951.9 ug/L | 4951.9 ppb | 07:40:39 |
| 2 | Sb 206.836† | 1370.3 | 1293.5 | 463.44 ug/L | 463.44 ppb | 07:40:39 |
| 2 | Se 196.026† | 401.7 | 417.7 | 505.69 ug/L | 505.69 ppb | 07:40:39 |
| 2 | Si 251.611† | 1267057.1 | 1229432.2 | 39777 ug/L | 39777 ppb | 07:40:19 |
| 2 | Sn 189.927† | 2826.5 | 2733.4 | 487.85 ug/L | 487.85 ppb | 07:40:39 |
| 2 | Ti 334.940† | 1196478.9 | 1162851.0 | 1827.7 ug/L | 1827.7 ppb | 07:40:19 |
| 2 | Tl 190.801† | 1409.1 | 1400.5 | 471.79 ug/L | 471.79 ppb | 07:40:39 |
| 2 | U 409.014† | 4177.8 | 6942.2 | 182.09 ug/L | 182.09 ppb | 07:40:19 |
| 2 | V 292.402† | 72083.6 | 71480.5 | 492.57 ug/L | 492.57 ppb | 07:40:19 |
| 2 | Zn 213.857† | 73611.3 | 70851.8 | 698.17 ug/L | 698.17 ppb | 07:40:19 |
| 2 | SiO2† | 1269686.6 | 1231988.7 | 85605 ug/L | 85605 ppb | 07:41:18 |
| 3 | Sc Radial | 3788.0 | 3788.0 | 96.7 % | | 07:39:42 |
| 3 | Y RADIAL | 5442.2 | 5442.2 | 123.4 % | | 07:39:22 |
| 3 | Al 396.153Radial† | 28463.3 | 29558.7 | 27700 ug/L | 27700 ppb | 07:39:22 |
| 3 | Ca 317.933Radial† | 4166.0 | 4290.2 | 8968.7 ug/L | 8968.7 ppb | 07:39:22 |
| 3 | Fe 238.204 Radial† | 4929.7 | 5088.6 | 71842 ug/L | 71842 ppb | 07:39:22 |
| 3 | K 766.490 Radial† | 70481.3 | 70275.7 | 13477 ug/L | 13477 ppb | 07:39:22 |
| 3 | Mg 279.077 IEC† | 149.8 | 150.9 | 7246.7 ug/L | 7246.7 ppb | 07:39:42 |
| 3 | Na 589.592 Radial† | 33617.9 | 35598.7 | 10976 ug/L | 10976 ppb | 07:39:22 |
| 3 | Sr 421.552† | 69200.9 | 71554.9 | 495.06 ug/L | 495.06 ppb | 07:39:22 |
| 3 | Sc 361.383 | 905350.7 | 905350.7 | 103.21 % | | 07:40:46 |
| 3 | Y 371.029 | 978501.8 | 978501.8 | 129.46 % | | 07:40:46 |
| 3 | Ag 328.068† | 101544.9 | 98150.5 | 478.54 ug/L | 478.54 ppb | 07:40:46 |
| 3 | As 188.979† | 1080.9 | 1065.6 | 507.34 ug/L | 507.34 ppb | 07:41:06 |
| 3 | B 249.677† | 20251.9 | 20021.1 | 472.33 ug/L | 472.33 ppb | 07:40:46 |
| 3 | Ba 233.527† | 86480.8 | 83796.2 | 660.86 ug/L | 660.86 ppb | 07:40:46 |
| 3 | Be 313.107† | 1340969.6 | 1303082.2 | 493.82 ug/L | 493.82 ppb | 07:40:46 |
| 3 | Cd 226.502† | 42737.4 | 41606.3 | 474.74 ug/L | 474.74 ppb | 07:40:46 |
| 3 | Co 228.616† | 24374.8 | 23684.2 | 492.45 ug/L | 492.45 ppb | 07:41:06 |
| 3 | Cr 267.716† | 48221.4 | 46646.0 | 531.10 ug/L | 531.10 ppb | 07:40:46 |
| 3 | Cu 324.752† | 184940.3 | 173205.4 | 530.78 ug/L | 530.78 ppb | 07:40:46 |
| 3 | Mn 257.610† | 2267294.5 | 2196415.2 | 2506.2 ug/L | 2506.2 ppb | 07:40:46 |
| 3 | Mo 202.031† | 6443.7 | 6233.4 | 463.32 ug/L | 463.32 ppb | 07:41:06 |
| 3 | Ni 231.604† | 20642.8 | 19939.2 | 506.82 ug/L | 506.82 ppb | 07:41:06 |
| 3 | P 214.914† | 1682.3 | 1419.6 | 703.53 ug/L | 703.53 ppb | 07:41:06 |
| 3 | Pb 220.353† | 5103.0 | 5002.7 | 614.24 ug/L | 614.24 ppb | 07:41:06 |
| 3 | S 181.975 Axial† | 3553.9 | 3402.7 | 4891.4 ug/L | 4891.4 ppb | 07:41:06 |
| 3 | Sb 206.836† | 1373.8 | 1294.5 | 463.70 ug/L | 463.70 ppb | 07:41:06 |
| 3 | Se 196.026† | 384.5 | 400.3 | 487.40 ug/L | 487.40 ppb | 07:41:06 |
| 3 | Si 251.611† | 1262742.4 | 1222964.2 | 39568 ug/L | 39568 ppb | 07:40:46 |
| 3 | Sn 189.927† | 2818.5 | 2720.4 | 485.59 ug/L | 485.59 ppb | 07:41:06 |
| 3 | Ti 334.940† | 1193617.2 | 1157918.4 | 1819.9 ug/L | 1819.9 ppb | 07:40:46 |
| 3 | Tl 190.801† | 1404.6 | 1393.5 | 469.49 ug/L | 469.49 ppb | 07:41:06 |
| 3 | U 409.014† | 4081.1 | 6840.9 | 179.55 ug/L | 179.55 ppb | 07:40:46 |
| 3 | V 292.402† | 71917.9 | 71189.9 | 490.79 ug/L | 490.79 ppb | 07:40:46 |
| 3 | Zn 213.857† | 73251.8 | 70370.6 | 693.69 ug/L | 693.69 ppb | 07:40:46 |
| 3 | SiO2† | 1259358.4 | 1219689.2 | 84750 ug/L | 84750 ppb | 07:41:24 |

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**Mean Data: 1202032593|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 902450.0 | 102.87 | % | 0.418 | | | | 0.41% |
| Sc Radial | 3766.2 | 96.1 | % | 0.53 | | | | 0.55% |
| Y 371.029 | 975103.4 | 129.01 | % | 0.518 | | | | 0.40% |
| Y RADIAL | 5524.5 | 125.2 | % | 1.92 | | | | 1.53% |
| Ag 328.068† | 98443.0 | 480.26 | ug/L | 1.521 | 480.26 | ppb | 1.521 | 0.32% |
| Al 396.153Radial† | 30189.2 | 28291 | ug/L | 590.8 | 28291 | ppb | 590.8 | 2.09% |
| As 188.979† | 1070.9 | 510.00 | ug/L | 2.596 | 510.00 | ppb | 2.596 | 0.51% |
| B 249.677† | 20077.2 | 473.49 | ug/L | 1.692 | 473.49 | ppb | 1.692 | 0.36% |
| Ba 233.527† | 83858.8 | 661.39 | ug/L | 0.536 | 661.39 | ppb | 0.536 | 0.08% |
| Be 313.107† | 1304500.8 | 494.37 | ug/L | 0.609 | 494.37 | ppb | 0.609 | 0.12% |
| Ca 317.933Radial† | 4373.1 | 9141.9 | ug/L | 184.07 | 9141.9 | ppb | 184.07 | 2.01% |
| Cd 226.502† | 41795.0 | 476.80 | ug/L | 1.791 | 476.80 | ppb | 1.791 | 0.38% |
| Co 228.616† | 23922.9 | 497.43 | ug/L | 4.768 | 497.43 | ppb | 4.768 | 0.96% |
| Cr 267.716† | 46728.5 | 532.14 | ug/L | 0.912 | 532.14 | ppb | 0.912 | 0.17% |
| Cu 324.752† | 173733.0 | 532.44 | ug/L | 1.637 | 532.44 | ppb | 1.637 | 0.31% |
| Fe 238.204 Radial† | 5170.9 | 73004 | ug/L | 1106.4 | 73004 | ppb | 1106.4 | 1.52% |
| K 766.490 Radial† | 71677.8 | 13746 | ug/L | 277.1 | 13746 | ppb | 277.1 | 2.02% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 150.0 | 7199.7 | ug/L | 56.92 | 7199.7 | ppb | 56.92 | 0.79% |
| Mn 257.610† | 2201515.0 | 2512.1 | ug/L | 5.13 | 2512.1 | ppb | 5.13 | 0.20% |
| Mo 202.031† | 6298.3 | 468.18 | ug/L | 4.401 | 468.18 | ppb | 4.401 | 0.94% |
| Na 589.592 Radial† | 36515.2 | 11259 | ug/L | 262.6 | 11259 | ppb | 262.6 | 2.33% |
| Ni 231.604† | 20116.7 | 511.33 | ug/L | 4.433 | 511.33 | ppb | 4.433 | 0.87% |
| P 214.914† | 1434.7 | 711.56 | ug/L | 13.709 | 711.56 | ppb | 13.709 | 1.93% |
| Pb 220.353† | 5042.4 | 619.14 | ug/L | 4.374 | 619.14 | ppb | 4.374 | 0.71% |
| S 181.975 Axial† | 3441.1 | 4946.5 | ug/L | 52.60 | 4946.5 | ppb | 52.60 | 1.06% |
| Sb 206.836† | 1296.9 | 464.65 | ug/L | 1.879 | 464.65 | ppb | 1.879 | 0.40% |
| Se 196.026† | 412.0 | 498.74 | ug/L | 9.908 | 498.74 | ppb | 9.908 | 1.99% |
| Si 251.611† | 1226807.0 | 39692 | ug/L | 110.0 | 39692 | ppb | 110.0 | 0.28% |
| Sn 189.927† | 2739.4 | 488.96 | ug/L | 4.044 | 488.96 | ppb | 4.044 | 0.83% |
| Sr 421.552† | 73282.4 | 507.01 | ug/L | 11.804 | 507.01 | ppb | 11.804 | 2.33% |
| Ti 334.940† | 1160793.5 | 1824.4 | ug/L | 4.06 | 1824.4 | ppb | 4.06 | 0.22% |
| Tl 190.801† | 1404.9 | 473.15 | ug/L | 4.511 | 473.15 | ppb | 4.511 | 0.95% |
| U 409.014† | 6809.7 | 178.55 | ug/L | 4.130 | 178.55 | ppb | 4.130 | 2.31% |
| V 292.402† | 71388.6 | 492.07 | ug/L | 1.113 | 492.07 | ppb | 1.113 | 0.23% |
| Zn 213.857† | 70629.0 | 696.08 | ug/L | 2.256 | 696.08 | ppb | 2.256 | 0.32% |
| SiO2† | 1227308.0 | 85280 | ug/L | 462.4 | 85280 | ppb | 462.4 | 0.54% |

Sequence No.: 117
Sample ID: 1202032594|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 132
Date Collected: 2/25/2010 07:43:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032594|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3912.5 | 3912.5 | 99.8 | % | | | 07:45:50 |
| 1 | Y RADIAL | 5453.4 | 5453.4 | 123.6 | % | | | 07:45:30 |
| 1 | Al 396.153Radial† | 29603.7 | 29764.2 | 27893 | ug/L | 27893 | ppb | 07:45:30 |
| 1 | Ca 317.933Radial† | 4436.5 | 4424.1 | 9248.6 | ug/L | 9248.6 | ppb | 07:45:30 |
| 1 | Fe 238.204 Radial† | 4816.9 | 4813.4 | 67957 | ug/L | 67957 | ppb | 07:45:30 |
| 1 | K 766.490 Radial† | 72064.5 | 69541.9 | 13336 | ug/L | 13336 | ppb | 07:45:30 |
| 1 | Mg 279.077 IEC† | 154.0 | 150.2 | 7215.0 | ug/L | 7215.0 | ppb | 07:45:50 |
| 1 | Na 589.592 Radial† | 36222.7 | 37101.3 | 11439 | ug/L | 11439 | ppb | 07:45:30 |
| 1 | Sr 421.552† | 72830.5 | 72913.0 | 504.46 | ug/L | 504.46 | ppb | 07:45:30 |
| 1 | Sc 361.383 | 890084.6 | 890084.6 | 101.47 | % | | | 07:46:49 |
| 1 | Y 371.029 | 971922.6 | 971922.6 | 128.59 | % | | | 07:46:49 |
| 1 | Ag 328.068† | 100308.7 | 98619.8 | 479.53 | ug/L | 479.53 | ppb | 07:46:49 |
| 1 | As 188.979† | 1073.4 | 1076.1 | 511.96 | ug/L | 511.96 | ppb | 07:47:09 |
| 1 | B 249.677† | 19791.1 | 19903.6 | 470.10 | ug/L | 470.10 | ppb | 07:46:49 |
| 1 | Ba 233.527† | 82836.1 | 81641.3 | 643.83 | ug/L | 643.83 | ppb | 07:46:49 |
| 1 | Be 313.107† | 1316445.7 | 1301197.5 | 493.34 | ug/L | 493.34 | ppb | 07:46:49 |
| 1 | Cd 226.502† | 41371.1 | 40970.0 | 467.77 | ug/L | 467.77 | ppb | 07:47:09 |
| 1 | Co 228.616† | 24064.9 | 23783.9 | 494.40 | ug/L | 494.40 | ppb | 07:47:09 |
| 1 | Cr 267.716† | 46870.9 | 46116.3 | 524.79 | ug/L | 524.79 | ppb | 07:46:49 |
| 1 | Cu 324.752† | 186132.6 | 177453.9 | 543.50 | ug/L | 543.50 | ppb | 07:46:49 |
| 1 | Mn 257.610† | 2354651.4 | 2320189.8 | 2646.7 | ug/L | 2646.7 | ppb | 07:46:49 |
| 1 | Mo 202.031† | 6407.9 | 6305.2 | 468.29 | ug/L | 468.29 | ppb | 07:47:09 |
| 1 | Ni 231.604† | 20556.6 | 20197.3 | 513.38 | ug/L | 513.38 | ppb | 07:47:09 |
| 1 | P 214.914† | 1737.0 | 1501.5 | 753.45 | ug/L | 753.45 | ppb | 07:47:09 |
| 1 | Pb 220.353† | 5420.4 | 5400.2 | 663.60 | ug/L | 663.60 | ppb | 07:47:09 |
| 1 | S 181.975 Axial† | 3552.8 | 3460.7 | 4974.8 | ug/L | 4974.8 | ppb | 07:47:09 |
| 1 | Sb 206.836† | 1353.3 | 1297.1 | 464.48 | ug/L | 464.48 | ppb | 07:47:09 |
| 1 | Se 196.026† | 419.3 | 441.0 | 501.99 | ug/L | 501.99 | ppb | 07:47:09 |
| 1 | Si 251.611† | 1241145.4 | 1222664.1 | 39558 | ug/L | 39558 | ppb | 07:46:49 |
| 1 | Sn 189.927† | 2784.1 | 2733.4 | 488.19 | ug/L | 488.19 | ppb | 07:47:09 |
| 1 | Ti 334.940† | 1236848.7 | 1220361.8 | 1918.1 | ug/L | 1918.1 | ppb | 07:46:49 |
| 1 | Tl 190.801† | 1397.0 | 1409.4 | 476.02 | ug/L | 476.02 | ppb | 07:47:09 |
| 1 | U 409.014† | 3572.2 | 6407.2 | 168.02 | ug/L | 168.02 | ppb | 07:46:49 |
| 1 | V 292.402† | 70862.7 | 71345.1 | 492.39 | ug/L | 492.39 | ppb | 07:46:49 |
| 1 | Zn 213.857† | 73427.8 | 71761.5 | 708.21 | ug/L | 708.21 | ppb | 07:46:49 |
| 1 | SiO2† | 1250914.5 | 1232296.0 | 85626 | ug/L | 85626 | ppb | 07:48:10 |
| 2 | Sc Radial | 3938.3 | 3938.3 | 100 | % | | | 07:46:15 |
| 2 | Y RADIAL | 5471.4 | 5471.4 | 124.0 | % | | | 07:45:55 |
| 2 | Al 396.153Radial† | 28608.2 | 28579.0 | 26781 | ug/L | 26781 | ppb | 07:45:55 |
| 2 | Ca 317.933Radial† | 4268.0 | 4227.2 | 8837.1 | ug/L | 8837.1 | ppb | 07:45:55 |
| 2 | Fe 238.204 Radial† | 4634.0 | 4599.7 | 64941 | ug/L | 64941 | ppb | 07:45:55 |
| 2 | K 766.490 Radial† | 69755.8 | 66770.9 | 12805 | ug/L | 12805 | ppb | 07:45:55 |
| 2 | Mg 279.077 IEC† | 156.2 | 151.3 | 7274.7 | ug/L | 7274.7 | ppb | 07:46:15 |
| 2 | Na 589.592 Radial† | 34598.8 | 35247.3 | 10868 | ug/L | 10868 | ppb | 07:45:55 |
| 2 | Sr 421.552† | 70003.4 | 69621.1 | 481.68 | ug/L | 481.68 | ppb | 07:45:55 |
| 2 | Sc 361.383 | 895905.6 | 895905.6 | 102.13 | % | | | 07:47:16 |
| 2 | Y 371.029 | 977618.4 | 977618.4 | 129.34 | % | | | 07:47:16 |
| 2 | Ag 328.068† | 100820.2 | 98478.3 | 477.95 | ug/L | 477.95 | ppb | 07:47:16 |
| 2 | As 188.979† | 1069.5 | 1065.5 | 506.50 | ug/L | 506.50 | ppb | 07:47:36 |
| 2 | B 249.677† | 19954.3 | 19936.6 | 471.42 | ug/L | 471.42 | ppb | 07:47:16 |
| 2 | Ba 233.527† | 83247.4 | 81513.6 | 642.74 | ug/L | 642.74 | ppb | 07:47:16 |
| 2 | Be 313.107† | 1324285.1 | 1300443.6 | 493.05 | ug/L | 493.05 | ppb | 07:47:16 |
| 2 | Cd 226.502† | 41202.0 | 40539.4 | 463.09 | ug/L | 463.09 | ppb | 07:47:36 |
| 2 | Co 228.616† | 23879.5 | 23448.3 | 487.40 | ug/L | 487.40 | ppb | 07:47:36 |
| 2 | Cr 267.716† | 47011.9 | 45954.3 | 522.68 | ug/L | 522.68 | ppb | 07:47:16 |
| 2 | Cu 324.752† | 187758.1 | 177853.6 | 544.56 | ug/L | 544.56 | ppb | 07:47:16 |
| 2 | Mn 257.610† | 2365786.6 | 2316014.9 | 2641.6 | ug/L | 2641.6 | ppb | 07:47:16 |
| 2 | Mo 202.031† | 6391.7 | 6248.3 | 463.87 | ug/L | 463.87 | ppb | 07:47:36 |
| 2 | Ni 231.604† | 20477.5 | 19988.2 | 508.06 | ug/L | 508.06 | ppb | 07:47:36 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1711.3 | 1465.1 | 733.45 ug/L | 733.45 ppb | 07:47:36 |
| 2 | Pb 220.353† | 5401.5 | 5347.0 | 657.14 ug/L | 657.14 ppb | 07:47:36 |
| 2 | S 181.975 Axial† | 3527.3 | 3413.0 | 4906.3 ug/L | 4906.3 ppb | 07:47:36 |
| 2 | Sb 206.836† | 1355.3 | 1290.3 | 462.02 ug/L | 462.02 ppb | 07:47:36 |
| 2 | Se 196.026† | 408.6 | 427.8 | 483.96 ug/L | 483.96 ppb | 07:47:36 |
| 2 | Si 251.611† | 1246326.5 | 1219789.5 | 39465 ug/L | 39465 ppb | 07:47:16 |
| 2 | Sn 189.927† | 2772.6 | 2704.3 | 483.07 ug/L | 483.07 ppb | 07:47:36 |
| 2 | Ti 334.940† | 1244064.5 | 1219507.0 | 1916.7 ug/L | 1916.7 ppb | 07:47:16 |
| 2 | Tl 190.801† | 1394.4 | 1397.9 | 472.36 ug/L | 472.36 ppb | 07:47:36 |
| 2 | U 409.014† | 3656.2 | 6466.6 | 170.01 ug/L | 170.01 ppb | 07:47:16 |
| 2 | V 292.402† | 71344.1 | 71362.7 | 492.90 ug/L | 492.90 ppb | 07:47:16 |
| 2 | Zn 213.857† | 73912.1 | 71765.5 | 708.74 ug/L | 708.74 ppb | 07:47:16 |
| 2 | SiO2† | 1234690.0 | 1208399.4 | 83966 ug/L | 83966 ppb | 07:48:16 |
| 3 | Sc Radial | 3790.3 | 3790.3 | 96.7 % | | 07:46:40 |
| 3 | Y RADIAL | 5485.5 | 5485.5 | 124.4 % | | 07:46:20 |
| 3 | Al 396.153Radial† | 28716.6 | 29802.4 | 27929 ug/L | 27929 ppb | 07:46:20 |
| 3 | Ca 317.933Radial† | 4302.0 | 4428.1 | 9257.0 ug/L | 9257.0 ppb | 07:46:20 |
| 3 | Fe 238.204 Radial† | 4673.0 | 4820.0 | 68051 ug/L | 68051 ppb | 07:46:20 |
| 3 | K 766.490 Radial† | 69989.5 | 69722.3 | 13371 ug/L | 13371 ppb | 07:46:20 |
| 3 | Mg 279.077 IEC† | 151.6 | 152.7 | 7336.2 ug/L | 7336.2 ppb | 07:46:40 |
| 3 | Na 589.592 Radial† | 34828.1 | 36828.4 | 11355 ug/L | 11355 ppb | 07:46:20 |
| 3 | Sr 421.552† | 70112.1 | 72453.0 | 501.27 ug/L | 501.27 ppb | 07:46:20 |
| 3 | Sc 361.383 | 901919.8 | 901919.8 | 102.81 % | | 07:47:44 |
| 3 | Y 371.029 | 985693.6 | 985693.6 | 130.41 % | | 07:47:44 |
| 3 | Ag 328.068† | 101426.2 | 98409.4 | 478.58 ug/L | 478.58 ppb | 07:47:44 |
| 3 | As 188.979† | 1061.5 | 1050.7 | 500.55 ug/L | 500.55 ppb | 07:48:04 |
| 3 | B 249.677† | 19971.2 | 19822.7 | 468.16 ug/L | 468.16 ppb | 07:47:44 |
| 3 | Ba 233.527† | 83265.1 | 80987.3 | 638.70 ug/L | 638.70 ppb | 07:47:44 |
| 3 | Be 313.107† | 1329431.6 | 1296802.8 | 491.66 ug/L | 491.66 ppb | 07:47:44 |
| 3 | Cd 226.502† | 41180.2 | 40249.2 | 459.41 ug/L | 459.41 ppb | 07:48:04 |
| 3 | Co 228.616† | 23837.5 | 23251.5 | 483.25 ug/L | 483.25 ppb | 07:48:04 |
| 3 | Cr 267.716† | 47059.6 | 45693.7 | 520.05 ug/L | 520.05 ppb | 07:47:44 |
| 3 | Cu 324.752† | 188347.8 | 177201.4 | 542.74 ug/L | 542.74 ppb | 07:47:44 |
| 3 | Mn 257.610† | 2365453.6 | 2300244.4 | 2624.0 ug/L | 2624.0 ppb | 07:47:44 |
| 3 | Mo 202.031† | 6390.3 | 6205.2 | 460.96 ug/L | 460.96 ppb | 07:48:04 |
| 3 | Ni 231.604† | 20453.5 | 19831.1 | 504.07 ug/L | 504.07 ppb | 07:48:04 |
| 3 | P 214.914† | 1703.7 | 1446.6 | 720.46 ug/L | 720.46 ppb | 07:48:04 |
| 3 | Pb 220.353† | 5409.4 | 5319.4 | 653.64 ug/L | 653.64 ppb | 07:48:04 |
| 3 | S 181.975 Axial† | 3520.4 | 3383.2 | 4863.3 ug/L | 4863.3 ppb | 07:48:04 |
| 3 | Sb 206.836† | 1344.2 | 1270.7 | 455.05 ug/L | 455.05 ppb | 07:48:04 |
| 3 | Se 196.026† | 394.6 | 411.6 | 482.99 ug/L | 482.99 ppb | 07:48:04 |
| 3 | Si 251.611† | 1245977.0 | 1211312.0 | 39191 ug/L | 39191 ppb | 07:47:44 |
| 3 | Sn 189.927† | 2791.8 | 2704.9 | 483.07 ug/L | 483.07 ppb | 07:48:04 |
| 3 | Ti 334.940† | 1246233.6 | 1213494.0 | 1907.3 ug/L | 1907.3 ppb | 07:47:44 |
| 3 | Tl 190.801† | 1394.6 | 1389.0 | 469.36 ug/L | 469.36 ppb | 07:48:04 |
| 3 | U 409.014† | 3499.6 | 6290.4 | 164.80 ug/L | 164.80 ppb | 07:47:44 |
| 3 | V 292.402† | 71483.7 | 71032.6 | 490.10 ug/L | 490.10 ppb | 07:47:44 |
| 3 | Zn 213.857† | 73852.9 | 71225.3 | 702.86 ug/L | 702.86 ppb | 07:47:44 |
| 3 | SiO2† | 1242074.2 | 1207520.0 | 83905 ug/L | 83905 ppb | 07:48:22 |

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**Mean Data: 1202032594|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 895970.0 | 102.14 | % | 0.675 | | | | 0.66% |
| Sc Radial | 3880.4 | 99.0 | % | 2.02 | | | | 2.04% |
| Y 371.029 | 978411.5 | 129.45 | % | 0.915 | | | | 0.71% |
| Y RADIAL | 5470.1 | 124.0 | % | 0.37 | | | | 0.29% |
| Ag 328.068† | 98502.5 | 478.69 | ug/L | 0.794 | 478.69 | ppb | 0.794 | 0.17% |
| Al 396.153Radial† | 29381.9 | 27534 | ug/L | 652.3 | 27534 | ppb | 652.3 | 2.37% |
| As 188.979† | 1064.1 | 506.34 | ug/L | 5.706 | 506.34 | ppb | 5.706 | 1.13% |
| B 249.677† | 19887.6 | 469.89 | ug/L | 1.638 | 469.89 | ppb | 1.638 | 0.35% |
| Ba 233.527† | 81380.8 | 641.76 | ug/L | 2.704 | 641.76 | ppb | 2.704 | 0.42% |
| Be 313.107† | 1299481.3 | 492.69 | ug/L | 0.896 | 492.69 | ppb | 0.896 | 0.18% |
| Ca 317.933Radial† | 4359.8 | 9114.2 | ug/L | 240.03 | 9114.2 | ppb | 240.03 | 2.63% |
| Cd 226.502† | 40586.2 | 463.42 | ug/L | 4.191 | 463.42 | ppb | 4.191 | 0.90% |
| Co 228.616† | 23494.6 | 488.35 | ug/L | 5.635 | 488.35 | ppb | 5.635 | 1.15% |
| Cr 267.716† | 45921.5 | 522.51 | ug/L | 2.373 | 522.51 | ppb | 2.373 | 0.45% |
| Cu 324.752† | 177503.0 | 543.60 | ug/L | 0.913 | 543.60 | ppb | 0.913 | 0.17% |
| Fe 238.204 Radial† | 4744.4 | 66983 | ug/L | 1768.9 | 66983 | ppb | 1768.9 | 2.64% |
| K 766.490 Radial† | 68678.4 | 13170 | ug/L | 317.3 | 13170 | ppb | 317.3 | 2.41% |

| | | | | | | |
|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 151.4 | 7275.3 ug/L | 60.59 | 7275.3 ppb | 60.59 | 0.83% |
| Mn 257.610† | 2312149.7 | 2637.4 ug/L | 11.91 | 2637.4 ppb | 11.91 | 0.45% |
| Mo 202.031† | 6252.9 | 464.37 ug/L | 3.692 | 464.37 ppb | 3.692 | 0.80% |
| Na 589.592 Radial† | 36392.3 | 11221 ug/L | 308.6 | 11221 ppb | 308.6 | 2.75% |
| Ni 231.604† | 20005.5 | 508.50 ug/L | 4.668 | 508.50 ppb | 4.668 | 0.92% |
| P 214.914† | 1471.1 | 735.79 ug/L | 16.616 | 735.79 ppb | 16.616 | 2.26% |
| Pb 220.353† | 5355.5 | 658.13 ug/L | 5.052 | 658.13 ppb | 5.052 | 0.77% |
| S 181.975 Axial† | 3418.9 | 4914.8 ug/L | 56.22 | 4914.8 ppb | 56.22 | 1.14% |
| Sb 206.836† | 1286.0 | 460.52 ug/L | 4.893 | 460.52 ppb | 4.893 | 1.06% |
| Se 196.026† | 426.8 | 489.65 ug/L | 10.702 | 489.65 ppb | 10.702 | 2.19% |
| Si 251.611† | 1217921.8 | 39405 ug/L | 190.9 | 39405 ppb | 190.9 | 0.48% |
| Sn 189.927† | 2714.2 | 484.78 ug/L | 2.954 | 484.78 ppb | 2.954 | 0.61% |
| Sr 421.552† | 71662.4 | 495.80 ug/L | 12.334 | 495.80 ppb | 12.334 | 2.49% |
| Ti 334.940† | 1217787.6 | 1914.0 ug/L | 5.87 | 1914.0 ppb | 5.87 | 0.31% |
| Tl 190.801† | 1398.8 | 472.58 ug/L | 3.332 | 472.58 ppb | 3.332 | 0.70% |
| U 409.014† | 6388.1 | 167.61 ug/L | 2.631 | 167.61 ppb | 2.631 | 1.57% |
| V 292.402† | 71246.8 | 491.79 ug/L | 1.489 | 491.79 ppb | 1.489 | 0.30% |
| Zn 213.857† | 71584.1 | 706.60 ug/L | 3.251 | 706.60 ppb | 3.251 | 0.46% |
| SiO2† | 1216071.8 | 84499 ug/L | 976.8 | 84499 ppb | 976.8 | 1.16% |

Sequence No.: 118
Sample ID: 1202032592|948756|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 133
Date Collected: 2/25/2010 07:50:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032592|948756|5

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3812.5 | 3812.5 | 97.3 | % | | | 07:52:48 |
| 1 | Y RADIAL | 4558.6 | 4558.6 | 103.3 | % | | | 07:52:28 |
| 1 | Al 396.153Radial† | 3002.6 | 3198.7 | 3000.0 | ug/L | 3000.0 | ppb | 07:52:28 |
| 1 | Ca 317.933Radial† | 297.4 | 286.0 | 597.89 | ug/L | 597.89 | ppb | 07:52:48 |
| 1 | Fe 238.204 Radial† | 1062.9 | 1081.2 | 15262 | ug/L | 15262 | ppb | 07:52:48 |
| 1 | K 766.490 Radial† | 8599.2 | 6199.4 | 1189.0 | ug/L | 1189.0 | ppb | 07:52:28 |
| 1 | Mg 279.077 IEC† | 7.9 | 4.0 | 179.46 | ug/L | 179.46 | ppb | 07:52:48 |
| 1 | Na 589.592 Radial† | 1571.9 | 2435.5 | 750.92 | ug/L | 750.92 | ppb | 07:52:28 |
| 1 | Sr 421.552† | 543.5 | 523.0 | 3.6142 | ug/L | 3.6142 | ppb | 07:52:28 |
| 1 | Sc 361.383 | 877962.5 | 877962.5 | 100.08 | % | | | 07:53:45 |
| 1 | Y 371.029 | 772674.6 | 772674.6 | 102.23 | % | | | 07:53:45 |
| 1 | Ag 328.068† | -655.9 | -895.7 | 0.6074 | ug/L | 0.6074 | ppb | 07:53:45 |
| 1 | As 188.979† | -18.5 | -0.2 | 5.4637 | ug/L | 5.4637 | ppb | 07:54:05 |
| 1 | B 249.677† | -213.7 | 184.7 | 1.9693 | ug/L | 1.9693 | ppb | 07:53:45 |
| 1 | Ba 233.527† | 4855.2 | 4852.6 | 38.559 | ug/L | 38.559 | ppb | 07:53:45 |
| 1 | Be 313.107† | -4160.9 | -395.2 | 0.3732 | ug/L | 0.3732 | ppb | 07:53:45 |
| 1 | Cd 226.502† | -32.0 | 164.3 | 0.3227 | ug/L | 0.3227 | ppb | 07:54:05 |
| 1 | Co 228.616† | 423.5 | 489.7 | 9.5695 | ug/L | 9.5695 | ppb | 07:54:05 |
| 1 | Cr 267.716† | 1414.5 | 1335.6 | 16.477 | ug/L | 16.477 | ppb | 07:54:05 |
| 1 | Cu 324.752† | 7902.7 | 1905.3 | 6.6378 | ug/L | 6.6378 | ppb | 07:53:45 |
| 1 | Mn 257.610† | 385484.4 | 384704.5 | 439.27 | ug/L | 439.27 | ppb | 07:53:45 |
| 1 | Mo 202.031† | 20.5 | 10.3 | 1.9494 | ug/L | 1.9494 | ppb | 07:54:05 |
| 1 | Ni 231.604† | 523.2 | 460.3 | 11.701 | ug/L | 11.701 | ppb | 07:54:05 |
| 1 | P 214.914† | 360.3 | 149.5 | 77.286 | ug/L | 77.286 | ppb | 07:54:05 |
| 1 | Pb 220.353† | 557.1 | 614.7 | 74.589 | ug/L | 74.589 | ppb | 07:54:05 |
| 1 | S 181.975 Axial† | 46.8 | 6.0 | 8.0054 | ug/L | 8.0054 | ppb | 07:54:05 |
| 1 | Sb 206.836† | 31.5 | -5.3 | -2.7834 | ug/L | -2.7834 | ppb | 07:54:05 |
| 1 | Se 196.026† | -98.5 | -70.7 | 1.2648 | ug/L | 1.2648 | ppb | 07:54:05 |
| 1 | Si 251.611† | 157889.3 | 157199.5 | 5086.8 | ug/L | 5086.8 | ppb | 07:53:45 |
| 1 | Sn 189.927† | 17.6 | 7.1 | 0.5003 | ug/L | 0.5003 | ppb | 07:54:05 |
| 1 | Ti 334.940† | 144982.6 | 146235.9 | 229.88 | ug/L | 229.88 | ppb | 07:53:45 |
| 1 | Tl 190.801† | -47.2 | -14.6 | -0.7268 | ug/L | -0.7268 | ppb | 07:54:05 |
| 1 | U 409.014† | -4983.2 | -2092.5 | -59.554 | ug/L | -59.554 | ppb | 07:53:45 |
| 1 | V 292.402† | -536.4 | 969.7 | 4.1941 | ug/L | 4.1941 | ppb | 07:53:45 |
| 1 | Zn 213.857† | 5424.0 | 4813.4 | 46.088 | ug/L | 46.088 | ppb | 07:54:05 |
| 1 | SiO2† | 157865.5 | 157179.6 | 10923 | ug/L | 10923 | ppb | 07:55:02 |
| 2 | Sc Radial | 3791.3 | 3791.3 | 96.7 | % | | | 07:53:13 |
| 2 | Y RADIAL | 4542.3 | 4542.3 | 103.0 | % | | | 07:52:53 |
| 2 | Al 396.153Radial† | 3078.9 | 3294.9 | 3090.1 | ug/L | 3090.1 | ppb | 07:52:53 |
| 2 | Ca 317.933Radial† | 285.2 | 275.1 | 575.07 | ug/L | 575.07 | ppb | 07:53:13 |
| 2 | Fe 238.204 Radial† | 1062.2 | 1086.6 | 15338 | ug/L | 15338 | ppb | 07:53:13 |
| 2 | K 766.490 Radial† | 8582.2 | 6231.3 | 1195.1 | ug/L | 1195.1 | ppb | 07:52:53 |
| 2 | Mg 279.077 IEC† | 7.3 | 3.5 | 153.18 | ug/L | 153.18 | ppb | 07:53:13 |
| 2 | Na 589.592 Radial† | 1505.6 | 2376.0 | 732.58 | ug/L | 732.58 | ppb | 07:52:53 |
| 2 | Sr 421.552† | 536.3 | 518.6 | 3.5842 | ug/L | 3.5842 | ppb | 07:52:53 |
| 2 | Sc 361.383 | 882028.0 | 882028.0 | 100.55 | % | | | 07:54:10 |
| 2 | Y 371.029 | 775438.3 | 775438.3 | 102.59 | % | | | 07:54:10 |
| 2 | Ag 328.068† | -716.0 | -952.5 | 0.3642 | ug/L | 0.3642 | ppb | 07:54:10 |
| 2 | As 188.979† | -17.6 | 0.7 | 5.8878 | ug/L | 5.8878 | ppb | 07:54:30 |
| 2 | B 249.677† | -150.8 | 248.2 | 3.4985 | ug/L | 3.4985 | ppb | 07:54:10 |
| 2 | Ba 233.527† | 4824.9 | 4800.1 | 38.149 | ug/L | 38.149 | ppb | 07:54:10 |
| 2 | Be 313.107† | -4140.8 | -356.1 | 0.3858 | ug/L | 0.3858 | ppb | 07:54:10 |
| 2 | Cd 226.502† | -36.6 | 159.9 | 0.2639 | ug/L | 0.2639 | ppb | 07:54:30 |
| 2 | Co 228.616† | 419.3 | 483.6 | 9.4415 | ug/L | 9.4415 | ppb | 07:54:30 |
| 2 | Cr 267.716† | 1406.0 | 1320.7 | 16.315 | ug/L | 16.315 | ppb | 07:54:30 |
| 2 | Cu 324.752† | 7962.9 | 1928.9 | 6.7115 | ug/L | 6.7115 | ppb | 07:54:10 |
| 2 | Mn 257.610† | 385257.8 | 382703.9 | 437.00 | ug/L | 437.00 | ppb | 07:54:10 |
| 2 | Mo 202.031† | 15.6 | 5.3 | 1.5884 | ug/L | 1.5884 | ppb | 07:54:30 |
| 2 | Ni 231.604† | 514.2 | 449.0 | 11.413 | ug/L | 11.413 | ppb | 07:54:30 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 337.5 | 125.2 | 62.602 | ug/L | 62.602 ppb | 07:54:30 |
| 2 | Pb 220.353† | 552.9 | 608.0 | 73.765 | ug/L | 73.765 ppb | 07:54:30 |
| 2 | S 181.975 Axial† | 40.8 | -0.3 | -0.9606 | ug/L | -0.9606 ppb | 07:54:30 |
| 2 | Sb 206.836† | 38.3 | 1.4 | -0.4612 | ug/L | -0.4612 ppb | 07:54:30 |
| 2 | Se 196.026† | -95.3 | -67.0 | 3.9191 | ug/L | 3.9191 ppb | 07:54:30 |
| 2 | Si 251.611† | 159003.3 | 157580.2 | 5099.1 | ug/L | 5099.1 ppb | 07:54:10 |
| 2 | Sn 189.927† | 15.1 | 4.5 | 0.0338 | ug/L | 0.0338 ppb | 07:54:30 |
| 2 | Ti 334.940† | 145077.1 | 145662.2 | 228.98 | ug/L | 228.98 ppb | 07:54:10 |
| 2 | Tl 190.801† | -50.5 | -17.6 | -1.7127 | ug/L | -1.7127 ppb | 07:54:30 |
| 2 | U 409.014† | -4871.9 | -1958.8 | -55.872 | ug/L | -55.872 ppb | 07:54:10 |
| 2 | V 292.402† | -569.9 | 938.9 | 3.9701 | ug/L | 3.9701 ppb | 07:54:10 |
| 2 | Zn 213.857† | 5435.0 | 4799.4 | 45.937 | ug/L | 45.937 ppb | 07:54:30 |
| 2 | SiO2† | 160782.6 | 159353.8 | 11074 | ug/L | 11074 ppb | 07:55:07 |
| 3 | Sc Radial | 3788.7 | 3788.7 | 96.7 | % | | 07:53:38 |
| 3 | Y RADIAL | 4615.2 | 4615.2 | 104.6 | % | | 07:53:18 |
| 3 | Al 396.153Radial† | 3086.9 | 3305.4 | 3100.0 | ug/L | 3100.0 ppb | 07:53:18 |
| 3 | Ca 317.933Radial† | 292.1 | 282.5 | 590.57 | ug/L | 590.57 ppb | 07:53:38 |
| 3 | Fe 238.204 Radial† | 1063.4 | 1088.6 | 15366 | ug/L | 15366 ppb | 07:53:38 |
| 3 | K 766.490 Radial† | 8586.2 | 6241.5 | 1197.1 | ug/L | 1197.1 ppb | 07:53:18 |
| 3 | Mg 279.077 IEC† | 7.6 | 3.8 | 167.45 | ug/L | 167.45 ppb | 07:53:38 |
| 3 | Na 589.592 Radial† | 1481.6 | 2352.2 | 725.25 | ug/L | 725.25 ppb | 07:53:18 |
| 3 | Sr 421.552† | 565.6 | 549.3 | 3.7962 | ug/L | 3.7962 ppb | 07:53:18 |
| 3 | Sc 361.383 | 892871.1 | 892871.1 | 101.78 | % | | 07:54:36 |
| 3 | Y 371.029 | 783808.2 | 783808.2 | 103.70 | % | | 07:54:36 |
| 3 | Ag 328.068† | -875.3 | -1100.4 | -0.3113 | ug/L | -0.3113 ppb | 07:54:36 |
| 3 | As 188.979† | -28.0 | -9.2 | 1.4588 | ug/L | 1.4588 ppb | 07:54:56 |
| 3 | B 249.677† | -201.8 | 200.0 | 2.3244 | ug/L | 2.3244 ppb | 07:54:36 |
| 3 | Ba 233.527† | 4912.3 | 4827.7 | 38.367 | ug/L | 38.367 ppb | 07:54:36 |
| 3 | Be 313.107† | -4173.1 | -337.8 | 0.3944 | ug/L | 0.3944 ppb | 07:54:36 |
| 3 | Cd 226.502† | -35.0 | 161.9 | 0.2835 | ug/L | 0.2835 ppb | 07:54:56 |
| 3 | Co 228.616† | 426.7 | 485.7 | 9.4860 | ug/L | 9.4860 ppb | 07:54:56 |
| 3 | Cr 267.716† | 1420.6 | 1318.0 | 16.288 | ug/L | 16.288 ppb | 07:54:56 |
| 3 | Cu 324.752† | 8084.6 | 1952.2 | 6.7838 | ug/L | 6.7838 ppb | 07:54:36 |
| 3 | Mn 257.610† | 391031.0 | 383722.8 | 438.16 | ug/L | 438.16 ppb | 07:54:36 |
| 3 | Mo 202.031† | 22.7 | 12.2 | 2.0924 | ug/L | 2.0924 ppb | 07:54:56 |
| 3 | Ni 231.604† | 497.7 | 426.5 | 10.841 | ug/L | 10.841 ppb | 07:54:56 |
| 3 | P 214.914† | 340.1 | 123.7 | 61.688 | ug/L | 61.688 ppb | 07:54:56 |
| 3 | Pb 220.353† | 551.2 | 599.7 | 72.747 | ug/L | 72.747 ppb | 07:54:56 |
| 3 | S 181.975 Axial† | 38.5 | -3.0 | -4.8727 | ug/L | -4.8727 ppb | 07:54:56 |
| 3 | Sb 206.836† | 29.5 | -7.7 | -3.6286 | ug/L | -3.6286 ppb | 07:54:56 |
| 3 | Se 196.026† | -82.5 | -53.4 | 12.945 | ug/L | 12.945 ppb | 07:54:56 |
| 3 | Si 251.611† | 161090.4 | 157710.4 | 5103.3 | ug/L | 5103.3 ppb | 07:54:36 |
| 3 | Sn 189.927† | 19.8 | 9.0 | 0.8389 | ug/L | 0.8389 ppb | 07:54:56 |
| 3 | Ti 334.940† | 147332.9 | 146126.2 | 229.71 | ug/L | 229.71 ppb | 07:54:36 |
| 3 | Tl 190.801† | -46.4 | -13.0 | -0.2249 | ug/L | -0.2249 ppb | 07:54:56 |
| 3 | U 409.014† | -4909.9 | -1937.3 | -55.282 | ug/L | -55.282 ppb | 07:54:36 |
| 3 | V 292.402† | -512.8 | 1001.9 | 4.4131 | ug/L | 4.4131 ppb | 07:54:36 |
| 3 | Zn 213.857† | 5402.1 | 4701.4 | 44.950 | ug/L | 44.950 ppb | 07:54:56 |
| 3 | SiO2† | 158530.1 | 155198.9 | 10786 | ug/L | 10786 ppb | 07:55:12 |

**Mean Data: 1202032592|948756|5**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 884287.2 | 100.80 | % | 0.879 | | | | 0.87% |
| Sc Radial | 3797.5 | 96.9 | % | 0.33 | | | | 0.34% |
| Y 371.029 | 777307.0 | 102.84 | % | 0.767 | | | | 0.75% |
| Y RADIAL | 4572.0 | 103.7 | % | 0.87 | | | | 0.84% |
| Ag 328.068† | -982.9 | 0.2201 | ug/L | 0.47599 | 0.2201 | ppb | 0.47599 | 216.29% |
| Al 396.153Radial† | 3266.3 | 3063.4 | ug/L | 55.12 | 3063.4 | ppb | 55.12 | 1.80% |
| As 188.979† | -2.9 | 4.2701 | ug/L | 2.44389 | 4.2701 | ppb | 2.44389 | 57.23% |
| B 249.677† | 211.0 | 2.5974 | ug/L | 0.80030 | 2.5974 | ppb | 0.80030 | 30.81% |
| Ba 233.527† | 4826.8 | 38.359 | ug/L | 0.2053 | 38.359 | ppb | 0.2053 | 0.54% |
| Be 313.107† | -363.0 | 0.3845 | ug/L | 0.01066 | 0.3845 | ppb | 0.01066 | 2.77% |
| Ca 317.933Radial† | 281.2 | 587.84 | ug/L | 11.651 | 587.84 | ppb | 11.651 | 1.98% |
| Cd 226.502† | 162.0 | 0.2901 | ug/L | 0.02997 | 0.2901 | ppb | 0.02997 | 10.33% |
| Co 228.616† | 486.3 | 9.4990 | ug/L | 0.06500 | 9.4990 | ppb | 0.06500 | 0.68% |
| Cr 267.716† | 1324.8 | 16.360 | ug/L | 0.1023 | 16.360 | ppb | 0.1023 | 0.63% |
| Cu 324.752† | 1928.8 | 6.7110 | ug/L | 0.07297 | 6.7110 | ppb | 0.07297 | 1.09% |
| Fe 238.204 Radial† | 1085.5 | 15322 | ug/L | 53.9 | 15322 | ppb | 53.9 | 0.35% |
| K 766.490 Radial† | 6224.1 | 1193.7 | ug/L | 4.22 | 1193.7 | ppb | 4.22 | 0.35% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 3.8 | 166.70 | ug/L | 13.155 | 166.70 | ppb | 13.155 | 7.89% |
| Mn 257.610† | 383710.4 | 438.15 | ug/L | 1.134 | 438.15 | ppb | 1.134 | 0.26% |
| Mo 202.031† | 9.3 | 1.8767 | ug/L | 0.25976 | 1.8767 | ppb | 0.25976 | 13.84% |
| Na 589.592 Radial† | 2387.9 | 736.25 | ug/L | 13.221 | 736.25 | ppb | 13.221 | 1.80% |
| Ni 231.604† | 445.3 | 11.318 | ug/L | 0.4376 | 11.318 | ppb | 0.4376 | 3.87% |
| P 214.914† | 132.8 | 67.192 | ug/L | 8.7536 | 67.192 | ppb | 8.7536 | 13.03% |
| Pb 220.353† | 607.5 | 73.700 | ug/L | 0.9226 | 73.700 | ppb | 0.9226 | 1.25% |
| S 181.975 Axial† | 0.9 | 0.7240 | ug/L | 6.60224 | 0.7240 | ppb | 6.60224 | 911.88% |
| Sb 206.836† | -3.8 | -2.2910 | ug/L | 1.64011 | -2.2910 | ppb | 1.64011 | 71.59% |
| Se 196.026† | -63.7 | 6.0429 | ug/L | 6.12277 | 6.0429 | ppb | 6.12277 | 101.32% |
| Si 251.611† | 157496.7 | 5096.4 | ug/L | 8.59 | 5096.4 | ppb | 8.59 | 0.17% |
| Sn 189.927† | 6.9 | 0.4577 | ug/L | 0.40425 | 0.4577 | ppb | 0.40425 | 88.33% |
| Sr 421.552† | 530.3 | 3.6649 | ug/L | 0.11470 | 3.6649 | ppb | 0.11470 | 3.13% |
| Ti 334.940† | 146008.1 | 229.52 | ug/L | 0.480 | 229.52 | ppb | 0.480 | 0.21% |
| Tl 190.801† | -15.1 | -0.8882 | ug/L | 0.75689 | -0.8882 | ppb | 0.75689 | 85.22% |
| U 409.014† | -1996.2 | -56.903 | ug/L | 2.3152 | -56.903 | ppb | 2.3152 | 4.07% |
| V 292.402† | 970.2 | 4.1924 | ug/L | 0.22152 | 4.1924 | ppb | 0.22152 | 5.28% |
| Zn 213.857† | 4771.4 | 45.658 | ug/L | 0.6181 | 45.658 | ppb | 0.6181 | 1.35% |
| SiO2† | 157244.1 | 10928 | ug/L | 144.4 | 10928 | ppb | 144.4 | 1.32% |

Sequence No.: 119
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 07:57:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3695.4 | 3695.4 | 94.3 | % | | | 07:59:36 |
| 1 | Y RADIAL | 4259.0 | 4259.0 | 96.56 | % | | | 07:59:16 |
| 1 | Al 396.153Radial† | 5297.5 | 5730.2 | 5350.8 | ug/L | 5350.8 | ppb | 07:59:16 |
| 1 | Ca 317.933Radial† | 2348.6 | 2470.9 | 5165.4 | ug/L | 5165.4 | ppb | 07:59:36 |
| 1 | Fe 238.204 Radial† | 321.2 | 329.3 | 4662.9 | ug/L | 4662.9 | ppb | 07:59:36 |
| 1 | K 766.490 Radial† | 28430.2 | 27509.1 | 5272.6 | ug/L | 5272.6 | ppb | 07:59:16 |
| 1 | Mg 279.077 IEC† | 98.4 | 100.2 | 4860.2 | ug/L | 4860.2 | ppb | 07:59:36 |
| 1 | Na 589.592 Radial† | 30367.3 | 33022.7 | 10182 | ug/L | 10182 | ppb | 07:59:16 |
| 1 | Sr 421.552† | 70197.1 | 74404.6 | 514.81 | ug/L | 514.81 | ppb | 07:59:16 |
| 1 | Sc 361.383 | 890236.3 | 890236.3 | 101.48 | % | | | 08:00:34 |
| 1 | Y 371.029 | 741805.5 | 741805.5 | 98.143 | % | | | 08:00:34 |
| 1 | Ag 328.068† | 107874.1 | 106057.8 | 494.32 | ug/L | 494.32 | ppb | 08:00:39 |
| 1 | As 188.979† | 1089.4 | 1091.7 | 491.67 | ug/L | 491.67 | ppb | 08:00:59 |
| 1 | B 249.677† | 19856.8 | 19965.0 | 481.89 | ug/L | 481.89 | ppb | 08:00:39 |
| 1 | Ba 233.527† | 63679.2 | 62750.3 | 493.65 | ug/L | 493.65 | ppb | 08:00:39 |
| 1 | Be 313.107† | 1319557.9 | 1304043.2 | 491.16 | ug/L | 491.16 | ppb | 08:00:34 |
| 1 | Cd 226.502† | 43362.5 | 42925.3 | 497.00 | ug/L | 497.00 | ppb | 08:00:39 |
| 1 | Co 228.616† | 23824.1 | 23542.6 | 493.23 | ug/L | 493.23 | ppb | 08:00:39 |
| 1 | Cr 267.716† | 44773.5 | 44041.8 | 495.35 | ug/L | 495.35 | ppb | 08:00:39 |
| 1 | Cu 324.752† | 168493.7 | 160041.5 | 487.00 | ug/L | 487.00 | ppb | 08:00:39 |
| 1 | Mn 257.610† | 435906.7 | 429080.0 | 488.53 | ug/L | 488.53 | ppb | 08:00:34 |
| 1 | Mo 202.031† | 6683.6 | 6575.9 | 483.20 | ug/L | 483.20 | ppb | 08:00:59 |
| 1 | Ni 231.604† | 19950.9 | 19597.0 | 498.11 | ug/L | 498.11 | ppb | 08:00:39 |
| 1 | P 214.914† | 4279.2 | 4006.1 | 2317.1 | ug/L | 2317.1 | ppb | 08:00:59 |
| 1 | Pb 220.353† | 3981.9 | 3981.9 | 491.33 | ug/L | 491.33 | ppb | 08:00:59 |
| 1 | S 181.975 Axial† | 729.2 | 677.7 | 974.27 | ug/L | 974.27 | ppb | 08:00:59 |
| 1 | Sb 206.836† | 1409.4 | 1352.1 | 490.01 | ug/L | 490.01 | ppb | 08:00:59 |
| 1 | Se 196.026† | 722.2 | 739.4 | 500.35 | ug/L | 500.35 | ppb | 08:00:59 |
| 1 | Si 251.611† | 77622.4 | 75930.1 | 2451.1 | ug/L | 2451.1 | ppb | 08:00:39 |
| 1 | Sn 189.927† | 2739.1 | 2688.6 | 483.05 | ug/L | 483.05 | ppb | 08:00:59 |
| 1 | Ti 334.940† | 313805.4 | 310595.2 | 487.98 | ug/L | 487.98 | ppb | 08:00:39 |
| 1 | Tl 190.801† | 1493.3 | 1504.1 | 484.18 | ug/L | 484.18 | ppb | 08:00:59 |
| 1 | U 409.014† | 14572.9 | 17246.6 | 474.61 | ug/L | 474.61 | ppb | 08:00:39 |
| 1 | V 292.402† | 69961.6 | 70445.2 | 497.66 | ug/L | 497.66 | ppb | 08:00:39 |
| 1 | Zn 213.857† | 50619.3 | 49273.8 | 491.48 | ug/L | 491.48 | ppb | 08:00:39 |
| 1 | SiO2† | 74903.5 | 73254.8 | 5077.7 | ug/L | 5077.7 | ppb | 08:02:06 |
| 2 | Sc Radial | 3685.1 | 3685.1 | 94.0 | % | | | 08:00:01 |
| 2 | Y RADIAL | 4208.3 | 4208.3 | 95.41 | % | | | 07:59:41 |
| 2 | Al 396.153Radial† | 5188.1 | 5629.6 | 5256.5 | ug/L | 5256.5 | ppb | 07:59:41 |
| 2 | Ca 317.933Radial† | 2316.9 | 2444.2 | 5109.6 | ug/L | 5109.6 | ppb | 08:00:01 |
| 2 | Fe 238.204 Radial† | 320.0 | 328.9 | 4657.4 | ug/L | 4657.4 | ppb | 08:00:01 |
| 2 | K 766.490 Radial† | 27975.4 | 27110.2 | 5196.1 | ug/L | 5196.1 | ppb | 07:59:41 |
| 2 | Mg 279.077 IEC† | 99.8 | 102.1 | 4950.4 | ug/L | 4950.4 | ppb | 08:00:01 |
| 2 | Na 589.592 Radial† | 29801.4 | 32511.4 | 10024 | ug/L | 10024 | ppb | 07:59:41 |
| 2 | Sr 421.552† | 68886.2 | 73219.8 | 506.61 | ug/L | 506.61 | ppb | 07:59:41 |
| 2 | Sc 361.383 | 893766.8 | 893766.8 | 101.88 | % | | | 08:01:05 |
| 2 | Y 371.029 | 745581.9 | 745581.9 | 98.642 | % | | | 08:01:05 |
| 2 | Ag 328.068† | 106073.4 | 103870.5 | 484.15 | ug/L | 484.15 | ppb | 08:01:10 |
| 2 | As 188.979† | 1081.0 | 1079.2 | 486.00 | ug/L | 486.00 | ppb | 08:01:30 |
| 2 | B 249.677† | 19435.5 | 19474.1 | 470.02 | ug/L | 470.02 | ppb | 08:01:10 |
| 2 | Ba 233.527† | 62475.5 | 61321.0 | 482.41 | ug/L | 482.41 | ppb | 08:01:10 |
| 2 | Be 313.107† | 1323459.4 | 1302736.1 | 490.65 | ug/L | 490.65 | ppb | 08:01:05 |
| 2 | Cd 226.502† | 42535.2 | 41944.5 | 485.64 | ug/L | 485.64 | ppb | 08:01:10 |
| 2 | Co 228.616† | 23386.7 | 23020.5 | 482.31 | ug/L | 482.31 | ppb | 08:01:10 |
| 2 | Cr 267.716† | 44095.7 | 43202.2 | 485.92 | ug/L | 485.92 | ppb | 08:01:10 |
| 2 | Cu 324.752† | 165766.3 | 156708.6 | 476.86 | ug/L | 476.86 | ppb | 08:01:10 |
| 2 | Mn 257.610† | 436082.8 | 427556.0 | 486.79 | ug/L | 486.79 | ppb | 08:01:05 |
| 2 | Mo 202.031† | 6671.5 | 6538.0 | 480.42 | ug/L | 480.42 | ppb | 08:01:30 |
| 2 | Ni 231.604† | 19594.7 | 19169.8 | 487.25 | ug/L | 487.25 | ppb | 08:01:10 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4279.7 | 3990.1 | 2309.4 ug/L | 2309.4 ppb | 08:01:30 |
| 2 | Pb 220.353† | 4016.0 | 3999.8 | 493.51 ug/L | 493.51 ppb | 08:01:30 |
| 2 | S 181.975 Axial† | 742.2 | 687.6 | 988.53 ug/L | 988.53 ppb | 08:01:30 |
| 2 | Sb 206.836† | 1417.6 | 1354.6 | 490.81 ug/L | 490.81 ppb | 08:01:30 |
| 2 | Se 196.026† | 722.7 | 737.1 | 498.78 ug/L | 498.78 ppb | 08:01:30 |
| 2 | Si 251.611† | 76205.9 | 74237.7 | 2396.3 ug/L | 2396.3 ppb | 08:01:10 |
| 2 | Sn 189.927† | 2744.2 | 2682.9 | 482.03 ug/L | 482.03 ppb | 08:01:30 |
| 2 | Ti 334.940† | 307904.1 | 303581.7 | 476.95 ug/L | 476.95 ppb | 08:01:10 |
| 2 | Tl 190.801† | 1514.4 | 1518.9 | 488.90 ug/L | 488.90 ppb | 08:01:30 |
| 2 | U 409.014† | 14473.0 | 17091.8 | 470.36 ug/L | 470.36 ppb | 08:01:10 |
| 2 | V 292.402† | 68695.0 | 68929.7 | 487.06 ug/L | 487.06 ppb | 08:01:10 |
| 2 | Zn 213.857† | 49705.3 | 48179.6 | 480.55 ug/L | 480.55 ppb | 08:01:10 |
| 2 | SiO2† | 75586.9 | 73634.1 | 5104.2 ug/L | 5104.2 ppb | 08:02:11 |
| 3 | Sc Radial | 3758.2 | 3758.2 | 95.9 % | | 08:00:26 |
| 3 | Y RADIAL | 4221.7 | 4221.7 | 95.71 % | | 08:00:06 |
| 3 | Al 396.153Radial† | 5226.0 | 5561.8 | 5192.7 ug/L | 5192.7 ppb | 08:00:06 |
| 3 | Ca 317.933Radial† | 2358.4 | 2439.5 | 5099.8 ug/L | 5099.8 ppb | 08:00:26 |
| 3 | Fe 238.204 Radial† | 326.9 | 329.6 | 4667.0 ug/L | 4667.0 ppb | 08:00:26 |
| 3 | K 766.490 Radial† | 28126.5 | 26689.4 | 5115.4 ug/L | 5115.4 ppb | 08:00:06 |
| 3 | Mg 279.077 IEC† | 102.6 | 103.0 | 4992.0 ug/L | 4992.0 ppb | 08:00:26 |
| 3 | Na 589.592 Radial† | 29876.9 | 31973.9 | 9858.4 ug/L | 9858.4 ppb | 08:00:06 |
| 3 | Sr 421.552† | 69048.5 | 71964.7 | 497.92 ug/L | 497.92 ppb | 08:00:06 |
| 3 | Sc 361.383 | 885985.3 | 885985.3 | 101.00 % | | 08:01:36 |
| 3 | Y 371.029 | 739878.7 | 739878.7 | 97.888 % | | 08:01:36 |
| 3 | Ag 328.068† | 106022.6 | 104734.6 | 488.17 ug/L | 488.17 ppb | 08:01:41 |
| 3 | As 188.979† | 1095.2 | 1102.6 | 496.48 ug/L | 496.48 ppb | 08:02:01 |
| 3 | B 249.677† | 19430.6 | 19636.8 | 473.95 ug/L | 473.95 ppb | 08:01:41 |
| 3 | Ba 233.527† | 62483.1 | 61867.2 | 486.70 ug/L | 486.70 ppb | 08:01:41 |
| 3 | Be 313.107† | 1313223.6 | 1304010.3 | 491.14 ug/L | 491.14 ppb | 08:01:36 |
| 3 | Cd 226.502† | 42546.3 | 42322.2 | 490.01 ug/L | 490.01 ppb | 08:01:41 |
| 3 | Co 228.616† | 23408.5 | 23243.8 | 486.99 ug/L | 486.99 ppb | 08:01:41 |
| 3 | Cr 267.716† | 44060.8 | 43547.7 | 489.80 ug/L | 489.80 ppb | 08:01:41 |
| 3 | Cu 324.752† | 165594.7 | 157967.7 | 480.69 ug/L | 480.69 ppb | 08:01:41 |
| 3 | Mn 257.610† | 432183.3 | 427454.2 | 486.67 ug/L | 486.67 ppb | 08:01:36 |
| 3 | Mo 202.031† | 6695.0 | 6618.7 | 486.34 ug/L | 486.34 ppb | 08:02:01 |
| 3 | Ni 231.604† | 19533.0 | 19277.5 | 489.99 ug/L | 489.99 ppb | 08:01:41 |
| 3 | P 214.914† | 4288.4 | 4035.5 | 2336.0 ug/L | 2336.0 ppb | 08:02:01 |
| 3 | Pb 220.353† | 4024.4 | 4042.8 | 498.80 ug/L | 498.80 ppb | 08:02:01 |
| 3 | S 181.975 Axial† | 728.0 | 680.0 | 977.62 ug/L | 977.62 ppb | 08:02:01 |
| 3 | Sb 206.836† | 1389.3 | 1338.9 | 485.48 ug/L | 485.48 ppb | 08:02:01 |
| 3 | Se 196.026† | 725.9 | 746.5 | 505.02 ug/L | 505.02 ppb | 08:02:01 |
| 3 | Si 251.611† | 76262.3 | 74950.4 | 2419.3 ug/L | 2419.3 ppb | 08:01:41 |
| 3 | Sn 189.927† | 2742.7 | 2705.1 | 486.01 ug/L | 486.01 ppb | 08:02:01 |
| 3 | Ti 334.940† | 308086.4 | 306416.4 | 481.40 ug/L | 481.40 ppb | 08:01:41 |
| 3 | Tl 190.801† | 1496.8 | 1514.6 | 487.53 ug/L | 487.53 ppb | 08:02:01 |
| 3 | U 409.014† | 14278.4 | 17023.9 | 468.47 ug/L | 468.47 ppb | 08:01:41 |
| 3 | V 292.402† | 68655.6 | 69482.9 | 490.99 ug/L | 490.99 ppb | 08:01:41 |
| 3 | Zn 213.857† | 49726.5 | 48629.1 | 485.05 ug/L | 485.05 ppb | 08:01:41 |
| 3 | SiO2† | 75917.1 | 74612.6 | 5172.0 ug/L | 5172.0 ppb | 08:02:16 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 889996.1 | 101.46 | % | 0.444 | | | | 0.44% |
| Sc Radial | 3712.9 | 94.7 | % | 1.01 | | | | 1.06% |
| Y 371.029 | 742422.1 | 98.224 | % | 0.3838 | | | | 0.39% |
| Y RADIAL | 4229.7 | 95.89 | % | 0.596 | | | | 0.62% |
| Ag 328.068† | 104887.7 | 488.88 | ug/L | 5.124 | 488.88 | ppb | 5.124 | 1.05% |
| QC value within limits for Ag 328.068 Recovery = 97.78% | | | | | | | | |
| Al 396.153Radial† | 5640.5 | 5266.7 | ug/L | 79.50 | 5266.7 | ppb | 79.50 | 1.51% |
| QC value within limits for Al 396.153Radial Recovery = 105.33% | | | | | | | | |
| As 188.979† | 1091.2 | 491.38 | ug/L | 5.245 | 491.38 | ppb | 5.245 | 1.07% |
| QC value within limits for As 188.979 Recovery = 98.28% | | | | | | | | |
| B 249.677† | 19692.0 | 475.28 | ug/L | 6.046 | 475.28 | ppb | 6.046 | 1.27% |
| QC value within limits for B 249.677 Recovery = 95.06% | | | | | | | | |
| Ba 233.527† | 61979.5 | 487.59 | ug/L | 5.672 | 487.59 | ppb | 5.672 | 1.16% |
| QC value within limits for Ba 233.527 Recovery = 97.52% | | | | | | | | |
| Be 313.107† | 1303596.5 | 490.98 | ug/L | 0.290 | 490.98 | ppb | 0.290 | 0.06% |
| QC value within limits for Be 313.107 Recovery = 98.20% | | | | | | | | |
| Ca 317.933Radial† | 2451.5 | 5124.9 | ug/L | 35.36 | 5124.9 | ppb | 35.36 | 0.69% |

```
   QC value within limits for Ca 317.933Radial  Recovery = 102.50%
Cd 226.502†            42397.3      490.88 ug/L         5.732      490.88 ppb          5.732   1.17%
   QC value within limits for Cd 226.502  Recovery = 98.18%
Co 228.616†            23269.0      487.51 ug/L         5.479      487.51 ppb          5.479   1.12%
   QC value within limits for Co 228.616  Recovery = 97.50%
Cr 267.716†            43597.2      490.36 ug/L         4.744      490.36 ppb          4.744   0.97%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†           158239.3      481.52 ug/L         5.120      481.52 ppb          5.120   1.06%
   QC value within limits for Cu 324.752  Recovery = 96.30%
Fe 238.204 Radial†       329.3      4662.4 ug/L          4.79      4662.4 ppb           4.79   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.25%
K 766.490 Radial†      27102.9      5194.7 ug/L         78.59      5194.7 ppb          78.59   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 103.89%
Mg 279.077 IEC†          101.8      4934.2 ug/L         67.40      4934.2 ppb          67.40   1.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.68%
Mn 257.610†           428030.1      487.33 ug/L         1.039      487.33 ppb          1.039   0.21%
   QC value within limits for Mn 257.610  Recovery = 97.47%
Mo 202.031†             6577.5      483.32 ug/L         2.965      483.32 ppb          2.965   0.61%
   QC value within limits for Mo 202.031  Recovery = 96.66%
Na 589.592 Radial†     32502.7       10021 ug/L         161.7       10021 ppb          161.7   1.61%
   QC value within limits for Na 589.592 Radial  Recovery = 100.21%
Ni 231.604†            19348.1      491.79 ug/L         5.648      491.79 ppb          5.648   1.15%
   QC value within limits for Ni 231.604  Recovery = 98.36%
P 214.914†              4010.6      2320.8 ug/L         13.70      2320.8 ppb          13.70   0.59%
   QC value within limits for P 214.914  Recovery = 92.83%
Pb 220.353†             4008.1      494.55 ug/L         3.840      494.55 ppb          3.840   0.78%
   QC value within limits for Pb 220.353  Recovery = 98.91%
S 181.975 Axial†         681.8      980.14 ug/L         7.460      980.14 ppb          7.460   0.76%
   QC value within limits for S 181.975 Axial  Recovery = 98.01%
Sb 206.836†             1348.5      488.77 ug/L         2.874      488.77 ppb          2.874   0.59%
   QC value within limits for Sb 206.836  Recovery = 97.75%
Se 196.026†              741.0      501.38 ug/L         3.245      501.38 ppb          3.245   0.65%
   QC value within limits for Se 196.026  Recovery = 100.28%
Si 251.611†            75039.4      2422.2 ug/L         27.48      2422.2 ppb          27.48   1.13%
   QC value within limits for Si 251.611  Recovery = 96.89%
Sn 189.927†             2692.2      483.70 ug/L         2.065      483.70 ppb          2.065   0.43%
   QC value within limits for Sn 189.927  Recovery = 96.74%
Sr 421.552†            73196.3      506.45 ug/L         8.442      506.45 ppb          8.442   1.67%
   QC value within limits for Sr 421.552  Recovery = 101.29%
Ti 334.940†           306864.4      482.11 ug/L         5.550      482.11 ppb          5.550   1.15%
   QC value within limits for Ti 334.940  Recovery = 96.42%
Tl 190.801†             1512.5      486.87 ug/L         2.429      486.87 ppb          2.429   0.50%
   QC value within limits for Tl 190.801  Recovery = 97.37%
U 409.014†             17120.8      471.15 ug/L         3.145      471.15 ppb          3.145   0.67%
   QC value within limits for U 409.014  Recovery = 94.23%
V 292.402†             69619.3      491.91 ug/L         5.357      491.91 ppb          5.357   1.09%
   QC value within limits for V 292.402  Recovery = 98.38%
Zn 213.857†            48694.2      485.70 ug/L         5.493      485.70 ppb          5.493   1.13%
   QC value within limits for Zn 213.857  Recovery = 97.14%
SiO2†                  73833.8      5118.0 ug/L         48.63      5118.0 ppb          48.63   0.95%
   QC value within limits for SiO2  Recovery = 95.71%
All analyte(s) passed QC.
```

Sequence No.: 120
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 08:04:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3762.4 | 3762.4 | 96.0 | % | | | 08:06:39 |
| 1 | Y RADIAL | 4268.0 | 4268.0 | 96.76 | % | | | 08:06:19 |
| 1 | Al 396.153Radial† | -109.9 | -2.1 | -1.9438 | ug/L | -1.9438 | ppb | 08:06:19 |
| 1 | Ca 317.933Radial† | 26.2 | 7.6 | 15.932 | ug/L | 15.932 | ppb | 08:06:39 |
| 1 | Fe 238.204 Radial† | 10.5 | -0.4 | -5.4731 | ug/L | -5.4731 | ppb | 08:06:39 |
| 1 | K 766.490 Radial† | 2830.5 | 308.6 | 59.225 | ug/L | 59.225 | ppb | 08:06:19 |
| 1 | Mg 279.077 IEC† | 3.3 | -0.7 | -32.814 | ug/L | -32.814 | ppb | 08:06:39 |
| 1 | Na 589.592 Radial† | -931.0 | -149.9 | -46.231 | ug/L | -46.231 | ppb | 08:06:19 |
| 1 | Sr 421.552† | 25.1 | -9.6 | -0.0665 | ug/L | -0.0665 | ppb | 08:06:19 |
| 1 | Sc 361.383 | 878440.5 | 878440.5 | 100.14 | % | | | 08:07:36 |
| 1 | Y 371.029 | 743603.2 | 743603.2 | 98.381 | % | | | 08:07:36 |
| 1 | Ag 328.068† | 188.8 | -51.8 | -0.2359 | ug/L | -0.2359 | ppb | 08:07:36 |
| 1 | As 188.979† | -29.4 | -11.2 | -4.9841 | ug/L | -4.9841 | ppb | 08:07:56 |
| 1 | B 249.677† | -267.7 | 130.8 | 3.1719 | ug/L | 3.1719 | ppb | 08:07:56 |
| 1 | Ba 233.527† | 20.5 | 21.9 | 0.1710 | ug/L | 0.1710 | ppb | 08:07:56 |
| 1 | Be 313.107† | -3621.0 | 146.2 | 0.0547 | ug/L | 0.0547 | ppb | 08:07:36 |
| 1 | Cd 226.502† | -173.3 | 23.2 | 0.2683 | ug/L | 0.2683 | ppb | 08:07:56 |
| 1 | Co 228.616† | -46.4 | 20.2 | 0.4236 | ug/L | 0.4236 | ppb | 08:07:56 |
| 1 | Cr 267.716† | 59.2 | -18.5 | -0.2053 | ug/L | -0.2053 | ppb | 08:07:56 |
| 1 | Cu 324.752† | 5989.4 | -9.6 | -0.0245 | ug/L | -0.0245 | ppb | 08:07:36 |
| 1 | Mn 257.610† | 518.7 | 59.3 | 0.0682 | ug/L | 0.0682 | ppb | 08:07:56 |
| 1 | Mo 202.031† | 11.0 | 0.9 | 0.0651 | ug/L | 0.0651 | ppb | 08:07:56 |
| 1 | Ni 231.604† | 88.2 | 25.6 | 0.6512 | ug/L | 0.6512 | ppb | 08:07:56 |
| 1 | P 214.914† | 193.8 | -16.9 | -10.186 | ug/L | -10.186 | ppb | 08:07:56 |
| 1 | Pb 220.353† | -10.3 | 47.8 | 5.8814 | ug/L | 5.8814 | ppb | 08:07:56 |
| 1 | S 181.975 Axial† | 41.5 | 0.6 | 0.8518 | ug/L | 0.8518 | ppb | 08:07:56 |
| 1 | Sb 206.836† | 43.0 | 6.2 | 2.1639 | ug/L | 2.1639 | ppb | 08:07:56 |
| 1 | Se 196.026† | -28.8 | -1.0 | -0.7018 | ug/L | -0.7018 | ppb | 08:07:56 |
| 1 | Si 251.611† | 589.2 | 30.1 | 0.9731 | ug/L | 0.9731 | ppb | 08:07:56 |
| 1 | Sn 189.927† | 7.1 | -3.4 | -0.6122 | ug/L | -0.6122 | ppb | 08:07:56 |
| 1 | Ti 334.940† | -1436.7 | -60.7 | -0.0864 | ug/L | -0.0864 | ppb | 08:07:36 |
| 1 | Tl 190.801† | -21.7 | 11.0 | 3.5004 | ug/L | 3.5004 | ppb | 08:07:56 |
| 1 | U 409.014† | -3223.5 | -332.4 | -9.1787 | ug/L | -9.1787 | ppb | 08:07:36 |
| 1 | V 292.402† | -1556.4 | -48.6 | -0.3554 | ug/L | -0.3554 | ppb | 08:07:36 |
| 1 | Zn 213.857† | 756.4 | 149.4 | 1.5003 | ug/L | 1.5003 | ppb | 08:07:56 |
| 1 | SiO2† | 622.1 | 66.9 | 4.6458 | ug/L | 4.6458 | ppb | 08:08:52 |
| 2 | Sc Radial | 3763.1 | 3763.1 | 96.0 | % | | | 08:07:04 |
| 2 | Y RADIAL | 4277.2 | 4277.2 | 96.97 | % | | | 08:06:44 |
| 2 | Al 396.153Radial† | -116.6 | -9.1 | -8.5227 | ug/L | -8.5227 | ppb | 08:06:44 |
| 2 | Ca 317.933Radial† | 28.4 | 9.9 | 20.650 | ug/L | 20.650 | ppb | 08:07:04 |
| 2 | Fe 238.204 Radial† | 12.5 | 1.7 | 24.472 | ug/L | 24.472 | ppb | 08:07:04 |
| 2 | K 766.490 Radial† | 2881.3 | 361.0 | 69.289 | ug/L | 69.289 | ppb | 08:06:44 |
| 2 | Mg 279.077 IEC† | 0.2 | -3.9 | -189.74 | ug/L | -189.74 | ppb | 08:07:04 |
| 2 | Na 589.592 Radial† | -1008.2 | -230.1 | -70.958 | ug/L | -70.958 | ppb | 08:06:44 |
| 2 | Sr 421.552† | 19.3 | -15.6 | -0.1081 | ug/L | -0.1081 | ppb | 08:06:44 |
| 2 | Sc 361.383 | 876998.7 | 876998.7 | 99.973 | % | | | 08:08:01 |
| 2 | Y 371.029 | 743800.7 | 743800.7 | 98.407 | % | | | 08:08:01 |
| 2 | Ag 328.068† | 280.8 | 40.5 | 0.2020 | ug/L | 0.2020 | ppb | 08:08:01 |
| 2 | As 188.979† | -25.8 | -7.6 | -3.3800 | ug/L | -3.3800 | ppb | 08:08:21 |
| 2 | B 249.677† | -282.0 | 116.1 | 2.8120 | ug/L | 2.8120 | ppb | 08:08:21 |
| 2 | Ba 233.527† | 19.5 | 20.9 | 0.1651 | ug/L | 0.1651 | ppb | 08:08:21 |
| 2 | Be 313.107† | -3525.1 | 236.2 | 0.0884 | ug/L | 0.0884 | ppb | 08:08:01 |
| 2 | Cd 226.502† | -185.2 | 11.0 | 0.1235 | ug/L | 0.1235 | ppb | 08:08:21 |
| 2 | Co 228.616† | -70.4 | -3.9 | -0.0795 | ug/L | -0.0795 | ppb | 08:08:21 |
| 2 | Cr 267.716† | 76.1 | -1.5 | -0.0116 | ug/L | -0.0116 | ppb | 08:08:21 |
| 2 | Cu 324.752† | 5843.7 | -145.5 | -0.4369 | ug/L | -0.4369 | ppb | 08:08:01 |
| 2 | Mn 257.610† | 531.0 | 72.4 | 0.0926 | ug/L | 0.0926 | ppb | 08:08:21 |
| 2 | Mo 202.031† | 19.0 | 8.8 | 0.6503 | ug/L | 0.6503 | ppb | 08:08:21 |
| 2 | Ni 231.604† | 72.8 | 10.3 | 0.2630 | ug/L | 0.2630 | ppb | 08:08:21 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 194.0 | -16.5 | -9.8342 ug/L | -9.8342 ppb | 08:08:21 |
| 2 | Pb 220.353† | -8.9 | 49.3 | 6.0552 ug/L | 6.0552 ppb | 08:08:21 |
| 2 | S 181.975 Axial† | 34.3 | -6.5 | -9.3474 ug/L | -9.3474 ppb | 08:08:21 |
| 2 | Sb 206.836† | 43.5 | 6.8 | 2.4020 ug/L | 2.4020 ppb | 08:08:21 |
| 2 | Se 196.026† | -21.2 | 6.6 | 4.3958 ug/L | 4.3958 ppb | 08:08:21 |
| 2 | Si 251.611† | 595.4 | 37.2 | 1.1967 ug/L | 1.1967 ppb | 08:08:21 |
| 2 | Sn 189.927† | 15.5 | 5.1 | 0.9086 ug/L | 0.9086 ppb | 08:08:21 |
| 2 | Ti 334.940† | -1476.7 | -103.0 | -0.1400 ug/L | -0.1400 ppb | 08:08:01 |
| 2 | Tl 190.801† | -42.0 | -9.4 | -3.0076 ug/L | -3.0076 ppb | 08:08:21 |
| 2 | U 409.014† | -3180.4 | -294.6 | -8.1376 ug/L | -8.1376 ppb | 08:08:01 |
| 2 | V 292.402† | -1487.5 | 17.8 | 0.1104 ug/L | 0.1104 ppb | 08:08:01 |
| 2 | Zn 213.857† | 755.0 | 149.1 | 1.4965 ug/L | 1.4965 ppb | 08:08:21 |
| 2 | SiO2† | 626.8 | 72.6 | 5.0254 ug/L | 5.0254 ppb | 08:08:57 |
| 3 | Sc Radial | 3751.9 | 3751.9 | 95.7 % | | 08:07:29 |
| 3 | Y RADIAL | 4329.6 | 4329.6 | 98.16 % | | 08:07:09 |
| 3 | Al 396.153Radial† | -101.9 | 6.0 | 5.6257 ug/L | 5.6257 ppb | 08:07:09 |
| 3 | Ca 317.933Radial† | 26.1 | 7.6 | 15.924 ug/L | 15.924 ppb | 08:07:29 |
| 3 | Fe 238.204 Radial† | 14.0 | 3.3 | 47.152 ug/L | 47.152 ppb | 08:07:29 |
| 3 | K 766.490 Radial† | 2970.9 | 463.5 | 88.955 ug/L | 88.955 ppb | 08:07:09 |
| 3 | Mg 279.077 IEC† | 4.0 | 0.1 | 4.7267 ug/L | 4.7267 ppb | 08:07:29 |
| 3 | Na 589.592 Radial† | -971.5 | -194.9 | -60.095 ug/L | -60.095 ppb | 08:07:09 |
| 3 | Sr 421.552† | 32.0 | -2.3 | -0.0163 ug/L | -0.0163 ppb | 08:07:09 |
| 3 | Sc 361.383 | 881977.7 | 881977.7 | 100.54 % | | 08:08:27 |
| 3 | Y 371.029 | 748867.6 | 748867.6 | 99.077 % | | 08:08:27 |
| 3 | Ag 328.068† | 241.2 | -0.5 | 0.0177 ug/L | 0.0177 ppb | 08:08:27 |
| 3 | As 188.979† | -12.7 | 5.6 | 2.5264 ug/L | 2.5264 ppb | 08:08:47 |
| 3 | B 249.677† | -326.8 | 73.2 | 1.7659 ug/L | 1.7659 ppb | 08:08:47 |
| 3 | Ba 233.527† | 9.6 | 11.0 | 0.0873 ug/L | 0.0873 ppb | 08:08:47 |
| 3 | Be 313.107† | -3573.9 | 207.5 | 0.0777 ug/L | 0.0777 ppb | 08:08:27 |
| 3 | Cd 226.502† | -178.0 | 19.2 | 0.2168 ug/L | 0.2168 ppb | 08:08:47 |
| 3 | Co 228.616† | -59.1 | 7.8 | 0.1629 ug/L | 0.1629 ppb | 08:08:47 |
| 3 | Cr 267.716† | 94.7 | 16.5 | 0.1927 ug/L | 0.1927 ppb | 08:08:47 |
| 3 | Cu 324.752† | 5938.1 | -84.7 | -0.2509 ug/L | -0.2509 ppb | 08:08:27 |
| 3 | Mn 257.610† | 528.9 | 67.4 | 0.0811 ug/L | 0.0811 ppb | 08:08:47 |
| 3 | Mo 202.031† | 13.8 | 3.6 | 0.2693 ug/L | 0.2693 ppb | 08:08:47 |
| 3 | Ni 231.604† | 82.3 | 19.4 | 0.4936 ug/L | 0.4936 ppb | 08:08:47 |
| 3 | P 214.914† | 203.6 | -8.0 | -4.8170 ug/L | -4.8170 ppb | 08:08:47 |
| 3 | Pb 220.353† | -27.9 | 30.4 | 3.7350 ug/L | 3.7350 ppb | 08:08:47 |
| 3 | S 181.975 Axial† | 35.0 | -6.0 | -8.5700 ug/L | -8.5700 ppb | 08:08:47 |
| 3 | Sb 206.836† | 44.9 | 7.9 | 2.7769 ug/L | 2.7769 ppb | 08:08:47 |
| 3 | Se 196.026† | -27.2 | 0.7 | 0.5907 ug/L | 0.5907 ppb | 08:08:47 |
| 3 | Si 251.611† | 597.8 | 36.2 | 1.1691 ug/L | 1.1691 ppb | 08:08:47 |
| 3 | Sn 189.927† | 8.3 | -2.2 | -0.4016 ug/L | -0.4016 ppb | 08:08:47 |
| 3 | Ti 334.940† | -1450.6 | -68.7 | -0.1030 ug/L | -0.1030 ppb | 08:08:27 |
| 3 | Tl 190.801† | -29.5 | 3.3 | 1.0477 ug/L | 1.0477 ppb | 08:08:47 |
| 3 | U 409.014† | -3176.7 | -273.0 | -7.5434 ug/L | -7.5434 ppb | 08:08:27 |
| 3 | V 292.402† | -1534.7 | -20.7 | -0.1620 ug/L | -0.1620 ppb | 08:08:27 |
| 3 | Zn 213.857† | 751.7 | 141.6 | 1.4156 ug/L | 1.4156 ppb | 08:08:47 |
| 3 | SiO2† | 690.4 | 132.3 | 9.1849 ug/L | 9.1849 ppb | 08:09:02 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 879139.0 | 100.22 | % | 0.292 | | | | 0.29% |
| Sc Radial | 3759.1 | 95.9 | % | 0.16 | | | | 0.17% |
| Y 371.029 | 745423.8 | 98.621 | % | 0.3948 | | | | 0.40% |
| Y RADIAL | 4291.6 | 97.30 | % | 0.753 | | | | 0.77% |
| Ag 328.068† | -3.9 | -0.0054 | ug/L | 0.21987 | -0.0054 | ppb | 0.21987 | >999.9% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -1.7 | -1.6136 | ug/L | 7.08001 | -1.6136 | ppb | 7.08001 | 438.77% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -4.4 | -1.9459 | ug/L | 3.95528 | -1.9459 | ppb | 3.95528 | 203.26% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 106.7 | 2.5833 | ug/L | 0.73040 | 2.5833 | ppb | 0.73040 | 28.27% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 17.9 | 0.1411 | ug/L | 0.04674 | 0.1411 | ppb | 0.04674 | 33.11% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 196.6 | 0.0736 | ug/L | 0.01722 | 0.0736 | ppb | 0.01722 | 23.39% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 8.4 | 17.502 | ug/L | 2.7263 | 17.502 | ppb | 2.7263 | 15.58% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                17.8      0.2029 ug/L       0.07340      0.2029 ppb        0.07340  36.18%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.0      0.1690 ug/L       0.25163      0.1690 ppb        0.25163 148.88%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.2     -0.0081 ug/L       0.19903     -0.0081 ppb        0.19903 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -79.9     -0.2374 ug/L       0.20656     -0.2374 ppb        0.20656  86.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.6      22.050 ug/L       26.3960      22.050 ppb        26.3960 119.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         377.7      72.490 ug/L       15.1212      72.490 ppb        15.1212  20.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.5     -72.610 ug/L      103.1621     -72.610 ppb       103.1621 142.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                66.4      0.0807 ug/L       0.01220      0.0807 ppb        0.01220  15.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.4      0.3282 ug/L       0.29705      0.3282 ppb        0.29705  90.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -191.7     -59.095 ug/L       12.3942     -59.095 ppb        12.3942  20.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                18.5      0.4693 ug/L       0.19521      0.4693 ppb        0.19521  41.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.8     -8.2792 ug/L       3.00348     -8.2792 ppb        3.00348  36.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                42.5      5.2239 ug/L       1.29234      5.2239 ppb        1.29234  24.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.0     -5.6885 ug/L       5.67743     -5.6885 ppb        5.67743  99.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.0      2.4476 ug/L       0.30905      2.4476 ppb        0.30905  12.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      1.4282 ug/L       2.64998      1.4282 ppb        2.64998 185.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                34.5      1.1130 ug/L       0.12192      1.1130 ppb        0.12192  10.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.2     -0.0351 ug/L       0.82398     -0.0351 ppb        0.82398 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.2     -0.0637 ug/L       0.04597     -0.0637 ppb        0.04597  72.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -77.5     -0.1098 ug/L       0.02742     -0.1098 ppb        0.02742  24.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.6      0.5135 ug/L       3.28673      0.5135 ppb        3.28673 640.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -300.0     -8.2866 ug/L       0.82775     -8.2866 ppb        0.82775   9.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -17.2     -0.1357 ug/L       0.23400     -0.1357 ppb        0.23400 172.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               146.7      1.4708 ug/L       0.04787      1.4708 ppb        0.04787   3.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      90.6      6.2854 ug/L       2.51821      6.2854 ppb        2.51821  40.06%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 121
Sample ID: 245969002|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 134
Date Collected: 2/25/2010 08:11:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969002|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3592.6 | 3592.6 | 91.7 | % | | | 08:13:27 |
| 1 | Y RADIAL | 4506.1 | 4506.1 | 102.2 | % | | | 08:13:07 |
| 1 | Al 396.153Radial† | 53812.8 | 58811.7 | 55158 | ug/L | 55158 | ppb | 08:13:07 |
| 1 | Ca 317.933Radial† | 94611.0 | 103182.6 | 215700 | ug/L | 215700 | ppb | 08:13:07 |
| 1 | Fe 238.204 Radial† | 5317.6 | 5789.1 | 81717 | ug/L | 81717 | ppb | 08:13:07 |
| 1 | K 766.490 Radial† | 40723.4 | 41781.7 | 7944.8 | ug/L | 7944.8 | ppb | 08:13:07 |
| 1 | Mg 279.077 IEC† | 251.9 | 270.7 | 13041 | ug/L | 13041 | ppb | 08:13:27 |
| 1 | Na 589.592 Radial† | 2072.6 | 3080.6 | 949.82 | ug/L | 949.82 | ppb | 08:13:07 |
| 1 | Sr 421.552† | 122212.7 | 133274.6 | 920.59 | ug/L | 920.59 | ppb | 08:13:07 |
| 1 | Sc 361.383 | 868107.7 | 868107.7 | 98.960 | % | | | 08:14:25 |
| 1 | Y 371.029 | 796553.7 | 796553.7 | 105.39 | % | | | 08:14:25 |
| 1 | Ag 328.068† | -4075.3 | -4358.6 | 1.6953 | ug/L | 1.6953 | ppb | 08:14:25 |
| 1 | As 188.979† | -9.8 | 8.3 | 38.491 | ug/L | 38.491 | ppb | 08:14:45 |
| 1 | B 249.677† | 984.8 | 1393.4 | 20.340 | ug/L | 20.340 | ppb | 08:14:25 |
| 1 | Ba 233.527† | 74726.6 | 75513.4 | 595.41 | ug/L | 595.41 | ppb | 08:14:25 |
| 1 | Be 313.107† | 29332.7 | 33403.1 | 16.646 | ug/L | 16.646 | ppb | 08:14:25 |
| 1 | Cd 226.502† | 646.0 | 849.1 | 1.6475 | ug/L | 1.6475 | ppb | 08:14:45 |
| 1 | Co 228.616† | 2803.1 | 2899.1 | 56.016 | ug/L | 56.016 | ppb | 08:14:45 |
| 1 | Cr 267.716† | 6520.3 | 6511.2 | 80.634 | ug/L | 80.634 | ppb | 08:14:25 |
| 1 | Cu 324.752† | 698105.1 | 699451.2 | 2132.2 | ug/L | 2132.2 | ppb | 08:14:25 |
| 1 | Mn 257.610† | 1318648.7 | 1332048.5 | 1523.3 | ug/L | 1523.3 | ppb | 08:14:25 |
| 1 | Mo 202.031† | -50.9 | -61.5 | 4.3926 | ug/L | 4.3926 | ppb | 08:14:45 |
| 1 | Ni 231.604† | 2114.1 | 2073.9 | 52.708 | ug/L | 52.708 | ppb | 08:14:45 |
| 1 | P 214.914† | 2569.2 | 2385.7 | 960.97 | ug/L | 960.97 | ppb | 08:14:45 |
| 1 | Pb 220.353† | 7000.1 | 7131.8 | 881.55 | ug/L | 881.55 | ppb | 08:14:45 |
| 1 | S 181.975 Axial† | 282.4 | 244.5 | 341.55 | ug/L | 341.55 | ppb | 08:14:45 |
| 1 | Sb 206.836† | 97.2 | 61.5 | 12.863 | ug/L | 12.863 | ppb | 08:14:45 |
| 1 | Se 196.026† | -401.1 | -377.6 | 6.9800 | ug/L | 6.9800 | ppb | 08:14:45 |
| 1 | Si 251.611† | 990380.8 | 1000231.0 | 32366 | ug/L | 32366 | ppb | 08:14:25 |
| 1 | Sn 189.927† | -233.4 | -246.3 | -10.566 | ug/L | -10.566 | ppb | 08:14:45 |
| 1 | Ti 334.940† | 1133955.8 | 1147247.3 | 1830.1 | ug/L | 1830.1 | ppb | 08:14:25 |
| 1 | Tl 190.801† | -123.5 | -92.2 | -7.8295 | ug/L | -7.8295 | ppb | 08:14:45 |
| 1 | U 409.014† | 38051.4 | 41337.9 | 1132.0 | ug/L | 1132.0 | ppb | 08:14:25 |
| 1 | V 292.402† | 20830.5 | 22555.1 | 145.81 | ug/L | 145.81 | ppb | 08:14:25 |
| 1 | Zn 213.857† | 34928.0 | 34689.1 | 333.75 | ug/L | 333.75 | ppb | 08:14:25 |
| 1 | SiO2† | 990968.1 | 1000828.4 | 69553 | ug/L | 69553 | ppb | 08:15:43 |
| 2 | Sc Radial | 3808.3 | 3808.3 | 97.2 | % | | | 08:13:52 |
| 2 | Y RADIAL | 4786.5 | 4786.5 | 108.5 | % | | | 08:13:32 |
| 2 | Al 396.153Radial† | 54401.8 | 56093.1 | 52608 | ug/L | 52608 | ppb | 08:13:32 |
| 2 | Ca 317.933Radial† | 95726.7 | 98485.2 | 205880 | ug/L | 205880 | ppb | 08:13:32 |
| 2 | Fe 238.204 Radial† | 5358.0 | 5502.2 | 77666 | ug/L | 77666 | ppb | 08:13:32 |
| 2 | K 766.490 Radial† | 41126.3 | 39680.3 | 7544.9 | ug/L | 7544.9 | ppb | 08:13:32 |
| 2 | Mg 279.077 IEC† | 254.4 | 257.7 | 12413 | ug/L | 12413 | ppb | 08:13:52 |
| 2 | Na 589.592 Radial† | 2101.5 | 2982.3 | 919.51 | ug/L | 919.51 | ppb | 08:13:32 |
| 2 | Sr 421.552† | 123339.4 | 126883.3 | 876.44 | ug/L | 876.44 | ppb | 08:13:32 |
| 2 | Sc 361.383 | 856768.7 | 856768.7 | 97.667 | % | | | 08:14:50 |
| 2 | Y 371.029 | 787658.3 | 787658.3 | 104.21 | % | | | 08:14:50 |
| 2 | Ag 328.068† | -3913.7 | -4247.5 | 1.1024 | ug/L | 1.1024 | ppb | 08:14:50 |
| 2 | As 188.979† | -5.4 | 12.7 | 39.543 | ug/L | 39.543 | ppb | 08:15:11 |
| 2 | B 249.677† | 973.2 | 1394.7 | 21.028 | ug/L | 21.028 | ppb | 08:14:50 |
| 2 | Ba 233.527† | 73708.0 | 75469.8 | 594.95 | ug/L | 594.95 | ppb | 08:14:50 |
| 2 | Be 313.107† | 28945.2 | 33398.7 | 16.658 | ug/L | 16.658 | ppb | 08:14:50 |
| 2 | Cd 226.502† | 636.8 | 848.3 | 2.0566 | ug/L | 2.0566 | ppb | 08:15:11 |
| 2 | Co 228.616† | 2785.2 | 2918.2 | 56.463 | ug/L | 56.463 | ppb | 08:15:11 |
| 2 | Cr 267.716† | 6506.6 | 6584.3 | 81.072 | ug/L | 81.072 | ppb | 08:14:50 |
| 2 | Cu 324.752† | 691414.4 | 701936.9 | 2139.5 | ug/L | 2139.5 | ppb | 08:14:50 |
| 2 | Mn 257.610† | 1303639.1 | 1334315.4 | 1525.5 | ug/L | 1525.5 | ppb | 08:14:50 |
| 2 | Mo 202.031† | -47.8 | -59.1 | 4.1413 | ug/L | 4.1413 | ppb | 08:15:11 |
| 2 | Ni 231.604† | 2119.6 | 2107.8 | 53.570 | ug/L | 53.570 | ppb | 08:15:11 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 2534.9 | 2384.9 | 961.60 | ug/L | 961.60 ppb | 08:15:11 |
| 2 | Pb 220.353† | 6995.3 | 7220.5 | 892.22 | ug/L | 892.22 ppb | 08:15:11 |
| 2 | S 181.975 Axial† | 286.5 | 252.5 | 353.57 | ug/L | 353.57 ppb | 08:15:11 |
| 2 | Sb 206.836† | 86.9 | 52.3 | 9.7750 | ug/L | 9.7750 ppb | 08:15:11 |
| 2 | Se 196.026† | -403.6 | -385.5 | -10.815 | ug/L | -10.815 ppb | 08:15:11 |
| 2 | Si 251.611† | 978769.0 | 1001586.8 | 32410 | ug/L | 32410 ppb | 08:14:50 |
| 2 | Sn 189.927† | -218.2 | -233.9 | -9.8577 | ug/L | -9.8577 ppb | 08:15:11 |
| 2 | Ti 334.940† | 1122942.0 | 1151135.5 | 1835.0 | ug/L | 1835.0 ppb | 08:14:50 |
| 2 | Tl 190.801† | -123.4 | -93.8 | -8.2964 | ug/L | -8.2964 ppb | 08:15:11 |
| 2 | U 409.014† | 37520.3 | 41303.0 | 1131.5 | ug/L | 1131.5 ppb | 08:14:50 |
| 2 | V 292.402† | 20677.9 | 22677.5 | 147.24 | ug/L | 147.24 ppb | 08:14:50 |
| 2 | Zn 213.857† | 34563.0 | 34782.5 | 335.28 | ug/L | 335.28 ppb | 08:14:50 |
| 2 | SiO2† | 993234.7 | 1016402.0 | 70635 | ug/L | 70635 ppb | 08:15:49 |
| 3 | Sc Radial | 3743.4 | 3743.4 | 95.5 | % | | 08:14:17 |
| 3 | Y RADIAL | 4708.6 | 4708.6 | 106.8 | % | | 08:13:57 |
| 3 | Al 396.153Radial† | 53801.7 | 56435.1 | 52929 | ug/L | 52929 ppb | 08:13:57 |
| 3 | Ca 317.933Radial† | 94864.4 | 99289.8 | 207570 | ug/L | 207570 ppb | 08:13:57 |
| 3 | Fe 238.204 Radial† | 5336.5 | 5575.2 | 78697 | ug/L | 78697 ppb | 08:13:57 |
| 3 | K 766.490 Radial† | 40790.2 | 40061.9 | 7617.5 | ug/L | 7617.5 ppb | 08:13:57 |
| 3 | Mg 279.077 IEC† | 250.4 | 258.1 | 12432 | ug/L | 12432 ppb | 08:14:17 |
| 3 | Na 589.592 Radial† | 2130.9 | 3050.5 | 940.55 | ug/L | 940.55 ppb | 08:13:57 |
| 3 | Sr 421.552† | 121930.1 | 127607.7 | 881.44 | ug/L | 881.44 ppb | 08:13:57 |
| 3 | Sc 361.383 | 855270.3 | 855270.3 | 97.497 | % | | 08:15:16 |
| 3 | Y 371.029 | 786788.3 | 786788.3 | 104.09 | % | | 08:15:16 |
| 3 | Ag 328.068† | -4025.9 | -4369.6 | 0.8262 | ug/L | 0.8262 ppb | 08:15:16 |
| 3 | As 188.979† | -21.8 | -4.1 | 32.256 | ug/L | 32.256 ppb | 08:15:36 |
| 3 | B 249.677† | 888.8 | 1309.9 | 18.803 | ug/L | 18.803 ppb | 08:15:16 |
| 3 | Ba 233.527† | 73749.0 | 75644.1 | 596.35 | ug/L | 596.35 ppb | 08:15:16 |
| 3 | Be 313.107† | 28889.0 | 33393.0 | 16.650 | ug/L | 16.650 ppb | 08:15:16 |
| 3 | Cd 226.502† | 656.8 | 870.0 | 2.2015 | ug/L | 2.2015 ppb | 08:15:36 |
| 3 | Co 228.616† | 2790.4 | 2928.5 | 56.668 | ug/L | 56.668 ppb | 08:15:36 |
| 3 | Cr 267.716† | 6462.1 | 6550.3 | 80.786 | ug/L | 80.786 ppb | 08:15:16 |
| 3 | Cu 324.752† | 686806.5 | 698450.9 | 2129.0 | ug/L | 2129.0 ppb | 08:15:16 |
| 3 | Mn 257.610† | 1300607.4 | 1333544.5 | 1524.8 | ug/L | 1524.8 ppb | 08:15:16 |
| 3 | Mo 202.031† | -60.7 | -72.4 | 3.2647 | ug/L | 3.2647 ppb | 08:15:36 |
| 3 | Ni 231.604† | 2105.1 | 2096.7 | 53.289 | ug/L | 53.289 ppb | 08:15:36 |
| 3 | P 214.914† | 2567.4 | 2422.8 | 985.73 | ug/L | 985.73 ppb | 08:15:36 |
| 3 | Pb 220.353† | 7028.2 | 7266.8 | 897.90 | ug/L | 897.90 ppb | 08:15:36 |
| 3 | S 181.975 Axial† | 295.2 | 262.0 | 367.04 | ug/L | 367.04 ppb | 08:15:36 |
| 3 | Sb 206.836† | 80.0 | 45.4 | 7.2574 | ug/L | 7.2574 ppb | 08:15:36 |
| 3 | Se 196.026† | -409.3 | -392.1 | -11.954 | ug/L | -11.954 ppb | 08:15:36 |
| 3 | Si 251.611† | 975837.3 | 1000335.7 | 32370 | ug/L | 32370 ppb | 08:15:16 |
| 3 | Sn 189.927† | -235.7 | -252.2 | -12.892 | ug/L | -12.892 ppb | 08:15:36 |
| 3 | Ti 334.940† | 1119384.0 | 1149500.7 | 1832.6 | ug/L | 1832.6 ppb | 08:15:16 |
| 3 | Tl 190.801† | -125.5 | -96.2 | -9.0757 | ug/L | -9.0757 ppb | 08:15:36 |
| 3 | U 409.014† | 37503.9 | 41353.5 | 1132.8 | ug/L | 1132.8 ppb | 08:15:16 |
| 3 | V 292.402† | 20523.6 | 22556.3 | 146.23 | ug/L | 146.23 ppb | 08:15:16 |
| 3 | Zn 213.857† | 34408.1 | 34685.6 | 334.17 | ug/L | 334.17 ppb | 08:15:16 |
| 3 | SiO2† | 987980.3 | 1012794.4 | 70385 | ug/L | 70385 ppb | 08:15:55 |

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**Mean Data: 245969002|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 860048.9 | 98.041 | % | 0.8002 | | | | 0.82% |
| Sc Radial | 3714.8 | 94.8 | % | 2.82 | | | | 2.98% |
| Y 371.029 | 790333.4 | 104.56 | % | 0.715 | | | | 0.68% |
| Y RADIAL | 4667.1 | 105.8 | % | 3.28 | | | | 3.10% |
| Ag 328.068† | -4325.3 | 1.2080 | ug/L | 0.44405 | 1.2080 | ppb | 0.44405 | 36.76% |
| Al 396.153Radial† | 57113.3 | 53565 | ug/L | 1388.8 | 53565 | ppb | 1388.8 | 2.59% |
| As 188.979† | 5.6 | 36.763 | ug/L | 3.9386 | 36.763 | ppb | 3.9386 | 10.71% |
| B 249.677† | 1366.0 | 20.057 | ug/L | 1.1392 | 20.057 | ppb | 1.1392 | 5.68% |
| Ba 233.527† | 75542.4 | 595.57 | ug/L | 0.712 | 595.57 | ppb | 0.712 | 0.12% |
| Be 313.107† | 33398.3 | 16.651 | ug/L | 0.0062 | 16.651 | ppb | 0.0062 | 0.04% |
| Ca 317.933Radial† | 100319.2 | 209720 | ug/L | 5251.7 | 209720 | ppb | 5251.7 | 2.50% |
| Cd 226.502† | 855.8 | 1.9686 | ug/L | 0.28732 | 1.9686 | ppb | 0.28732 | 14.60% |
| Co 228.616† | 2915.3 | 56.383 | ug/L | 0.3333 | 56.383 | ppb | 0.3333 | 0.59% |
| Cr 267.716† | 6548.6 | 80.831 | ug/L | 0.2222 | 80.831 | ppb | 0.2222 | 0.27% |
| Cu 324.752† | 699946.3 | 2133.6 | ug/L | 5.41 | 2133.6 | ppb | 5.41 | 0.25% |
| Fe 238.204 Radial† | 5622.2 | 79360 | ug/L | 2105.1 | 79360 | ppb | 2105.1 | 2.65% |
| K 766.490 Radial† | 40508.0 | 7702.4 | ug/L | 213.07 | 7702.4 | ppb | 213.07 | 2.77% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 262.2 | 12629 | ug/L | 357.2 | 12629 | ppb | 357.2 | 2.83% |
| Mn 257.610† | 1333302.8 | 1524.5 | ug/L | 1.12 | 1524.5 | ppb | 1.12 | 0.07% |
| Mo 202.031† | -64.3 | 3.9329 | ug/L | 0.59213 | 3.9329 | ppb | 0.59213 | 15.06% |
| Na 589.592 Radial† | 3037.8 | 936.63 | ug/L | 15.529 | 936.63 | ppb | 15.529 | 1.66% |
| Ni 231.604† | 2092.8 | 53.189 | ug/L | 0.4396 | 53.189 | ppb | 0.4396 | 0.83% |
| P 214.914† | 2397.8 | 969.43 | ug/L | 14.116 | 969.43 | ppb | 14.116 | 1.46% |
| Pb 220.353† | 7206.4 | 890.56 | ug/L | 8.301 | 890.56 | ppb | 8.301 | 0.93% |
| S 181.975 Axial† | 253.0 | 354.05 | ug/L | 12.748 | 354.05 | ppb | 12.748 | 3.60% |
| Sb 206.836† | 53.1 | 9.9652 | ug/L | 2.80768 | 9.9652 | ppb | 2.80768 | 28.17% |
| Se 196.026† | -385.0 | -5.2628 | ug/L | 10.61788 | -5.2628 | ppb | 10.61788 | 201.75% |
| Si 251.611† | 1000717.8 | 32382 | ug/L | 24.4 | 32382 | ppb | 24.4 | 0.08% |
| Sn 189.927† | -244.2 | -11.105 | ug/L | 1.5875 | -11.105 | ppb | 1.5875 | 14.29% |
| Sr 421.552† | 129255.2 | 892.82 | ug/L | 24.177 | 892.82 | ppb | 24.177 | 2.71% |
| Ti 334.940† | 1149294.5 | 1832.6 | ug/L | 2.42 | 1832.6 | ppb | 2.42 | 0.13% |
| Tl 190.801† | -94.1 | -8.4005 | ug/L | 0.62958 | -8.4005 | ppb | 0.62958 | 7.49% |
| U 409.014† | 41331.5 | 1132.1 | ug/L | 0.64 | 1132.1 | ppb | 0.64 | 0.06% |
| V 292.402† | 22596.3 | 146.43 | ug/L | 0.732 | 146.43 | ppb | 0.732 | 0.50% |
| Zn 213.857† | 34719.0 | 334.40 | ug/L | 0.791 | 334.40 | ppb | 0.791 | 0.24% |
| SiO2† | 1010008.2 | 70191 | ug/L | 566.5 | 70191 | ppb | 566.5 | 0.81% |

Sequence No.: 122
Sample ID: 245969003|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 135
Date Collected: 2/25/2010 08:18:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969003|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3816.9 | 3816.9 | 97.4 | % | | | 08:20:21 |
| 1 | Y RADIAL | 4850.5 | 4850.5 | 110.0 | % | | | 08:20:01 |
| 1 | Al 396.153Radial† | 45781.4 | 47116.4 | 44189 | ug/L | 44189 | ppb | 08:20:01 |
| 1 | Ca 317.933Radial† | 13732.5 | 14079.5 | 29433 | ug/L | 29433 | ppb | 08:20:01 |
| 1 | Fe 238.204 Radial† | 5417.0 | 5550.3 | 78345 | ug/L | 78345 | ppb | 08:20:01 |
| 1 | K 766.490 Radial† | 32217.7 | 30438.4 | 5829.7 | ug/L | 5829.7 | ppb | 08:20:01 |
| 1 | Mg 279.077 IEC† | 196.6 | 197.8 | 9506.8 | ug/L | 9506.8 | ppb | 08:20:21 |
| 1 | Na 589.592 Radial† | 5549.7 | 6517.7 | 2009.6 | ug/L | 2009.6 | ppb | 08:20:01 |
| 1 | Sr 421.552† | 22746.2 | 23317.9 | 161.13 | ug/L | 161.13 | ppb | 08:20:01 |
| 1 | Sc 361.383 | 909838.5 | 909838.5 | 103.72 | % | | | 08:21:18 |
| 1 | Y 371.029 | 849455.0 | 849455.0 | 112.38 | % | | | 08:21:18 |
| 1 | Ag 328.068† | -5341.0 | -5390.0 | -0.7614 | ug/L | -0.7614 | ppb | 08:21:23 |
| 1 | As 188.979† | -20.6 | -1.6 | 28.884 | ug/L | 28.884 | ppb | 08:21:44 |
| 1 | B 249.677† | 398.8 | 782.7 | 6.1399 | ug/L | 6.1399 | ppb | 08:21:23 |
| 1 | Ba 233.527† | 58299.2 | 56211.2 | 443.69 | ug/L | 443.69 | ppb | 08:21:23 |
| 1 | Be 313.107† | 2365.6 | 6043.0 | 5.2154 | ug/L | 5.2154 | ppb | 08:21:23 |
| 1 | Cd 226.502† | 533.4 | 710.6 | 0.1783 | ug/L | 0.1783 | ppb | 08:21:44 |
| 1 | Co 228.616† | 1906.9 | 1905.1 | 36.171 | ug/L | 36.171 | ppb | 08:21:44 |
| 1 | Cr 267.716† | 21922.6 | 21059.3 | 244.07 | ug/L | 244.07 | ppb | 08:21:23 |
| 1 | Cu 324.752† | 30357.5 | 23278.8 | 75.098 | ug/L | 75.098 | ppb | 08:21:23 |
| 1 | Mn 257.610† | 1960754.9 | 1890025.5 | 2158.1 | ug/L | 2158.1 | ppb | 08:21:18 |
| 1 | Mo 202.031† | 25.4 | 14.3 | 7.4834 | ug/L | 7.4834 | ppb | 08:21:44 |
| 1 | Ni 231.604† | 5304.4 | 5051.9 | 128.46 | ug/L | 128.46 | ppb | 08:21:44 |
| 1 | P 214.914† | 643.3 | 409.7 | 180.23 | ug/L | 180.23 | ppb | 08:21:44 |
| 1 | Pb 220.353† | 679.7 | 713.4 | 88.851 | ug/L | 88.851 | ppb | 08:21:44 |
| 1 | S 181.975 Axial† | 189.7 | 142.1 | 196.21 | ug/L | 196.21 | ppb | 08:21:44 |
| 1 | Sb 206.836† | 67.2 | 28.1 | 3.4406 | ug/L | 3.4406 | ppb | 08:21:44 |
| 1 | Se 196.026† | -414.1 | -371.5 | 0.5292 | ug/L | 0.5292 | ppb | 08:21:44 |
| 1 | Si 251.611† | 1113608.8 | 1073140.3 | 34725 | ug/L | 34725 | ppb | 08:21:18 |
| 1 | Sn 189.927† | -147.0 | -152.2 | -26.585 | ug/L | -26.585 | ppb | 08:21:44 |
| 1 | Ti 334.940† | 854605.6 | 825351.8 | 1300.1 | ug/L | 1300.1 | ppb | 08:21:18 |
| 1 | Tl 190.801† | -118.1 | -81.3 | -5.2954 | ug/L | -5.2954 | ppb | 08:21:44 |
| 1 | U 409.014† | -10609.1 | -7342.2 | -212.21 | ug/L | -212.21 | ppb | 08:21:18 |
| 1 | V 292.402† | 11846.0 | 12927.2 | 77.081 | ug/L | 77.081 | ppb | 08:21:23 |
| 1 | Zn 213.857† | 39206.1 | 37194.9 | 361.78 | ug/L | 361.78 | ppb | 08:21:23 |
| 1 | SiO2† | 1122124.1 | 1081354.3 | 75149 | ug/L | 75149 | ppb | 08:22:52 |
| 2 | Sc Radial | 3824.3 | 3824.3 | 97.6 | % | | | 08:20:46 |
| 2 | Y RADIAL | 4965.3 | 4965.3 | 112.6 | % | | | 08:20:26 |
| 2 | Al 396.153Radial† | 46856.6 | 48127.3 | 45137 | ug/L | 45137 | ppb | 08:20:26 |
| 2 | Ca 317.933Radial† | 14061.0 | 14388.9 | 30080 | ug/L | 30080 | ppb | 08:20:26 |
| 2 | Fe 238.204 Radial† | 5518.9 | 5644.0 | 79668 | ug/L | 79668 | ppb | 08:20:26 |
| 2 | K 766.490 Radial† | 33018.0 | 31194.6 | 5974.5 | ug/L | 5974.5 | ppb | 08:20:26 |
| 2 | Mg 279.077 IEC† | 197.0 | 197.8 | 9506.4 | ug/L | 9506.4 | ppb | 08:20:46 |
| 2 | Na 589.592 Radial† | 5764.5 | 6726.8 | 2074.0 | ug/L | 2074.0 | ppb | 08:20:26 |
| 2 | Sr 421.552† | 23321.9 | 23862.7 | 164.89 | ug/L | 164.89 | ppb | 08:20:26 |
| 2 | Sc 361.383 | 914605.1 | 914605.1 | 104.26 | % | | | 08:21:49 |
| 2 | Y 371.029 | 855087.6 | 855087.6 | 113.13 | % | | | 08:21:49 |
| 2 | Ag 328.068† | -5295.6 | -5319.6 | -0.0458 | ug/L | -0.0458 | ppb | 08:21:55 |
| 2 | As 188.979† | -17.9 | 1.1 | 30.373 | ug/L | 30.373 | ppb | 08:22:15 |
| 2 | B 249.677† | 244.7 | 632.9 | 2.2949 | ug/L | 2.2949 | ppb | 08:21:55 |
| 2 | Ba 233.527† | 58244.6 | 55865.9 | 441.02 | ug/L | 441.02 | ppb | 08:21:55 |
| 2 | Be 313.107† | 2383.7 | 6048.5 | 5.2175 | ug/L | 5.2175 | ppb | 08:21:55 |
| 2 | Cd 226.502† | 545.7 | 719.7 | 0.1483 | ug/L | 0.1483 | ppb | 08:22:15 |
| 2 | Co 228.616† | 1893.0 | 1882.2 | 35.669 | ug/L | 35.669 | ppb | 08:22:15 |
| 2 | Cr 267.716† | 21884.2 | 20912.3 | 242.54 | ug/L | 242.54 | ppb | 08:21:55 |
| 2 | Cu 324.752† | 30241.8 | 23015.2 | 74.363 | ug/L | 74.363 | ppb | 08:21:55 |
| 2 | Mn 257.610† | 1970713.4 | 1889724.5 | 2157.9 | ug/L | 2157.9 | ppb | 08:21:49 |
| 2 | Mo 202.031† | 19.4 | 8.5 | 7.1666 | ug/L | 7.1666 | ppb | 08:22:15 |
| 2 | Ni 231.604† | 5357.5 | 5076.2 | 129.08 | ug/L | 129.08 | ppb | 08:22:15 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 635.0 | 398.5 | 172.85 | ug/L | 172.85 ppb | 08:22:15 |
| 2 | Pb 220.353† | 687.9 | 717.9 | 89.464 | ug/L | 89.464 ppb | 08:22:15 |
| 2 | S 181.975 Axial† | 205.7 | 156.5 | 216.69 | ug/L | 216.69 ppb | 08:22:15 |
| 2 | Sb 206.836† | 67.2 | 27.8 | 3.2944 | ug/L | 3.2944 ppb | 08:22:15 |
| 2 | Se 196.026† | -411.9 | -367.3 | 7.4254 | ug/L | 7.4254 ppb | 08:22:15 |
| 2 | Si 251.611† | 1118746.7 | 1072472.6 | 34704 | ug/L | 34704 ppb | 08:21:49 |
| 2 | Sn 189.927† | -139.8 | -144.6 | -25.177 | ug/L | -25.177 ppb | 08:22:15 |
| 2 | Ti 334.940† | 859111.3 | 825379.2 | 1300.3 | ug/L | 1300.3 ppb | 08:21:49 |
| 2 | Tl 190.801† | -109.5 | -72.5 | -2.4664 | ug/L | -2.4664 ppb | 08:22:15 |
| 2 | U 409.014† | -10451.4 | -7137.7 | -206.71 | ug/L | -206.71 ppb | 08:21:49 |
| 2 | V 292.402† | 11772.2 | 12796.8 | 75.985 | ug/L | 75.985 ppb | 08:21:55 |
| 2 | Zn 213.857† | 39021.4 | 36820.8 | 357.82 | ug/L | 357.82 ppb | 08:21:55 |
| 2 | SiO2† | 1100310.4 | 1054793.5 | 73303 | ug/L | 73303 ppb | 08:22:58 |
| 3 | Sc Radial | 3828.1 | 3828.1 | 97.7 | % | | 08:21:11 |
| 3 | Y RADIAL | 4855.7 | 4855.7 | 110.1 | % | | 08:20:51 |
| 3 | Al 396.153Radial† | 45713.8 | 46909.0 | 43995 | ug/L | 43995 ppb | 08:20:51 |
| 3 | Ca 317.933Radial† | 13643.6 | 13947.1 | 29157 | ug/L | 29157 ppb | 08:20:51 |
| 3 | Fe 238.204 Radial† | 5398.8 | 5515.3 | 77852 | ug/L | 77852 ppb | 08:20:51 |
| 3 | K 766.490 Radial† | 32314.0 | 30439.8 | 5830.0 | ug/L | 5830.0 ppb | 08:20:51 |
| 3 | Mg 279.077 IEC† | 196.2 | 196.7 | 9457.8 | ug/L | 9457.8 ppb | 08:21:11 |
| 3 | Na 589.592 Radial† | 5555.3 | 6506.6 | 2006.2 | ug/L | 2006.2 ppb | 08:20:51 |
| 3 | Sr 421.552† | 22760.3 | 23263.7 | 160.76 | ug/L | 160.76 ppb | 08:20:51 |
| 3 | Sc 361.383 | 897157.8 | 897157.8 | 102.27 | % | | 08:22:21 |
| 3 | Y 371.029 | 838961.5 | 838961.5 | 111.00 | % | | 08:22:21 |
| 3 | Ag 328.068† | -5272.6 | -5395.9 | -0.9292 | ug/L | -0.9292 ppb | 08:22:26 |
| 3 | As 188.979† | -15.7 | 2.9 | 30.774 | ug/L | 30.774 ppb | 08:22:46 |
| 3 | B 249.677† | 302.2 | 693.7 | 4.0613 | ug/L | 4.0613 ppb | 08:22:26 |
| 3 | Ba 233.527† | 58539.9 | 57241.1 | 451.76 | ug/L | 451.76 ppb | 08:22:26 |
| 3 | Be 313.107† | 2408.5 | 6117.2 | 5.2470 | ug/L | 5.2470 ppb | 08:22:26 |
| 3 | Cd 226.502† | 539.6 | 723.9 | 0.3855 | ug/L | 0.3855 ppb | 08:22:46 |
| 3 | Co 228.616† | 1914.6 | 1938.6 | 36.877 | ug/L | 36.877 ppb | 08:22:46 |
| 3 | Cr 267.716† | 22000.9 | 21434.6 | 248.24 | ug/L | 248.24 ppb | 08:22:26 |
| 3 | Cu 324.752† | 30681.8 | 24009.5 | 77.297 | ug/L | 77.297 ppb | 08:22:26 |
| 3 | Mn 257.610† | 1939980.2 | 1896432.9 | 2165.3 | ug/L | 2165.3 ppb | 08:22:21 |
| 3 | Mo 202.031† | 23.2 | 12.5 | 7.3080 | ug/L | 7.3080 ppb | 08:22:46 |
| 3 | Ni 231.604† | 5389.6 | 5207.4 | 132.42 | ug/L | 132.42 ppb | 08:22:46 |
| 3 | P 214.914† | 649.3 | 424.3 | 188.93 | ug/L | 188.93 ppb | 08:22:46 |
| 3 | Pb 220.353† | 706.9 | 749.3 | 93.271 | ug/L | 93.271 ppb | 08:22:46 |
| 3 | S 181.975 Axial† | 200.6 | 155.3 | 215.30 | ug/L | 215.30 ppb | 08:22:46 |
| 3 | Sb 206.836† | 59.1 | 21.1 | 0.9670 | ug/L | 0.9670 ppb | 08:22:46 |
| 3 | Se 196.026† | -418.8 | -381.7 | -7.6890 | ug/L | -7.6890 ppb | 08:22:46 |
| 3 | Si 251.611† | 1099114.0 | 1074143.5 | 34758 | ug/L | 34758 ppb | 08:22:21 |
| 3 | Sn 189.927† | -150.4 | -157.6 | -27.558 | ug/L | -27.558 ppb | 08:22:46 |
| 3 | Ti 334.940† | 843756.4 | 826389.9 | 1301.7 | ug/L | 1301.7 ppb | 08:22:21 |
| 3 | Tl 190.801† | -124.0 | -88.7 | -7.6257 | ug/L | -7.6257 ppb | 08:22:46 |
| 3 | U 409.014† | -10510.4 | -7390.4 | -213.49 | ug/L | -213.49 ppb | 08:22:21 |
| 3 | V 292.402† | 11909.3 | 13150.5 | 78.701 | ug/L | 78.701 ppb | 08:22:26 |
| 3 | Zn 213.857† | 39472.3 | 37989.5 | 369.83 | ug/L | 369.83 ppb | 08:22:26 |
| 3 | SiO2† | 1104579.3 | 1079491.3 | 75020 | ug/L | 75020 ppb | 08:23:04 |

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**Mean Data: 245969003|948756|1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 907200.5 | 103.42 | % | 1.028 | | | | 0.99% |
| Sc Radial | 3823.1 | 97.6 | % | 0.15 | | | | 0.15% |
| Y 371.029 | 847834.7 | 112.17 | % | 1.083 | | | | 0.97% |
| Y RADIAL | 4890.5 | 110.9 | % | 1.47 | | | | 1.33% |
| Ag 328.068† | -5368.5 | -0.5788 | ug/L | 0.46913 | -0.5788 | ppb | 0.46913 | 81.05% |
| Al 396.153Radial† | 47384.2 | 44440 | ug/L | 611.3 | 44440 | ppb | 611.3 | 1.38% |
| As 188.979† | 0.8 | 30.010 | ug/L | 0.9956 | 30.010 | ppb | 0.9956 | 3.32% |
| B 249.677† | 703.1 | 4.1654 | ug/L | 1.92461 | 4.1654 | ppb | 1.92461 | 46.20% |
| Ba 233.527† | 56439.4 | 445.49 | ug/L | 5.592 | 445.49 | ppb | 5.592 | 1.26% |
| Be 313.107† | 6069.6 | 5.2266 | ug/L | 0.01765 | 5.2266 | ppb | 0.01765 | 0.34% |
| Ca 317.933Radial† | 14138.5 | 29557 | ug/L | 473.9 | 29557 | ppb | 473.9 | 1.60% |
| Cd 226.502† | 718.0 | 0.2374 | ug/L | 0.12915 | 0.2374 | ppb | 0.12915 | 54.41% |
| Co 228.616† | 1908.6 | 36.239 | ug/L | 0.6071 | 36.239 | ppb | 0.6071 | 1.68% |
| Cr 267.716† | 21135.4 | 244.95 | ug/L | 2.949 | 244.95 | ppb | 2.949 | 1.20% |
| Cu 324.752† | 23434.5 | 75.586 | ug/L | 1.5264 | 75.586 | ppb | 1.5264 | 2.02% |
| Fe 238.204 Radial† | 5569.9 | 78621 | ug/L | 939.0 | 78621 | ppb | 939.0 | 1.19% |
| K 766.490 Radial† | 30690.9 | 5878.1 | ug/L | 83.53 | 5878.1 | ppb | 83.53 | 1.42% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 197.4 | 9490.3 | ug/L | 28.16 | 9490.3 | ppb | 28.16 | 0.30% |
| Mn 257.610† | 1892060.9 | 2160.4 | ug/L | 4.25 | 2160.4 | ppb | 4.25 | 0.20% |
| Mo 202.031† | 11.8 | 7.3193 | ug/L | 0.15871 | 7.3193 | ppb | 0.15871 | 2.17% |
| Na 589.592 Radial† | 6583.7 | 2029.9 | ug/L | 38.24 | 2029.9 | ppb | 38.24 | 1.88% |
| Ni 231.604† | 5111.8 | 129.99 | ug/L | 2.128 | 129.99 | ppb | 2.128 | 1.64% |
| P 214.914† | 410.9 | 180.67 | ug/L | 8.053 | 180.67 | ppb | 8.053 | 4.46% |
| Pb 220.353† | 726.9 | 90.529 | ug/L | 2.3946 | 90.529 | ppb | 2.3946 | 2.65% |
| S 181.975 Axial† | 151.3 | 209.40 | ug/L | 11.448 | 209.40 | ppb | 11.448 | 5.47% |
| Sb 206.836† | 25.7 | 2.5673 | ug/L | 1.38786 | 2.5673 | ppb | 1.38786 | 54.06% |
| Se 196.026† | -373.5 | 0.0885 | ug/L | 7.56685 | 0.0885 | ppb | 7.56685 | >999.9% |
| Si 251.611† | 1073252.1 | 34729 | ug/L | 27.2 | 34729 | ppb | 27.2 | 0.08% |
| Sn 189.927† | -151.5 | -26.440 | ug/L | 1.1973 | -26.440 | ppb | 1.1973 | 4.53% |
| Sr 421.552† | 23481.4 | 162.26 | ug/L | 2.289 | 162.26 | ppb | 2.289 | 1.41% |
| Ti 334.940† | 825707.0 | 1300.7 | ug/L | 0.89 | 1300.7 | ppb | 0.89 | 0.07% |
| Tl 190.801† | -80.8 | -5.1292 | ug/L | 2.58366 | -5.1292 | ppb | 2.58366 | 50.37% |
| U 409.014† | -7290.1 | -210.80 | ug/L | 3.603 | -210.80 | ppb | 3.603 | 1.71% |
| V 292.402† | 12958.2 | 77.256 | ug/L | 1.3665 | 77.256 | ppb | 1.3665 | 1.77% |
| Zn 213.857† | 37335.1 | 363.14 | ug/L | 6.120 | 363.14 | ppb | 6.120 | 1.69% |
| SiO2† | 1071879.7 | 74491 | ug/L | 1030.4 | 74491 | ppb | 1030.4 | 1.38% |

Sequence No.: 123
Sample ID: 245969004|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 136
Date Collected: 2/25/2010 08:25:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969004|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3837.8 | 3837.8 | 97.9 | % | | | 08:27:30 |
| 1 | Y RADIAL | 4607.4 | 4607.4 | 104.5 | % | | | 08:27:10 |
| 1 | Al 396.153Radial† | 38042.8 | 38958.7 | 36539 | ug/L | 36539 | ppb | 08:27:10 |
| 1 | Ca 317.933Radial† | 9519.5 | 9700.9 | 20280 | ug/L | 20280 | ppb | 08:27:10 |
| 1 | Fe 238.204 Radial† | 5178.0 | 5276.0 | 74474 | ug/L | 74474 | ppb | 08:27:10 |
| 1 | K 766.490 Radial† | 29183.8 | 27160.5 | 5204.6 | ug/L | 5204.6 | ppb | 08:27:10 |
| 1 | Mg 279.077 IEC† | 164.1 | 163.5 | 7849.3 | ug/L | 7849.3 | ppb | 08:27:30 |
| 1 | Na 589.592 Radial† | 725.7 | 1560.9 | 481.25 | ug/L | 481.25 | ppb | 08:27:10 |
| 1 | Sr 421.552† | 12706.2 | 12938.8 | 89.379 | ug/L | 89.379 | ppb | 08:27:10 |
| 1 | Sc 361.383 | 901638.2 | 901638.2 | 102.78 | % | | | 08:28:29 |
| 1 | Y 371.029 | 809101.9 | 809101.9 | 107.05 | % | | | 08:28:29 |
| 1 | Ag 328.068† | 3126.0 | 2801.0 | 13.914 | ug/L | 13.914 | ppb | 08:28:35 |
| 1 | As 188.979† | -31.0 | -11.9 | 28.580 | ug/L | 28.580 | ppb | 08:28:55 |
| 1 | B 249.677† | -480.8 | -69.5 | -13.916 | ug/L | -13.916 | ppb | 08:28:35 |
| 1 | Ba 233.527† | 100945.5 | 98214.4 | 773.18 | ug/L | 773.18 | ppb | 08:28:35 |
| 1 | Be 313.107† | 225164.6 | 222831.7 | 88.047 | ug/L | 88.047 | ppb | 08:28:29 |
| 1 | Cd 226.502† | 317.1 | 504.8 | 3.5025 | ug/L | 3.5025 | ppb | 08:28:55 |
| 1 | Co 228.616† | 2272.8 | 2277.8 | 42.912 | ug/L | 42.912 | ppb | 08:28:55 |
| 1 | Cr 267.716† | 22623.5 | 21933.4 | 242.73 | ug/L | 242.73 | ppb | 08:28:35 |
| 1 | Cu 324.752† | 5746208.5 | 5584670.0 | 16984 | ug/L | 16984 | ppb | 08:28:29 |
| 1 | Mn 257.610† | 1262887.6 | 1228243.0 | 1404.7 | ug/L | 1404.7 | ppb | 08:28:29 |
| 1 | Mo 202.031† | -81.6 | -89.5 | -0.5510 | ug/L | -0.5510 | ppb | 08:28:55 |
| 1 | Ni 231.604† | 6203.6 | 5973.2 | 151.89 | ug/L | 151.89 | ppb | 08:28:55 |
| 1 | P 214.914† | 7175.7 | 6771.0 | 650.44 | ug/L | 650.44 | ppb | 08:28:35 |
| 1 | Pb 220.353† | 23299.0 | 22726.4 | 2785.1 | ug/L | 2785.1 | ppb | 08:28:35 |
| 1 | S 181.975 Axial† | 236.4 | 189.2 | 265.45 | ug/L | 265.45 | ppb | 08:28:55 |
| 1 | Sb 206.836† | 164.3 | 123.1 | 36.390 | ug/L | 36.390 | ppb | 08:28:55 |
| 1 | Se 196.026† | -418.7 | -379.6 | -16.786 | ug/L | -16.786 | ppb | 08:28:55 |
| 1 | Si 251.611† | 946008.7 | 919842.3 | 29765 | ug/L | 29765 | ppb | 08:28:29 |
| 1 | Sn 189.927† | 454.6 | 431.8 | 76.805 | ug/L | 76.805 | ppb | 08:28:55 |
| 1 | Ti 334.940† | 1239616.2 | 1207434.3 | 1887.5 | ug/L | 1887.5 | ppb | 08:28:29 |
| 1 | Tl 190.801† | -167.8 | -130.7 | -19.727 | ug/L | -19.727 | ppb | 08:28:55 |
| 1 | U 409.014† | 1001046.1 | 976834.8 | 26965 | ug/L | 26965 | ppb | 08:28:29 |
| 1 | V 292.402† | 10945.3 | 12154.7 | 123.49 | ug/L | 123.49 | ppb | 08:28:35 |
| 1 | Zn 213.857† | 62898.3 | 60589.7 | 574.82 | ug/L | 574.82 | ppb | 08:28:35 |
| 1 | SiO2† | 948460.2 | 922231.3 | 64091 | ug/L | 64091 | ppb | 08:30:06 |
| 2 | Sc Radial | 3852.4 | 3852.4 | 98.3 | % | | | 08:27:55 |
| 2 | Y RADIAL | 4697.8 | 4697.8 | 106.5 | % | | | 08:27:35 |
| 2 | Al 396.153Radial† | 38770.8 | 39551.4 | 37095 | ug/L | 37095 | ppb | 08:27:35 |
| 2 | Ca 317.933Radial† | 9663.1 | 9809.9 | 20508 | ug/L | 20508 | ppb | 08:27:35 |
| 2 | Fe 238.204 Radial† | 5276.4 | 5356.0 | 75602 | ug/L | 75602 | ppb | 08:27:35 |
| 2 | K 766.490 Radial† | 29416.3 | 27283.6 | 5228.2 | ug/L | 5228.2 | ppb | 08:27:35 |
| 2 | Mg 279.077 IEC† | 163.1 | 161.8 | 7766.9 | ug/L | 7766.9 | ppb | 08:27:55 |
| 2 | Na 589.592 Radial† | 752.6 | 1585.4 | 488.81 | ug/L | 488.81 | ppb | 08:27:35 |
| 2 | Sr 421.552† | 12912.0 | 13098.8 | 90.485 | ug/L | 90.485 | ppb | 08:27:35 |
| 2 | Sc 361.383 | 900621.3 | 900621.3 | 102.67 | % | | | 08:29:02 |
| 2 | Y 371.029 | 808042.2 | 808042.2 | 106.91 | % | | | 08:29:02 |
| 2 | Ag 328.068† | 3231.1 | 2906.8 | 14.776 | ug/L | 14.776 | ppb | 08:29:07 |
| 2 | As 188.979† | -18.6 | 0.1 | 34.199 | ug/L | 34.199 | ppb | 08:29:27 |
| 2 | B 249.677† | -514.9 | -103.3 | -14.920 | ug/L | -14.920 | ppb | 08:29:07 |
| 2 | Ba 233.527† | 101730.7 | 99090.0 | 780.08 | ug/L | 780.08 | ppb | 08:29:07 |
| 2 | Be 313.107† | 224515.0 | 222446.3 | 87.897 | ug/L | 87.897 | ppb | 08:29:02 |
| 2 | Cd 226.502† | 293.3 | 482.0 | 3.1164 | ug/L | 3.1164 | ppb | 08:29:27 |
| 2 | Co 228.616† | 2279.4 | 2286.8 | 43.091 | ug/L | 43.091 | ppb | 08:29:27 |
| 2 | Cr 267.716† | 22782.3 | 22112.9 | 244.86 | ug/L | 244.86 | ppb | 08:29:07 |
| 2 | Cu 324.752† | 5740119.7 | 5585051.4 | 16985 | ug/L | 16985 | ppb | 08:29:02 |
| 2 | Mn 257.610† | 1260813.0 | 1227609.5 | 1404.1 | ug/L | 1404.1 | ppb | 08:29:02 |
| 2 | Mo 202.031† | -79.4 | -87.5 | -0.3104 | ug/L | -0.3104 | ppb | 08:29:27 |
| 2 | Ni 231.604† | 6212.7 | 5988.9 | 152.29 | ug/L | 152.29 | ppb | 08:29:27 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 7267.5 | 6868.2 | 707.96 ug/L | 707.96 ppb | 08:29:07 |
| 2 | Pb 220.353† | 23401.8 | 22852.1 | 2800.6 ug/L | 2800.6 ppb | 08:29:07 |
| 2 | S 181.975 Axial† | 245.4 | 198.2 | 278.31 ug/L | 278.31 ppb | 08:29:27 |
| 2 | Sb 206.836† | 159.9 | 119.1 | 34.949 ug/L | 34.949 ppb | 08:29:27 |
| 2 | Se 196.026† | -410.6 | -372.2 | -8.4096 ug/L | -8.4096 ppb | 08:29:27 |
| 2 | Si 251.611† | 945347.7 | 920237.6 | 29778 ug/L | 29778 ppb | 08:29:02 |
| 2 | Sn 189.927† | 453.4 | 431.2 | 76.667 ug/L | 76.667 ppb | 08:29:27 |
| 2 | Ti 334.940† | 1236753.7 | 1206007.8 | 1885.3 ug/L | 1885.3 ppb | 08:29:02 |
| 2 | Tl 190.801† | -161.1 | -124.4 | -17.730 ug/L | -17.730 ppb | 08:29:27 |
| 2 | U 409.014† | 998926.1 | 975869.4 | 26938 ug/L | 26938 ppb | 08:29:02 |
| 2 | V 292.402† | 11129.1 | 12345.7 | 124.61 ug/L | 124.61 ppb | 08:29:07 |
| 2 | Zn 213.857† | 63423.6 | 61170.3 | 580.49 ug/L | 580.49 ppb | 08:29:07 |
| 2 | SiO2† | 950588.2 | 925346.0 | 64308 ug/L | 64308 ppb | 08:30:12 |
| 3 | Sc Radial | 3829.1 | 3829.1 | 97.7 % | | 08:28:21 |
| 3 | Y RADIAL | 4632.8 | 4632.8 | 105.0 % | | 08:28:00 |
| 3 | Al 396.153Radial† | 38130.1 | 39136.1 | 36705 ug/L | 36705 ppb | 08:28:00 |
| 3 | Ca 317.933Radial† | 9568.1 | 9772.6 | 20430 ug/L | 20430 ppb | 08:28:00 |
| 3 | Fe 238.204 Radial† | 5172.1 | 5282.0 | 74558 ug/L | 74558 ppb | 08:28:00 |
| 3 | K 766.490 Radial† | 29034.6 | 27075.4 | 5188.2 ug/L | 5188.2 ppb | 08:28:00 |
| 3 | Mg 279.077 IEC† | 166.4 | 166.2 | 7979.4 ug/L | 7979.4 ppb | 08:28:21 |
| 3 | Na 589.592 Radial† | 682.2 | 1517.9 | 468.02 ug/L | 468.02 ppb | 08:28:00 |
| 3 | Sr 421.552† | 12758.4 | 13021.6 | 89.951 ug/L | 89.951 ppb | 08:28:00 |
| 3 | Sc 361.383 | 908181.1 | 908181.1 | 103.53 % | | 08:29:35 |
| 3 | Y 371.029 | 812948.7 | 812948.7 | 107.56 % | | 08:29:35 |
| 3 | Ag 328.068† | 3277.9 | 2925.8 | 14.628 ug/L | 14.628 ppb | 08:29:40 |
| 3 | As 188.979† | -15.6 | 3.2 | 35.239 ug/L | 35.239 ppb | 08:30:00 |
| 3 | B 249.677† | -547.4 | -130.5 | -15.407 ug/L | -15.407 ppb | 08:29:40 |
| 3 | Ba 233.527† | 102698.4 | 99199.9 | 780.92 ug/L | 780.92 ppb | 08:29:40 |
| 3 | Be 313.107† | 224897.5 | 220995.4 | 87.331 ug/L | 87.331 ppb | 08:29:35 |
| 3 | Cd 226.502† | 321.9 | 507.2 | 3.4960 ug/L | 3.4960 ppb | 08:30:00 |
| 3 | Co 228.616† | 2251.2 | 2241.0 | 42.169 ug/L | 42.169 ppb | 08:30:00 |
| 3 | Cr 267.716† | 23003.1 | 22141.4 | 245.13 ug/L | 245.13 ppb | 08:29:40 |
| 3 | Cu 324.752† | 5764374.4 | 5561939.0 | 16915 ug/L | 16915 ppb | 08:29:35 |
| 3 | Mn 257.610† | 1265417.0 | 1221834.0 | 1397.4 ug/L | 1397.4 ppb | 08:29:35 |
| 3 | Mo 202.031† | -70.0 | -77.8 | 0.3203 ug/L | 0.3203 ppb | 08:30:00 |
| 3 | Ni 231.604† | 6194.8 | 5921.2 | 150.57 ug/L | 150.57 ppb | 08:30:00 |
| 3 | P 214.914† | 7346.1 | 6885.3 | 732.95 ug/L | 732.95 ppb | 08:29:40 |
| 3 | Pb 220.353† | 23694.1 | 22944.7 | 2812.0 ug/L | 2812.0 ppb | 08:29:40 |
| 3 | S 181.975 Axial† | 245.1 | 196.0 | 275.13 ug/L | 275.13 ppb | 08:30:00 |
| 3 | Sb 206.836† | 162.4 | 120.2 | 35.404 ug/L | 35.404 ppb | 08:30:00 |
| 3 | Se 196.026† | -429.0 | -386.6 | -21.109 ug/L | -21.109 ppb | 08:30:00 |
| 3 | Si 251.611† | 949245.4 | 916337.7 | 29652 ug/L | 29652 ppb | 08:29:35 |
| 3 | Sn 189.927† | 458.1 | 432.0 | 76.856 ug/L | 76.856 ppb | 08:30:00 |
| 3 | Ti 334.940† | 1241022.2 | 1200103.4 | 1876.0 ug/L | 1876.0 ppb | 08:29:35 |
| 3 | Tl 190.801† | -159.6 | -121.6 | -16.963 ug/L | -16.963 ppb | 08:30:00 |
| 3 | U 409.014† | 1003514.3 | 972202.0 | 26837 ug/L | 26837 ppb | 08:29:35 |
| 3 | V 292.402† | 11267.3 | 12389.0 | 124.89 ug/L | 124.89 ppb | 08:29:40 |
| 3 | Zn 213.857† | 63967.2 | 61181.3 | 580.86 ug/L | 580.86 ppb | 08:29:40 |
| 3 | SiO2† | 948470.8 | 915593.4 | 63630 ug/L | 63630 ppb | 08:30:18 |

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**Mean Data: 245969004|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 903480.2 | 102.99 | % | 0.468 | | | | 0.45% |
| Sc Radial | 3839.8 | 98.0 | % | 0.30 | | | | 0.31% |
| Y 371.029 | 810030.9 | 107.17 | % | 0.342 | | | | 0.32% |
| Y RADIAL | 4646.0 | 105.3 | % | 1.06 | | | | 1.00% |
| Ag 328.068† | 2877.9 | 14.439 | ug/L | 0.4605 | 14.439 | ppb | 0.4605 | 3.19% |
| Al 396.153Radial† | 39215.4 | 36779 | ug/L | 285.3 | 36779 | ppb | 285.3 | 0.78% |
| As 188.979† | -2.9 | 32.672 | ug/L | 3.5820 | 32.672 | ppb | 3.5820 | 10.96% |
| B 249.677† | -101.1 | -14.747 | ug/L | 0.7602 | -14.747 | ppb | 0.7602 | 5.16% |
| Ba 233.527† | 98834.8 | 778.06 | ug/L | 4.249 | 778.06 | ppb | 4.249 | 0.55% |
| Be 313.107† | 222091.1 | 87.758 | ug/L | 0.3778 | 87.758 | ppb | 0.3778 | 0.43% |
| Ca 317.933Radial† | 9761.2 | 20406 | ug/L | 115.9 | 20406 | ppb | 115.9 | 0.57% |
| Cd 226.502† | 498.0 | 3.3716 | ug/L | 0.22107 | 3.3716 | ppb | 0.22107 | 6.56% |
| Co 228.616† | 2268.5 | 42.724 | ug/L | 0.4890 | 42.724 | ppb | 0.4890 | 1.14% |
| Cr 267.716† | 22062.6 | 244.24 | ug/L | 1.315 | 244.24 | ppb | 1.315 | 0.54% |
| Cu 324.752† | 5577220.1 | 16961 | ug/L | 40.3 | 16961 | ppb | 40.3 | 0.24% |
| Fe 238.204 Radial† | 5304.7 | 74878 | ug/L | 628.8 | 74878 | ppb | 628.8 | 0.84% |
| K 766.490 Radial† | 27173.2 | 5207.0 | ug/L | 20.07 | 5207.0 | ppb | 20.07 | 0.39% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 163.8 | 7865.2 | ug/L | 107.14 | 7865.2 | ppb | 107.14 | 1.36% |
| Mn 257.610† | 1225895.5 | 1402.1 | ug/L | 4.05 | 1402.1 | ppb | 4.05 | 0.29% |
| Mo 202.031† | -84.9 | -0.1804 | ug/L | 0.44997 | -0.1804 | ppb | 0.44997 | 249.47% |
| Na 589.592 Radial† | 1554.7 | 479.36 | ug/L | 10.524 | 479.36 | ppb | 10.524 | 2.20% |
| Ni 231.604† | 5961.1 | 151.58 | ug/L | 0.901 | 151.58 | ppb | 0.901 | 0.59% |
| P 214.914† | 6841.5 | 697.12 | ug/L | 42.311 | 697.12 | ppb | 42.311 | 6.07% |
| Pb 220.353† | 22841.1 | 2799.2 | ug/L | 13.51 | 2799.2 | ppb | 13.51 | 0.48% |
| S 181.975 Axial† | 194.5 | 272.96 | ug/L | 6.696 | 272.96 | ppb | 6.696 | 2.45% |
| Sb 206.836† | 120.8 | 35.581 | ug/L | 0.7370 | 35.581 | ppb | 0.7370 | 2.07% |
| Se 196.026† | -379.5 | -15.435 | ug/L | 6.4569 | -15.435 | ppb | 6.4569 | 41.83% |
| Si 251.611† | 918805.9 | 29731 | ug/L | 69.5 | 29731 | ppb | 69.5 | 0.23% |
| Sn 189.927† | 431.6 | 76.776 | ug/L | 0.0979 | 76.776 | ppb | 0.0979 | 0.13% |
| Sr 421.552† | 13019.7 | 89.938 | ug/L | 0.5530 | 89.938 | ppb | 0.5530 | 0.61% |
| Ti 334.940† | 1204515.2 | 1883.0 | ug/L | 6.08 | 1883.0 | ppb | 6.08 | 0.32% |
| Tl 190.801† | -125.6 | -18.140 | ug/L | 1.4266 | -18.140 | ppb | 1.4266 | 7.86% |
| U 409.014† | 974968.7 | 26914 | ug/L | 67.5 | 26914 | ppb | 67.5 | 0.25% |
| V 292.402† | 12296.5 | 124.33 | ug/L | 0.742 | 124.33 | ppb | 0.742 | 0.60% |
| Zn 213.857† | 60980.4 | 578.73 | ug/L | 3.387 | 578.73 | ppb | 3.387 | 0.59% |
| SiO2† | 921056.9 | 64009 | ug/L | 346.2 | 64009 | ppb | 346.2 | 0.54% |

Sequence No.: 124
Sample ID: 245969005|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 137
Date Collected: 2/25/2010 08:32:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969005|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3861.9 | 3861.9 | 98.5 | % | | | 08:34:45 |
| 1 | Y RADIAL | 5239.6 | 5239.6 | 118.8 | % | | | 08:34:25 |
| 1 | Al 396.153Radial† | 28828.6 | 29366.0 | 27542 | ug/L | 27542 | ppb | 08:34:25 |
| 1 | Ca 317.933Radial† | 2731.6 | 2752.2 | 5753.5 | ug/L | 5753.5 | ppb | 08:34:45 |
| 1 | Fe 238.204 Radial† | 6869.9 | 6959.9 | 98243 | ug/L | 98243 | ppb | 08:34:25 |
| 1 | K 766.490 Radial† | 33964.0 | 31824.9 | 6103.5 | ug/L | 6103.5 | ppb | 08:34:25 |
| 1 | Mg 279.077 IEC† | 94.2 | 91.5 | 4333.3 | ug/L | 4333.3 | ppb | 08:34:45 |
| 1 | Na 589.592 Radial† | 7059.4 | 7983.2 | 2461.4 | ug/L | 2461.4 | ppb | 08:34:25 |
| 1 | Sr 421.552† | 9035.6 | 9133.0 | 63.154 | ug/L | 63.154 | ppb | 08:34:25 |
| 1 | Sc 361.383 | 891450.4 | 891450.4 | 101.62 | % | | | 08:35:43 |
| 1 | Y 371.029 | 884218.0 | 884218.0 | 116.98 | % | | | 08:35:43 |
| 1 | Ag 328.068† | -6535.3 | -6671.5 | -0.2488 | ug/L | -0.2488 | ppb | 08:35:48 |
| 1 | As 188.979† | -53.1 | -34.0 | 29.616 | ug/L | 29.616 | ppb | 08:36:08 |
| 1 | B 249.677† | 654.2 | 1042.0 | 8.9965 | ug/L | 8.9965 | ppb | 08:35:48 |
| 1 | Ba 233.527† | 42382.6 | 41707.9 | 330.49 | ug/L | 330.49 | ppb | 08:35:48 |
| 1 | Be 313.107† | -9110.6 | -5203.1 | 3.7530 | ug/L | 3.7530 | ppb | 08:35:48 |
| 1 | Cd 226.502† | 789.1 | 972.8 | 1.1098 | ug/L | 1.1098 | ppb | 08:36:08 |
| 1 | Co 228.616† | 5263.9 | 5246.5 | 103.35 | ug/L | 103.35 | ppb | 08:36:08 |
| 1 | Cr 267.716† | 5841.7 | 5670.9 | 73.215 | ug/L | 73.215 | ppb | 08:36:08 |
| 1 | Cu 324.752† | 76139.3 | 68934.1 | 215.08 | ug/L | 215.08 | ppb | 08:35:48 |
| 1 | Mn 257.610† | 2004195.0 | 1971768.0 | 2253.3 | ug/L | 2253.3 | ppb | 08:35:43 |
| 1 | Mo 202.031† | 21.5 | 11.0 | 8.5018 | ug/L | 8.5018 | ppb | 08:36:08 |
| 1 | Ni 231.604† | 2068.6 | 1973.2 | 50.117 | ug/L | 50.117 | ppb | 08:36:08 |
| 1 | P 214.914† | 1021.6 | 794.8 | 364.63 | ug/L | 364.63 | ppb | 08:36:08 |
| 1 | Pb 220.353† | 1431.5 | 1466.7 | 175.47 | ug/L | 175.47 | ppb | 08:36:08 |
| 1 | S 181.975 Axial† | 140.2 | 97.2 | 134.67 | ug/L | 134.67 | ppb | 08:36:08 |
| 1 | Sb 206.836† | 63.9 | 26.2 | -0.5393 | ug/L | -0.5393 | ppb | 08:36:08 |
| 1 | Se 196.026† | -481.1 | -445.7 | 14.186 | ug/L | 14.186 | ppb | 08:36:08 |
| 1 | Si 251.611† | 868882.0 | 854464.4 | 27649 | ug/L | 27649 | ppb | 08:35:43 |
| 1 | Sn 189.927† | 53.9 | 42.6 | 3.0256 | ug/L | 3.0256 | ppb | 08:36:08 |
| 1 | Ti 334.940† | 1624634.5 | 1600094.5 | 2514.9 | ug/L | 2514.9 | ppb | 08:35:43 |
| 1 | Tl 190.801† | -146.9 | -112.0 | -4.8755 | ug/L | -4.8755 | ppb | 08:36:08 |
| 1 | U 409.014† | -10325.8 | -7274.5 | -212.22 | ug/L | -212.22 | ppb | 08:35:43 |
| 1 | V 292.402† | 12091.5 | 13404.3 | 76.185 | ug/L | 76.185 | ppb | 08:35:48 |
| 1 | Zn 213.857† | 34609.9 | 33451.8 | 321.44 | ug/L | 321.44 | ppb | 08:35:48 |
| 1 | SiO2† | 857643.4 | 843409.0 | 58613 | ug/L | 58613 | ppb | 08:37:16 |
| 2 | Sc Radial | 3821.4 | 3821.4 | 97.5 | % | | | 08:35:10 |
| 2 | Y RADIAL | 5146.5 | 5146.5 | 116.7 | % | | | 08:34:50 |
| 2 | Al 396.153Radial† | 28297.1 | 29131.0 | 27321 | ug/L | 27321 | ppb | 08:34:50 |
| 2 | Ca 317.933Radial† | 2721.0 | 2770.7 | 5792.2 | ug/L | 5792.2 | ppb | 08:35:10 |
| 2 | Fe 238.204 Radial† | 6739.5 | 6900.0 | 97399 | ug/L | 97399 | ppb | 08:34:50 |
| 2 | K 766.490 Radial† | 33377.9 | 31589.3 | 6058.3 | ug/L | 6058.3 | ppb | 08:34:50 |
| 2 | Mg 279.077 IEC† | 94.5 | 92.9 | 4400.4 | ug/L | 4400.4 | ppb | 08:35:10 |
| 2 | Na 589.592 Radial† | 6835.7 | 7829.7 | 2414.1 | ug/L | 2414.1 | ppb | 08:34:50 |
| 2 | Sr 421.552† | 8873.4 | 9064.0 | 62.675 | ug/L | 62.675 | ppb | 08:34:50 |
| 2 | Sc 361.383 | 907348.7 | 907348.7 | 103.43 | % | | | 08:36:14 |
| 2 | Y 371.029 | 895881.2 | 895881.2 | 118.53 | % | | | 08:36:14 |
| 2 | Ag 328.068† | -6431.1 | -6458.0 | 0.4691 | ug/L | 0.4691 | ppb | 08:36:19 |
| 2 | As 188.979† | -47.7 | -27.8 | 31.954 | ug/L | 31.954 | ppb | 08:36:39 |
| 2 | B 249.677† | 527.3 | 908.0 | 5.8925 | ug/L | 5.8925 | ppb | 08:36:19 |
| 2 | Ba 233.527† | 42154.0 | 40756.2 | 322.99 | ug/L | 322.99 | ppb | 08:36:19 |
| 2 | Be 313.107† | -8888.9 | -4831.7 | 3.8366 | ug/L | 3.8366 | ppb | 08:36:19 |
| 2 | Cd 226.502† | 799.5 | 969.2 | 1.1555 | ug/L | 1.1555 | ppb | 08:36:39 |
| 2 | Co 228.616† | 5228.2 | 5121.2 | 100.79 | ug/L | 100.79 | ppb | 08:36:39 |
| 2 | Cr 267.716† | 5815.1 | 5544.4 | 71.710 | ug/L | 71.710 | ppb | 08:36:39 |
| 2 | Cu 324.752† | 75350.3 | 66858.4 | 208.72 | ug/L | 208.72 | ppb | 08:36:19 |
| 2 | Mn 257.610† | 2024207.5 | 1956559.5 | 2235.9 | ug/L | 2235.9 | ppb | 08:36:14 |
| 2 | Mo 202.031† | 34.7 | 23.4 | 9.3491 | ug/L | 9.3491 | ppb | 08:36:39 |
| 2 | Ni 231.604† | 2066.4 | 1935.4 | 49.158 | ug/L | 49.158 | ppb | 08:36:39 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1036.2 | 791.3 | 364.42 ug/L | 364.42 ppb | 08:36:39 |
| 2 | Pb 220.353† | 1421.6 | 1432.5 | 171.31 ug/L | 171.31 ppb | 08:36:39 |
| 2 | S 181.975 Axial† | 140.8 | 95.3 | 132.04 ug/L | 132.04 ppb | 08:36:39 |
| 2 | Sb 206.836† | 61.9 | 23.2 | -1.4798 ug/L | -1.4798 ppb | 08:36:39 |
| 2 | Se 196.026† | -489.1 | -445.1 | 11.941 ug/L | 11.941 ppb | 08:36:39 |
| 2 | Si 251.611† | 878627.9 | 848905.4 | 27469 ug/L | 27469 ppb | 08:36:14 |
| 2 | Sn 189.927† | 61.6 | 49.0 | 4.2335 ug/L | 4.2335 ppb | 08:36:39 |
| 2 | Ti 334.940† | 1637373.3 | 1584398.2 | 2490.2 ug/L | 2490.2 ppb | 08:36:14 |
| 2 | Tl 190.801† | -154.3 | -116.6 | -6.6192 ug/L | -6.6192 ppb | 08:36:39 |
| 2 | U 409.014† | -10472.7 | -7238.5 | -211.13 ug/L | -211.13 ppb | 08:36:14 |
| 2 | V 292.402† | 11938.8 | 13048.2 | 73.867 ug/L | 73.867 ppb | 08:36:19 |
| 2 | Zn 213.857† | 34315.5 | 32570.5 | 312.70 ug/L | 312.70 ppb | 08:36:19 |
| 2 | SiO2† | 869314.0 | 839904.6 | 58370 ug/L | 58370 ppb | 08:37:22 |
| 3 | Sc Radial | 3640.6 | 3640.6 | 92.9 % | | 08:35:35 |
| 3 | Y RADIAL | 5615.4 | 5615.4 | 127.3 % | | 08:35:15 |
| 3 | Al 396.153Radial† | 27202.5 | 29393.8 | 27568 ug/L | 27568 ppb | 08:35:15 |
| 3 | Ca 317.933Radial† | 2759.8 | 2951.0 | 6169.1 ug/L | 6169.1 ppb | 08:35:35 |
| 3 | Fe 238.204 Radial† | 6462.8 | 6945.4 | 98039 ug/L | 98039 ppb | 08:35:15 |
| 3 | K 766.490 Radial† | 32206.9 | 32028.6 | 6142.4 ug/L | 6142.4 ppb | 08:35:15 |
| 3 | Mg 279.077 IEC† | 96.7 | 100.1 | 4749.4 ug/L | 4749.4 ppb | 08:35:35 |
| 3 | Na 589.592 Radial† | 6527.1 | 7845.7 | 2419.0 ug/L | 2419.0 ppb | 08:35:15 |
| 3 | Sr 421.552† | 8508.2 | 9122.7 | 63.079 ug/L | 63.079 ppb | 08:35:15 |
| 3 | Sc 361.383 | 937527.2 | 937527.2 | 106.87 % | | 08:36:45 |
| 3 | Y 371.029 | 921354.3 | 921354.3 | 121.90 % | | 08:36:45 |
| 3 | Ag 328.068† | -6577.8 | -6395.2 | 0.9350 ug/L | 0.9350 ppb | 08:36:50 |
| 3 | As 188.979† | -51.0 | -29.5 | 30.709 ug/L | 30.709 ppb | 08:37:10 |
| 3 | B 249.677† | 524.7 | 889.2 | 5.3402 ug/L | 5.3402 ppb | 08:36:50 |
| 3 | Ba 233.527† | 42432.9 | 39705.3 | 314.76 ug/L | 314.76 ppb | 08:36:50 |
| 3 | Be 313.107† | -9068.9 | -4723.4 | 3.7036 ug/L | 3.7036 ppb | 08:36:50 |
| 3 | Cd 226.502† | 797.0 | 942.0 | 0.7769 ug/L | 0.7769 ppb | 08:37:10 |
| 3 | Co 228.616† | 5237.6 | 4967.3 | 97.712 ug/L | 97.712 ppb | 08:37:10 |
| 3 | Cr 267.716† | 5825.4 | 5373.1 | 69.841 ug/L | 69.841 ppb | 08:37:10 |
| 3 | Cu 324.752† | 76410.6 | 65505.5 | 204.63 ug/L | 204.63 ppb | 08:36:50 |
| 3 | Mn 257.610† | 2024080.2 | 1893444.9 | 2164.1 ug/L | 2164.1 ppb | 08:36:45 |
| 3 | Mo 202.031† | 25.5 | 13.7 | 8.6900 ug/L | 8.6900 ppb | 08:37:10 |
| 3 | Ni 231.604† | 2097.0 | 1899.7 | 48.252 ug/L | 48.252 ppb | 08:37:10 |
| 3 | P 214.914† | 1021.8 | 745.6 | 337.22 ug/L | 337.22 ppb | 08:37:10 |
| 3 | Pb 220.353† | 1430.5 | 1396.6 | 166.88 ug/L | 166.88 ppb | 08:37:10 |
| 3 | S 181.975 Axial† | 135.9 | 86.3 | 119.05 ug/L | 119.05 ppb | 08:37:10 |
| 3 | Sb 206.836† | 34.1 | -4.8 | -11.066 ug/L | -11.066 ppb | 08:37:10 |
| 3 | Se 196.026† | -509.3 | -448.8 | 11.469 ug/L | 11.469 ppb | 08:37:10 |
| 3 | Si 251.611† | 880122.1 | 822959.7 | 26630 ug/L | 26630 ppb | 08:36:45 |
| 3 | Sn 189.927† | 49.6 | 36.0 | 1.9196 ug/L | 1.9196 ppb | 08:37:10 |
| 3 | Ti 334.940† | 1639797.8 | 1535710.1 | 2413.7 ug/L | 2413.7 ppb | 08:36:45 |
| 3 | Tl 190.801† | -151.7 | -109.4 | -5.2794 ug/L | -5.2794 ppb | 08:37:10 |
| 3 | U 409.014† | -10264.2 | -6717.4 | -196.81 ug/L | -196.81 ppb | 08:36:45 |
| 3 | V 292.402† | 12136.9 | 12862.0 | 72.582 ug/L | 72.582 ppb | 08:36:50 |
| 3 | Zn 213.857† | 34590.5 | 31759.8 | 304.46 ug/L | 304.46 ppb | 08:36:50 |
| 3 | SiO2† | 865470.9 | 809254.7 | 56240 ug/L | 56240 ppb | 08:37:28 |

**Mean Data: 245969005|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 912108.8 | 103.98 | % | 2.668 | | | | 2.57% |
| Sc Radial | 3774.6 | 96.3 | % | 3.01 | | | | 3.12% |
| Y 371.029 | 900484.5 | 119.14 | % | 2.513 | | | | 2.11% |
| Y RADIAL | 5333.8 | 120.9 | % | 5.63 | | | | 4.65% |
| Ag 328.068† | -6508.2 | 0.3851 | ug/L | 0.59633 | 0.3851 | ppb | 0.59633 | 154.85% |
| Al 396.153Radial† | 29296.9 | 27477 | ug/L | 135.4 | 27477 | ppb | 135.4 | 0.49% |
| As 188.979† | -30.4 | 30.760 | ug/L | 1.1698 | 30.760 | ppb | 1.1698 | 3.80% |
| B 249.677† | 946.4 | 6.7431 | ug/L | 1.97101 | 6.7431 | ppb | 1.97101 | 29.23% |
| Ba 233.527† | 40723.2 | 322.75 | ug/L | 7.868 | 322.75 | ppb | 7.868 | 2.44% |
| Be 313.107† | -4919.4 | 3.7644 | ug/L | 0.06723 | 3.7644 | ppb | 0.06723 | 1.79% |
| Ca 317.933Radial† | 2824.6 | 5904.9 | ug/L | 229.62 | 5904.9 | ppb | 229.62 | 3.89% |
| Cd 226.502† | 961.3 | 1.0141 | ug/L | 0.20665 | 1.0141 | ppb | 0.20665 | 20.38% |
| Co 228.616† | 5111.7 | 100.62 | ug/L | 2.823 | 100.62 | ppb | 2.823 | 2.81% |
| Cr 267.716† | 5529.4 | 71.589 | ug/L | 1.6904 | 71.589 | ppb | 1.6904 | 2.36% |
| Cu 324.752† | 67099.4 | 209.48 | ug/L | 5.267 | 209.48 | ppb | 5.267 | 2.51% |
| Fe 238.204 Radial† | 6935.1 | 97894 | ug/L | 440.8 | 97894 | ppb | 440.8 | 0.45% |
| K 766.490 Radial† | 31814.3 | 6101.4 | ug/L | 42.13 | 6101.4 | ppb | 42.13 | 0.69% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 94.8 | 4494.4 | ug/L | 223.42 | 4494.4 | ppb | 223.42 | 4.97% |
| Mn 257.610† | 1940590.8 | 2217.8 | ug/L | 47.27 | 2217.8 | ppb | 47.27 | 2.13% |
| Mo 202.031† | 16.0 | 8.8469 | ug/L | 0.44492 | 8.8469 | ppb | 0.44492 | 5.03% |
| Na 589.592 Radial† | 7886.2 | 2431.5 | ug/L | 26.02 | 2431.5 | ppb | 26.02 | 1.07% |
| Ni 231.604† | 1936.1 | 49.176 | ug/L | 0.9328 | 49.176 | ppb | 0.9328 | 1.90% |
| P 214.914† | 777.2 | 355.42 | ug/L | 15.764 | 355.42 | ppb | 15.764 | 4.44% |
| Pb 220.353† | 1431.9 | 171.22 | ug/L | 4.295 | 171.22 | ppb | 4.295 | 2.51% |
| S 181.975 Axial† | 92.9 | 128.59 | ug/L | 8.366 | 128.59 | ppb | 8.366 | 6.51% |
| Sb 206.836† | 14.9 | -4.3616 | ug/L | 5.82496 | -4.3616 | ppb | 5.82496 | 133.55% |
| Se 196.026† | -446.5 | 12.532 | ug/L | 1.4518 | 12.532 | ppb | 1.4518 | 11.58% |
| Si 251.611† | 842109.9 | 27250 | ug/L | 544.1 | 27250 | ppb | 544.1 | 2.00% |
| Sn 189.927† | 42.5 | 3.0596 | ug/L | 1.15728 | 3.0596 | ppb | 1.15728 | 37.83% |
| Sr 421.552† | 9106.6 | 62.969 | ug/L | 0.2573 | 62.969 | ppb | 0.2573 | 0.41% |
| Ti 334.940† | 1573401.0 | 2472.9 | ug/L | 52.75 | 2472.9 | ppb | 52.75 | 2.13% |
| Tl 190.801† | -112.7 | -5.5914 | ug/L | 0.91277 | -5.5914 | ppb | 0.91277 | 16.32% |
| U 409.014† | -7076.8 | -206.72 | ug/L | 8.600 | -206.72 | ppb | 8.600 | 4.16% |
| V 292.402† | 13104.9 | 74.211 | ug/L | 1.8259 | 74.211 | ppb | 1.8259 | 2.46% |
| Zn 213.857† | 32594.0 | 312.87 | ug/L | 8.489 | 312.87 | ppb | 8.489 | 2.71% |
| SiO2† | 830856.1 | 57741 | ug/L | 1305.8 | 57741 | ppb | 1305.8 | 2.26% |

Sequence No.: 125
Sample ID: 245969006|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 138
Date Collected: 2/25/2010 08:39:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969006|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3885.7 | 3885.7 | 99.2 | % | | | 08:41:55 |
| 1 | Y RADIAL | 5160.1 | 5160.1 | 117.0 | % | | | 08:41:35 |
| 1 | Al 396.153Radial† | 27594.6 | 27941.9 | 26206 | ug/L | 26206 | ppb | 08:41:35 |
| 1 | Ca 317.933Radial† | 3972.0 | 3986.2 | 8333.1 | ug/L | 8333.1 | ppb | 08:41:35 |
| 1 | Fe 238.204 Radial† | 4335.6 | 4361.2 | 61561 | ug/L | 61561 | ppb | 08:41:35 |
| 1 | K 766.490 Radial† | 23841.0 | 21404.3 | 4103.3 | ug/L | 4103.3 | ppb | 08:41:35 |
| 1 | Mg 279.077 IEC† | 101.1 | 97.9 | 4683.3 | ug/L | 4683.3 | ppb | 08:41:55 |
| 1 | Na 589.592 Radial† | 4123.0 | 4977.9 | 1534.8 | ug/L | 1534.8 | ppb | 08:41:35 |
| 1 | Sr 421.552† | 9692.3 | 9739.1 | 67.328 | ug/L | 67.328 | ppb | 08:41:35 |
| 1 | Sc 361.383 | 898399.5 | 898399.5 | 102.41 | % | | | 08:42:52 |
| 1 | Y 371.029 | 885368.9 | 885368.9 | 117.14 | % | | | 08:42:52 |
| 1 | Ag 328.068† | -3508.0 | -3665.7 | 1.9431 | ug/L | 1.9431 | ppb | 08:42:57 |
| 1 | As 188.979† | -15.3 | 3.3 | 26.780 | ug/L | 26.780 | ppb | 08:43:17 |
| 1 | B 249.677† | 200.4 | 593.9 | 4.3014 | ug/L | 4.3014 | ppb | 08:42:57 |
| 1 | Ba 233.527† | 46654.8 | 45556.9 | 359.49 | ug/L | 359.49 | ppb | 08:42:57 |
| 1 | Be 313.107† | 21799.8 | 25048.3 | 12.269 | ug/L | 12.269 | ppb | 08:42:57 |
| 1 | Cd 226.502† | 385.2 | 572.4 | 0.3918 | ug/L | 0.3918 | ppb | 08:43:17 |
| 1 | Co 228.616† | 1654.2 | 1681.8 | 31.759 | ug/L | 31.759 | ppb | 08:43:17 |
| 1 | Cr 267.716† | 28037.7 | 27299.4 | 312.34 | ug/L | 312.34 | ppb | 08:42:57 |
| 1 | Cu 324.752† | 365919.2 | 351306.6 | 1072.3 | ug/L | 1072.3 | ppb | 08:42:57 |
| 1 | Mn 257.610† | 1827124.5 | 1783614.5 | 2035.5 | ug/L | 2035.5 | ppb | 08:42:52 |
| 1 | Mo 202.031† | 110.9 | 98.1 | 12.082 | ug/L | 12.082 | ppb | 08:43:17 |
| 1 | Ni 231.604† | 6425.0 | 6211.2 | 157.95 | ug/L | 157.95 | ppb | 08:43:17 |
| 1 | P 214.914† | 1450.6 | 1206.0 | 470.64 | ug/L | 470.64 | ppb | 08:43:17 |
| 1 | Pb 220.353† | 1910.9 | 1924.0 | 234.95 | ug/L | 234.95 | ppb | 08:43:17 |
| 1 | S 181.975 Axial† | 80.9 | 38.2 | 50.001 | ug/L | 50.001 | ppb | 08:43:17 |
| 1 | Sb 206.836† | 92.3 | 53.4 | 13.615 | ug/L | 13.615 | ppb | 08:43:17 |
| 1 | Se 196.026† | -325.1 | -289.7 | 2.0163 | ug/L | 2.0163 | ppb | 08:43:17 |
| 1 | Si 251.611† | 901240.2 | 879446.7 | 28458 | ug/L | 28458 | ppb | 08:42:52 |
| 1 | Sn 189.927† | 39.3 | 27.9 | 2.9578 | ug/L | 2.9578 | ppb | 08:43:17 |
| 1 | Ti 334.940† | 818420.6 | 800510.8 | 1258.5 | ug/L | 1258.5 | ppb | 08:42:52 |
| 1 | Tl 190.801† | -103.0 | -68.0 | -1.8501 | ug/L | -1.8501 | ppb | 08:43:17 |
| 1 | U 409.014† | 1204.6 | 4062.9 | 104.49 | ug/L | 104.49 | ppb | 08:42:52 |
| 1 | V 292.402† | 6068.8 | 7431.5 | 41.816 | ug/L | 41.816 | ppb | 08:42:57 |
| 1 | Zn 213.857† | 27863.2 | 26600.6 | 256.11 | ug/L | 256.11 | ppb | 08:42:57 |
| 1 | SiO2† | 902304.7 | 880489.9 | 61190 | ug/L | 61190 | ppb | 08:44:26 |
| 2 | Sc Radial | 3889.5 | 3889.5 | 99.3 | % | | | 08:42:20 |
| 2 | Y RADIAL | 5289.6 | 5289.6 | 119.9 | % | | | 08:42:00 |
| 2 | Al 396.153Radial† | 28355.7 | 28681.5 | 26899 | ug/L | 26899 | ppb | 08:42:00 |
| 2 | Ca 317.933Radial† | 4055.5 | 4066.4 | 8500.8 | ug/L | 8500.8 | ppb | 08:42:00 |
| 2 | Fe 238.204 Radial† | 4431.2 | 4453.2 | 62859 | ug/L | 62859 | ppb | 08:42:00 |
| 2 | K 766.490 Radial† | 24572.5 | 22117.8 | 4240.2 | ug/L | 4240.2 | ppb | 08:42:00 |
| 2 | Mg 279.077 IEC† | 102.0 | 98.6 | 4717.4 | ug/L | 4717.4 | ppb | 08:42:20 |
| 2 | Na 589.592 Radial† | 4141.6 | 4992.5 | 1539.3 | ug/L | 1539.3 | ppb | 08:42:00 |
| 2 | Sr 421.552† | 9923.1 | 9962.1 | 68.870 | ug/L | 68.870 | ppb | 08:42:00 |
| 2 | Sc 361.383 | 908423.7 | 908423.7 | 103.56 | % | | | 08:43:23 |
| 2 | Y 371.029 | 894433.6 | 894433.6 | 118.34 | % | | | 08:43:23 |
| 2 | Ag 328.068† | -3527.8 | -3647.1 | 2.4268 | ug/L | 2.4268 | ppb | 08:43:29 |
| 2 | As 188.979† | -17.6 | 1.3 | 26.164 | ug/L | 26.164 | ppb | 08:43:49 |
| 2 | B 249.677† | 173.4 | 565.7 | 3.4072 | ug/L | 3.4072 | ppb | 08:43:29 |
| 2 | Ba 233.527† | 47027.9 | 45414.6 | 358.41 | ug/L | 358.41 | ppb | 08:43:29 |
| 2 | Be 313.107† | 22123.4 | 25125.9 | 12.295 | ug/L | 12.295 | ppb | 08:43:29 |
| 2 | Cd 226.502† | 387.3 | 570.3 | 0.2310 | ug/L | 0.2310 | ppb | 08:43:49 |
| 2 | Co 228.616† | 1653.4 | 1663.1 | 31.356 | ug/L | 31.356 | ppb | 08:43:49 |
| 2 | Cr 267.716† | 28311.1 | 27261.3 | 312.04 | ug/L | 312.04 | ppb | 08:43:29 |
| 2 | Cu 324.752† | 369361.7 | 350688.2 | 1070.4 | ug/L | 1070.4 | ppb | 08:43:29 |
| 2 | Mn 257.610† | 1842272.4 | 1778555.7 | 2029.9 | ug/L | 2029.9 | ppb | 08:43:23 |
| 2 | Mo 202.031† | 135.3 | 120.5 | 13.829 | ug/L | 13.829 | ppb | 08:43:49 |
| 2 | Ni 231.604† | 6373.0 | 6091.8 | 154.91 | ug/L | 154.91 | ppb | 08:43:49 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1437.4 | 1177.6 | 453.02 ug/L | 453.02 ppb | 08:43:49 |
| 2 | Pb 220.353† | 1898.4 | 1891.4 | 230.95 ug/L | 230.95 ppb | 08:43:49 |
| 2 | S 181.975 Axial† | 85.9 | 42.1 | 55.574 ug/L | 55.574 ppb | 08:43:49 |
| 2 | Sb 206.836† | 88.4 | 48.7 | 11.932 ug/L | 11.932 ppb | 08:43:49 |
| 2 | Se 196.026† | -332.6 | -293.4 | 3.5956 ug/L | 3.5956 ppb | 08:43:49 |
| 2 | Si 251.611† | 909885.5 | 878084.5 | 28414 ug/L | 28414 ppb | 08:43:23 |
| 2 | Sn 189.927† | 24.8 | 13.4 | 0.3091 ug/L | 0.3091 ppb | 08:43:49 |
| 2 | Ti 334.940† | 826592.2 | 799583.7 | 1257.1 ug/L | 1257.1 ppb | 08:43:23 |
| 2 | Tl 190.801† | -112.4 | -75.9 | -4.4300 ug/L | -4.4300 ppb | 08:43:49 |
| 2 | U 409.014† | 1178.0 | 4024.2 | 103.27 ug/L | 103.27 ppb | 08:43:23 |
| 2 | V 292.402† | 6120.9 | 7416.4 | 41.546 ug/L | 41.546 ppb | 08:43:29 |
| 2 | Zn 213.857† | 28052.5 | 26483.3 | 254.75 ug/L | 254.75 ppb | 08:43:29 |
| 2 | SiO2† | 923839.5 | 891563.3 | 61959 ug/L | 61959 ppb | 08:44:32 |
| 3 | Sc Radial | 3859.8 | 3859.8 | 98.5 % | | 08:42:45 |
| 3 | Y RADIAL | 5135.4 | 5135.4 | 116.4 % | | 08:42:25 |
| 3 | Al 396.153Radial† | 27599.5 | 28134.0 | 26386 ug/L | 26386 ppb | 08:42:25 |
| 3 | Ca 317.933Radial† | 3950.4 | 3991.1 | 8343.4 ug/L | 8343.4 ppb | 08:42:25 |
| 3 | Fe 238.204 Radial† | 4315.1 | 4369.8 | 61681 ug/L | 61681 ppb | 08:42:25 |
| 3 | K 766.490 Radial† | 23973.0 | 21700.0 | 4160.1 ug/L | 4160.1 ppb | 08:42:25 |
| 3 | Mg 279.077 IEC† | 100.5 | 98.0 | 4685.5 ug/L | 4685.5 ppb | 08:42:45 |
| 3 | Na 589.592 Radial† | 3963.4 | 4843.7 | 1493.5 ug/L | 1493.5 ppb | 08:42:25 |
| 3 | Sr 421.552† | 9671.5 | 9783.7 | 67.637 ug/L | 67.637 ppb | 08:42:25 |
| 3 | Sc 361.383 | 904934.7 | 904934.7 | 103.16 % | | 08:43:55 |
| 3 | Y 371.029 | 891991.0 | 891991.0 | 118.01 % | | 08:43:55 |
| 3 | Ag 328.068† | -3457.9 | -3592.4 | 2.3166 ug/L | 2.3166 ppb | 08:44:00 |
| 3 | As 188.979† | -5.9 | 12.5 | 30.872 ug/L | 30.872 ppb | 08:44:20 |
| 3 | B 249.677† | 179.9 | 572.6 | 3.7665 ug/L | 3.7665 ppb | 08:44:00 |
| 3 | Ba 233.527† | 46834.3 | 45401.9 | 358.27 ug/L | 358.27 ppb | 08:44:00 |
| 3 | Be 313.107† | 21944.1 | 25034.5 | 12.257 ug/L | 12.257 ppb | 08:44:00 |
| 3 | Cd 226.502† | 395.0 | 579.2 | 0.4569 ug/L | 0.4569 ppb | 08:44:20 |
| 3 | Co 228.616† | 1645.9 | 1662.0 | 31.353 ug/L | 31.353 ppb | 08:44:20 |
| 3 | Cr 267.716† | 28156.7 | 27217.1 | 311.43 ug/L | 311.43 ppb | 08:44:00 |
| 3 | Cu 324.752† | 367540.7 | 350298.1 | 1069.2 ug/L | 1069.2 ppb | 08:44:00 |
| 3 | Mn 257.610† | 1832007.8 | 1775464.2 | 2026.3 ug/L | 2026.3 ppb | 08:43:55 |
| 3 | Mo 202.031† | 134.7 | 120.4 | 13.729 ug/L | 13.729 ppb | 08:44:20 |
| 3 | Ni 231.604† | 6387.2 | 6129.2 | 155.86 ug/L | 155.86 ppb | 08:44:20 |
| 3 | P 214.914† | 1430.5 | 1176.2 | 453.28 ug/L | 453.28 ppb | 08:44:20 |
| 3 | Pb 220.353† | 1889.3 | 1889.5 | 230.74 ug/L | 230.74 ppb | 08:44:20 |
| 3 | S 181.975 Axial† | 88.7 | 45.2 | 60.123 ug/L | 60.123 ppb | 08:44:20 |
| 3 | Sb 206.836† | 86.8 | 47.4 | 11.530 ug/L | 11.530 ppb | 08:44:20 |
| 3 | Se 196.026† | -326.0 | -288.3 | 3.2992 ug/L | 3.2992 ppb | 08:44:20 |
| 3 | Si 251.611† | 905974.2 | 877680.6 | 28401 ug/L | 28401 ppb | 08:43:55 |
| 3 | Sn 189.927† | 25.3 | 14.0 | 0.4589 ug/L | 0.4589 ppb | 08:44:20 |
| 3 | Ti 334.940† | 822340.9 | 798539.9 | 1255.4 ug/L | 1255.4 ppb | 08:43:55 |
| 3 | Tl 190.801† | -117.7 | -81.5 | -6.2466 ug/L | -6.2466 ppb | 08:44:20 |
| 3 | U 409.014† | 1298.3 | 4145.1 | 106.75 ug/L | 106.75 ppb | 08:43:55 |
| 3 | V 292.402† | 6067.6 | 7387.5 | 41.523 ug/L | 41.523 ppb | 08:44:00 |
| 3 | Zn 213.857† | 28008.2 | 26544.8 | 255.55 ug/L | 255.55 ppb | 08:44:00 |
| 3 | SiO2† | 906306.3 | 878006.4 | 61017 ug/L | 61017 ppb | 08:44:38 |

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**Mean Data: 245969006|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 903919.3 | 103.04 | % | 0.580 | | | | 0.56% |
| Sc Radial | 3878.4 | 99.0 | % | 0.41 | | | | 0.42% |
| Y 371.029 | 890597.8 | 117.83 | % | 0.621 | | | | 0.53% |
| Y RADIAL | 5195.0 | 117.8 | % | 1.88 | | | | 1.59% |
| Ag 328.068† | -3635.1 | 2.2288 | ug/L | 0.25350 | 2.2288 | ppb | 0.25350 | 11.37% |
| Al 396.153Radial† | 28252.5 | 26497 | ug/L | 359.9 | 26497 | ppb | 359.9 | 1.36% |
| As 188.979† | 5.7 | 27.939 | ug/L | 2.5589 | 27.939 | ppb | 2.5589 | 9.16% |
| B 249.677† | 577.4 | 3.8250 | ug/L | 0.44996 | 3.8250 | ppb | 0.44996 | 11.76% |
| Ba 233.527† | 45457.8 | 358.72 | ug/L | 0.665 | 358.72 | ppb | 0.665 | 0.19% |
| Be 313.107† | 25069.6 | 12.273 | ug/L | 0.0194 | 12.273 | ppb | 0.0194 | 0.16% |
| Ca 317.933Radial† | 4014.6 | 8392.5 | ug/L | 93.98 | 8392.5 | ppb | 93.98 | 1.12% |
| Cd 226.502† | 573.9 | 0.3599 | ug/L | 0.11628 | 0.3599 | ppb | 0.11628 | 32.30% |
| Co 228.616† | 1669.0 | 31.489 | ug/L | 0.2336 | 31.489 | ppb | 0.2336 | 0.74% |
| Cr 267.716† | 27259.2 | 311.94 | ug/L | 0.466 | 311.94 | ppb | 0.466 | 0.15% |
| Cu 324.752† | 350764.3 | 1070.6 | ug/L | 1.54 | 1070.6 | ppb | 1.54 | 0.14% |
| Fe 238.204 Radial† | 4394.7 | 62034 | ug/L | 717.2 | 62034 | ppb | 717.2 | 1.16% |
| K 766.490 Radial† | 21740.7 | 4167.9 | ug/L | 68.76 | 4167.9 | ppb | 68.76 | 1.65% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 98.2 | 4695.4 | ug/L | 19.08 | 4695.4 | ppb | 19.08 | 0.41% |
| Mn 257.610† | 1779211.5 | 2030.6 | ug/L | 4.67 | 2030.6 | ppb | 4.67 | 0.23% |
| Mo 202.031† | 113.0 | 13.213 | ug/L | 0.9812 | 13.213 | ppb | 0.9812 | 7.43% |
| Na 589.592 Radial† | 4938.1 | 1522.5 | ug/L | 25.28 | 1522.5 | ppb | 25.28 | 1.66% |
| Ni 231.604† | 6144.1 | 156.24 | ug/L | 1.554 | 156.24 | ppb | 1.554 | 0.99% |
| P 214.914† | 1186.6 | 458.98 | ug/L | 10.099 | 458.98 | ppb | 10.099 | 2.20% |
| Pb 220.353† | 1901.6 | 232.21 | ug/L | 2.370 | 232.21 | ppb | 2.370 | 1.02% |
| S 181.975 Axial† | 41.8 | 55.233 | ug/L | 5.0693 | 55.233 | ppb | 5.0693 | 9.18% |
| Sb 206.836† | 49.8 | 12.359 | ug/L | 1.1062 | 12.359 | ppb | 1.1062 | 8.95% |
| Se 196.026† | -290.5 | 2.9703 | ug/L | 0.83944 | 2.9703 | ppb | 0.83944 | 28.26% |
| Si 251.611† | 878403.9 | 28424 | ug/L | 30.0 | 28424 | ppb | 30.0 | 0.11% |
| Sn 189.927† | 18.5 | 1.2420 | ug/L | 1.48787 | 1.2420 | ppb | 1.48787 | 119.80% |
| Sr 421.552† | 9828.3 | 67.945 | ug/L | 0.8157 | 67.945 | ppb | 0.8157 | 1.20% |
| Ti 334.940† | 799544.8 | 1257.0 | ug/L | 1.55 | 1257.0 | ppb | 1.55 | 0.12% |
| Tl 190.801† | -75.1 | -4.1755 | ug/L | 2.20923 | -4.1755 | ppb | 2.20923 | 52.91% |
| U 409.014† | 4077.4 | 104.84 | ug/L | 1.763 | 104.84 | ppb | 1.763 | 1.68% |
| V 292.402† | 7411.8 | 41.628 | ug/L | 0.1632 | 41.628 | ppb | 0.1632 | 0.39% |
| Zn 213.857† | 26542.9 | 255.47 | ug/L | 0.680 | 255.47 | ppb | 0.680 | 0.27% |
| SiO2† | 883353.2 | 61389 | ug/L | 501.6 | 61389 | ppb | 501.6 | 0.82% |

Sequence No.: 126
Sample ID: 245969007|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 139
Date Collected: 2/25/2010 08:46:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969007|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3775.6 | 3775.6 | 96.3 | % | | | 08:49:04 |
| 1 | Y RADIAL | 4992.4 | 4992.4 | 113.2 | % | | | 08:48:44 |
| 1 | Al 396.153Radial† | 48606.9 | 50563.0 | 47422 | ug/L | 47422 | ppb | 08:48:44 |
| 1 | Ca 317.933Radial† | 6653.9 | 6886.6 | 14396 | ug/L | 14396 | ppb | 08:48:44 |
| 1 | Fe 238.204 Radial† | 4795.5 | 4966.1 | 70098 | ug/L | 70098 | ppb | 08:48:44 |
| 1 | K 766.490 Radial† | 35954.8 | 34678.9 | 6649.2 | ug/L | 6649.2 | ppb | 08:48:44 |
| 1 | Mg 279.077 IEC† | 164.3 | 166.5 | 7999.7 | ug/L | 7999.7 | ppb | 08:49:04 |
| 1 | Na 589.592 Radial† | 764.7 | 1613.5 | 497.48 | ug/L | 497.48 | ppb | 08:48:44 |
| 1 | Sr 421.552† | 12963.4 | 13419.4 | 92.748 | ug/L | 92.748 | ppb | 08:48:44 |
| 1 | Sc 361.383 | 916385.3 | 916385.3 | 104.46 | % | | | 08:50:02 |
| 1 | Y 371.029 | 843284.7 | 843284.7 | 111.57 | % | | | 08:50:02 |
| 1 | Ag 328.068† | -4299.9 | -4356.6 | 1.3008 | ug/L | 1.3008 | ppb | 08:50:07 |
| 1 | As 188.979† | -16.6 | 2.3 | 31.895 | ug/L | 31.895 | ppb | 08:50:27 |
| 1 | B 249.677† | 149.7 | 541.5 | 1.6683 | ug/L | 1.6683 | ppb | 08:50:07 |
| 1 | Ba 233.527† | 91619.7 | 87706.5 | 690.66 | ug/L | 690.66 | ppb | 08:50:07 |
| 1 | Be 313.107† | 23967.8 | 26705.9 | 13.818 | ug/L | 13.818 | ppb | 08:50:07 |
| 1 | Cd 226.502† | 567.1 | 739.1 | 1.4555 | ug/L | 1.4555 | ppb | 08:50:27 |
| 1 | Co 228.616† | 1273.2 | 1285.3 | 22.687 | ug/L | 22.687 | ppb | 08:50:27 |
| 1 | Cr 267.716† | 12803.1 | 12178.4 | 143.38 | ug/L | 143.38 | ppb | 08:50:07 |
| 1 | Cu 324.752† | 141156.8 | 129134.9 | 396.44 | ug/L | 396.44 | ppb | 08:50:07 |
| 1 | Mn 257.610† | 1562019.9 | 1494821.1 | 1707.6 | ug/L | 1707.6 | ppb | 08:50:02 |
| 1 | Mo 202.031† | -28.7 | -37.6 | 2.8518 | ug/L | 2.8518 | ppb | 08:50:27 |
| 1 | Ni 231.604† | 3461.3 | 3250.9 | 82.665 | ug/L | 82.665 | ppb | 08:50:27 |
| 1 | P 214.914† | 1366.7 | 1097.8 | 538.07 | ug/L | 538.07 | ppb | 08:50:27 |
| 1 | Pb 220.353† | 7707.2 | 7436.0 | 916.81 | ug/L | 916.81 | ppb | 08:50:27 |
| 1 | S 181.975 Axial† | 230.0 | 179.3 | 249.17 | ug/L | 249.17 | ppb | 08:50:27 |
| 1 | Sb 206.836† | 77.4 | 37.4 | 5.7105 | ug/L | 5.7105 | ppb | 08:50:27 |
| 1 | Se 196.026† | -366.0 | -322.6 | 6.8456 | ug/L | 6.8456 | ppb | 08:50:27 |
| 1 | Si 251.611† | 1136202.4 | 1087097.9 | 35177 | ug/L | 35177 | ppb | 08:50:02 |
| 1 | Sn 189.927† | -40.5 | -49.2 | -10.301 | ug/L | -10.301 | ppb | 08:50:27 |
| 1 | Ti 334.940† | 1106104.7 | 1060218.5 | 1667.1 | ug/L | 1667.1 | ppb | 08:50:02 |
| 1 | Tl 190.801† | -111.3 | -74.0 | -2.0402 | ug/L | -2.0402 | ppb | 08:50:27 |
| 1 | U 409.014† | 13389.4 | 15703.9 | 425.35 | ug/L | 425.35 | ppb | 08:50:02 |
| 1 | V 292.402† | 16529.9 | 17329.3 | 109.76 | ug/L | 109.76 | ppb | 08:50:07 |
| 1 | Zn 213.857† | 29378.6 | 27517.3 | 265.45 | ug/L | 265.45 | ppb | 08:50:07 |
| 1 | SiO2† | 1129647.6 | 1080827.0 | 75113 | ug/L | 75113 | ppb | 08:51:36 |
| 2 | Sc Radial | 3831.4 | 3831.4 | 97.8 | % | | | 08:49:29 |
| 2 | Y RADIAL | 4507.7 | 4507.7 | 102.2 | % | | | 08:49:09 |
| 2 | Al 396.153Radial† | 49507.2 | 50749.1 | 47596 | ug/L | 47596 | ppb | 08:49:09 |
| 2 | Ca 317.933Radial† | 6747.2 | 6881.5 | 14386 | ug/L | 14386 | ppb | 08:49:09 |
| 2 | Fe 238.204 Radial† | 4890.2 | 4990.4 | 70442 | ug/L | 70442 | ppb | 08:49:09 |
| 2 | K 766.490 Radial† | 36175.8 | 34361.5 | 6588.3 | ug/L | 6588.3 | ppb | 08:49:09 |
| 2 | Mg 279.077 IEC† | 167.1 | 166.9 | 8016.9 | ug/L | 8016.9 | ppb | 08:49:29 |
| 2 | Na 589.592 Radial† | 756.2 | 1593.2 | 491.23 | ug/L | 491.23 | ppb | 08:49:09 |
| 2 | Sr 421.552† | 13084.1 | 13346.8 | 92.247 | ug/L | 92.247 | ppb | 08:49:09 |
| 2 | Sc 361.383 | 907571.7 | 907571.7 | 103.46 | % | | | 08:50:33 |
| 2 | Y 371.029 | 837391.0 | 837391.0 | 110.79 | % | | | 08:50:33 |
| 2 | Ag 328.068† | -4440.9 | -4532.9 | 0.5941 | ug/L | 0.5941 | ppb | 08:50:38 |
| 2 | As 188.979† | -21.8 | -2.8 | 29.846 | ug/L | 29.846 | ppb | 08:50:58 |
| 2 | B 249.677† | 164.2 | 556.9 | 1.9864 | ug/L | 1.9864 | ppb | 08:50:38 |
| 2 | Ba 233.527† | 93073.7 | 89963.6 | 708.39 | ug/L | 708.39 | ppb | 08:50:38 |
| 2 | Be 313.107† | 24486.3 | 27429.9 | 14.133 | ug/L | 14.133 | ppb | 08:50:38 |
| 2 | Cd 226.502† | 543.6 | 721.7 | 1.2200 | ug/L | 1.2200 | ppb | 08:50:58 |
| 2 | Co 228.616† | 1269.8 | 1293.9 | 22.831 | ug/L | 22.831 | ppb | 08:50:58 |
| 2 | Cr 267.716† | 12996.3 | 12484.1 | 146.84 | ug/L | 146.84 | ppb | 08:50:38 |
| 2 | Cu 324.752† | 143628.3 | 132836.0 | 407.71 | ug/L | 407.71 | ppb | 08:50:38 |
| 2 | Mn 257.610† | 1562816.6 | 1510112.2 | 1725.0 | ug/L | 1725.0 | ppb | 08:50:33 |
| 2 | Mo 202.031† | -21.4 | -30.8 | 3.3758 | ug/L | 3.3758 | ppb | 08:50:58 |
| 2 | Ni 231.604† | 3466.0 | 3287.7 | 83.600 | ug/L | 83.600 | ppb | 08:50:58 |

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|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1359.4 | 1103.4 | 539.03 ug/L | 539.03 ppb | 08:50:58 |
| 2 | Pb 220.353† | 7726.8 | 7526.6 | 927.95 ug/L | 927.95 ppb | 08:50:58 |
| 2 | S 181.975 Axial† | 219.3 | 171.2 | 237.46 ug/L | 237.46 ppb | 08:50:58 |
| 2 | Sb 206.836† | 89.9 | 50.2 | 10.130 ug/L | 10.130 ppb | 08:50:58 |
| 2 | Se 196.026† | -367.0 | -327.0 | 5.0147 ug/L | 5.0147 ppb | 08:50:58 |
| 2 | Si 251.611† | 1136925.5 | 1098359.3 | 35542 ug/L | 35542 ppb | 08:50:33 |
| 2 | Sn 189.927† | -41.8 | -50.9 | -10.614 ug/L | -10.614 ppb | 08:50:58 |
| 2 | Ti 334.940† | 1107750.8 | 1072092.3 | 1685.7 ug/L | 1685.7 ppb | 08:50:33 |
| 2 | Tl 190.801† | -115.1 | -78.6 | -3.3038 ug/L | -3.3038 ppb | 08:50:58 |
| 2 | U 409.014† | 13579.0 | 16011.6 | 433.80 ug/L | 433.80 ppb | 08:50:33 |
| 2 | V 292.402† | 16778.7 | 17723.5 | 112.46 ug/L | 112.46 ppb | 08:50:38 |
| 2 | Zn 213.857† | 29856.1 | 28252.0 | 272.78 ug/L | 272.78 ppb | 08:50:38 |
| 2 | SiO2† | 1144707.9 | 1105885.4 | 76854 ug/L | 76854 ppb | 08:51:42 |
| 3 | Sc Radial | 3991.0 | 3991.0 | 102 % | | 08:49:55 |
| 3 | Y RADIAL | 4831.9 | 4831.9 | 109.5 % | | 08:49:35 |
| 3 | Al 396.153Radial† | 48805.8 | 48036.0 | 45052 ug/L | 45052 ppb | 08:49:35 |
| 3 | Ca 317.933Radial† | 6695.5 | 6554.8 | 13703 ug/L | 13703 ppb | 08:49:35 |
| 3 | Fe 238.204 Radial† | 4825.2 | 4726.6 | 66719 ug/L | 66719 ppb | 08:49:35 |
| 3 | K 766.490 Radial† | 36014.0 | 32723.4 | 6274.2 ug/L | 6274.2 ppb | 08:49:35 |
| 3 | Mg 279.077 IEC† | 164.3 | 157.3 | 7556.9 ug/L | 7556.9 ppb | 08:49:55 |
| 3 | Na 589.592 Radial† | 730.1 | 1536.7 | 473.80 ug/L | 473.80 ppb | 08:49:35 |
| 3 | Sr 421.552† | 12916.5 | 12647.3 | 87.412 ug/L | 87.412 ppb | 08:49:35 |
| 3 | Sc 361.383 | 921583.9 | 921583.9 | 105.06 % | | 08:51:04 |
| 3 | Y 371.029 | 849747.5 | 849747.5 | 112.42 % | | 08:51:04 |
| 3 | Ag 328.068† | -4220.5 | -4257.8 | 0.7311 ug/L | 0.7311 ppb | 08:51:09 |
| 3 | As 188.979† | -32.6 | -12.7 | 24.258 ug/L | 24.258 ppb | 08:51:29 |
| 3 | B 249.677† | 259.7 | 645.4 | 4.7362 ug/L | 4.7362 ppb | 08:51:09 |
| 3 | Ba 233.527† | 91223.8 | 86834.9 | 683.72 ug/L | 683.72 ppb | 08:51:09 |
| 3 | Be 313.107† | 24057.1 | 26661.5 | 13.771 ug/L | 13.771 ppb | 08:51:09 |
| 3 | Cd 226.502† | 563.8 | 733.0 | 1.7321 ug/L | 1.7321 ppb | 08:51:29 |
| 3 | Co 228.616† | 1276.8 | 1281.8 | 22.689 ug/L | 22.689 ppb | 08:51:29 |
| 3 | Cr 267.716† | 12816.5 | 12122.0 | 142.42 ug/L | 142.42 ppb | 08:51:09 |
| 3 | Cu 324.752† | 141121.9 | 128339.4 | 393.84 ug/L | 393.84 ppb | 08:51:09 |
| 3 | Mn 257.610† | 1557785.4 | 1482355.6 | 1693.1 ug/L | 1693.1 ppb | 08:51:04 |
| 3 | Mo 202.031† | -21.4 | -30.5 | 3.1008 ug/L | 3.1008 ppb | 08:51:29 |
| 3 | Ni 231.604† | 3473.1 | 3243.5 | 82.477 ug/L | 82.477 ppb | 08:51:29 |
| 3 | P 214.914† | 1374.7 | 1098.0 | 540.84 ug/L | 540.84 ppb | 08:51:29 |
| 3 | Pb 220.353† | 7735.2 | 7421.1 | 914.84 ug/L | 914.84 ppb | 08:51:29 |
| 3 | S 181.975 Axial† | 218.5 | 167.2 | 232.18 ug/L | 232.18 ppb | 08:51:29 |
| 3 | Sb 206.836† | 89.6 | 48.6 | 9.7969 ug/L | 9.7969 ppb | 08:51:29 |
| 3 | Se 196.026† | -357.2 | -312.3 | 3.0771 ug/L | 3.0771 ppb | 08:51:29 |
| 3 | Si 251.611† | 1131964.3 | 1076928.3 | 34848 ug/L | 34848 ppb | 08:51:04 |
| 3 | Sn 189.927† | -38.8 | -47.4 | -9.8963 ug/L | -9.8963 ppb | 08:51:29 |
| 3 | Ti 334.940† | 1103452.3 | 1051720.9 | 1653.7 ug/L | 1653.7 ppb | 08:51:04 |
| 3 | Tl 190.801† | -108.0 | -70.3 | -1.0370 ug/L | -1.0370 ppb | 08:51:29 |
| 3 | U 409.014† | 13272.2 | 15520.0 | 420.66 ug/L | 420.66 ppb | 08:51:04 |
| 3 | V 292.402† | 16531.7 | 17241.8 | 109.64 ug/L | 109.64 ppb | 08:51:09 |
| 3 | Zn 213.857† | 29291.2 | 27275.5 | 263.53 ug/L | 263.53 ppb | 08:51:09 |
| 3 | SiO2† | 1135135.8 | 1079951.1 | 75052 ug/L | 75052 ppb | 08:51:47 |

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**Mean Data: 245969007|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 915180.3 | 104.33 | % | 0.807 | | | | 0.77% |
| Sc Radial | 3866.0 | 98.7 | % | 2.85 | | | | 2.89% |
| Y 371.029 | 843474.4 | 111.59 | % | 0.818 | | | | 0.73% |
| Y RADIAL | 4777.3 | 108.3 | % | 5.60 | | | | 5.17% |
| Ag 328.068† | -4382.4 | 0.8754 | ug/L | 0.37479 | 0.8754 | ppb | 0.37479 | 42.82% |
| Al 396.153Radial† | 49782.7 | 46690 | ug/L | 1421.4 | 46690 | ppb | 1421.4 | 3.04% |
| As 188.979† | -4.4 | 28.666 | ug/L | 3.9529 | 28.666 | ppb | 3.9529 | 13.79% |
| B 249.677† | 581.3 | 2.7970 | ug/L | 1.68694 | 2.7970 | ppb | 1.68694 | 60.31% |
| Ba 233.527† | 88168.3 | 694.26 | ug/L | 12.723 | 694.26 | ppb | 12.723 | 1.83% |
| Be 313.107† | 26932.5 | 13.907 | ug/L | 0.1965 | 13.907 | ppb | 0.1965 | 1.41% |
| Ca 317.933Radial† | 6774.3 | 14162 | ug/L | 397.4 | 14162 | ppb | 397.4 | 2.81% |
| Cd 226.502† | 731.3 | 1.4692 | ug/L | 0.25632 | 1.4692 | ppb | 0.25632 | 17.45% |
| Co 228.616† | 1287.0 | 22.735 | ug/L | 0.0824 | 22.735 | ppb | 0.0824 | 0.36% |
| Cr 267.716† | 12261.5 | 144.22 | ug/L | 2.326 | 144.22 | ppb | 2.326 | 1.61% |
| Cu 324.752† | 130103.4 | 399.33 | ug/L | 7.375 | 399.33 | ppb | 7.375 | 1.85% |
| Fe 238.204 Radial† | 4894.4 | 69086 | ug/L | 2057.5 | 69086 | ppb | 2057.5 | 2.98% |
| K 766.490 Radial† | 33921.3 | 6503.9 | ug/L | 201.26 | 6503.9 | ppb | 201.26 | 3.09% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 163.6 | 7857.8 | ug/L | 260.75 | 7857.8 | ppb | 260.75 | 3.32% |
| Mn 257.610† | 1495763.0 | 1708.6 | ug/L | 15.99 | 1708.6 | ppb | 15.99 | 0.94% |
| Mo 202.031† | -33.0 | 3.1095 | ug/L | 0.26212 | 3.1095 | ppb | 0.26212 | 8.43% |
| Na 589.592 Radial† | 1581.1 | 487.50 | ug/L | 12.268 | 487.50 | ppb | 12.268 | 2.52% |
| Ni 231.604† | 3260.7 | 82.914 | ug/L | 0.6018 | 82.914 | ppb | 0.6018 | 0.73% |
| P 214.914† | 1099.7 | 539.31 | ug/L | 1.404 | 539.31 | ppb | 1.404 | 0.26% |
| Pb 220.353† | 7461.2 | 919.87 | ug/L | 7.070 | 919.87 | ppb | 7.070 | 0.77% |
| S 181.975 Axial† | 172.6 | 239.60 | ug/L | 8.696 | 239.60 | ppb | 8.696 | 3.63% |
| Sb 206.836† | 45.4 | 8.5460 | ug/L | 2.46126 | 8.5460 | ppb | 2.46126 | 28.80% |
| Se 196.026† | -320.6 | 4.9791 | ug/L | 1.88452 | 4.9791 | ppb | 1.88452 | 37.85% |
| Si 251.611† | 1087461.8 | 35189 | ug/L | 346.9 | 35189 | ppb | 346.9 | 0.99% |
| Sn 189.927† | -49.2 | -10.271 | ug/L | 0.3601 | -10.271 | ppb | 0.3601 | 3.51% |
| Sr 421.552† | 13137.8 | 90.802 | ug/L | 2.9471 | 90.802 | ppb | 2.9471 | 3.25% |
| Ti 334.940† | 1061343.9 | 1668.8 | ug/L | 16.10 | 1668.8 | ppb | 16.10 | 0.96% |
| Tl 190.801† | -74.3 | -2.1270 | ug/L | 1.13591 | -2.1270 | ppb | 1.13591 | 53.40% |
| U 409.014† | 15745.2 | 426.60 | ug/L | 6.660 | 426.60 | ppb | 6.660 | 1.56% |
| V 292.402† | 17431.5 | 110.62 | ug/L | 1.594 | 110.62 | ppb | 1.594 | 1.44% |
| Zn 213.857† | 27681.6 | 267.25 | ug/L | 4.879 | 267.25 | ppb | 4.879 | 1.83% |
| SiO2† | 1088887.8 | 75673 | ug/L | 1023.4 | 75673 | ppb | 1023.4 | 1.35% |

Sequence No.: 127
Sample ID: 245969008|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 140
Date Collected: 2/25/2010 08:53:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969008|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3864.9 | 3864.9 | 98.6 | % | | | 08:56:13 |
| 1 | Y RADIAL | 4635.2 | 4635.2 | 105.1 | % | | | 08:55:53 |
| 1 | Al 396.153Radial† | 44837.2 | 45575.5 | 42744 | ug/L | 42744 | ppb | 08:55:53 |
| 1 | Ca 317.933Radial† | 6157.2 | 6223.5 | 13010 | ug/L | 13010 | ppb | 08:55:53 |
| 1 | Fe 238.204 Radial† | 6176.3 | 6251.2 | 88239 | ug/L | 88239 | ppb | 08:55:53 |
| 1 | K 766.490 Radial† | 45908.7 | 43910.0 | 8421.0 | ug/L | 8421.0 | ppb | 08:55:53 |
| 1 | Mg 279.077 IEC† | 166.6 | 164.8 | 7899.1 | ug/L | 7899.1 | ppb | 08:56:13 |
| 1 | Na 589.592 Radial† | 639.9 | 1468.6 | 452.82 | ug/L | 452.82 | ppb | 08:55:53 |
| 1 | Sr 421.552† | 18148.2 | 18365.9 | 126.99 | ug/L | 126.99 | ppb | 08:55:53 |
| 1 | Sc 361.383 | 916683.3 | 916683.3 | 104.50 | % | | | 08:57:11 |
| 1 | Y 371.029 | 813894.7 | 813894.7 | 107.68 | % | | | 08:57:11 |
| 1 | Ag 328.068† | -6180.9 | -6155.3 | -0.9854 | ug/L | -0.9854 | ppb | 08:57:16 |
| 1 | As 188.979† | -71.6 | -50.3 | 29.628 | ug/L | 29.628 | ppb | 08:57:36 |
| 1 | B 249.677† | 560.1 | 934.2 | 8.1969 | ug/L | 8.1969 | ppb | 08:57:16 |
| 1 | Ba 233.527† | 69438.8 | 66451.8 | 524.60 | ug/L | 524.60 | ppb | 08:57:16 |
| 1 | Be 313.107† | 9062.9 | 12435.0 | 12.903 | ug/L | 12.903 | ppb | 08:57:16 |
| 1 | Cd 226.502† | 1479.0 | 1611.6 | 9.6351 | ug/L | 9.6351 | ppb | 08:57:36 |
| 1 | Co 228.616† | 2075.3 | 2052.6 | 34.347 | ug/L | 34.347 | ppb | 08:57:36 |
| 1 | Cr 267.716† | 7821.3 | 7407.0 | 91.716 | ug/L | 91.716 | ppb | 08:57:16 |
| 1 | Cu 324.752† | 134882.3 | 123086.5 | 379.08 | ug/L | 379.08 | ppb | 08:57:16 |
| 1 | Mn 257.610† | 1880258.7 | 1798877.5 | 2055.4 | ug/L | 2055.4 | ppb | 08:57:11 |
| 1 | Mo 202.031† | 32.6 | 21.1 | 8.5530 | ug/L | 8.5530 | ppb | 08:57:36 |
| 1 | Ni 231.604† | 2270.6 | 2110.4 | 53.648 | ug/L | 53.648 | ppb | 08:57:36 |
| 1 | P 214.914† | 1563.4 | 1285.6 | 639.06 | ug/L | 639.06 | ppb | 08:57:36 |
| 1 | Pb 220.353† | 3206.8 | 3126.8 | 383.90 | ug/L | 383.90 | ppb | 08:57:36 |
| 1 | S 181.975 Axial† | 506.0 | 443.4 | 630.03 | ug/L | 630.03 | ppb | 08:57:36 |
| 1 | Sb 206.836† | 80.4 | 40.3 | 0.4598 | ug/L | 0.4598 | ppb | 08:57:36 |
| 1 | Se 196.026† | -467.5 | -419.6 | -0.0751 | ug/L | -0.0751 | ppb | 08:57:36 |
| 1 | Si 251.611† | 1007757.9 | 963827.7 | 31188 | ug/L | 31188 | ppb | 08:57:11 |
| 1 | Sn 189.927† | -40.5 | -49.3 | -11.591 | ug/L | -11.591 | ppb | 08:57:36 |
| 1 | Ti 334.940† | 2409142.8 | 2306832.3 | 3625.9 | ug/L | 3625.9 | ppb | 08:57:11 |
| 1 | Tl 190.801† | -154.5 | -115.2 | 2.4536 | ug/L | 2.4536 | ppb | 08:57:36 |
| 1 | U 409.014† | 7270.2 | 9843.9 | 261.58 | ug/L | 261.58 | ppb | 08:57:16 |
| 1 | V 292.402† | 28403.7 | 28687.0 | 184.01 | ug/L | 184.01 | ppb | 08:57:16 |
| 1 | Zn 213.857† | 37182.6 | 34976.3 | 338.03 | ug/L | 338.03 | ppb | 08:57:16 |
| 1 | SiO2† | 1020128.9 | 975670.2 | 67805 | ug/L | 67805 | ppb | 08:58:45 |
| 2 | Sc Radial | 3877.2 | 3877.2 | 98.9 | % | | | 08:56:38 |
| 2 | Y RADIAL | 4791.4 | 4791.4 | 108.6 | % | | | 08:56:18 |
| 2 | Al 396.153Radial† | 45908.6 | 46513.7 | 43624 | ug/L | 43624 | ppb | 08:56:18 |
| 2 | Ca 317.933Radial† | 6296.2 | 6344.1 | 13262 | ug/L | 13262 | ppb | 08:56:18 |
| 2 | Fe 238.204 Radial† | 6337.0 | 6393.7 | 90250 | ug/L | 90250 | ppb | 08:56:18 |
| 2 | K 766.490 Radial† | 46824.9 | 44687.8 | 8570.2 | ug/L | 8570.2 | ppb | 08:56:18 |
| 2 | Mg 279.077 IEC† | 168.5 | 166.3 | 7966.5 | ug/L | 7966.5 | ppb | 08:56:38 |
| 2 | Na 589.592 Radial† | 762.3 | 1590.3 | 490.32 | ug/L | 490.32 | ppb | 08:56:18 |
| 2 | Sr 421.552† | 18585.2 | 18748.9 | 129.64 | ug/L | 129.64 | ppb | 08:56:18 |
| 2 | Sc 361.383 | 917843.8 | 917843.8 | 104.63 | % | | | 08:57:42 |
| 2 | Y 371.029 | 815291.7 | 815291.7 | 107.87 | % | | | 08:57:42 |
| 2 | Ag 328.068† | -5950.5 | -5927.6 | 0.6811 | ug/L | 0.6811 | ppb | 08:57:47 |
| 2 | As 188.979† | -72.1 | -50.6 | 30.164 | ug/L | 30.164 | ppb | 08:58:07 |
| 2 | B 249.677† | 529.0 | 903.8 | 7.1341 | ug/L | 7.1341 | ppb | 08:57:47 |
| 2 | Ba 233.527† | 69302.1 | 66237.0 | 522.97 | ug/L | 522.97 | ppb | 08:57:47 |
| 2 | Be 313.107† | 9314.0 | 12664.1 | 13.051 | ug/L | 13.051 | ppb | 08:57:47 |
| 2 | Cd 226.502† | 1484.6 | 1615.2 | 9.4679 | ug/L | 9.4679 | ppb | 08:58:07 |
| 2 | Co 228.616† | 2079.7 | 2054.2 | 34.294 | ug/L | 34.294 | ppb | 08:58:07 |
| 2 | Cr 267.716† | 7863.5 | 7437.8 | 92.253 | ug/L | 92.253 | ppb | 08:57:47 |
| 2 | Cu 324.752† | 134153.9 | 122227.1 | 376.57 | ug/L | 376.57 | ppb | 08:57:47 |
| 2 | Mn 257.610† | 1895648.5 | 1811311.4 | 2069.8 | ug/L | 2069.8 | ppb | 08:57:42 |
| 2 | Mo 202.031† | 24.4 | 13.2 | 8.1297 | ug/L | 8.1297 | ppb | 08:58:07 |
| 2 | Ni 231.604† | 2242.7 | 2081.0 | 52.901 | ug/L | 52.901 | ppb | 08:58:07 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1584.5 | 1303.9 | 649.18 | ug/L | 649.18 ppb | 08:58:07 |
| 2 | Pb 220.353† | 3227.3 | 3142.6 | 385.81 | ug/L | 385.81 ppb | 08:58:07 |
| 2 | S 181.975 Axial† | 510.8 | 447.4 | 635.69 | ug/L | 635.69 ppb | 08:58:07 |
| 2 | Sb 206.836† | 79.4 | 39.2 | -0.0222 | ug/L | -0.0222 ppb | 08:58:07 |
| 2 | Se 196.026† | -483.8 | -434.6 | -3.6564 | ug/L | -3.6564 ppb | 08:58:07 |
| 2 | Si 251.611† | 1016318.1 | 970789.9 | 31414 | ug/L | 31414 ppb | 08:57:42 |
| 2 | Sn 189.927† | -27.4 | -36.7 | -9.4018 | ug/L | -9.4018 ppb | 08:58:07 |
| 2 | Ti 334.940† | 2430360.7 | 2324196.5 | 3653.2 | ug/L | 3653.2 ppb | 08:57:42 |
| 2 | Tl 190.801† | -156.6 | -117.1 | 2.1535 | ug/L | 2.1535 ppb | 08:58:07 |
| 2 | U 409.014† | 7290.4 | 9854.4 | 261.65 | ug/L | 261.65 ppb | 08:57:47 |
| 2 | V 292.402† | 28333.5 | 28585.5 | 182.97 | ug/L | 182.97 ppb | 08:57:47 |
| 2 | Zn 213.857† | 36977.3 | 34735.1 | 335.31 | ug/L | 335.31 ppb | 08:57:47 |
| 2 | SiO2† | 1025689.0 | 979750.0 | 68088 | ug/L | 68088 ppb | 08:58:50 |
| 3 | Sc Radial | 3938.1 | 3938.1 | 100 | % | | 08:57:03 |
| 3 | Y RADIAL | 4724.1 | 4724.1 | 107.1 | % | | 08:56:43 |
| 3 | Al 396.153Radial† | 45083.4 | 44974.6 | 42180 | ug/L | 42180 ppb | 08:56:43 |
| 3 | Ca 317.933Radial† | 6215.4 | 6165.3 | 12889 | ug/L | 12889 ppb | 08:56:43 |
| 3 | Fe 238.204 Radial† | 6251.7 | 6209.7 | 87652 | ug/L | 87652 ppb | 08:56:43 |
| 3 | K 766.490 Radial† | 46153.1 | 43287.0 | 8301.5 | ug/L | 8301.5 ppb | 08:56:43 |
| 3 | Mg 279.077 IEC† | 165.3 | 160.4 | 7687.7 | ug/L | 7687.7 ppb | 08:57:03 |
| 3 | Na 589.592 Radial† | 672.0 | 1488.5 | 458.94 | ug/L | 458.94 ppb | 08:56:43 |
| 3 | Sr 421.552† | 18277.8 | 18152.4 | 125.51 | ug/L | 125.51 ppb | 08:56:43 |
| 3 | Sc 361.383 | 910820.8 | 910820.8 | 103.83 | % | | 08:58:13 |
| 3 | Y 371.029 | 808634.8 | 808634.8 | 106.98 | % | | 08:58:13 |
| 3 | Ag 328.068† | -6055.1 | -6072.2 | -0.7730 | ug/L | -0.7730 ppb | 08:58:18 |
| 3 | As 188.979† | -56.2 | -35.9 | 36.213 | ug/L | 36.213 ppb | 08:58:38 |
| 3 | B 249.677† | 500.2 | 880.0 | 6.9793 | ug/L | 6.9793 ppb | 08:58:18 |
| 3 | Ba 233.527† | 69448.2 | 66888.5 | 528.01 | ug/L | 528.01 ppb | 08:58:18 |
| 3 | Be 313.107† | 9223.8 | 12645.8 | 13.064 | ug/L | 13.064 ppb | 08:58:18 |
| 3 | Cd 226.502† | 1499.1 | 1640.1 | 10.025 | ug/L | 10.025 ppb | 08:58:38 |
| 3 | Co 228.616† | 2060.2 | 2050.7 | 34.241 | ug/L | 34.241 ppb | 08:58:38 |
| 3 | Cr 267.716† | 7915.4 | 7545.8 | 93.221 | ug/L | 93.221 ppb | 08:58:18 |
| 3 | Cu 324.752† | 134581.8 | 123627.9 | 380.70 | ug/L | 380.70 ppb | 08:58:18 |
| 3 | Mn 257.610† | 1888050.0 | 1817963.0 | 2077.1 | ug/L | 2077.1 ppb | 08:58:13 |
| 3 | Mo 202.031† | 23.9 | 12.8 | 7.9001 | ug/L | 7.9001 ppb | 08:58:38 |
| 3 | Ni 231.604† | 2263.6 | 2117.7 | 53.833 | ug/L | 53.833 ppb | 08:58:38 |
| 3 | P 214.914† | 1577.6 | 1308.9 | 653.08 | ug/L | 653.08 ppb | 08:58:38 |
| 3 | Pb 220.353† | 3205.7 | 3145.6 | 386.15 | ug/L | 386.15 ppb | 08:58:38 |
| 3 | S 181.975 Axial† | 511.3 | 451.6 | 641.98 | ug/L | 641.98 ppb | 08:58:38 |
| 3 | Sb 206.836† | 85.0 | 45.1 | 2.1066 | ug/L | 2.1066 ppb | 08:58:38 |
| 3 | Se 196.026† | -468.2 | -423.2 | -4.2456 | ug/L | -4.2456 ppb | 08:58:38 |
| 3 | Si 251.611† | 1011535.1 | 973673.0 | 31507 | ug/L | 31507 ppb | 08:58:13 |
| 3 | Sn 189.927† | -24.1 | -33.7 | -8.7889 | ug/L | -8.7889 ppb | 08:58:38 |
| 3 | Ti 334.940† | 2417654.6 | 2329869.4 | 3662.1 | ug/L | 3662.1 ppb | 08:58:13 |
| 3 | Tl 190.801† | -158.5 | -120.1 | 1.2969 | ug/L | 1.2969 ppb | 08:58:38 |
| 3 | U 409.014† | 7094.0 | 9719.0 | 258.20 | ug/L | 258.20 ppb | 08:58:18 |
| 3 | V 292.402† | 28349.2 | 28809.4 | 184.89 | ug/L | 184.89 ppb | 08:58:18 |
| 3 | Zn 213.857† | 37014.4 | 35043.4 | 338.79 | ug/L | 338.79 ppb | 08:58:18 |
| 3 | SiO2† | 1028424.6 | 989943.6 | 68797 | ug/L | 68797 ppb | 08:58:56 |

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**Mean Data: 245969008|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 915116.0 | 104.32 | % | 0.429 | | | | 0.41% |
| Sc Radial | 3893.4 | 99.4 | % | 1.00 | | | | 1.01% |
| Y 371.029 | 812607.0 | 107.51 | % | 0.464 | | | | 0.43% |
| Y RADIAL | 4716.9 | 106.9 | % | 1.78 | | | | 1.66% |
| Ag 328.068† | -6051.7 | -0.3591 | ug/L | 0.90708 | -0.3591 | ppb | 0.90708 | 252.60% |
| Al 396.153Radial† | 45687.9 | 42850 | ug/L | 727.5 | 42850 | ppb | 727.5 | 1.70% |
| As 188.979† | -45.6 | 32.002 | ug/L | 3.6570 | 32.002 | ppb | 3.6570 | 11.43% |
| B 249.677† | 906.0 | 7.4368 | ug/L | 0.66280 | 7.4368 | ppb | 0.66280 | 8.91% |
| Ba 233.527† | 66525.8 | 525.19 | ug/L | 2.571 | 525.19 | ppb | 2.571 | 0.49% |
| Be 313.107† | 12581.7 | 13.006 | ug/L | 0.0896 | 13.006 | ppb | 0.0896 | 0.69% |
| Ca 317.933Radial† | 6244.3 | 13054 | ug/L | 190.7 | 13054 | ppb | 190.7 | 1.46% |
| Cd 226.502† | 1622.3 | 9.7092 | ug/L | 0.28564 | 9.7092 | ppb | 0.28564 | 2.94% |
| Co 228.616† | 2052.5 | 34.294 | ug/L | 0.0532 | 34.294 | ppb | 0.0532 | 0.16% |
| Cr 267.716† | 7463.5 | 92.397 | ug/L | 0.7630 | 92.397 | ppb | 0.7630 | 0.83% |
| Cu 324.752† | 122980.5 | 378.79 | ug/L | 2.080 | 378.79 | ppb | 2.080 | 0.55% |
| Fe 238.204 Radial† | 6284.9 | 88714 | ug/L | 1362.4 | 88714 | ppb | 1362.4 | 1.54% |
| K 766.490 Radial† | 43961.6 | 8430.9 | ug/L | 134.61 | 8430.9 | ppb | 134.61 | 1.60% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 163.8 | 7851.1 | ug/L | 145.48 | 7851.1 | ppb | 145.48 | 1.85% |
| Mn 257.610† | 1809384.0 | 2067.4 | ug/L | 11.02 | 2067.4 | ppb | 11.02 | 0.53% |
| Mo 202.031† | 15.7 | 8.1943 | ug/L | 0.33121 | 8.1943 | ppb | 0.33121 | 4.04% |
| Na 589.592 Radial† | 1515.8 | 467.36 | ug/L | 20.115 | 467.36 | ppb | 20.115 | 4.30% |
| Ni 231.604† | 2103.0 | 53.461 | ug/L | 0.4939 | 53.461 | ppb | 0.4939 | 0.92% |
| P 214.914† | 1299.5 | 647.11 | ug/L | 7.236 | 647.11 | ppb | 7.236 | 1.12% |
| Pb 220.353† | 3138.3 | 385.29 | ug/L | 1.211 | 385.29 | ppb | 1.211 | 0.31% |
| S 181.975 Axial† | 447.5 | 635.90 | ug/L | 5.978 | 635.90 | ppb | 5.978 | 0.94% |
| Sb 206.836† | 41.5 | 0.8480 | ug/L | 1.11629 | 0.8480 | ppb | 1.11629 | 131.63% |
| Se 196.026† | -425.8 | -2.6590 | ug/L | 2.25708 | -2.6590 | ppb | 2.25708 | 84.88% |
| Si 251.611† | 969430.2 | 31370 | ug/L | 163.8 | 31370 | ppb | 163.8 | 0.52% |
| Sn 189.927† | -39.9 | -9.9272 | ug/L | 1.47305 | -9.9272 | ppb | 1.47305 | 14.84% |
| Sr 421.552† | 18422.4 | 127.38 | ug/L | 2.090 | 127.38 | ppb | 2.090 | 1.64% |
| Ti 334.940† | 2320299.4 | 3647.1 | ug/L | 18.87 | 3647.1 | ppb | 18.87 | 0.52% |
| Tl 190.801† | -117.5 | 1.9680 | ug/L | 0.60023 | 1.9680 | ppb | 0.60023 | 30.50% |
| U 409.014† | 9805.8 | 260.48 | ug/L | 1.973 | 260.48 | ppb | 1.973 | 0.76% |
| V 292.402† | 28693.9 | 183.95 | ug/L | 0.960 | 183.95 | ppb | 0.960 | 0.52% |
| Zn 213.857† | 34918.2 | 337.38 | ug/L | 1.830 | 337.38 | ppb | 1.830 | 0.54% |
| SiO2† | 981787.9 | 68230 | ug/L | 510.9 | 68230 | ppb | 510.9 | 0.75% |

Sequence No.: 128
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 09:01:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3751.4 | 3751.4 | 95.7 | % | | | 09:03:20 |
| 1 | Y RADIAL | 4253.5 | 4253.5 | 96.43 | % | | | 09:03:00 |
| 1 | Al 396.153Radial† | 5271.3 | 5619.0 | 5246.3 | ug/L | 5246.3 | ppb | 09:03:00 |
| 1 | Ca 317.933Radial† | 2370.3 | 2456.4 | 5135.1 | ug/L | 5135.1 | ppb | 09:03:20 |
| 1 | Fe 238.204 Radial† | 328.8 | 332.1 | 4702.8 | ug/L | 4702.8 | ppb | 09:03:20 |
| 1 | K 766.490 Radial† | 28361.4 | 26987.7 | 5172.5 | ug/L | 5172.5 | ppb | 09:03:00 |
| 1 | Mg 279.077 IEC† | 102.9 | 103.4 | 5015.5 | ug/L | 5015.5 | ppb | 09:03:20 |
| 1 | Na 589.592 Radial† | 30750.7 | 32943.1 | 10157 | ug/L | 10157 | ppb | 09:03:00 |
| 1 | Sr 421.552† | 70448.3 | 73557.0 | 508.94 | ug/L | 508.94 | ppb | 09:03:00 |
| 1 | Sc 361.383 | 893103.4 | 893103.4 | 101.81 | % | | | 09:04:18 |
| 1 | Y 371.029 | 745863.8 | 745863.8 | 98.680 | % | | | 09:04:18 |
| 1 | Ag 328.068† | 108323.9 | 106158.3 | 494.80 | ug/L | 494.80 | ppb | 09:04:23 |
| 1 | As 188.979† | 1091.4 | 1090.2 | 490.99 | ug/L | 490.99 | ppb | 09:04:43 |
| 1 | B 249.677† | 19620.4 | 19670.0 | 474.73 | ug/L | 474.73 | ppb | 09:04:23 |
| 1 | Ba 233.527† | 63647.9 | 62518.2 | 491.83 | ug/L | 491.83 | ppb | 09:04:23 |
| 1 | Be 313.107† | 1328212.8 | 1308369.9 | 492.79 | ug/L | 492.79 | ppb | 09:04:18 |
| 1 | Cd 226.502† | 43261.6 | 42689.1 | 494.26 | ug/L | 494.26 | ppb | 09:04:23 |
| 1 | Co 228.616† | 23784.4 | 23428.2 | 490.85 | ug/L | 490.85 | ppb | 09:04:23 |
| 1 | Cr 267.716† | 44880.4 | 44005.1 | 494.94 | ug/L | 494.94 | ppb | 09:04:23 |
| 1 | Cu 324.752† | 169453.7 | 160451.4 | 488.25 | ug/L | 488.25 | ppb | 09:04:23 |
| 1 | Mn 257.610† | 436464.6 | 428249.0 | 487.58 | ug/L | 487.58 | ppb | 09:04:18 |
| 1 | Mo 202.031† | 6764.4 | 6634.0 | 487.47 | ug/L | 487.47 | ppb | 09:04:43 |
| 1 | Ni 231.604† | 19866.7 | 19451.2 | 494.41 | ug/L | 494.41 | ppb | 09:04:23 |
| 1 | P 214.914† | 4348.9 | 4061.1 | 2349.8 | ug/L | 2349.8 | ppb | 09:04:43 |
| 1 | Pb 220.353† | 4043.6 | 4029.9 | 497.22 | ug/L | 497.22 | ppb | 09:04:43 |
| 1 | S 181.975 Axial† | 744.1 | 690.1 | 992.04 | ug/L | 992.04 | ppb | 09:04:43 |
| 1 | Sb 206.836† | 1419.1 | 1357.2 | 491.88 | ug/L | 491.88 | ppb | 09:04:43 |
| 1 | Se 196.026† | 732.5 | 747.3 | 505.64 | ug/L | 505.64 | ppb | 09:04:43 |
| 1 | Si 251.611† | 77773.1 | 75832.6 | 2447.9 | ug/L | 2447.9 | ppb | 09:04:23 |
| 1 | Sn 189.927† | 2751.1 | 2691.7 | 483.60 | ug/L | 483.60 | ppb | 09:04:43 |
| 1 | Ti 334.940† | 314413.8 | 310200.1 | 487.34 | ug/L | 487.34 | ppb | 09:04:23 |
| 1 | Tl 190.801† | 1525.8 | 1531.2 | 492.87 | ug/L | 492.87 | ppb | 09:04:43 |
| 1 | U 409.014† | 14906.5 | 17528.2 | 482.38 | ug/L | 482.38 | ppb | 09:04:23 |
| 1 | V 292.402† | 70231.4 | 70488.9 | 498.04 | ug/L | 498.04 | ppb | 09:04:23 |
| 1 | Zn 213.857† | 50635.2 | 49129.3 | 490.04 | ug/L | 490.04 | ppb | 09:04:23 |
| 1 | SiO2† | 74952.8 | 73066.3 | 5064.5 | ug/L | 5064.5 | ppb | 09:05:50 |
| 2 | Sc Radial | 3750.3 | 3750.3 | 95.7 | % | | | 09:03:45 |
| 2 | Y RADIAL | 4232.7 | 4232.7 | 95.96 | % | | | 09:03:25 |
| 2 | Al 396.153Radial† | 5231.5 | 5579.0 | 5209.0 | ug/L | 5209.0 | ppb | 09:03:25 |
| 2 | Ca 317.933Radial† | 2370.7 | 2457.6 | 5137.5 | ug/L | 5137.5 | ppb | 09:03:45 |
| 2 | Fe 238.204 Radial† | 328.6 | 332.0 | 4700.9 | ug/L | 4700.9 | ppb | 09:03:45 |
| 2 | K 766.490 Radial† | 28256.4 | 26886.7 | 5153.1 | ug/L | 5153.1 | ppb | 09:03:25 |
| 2 | Mg 279.077 IEC† | 97.7 | 98.0 | 4751.5 | ug/L | 4751.5 | ppb | 09:03:45 |
| 2 | Na 589.592 Radial† | 30721.1 | 32921.6 | 10151 | ug/L | 10151 | ppb | 09:03:25 |
| 2 | Sr 421.552† | 70230.5 | 73351.1 | 507.52 | ug/L | 507.52 | ppb | 09:03:25 |
| 2 | Sc 361.383 | 898919.9 | 898919.9 | 102.47 | % | | | 09:04:49 |
| 2 | Y 371.029 | 751438.7 | 751438.7 | 99.417 | % | | | 09:04:49 |
| 2 | Ag 328.068† | 107208.0 | 104380.9 | 486.54 | ug/L | 486.54 | ppb | 09:04:54 |
| 2 | As 188.979† | 1092.0 | 1083.9 | 488.13 | ug/L | 488.13 | ppb | 09:05:14 |
| 2 | B 249.677† | 19487.8 | 19415.9 | 468.59 | ug/L | 468.59 | ppb | 09:04:54 |
| 2 | Ba 233.527† | 62986.0 | 61467.7 | 483.57 | ug/L | 483.57 | ppb | 09:04:54 |
| 2 | Be 313.107† | 1341149.1 | 1312552.7 | 494.34 | ug/L | 494.34 | ppb | 09:04:49 |
| 2 | Cd 226.502† | 42957.0 | 42116.8 | 487.63 | ug/L | 487.63 | ppb | 09:04:54 |
| 2 | Co 228.616† | 23646.5 | 23142.5 | 484.87 | ug/L | 484.87 | ppb | 09:04:54 |
| 2 | Cr 267.716† | 44521.1 | 43369.2 | 487.80 | ug/L | 487.80 | ppb | 09:04:54 |
| 2 | Cu 324.752† | 167497.3 | 157465.2 | 479.16 | ug/L | 479.16 | ppb | 09:04:54 |
| 2 | Mn 257.610† | 440507.4 | 429420.3 | 488.92 | ug/L | 488.92 | ppb | 09:04:49 |
| 2 | Mo 202.031† | 6745.0 | 6572.1 | 482.93 | ug/L | 482.93 | ppb | 09:05:14 |
| 2 | Ni 231.604† | 19736.9 | 19198.3 | 487.98 | ug/L | 487.98 | ppb | 09:04:54 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4330.2 | 4015.2 | 2324.0 ug/L | 2324.0 ppb | 09:05:14 |
| 2 | Pb 220.353† | 4039.5 | 4000.2 | 493.55 ug/L | 493.55 ppb | 09:05:14 |
| 2 | S 181.975 Axial† | 740.3 | 681.7 | 979.97 ug/L | 979.97 ppb | 09:05:14 |
| 2 | Sb 206.836† | 1436.4 | 1365.0 | 494.47 ug/L | 494.47 ppb | 09:05:14 |
| 2 | Se 196.026† | 733.7 | 743.7 | 503.28 ug/L | 503.28 ppb | 09:05:14 |
| 2 | Si 251.611† | 76982.3 | 74566.6 | 2406.9 ug/L | 2406.9 ppb | 09:04:54 |
| 2 | Sn 189.927† | 2749.1 | 2672.3 | 480.12 ug/L | 480.12 ppb | 09:05:14 |
| 2 | Ti 334.940† | 311460.6 | 305319.9 | 479.70 ug/L | 479.70 ppb | 09:04:54 |
| 2 | Tl 190.801† | 1514.3 | 1510.4 | 486.19 ug/L | 486.19 ppb | 09:05:14 |
| 2 | U 409.014† | 14736.4 | 17267.4 | 475.20 ug/L | 475.20 ppb | 09:04:54 |
| 2 | V 292.402† | 69526.2 | 69354.4 | 490.06 ug/L | 490.06 ppb | 09:04:54 |
| 2 | Zn 213.857† | 50115.2 | 48300.0 | 481.75 ug/L | 481.75 ppb | 09:04:54 |
| 2 | SiO2† | 77032.0 | 74619.0 | 5172.5 ug/L | 5172.5 ppb | 09:05:56 |
| 3 | Sc Radial | 3730.7 | 3730.7 | 95.2 % | | 09:04:11 |
| 3 | Y RADIAL | 4303.5 | 4303.5 | 97.57 % | | 09:03:50 |
| 3 | Al 396.153Radial† | 5319.1 | 5699.8 | 5322.4 ug/L | 5322.4 ppb | 09:03:50 |
| 3 | Ca 317.933Radial† | 2350.0 | 2448.9 | 5119.4 ug/L | 5119.4 ppb | 09:04:11 |
| 3 | Fe 238.204 Radial† | 326.0 | 331.1 | 4688.6 ug/L | 4688.6 ppb | 09:04:11 |
| 3 | K 766.490 Radial† | 28635.0 | 27439.6 | 5259.2 ug/L | 5259.2 ppb | 09:03:50 |
| 3 | Mg 279.077 IEC† | 102.7 | 103.8 | 5033.7 ug/L | 5033.7 ppb | 09:04:11 |
| 3 | Na 589.592 Radial† | 31113.5 | 33502.5 | 10330 ug/L | 10330 ppb | 09:03:50 |
| 3 | Sr 421.552† | 71194.0 | 74749.1 | 517.19 ug/L | 517.19 ppb | 09:03:50 |
| 3 | Sc 361.383 | 895446.9 | 895446.9 | 102.08 % | | 09:05:20 |
| 3 | Y 371.029 | 747193.8 | 747193.8 | 98.856 % | | 09:05:20 |
| 3 | Ag 328.068† | 107026.4 | 104608.8 | 487.59 ug/L | 487.59 ppb | 09:05:25 |
| 3 | As 188.979† | 1080.1 | 1076.4 | 484.77 ug/L | 484.77 ppb | 09:05:45 |
| 3 | B 249.677† | 19495.5 | 19497.1 | 470.56 ug/L | 470.56 ppb | 09:05:25 |
| 3 | Ba 233.527† | 62919.5 | 61640.9 | 484.93 ug/L | 484.93 ppb | 09:05:25 |
| 3 | Be 313.107† | 1330652.6 | 1307345.8 | 492.39 ug/L | 492.39 ppb | 09:05:20 |
| 3 | Cd 226.502† | 42952.8 | 42275.3 | 489.47 ug/L | 489.47 ppb | 09:05:25 |
| 3 | Co 228.616† | 23643.7 | 23229.3 | 486.68 ug/L | 486.68 ppb | 09:05:25 |
| 3 | Cr 267.716† | 44417.8 | 43436.6 | 488.55 ug/L | 488.55 ppb | 09:05:25 |
| 3 | Cu 324.752† | 167417.8 | 158021.3 | 480.86 ug/L | 480.86 ppb | 09:05:25 |
| 3 | Mn 257.610† | 438381.0 | 429004.4 | 488.44 ug/L | 488.44 ppb | 09:05:20 |
| 3 | Mo 202.031† | 6706.3 | 6559.8 | 482.02 ug/L | 482.02 ppb | 09:05:45 |
| 3 | Ni 231.604† | 19734.2 | 19270.3 | 489.81 ug/L | 489.81 ppb | 09:05:25 |
| 3 | P 214.914† | 4288.5 | 3990.8 | 2309.0 ug/L | 2309.0 ppb | 09:05:45 |
| 3 | Pb 220.353† | 4025.4 | 4001.6 | 493.75 ug/L | 493.75 ppb | 09:05:45 |
| 3 | S 181.975 Axial† | 738.0 | 682.2 | 980.65 ug/L | 980.65 ppb | 09:05:45 |
| 3 | Sb 206.836† | 1416.1 | 1350.6 | 489.37 ug/L | 489.37 ppb | 09:05:45 |
| 3 | Se 196.026† | 713.3 | 726.6 | 492.01 ug/L | 492.01 ppb | 09:05:45 |
| 3 | Si 251.611† | 76974.3 | 74850.1 | 2416.1 ug/L | 2416.1 ppb | 09:05:25 |
| 3 | Sn 189.927† | 2725.8 | 2659.9 | 477.89 ug/L | 477.89 ppb | 09:05:45 |
| 3 | Ti 334.940† | 311186.5 | 306230.2 | 481.10 ug/L | 481.10 ppb | 09:05:25 |
| 3 | Tl 190.801† | 1504.5 | 1506.5 | 484.95 ug/L | 484.95 ppb | 09:05:45 |
| 3 | U 409.014† | 14653.4 | 17241.9 | 474.49 ug/L | 474.49 ppb | 09:05:25 |
| 3 | V 292.402† | 69426.8 | 69520.2 | 491.20 ug/L | 491.20 ppb | 09:05:25 |
| 3 | Zn 213.857† | 50149.2 | 48523.0 | 483.98 ug/L | 483.98 ppb | 09:05:25 |
| 3 | SiO2† | 76480.9 | 74370.6 | 5155.3 ug/L | 5155.3 ppb | 09:06:01 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 895823.4 | 102.12 | % | 0.334 | | | | 0.33% |
| Sc Radial | 3744.1 | 95.5 | % | 0.30 | | | | 0.31% |
| Y 371.029 | 748165.5 | 98.984 | % | 0.3852 | | | | 0.39% |
| Y RADIAL | 4263.2 | 96.65 | % | 0.825 | | | | 0.85% |
| Ag 328.068† | 105049.4 | 489.64 | ug/L | 4.496 | 489.64 | ppb | 4.496 | 0.92% |
| QC value within limits for Ag 328.068 Recovery = 97.93% | | | | | | | | |
| Al 396.153Radial† | 5632.6 | 5259.2 | ug/L | 57.77 | 5259.2 | ppb | 57.77 | 1.10% |
| QC value within limits for Al 396.153Radial Recovery = 105.18% | | | | | | | | |
| As 188.979† | 1083.5 | 487.97 | ug/L | 3.112 | 487.97 | ppb | 3.112 | 0.64% |
| QC value within limits for As 188.979 Recovery = 97.59% | | | | | | | | |
| B 249.677† | 19527.6 | 471.29 | ug/L | 3.137 | 471.29 | ppb | 3.137 | 0.67% |
| QC value within limits for B 249.677 Recovery = 94.26% | | | | | | | | |
| Ba 233.527† | 61875.6 | 486.77 | ug/L | 4.429 | 486.77 | ppb | 4.429 | 0.91% |
| QC value within limits for Ba 233.527 Recovery = 97.35% | | | | | | | | |
| Be 313.107† | 1309422.8 | 493.17 | ug/L | 1.032 | 493.17 | ppb | 1.032 | 0.21% |
| QC value within limits for Be 313.107 Recovery = 98.63% | | | | | | | | |
| Ca 317.933Radial† | 2454.3 | 5130.7 | ug/L | 9.86 | 5130.7 | ppb | 9.86 | 0.19% |

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   QC value within limits for Ca 317.933Radial  Recovery = 102.61%
Cd 226.502†            42360.4      490.45 ug/L         3.424      490.45 ppb          3.424   0.70%
   QC value within limits for Cd 226.502  Recovery = 98.09%
Co 228.616†            23266.6      487.46 ug/L         3.067      487.46 ppb          3.067   0.63%
   QC value within limits for Co 228.616  Recovery = 97.49%
Cr 267.716†            43603.6      490.43 ug/L         3.926      490.43 ppb          3.926   0.80%
   QC value within limits for Cr 267.716  Recovery = 98.09%
Cu 324.752†           158646.0      482.76 ug/L         4.831      482.76 ppb          4.831   1.00%
   QC value within limits for Cu 324.752  Recovery = 96.55%
Fe 238.204 Radial†       331.8      4697.5 ug/L          7.70      4697.5 ppb           7.70   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.95%
K 766.490 Radial†      27104.7      5194.9 ug/L         56.47      5194.9 ppb          56.47   1.09%
   QC value within limits for K 766.490 Radial  Recovery = 103.90%
Mg 279.077 IEC†          101.7      4933.6 ug/L        157.91      4933.6 ppb         157.91   3.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.67%
Mn 257.610†           428891.3      488.31 ug/L         0.680      488.31 ppb          0.680   0.14%
   QC value within limits for Mn 257.610  Recovery = 97.66%
Mo 202.031†             6588.6      484.14 ug/L         2.920      484.14 ppb          2.920   0.60%
   QC value within limits for Mo 202.031  Recovery = 96.83%
Na 589.592 Radial†     33122.4       10213 ug/L         101.6       10213 ppb          101.6   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = 102.13%
Ni 231.604†            19306.6      490.73 ug/L         3.312      490.73 ppb          3.312   0.67%
   QC value within limits for Ni 231.604  Recovery = 98.15%
P 214.914†              4022.3      2327.6 ug/L         20.68      2327.6 ppb         20.68   0.89%
   QC value within limits for P 214.914  Recovery = 93.10%
Pb 220.353†             4010.6      494.84 ug/L         2.061      494.84 ppb          2.061   0.42%
   QC value within limits for Pb 220.353  Recovery = 98.97%
S 181.975 Axial†         684.6      984.22 ug/L         6.784      984.22 ppb          6.784   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 98.42%
Sb 206.836†             1357.6      491.91 ug/L         2.548      491.91 ppb          2.548   0.52%
   QC value within limits for Sb 206.836  Recovery = 98.38%
Se 196.026†              739.2      500.31 ug/L         7.284      500.31 ppb          7.284   1.46%
   QC value within limits for Se 196.026  Recovery = 100.06%
Si 251.611†            75083.1      2423.6 ug/L         21.47      2423.6 ppb         21.47   0.89%
   QC value within limits for Si 251.611  Recovery = 96.95%
Sn 189.927†             2674.6      480.54 ug/L         2.878      480.54 ppb          2.878   0.60%
   QC value within limits for Sn 189.927  Recovery = 96.11%
Sr 421.552†            73885.7      511.22 ug/L         5.223      511.22 ppb          5.223   1.02%
   QC value within limits for Sr 421.552  Recovery = 102.24%
Ti 334.940†           307250.1      482.71 ug/L         4.067      482.71 ppb          4.067   0.84%
   QC value within limits for Ti 334.940  Recovery = 96.54%
Tl 190.801†             1516.0      488.00 ug/L         4.261      488.00 ppb          4.261   0.87%
   QC value within limits for Tl 190.801  Recovery = 97.60%
U 409.014†             17345.8      477.36 ug/L         4.365      477.36 ppb          4.365   0.91%
   QC value within limits for U 409.014  Recovery = 95.47%
V 292.402†             69787.8      493.10 ug/L         4.316      493.10 ppb          4.316   0.88%
   QC value within limits for V 292.402  Recovery = 98.62%
Zn 213.857†            48650.8      485.26 ug/L         4.292      485.26 ppb          4.292   0.88%
   QC value within limits for Zn 213.857  Recovery = 97.05%
SiO2†                  74018.7      5130.8 ug/L         58.04      5130.8 ppb         58.04   1.13%
   QC value within limits for SiO2  Recovery = 95.95%
All analyte(s) passed QC.
```

Sequence No.: 129
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 09:08:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3847.9 | 3847.9 | 98.2 | % | | | 09:10:23 |
| 1 | Y RADIAL | 4416.7 | 4416.7 | 100.1 | % | | | 09:10:03 |
| 1 | Al 396.153Radial† | -113.0 | -2.7 | -2.4935 | ug/L | -2.4935 | ppb | 09:10:03 |
| 1 | Ca 317.933Radial† | 32.7 | 13.7 | 28.552 | ug/L | 28.552 | ppb | 09:10:23 |
| 1 | Fe 238.204 Radial† | 8.2 | -3.0 | -41.753 | ug/L | -41.753 | ppb | 09:10:23 |
| 1 | K 766.490 Radial† | 3078.4 | 495.5 | 95.101 | ug/L | 95.101 | ppb | 09:10:03 |
| 1 | Mg 279.077 IEC† | 4.2 | 0.2 | 11.263 | ug/L | 11.263 | ppb | 09:10:23 |
| 1 | Na 589.592 Radial† | -945.6 | -143.2 | -44.164 | ug/L | -44.164 | ppb | 09:10:03 |
| 1 | Sr 421.552† | 8.7 | -26.8 | -0.1858 | ug/L | -0.1858 | ppb | 09:10:03 |
| 1 | Sc 361.383 | 882181.8 | 882181.8 | 100.56 | % | | | 09:11:20 |
| 1 | Y 371.029 | 748807.0 | 748807.0 | 99.069 | % | | | 09:11:20 |
| 1 | Ag 328.068† | 308.9 | 66.8 | 0.3043 | ug/L | 0.3043 | ppb | 09:11:20 |
| 1 | As 188.979† | -20.6 | -2.3 | -1.0298 | ug/L | -1.0298 | ppb | 09:11:40 |
| 1 | B 249.677† | -443.7 | -43.0 | -1.0357 | ug/L | -1.0357 | ppb | 09:11:40 |
| 1 | Ba 233.527† | 13.9 | 15.3 | 0.1199 | ug/L | 0.1199 | ppb | 09:11:40 |
| 1 | Be 313.107† | -3598.0 | 184.4 | 0.0691 | ug/L | 0.0691 | ppb | 09:11:20 |
| 1 | Cd 226.502† | -182.1 | 15.2 | 0.1792 | ug/L | 0.1792 | ppb | 09:11:40 |
| 1 | Co 228.616† | -80.1 | -13.2 | -0.2749 | ug/L | -0.2749 | ppb | 09:11:40 |
| 1 | Cr 267.716† | 93.7 | 15.5 | 0.1737 | ug/L | 0.1737 | ppb | 09:11:40 |
| 1 | Cu 324.752† | 6081.0 | 56.1 | 0.1723 | ug/L | 0.1723 | ppb | 09:11:20 |
| 1 | Mn 257.610† | 533.0 | 71.2 | 0.0765 | ug/L | 0.0765 | ppb | 09:11:40 |
| 1 | Mo 202.031† | 9.3 | -0.8 | -0.0651 | ug/L | -0.0651 | ppb | 09:11:40 |
| 1 | Ni 231.604† | 103.2 | 40.1 | 1.0207 | ug/L | 1.0207 | ppb | 09:11:40 |
| 1 | P 214.914† | 208.0 | -3.7 | -2.2106 | ug/L | -2.2106 | ppb | 09:11:40 |
| 1 | Pb 220.353† | 1.2 | 59.3 | 7.2962 | ug/L | 7.2962 | ppb | 09:11:40 |
| 1 | S 181.975 Axial† | 41.2 | 0.2 | 0.2284 | ug/L | 0.2284 | ppb | 09:11:40 |
| 1 | Sb 206.836† | 37.4 | 0.5 | 0.2154 | ug/L | 0.2154 | ppb | 09:11:40 |
| 1 | Se 196.026† | -17.4 | 10.5 | 6.7276 | ug/L | 6.7276 | ppb | 09:11:40 |
| 1 | Si 251.611† | 586.2 | 24.6 | 0.7963 | ug/L | 0.7963 | ppb | 09:11:40 |
| 1 | Sn 189.927† | 23.5 | 12.9 | 2.3170 | ug/L | 2.3170 | ppb | 09:11:40 |
| 1 | Ti 334.940† | -1438.0 | -55.8 | -0.0818 | ug/L | -0.0818 | ppb | 09:11:20 |
| 1 | Tl 190.801† | -38.4 | -5.6 | -1.7995 | ug/L | -1.7995 | ppb | 09:11:40 |
| 1 | U 409.014† | -3158.5 | -254.1 | -7.0136 | ug/L | -7.0136 | ppb | 09:11:20 |
| 1 | V 292.402† | -1431.6 | 82.2 | 0.5649 | ug/L | 0.5649 | ppb | 09:11:20 |
| 1 | Zn 213.857† | 761.2 | 150.9 | 1.5183 | ug/L | 1.5183 | ppb | 09:11:40 |
| 1 | SiO2† | 623.3 | 65.4 | 4.5457 | ug/L | 4.5457 | ppb | 09:12:36 |
| 2 | Sc Radial | 3801.3 | 3801.3 | 97.0 | % | | | 09:10:49 |
| 2 | Y RADIAL | 4424.9 | 4424.9 | 100.3 | % | | | 09:10:29 |
| 2 | Al 396.153Radial† | -105.0 | 4.1 | 3.8783 | ug/L | 3.8783 | ppb | 09:10:29 |
| 2 | Ca 317.933Radial† | 26.2 | 7.3 | 15.329 | ug/L | 15.329 | ppb | 09:10:49 |
| 2 | Fe 238.204 Radial† | 10.6 | -0.4 | -5.8571 | ug/L | -5.8571 | ppb | 09:10:49 |
| 2 | K 766.490 Radial† | 2755.2 | 200.8 | 38.559 | ug/L | 38.559 | ppb | 09:10:29 |
| 2 | Mg 279.077 IEC† | 2.7 | -1.3 | -61.951 | ug/L | -61.951 | ppb | 09:10:49 |
| 2 | Na 589.592 Radial† | -1028.3 | -240.3 | -74.103 | ug/L | -74.103 | ppb | 09:10:29 |
| 2 | Sr 421.552† | 57.4 | 23.5 | 0.1624 | ug/L | 0.1624 | ppb | 09:10:29 |
| 2 | Sc 361.383 | 893970.3 | 893970.3 | 101.91 | % | | | 09:11:46 |
| 2 | Y 371.029 | 757670.1 | 757670.1 | 100.24 | % | | | 09:11:46 |
| 2 | Ag 328.068† | 330.2 | 83.6 | 0.3916 | ug/L | 0.3916 | ppb | 09:11:46 |
| 2 | As 188.979† | -13.6 | 4.9 | 2.1714 | ug/L | 2.1714 | ppb | 09:12:06 |
| 2 | B 249.677† | -449.4 | -42.7 | -1.0362 | ug/L | -1.0362 | ppb | 09:12:06 |
| 2 | Ba 233.527† | 15.2 | 16.3 | 0.1294 | ug/L | 0.1294 | ppb | 09:12:06 |
| 2 | Be 313.107† | -3760.2 | 72.4 | 0.0272 | ug/L | 0.0272 | ppb | 09:11:46 |
| 2 | Cd 226.502† | -183.2 | 16.5 | 0.1912 | ug/L | 0.1912 | ppb | 09:12:06 |
| 2 | Co 228.616† | -54.9 | 12.6 | 0.2641 | ug/L | 0.2641 | ppb | 09:12:06 |
| 2 | Cr 267.716† | 61.3 | -17.6 | -0.1951 | ug/L | -0.1951 | ppb | 09:12:06 |
| 2 | Cu 324.752† | 6134.1 | 28.5 | 0.0883 | ug/L | 0.0883 | ppb | 09:11:46 |
| 2 | Mn 257.610† | 555.2 | 86.0 | 0.0999 | ug/L | 0.0999 | ppb | 09:12:06 |
| 2 | Mo 202.031† | 6.5 | -3.8 | -0.2787 | ug/L | -0.2787 | ppb | 09:12:06 |
| 2 | Ni 231.604† | 89.6 | 25.5 | 0.6482 | ug/L | 0.6482 | ppb | 09:12:06 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 208.1 | -6.3 | -3.7969 | ug/L | -3.7969 ppb | 09:12:06 |
| 2 | Pb 220.353† | -9.8 | 48.5 | 5.9685 | ug/L | 5.9685 ppb | 09:12:06 |
| 2 | S 181.975 Axial† | 47.1 | 5.4 | 7.7972 | ug/L | 7.7972 ppb | 09:12:06 |
| 2 | Sb 206.836† | 35.3 | -2.1 | -0.7230 | ug/L | -0.7230 ppb | 09:12:06 |
| 2 | Se 196.026† | -32.8 | -4.5 | -2.9374 | ug/L | -2.9374 ppb | 09:12:06 |
| 2 | Si 251.611† | 587.7 | 18.3 | 0.5965 | ug/L | 0.5965 ppb | 09:12:06 |
| 2 | Sn 189.927† | 11.2 | 0.5 | 0.0851 | ug/L | 0.0851 ppb | 09:12:06 |
| 2 | Ti 334.940† | -1398.5 | 1.8 | 0.0116 | ug/L | 0.0116 ppb | 09:11:46 |
| 2 | Tl 190.801† | -32.9 | 0.3 | 0.0841 | ug/L | 0.0841 ppb | 09:12:06 |
| 2 | U 409.014† | -3072.5 | -128.4 | -3.5438 | ug/L | -3.5438 ppb | 09:11:46 |
| 2 | V 292.402† | -1417.9 | 114.3 | 0.7861 | ug/L | 0.7861 ppb | 09:11:46 |
| 2 | Zn 213.857† | 747.2 | 127.2 | 1.2772 | ug/L | 1.2772 ppb | 09:12:06 |
| 2 | SiO2† | 589.8 | 24.4 | 1.7022 | ug/L | 1.7022 ppb | 09:12:41 |
| 3 | Sc Radial | 3903.6 | 3903.6 | 99.6 | % | | 09:11:14 |
| 3 | Y RADIAL | 4303.3 | 4303.3 | 97.56 | % | | 09:10:54 |
| 3 | Al 396.153Radial† | -131.4 | -19.5 | -18.351 | ug/L | -18.351 ppb | 09:10:54 |
| 3 | Ca 317.933Radial† | 28.9 | 9.4 | 19.615 | ug/L | 19.615 ppb | 09:11:14 |
| 3 | Fe 238.204 Radial† | 10.7 | -0.6 | -8.9237 | ug/L | -8.9237 ppb | 09:11:14 |
| 3 | K 766.490 Radial† | 2860.1 | 231.6 | 44.464 | ug/L | 44.464 ppb | 09:10:54 |
| 3 | Mg 279.077 IEC† | 2.0 | -2.1 | -102.24 | ug/L | -102.24 ppb | 09:11:14 |
| 3 | Na 589.592 Radial† | -977.4 | -161.5 | -49.789 | ug/L | -49.789 ppb | 09:10:54 |
| 3 | Sr 421.552† | 38.4 | 2.9 | 0.0196 | ug/L | 0.0196 ppb | 09:10:54 |
| 3 | Sc 361.383 | 891491.8 | 891491.8 | 101.63 | % | | 09:12:11 |
| 3 | Y 371.029 | 755277.3 | 755277.3 | 99.925 | % | | 09:12:11 |
| 3 | Ag 328.068† | 250.4 | 6.0 | 0.0315 | ug/L | 0.0315 ppb | 09:12:11 |
| 3 | As 188.979† | -22.6 | -4.0 | -1.7921 | ug/L | -1.7921 ppb | 09:12:31 |
| 3 | B 249.677† | -483.6 | -77.6 | -1.8807 | ug/L | -1.8807 ppb | 09:12:31 |
| 3 | Ba 233.527† | 6.8 | 8.1 | 0.0634 | ug/L | 0.0634 ppb | 09:12:31 |
| 3 | Be 313.107† | -3673.6 | 147.3 | 0.0552 | ug/L | 0.0552 ppb | 09:12:11 |
| 3 | Cd 226.502† | -190.5 | 8.8 | 0.1018 | ug/L | 0.1018 ppb | 09:12:31 |
| 3 | Co 228.616† | -62.6 | 4.9 | 0.1049 | ug/L | 0.1049 ppb | 09:12:31 |
| 3 | Cr 267.716† | 73.9 | -5.0 | -0.0538 | ug/L | -0.0538 ppb | 09:12:31 |
| 3 | Cu 324.752† | 6014.3 | -72.7 | -0.2170 | ug/L | -0.2170 ppb | 09:12:11 |
| 3 | Mn 257.610† | 517.6 | 50.6 | 0.0608 | ug/L | 0.0608 ppb | 09:12:31 |
| 3 | Mo 202.031† | 16.4 | 6.0 | 0.4381 | ug/L | 0.4381 ppb | 09:12:31 |
| 3 | Ni 231.604† | 74.0 | 10.4 | 0.2648 | ug/L | 0.2648 ppb | 09:12:31 |
| 3 | P 214.914† | 200.1 | -13.6 | -8.1451 | ug/L | -8.1451 ppb | 09:12:31 |
| 3 | Pb 220.353† | -19.4 | 39.0 | 4.8003 | ug/L | 4.8003 ppb | 09:12:31 |
| 3 | S 181.975 Axial† | 31.2 | -10.1 | -14.595 | ug/L | -14.595 ppb | 09:12:31 |
| 3 | Sb 206.836† | 41.1 | 3.8 | 1.3204 | ug/L | 1.3204 ppb | 09:12:31 |
| 3 | Se 196.026† | -28.1 | 0.1 | 0.0138 | ug/L | 0.0138 ppb | 09:12:31 |
| 3 | Si 251.611† | 614.4 | 46.2 | 1.4905 | ug/L | 1.4905 ppb | 09:12:31 |
| 3 | Sn 189.927† | 7.9 | -2.7 | -0.4787 | ug/L | -0.4787 ppb | 09:12:31 |
| 3 | Ti 334.940† | -1440.4 | -43.3 | -0.0533 | ug/L | -0.0533 ppb | 09:12:11 |
| 3 | Tl 190.801† | -30.7 | 2.3 | 0.7423 | ug/L | 0.7423 ppb | 09:12:31 |
| 3 | U 409.014† | -3240.6 | -302.2 | -8.3431 | ug/L | -8.3431 ppb | 09:12:11 |
| 3 | V 292.402† | -1527.5 | 2.6 | 0.0078 | ug/L | 0.0078 ppb | 09:12:11 |
| 3 | Zn 213.857† | 730.7 | 112.9 | 1.1367 | ug/L | 1.1367 ppb | 09:12:31 |
| 3 | SiO2† | 575.5 | 11.9 | 0.8148 | ug/L | 0.8148 ppb | 09:12:46 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 889214.7 | 101.37 | % | 0.709 | | | | 0.70% |
| Sc Radial | 3850.9 | 98.3 | % | 1.31 | | | | 1.33% |
| Y 371.029 | 753918.1 | 99.745 | % | 0.6066 | | | | 0.61% |
| Y RADIAL | 4381.6 | 99.34 | % | 1.540 | | | | 1.55% |
| Ag 328.068† | 52.1 | 0.2425 | ug/L | 0.18785 | 0.2425 | ppb | 0.18785 | 77.48% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -6.0 | -5.6553 | ug/L | 11.44682 | -5.6553 | ppb | 11.44682 | 202.41% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -0.5 | -0.2168 | ug/L | 2.10310 | -0.2168 | ppb | 2.10310 | 969.94% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -54.5 | -1.3175 | ug/L | 0.48769 | -1.3175 | ppb | 0.48769 | 37.02% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 13.2 | 0.1042 | ug/L | 0.03570 | 0.1042 | ppb | 0.03570 | 34.26% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 134.7 | 0.0505 | ug/L | 0.02134 | 0.0505 | ppb | 0.02134 | 42.25% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 10.1 | 21.166 | ug/L | 6.7466 | 21.166 | ppb | 6.7466 | 31.88% |

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.5      0.1574 ug/L       0.04852      0.1574 ppb        0.04852  30.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.5      0.0314 ug/L       0.27688      0.0314 ppb        0.27688 882.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.4     -0.0250 ug/L       0.18604     -0.0250 ppb        0.18604 742.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.0      0.0145 ug/L       0.20486      0.0145 ppb        0.20486 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.3     -18.845 ug/L       19.8987     -18.845 ppb        19.8987 105.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         309.3      59.374 ug/L       31.0803      59.374 ppb        31.0803  52.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -50.974 ug/L       57.5399     -50.974 ppb        57.5399 112.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                69.3      0.0791 ug/L       0.01964      0.0791 ppb        0.01964  24.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.4      0.0314 ug/L       0.36802      0.0314 ppb        0.36802 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -181.7     -56.019 ug/L       15.9118     -56.019 ppb        15.9118  28.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.3      0.6445 ug/L       0.37796      0.6445 ppb        0.37796  58.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.9     -4.7176 ug/L       3.07251     -4.7176 ppb        3.07251  65.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                49.0      6.0216 ug/L       1.24881      6.0216 ppb        1.24881  20.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -2.1898 ug/L      11.39022     -2.1898 ppb       11.39022 520.16%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.7      0.2709 ug/L       1.02285      0.2709 ppb        1.02285 377.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.0      1.2680 ug/L       4.95305      1.2680 ppb        4.95305 390.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.7      0.9611 ug/L       0.46920      0.9611 ppb        0.46920  48.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.6411 ug/L       1.47846      0.6411 ppb        1.47846 230.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.2     -0.0013 ug/L       0.17503     -0.0013 ppb        0.17503 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -32.4     -0.0412 ug/L       0.04785     -0.0412 ppb        0.04785 116.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.0     -0.3244 ug/L       1.31924     -0.3244 ppb        1.31924 406.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -228.2     -6.3002 ug/L       2.47793     -6.3002 ppb        2.47793  39.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 66.4      0.4529 ug/L       0.40106      0.4529 ppb        0.40106  88.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               130.3      1.3107 ug/L       0.19297      1.3107 ppb        0.19297  14.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      33.9      2.3542 ug/L       1.94903      2.3542 ppb        1.94903  82.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 130
Sample ID: 245969009|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 141
Date Collected: 2/25/2010 09:14:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969009|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4037.5 | 4037.5 | 103 | % | | | 09:17:11 |
| 1 | Y RADIAL | 4933.0 | 4933.0 | 111.8 | % | | | 09:17:11 |
| 1 | Al 396.153Radial† | 126472.1 | 122865.8 | 115230 | ug/L | 115230 | ppb | 09:16:51 |
| 1 | Ca 317.933Radial† | 13893.2 | 13465.0 | 28149 | ug/L | 28149 | ppb | 09:16:51 |
| 1 | Fe 238.204 Radial† | 9534.4 | 9242.7 | 130470 | ug/L | 130470 | ppb | 09:16:51 |
| 1 | K 766.490 Radial† | 84859.5 | 79724.7 | 15289 | ug/L | 15289 | ppb | 09:16:51 |
| 1 | Mg 279.077 IEC† | 423.8 | 407.3 | 19612 | ug/L | 19612 | ppb | 09:17:11 |
| 1 | Na 589.592 Radial† | 3149.1 | 3876.3 | 1195.2 | ug/L | 1195.2 | ppb | 09:16:51 |
| 1 | Sr 421.552† | 40141.3 | 38925.2 | 269.13 | ug/L | 269.13 | ppb | 09:16:51 |
| 1 | Sc 361.383 | 924283.5 | 924283.5 | 105.36 | % | | | 09:18:09 |
| 1 | Y 371.029 | 856232.8 | 856232.8 | 113.28 | % | | | 09:18:09 |
| 1 | Ag 328.068† | -9386.2 | -9148.8 | -1.5733 | ug/L | -1.5733 | ppb | 09:18:14 |
| 1 | As 188.979† | 2.2 | 20.3 | 52.043 | ug/L | 52.043 | ppb | 09:18:34 |
| 1 | B 249.677† | 998.6 | 1346.0 | 11.212 | ug/L | 11.212 | ppb | 09:18:14 |
| 1 | Ba 233.527† | 158748.7 | 150668.7 | 1186.8 | ug/L | 1186.8 | ppb | 09:18:14 |
| 1 | Be 313.107† | 15571.3 | 18540.8 | 10.216 | ug/L | 10.216 | ppb | 09:18:14 |
| 1 | Cd 226.502† | 1028.0 | 1171.9 | 0.1003 | ug/L | 0.1003 | ppb | 09:18:34 |
| 1 | Co 228.616† | 4080.9 | 3939.7 | 78.166 | ug/L | 78.166 | ppb | 09:18:34 |
| 1 | Cr 267.716† | 8196.1 | 7701.2 | 99.265 | ug/L | 99.265 | ppb | 09:18:14 |
| 1 | Cu 324.752† | 33316.8 | 25630.0 | 85.013 | ug/L | 85.013 | ppb | 09:18:14 |
| 1 | Mn 257.610† | 1848706.4 | 1754136.0 | 2008.2 | ug/L | 2008.2 | ppb | 09:18:09 |
| 1 | Mo 202.031† | -74.6 | -80.9 | 4.5213 | ug/L | 4.5213 | ppb | 09:18:34 |
| 1 | Ni 231.604† | 3029.2 | 2812.5 | 71.481 | ug/L | 71.481 | ppb | 09:18:34 |
| 1 | P 214.914† | 1251.8 | 977.5 | 496.42 | ug/L | 496.42 | ppb | 09:18:34 |
| 1 | Pb 220.353† | 917.5 | 928.9 | 124.48 | ug/L | 124.48 | ppb | 09:18:34 |
| 1 | S 181.975 Axial† | 549.7 | 480.9 | 670.47 | ug/L | 670.47 | ppb | 09:18:34 |
| 1 | Sb 206.836† | 65.9 | 25.9 | -0.0190 | ug/L | -0.0190 | ppb | 09:18:34 |
| 1 | Se 196.026† | -683.3 | -620.8 | -0.9131 | ug/L | -0.9131 | ppb | 09:18:34 |
| 1 | Si 251.611† | 1333138.0 | 1264713.9 | 40925 | ug/L | 40925 | ppb | 09:18:09 |
| 1 | Sn 189.927† | -125.4 | -129.5 | -25.721 | ug/L | -25.721 | ppb | 09:18:34 |
| 1 | Ti 334.940† | 957891.9 | 910502.8 | 1433.0 | ug/L | 1433.0 | ppb | 09:18:09 |
| 1 | Tl 190.801† | -111.5 | -73.2 | -2.8002 | ug/L | -2.8002 | ppb | 09:18:34 |
| 1 | U 409.014† | -10840.5 | -7402.0 | -219.47 | ug/L | -219.47 | ppb | 09:18:09 |
| 1 | V 292.402† | 33081.5 | 32903.1 | 208.79 | ug/L | 208.79 | ppb | 09:18:14 |
| 1 | Zn 213.857† | 33751.9 | 31427.6 | 296.28 | ug/L | 296.28 | ppb | 09:18:14 |
| 1 | SiO2† | 1314273.6 | 1246813.7 | 86648 | ug/L | 86648 | ppb | 09:19:42 |
| 2 | Sc Radial | 4024.7 | 4024.7 | 103 | % | | | 09:17:36 |
| 2 | Y RADIAL | 4925.7 | 4925.7 | 111.7 | % | | | 09:17:36 |
| 2 | Al 396.153Radial† | 127634.0 | 124389.8 | 116660 | ug/L | 116660 | ppb | 09:17:16 |
| 2 | Ca 317.933Radial† | 14051.3 | 13662.1 | 28561 | ug/L | 28561 | ppb | 09:17:16 |
| 2 | Fe 238.204 Radial† | 9627.5 | 9362.9 | 132160 | ug/L | 132160 | ppb | 09:17:16 |
| 2 | K 766.490 Radial† | 85637.4 | 80745.6 | 15484 | ug/L | 15484 | ppb | 09:17:16 |
| 2 | Mg 279.077 IEC† | 419.6 | 404.5 | 19472 | ug/L | 19472 | ppb | 09:17:36 |
| 2 | Na 589.592 Radial† | 3180.4 | 3916.6 | 1207.6 | ug/L | 1207.6 | ppb | 09:17:16 |
| 2 | Sr 421.552† | 40558.1 | 39455.7 | 272.80 | ug/L | 272.80 | ppb | 09:17:16 |
| 2 | Sc 361.383 | 916002.3 | 916002.3 | 104.42 | % | | | 09:18:40 |
| 2 | Y 371.029 | 846622.0 | 846622.0 | 112.01 | % | | | 09:18:40 |
| 2 | Ag 328.068† | -9292.2 | -9139.3 | -0.9993 | ug/L | -0.9993 | ppb | 09:18:45 |
| 2 | As 188.979† | -2.9 | 15.4 | 50.257 | ug/L | 50.257 | ppb | 09:19:05 |
| 2 | B 249.677† | 1135.6 | 1485.8 | 14.322 | ug/L | 14.322 | ppb | 09:18:45 |
| 2 | Ba 233.527† | 159178.5 | 152442.5 | 1200.8 | ug/L | 1200.8 | ppb | 09:18:45 |
| 2 | Be 313.107† | 15576.3 | 18679.2 | 10.266 | ug/L | 10.266 | ppb | 09:18:45 |
| 2 | Cd 226.502† | 1049.1 | 1200.9 | 0.2596 | ug/L | 0.2596 | ppb | 09:19:05 |
| 2 | Co 228.616† | 4078.5 | 3972.4 | 78.832 | ug/L | 78.832 | ppb | 09:19:05 |
| 2 | Cr 267.716† | 8209.8 | 7784.6 | 100.37 | ug/L | 100.37 | ppb | 09:18:45 |
| 2 | Cu 324.752† | 33312.4 | 25911.6 | 85.963 | ug/L | 85.963 | ppb | 09:18:45 |
| 2 | Mn 257.610† | 1833170.3 | 1755120.0 | 2009.5 | ug/L | 2009.5 | ppb | 09:18:40 |
| 2 | Mo 202.031† | -88.7 | -95.1 | 3.6191 | ug/L | 3.6191 | ppb | 09:19:05 |
| 2 | Ni 231.604† | 2979.5 | 2790.9 | 70.931 | ug/L | 70.931 | ppb | 09:19:05 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1246.5 | 983.3 | 498.71 ug/L | 498.71 ppb | 09:19:05 |
| 2 | Pb 220.353† | 911.6 | 931.1 | 124.87 ug/L | 124.87 ppb | 09:19:05 |
| 2 | S 181.975 Axial† | 557.8 | 493.3 | 688.08 ug/L | 688.08 ppb | 09:19:05 |
| 2 | Sb 206.836† | 44.6 | 6.0 | -6.9801 ug/L | -6.9801 ppb | 09:19:05 |
| 2 | Se 196.026† | -669.2 | -613.2 | 9.3688 ug/L | 9.3688 ppb | 09:19:05 |
| 2 | Si 251.611† | 1321083.7 | 1264608.6 | 40921 ug/L | 40921 ppb | 09:18:40 |
| 2 | Sn 189.927† | -102.1 | -108.3 | -21.942 ug/L | -21.942 ppb | 09:19:05 |
| 2 | Ti 334.940† | 948712.9 | 909931.3 | 1432.2 ug/L | 1432.2 ppb | 09:18:40 |
| 2 | Tl 190.801† | -125.9 | -88.0 | -7.5213 ug/L | -7.5213 ppb | 09:19:05 |
| 2 | U 409.014† | -10980.4 | -7629.0 | -225.93 ug/L | -225.93 ppb | 09:18:40 |
| 2 | V 292.402† | 33125.0 | 33228.7 | 210.78 ug/L | 210.78 ppb | 09:18:45 |
| 2 | Zn 213.857† | 33877.3 | 31837.3 | 300.15 ug/L | 300.15 ppb | 09:18:45 |
| 2 | SiO2† | 1318537.1 | 1262173.7 | 87716 ug/L | 87716 ppb | 09:19:48 |
| 3 | Sc Radial | 4043.2 | 4043.2 | 103 % | | 09:18:01 |
| 3 | Y RADIAL | 4923.0 | 4923.0 | 111.6 % | | 09:18:01 |
| 3 | Al 396.153Radial† | 124795.1 | 121067.6 | 113550 ug/L | 113550 ppb | 09:17:41 |
| 3 | Ca 317.933Radial† | 13772.0 | 13328.6 | 27863 ug/L | 27863 ppb | 09:17:41 |
| 3 | Fe 238.204 Radial† | 9409.8 | 9109.0 | 128580 ug/L | 128580 ppb | 09:17:41 |
| 3 | K 766.490 Radial† | 83865.0 | 78644.9 | 15081 ug/L | 15081 ppb | 09:17:41 |
| 3 | Mg 279.077 IEC† | 422.6 | 405.5 | 19526 ug/L | 19526 ppb | 09:18:01 |
| 3 | Na 589.592 Radial† | 3045.2 | 3771.2 | 1162.8 ug/L | 1162.8 ppb | 09:17:41 |
| 3 | Sr 421.552† | 39706.0 | 38448.5 | 265.84 ug/L | 265.84 ppb | 09:17:41 |
| 3 | Sc 361.383 | 913072.1 | 913072.1 | 104.09 % | | 09:19:11 |
| 3 | Y 371.029 | 844344.3 | 844344.3 | 111.71 % | | 09:19:11 |
| 3 | Ag 328.068† | -9438.7 | -9308.6 | -2.8685 ug/L | -2.8685 ppb | 09:19:16 |
| 3 | As 188.979† | 3.1 | 21.2 | 52.017 ug/L | 52.017 ppb | 09:19:36 |
| 3 | B 249.677† | 1052.5 | 1409.4 | 13.053 ug/L | 13.053 ppb | 09:19:16 |
| 3 | Ba 233.527† | 160700.2 | 154393.6 | 1216.0 ug/L | 1216.0 ppb | 09:19:16 |
| 3 | Be 313.107† | 15787.5 | 18930.0 | 10.369 ug/L | 10.369 ppb | 09:19:16 |
| 3 | Cd 226.502† | 1025.6 | 1181.6 | 0.4077 ug/L | 0.4077 ppb | 09:19:36 |
| 3 | Co 228.616† | 4060.9 | 3968.0 | 78.792 ug/L | 78.792 ppb | 09:19:36 |
| 3 | Cr 267.716† | 8226.6 | 7826.0 | 100.49 ug/L | 100.49 ppb | 09:19:16 |
| 3 | Cu 324.752† | 33779.3 | 26462.6 | 87.447 ug/L | 87.447 ppb | 09:19:16 |
| 3 | Mn 257.610† | 1831463.8 | 1759114.4 | 2013.7 ug/L | 2013.7 ppb | 09:19:11 |
| 3 | Mo 202.031† | -85.9 | -92.7 | 3.5078 ug/L | 3.5078 ppb | 09:19:36 |
| 3 | Ni 231.604† | 2997.4 | 2817.3 | 71.601 ug/L | 71.601 ppb | 09:19:36 |
| 3 | P 214.914† | 1262.0 | 1002.0 | 511.75 ug/L | 511.75 ppb | 09:19:36 |
| 3 | Pb 220.353† | 884.3 | 907.7 | 121.72 ug/L | 121.72 ppb | 09:19:36 |
| 3 | S 181.975 Axial† | 558.5 | 495.8 | 692.13 ug/L | 692.13 ppb | 09:19:36 |
| 3 | Sb 206.836† | 51.3 | 12.6 | -4.5780 ug/L | -4.5780 ppb | 09:19:36 |
| 3 | Se 196.026† | -691.9 | -637.0 | -17.384 ug/L | -17.384 ppb | 09:19:36 |
| 3 | Si 251.611† | 1320499.9 | 1268107.8 | 41034 ug/L | 41034 ppb | 09:19:11 |
| 3 | Sn 189.927† | -113.9 | -120.0 | -23.954 ug/L | -23.954 ppb | 09:19:36 |
| 3 | Ti 334.940† | 948264.5 | 912416.2 | 1436.0 ug/L | 1436.0 ppb | 09:19:11 |
| 3 | Tl 190.801† | -122.9 | -85.5 | -6.6756 ug/L | -6.6756 ppb | 09:19:36 |
| 3 | U 409.014† | -10741.3 | -7433.1 | -220.11 ug/L | -220.11 ppb | 09:19:11 |
| 3 | V 292.402† | 33467.7 | 33659.6 | 214.32 ug/L | 214.32 ppb | 09:19:16 |
| 3 | Zn 213.857† | 34120.7 | 32175.3 | 304.08 ug/L | 304.08 ppb | 09:19:16 |
| 3 | SiO2† | 1312757.4 | 1260673.2 | 87611 ug/L | 87611 ppb | 09:19:54 |

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**Mean Data: 245969009|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 917785.9 | 104.62 | % | 0.663 | | | | 0.63% |
| Sc Radial | 4035.1 | 103 | % | 0.2 | | | | 0.24% |
| Y 371.029 | 849066.3 | 112.33 | % | 0.835 | | | | 0.74% |
| Y RADIAL | 4927.2 | 111.7 | % | 0.12 | | | | 0.11% |
| Ag 328.068† | -9198.9 | -1.8137 | ug/L | 0.95750 | -1.8137 | ppb | 0.95750 | 52.79% |
| Al 396.153Radial† | 122774.4 | 115150 | ug/L | 1559.7 | 115150 | ppb | 1559.7 | 1.35% |
| As 188.979† | 19.0 | 51.439 | ug/L | 1.0236 | 51.439 | ppb | 1.0236 | 1.99% |
| B 249.677† | 1413.7 | 12.863 | ug/L | 1.5641 | 12.863 | ppb | 1.5641 | 12.16% |
| Ba 233.527† | 152501.6 | 1201.2 | ug/L | 14.60 | 1201.2 | ppb | 14.60 | 1.22% |
| Be 313.107† | 18716.7 | 10.283 | ug/L | 0.0781 | 10.283 | ppb | 0.0781 | 0.76% |
| Ca 317.933Radial† | 13485.2 | 28191 | ug/L | 350.6 | 28191 | ppb | 350.6 | 1.24% |
| Cd 226.502† | 1184.8 | 0.2559 | ug/L | 0.15376 | 0.2559 | ppb | 0.15376 | 60.09% |
| Co 228.616† | 3960.0 | 78.597 | ug/L | 0.3735 | 78.597 | ppb | 0.3735 | 0.48% |
| Cr 267.716† | 7770.6 | 100.04 | ug/L | 0.676 | 100.04 | ppb | 0.676 | 0.68% |
| Cu 324.752† | 26001.4 | 86.141 | ug/L | 1.2268 | 86.141 | ppb | 1.2268 | 1.42% |
| Fe 238.204 Radial† | 9238.2 | 130400 | ug/L | 1793.3 | 130400 | ppb | 1793.3 | 1.38% |
| K 766.490 Radial† | 79705.1 | 15285 | ug/L | 201.5 | 15285 | ppb | 201.5 | 1.32% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 405.7 | 19537 | ug/L | 70.3 | 19537 | ppb | 70.3 | 0.36% |
| Mn 257.610† | 1756123.4 | 2010.4 | ug/L | 2.87 | 2010.4 | ppb | 2.87 | 0.14% |
| Mo 202.031† | -89.6 | 3.8827 | ug/L | 0.55585 | 3.8827 | ppb | 0.55585 | 14.32% |
| Na 589.592 Radial† | 3854.7 | 1188.5 | ug/L | 23.13 | 1188.5 | ppb | 23.13 | 1.95% |
| Ni 231.604† | 2806.9 | 71.338 | ug/L | 0.3572 | 71.338 | ppb | 0.3572 | 0.50% |
| P 214.914† | 987.6 | 502.29 | ug/L | 8.271 | 502.29 | ppb | 8.271 | 1.65% |
| Pb 220.353† | 922.6 | 123.69 | ug/L | 1.716 | 123.69 | ppb | 1.716 | 1.39% |
| S 181.975 Axial† | 490.0 | 683.56 | ug/L | 11.511 | 683.56 | ppb | 11.511 | 1.68% |
| Sb 206.836† | 14.8 | -3.8591 | ug/L | 3.53581 | -3.8591 | ppb | 3.53581 | 91.62% |
| Se 196.026† | -623.6 | -2.9760 | ug/L | 13.49508 | -2.9760 | ppb | 13.49508 | 453.46% |
| Si 251.611† | 1265810.1 | 40960 | ug/L | 64.4 | 40960 | ppb | 64.4 | 0.16% |
| Sn 189.927† | -119.2 | -23.872 | ug/L | 1.8904 | -23.872 | ppb | 1.8904 | 7.92% |
| Sr 421.552† | 38943.2 | 269.26 | ug/L | 3.484 | 269.26 | ppb | 3.484 | 1.29% |
| Ti 334.940† | 910950.1 | 1433.7 | ug/L | 2.00 | 1433.7 | ppb | 2.00 | 0.14% |
| Tl 190.801† | -82.2 | -5.6657 | ug/L | 2.51734 | -5.6657 | ppb | 2.51734 | 44.43% |
| U 409.014† | -7488.0 | -221.84 | ug/L | 3.561 | -221.84 | ppb | 3.561 | 1.61% |
| V 292.402† | 33263.8 | 211.30 | ug/L | 2.801 | 211.30 | ppb | 2.801 | 1.33% |
| Zn 213.857† | 31813.4 | 300.17 | ug/L | 3.902 | 300.17 | ppb | 3.902 | 1.30% |
| SiO2† | 1256553.5 | 87325 | ug/L | 588.5 | 87325 | ppb | 588.5 | 0.67% |

Sequence No.: 131
Sample ID: 245969010|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 142
Date Collected: 2/25/2010 09:22:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969010|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3790.7 | 3790.7 | 96.7 | % | | | 09:24:21 |
| 1 | Y RADIAL | 5222.1 | 5222.1 | 118.4 | % | | | 09:24:01 |
| 1 | Al 396.153Radial† | 18688.9 | 19432.8 | 18226 | ug/L | 18226 | ppb | 09:24:01 |
| 1 | Ca 317.933Radial† | 8832.9 | 9111.7 | 19048 | ug/L | 19048 | ppb | 09:24:01 |
| 1 | Fe 238.204 Radial† | 3553.1 | 3661.8 | 51688 | ug/L | 51688 | ppb | 09:24:21 |
| 1 | K 766.490 Radial† | 25385.4 | 23603.4 | 4521.6 | ug/L | 4521.6 | ppb | 09:24:01 |
| 1 | Mg 279.077 IEC† | 94.8 | 93.9 | 4498.1 | ug/L | 4498.1 | ppb | 09:24:21 |
| 1 | Na 589.592 Radial† | 6590.0 | 7632.4 | 2353.3 | ug/L | 2353.3 | ppb | 09:24:01 |
| 1 | Sr 421.552† | 9298.1 | 9576.5 | 66.123 | ug/L | 66.123 | ppb | 09:24:01 |
| 1 | Sc 361.383 | 925228.0 | 925228.0 | 105.47 | % | | | 09:25:18 |
| 1 | Y 371.029 | 892533.0 | 892533.0 | 118.08 | % | | | 09:25:18 |
| 1 | Ag 328.068† | -3336.9 | -3404.2 | 0.2375 | ug/L | 0.2375 | ppb | 09:25:23 |
| 1 | As 188.979† | -18.4 | 0.8 | 22.891 | ug/L | 22.891 | ppb | 09:25:43 |
| 1 | B 249.677† | -99.8 | 303.6 | -1.0997 | ug/L | -1.0997 | ppb | 09:25:23 |
| 1 | Ba 233.527† | 64669.4 | 61316.1 | 482.91 | ug/L | 482.91 | ppb | 09:25:23 |
| 1 | Be 313.107† | 8207.7 | 11544.1 | 7.0701 | ug/L | 7.0701 | ppb | 09:25:23 |
| 1 | Cd 226.502† | 320.8 | 500.5 | 0.4639 | ug/L | 0.4639 | ppb | 09:25:43 |
| 1 | Co 228.616† | 1105.5 | 1114.7 | 20.289 | ug/L | 20.289 | ppb | 09:25:43 |
| 1 | Cr 267.716† | 4659.1 | 4339.7 | 53.774 | ug/L | 53.774 | ppb | 09:25:43 |
| 1 | Cu 324.752† | 77454.8 | 67446.0 | 208.02 | ug/L | 208.02 | ppb | 09:25:23 |
| 1 | Mn 257.610† | 1491036.9 | 1413229.6 | 1613.1 | ug/L | 1613.1 | ppb | 09:25:18 |
| 1 | Mo 202.031† | -18.4 | -27.6 | 2.2130 | ug/L | 2.2130 | ppb | 09:25:43 |
| 1 | Ni 231.604† | 1532.9 | 1390.9 | 35.362 | ug/L | 35.362 | ppb | 09:25:43 |
| 1 | P 214.914† | 2940.5 | 2577.4 | 1473.6 | ug/L | 1473.6 | ppb | 09:25:43 |
| 1 | Pb 220.353† | 2652.0 | 2572.5 | 314.74 | ug/L | 314.74 | ppb | 09:25:43 |
| 1 | S 181.975 Axial† | 172.5 | 122.7 | 173.22 | ug/L | 173.22 | ppb | 09:25:43 |
| 1 | Sb 206.836† | 54.3 | 14.8 | 0.0585 | ug/L | 0.0585 | ppb | 09:25:43 |
| 1 | Se 196.026† | -279.6 | -237.4 | 5.5330 | ug/L | 5.5330 | ppb | 09:25:43 |
| 1 | Si 251.611† | 790999.8 | 749407.8 | 24250 | ug/L | 24250 | ppb | 09:25:18 |
| 1 | Sn 189.927† | -89.5 | -95.4 | -16.698 | ug/L | -16.698 | ppb | 09:25:43 |
| 1 | Ti 334.940† | 806202.5 | 765754.2 | 1205.5 | ug/L | 1205.5 | ppb | 09:25:18 |
| 1 | Tl 190.801† | -100.4 | -62.6 | -2.6017 | ug/L | -2.6017 | ppb | 09:25:43 |
| 1 | U 409.014† | -5995.2 | -2797.6 | -83.253 | ug/L | -83.253 | ppb | 09:25:23 |
| 1 | V 292.402† | 10292.3 | 11264.1 | 69.634 | ug/L | 69.634 | ppb | 09:25:23 |
| 1 | Zn 213.857† | 57606.8 | 54012.3 | 535.47 | ug/L | 535.47 | ppb | 09:25:23 |
| 1 | SiO2† | 776586.1 | 735745.8 | 51131 | ug/L | 51131 | ppb | 09:26:52 |
| 2 | Sc Radial | 3725.5 | 3725.5 | 95.1 | % | | | 09:24:46 |
| 2 | Y RADIAL | 4908.9 | 4908.9 | 111.3 | % | | | 09:24:26 |
| 2 | Al 396.153Radial† | 18466.6 | 19537.3 | 18324 | ug/L | 18324 | ppb | 09:24:26 |
| 2 | Ca 317.933Radial† | 8764.7 | 9199.8 | 19232 | ug/L | 19232 | ppb | 09:24:26 |
| 2 | Fe 238.204 Radial† | 3600.8 | 3776.3 | 53305 | ug/L | 53305 | ppb | 09:24:46 |
| 2 | K 766.490 Radial† | 25046.6 | 23706.7 | 4541.4 | ug/L | 4541.4 | ppb | 09:24:26 |
| 2 | Mg 279.077 IEC† | 97.0 | 97.9 | 4692.0 | ug/L | 4692.0 | ppb | 09:24:46 |
| 2 | Na 589.592 Radial† | 6414.5 | 7567.1 | 2333.1 | ug/L | 2333.1 | ppb | 09:24:26 |
| 2 | Sr 421.552† | 9142.8 | 9581.5 | 66.156 | ug/L | 66.156 | ppb | 09:24:26 |
| 2 | Sc 361.383 | 912266.8 | 912266.8 | 103.99 | % | | | 09:25:49 |
| 2 | Y 371.029 | 878570.1 | 878570.1 | 116.24 | % | | | 09:25:49 |
| 2 | Ag 328.068† | -3339.4 | -3451.6 | 0.5217 | ug/L | 0.5217 | ppb | 09:25:55 |
| 2 | As 188.979† | -20.8 | -1.7 | 22.127 | ug/L | 22.127 | ppb | 09:26:15 |
| 2 | B 249.677† | -62.1 | 338.5 | -0.5184 | ug/L | -0.5184 | ppb | 09:25:55 |
| 2 | Ba 233.527† | 65395.2 | 62885.1 | 495.28 | ug/L | 495.28 | ppb | 09:25:55 |
| 2 | Be 313.107† | 8315.8 | 11758.6 | 7.1480 | ug/L | 7.1480 | ppb | 09:25:55 |
| 2 | Cd 226.502† | 319.8 | 503.8 | 0.3350 | ug/L | 0.3350 | ppb | 09:26:15 |
| 2 | Co 228.616† | 1118.1 | 1141.7 | 20.842 | ug/L | 20.842 | ppb | 09:26:15 |
| 2 | Cr 267.716† | 4696.1 | 4438.1 | 55.036 | ug/L | 55.036 | ppb | 09:26:15 |
| 2 | Cu 324.752† | 78376.6 | 69375.8 | 213.98 | ug/L | 213.98 | ppb | 09:25:55 |
| 2 | Mn 257.610† | 1471624.6 | 1414648.1 | 1614.9 | ug/L | 1614.9 | ppb | 09:25:49 |
| 2 | Mo 202.031† | -0.0 | -10.2 | 3.6190 | ug/L | 3.6190 | ppb | 09:26:15 |
| 2 | Ni 231.604† | 1543.3 | 1421.6 | 36.141 | ug/L | 36.141 | ppb | 09:26:15 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 2966.3 | 2641.9 | 1509.9 | ug/L | 1509.9 ppb | 09:26:15 |
| 2 | Pb 220.353† | 2687.7 | 2642.6 | 323.20 | ug/L | 323.20 ppb | 09:26:15 |
| 2 | S 181.975 Axial† | 177.8 | 130.2 | 183.91 | ug/L | 183.91 ppb | 09:26:15 |
| 2 | Sb 206.836† | 47.9 | 9.4 | -1.8487 | ug/L | -1.8487 ppb | 09:26:15 |
| 2 | Se 196.026† | -272.1 | -233.9 | 12.836 | ug/L | 12.836 ppb | 09:26:15 |
| 2 | Si 251.611† | 779768.2 | 749262.9 | 24245 | ug/L | 24245 ppb | 09:25:49 |
| 2 | Sn 189.927† | -105.6 | -112.1 | -19.753 | ug/L | -19.753 ppb | 09:26:15 |
| 2 | Ti 334.940† | 794118.6 | 764994.5 | 1204.3 | ug/L | 1204.3 ppb | 09:25:49 |
| 2 | Tl 190.801† | -86.4 | -50.5 | 1.2683 | ug/L | 1.2683 ppb | 09:26:15 |
| 2 | U 409.014† | -6005.3 | -2888.0 | -85.938 | ug/L | -85.938 ppb | 09:25:55 |
| 2 | V 292.402† | 10420.9 | 11526.3 | 71.246 | ug/L | 71.246 ppb | 09:25:55 |
| 2 | Zn 213.857† | 58362.4 | 55514.9 | 550.34 | ug/L | 550.34 ppb | 09:25:55 |
| 2 | SiO2† | 779655.7 | 749158.6 | 52063 | ug/L | 52063 ppb | 09:26:58 |
| 3 | Sc Radial | 3756.9 | 3756.9 | 95.9 | % | | 09:25:11 |
| 3 | Y RADIAL | 5081.2 | 5081.2 | 115.2 | % | | 09:24:51 |
| 3 | Al 396.153Radial† | 18673.9 | 19591.3 | 18374 | ug/L | 18374 ppb | 09:24:51 |
| 3 | Ca 317.933Radial† | 8805.4 | 9165.3 | 19160 | ug/L | 19160 ppb | 09:24:51 |
| 3 | Fe 238.204 Radial† | 3575.4 | 3718.2 | 52484 | ug/L | 52484 ppb | 09:25:11 |
| 3 | K 766.490 Radial† | 25387.1 | 23841.8 | 4567.3 | ug/L | 4567.3 ppb | 09:24:51 |
| 3 | Mg 279.077 IEC† | 102.5 | 102.9 | 4934.2 | ug/L | 4934.2 ppb | 09:25:11 |
| 3 | Na 589.592 Radial† | 6506.9 | 7607.2 | 2345.5 | ug/L | 2345.5 ppb | 09:24:51 |
| 3 | Sr 421.552† | 9272.5 | 9636.5 | 66.537 | ug/L | 66.537 ppb | 09:24:51 |
| 3 | Sc 361.383 | 922744.1 | 922744.1 | 105.19 | % | | 09:26:20 |
| 3 | Y 371.029 | 890232.9 | 890232.9 | 117.78 | % | | 09:26:20 |
| 3 | Ag 328.068† | -3341.7 | -3417.3 | 0.4233 | ug/L | 0.4233 ppb | 09:26:26 |
| 3 | As 188.979† | -19.5 | -0.3 | 22.548 | ug/L | 22.548 ppb | 09:26:46 |
| 3 | B 249.677† | -100.2 | 302.9 | -1.2458 | ug/L | -1.2458 ppb | 09:26:26 |
| 3 | Ba 233.527† | 65070.4 | 61862.3 | 487.23 | ug/L | 487.23 ppb | 09:26:26 |
| 3 | Be 313.107† | 8201.3 | 11559.0 | 7.0682 | ug/L | 7.0682 ppb | 09:26:26 |
| 3 | Cd 226.502† | 314.1 | 494.9 | 0.3163 | ug/L | 0.3163 ppb | 09:26:46 |
| 3 | Co 228.616† | 1109.1 | 1120.9 | 20.420 | ug/L | 20.420 ppb | 09:26:46 |
| 3 | Cr 267.716† | 4634.3 | 4328.1 | 53.721 | ug/L | 53.721 ppb | 09:26:46 |
| 3 | Cu 324.752† | 77860.5 | 68029.4 | 209.84 | ug/L | 209.84 ppb | 09:26:26 |
| 3 | Mn 257.610† | 1481802.1 | 1408255.7 | 1607.5 | ug/L | 1607.5 ppb | 09:26:20 |
| 3 | Mo 202.031† | 2.3 | -7.9 | 3.7186 | ug/L | 3.7186 ppb | 09:26:46 |
| 3 | Ni 231.604† | 1532.9 | 1394.8 | 35.461 | ug/L | 35.461 ppb | 09:26:46 |
| 3 | P 214.914† | 2933.9 | 2578.7 | 1473.4 | ug/L | 1473.4 ppb | 09:26:46 |
| 3 | Pb 220.353† | 2650.3 | 2577.7 | 315.32 | ug/L | 315.32 ppb | 09:26:46 |
| 3 | S 181.975 Axial† | 182.5 | 132.7 | 187.50 | ug/L | 187.50 ppb | 09:26:46 |
| 3 | Sb 206.836† | 51.1 | 11.9 | -0.9478 | ug/L | -0.9478 ppb | 09:26:46 |
| 3 | Se 196.026† | -282.2 | -240.5 | 5.9462 | ug/L | 5.9462 ppb | 09:26:46 |
| 3 | Si 251.611† | 786882.8 | 747512.7 | 24189 | ug/L | 24189 ppb | 09:26:20 |
| 3 | Sn 189.927† | -98.3 | -103.9 | -18.253 | ug/L | -18.253 ppb | 09:26:46 |
| 3 | Ti 334.940† | 801851.4 | 763675.4 | 1202.2 | ug/L | 1202.2 ppb | 09:26:20 |
| 3 | Tl 190.801† | -100.4 | -62.9 | -2.7369 | ug/L | -2.7369 ppb | 09:26:46 |
| 3 | U 409.014† | -6055.7 | -2870.4 | -85.356 | ug/L | -85.356 ppb | 09:26:26 |
| 3 | V 292.402† | 10335.9 | 11331.8 | 70.019 | ug/L | 70.019 ppb | 09:26:26 |
| 3 | Zn 213.857† | 58017.8 | 54550.2 | 540.77 | ug/L | 540.77 ppb | 09:26:26 |
| 3 | SiO2† | 785967.2 | 746646.1 | 51889 | ug/L | 51889 ppb | 09:27:04 |

**Mean Data: 245969010|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 920079.6 | 104.88 | % | 0.784 | | | | 0.75% |
| Sc Radial | 3757.7 | 95.9 | % | 0.83 | | | | 0.87% |
| Y 371.029 | 887112.0 | 117.37 | % | 0.990 | | | | 0.84% |
| Y RADIAL | 5070.7 | 115.0 | % | 3.56 | | | | 3.09% |
| Ag 328.068† | -3424.3 | 0.3942 | ug/L | 0.14437 | 0.3942 | ppb | 0.14437 | 36.63% |
| Al 396.153Radial† | 19520.5 | 18308 | ug/L | 75.6 | 18308 | ppb | 75.6 | 0.41% |
| As 188.979† | -0.4 | 22.522 | ug/L | 0.3826 | 22.522 | ppb | 0.3826 | 1.70% |
| B 249.677† | 315.0 | -0.9546 | ug/L | 0.38481 | -0.9546 | ppb | 0.38481 | 40.31% |
| Ba 233.527† | 62021.2 | 488.47 | ug/L | 6.277 | 488.47 | ppb | 6.277 | 1.28% |
| Be 313.107† | 11620.6 | 7.0954 | ug/L | 0.04552 | 7.0954 | ppb | 0.04552 | 0.64% |
| Ca 317.933Radial† | 9158.9 | 19147 | ug/L | 92.9 | 19147 | ppb | 92.9 | 0.49% |
| Cd 226.502† | 499.7 | 0.3717 | ug/L | 0.08035 | 0.3717 | ppb | 0.08035 | 21.61% |
| Co 228.616† | 1125.8 | 20.517 | ug/L | 0.2889 | 20.517 | ppb | 0.2889 | 1.41% |
| Cr 267.716† | 4368.6 | 54.177 | ug/L | 0.7445 | 54.177 | ppb | 0.7445 | 1.37% |
| Cu 324.752† | 68283.7 | 210.61 | ug/L | 3.054 | 210.61 | ppb | 3.054 | 1.45% |
| Fe 238.204 Radial† | 3718.8 | 52492 | ug/L | 808.3 | 52492 | ppb | 808.3 | 1.54% |
| K 766.490 Radial† | 23717.3 | 4543.4 | ug/L | 22.93 | 4543.4 | ppb | 22.93 | 0.50% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 98.2 | 4708.1 | ug/L | 218.49 | 4708.1 | ppb | 218.49 | 4.64% |
| Mn 257.610† | 1412044.4 | 1611.8 | ug/L | 3.85 | 1611.8 | ppb | 3.85 | 0.24% |
| Mo 202.031† | -15.2 | 3.1836 | ug/L | 0.84199 | 3.1836 | ppb | 0.84199 | 26.45% |
| Na 589.592 Radial† | 7602.2 | 2344.0 | ug/L | 10.15 | 2344.0 | ppb | 10.15 | 0.43% |
| Ni 231.604† | 1402.5 | 35.654 | ug/L | 0.4239 | 35.654 | ppb | 0.4239 | 1.19% |
| P 214.914† | 2599.3 | 1485.6 | ug/L | 21.05 | 1485.6 | ppb | 21.05 | 1.42% |
| Pb 220.353† | 2597.6 | 317.76 | ug/L | 4.728 | 317.76 | ppb | 4.728 | 1.49% |
| S 181.975 Axial† | 128.5 | 181.55 | ug/L | 7.431 | 181.55 | ppb | 7.431 | 4.09% |
| Sb 206.836† | 12.0 | -0.9126 | ug/L | 0.95411 | -0.9126 | ppb | 0.95411 | 104.54% |
| Se 196.026† | -237.3 | 8.1052 | ug/L | 4.10246 | 8.1052 | ppb | 4.10246 | 50.62% |
| Si 251.611† | 748727.8 | 24228 | ug/L | 34.1 | 24228 | ppb | 34.1 | 0.14% |
| Sn 189.927† | -103.8 | -18.235 | ug/L | 1.5273 | -18.235 | ppb | 1.5273 | 8.38% |
| Sr 421.552† | 9598.2 | 66.272 | ug/L | 0.2300 | 66.272 | ppb | 0.2300 | 0.35% |
| Ti 334.940† | 764808.1 | 1204.0 | ug/L | 1.66 | 1204.0 | ppb | 1.66 | 0.14% |
| Tl 190.801† | -58.7 | -1.3568 | ug/L | 2.27440 | -1.3568 | ppb | 2.27440 | 167.63% |
| U 409.014† | -2852.0 | -84.849 | ug/L | 1.4125 | -84.849 | ppb | 1.4125 | 1.66% |
| V 292.402† | 11374.1 | 70.300 | ug/L | 0.8415 | 70.300 | ppb | 0.8415 | 1.20% |
| Zn 213.857† | 54692.5 | 542.19 | ug/L | 7.538 | 542.19 | ppb | 7.538 | 1.39% |
| SiO2† | 743850.2 | 51694 | ug/L | 495.5 | 51694 | ppb | 495.5 | 0.96% |

Sequence No.: 132
Sample ID: 245969011|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 143
Date Collected: 2/25/2010 09:29:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969011|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3937.4 | 3937.4 | 100 | % | | | 09:31:30 |
| 1 | Y RADIAL | 4817.5 | 4817.5 | 109.2 | % | | | 09:31:30 |
| 1 | Al 396.153Radial† | 82352.6 | 82076.2 | 76977 | ug/L | 76977 | ppb | 09:31:10 |
| 1 | Ca 317.933Radial† | 8795.3 | 8734.1 | 18259 | ug/L | 18259 | ppb | 09:31:10 |
| 1 | Fe 238.204 Radial† | 6983.3 | 6939.0 | 97948 | ug/L | 97948 | ppb | 09:31:30 |
| 1 | K 766.490 Radial† | 50776.5 | 47897.2 | 9183.7 | ug/L | 9183.7 | ppb | 09:31:10 |
| 1 | Mg 279.077 IEC† | 322.0 | 316.5 | 15241 | ug/L | 15241 | ppb | 09:31:30 |
| 1 | Na 589.592 Radial† | 7717.8 | 8501.1 | 2621.1 | ug/L | 2621.1 | ppb | 09:31:10 |
| 1 | Sr 421.552† | 30486.4 | 30306.7 | 209.57 | ug/L | 209.57 | ppb | 09:31:10 |
| 1 | Sc 361.383 | 917248.7 | 917248.7 | 104.56 | % | | | 09:32:28 |
| 1 | Y 371.029 | 851620.2 | 851620.2 | 112.67 | % | | | 09:32:28 |
| 1 | Ag 328.068† | -7220.1 | -7145.5 | -2.3399 | ug/L | -2.3399 | ppb | 09:32:33 |
| 1 | As 188.979† | -15.8 | 3.2 | 44.397 | ug/L | 44.397 | ppb | 09:32:53 |
| 1 | B 249.677† | 607.7 | 979.4 | 7.6752 | ug/L | 7.6752 | ppb | 09:32:33 |
| 1 | Ba 233.527† | 100454.1 | 96073.0 | 757.30 | ug/L | 757.30 | ppb | 09:32:33 |
| 1 | Be 313.107† | 3746.2 | 7345.0 | 8.0086 | ug/L | 8.0086 | ppb | 09:32:33 |
| 1 | Cd 226.502† | 743.4 | 907.2 | 0.4039 | ug/L | 0.4039 | ppb | 09:32:53 |
| 1 | Co 228.616† | 2798.8 | 2743.2 | 51.512 | ug/L | 51.512 | ppb | 09:32:53 |
| 1 | Cr 267.716† | 11275.6 | 10706.0 | 129.84 | ug/L | 129.84 | ppb | 09:32:33 |
| 1 | Cu 324.752† | 20769.7 | 13872.8 | 47.510 | ug/L | 47.510 | ppb | 09:32:33 |
| 1 | Mn 257.610† | 1672459.5 | 1599035.1 | 1828.7 | ug/L | 1828.7 | ppb | 09:32:28 |
| 1 | Mo 202.031† | -22.9 | -32.0 | 5.4704 | ug/L | 5.4704 | ppb | 09:32:53 |
| 1 | Ni 231.604† | 3580.9 | 3362.3 | 85.478 | ug/L | 85.478 | ppb | 09:32:53 |
| 1 | P 214.914† | 837.5 | 590.5 | 287.23 | ug/L | 287.23 | ppb | 09:32:53 |
| 1 | Pb 220.353† | 660.4 | 689.7 | 90.505 | ug/L | 90.505 | ppb | 09:32:53 |
| 1 | S 181.975 Axial† | 401.1 | 342.8 | 478.83 | ug/L | 478.83 | ppb | 09:32:53 |
| 1 | Sb 206.836† | 54.1 | 15.0 | -5.2597 | ug/L | -5.2597 | ppb | 09:32:53 |
| 1 | Se 196.026† | -529.7 | -478.8 | -8.9550 | ug/L | -8.9550 | ppb | 09:32:53 |
| 1 | Si 251.611† | 1337894.8 | 1278967.1 | 41386 | ug/L | 41386 | ppb | 09:32:28 |
| 1 | Sn 189.927† | -84.8 | -91.6 | -18.812 | ug/L | -18.812 | ppb | 09:32:53 |
| 1 | Ti 334.940† | 1536853.8 | 1471178.4 | 2313.0 | ug/L | 2313.0 | ppb | 09:32:28 |
| 1 | Tl 190.801† | -129.0 | -90.8 | -1.7430 | ug/L | -1.7430 | ppb | 09:32:53 |
| 1 | U 409.014† | -10498.2 | -7153.6 | -208.97 | ug/L | -208.97 | ppb | 09:32:28 |
| 1 | V 292.402† | 26098.0 | 26465.1 | 167.67 | ug/L | 167.67 | ppb | 09:32:33 |
| 1 | Zn 213.857† | 25894.7 | 24158.9 | 227.94 | ug/L | 227.94 | ppb | 09:32:33 |
| 1 | SiO2† | 1318259.3 | 1260192.2 | 87578 | ug/L | 87578 | ppb | 09:34:02 |
| 2 | Sc Radial | 3945.6 | 3945.6 | 101 | % | | | 09:31:55 |
| 2 | Y RADIAL | 4835.9 | 4835.9 | 109.6 | % | | | 09:31:55 |
| 2 | Al 396.153Radial† | 83560.2 | 83104.9 | 77942 | ug/L | 77942 | ppb | 09:31:35 |
| 2 | Ca 317.933Radial† | 8993.6 | 8912.9 | 18632 | ug/L | 18632 | ppb | 09:31:35 |
| 2 | Fe 238.204 Radial† | 6984.2 | 6925.4 | 97755 | ug/L | 97755 | ppb | 09:31:55 |
| 2 | K 766.490 Radial† | 51751.1 | 48759.9 | 9349.1 | ug/L | 9349.1 | ppb | 09:31:35 |
| 2 | Mg 279.077 IEC† | 322.1 | 315.8 | 15211 | ug/L | 15211 | ppb | 09:31:55 |
| 2 | Na 589.592 Radial† | 7849.2 | 8615.7 | 2656.4 | ug/L | 2656.4 | ppb | 09:31:35 |
| 2 | Sr 421.552† | 31037.5 | 30790.9 | 212.92 | ug/L | 212.92 | ppb | 09:31:35 |
| 2 | Sc 361.383 | 915936.0 | 915936.0 | 104.41 | % | | | 09:32:59 |
| 2 | Y 371.029 | 850114.6 | 850114.6 | 112.47 | % | | | 09:32:59 |
| 2 | Ag 328.068† | -7250.3 | -7184.3 | -2.5764 | ug/L | -2.5764 | ppb | 09:33:04 |
| 2 | As 188.979† | -29.6 | -10.1 | 38.293 | ug/L | 38.293 | ppb | 09:33:24 |
| 2 | B 249.677† | 621.5 | 993.5 | 8.0467 | ug/L | 8.0467 | ppb | 09:33:04 |
| 2 | Ba 233.527† | 100893.7 | 96631.6 | 761.69 | ug/L | 761.69 | ppb | 09:33:04 |
| 2 | Be 313.107† | 3728.9 | 7333.5 | 7.9684 | ug/L | 7.9684 | ppb | 09:33:04 |
| 2 | Cd 226.502† | 751.8 | 916.3 | 0.5296 | ug/L | 0.5296 | ppb | 09:33:24 |
| 2 | Co 228.616† | 2821.4 | 2768.7 | 52.085 | ug/L | 52.085 | ppb | 09:33:24 |
| 2 | Cr 267.716† | 11342.6 | 10785.6 | 130.72 | ug/L | 130.72 | ppb | 09:33:04 |
| 2 | Cu 324.752† | 20934.0 | 14058.6 | 48.066 | ug/L | 48.066 | ppb | 09:33:04 |
| 2 | Mn 257.610† | 1657763.9 | 1587252.7 | 1815.2 | ug/L | 1815.2 | ppb | 09:32:59 |
| 2 | Mo 202.031† | -17.9 | -27.2 | 5.8103 | ug/L | 5.8103 | ppb | 09:33:24 |
| 2 | Ni 231.604† | 3600.0 | 3385.4 | 86.067 | ug/L | 86.067 | ppb | 09:33:24 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 849.0 | 602.6 | 294.80 | ug/L | 294.80 ppb | 09:33:24 |
| 2 | Pb 220.353† | 660.3 | 690.5 | 90.821 | ug/L | 90.821 ppb | 09:33:24 |
| 2 | S 181.975 Axial† | 398.6 | 340.9 | 476.02 | ug/L | 476.02 ppb | 09:33:24 |
| 2 | Sb 206.836† | 64.4 | 25.0 | -1.7435 | ug/L | -1.7435 ppb | 09:33:24 |
| 2 | Se 196.026† | -543.8 | -493.1 | -18.912 | ug/L | -18.912 ppb | 09:33:24 |
| 2 | Si 251.611† | 1325937.9 | 1269349.1 | 41075 | ug/L | 41075 ppb | 09:32:59 |
| 2 | Sn 189.927† | -82.2 | -89.3 | -18.316 | ug/L | -18.316 ppb | 09:33:24 |
| 2 | Ti 334.940† | 1524133.5 | 1461102.0 | 2297.3 | ug/L | 2297.3 ppb | 09:32:59 |
| 2 | Tl 190.801† | -151.2 | -112.2 | -8.8035 | ug/L | -8.8035 ppb | 09:33:24 |
| 2 | U 409.014† | -10555.2 | -7222.6 | -210.86 | ug/L | -210.86 ppb | 09:32:59 |
| 2 | V 292.402† | 26285.7 | 26680.6 | 169.21 | ug/L | 169.21 ppb | 09:33:04 |
| 2 | Zn 213.857† | 25932.6 | 24230.8 | 228.68 | ug/L | 228.68 ppb | 09:33:04 |
| 2 | SiO2† | 1336727.0 | 1279686.3 | 88932 | ug/L | 88932 ppb | 09:34:08 |
| 3 | Sc Radial | 3932.5 | 3932.5 | 100 | % | | 09:32:21 |
| 3 | Y RADIAL | 4805.4 | 4805.4 | 108.9 | % | | 09:32:21 |
| 3 | Al 396.153Radial† | 84769.8 | 84586.5 | 79332 | ug/L | 79332 ppb | 09:32:01 |
| 3 | Ca 317.933Radial† | 9074.4 | 9023.1 | 18863 | ug/L | 18863 ppb | 09:32:01 |
| 3 | Fe 238.204 Radial† | 6952.9 | 6917.3 | 97642 | ug/L | 97642 ppb | 09:32:21 |
| 3 | K 766.490 Radial† | 52402.4 | 49579.9 | 9506.3 | ug/L | 9506.3 ppb | 09:32:01 |
| 3 | Mg 279.077 IEC† | 324.2 | 319.0 | 15365 | ug/L | 15365 ppb | 09:32:21 |
| 3 | Na 589.592 Radial† | 7979.6 | 8771.5 | 2704.5 | ug/L | 2704.5 ppb | 09:32:01 |
| 3 | Sr 421.552† | 31440.6 | 31295.2 | 216.41 | ug/L | 216.41 ppb | 09:32:01 |
| 3 | Sc 361.383 | 903705.1 | 903705.1 | 103.02 | % | | 09:33:30 |
| 3 | Y 371.029 | 840859.5 | 840859.5 | 111.25 | % | | 09:33:30 |
| 3 | Ag 328.068† | -7267.0 | -7294.5 | -3.1193 | ug/L | -3.1193 ppb | 09:33:35 |
| 3 | As 188.979† | -33.6 | -14.4 | 36.408 | ug/L | 36.408 ppb | 09:33:55 |
| 3 | B 249.677† | 526.7 | 909.5 | 6.0286 | ug/L | 6.0286 ppb | 09:33:35 |
| 3 | Ba 233.527† | 100201.7 | 97267.8 | 766.68 | ug/L | 766.68 ppb | 09:33:35 |
| 3 | Be 313.107† | 3722.8 | 7375.9 | 8.0022 | ug/L | 8.0022 ppb | 09:33:35 |
| 3 | Cd 226.502† | 755.0 | 929.1 | 0.6887 | ug/L | 0.6887 ppb | 09:33:55 |
| 3 | Co 228.616† | 2783.5 | 2768.5 | 52.070 | ug/L | 52.070 ppb | 09:33:55 |
| 3 | Cr 267.716† | 11258.3 | 10850.8 | 131.44 | ug/L | 131.44 ppb | 09:33:35 |
| 3 | Cu 324.752† | 20620.8 | 14025.9 | 47.963 | ug/L | 47.963 ppb | 09:33:35 |
| 3 | Mn 257.610† | 1640907.9 | 1592378.9 | 1821.0 | ug/L | 1821.0 ppb | 09:33:30 |
| 3 | Mo 202.031† | -7.9 | -17.9 | 6.4933 | ug/L | 6.4933 ppb | 09:33:55 |
| 3 | Ni 231.604† | 3559.3 | 3392.5 | 86.248 | ug/L | 86.248 ppb | 09:33:55 |
| 3 | P 214.914† | 824.7 | 590.1 | 287.74 | ug/L | 287.74 ppb | 09:33:55 |
| 3 | Pb 220.353† | 673.7 | 712.1 | 93.787 | ug/L | 93.787 ppb | 09:33:55 |
| 3 | S 181.975 Axial† | 398.2 | 345.8 | 482.68 | ug/L | 482.68 ppb | 09:33:55 |
| 3 | Sb 206.836† | 64.5 | 25.9 | -1.4608 | ug/L | -1.4608 ppb | 09:33:55 |
| 3 | Se 196.026† | -529.2 | -485.9 | -14.568 | ug/L | -14.568 ppb | 09:33:55 |
| 3 | Si 251.611† | 1311856.5 | 1272867.5 | 41188 | ug/L | 41188 ppb | 09:33:30 |
| 3 | Sn 189.927† | -76.6 | -84.8 | -17.469 | ug/L | -17.469 ppb | 09:33:55 |
| 3 | Ti 334.940† | 1508953.7 | 1466123.2 | 2305.2 | ug/L | 2305.2 ppb | 09:33:30 |
| 3 | Tl 190.801† | -140.3 | -103.6 | -5.9619 | ug/L | -5.9619 ppb | 09:33:55 |
| 3 | U 409.014† | -10603.1 | -7405.9 | -215.91 | ug/L | -215.91 ppb | 09:33:30 |
| 3 | V 292.402† | 25993.3 | 26737.5 | 169.62 | ug/L | 169.62 ppb | 09:33:35 |
| 3 | Zn 213.857† | 25848.5 | 24485.3 | 231.26 | ug/L | 231.26 ppb | 09:33:35 |
| 3 | SiO2† | 1312980.0 | 1273962.0 | 88535 | ug/L | 88535 ppb | 09:34:14 |

**Mean Data: 245969011|948756|1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 912296.6 | 104.00 | % | 0.851 | | | | 0.82% |
| Sc Radial | 3938.5 | 101 | % | 0.2 | | | | 0.17% |
| Y 371.029 | 847531.4 | 112.13 | % | 0.771 | | | | 0.69% |
| Y RADIAL | 4819.6 | 109.3 | % | 0.35 | | | | 0.32% |
| Ag 328.068† | -7208.1 | -2.6785 | ug/L | 0.39965 | -2.6785 | ppb | 0.39965 | 14.92% |
| Al 396.153Radial† | 83255.9 | 78084 | ug/L | 1183.5 | 78084 | ppb | 1183.5 | 1.52% |
| As 188.979† | -7.1 | 39.699 | ug/L | 4.1759 | 39.699 | ppb | 4.1759 | 10.52% |
| B 249.677† | 960.8 | 7.2502 | ug/L | 1.07408 | 7.2502 | ppb | 1.07408 | 14.81% |
| Ba 233.527† | 96657.5 | 761.89 | ug/L | 4.689 | 761.89 | ppb | 4.689 | 0.62% |
| Be 313.107† | 7351.5 | 7.9931 | ug/L | 0.02164 | 7.9931 | ppb | 0.02164 | 0.27% |
| Ca 317.933Radial† | 8890.0 | 18585 | ug/L | 304.9 | 18585 | ppb | 304.9 | 1.64% |
| Cd 226.502† | 917.5 | 0.5408 | ug/L | 0.14271 | 0.5408 | ppb | 0.14271 | 26.39% |
| Co 228.616† | 2760.2 | 51.889 | ug/L | 0.3267 | 51.889 | ppb | 0.3267 | 0.63% |
| Cr 267.716† | 10780.8 | 130.66 | ug/L | 0.802 | 130.66 | ppb | 0.802 | 0.61% |
| Cu 324.752† | 13985.8 | 47.846 | ug/L | 0.2960 | 47.846 | ppb | 0.2960 | 0.62% |
| Fe 238.204 Radial† | 6927.2 | 97781 | ug/L | 154.6 | 97781 | ppb | 154.6 | 0.16% |
| K 766.490 Radial† | 48745.6 | 9346.4 | ug/L | 161.36 | 9346.4 | ppb | 161.36 | 1.73% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 317.1 | 15272 | ug/L | 81.9 | 15272 | ppb | 81.9 | 0.54% |
| Mn 257.610† | 1592888.9 | 1821.6 | ug/L | 6.73 | 1821.6 | ppb | 6.73 | 0.37% |
| Mo 202.031† | -25.7 | 5.9247 | ug/L | 0.52094 | 5.9247 | ppb | 0.52094 | 8.79% |
| Na 589.592 Radial† | 8629.4 | 2660.7 | ug/L | 41.85 | 2660.7 | ppb | 41.85 | 1.57% |
| Ni 231.604† | 3380.1 | 85.931 | ug/L | 0.4025 | 85.931 | ppb | 0.4025 | 0.47% |
| P 214.914† | 594.4 | 289.92 | ug/L | 4.228 | 289.92 | ppb | 4.228 | 1.46% |
| Pb 220.353† | 697.4 | 91.705 | ug/L | 1.8105 | 91.705 | ppb | 1.8105 | 1.97% |
| S 181.975 Axial† | 343.2 | 479.18 | ug/L | 3.344 | 479.18 | ppb | 3.344 | 0.70% |
| Sb 206.836† | 22.0 | -2.8214 | ug/L | 2.11641 | -2.8214 | ppb | 2.11641 | 75.01% |
| Se 196.026† | -486.0 | -14.145 | ug/L | 4.9921 | -14.145 | ppb | 4.9921 | 35.29% |
| Si 251.611† | 1273727.9 | 41216 | ug/L | 157.5 | 41216 | ppb | 157.5 | 0.38% |
| Sn 189.927† | -88.5 | -18.199 | ug/L | 0.6787 | -18.199 | ppb | 0.6787 | 3.73% |
| Sr 421.552† | 30797.6 | 212.97 | ug/L | 3.418 | 212.97 | ppb | 3.418 | 1.60% |
| Ti 334.940† | 1466134.5 | 2305.2 | ug/L | 7.89 | 2305.2 | ppb | 7.89 | 0.34% |
| Tl 190.801† | -102.2 | -5.5028 | ug/L | 3.55260 | -5.5028 | ppb | 3.55260 | 64.56% |
| U 409.014† | -7260.7 | -211.91 | ug/L | 3.587 | -211.91 | ppb | 3.587 | 1.69% |
| V 292.402† | 26627.7 | 168.83 | ug/L | 1.032 | 168.83 | ppb | 1.032 | 0.61% |
| Zn 213.857† | 24291.7 | 229.29 | ug/L | 1.745 | 229.29 | ppb | 1.745 | 0.76% |
| SiO2† | 1271280.2 | 88348 | ug/L | 696.3 | 88348 | ppb | 696.3 | 0.79% |

Sequence No.: 133
Sample ID: 245969012|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 144
Date Collected: 2/25/2010 09:36:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969012|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3872.4 | 3872.4 | 98.8 | % | | | 09:38:39 |
| 1 | Y RADIAL | 4739.1 | 4739.1 | 107.4 | % | | | 09:38:19 |
| 1 | Al 396.153Radial† | 54496.9 | 55262.5 | 51829 | ug/L | 51829 | ppb | 09:38:19 |
| 1 | Ca 317.933Radial† | 6344.8 | 6401.2 | 13382 | ug/L | 13382 | ppb | 09:38:19 |
| 1 | Fe 238.204 Radial† | 6372.3 | 6437.3 | 90866 | ug/L | 90866 | ppb | 09:38:19 |
| 1 | K 766.490 Radial† | 49112.1 | 47061.2 | 9025.4 | ug/L | 9025.4 | ppb | 09:38:19 |
| 1 | Mg 279.077 IEC† | 211.2 | 209.6 | 10068 | ug/L | 10068 | ppb | 09:38:39 |
| 1 | Na 589.592 Radial† | 888.2 | 1718.6 | 529.88 | ug/L | 529.88 | ppb | 09:38:19 |
| 1 | Sr 421.552† | 20381.4 | 20590.0 | 142.37 | ug/L | 142.37 | ppb | 09:38:19 |
| 1 | Sc 361.383 | 914677.7 | 914677.7 | 104.27 | % | | | 09:39:37 |
| 1 | Y 371.029 | 819396.8 | 819396.8 | 108.41 | % | | | 09:39:37 |
| 1 | Ag 328.068† | -6423.4 | -6400.8 | -1.0095 | ug/L | -1.0095 | ppb | 09:39:42 |
| 1 | As 188.979† | -48.2 | -28.0 | 36.098 | ug/L | 36.098 | ppb | 09:40:02 |
| 1 | B 249.677† | 491.9 | 870.0 | 6.2058 | ug/L | 6.2058 | ppb | 09:39:42 |
| 1 | Ba 233.527† | 83941.3 | 80506.2 | 634.99 | ug/L | 634.99 | ppb | 09:39:42 |
| 1 | Be 313.107† | -5089.6 | -1119.1 | 6.7311 | ug/L | 6.7311 | ppb | 09:39:42 |
| 1 | Cd 226.502† | 736.7 | 902.8 | 1.1192 | ug/L | 1.1192 | ppb | 09:40:02 |
| 1 | Co 228.616† | 2215.4 | 2191.2 | 38.208 | ug/L | 38.208 | ppb | 09:40:02 |
| 1 | Cr 267.716† | 16467.2 | 15715.4 | 185.38 | ug/L | 185.38 | ppb | 09:39:42 |
| 1 | Cu 324.752† | 66498.5 | 57785.3 | 180.68 | ug/L | 180.68 | ppb | 09:39:42 |
| 1 | Mn 257.610† | 2284469.2 | 2190485.1 | 2501.2 | ug/L | 2501.2 | ppb | 09:39:37 |
| 1 | Mo 202.031† | -39.4 | -47.9 | 3.6929 | ug/L | 3.6929 | ppb | 09:40:02 |
| 1 | Ni 231.604† | 3965.8 | 3741.0 | 95.117 | ug/L | 95.117 | ppb | 09:40:02 |
| 1 | P 214.914† | 1100.3 | 844.7 | 413.35 | ug/L | 413.35 | ppb | 09:40:02 |
| 1 | Pb 220.353† | 11284.0 | 10880.2 | 1339.2 | ug/L | 1339.2 | ppb | 09:39:42 |
| 1 | S 181.975 Axial† | 288.6 | 236.0 | 329.93 | ug/L | 329.93 | ppb | 09:40:02 |
| 1 | Sb 206.836† | 89.9 | 49.5 | 5.1026 | ug/L | 5.1026 | ppb | 09:40:02 |
| 1 | Se 196.026† | -472.1 | -425.1 | 4.4287 | ug/L | 4.4287 | ppb | 09:40:02 |
| 1 | Si 251.611† | 1141562.6 | 1094269.1 | 35409 | ug/L | 35409 | ppb | 09:39:37 |
| 1 | Sn 189.927† | 12.9 | 1.9 | -2.4990 | ug/L | -2.4990 | ppb | 09:40:02 |
| 1 | Ti 334.940† | 2088800.1 | 2004659.4 | 3151.0 | ug/L | 3151.0 | ppb | 09:39:37 |
| 1 | Tl 190.801† | -175.3 | -135.5 | -5.8732 | ug/L | -5.8732 | ppb | 09:40:02 |
| 1 | U 409.014† | -5038.1 | -1945.2 | -64.470 | ug/L | -64.470 | ppb | 09:39:42 |
| 1 | V 292.402† | 30015.0 | 30291.9 | 194.63 | ug/L | 194.63 | ppb | 09:39:42 |
| 1 | Zn 213.857† | 22122.2 | 20610.5 | 193.03 | ug/L | 193.03 | ppb | 09:39:42 |
| 1 | SiO2† | 1148765.2 | 1101180.7 | 76527 | ug/L | 76527 | ppb | 09:41:11 |
| 2 | Sc Radial | 3855.4 | 3855.4 | 98.4 | % | | | 09:39:04 |
| 2 | Y RADIAL | 4770.8 | 4770.8 | 108.2 | % | | | 09:38:44 |
| 2 | Al 396.153Radial† | 54609.9 | 55620.9 | 52166 | ug/L | 52166 | ppb | 09:38:44 |
| 2 | Ca 317.933Radial† | 6371.6 | 6456.8 | 13498 | ug/L | 13498 | ppb | 09:38:44 |
| 2 | Fe 238.204 Radial† | 6392.3 | 6486.2 | 91556 | ug/L | 91556 | ppb | 09:38:44 |
| 2 | K 766.490 Radial† | 49337.6 | 47509.8 | 9111.5 | ug/L | 9111.5 | ppb | 09:38:44 |
| 2 | Mg 279.077 IEC† | 202.1 | 201.3 | 9666.3 | ug/L | 9666.3 | ppb | 09:39:04 |
| 2 | Na 589.592 Radial† | 882.8 | 1717.1 | 529.42 | ug/L | 529.42 | ppb | 09:38:44 |
| 2 | Sr 421.552† | 20391.9 | 20691.8 | 143.08 | ug/L | 143.08 | ppb | 09:38:44 |
| 2 | Sc 361.383 | 918587.6 | 918587.6 | 104.71 | % | | | 09:40:08 |
| 2 | Y 371.029 | 824043.6 | 824043.6 | 109.02 | % | | | 09:40:08 |
| 2 | Ag 328.068† | -6219.4 | -6179.8 | 0.2154 | ug/L | 0.2154 | ppb | 09:40:13 |
| 2 | As 188.979† | -48.3 | -27.9 | 36.240 | ug/L | 36.240 | ppb | 09:40:33 |
| 2 | B 249.677† | 424.3 | 803.4 | 4.4802 | ug/L | 4.4802 | ppb | 09:40:13 |
| 2 | Ba 233.527† | 82720.0 | 78997.2 | 623.16 | ug/L | 623.16 | ppb | 09:40:13 |
| 2 | Be 313.107† | -5146.9 | -1153.0 | 6.7030 | ug/L | 6.7030 | ppb | 09:40:13 |
| 2 | Cd 226.502† | 737.6 | 900.7 | 1.0215 | ug/L | 1.0215 | ppb | 09:40:33 |
| 2 | Co 228.616† | 2204.5 | 2171.7 | 37.801 | ug/L | 37.801 | ppb | 09:40:33 |
| 2 | Cr 267.716† | 16219.3 | 15411.4 | 182.03 | ug/L | 182.03 | ppb | 09:40:13 |
| 2 | Cu 324.752† | 65098.0 | 56176.4 | 175.83 | ug/L | 175.83 | ppb | 09:40:13 |
| 2 | Mn 257.610† | 2288535.8 | 2185043.2 | 2495.1 | ug/L | 2495.1 | ppb | 09:40:08 |
| 2 | Mo 202.031† | -32.9 | -41.6 | 4.2148 | ug/L | 4.2148 | ppb | 09:40:33 |
| 2 | Ni 231.604† | 3989.3 | 3747.3 | 95.277 | ug/L | 95.277 | ppb | 09:40:33 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1092.8 | 833.1 | 406.80 | ug/L | 406.80 ppb | 09:40:33 |
| 2 | Pb 220.353† | 11121.3 | 10678.7 | 1314.4 | ug/L | 1314.4 ppb | 09:40:13 |
| 2 | S 181.975 Axial† | 273.3 | 220.2 | 307.06 | ug/L | 307.06 ppb | 09:40:33 |
| 2 | Sb 206.836† | 102.6 | 61.3 | 9.1686 | ug/L | 9.1686 ppb | 09:40:33 |
| 2 | Se 196.026† | -476.7 | -427.5 | 4.9754 | ug/L | 4.9754 ppb | 09:40:33 |
| 2 | Si 251.611† | 1145838.4 | 1093692.4 | 35391 | ug/L | 35391 ppb | 09:40:08 |
| 2 | Sn 189.927† | -1.7 | -12.1 | -5.0330 | ug/L | -5.0330 ppb | 09:40:33 |
| 2 | Ti 334.940† | 2093243.9 | 2000376.5 | 3144.4 | ug/L | 3144.4 ppb | 09:40:08 |
| 2 | Tl 190.801† | -158.8 | -119.1 | -0.6914 | ug/L | -0.6914 ppb | 09:40:33 |
| 2 | U 409.014† | -5281.9 | -2157.5 | -70.400 | ug/L | -70.400 ppb | 09:40:13 |
| 2 | V 292.402† | 29613.1 | 29785.6 | 191.00 | ug/L | 191.00 ppb | 09:40:13 |
| 2 | Zn 213.857† | 21702.9 | 20119.7 | 187.99 | ug/L | 187.99 ppb | 09:40:13 |
| 2 | SiO2† | 1126385.6 | 1075119.4 | 74716 | ug/L | 74716 ppb | 09:41:17 |
| 3 | Sc Radial | 3887.4 | 3887.4 | 99.2 | % | | 09:39:30 |
| 3 | Y RADIAL | 4734.5 | 4734.5 | 107.3 | % | | 09:39:10 |
| 3 | Al 396.153Radial† | 54421.8 | 54973.4 | 51558 | ug/L | 51558 ppb | 09:39:10 |
| 3 | Ca 317.933Radial† | 6373.2 | 6404.9 | 13390 | ug/L | 13390 ppb | 09:39:10 |
| 3 | Fe 238.204 Radial† | 6386.5 | 6426.7 | 90716 | ug/L | 90716 ppb | 09:39:10 |
| 3 | K 766.490 Radial† | 49333.8 | 47092.3 | 9031.4 | ug/L | 9031.4 ppb | 09:39:10 |
| 3 | Mg 279.077 IEC† | 203.4 | 201.0 | 9648.8 | ug/L | 9648.8 ppb | 09:39:30 |
| 3 | Na 589.592 Radial† | 855.2 | 1681.9 | 518.58 | ug/L | 518.58 ppb | 09:39:10 |
| 3 | Sr 421.552† | 20345.5 | 20474.0 | 141.57 | ug/L | 141.57 ppb | 09:39:10 |
| 3 | Sc 361.383 | 917684.1 | 917684.1 | 104.61 | % | | 09:40:39 |
| 3 | Y 371.029 | 822406.1 | 822406.1 | 108.81 | % | | 09:40:39 |
| 3 | Ag 328.068† | -6364.4 | -6324.3 | -0.7130 | ug/L | -0.7130 ppb | 09:40:44 |
| 3 | As 188.979† | -52.0 | -31.5 | 34.396 | ug/L | 34.396 ppb | 09:41:04 |
| 3 | B 249.677† | 461.4 | 839.3 | 5.4865 | ug/L | 5.4865 ppb | 09:40:44 |
| 3 | Ba 233.527† | 82762.9 | 79116.0 | 624.07 | ug/L | 624.07 ppb | 09:40:44 |
| 3 | Be 313.107† | -5183.0 | -1192.4 | 6.6778 | ug/L | 6.6778 ppb | 09:40:44 |
| 3 | Cd 226.502† | 706.8 | 871.9 | 0.7761 | ug/L | 0.7761 ppb | 09:41:04 |
| 3 | Co 228.616† | 2221.4 | 2190.0 | 38.207 | ug/L | 38.207 ppb | 09:41:04 |
| 3 | Cr 267.716† | 16177.8 | 15387.0 | 181.68 | ug/L | 181.68 ppb | 09:40:44 |
| 3 | Cu 324.752† | 65099.9 | 56239.4 | 175.97 | ug/L | 175.97 ppb | 09:40:44 |
| 3 | Mn 257.610† | 2283774.6 | 2182643.5 | 2492.3 | ug/L | 2492.3 ppb | 09:40:39 |
| 3 | Mo 202.031† | -28.8 | -37.7 | 4.4350 | ug/L | 4.4350 ppb | 09:41:04 |
| 3 | Ni 231.604† | 3984.5 | 3746.4 | 95.255 | ug/L | 95.255 ppb | 09:41:04 |
| 3 | P 214.914† | 1098.2 | 839.3 | 411.05 | ug/L | 411.05 ppb | 09:41:04 |
| 3 | Pb 220.353† | 11097.8 | 10666.7 | 1312.9 | ug/L | 1312.9 ppb | 09:40:44 |
| 3 | S 181.975 Axial† | 279.4 | 226.3 | 316.03 | ug/L | 316.03 ppb | 09:41:04 |
| 3 | Sb 206.836† | 90.8 | 50.1 | 5.3261 | ug/L | 5.3261 ppb | 09:41:04 |
| 3 | Se 196.026† | -475.6 | -426.9 | 2.7953 | ug/L | 2.7953 ppb | 09:41:04 |
| 3 | Si 251.611† | 1141465.8 | 1090589.9 | 35290 | ug/L | 35290 ppb | 09:40:39 |
| 3 | Sn 189.927† | -1.0 | -11.4 | -4.8831 | ug/L | -4.8831 ppb | 09:41:04 |
| 3 | Ti 334.940† | 2088126.7 | 1997453.0 | 3139.8 | ug/L | 3139.8 ppb | 09:40:39 |
| 3 | Tl 190.801† | -152.8 | -113.5 | 1.0388 | ug/L | 1.0388 ppb | 09:41:04 |
| 3 | U 409.014† | -5181.5 | -2066.4 | -67.791 | ug/L | -67.791 ppb | 09:40:44 |
| 3 | V 292.402† | 29573.2 | 29775.2 | 191.06 | ug/L | 191.06 ppb | 09:40:44 |
| 3 | Zn 213.857† | 21793.5 | 20226.8 | 189.20 | ug/L | 189.20 ppb | 09:40:44 |
| 3 | SiO2† | 1135866.2 | 1085241.1 | 75419 | ug/L | 75419 ppb | 09:41:23 |

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**Mean Data: 245969012|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 916983.1 | 104.53 | % | 0.233 | | | | 0.22% |
| Sc Radial | 3871.7 | 98.8 | % | 0.41 | | | | 0.41% |
| Y 371.029 | 821948.8 | 108.75 | % | 0.312 | | | | 0.29% |
| Y RADIAL | 4748.1 | 107.6 | % | 0.45 | | | | 0.42% |
| Ag 328.068† | -6301.6 | -0.5023 | ug/L | 0.63905 | -0.5023 | ppb | 0.63905 | 127.21% |
| Al 396.153Radial† | 55285.6 | 51851 | ug/L | 304.2 | 51851 | ppb | 304.2 | 0.59% |
| As 188.979† | -29.1 | 35.578 | ug/L | 1.0264 | 35.578 | ppb | 1.0264 | 2.88% |
| B 249.677† | 837.6 | 5.3908 | ug/L | 0.86678 | 5.3908 | ppb | 0.86678 | 16.08% |
| Ba 233.527† | 79539.8 | 627.41 | ug/L | 6.583 | 627.41 | ppb | 6.583 | 1.05% |
| Be 313.107† | -1154.8 | 6.7040 | ug/L | 0.02664 | 6.7040 | ppb | 0.02664 | 0.40% |
| Ca 317.933Radial† | 6421.0 | 13423 | ug/L | 64.9 | 13423 | ppb | 64.9 | 0.48% |
| Cd 226.502† | 891.8 | 0.9723 | ug/L | 0.17675 | 0.9723 | ppb | 0.17675 | 18.18% |
| Co 228.616† | 2184.3 | 38.072 | ug/L | 0.2346 | 38.072 | ppb | 0.2346 | 0.62% |
| Cr 267.716† | 15504.6 | 183.03 | ug/L | 2.044 | 183.03 | ppb | 2.044 | 1.12% |
| Cu 324.752† | 56733.7 | 177.50 | ug/L | 2.763 | 177.50 | ppb | 2.763 | 1.56% |
| Fe 238.204 Radial† | 6450.1 | 91046 | ug/L | 448.0 | 91046 | ppb | 448.0 | 0.49% |
| K 766.490 Radial† | 47221.1 | 9056.1 | ug/L | 48.05 | 9056.1 | ppb | 48.05 | 0.53% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 204.0 | 9794.5 | ug/L | 237.35 | 9794.5 | ppb | 237.35 | 2.42% |
| Mn 257.610† | 2186057.3 | 2496.2 | ug/L | 4.56 | 2496.2 | ppb | 4.56 | 0.18% |
| Mo 202.031† | -42.4 | 4.1142 | ug/L | 0.38113 | 4.1142 | ppb | 0.38113 | 9.26% |
| Na 589.592 Radial† | 1705.9 | 525.96 | ug/L | 6.398 | 525.96 | ppb | 6.398 | 1.22% |
| Ni 231.604† | 3744.9 | 95.216 | ug/L | 0.0866 | 95.216 | ppb | 0.0866 | 0.09% |
| P 214.914† | 839.0 | 410.40 | ug/L | 3.323 | 410.40 | ppb | 3.323 | 0.81% |
| Pb 220.353† | 10741.9 | 1322.2 | ug/L | 14.76 | 1322.2 | ppb | 14.76 | 1.12% |
| S 181.975 Axial† | 227.5 | 317.67 | ug/L | 11.520 | 317.67 | ppb | 11.520 | 3.63% |
| Sb 206.836† | 53.6 | 6.5324 | ug/L | 2.28572 | 6.5324 | ppb | 2.28572 | 34.99% |
| Se 196.026† | -426.5 | 4.0664 | ug/L | 1.13430 | 4.0664 | ppb | 1.13430 | 27.89% |
| Si 251.611† | 1092850.5 | 35363 | ug/L | 64.0 | 35363 | ppb | 64.0 | 0.18% |
| Sn 189.927† | -7.2 | -4.1384 | ug/L | 1.42172 | -4.1384 | ppb | 1.42172 | 34.35% |
| Sr 421.552† | 20585.2 | 142.34 | ug/L | 0.754 | 142.34 | ppb | 0.754 | 0.53% |
| Ti 334.940† | 2000829.6 | 3145.1 | ug/L | 5.67 | 3145.1 | ppb | 5.67 | 0.18% |
| Tl 190.801† | -122.7 | -1.8419 | ug/L | 3.59677 | -1.8419 | ppb | 3.59677 | 195.27% |
| U 409.014† | -2056.4 | -67.554 | ug/L | 2.9726 | -67.554 | ppb | 2.9726 | 4.40% |
| V 292.402† | 29950.9 | 192.23 | ug/L | 2.081 | 192.23 | ppb | 2.081 | 1.08% |
| Zn 213.857† | 20319.0 | 190.07 | ug/L | 2.631 | 190.07 | ppb | 2.631 | 1.38% |
| SiO2† | 1087180.4 | 75554 | ug/L | 913.1 | 75554 | ppb | 913.1 | 1.21% |

Sequence No.: 134
Sample ID: 245969013|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 145
Date Collected: 2/25/2010 09:43:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969013|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3937.5 | 3937.5 | 100 | % | | | 09:45:49 |
| 1 | Y RADIAL | 5168.7 | 5168.7 | 117.2 | % | | | 09:45:29 |
| 1 | Al 396.153Radial† | 51751.3 | 51617.9 | 48411 | ug/L | 48411 | ppb | 09:45:29 |
| 1 | Ca 317.933Radial† | 10772.8 | 10701.9 | 22372 | ug/L | 22372 | ppb | 09:45:29 |
| 1 | Fe 238.204 Radial† | 5677.2 | 5638.9 | 79597 | ug/L | 79597 | ppb | 09:45:29 |
| 1 | K 766.490 Radial† | 41882.9 | 39044.3 | 7483.6 | ug/L | 7483.6 | ppb | 09:45:29 |
| 1 | Mg 279.077 IEC† | 214.1 | 209.0 | 10051 | ug/L | 10051 | ppb | 09:45:49 |
| 1 | Na 589.592 Radial† | 4860.9 | 5657.6 | 1744.4 | ug/L | 1744.4 | ppb | 09:45:29 |
| 1 | Sr 421.552† | 24885.6 | 24731.7 | 170.97 | ug/L | 170.97 | ppb | 09:45:29 |
| 1 | Sc 361.383 | 910165.1 | 910165.1 | 103.75 | % | | | 09:46:46 |
| 1 | Y 371.029 | 887283.2 | 887283.2 | 117.39 | % | | | 09:46:46 |
| 1 | Ag 328.068† | -5402.7 | -5447.7 | -0.5707 | ug/L | -0.5707 | ppb | 09:46:52 |
| 1 | As 188.979† | -2.8 | 15.5 | 34.640 | ug/L | 34.640 | ppb | 09:47:12 |
| 1 | B 249.677† | 657.5 | 1031.9 | 11.844 | ug/L | 11.844 | ppb | 09:46:52 |
| 1 | Ba 233.527† | 65958.1 | 63572.9 | 501.49 | ug/L | 501.49 | ppb | 09:46:52 |
| 1 | Be 313.107† | 14509.6 | 17746.7 | 9.0471 | ug/L | 9.0471 | ppb | 09:46:52 |
| 1 | Cd 226.502† | 562.6 | 738.5 | 0.3296 | ug/L | 0.3296 | ppb | 09:47:12 |
| 1 | Co 228.616† | 4233.7 | 4147.0 | 83.749 | ug/L | 83.749 | ppb | 09:47:12 |
| 1 | Cr 267.716† | 4863.3 | 4609.6 | 59.516 | ug/L | 59.516 | ppb | 09:47:12 |
| 1 | Cu 324.752† | 112010.3 | 101966.5 | 314.62 | ug/L | 314.62 | ppb | 09:46:52 |
| 1 | Mn 257.610† | 2016317.5 | 1942899.3 | 2218.4 | ug/L | 2218.4 | ppb | 09:46:46 |
| 1 | Mo 202.031† | 22.1 | 11.2 | 7.2662 | ug/L | 7.2662 | ppb | 09:47:12 |
| 1 | Ni 231.604† | 2501.8 | 2348.8 | 59.684 | ug/L | 59.684 | ppb | 09:47:12 |
| 1 | P 214.914† | 820.5 | 580.3 | 235.45 | ug/L | 235.45 | ppb | 09:47:12 |
| 1 | Pb 220.353† | 2839.7 | 2795.1 | 345.38 | ug/L | 345.38 | ppb | 09:47:12 |
| 1 | S 181.975 Axial† | 280.9 | 229.9 | 321.78 | ug/L | 321.78 | ppb | 09:47:12 |
| 1 | Sb 206.836† | 43.2 | 4.9 | -3.9879 | ug/L | -3.9879 | ppb | 09:47:12 |
| 1 | Se 196.026† | -423.2 | -380.1 | -1.2322 | ug/L | -1.2322 | ppb | 09:47:12 |
| 1 | Si 251.611† | 1190116.5 | 1146494.4 | 37099 | ug/L | 37099 | ppb | 09:46:46 |
| 1 | Sn 189.927† | -121.6 | -127.7 | -23.513 | ug/L | -23.513 | ppb | 09:47:12 |
| 1 | Ti 334.940† | 690166.0 | 666566.7 | 1049.7 | ug/L | 1049.7 | ppb | 09:46:46 |
| 1 | Tl 190.801† | -120.6 | -83.6 | -8.0175 | ug/L | -8.0175 | ppb | 09:47:12 |
| 1 | U 409.014† | -10532.4 | -7264.7 | -209.80 | ug/L | -209.80 | ppb | 09:46:46 |
| 1 | V 292.402† | 11077.2 | 12182.0 | 72.047 | ug/L | 72.047 | ppb | 09:46:52 |
| 1 | Zn 213.857† | 27471.3 | 25871.2 | 247.72 | ug/L | 247.72 | ppb | 09:46:52 |
| 1 | SiO2† | 1190591.1 | 1146955.7 | 79708 | ug/L | 79708 | ppb | 09:48:20 |
| 2 | Sc Radial | 3906.5 | 3906.5 | 99.7 | % | | | 09:46:14 |
| 2 | Y RADIAL | 5246.5 | 5246.5 | 118.9 | % | | | 09:45:54 |
| 2 | Al 396.153Radial† | 51791.8 | 52067.5 | 48833 | ug/L | 48833 | ppb | 09:45:54 |
| 2 | Ca 317.933Radial† | 10756.8 | 10771.1 | 22517 | ug/L | 22517 | ppb | 09:45:54 |
| 2 | Fe 238.204 Radial† | 5709.0 | 5715.7 | 80681 | ug/L | 80681 | ppb | 09:45:54 |
| 2 | K 766.490 Radial† | 42105.1 | 39598.3 | 7589.8 | ug/L | 7589.8 | ppb | 09:45:54 |
| 2 | Mg 279.077 IEC† | 214.4 | 211.0 | 10149 | ug/L | 10149 | ppb | 09:46:14 |
| 2 | Na 589.592 Radial† | 4980.8 | 5816.3 | 1793.3 | ug/L | 1793.3 | ppb | 09:45:54 |
| 2 | Sr 421.552† | 24888.1 | 24930.8 | 172.34 | ug/L | 172.34 | ppb | 09:45:54 |
| 2 | Sc 361.383 | 894420.7 | 894420.7 | 101.96 | % | | | 09:47:18 |
| 2 | Y 371.029 | 876607.6 | 876607.6 | 115.98 | % | | | 09:47:18 |
| 2 | Ag 328.068† | -5325.0 | -5463.1 | -0.2997 | ug/L | -0.2997 | ppb | 09:47:23 |
| 2 | As 188.979† | -15.3 | 3.3 | 29.624 | ug/L | 29.624 | ppb | 09:47:43 |
| 2 | B 249.677† | 673.4 | 1058.7 | 12.312 | ug/L | 12.312 | ppb | 09:47:23 |
| 2 | Ba 233.527† | 65781.4 | 64518.6 | 508.94 | ug/L | 508.94 | ppb | 09:47:23 |
| 2 | Be 313.107† | 14450.5 | 17934.9 | 9.1701 | ug/L | 9.1701 | ppb | 09:47:23 |
| 2 | Cd 226.502† | 571.9 | 757.2 | 0.4329 | ug/L | 0.4329 | ppb | 09:47:43 |
| 2 | Co 228.616† | 4260.7 | 4245.3 | 85.750 | ug/L | 85.750 | ppb | 09:47:43 |
| 2 | Cr 267.716† | 4844.9 | 4674.1 | 60.348 | ug/L | 60.348 | ppb | 09:47:43 |
| 2 | Cu 324.752† | 111447.2 | 103314.5 | 318.78 | ug/L | 318.78 | ppb | 09:47:23 |
| 2 | Mn 257.610† | 2025469.1 | 1986083.5 | 2267.6 | ug/L | 2267.6 | ppb | 09:47:18 |
| 2 | Mo 202.031† | 31.4 | 20.7 | 8.0500 | ug/L | 8.0500 | ppb | 09:47:43 |
| 2 | Ni 231.604† | 2513.1 | 2402.4 | 61.046 | ug/L | 61.046 | ppb | 09:47:43 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 806.5 | 580.5 | 234.02 | ug/L | 234.02 ppb | 09:47:43 |
| 2 | Pb 220.353† | 2828.3 | 2832.0 | 349.90 | ug/L | 349.90 ppb | 09:47:43 |
| 2 | S 181.975 Axial† | 288.2 | 241.8 | 338.87 | ug/L | 338.87 ppb | 09:47:43 |
| 2 | Sb 206.836† | 41.6 | 4.1 | -4.3152 | ug/L | -4.3152 ppb | 09:47:43 |
| 2 | Se 196.026† | -413.9 | -378.2 | 3.4018 | ug/L | 3.4018 ppb | 09:47:43 |
| 2 | Si 251.611† | 1195937.3 | 1172394.7 | 37937 | ug/L | 37937 ppb | 09:47:18 |
| 2 | Sn 189.927† | -111.4 | -119.8 | -22.119 | ug/L | -22.119 ppb | 09:47:43 |
| 2 | Ti 334.940† | 693145.6 | 681198.3 | 1072.7 | ug/L | 1072.7 ppb | 09:47:18 |
| 2 | Tl 190.801† | -105.7 | -71.1 | -3.6100 | ug/L | -3.6100 ppb | 09:47:43 |
| 2 | U 409.014† | -10634.1 | -7543.1 | -217.61 | ug/L | -217.61 ppb | 09:47:18 |
| 2 | V 292.402† | 11076.4 | 12369.2 | 73.166 | ug/L | 73.166 ppb | 09:47:23 |
| 2 | Zn 213.857† | 27432.9 | 26299.7 | 251.86 | ug/L | 251.86 ppb | 09:47:23 |
| 2 | SiO2† | 1189156.7 | 1165748.3 | 81014 | ug/L | 81014 ppb | 09:48:26 |
| 3 | Sc Radial | 3809.1 | 3809.1 | 97.2 | % | | 09:46:39 |
| 3 | Y RADIAL | 5113.0 | 5113.0 | 115.9 | % | | 09:46:19 |
| 3 | Al 396.153Radial† | 51293.7 | 52883.3 | 49598 | ug/L | 49598 ppb | 09:46:19 |
| 3 | Ca 317.933Radial† | 10669.7 | 10957.3 | 22906 | ug/L | 22906 ppb | 09:46:19 |
| 3 | Fe 238.204 Radial† | 5614.0 | 5764.4 | 81368 | ug/L | 81368 ppb | 09:46:19 |
| 3 | K 766.490 Radial† | 41554.7 | 40111.8 | 7688.3 | ug/L | 7688.3 ppb | 09:46:19 |
| 3 | Mg 279.077 IEC† | 216.3 | 218.5 | 10508 | ug/L | 10508 ppb | 09:46:39 |
| 3 | Na 589.592 Radial† | 4893.9 | 5854.6 | 1805.1 | ug/L | 1805.1 ppb | 09:46:19 |
| 3 | Sr 421.552† | 24655.2 | 25329.5 | 175.10 | ug/L | 175.10 ppb | 09:46:19 |
| 3 | Sc 361.383 | 909129.3 | 909129.3 | 103.64 | % | | 09:47:49 |
| 3 | Y 371.029 | 884973.3 | 884973.3 | 117.08 | % | | 09:47:49 |
| 3 | Ag 328.068† | -5341.0 | -5394.0 | 0.2121 | ug/L | 0.2121 ppb | 09:47:54 |
| 3 | As 188.979† | -10.5 | 8.2 | 31.726 | ug/L | 31.726 ppb | 09:48:14 |
| 3 | B 249.677† | 725.2 | 1097.9 | 13.156 | ug/L | 13.156 ppb | 09:47:54 |
| 3 | Ba 233.527† | 65711.7 | 63407.5 | 500.24 | ug/L | 500.24 ppb | 09:47:54 |
| 3 | Be 313.107† | 14220.4 | 17483.6 | 8.9353 | ug/L | 8.9353 ppb | 09:47:54 |
| 3 | Cd 226.502† | 556.8 | 733.6 | 0.0907 | ug/L | 0.0907 ppb | 09:48:14 |
| 3 | Co 228.616† | 4255.4 | 4172.6 | 84.271 | ug/L | 84.271 ppb | 09:48:14 |
| 3 | Cr 267.716† | 4882.5 | 4633.5 | 59.951 | ug/L | 59.951 ppb | 09:48:14 |
| 3 | Cu 324.752† | 111681.7 | 101772.4 | 314.12 | ug/L | 314.12 ppb | 09:47:54 |
| 3 | Mn 257.610† | 2006606.8 | 1935743.4 | 2210.4 | ug/L | 2210.4 ppb | 09:47:49 |
| 3 | Mo 202.031† | 28.5 | 17.3 | 7.8605 | ug/L | 7.8605 ppb | 09:48:14 |
| 3 | Ni 231.604† | 2547.2 | 2395.4 | 60.870 | ug/L | 60.870 ppb | 09:48:14 |
| 3 | P 214.914† | 815.3 | 576.2 | 231.98 | ug/L | 231.98 ppb | 09:48:14 |
| 3 | Pb 220.353† | 2820.2 | 2779.3 | 343.51 | ug/L | 343.51 ppb | 09:48:14 |
| 3 | S 181.975 Axial† | 286.4 | 235.5 | 329.60 | ug/L | 329.60 ppb | 09:48:14 |
| 3 | Sb 206.836† | 44.7 | 6.4 | -3.4690 | ug/L | -3.4690 ppb | 09:48:14 |
| 3 | Se 196.026† | -412.7 | -370.5 | 10.589 | ug/L | 10.589 ppb | 09:48:14 |
| 3 | Si 251.611† | 1183645.9 | 1141557.6 | 36939 | ug/L | 36939 ppb | 09:47:49 |
| 3 | Sn 189.927† | -115.6 | -122.1 | -22.503 | ug/L | -22.503 ppb | 09:48:14 |
| 3 | Ti 334.940† | 685607.6 | 662926.1 | 1044.0 | ug/L | 1044.0 ppb | 09:47:49 |
| 3 | Tl 190.801† | -108.1 | -71.7 | -4.3027 | ug/L | -4.3027 ppb | 09:48:14 |
| 3 | U 409.014† | -10345.7 | -7096.1 | -205.34 | ug/L | -205.34 ppb | 09:47:49 |
| 3 | V 292.402† | 11096.2 | 12212.6 | 72.032 | ug/L | 72.032 ppb | 09:47:54 |
| 3 | Zn 213.857† | 27374.2 | 25807.7 | 246.81 | ug/L | 246.81 ppb | 09:47:54 |
| 3 | SiO2† | 1182147.4 | 1140115.6 | 79233 | ug/L | 79233 ppb | 09:48:32 |

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**Mean Data: 245969013|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 904571.7 | 103.12 | % | 1.004 | | | | 0.97% |
| Sc Radial | 3884.4 | 99.1 | % | 1.71 | | | | 1.72% |
| Y 371.029 | 882954.7 | 116.82 | % | 0.743 | | | | 0.64% |
| Y RADIAL | 5176.1 | 117.3 | % | 1.52 | | | | 1.30% |
| Ag 328.068† | -5434.9 | -0.2194 | ug/L | 0.39753 | -0.2194 | ppb | 0.39753 | 181.18% |
| Al 396.153Radial† | 52189.6 | 48947 | ug/L | 601.6 | 48947 | ppb | 601.6 | 1.23% |
| As 188.979† | 9.0 | 31.997 | ug/L | 2.5190 | 31.997 | ppb | 2.5190 | 7.87% |
| B 249.677† | 1062.8 | 12.438 | ug/L | 0.6651 | 12.438 | ppb | 0.6651 | 5.35% |
| Ba 233.527† | 63833.0 | 503.56 | ug/L | 4.706 | 503.56 | ppb | 4.706 | 0.93% |
| Be 313.107† | 17721.8 | 9.0508 | ug/L | 0.11744 | 9.0508 | ppb | 0.11744 | 1.30% |
| Ca 317.933Radial† | 10810.1 | 22599 | ug/L | 276.2 | 22599 | ppb | 276.2 | 1.22% |
| Cd 226.502† | 743.1 | 0.2844 | ug/L | 0.17551 | 0.2844 | ppb | 0.17551 | 61.71% |
| Co 228.616† | 4188.3 | 84.590 | ug/L | 1.0375 | 84.590 | ppb | 1.0375 | 1.23% |
| Cr 267.716† | 4639.1 | 59.938 | ug/L | 0.4160 | 59.938 | ppb | 0.4160 | 0.69% |
| Cu 324.752† | 102351.1 | 315.84 | ug/L | 2.560 | 315.84 | ppb | 2.560 | 0.81% |
| Fe 238.204 Radial† | 5706.3 | 80549 | ug/L | 892.8 | 80549 | ppb | 892.8 | 1.11% |
| K 766.490 Radial† | 39584.8 | 7587.2 | ug/L | 102.35 | 7587.2 | ppb | 102.35 | 1.35% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 212.8 | 10236 | ug/L | 240.5 | 10236 | ppb | 240.5 | 2.35% |
| Mn 257.610† | 1954908.7 | 2232.1 | ug/L | 31.00 | 2232.1 | ppb | 31.00 | 1.39% |
| Mo 202.031† | 16.4 | 7.7256 | ug/L | 0.40893 | 7.7256 | ppb | 0.40893 | 5.29% |
| Na 589.592 Radial† | 5776.2 | 1780.9 | ug/L | 32.20 | 1780.9 | ppb | 32.20 | 1.81% |
| Ni 231.604† | 2382.2 | 60.533 | ug/L | 0.7405 | 60.533 | ppb | 0.7405 | 1.22% |
| P 214.914† | 579.0 | 233.81 | ug/L | 1.745 | 233.81 | ppb | 1.745 | 0.75% |
| Pb 220.353† | 2802.1 | 346.26 | ug/L | 3.285 | 346.26 | ppb | 3.285 | 0.95% |
| S 181.975 Axial† | 235.8 | 330.08 | ug/L | 8.556 | 330.08 | ppb | 8.556 | 2.59% |
| Sb 206.836† | 5.1 | -3.9240 | ug/L | 0.42670 | -3.9240 | ppb | 0.42670 | 10.87% |
| Se 196.026† | -376.3 | 4.2528 | ug/L | 5.95629 | 4.2528 | ppb | 5.95629 | 140.06% |
| Si 251.611† | 1153482.2 | 37325 | ug/L | 536.0 | 37325 | ppb | 536.0 | 1.44% |
| Sn 189.927† | -123.2 | -22.712 | ug/L | 0.7196 | -22.712 | ppb | 0.7196 | 3.17% |
| Sr 421.552† | 24997.3 | 172.80 | ug/L | 2.104 | 172.80 | ppb | 2.104 | 1.22% |
| Ti 334.940† | 670230.4 | 1055.5 | ug/L | 15.19 | 1055.5 | ppb | 15.19 | 1.44% |
| Tl 190.801† | -75.5 | -5.3101 | ug/L | 2.37019 | -5.3101 | ppb | 2.37019 | 44.64% |
| U 409.014† | -7301.3 | -210.92 | ug/L | 6.209 | -210.92 | ppb | 6.209 | 2.94% |
| V 292.402† | 12254.6 | 72.415 | ug/L | 0.6507 | 72.415 | ppb | 0.6507 | 0.90% |
| Zn 213.857† | 25992.9 | 248.79 | ug/L | 2.690 | 248.79 | ppb | 2.690 | 1.08% |
| SiO2† | 1150939.9 | 79985 | ug/L | 922.4 | 79985 | ppb | 922.4 | 1.15% |

Sequence No.: 135
Sample ID: 245969014|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 146
Date Collected: 2/25/2010 09:50:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969014|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 4001.8 | 4001.8 | 102 | % | | | 09:52:59 |
| 1 | Y RADIAL | 4920.9 | 4920.9 | 111.6 | % | | | 09:52:39 |
| 1 | Al 396.153Radial† | 37737.7 | 37067.6 | 34765 | ug/L | 34765 | ppb | 09:52:39 |
| 1 | Ca 317.933Radial† | 4121.7 | 4016.6 | 8396.7 | ug/L | 8396.7 | ppb | 09:52:39 |
| 1 | Fe 238.204 Radial† | 5025.2 | 4909.7 | 69303 | ug/L | 69303 | ppb | 09:52:39 |
| 1 | K 766.490 Radial† | 34633.5 | 31275.8 | 5998.0 | ug/L | 5998.0 | ppb | 09:52:39 |
| 1 | Mg 279.077 IEC† | 150.6 | 143.4 | 6881.4 | ug/L | 6881.4 | ppb | 09:52:59 |
| 1 | Na 589.592 Radial† | 1278.1 | 2071.4 | 638.67 | ug/L | 638.67 | ppb | 09:52:39 |
| 1 | Sr 421.552† | 13830.0 | 13507.5 | 93.403 | ug/L | 93.403 | ppb | 09:52:39 |
| 1 | Sc 361.383 | 906148.2 | 906148.2 | 103.30 | % | | | 09:53:56 |
| 1 | Y 371.029 | 849622.2 | 849622.2 | 112.41 | % | | | 09:53:56 |
| 1 | Ag 328.068† | -4656.0 | -4747.9 | -0.2733 | ug/L | -0.2733 | ppb | 09:54:01 |
| 1 | As 188.979† | -40.6 | -21.1 | 27.248 | ug/L | 27.248 | ppb | 09:54:21 |
| 1 | B 249.677† | 357.6 | 744.4 | 6.6982 | ug/L | 6.6982 | ppb | 09:54:01 |
| 1 | Ba 233.527† | 60870.2 | 58929.1 | 464.85 | ug/L | 464.85 | ppb | 09:54:01 |
| 1 | Be 313.107† | 795.8 | 4532.6 | 7.0532 | ug/L | 7.0532 | ppb | 09:54:01 |
| 1 | Cd 226.502† | 540.5 | 719.5 | 1.2160 | ug/L | 1.2160 | ppb | 09:54:21 |
| 1 | Co 228.616† | 1569.0 | 1585.4 | 27.454 | ug/L | 27.454 | ppb | 09:54:21 |
| 1 | Cr 267.716† | 9170.1 | 8799.8 | 105.56 | ug/L | 105.56 | ppb | 09:54:01 |
| 1 | Cu 324.752† | 86570.4 | 77817.0 | 240.46 | ug/L | 240.46 | ppb | 09:54:01 |
| 1 | Mn 257.610† | 1789952.6 | 1732372.7 | 1977.9 | ug/L | 1977.9 | ppb | 09:53:56 |
| 1 | Mo 202.031† | 11.1 | 0.6 | 5.5246 | ug/L | 5.5246 | ppb | 09:54:21 |
| 1 | Ni 231.604† | 2479.3 | 2337.8 | 59.437 | ug/L | 59.437 | ppb | 09:54:21 |
| 1 | P 214.914† | 1063.0 | 818.6 | 398.61 | ug/L | 398.61 | ppb | 09:54:21 |
| 1 | Pb 220.353† | 1163.0 | 1184.0 | 145.35 | ug/L | 145.35 | ppb | 09:54:21 |
| 1 | S 181.975 Axial† | 201.2 | 154.0 | 215.06 | ug/L | 215.06 | ppb | 09:54:21 |
| 1 | Sb 206.836† | 74.3 | 35.3 | 3.3151 | ug/L | 3.3151 | ppb | 09:54:21 |
| 1 | Se 196.026† | -381.4 | -341.5 | -7.8888 | ug/L | -7.8888 | ppb | 09:54:21 |
| 1 | Si 251.611† | 989632.4 | 957492.9 | 30983 | ug/L | 30983 | ppb | 09:53:56 |
| 1 | Sn 189.927† | 28.6 | 17.2 | 0.5931 | ug/L | 0.5931 | ppb | 09:54:21 |
| 1 | Ti 334.940† | 1547619.4 | 1499605.8 | 2357.0 | ug/L | 2357.0 | ppb | 09:53:56 |
| 1 | Tl 190.801† | -141.4 | -104.3 | -4.7864 | ug/L | -4.7864 | ppb | 09:54:21 |
| 1 | U 409.014† | -2140.7 | 814.2 | 14.362 | ug/L | 14.362 | ppb | 09:53:56 |
| 1 | V 292.402† | 18762.1 | 19669.0 | 124.70 | ug/L | 124.70 | ppb | 09:54:01 |
| 1 | Zn 213.857† | 25663.8 | 24238.8 | 232.93 | ug/L | 232.93 | ppb | 09:54:01 |
| 1 | SiO2† | 991643.2 | 959443.4 | 66677 | ug/L | 66677 | ppb | 09:55:30 |
| 2 | Sc Radial | 3895.3 | 3895.3 | 99.4 | % | | | 09:53:24 |
| 2 | Y RADIAL | 4948.1 | 4948.1 | 112.2 | % | | | 09:53:04 |
| 2 | Al 396.153Radial† | 37513.6 | 37852.3 | 35501 | ug/L | 35501 | ppb | 09:53:04 |
| 2 | Ca 317.933Radial† | 4103.7 | 4108.8 | 8589.4 | ug/L | 8589.4 | ppb | 09:53:04 |
| 2 | Fe 238.204 Radial† | 5008.1 | 5026.9 | 70958 | ug/L | 70958 | ppb | 09:53:04 |
| 2 | K 766.490 Radial† | 34732.9 | 32302.7 | 6195.0 | ug/L | 6195.0 | ppb | 09:53:04 |
| 2 | Mg 279.077 IEC† | 146.6 | 143.4 | 6880.4 | ug/L | 6880.4 | ppb | 09:53:24 |
| 2 | Na 589.592 Radial† | 1336.1 | 2163.9 | 667.20 | ug/L | 667.20 | ppb | 09:53:04 |
| 2 | Sr 421.552† | 13730.9 | 13778.0 | 95.274 | ug/L | 95.274 | ppb | 09:53:04 |
| 2 | Sc 361.383 | 900831.9 | 900831.9 | 102.69 | % | | | 09:54:27 |
| 2 | Y 371.029 | 843501.0 | 843501.0 | 111.60 | % | | | 09:54:27 |
| 2 | Ag 328.068† | -4663.0 | -4781.2 | 0.0866 | ug/L | 0.0866 | ppb | 09:54:33 |
| 2 | As 188.979† | -42.1 | -22.8 | 26.833 | ug/L | 26.833 | ppb | 09:54:53 |
| 2 | B 249.677† | 324.0 | 713.8 | 5.6865 | ug/L | 5.6865 | ppb | 09:54:33 |
| 2 | Ba 233.527† | 60912.4 | 59318.0 | 467.95 | ug/L | 467.95 | ppb | 09:54:33 |
| 2 | Be 313.107† | 925.0 | 4663.0 | 7.0932 | ug/L | 7.0932 | ppb | 09:54:33 |
| 2 | Cd 226.502† | 529.4 | 711.8 | 0.9547 | ug/L | 0.9547 | ppb | 09:54:53 |
| 2 | Co 228.616† | 1580.4 | 1605.5 | 27.859 | ug/L | 27.859 | ppb | 09:54:53 |
| 2 | Cr 267.716† | 9115.5 | 8799.0 | 105.71 | ug/L | 105.71 | ppb | 09:54:33 |
| 2 | Cu 324.752† | 86424.9 | 78169.9 | 241.62 | ug/L | 241.62 | ppb | 09:54:33 |
| 2 | Mn 257.610† | 1776577.6 | 1729574.7 | 1974.9 | ug/L | 1974.9 | ppb | 09:54:27 |
| 2 | Mo 202.031† | 1.0 | -9.2 | 4.9365 | ug/L | 4.9365 | ppb | 09:54:53 |
| 2 | Ni 231.604† | 2460.7 | 2333.7 | 59.334 | ug/L | 59.334 | ppb | 09:54:53 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1059.7 | 821.5 | 398.97 | ug/L | 398.97 ppb | 09:54:53 |
| 2 | Pb 220.353† | 1176.0 | 1203.3 | 147.70 | ug/L | 147.70 ppb | 09:54:53 |
| 2 | S 181.975 Axial† | 195.8 | 149.9 | 209.04 | ug/L | 209.04 ppb | 09:54:53 |
| 2 | Sb 206.836† | 61.4 | 23.1 | -1.0217 | ug/L | -1.0217 ppb | 09:54:53 |
| 2 | Se 196.026† | -367.8 | -330.4 | 4.5033 | ug/L | 4.5033 ppb | 09:54:53 |
| 2 | Si 251.611† | 980620.7 | 954371.3 | 30882 | ug/L | 30882 ppb | 09:54:27 |
| 2 | Sn 189.927† | 9.4 | -1.3 | -2.7820 | ug/L | -2.7820 ppb | 09:54:53 |
| 2 | Ti 334.940† | 1535948.4 | 1497082.5 | 2353.1 | ug/L | 2353.1 ppb | 09:54:27 |
| 2 | Tl 190.801† | -128.4 | -92.5 | -1.0572 | ug/L | -1.0572 ppb | 09:54:53 |
| 2 | U 409.014† | -2337.4 | 610.5 | 8.5469 | ug/L | 8.5469 ppb | 09:54:27 |
| 2 | V 292.402† | 18793.0 | 19806.3 | 125.40 | ug/L | 125.40 ppb | 09:54:33 |
| 2 | Zn 213.857† | 25583.6 | 24307.3 | 233.37 | ug/L | 233.37 ppb | 09:54:33 |
| 2 | SiO2† | 1001087.5 | 974305.8 | 67710 | ug/L | 67710 ppb | 09:55:36 |
| 3 | Sc Radial | 3878.6 | 3878.6 | 99.0 | % | | 09:53:49 |
| 3 | Y RADIAL | 4982.6 | 4982.6 | 113.0 | % | | 09:53:29 |
| 3 | Al 396.153Radial† | 38029.8 | 38536.2 | 36142 | ug/L | 36142 ppb | 09:53:29 |
| 3 | Ca 317.933Radial† | 4164.3 | 4187.8 | 8754.6 | ug/L | 8754.6 ppb | 09:53:29 |
| 3 | Fe 238.204 Radial† | 5040.2 | 5081.1 | 71722 | ug/L | 71722 ppb | 09:53:29 |
| 3 | K 766.490 Radial† | 35040.7 | 32764.2 | 6283.5 | ug/L | 6283.5 ppb | 09:53:29 |
| 3 | Mg 279.077 IEC† | 148.3 | 145.8 | 6992.7 | ug/L | 6992.7 ppb | 09:53:49 |
| 3 | Na 589.592 Radial† | 1319.3 | 2152.7 | 663.75 | ug/L | 663.75 ppb | 09:53:29 |
| 3 | Sr 421.552† | 13994.5 | 14103.8 | 97.526 | ug/L | 97.526 ppb | 09:53:29 |
| 3 | Sc 361.383 | 918027.2 | 918027.2 | 104.65 | % | | 09:54:58 |
| 3 | Y 371.029 | 858043.2 | 858043.2 | 113.52 | % | | 09:54:58 |
| 3 | Ag 328.068† | -4790.5 | -4818.0 | 0.1430 | ug/L | 0.1430 ppb | 09:55:04 |
| 3 | As 188.979† | -35.2 | -15.4 | 30.348 | ug/L | 30.348 ppb | 09:55:24 |
| 3 | B 249.677† | 333.4 | 716.8 | 5.6384 | ug/L | 5.6384 ppb | 09:55:04 |
| 3 | Ba 233.527† | 61823.0 | 59077.1 | 466.08 | ug/L | 466.08 ppb | 09:55:04 |
| 3 | Be 313.107† | 904.2 | 4626.2 | 7.0875 | ug/L | 7.0875 ppb | 09:55:04 |
| 3 | Cd 226.502† | 541.6 | 713.8 | 0.8986 | ug/L | 0.8986 ppb | 09:55:24 |
| 3 | Co 228.616† | 1577.4 | 1573.9 | 27.177 | ug/L | 27.177 ppb | 09:55:24 |
| 3 | Cr 267.716† | 9275.6 | 8785.7 | 105.63 | ug/L | 105.63 ppb | 09:55:04 |
| 3 | Cu 324.752† | 87628.6 | 77743.7 | 240.37 | ug/L | 240.37 ppb | 09:55:04 |
| 3 | Mn 257.610† | 1813473.6 | 1732426.3 | 1978.2 | ug/L | 1978.2 ppb | 09:54:58 |
| 3 | Mo 202.031† | 5.4 | -5.0 | 5.3037 | ug/L | 5.3037 ppb | 09:55:24 |
| 3 | Ni 231.604† | 2474.5 | 2302.1 | 58.529 | ug/L | 58.529 ppb | 09:55:24 |
| 3 | P 214.914† | 1056.3 | 798.8 | 385.17 | ug/L | 385.17 ppb | 09:55:24 |
| 3 | Pb 220.353† | 1162.8 | 1169.2 | 143.56 | ug/L | 143.56 ppb | 09:55:24 |
| 3 | S 181.975 Axial† | 206.6 | 156.6 | 218.61 | ug/L | 218.61 ppb | 09:55:24 |
| 3 | Sb 206.836† | 69.3 | 29.5 | 1.2061 | ug/L | 1.2061 ppb | 09:55:24 |
| 3 | Se 196.026† | -375.4 | -331.0 | 6.4938 | ug/L | 6.4938 ppb | 09:55:24 |
| 3 | Si 251.611† | 1001777.5 | 956701.4 | 30958 | ug/L | 30958 ppb | 09:54:58 |
| 3 | Sn 189.927† | 20.5 | 9.1 | -0.9313 | ug/L | -0.9313 ppb | 09:55:24 |
| 3 | Ti 334.940† | 1567665.6 | 1499374.5 | 2356.7 | ug/L | 2356.7 ppb | 09:54:58 |
| 3 | Tl 190.801† | -143.7 | -104.8 | -4.9242 | ug/L | -4.9242 ppb | 09:55:24 |
| 3 | U 409.014† | -2285.8 | 702.4 | 10.999 | ug/L | 10.999 ppb | 09:54:58 |
| 3 | V 292.402† | 19010.7 | 19671.5 | 124.36 | ug/L | 124.36 ppb | 09:55:04 |
| 3 | Zn 213.857† | 25958.3 | 24198.7 | 232.17 | ug/L | 232.17 ppb | 09:55:04 |
| 3 | SiO2† | 988059.2 | 943596.7 | 65576 | ug/L | 65576 ppb | 09:55:42 |

**Mean Data: 245969014|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 908335.7 | 103.55 | % | 1.004 | | | | 0.97% |
| Sc Radial | 3925.3 | 100 | % | 1.7 | | | | 1.70% |
| Y 371.029 | 850388.8 | 112.51 | % | 0.966 | | | | 0.86% |
| Y RADIAL | 4950.5 | 112.2 | % | 0.70 | | | | 0.62% |
| Ag 328.068† | -4782.4 | -0.0146 | ug/L | 0.22583 | -0.0146 | ppb | 0.22583 | >999.9% |
| Al 396.153Radial† | 37818.7 | 35469 | ug/L | 689.2 | 35469 | ppb | 689.2 | 1.94% |
| As 188.979† | -19.7 | 28.143 | ug/L | 1.9209 | 28.143 | ppb | 1.9209 | 6.83% |
| B 249.677† | 725.0 | 6.0077 | ug/L | 0.59844 | 6.0077 | ppb | 0.59844 | 9.96% |
| Ba 233.527† | 59108.1 | 466.29 | ug/L | 1.563 | 466.29 | ppb | 1.563 | 0.34% |
| Be 313.107† | 4607.3 | 7.0780 | ug/L | 0.02165 | 7.0780 | ppb | 0.02165 | 0.31% |
| Ca 317.933Radial† | 4104.4 | 8580.3 | ug/L | 179.13 | 8580.3 | ppb | 179.13 | 2.09% |
| Cd 226.502† | 715.1 | 1.0231 | ug/L | 0.16940 | 1.0231 | ppb | 0.16940 | 16.56% |
| Co 228.616† | 1588.3 | 27.496 | ug/L | 0.3432 | 27.496 | ppb | 0.3432 | 1.25% |
| Cr 267.716† | 8794.8 | 105.64 | ug/L | 0.076 | 105.64 | ppb | 0.076 | 0.07% |
| Cu 324.752† | 77910.2 | 240.82 | ug/L | 0.701 | 240.82 | ppb | 0.701 | 0.29% |
| Fe 238.204 Radial† | 5005.9 | 70661 | ug/L | 1236.7 | 70661 | ppb | 1236.7 | 1.75% |
| K 766.490 Radial† | 32114.2 | 6158.8 | ug/L | 146.15 | 6158.8 | ppb | 146.15 | 2.37% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 144.2 | 6918.2 | ug/L | 64.59 | 6918.2 | ppb | 64.59 | 0.93% |
| Mn 257.610† | 1731457.9 | 1977.0 | ug/L | 1.84 | 1977.0 | ppb | 1.84 | 0.09% |
| Mo 202.031† | -4.5 | 5.2549 | ug/L | 0.29708 | 5.2549 | ppb | 0.29708 | 5.65% |
| Na 589.592 Radial† | 2129.4 | 656.54 | ug/L | 15.569 | 656.54 | ppb | 15.569 | 2.37% |
| Ni 231.604† | 2324.5 | 59.100 | ug/L | 0.4968 | 59.100 | ppb | 0.4968 | 0.84% |
| P 214.914† | 813.0 | 394.25 | ug/L | 7.866 | 394.25 | ppb | 7.866 | 2.00% |
| Pb 220.353† | 1185.5 | 145.54 | ug/L | 2.072 | 145.54 | ppb | 2.072 | 1.42% |
| S 181.975 Axial† | 153.5 | 214.24 | ug/L | 4.838 | 214.24 | ppb | 4.838 | 2.26% |
| Sb 206.836† | 29.3 | 1.1665 | ug/L | 2.16863 | 1.1665 | ppb | 2.16863 | 185.91% |
| Se 196.026† | -334.3 | 1.0361 | ug/L | 7.79304 | 1.0361 | ppb | 7.79304 | 752.14% |
| Si 251.611† | 956188.5 | 30941 | ug/L | 52.5 | 30941 | ppb | 52.5 | 0.17% |
| Sn 189.927† | 8.3 | -1.0401 | ug/L | 1.69019 | -1.0401 | ppb | 1.69019 | 162.51% |
| Sr 421.552† | 13796.4 | 95.401 | ug/L | 2.0647 | 95.401 | ppb | 2.0647 | 2.16% |
| Ti 334.940† | 1498687.6 | 2355.6 | ug/L | 2.19 | 2355.6 | ppb | 2.19 | 0.09% |
| Tl 190.801† | -100.5 | -3.5893 | ug/L | 2.19396 | -3.5893 | ppb | 2.19396 | 61.13% |
| U 409.014† | 709.0 | 11.303 | ug/L | 2.9193 | 11.303 | ppb | 2.9193 | 25.83% |
| V 292.402† | 19715.6 | 124.82 | ug/L | 0.532 | 124.82 | ppb | 0.532 | 0.43% |
| Zn 213.857† | 24248.3 | 232.82 | ug/L | 0.607 | 232.82 | ppb | 0.607 | 0.26% |
| SiO2† | 959115.3 | 66654 | ug/L | 1067.3 | 66654 | ppb | 1067.3 | 1.60% |

Sequence No.: 136
Sample ID: 245969015|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 147
Date Collected: 2/25/2010 09:57:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969015|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3862.7 | 3862.7 | 98.6 | % | | | 10:00:08 |
| 1 | Y RADIAL | 4599.1 | 4599.1 | 104.3 | % | | | 09:59:48 |
| 1 | Al 396.153Radial† | 75651.5 | 76863.0 | 72088 | ug/L | 72088 | ppb | 09:59:48 |
| 1 | Ca 317.933Radial† | 7647.2 | 7738.6 | 16178 | ug/L | 16178 | ppb | 09:59:48 |
| 1 | Fe 238.204 Radial† | 5152.8 | 5216.4 | 73632 | ug/L | 73632 | ppb | 09:59:48 |
| 1 | K 766.490 Radial† | 65247.2 | 63555.5 | 12190 | ug/L | 12190 | ppb | 09:59:48 |
| 1 | Mg 279.077 IEC† | 273.6 | 273.5 | 13185 | ug/L | 13185 | ppb | 10:00:08 |
| 1 | Na 589.592 Radial† | 498.1 | 1325.1 | 408.57 | ug/L | 408.57 | ppb | 09:59:48 |
| 1 | Sr 421.552† | 27049.6 | 27406.9 | 189.52 | ug/L | 189.52 | ppb | 09:59:48 |
| 1 | Sc 361.383 | 911536.9 | 911536.9 | 103.91 | % | | | 10:01:05 |
| 1 | Y 371.029 | 818374.8 | 818374.8 | 108.27 | % | | | 10:01:05 |
| 1 | Ag 328.068† | -5002.6 | -5054.8 | -0.2858 | ug/L | -0.2858 | ppb | 10:01:10 |
| 1 | As 188.979† | -46.2 | -26.2 | 33.434 | ug/L | 33.434 | ppb | 10:01:31 |
| 1 | B 249.677† | 520.6 | 899.2 | 9.7227 | ug/L | 9.7227 | ppb | 10:01:10 |
| 1 | Ba 233.527† | 136525.1 | 131388.4 | 1033.7 | ug/L | 1033.7 | ppb | 10:01:10 |
| 1 | Be 313.107† | 11670.4 | 14993.3 | 12.937 | ug/L | 12.937 | ppb | 10:01:10 |
| 1 | Cd 226.502† | 613.4 | 786.6 | 1.5200 | ug/L | 1.5200 | ppb | 10:01:31 |
| 1 | Co 228.616† | 2049.1 | 2038.5 | 35.363 | ug/L | 35.363 | ppb | 10:01:31 |
| 1 | Cr 267.716† | 5674.4 | 5383.2 | 67.693 | ug/L | 67.693 | ppb | 10:01:31 |
| 1 | Cu 324.752† | 30624.1 | 23480.8 | 75.392 | ug/L | 75.392 | ppb | 10:01:10 |
| 1 | Mn 257.610† | 2537948.2 | 2441973.5 | 2785.6 | ug/L | 2785.6 | ppb | 10:01:05 |
| 1 | Mo 202.031† | -41.1 | -49.7 | 2.2617 | ug/L | 2.2617 | ppb | 10:01:31 |
| 1 | Ni 231.604† | 2080.8 | 1940.0 | 49.315 | ug/L | 49.315 | ppb | 10:01:31 |
| 1 | P 214.914† | 1441.0 | 1176.3 | 652.39 | ug/L | 652.39 | ppb | 10:01:31 |
| 1 | Pb 220.353† | 1699.0 | 1693.2 | 215.48 | ug/L | 215.48 | ppb | 10:01:31 |
| 1 | S 181.975 Axial† | 548.2 | 486.8 | 686.97 | ug/L | 686.97 | ppb | 10:01:31 |
| 1 | Sb 206.836† | 84.5 | 44.6 | 2.3221 | ug/L | 2.3221 | ppb | 10:01:31 |
| 1 | Se 196.026† | -400.3 | -357.5 | -5.2458 | ug/L | -5.2458 | ppb | 10:01:31 |
| 1 | Si 251.611† | 1246377.4 | 1198911.6 | 38795 | ug/L | 38795 | ppb | 10:01:05 |
| 1 | Sn 189.927† | -104.8 | -111.3 | -21.332 | ug/L | -21.332 | ppb | 10:01:31 |
| 1 | Ti 334.940† | 2125722.3 | 2047094.6 | 3217.9 | ug/L | 3217.9 | ppb | 10:01:05 |
| 1 | Tl 190.801† | -166.0 | -127.2 | -1.1813 | ug/L | -1.1813 | ppb | 10:01:31 |
| 1 | U 409.014† | -5786.4 | -2682.0 | -82.590 | ug/L | -82.590 | ppb | 10:01:10 |
| 1 | V 292.402† | 22774.7 | 23423.3 | 149.24 | ug/L | 149.24 | ppb | 10:01:10 |
| 1 | Zn 213.857† | 20981.6 | 19586.0 | 185.73 | ug/L | 185.73 | ppb | 10:01:10 |
| 1 | SiO2† | 1240565.0 | 1193321.8 | 82931 | ug/L | 82931 | ppb | 10:02:39 |
| 2 | Sc Radial | 3837.8 | 3837.8 | 97.9 | % | | | 10:00:33 |
| 2 | Y RADIAL | 4766.9 | 4766.9 | 108.1 | % | | | 10:00:13 |
| 2 | Al 396.153Radial† | 77862.6 | 79619.8 | 74674 | ug/L | 74674 | ppb | 10:00:13 |
| 2 | Ca 317.933Radial† | 7821.6 | 7967.1 | 16655 | ug/L | 16655 | ppb | 10:00:13 |
| 2 | Fe 238.204 Radial† | 5283.2 | 5383.5 | 75991 | ug/L | 75991 | ppb | 10:00:13 |
| 2 | K 766.490 Radial† | 66890.1 | 65663.4 | 12594 | ug/L | 12594 | ppb | 10:00:13 |
| 2 | Mg 279.077 IEC† | 272.8 | 274.5 | 13228 | ug/L | 13228 | ppb | 10:00:33 |
| 2 | Na 589.592 Radial† | 460.9 | 1290.4 | 397.85 | ug/L | 397.85 | ppb | 10:00:13 |
| 2 | Sr 421.552† | 27862.7 | 28415.5 | 196.50 | ug/L | 196.50 | ppb | 10:00:13 |
| 2 | Sc 361.383 | 895863.3 | 895863.3 | 102.12 | % | | | 10:01:36 |
| 2 | Y 371.029 | 803294.5 | 803294.5 | 106.28 | % | | | 10:01:36 |
| 2 | Ag 328.068† | -5028.2 | -5164.0 | -0.0639 | ug/L | -0.0639 | ppb | 10:01:42 |
| 2 | As 188.979† | -47.9 | -28.7 | 32.844 | ug/L | 32.844 | ppb | 10:02:02 |
| 2 | B 249.677† | 570.1 | 956.4 | 10.725 | ug/L | 10.725 | ppb | 10:01:42 |
| 2 | Ba 233.527† | 135468.5 | 132652.5 | 1043.6 | ug/L | 1043.6 | ppb | 10:01:42 |
| 2 | Be 313.107† | 11638.6 | 15158.7 | 12.991 | ug/L | 12.991 | ppb | 10:01:42 |
| 2 | Cd 226.502† | 613.9 | 797.4 | 1.4000 | ug/L | 1.4000 | ppb | 10:02:02 |
| 2 | Co 228.616† | 2033.4 | 2057.6 | 35.742 | ug/L | 35.742 | ppb | 10:02:02 |
| 2 | Cr 267.716† | 5616.5 | 5422.0 | 68.357 | ug/L | 68.357 | ppb | 10:02:02 |
| 2 | Cu 324.752† | 30327.3 | 23705.7 | 76.206 | ug/L | 76.206 | ppb | 10:01:42 |
| 2 | Mn 257.610† | 2493308.6 | 2440994.0 | 2784.7 | ug/L | 2784.7 | ppb | 10:01:36 |
| 2 | Mo 202.031† | -31.9 | -41.4 | 3.0558 | ug/L | 3.0558 | ppb | 10:02:02 |
| 2 | Ni 231.604† | 2058.5 | 1953.2 | 49.650 | ug/L | 49.650 | ppb | 10:02:02 |

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|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1425.5 | 1185.3 | 656.46 ug/L | 656.46 ppb | 10:02:02 |
| 2 | Pb 220.353† | 1695.2 | 1718.1 | 218.83 ug/L | 218.83 ppb | 10:02:02 |
| 2 | S 181.975 Axial† | 539.9 | 487.9 | 688.11 ug/L | 688.11 ppb | 10:02:02 |
| 2 | Sb 206.836† | 66.3 | 28.2 | -3.4890 ug/L | -3.4890 ppb | 10:02:02 |
| 2 | Se 196.026† | -390.7 | -354.8 | 3.8214 ug/L | 3.8214 ppb | 10:02:02 |
| 2 | Si 251.611† | 1224254.4 | 1198234.0 | 38773 ug/L | 38773 ppb | 10:01:36 |
| 2 | Sn 189.927† | -100.5 | -108.9 | -20.942 ug/L | -20.942 ppb | 10:02:02 |
| 2 | Ti 334.940† | 2086693.9 | 2044669.0 | 3214.2 ug/L | 3214.2 ppb | 10:01:36 |
| 2 | Tl 190.801† | -162.5 | -126.5 | -1.0199 ug/L | -1.0199 ppb | 10:02:02 |
| 2 | U 409.014† | -5946.8 | -2936.5 | -89.887 ug/L | -89.887 ppb | 10:01:42 |
| 2 | V 292.402† | 22510.0 | 23547.5 | 149.76 ug/L | 149.76 ppb | 10:01:42 |
| 2 | Zn 213.857† | 20852.2 | 19812.5 | 187.66 ug/L | 187.66 ppb | 10:01:42 |
| 2 | SiO2† | 1236700.2 | 1210424.9 | 84119 ug/L | 84119 ppb | 10:02:45 |
| 3 | Sc Radial | 3846.1 | 3846.1 | 98.1 % | | 10:00:58 |
| 3 | Y RADIAL | 4696.7 | 4696.7 | 106.5 % | | 10:00:38 |
| 3 | Al 396.153Radial† | 76729.3 | 78291.9 | 73428 ug/L | 73428 ppb | 10:00:38 |
| 3 | Ca 317.933Radial† | 7737.3 | 7863.9 | 16440 ug/L | 16440 ppb | 10:00:38 |
| 3 | Fe 238.204 Radial† | 5135.0 | 5220.7 | 73693 ug/L | 73693 ppb | 10:00:38 |
| 3 | K 766.490 Radial† | 65812.5 | 64416.8 | 12355 ug/L | 12355 ppb | 10:00:38 |
| 3 | Mg 279.077 IEC† | 272.5 | 273.6 | 13187 ug/L | 13187 ppb | 10:00:58 |
| 3 | Na 589.592 Radial† | 453.2 | 1281.6 | 395.15 ug/L | 395.15 ppb | 10:00:38 |
| 3 | Sr 421.552† | 27455.0 | 27938.2 | 193.20 ug/L | 193.20 ppb | 10:00:38 |
| 3 | Sc 361.383 | 902788.1 | 902788.1 | 102.91 % | | 10:02:07 |
| 3 | Y 371.029 | 810698.7 | 810698.7 | 107.26 % | | 10:02:07 |
| 3 | Ag 328.068† | -5153.3 | -5247.8 | -1.1576 ug/L | -1.1576 ppb | 10:02:13 |
| 3 | As 188.979† | -51.6 | -31.9 | 30.758 ug/L | 30.758 ppb | 10:02:33 |
| 3 | B 249.677† | 581.7 | 963.4 | 11.268 ug/L | 11.268 ppb | 10:02:13 |
| 3 | Ba 233.527† | 135168.8 | 132315.4 | 1040.9 ug/L | 1040.9 ppb | 10:02:13 |
| 3 | Be 313.107† | 11712.8 | 15143.4 | 12.962 ug/L | 12.962 ppb | 10:02:13 |
| 3 | Cd 226.502† | 619.0 | 797.8 | 1.6421 ug/L | 1.6421 ppb | 10:02:33 |
| 3 | Co 228.616† | 2037.3 | 2046.2 | 35.554 ug/L | 35.554 ppb | 10:02:33 |
| 3 | Cr 267.716† | 5664.9 | 5426.8 | 68.193 ug/L | 68.193 ppb | 10:02:33 |
| 3 | Cu 324.752† | 30347.2 | 23497.3 | 75.450 ug/L | 75.450 ppb | 10:02:13 |
| 3 | Mn 257.610† | 2504636.5 | 2433274.4 | 2775.7 ug/L | 2775.7 ppb | 10:02:07 |
| 3 | Mo 202.031† | -37.4 | -46.5 | 2.5057 ug/L | 2.5057 ppb | 10:02:33 |
| 3 | Ni 231.604† | 2076.3 | 1955.1 | 49.697 ug/L | 49.697 ppb | 10:02:33 |
| 3 | P 214.914† | 1436.6 | 1185.4 | 658.19 ug/L | 658.19 ppb | 10:02:33 |
| 3 | Pb 220.353† | 1688.4 | 1698.7 | 216.43 ug/L | 216.43 ppb | 10:02:33 |
| 3 | S 181.975 Axial† | 537.6 | 481.5 | 679.18 ug/L | 679.18 ppb | 10:02:33 |
| 3 | Sb 206.836† | 65.4 | 26.9 | -3.8380 ug/L | -3.8380 ppb | 10:02:33 |
| 3 | Se 196.026† | -395.4 | -356.4 | -4.3707 ug/L | -4.3707 ppb | 10:02:33 |
| 3 | Si 251.611† | 1228660.1 | 1193319.8 | 38614 ug/L | 38614 ppb | 10:02:07 |
| 3 | Sn 189.927† | -90.7 | -98.6 | -19.000 ug/L | -19.000 ppb | 10:02:33 |
| 3 | Ti 334.940† | 2096157.7 | 2038192.0 | 3204.0 ug/L | 3204.0 ppb | 10:02:07 |
| 3 | Tl 190.801† | -153.3 | -116.4 | 2.1073 ug/L | 2.1073 ppb | 10:02:33 |
| 3 | U 409.014† | -6012.6 | -2955.7 | -90.157 ug/L | -90.157 ppb | 10:02:13 |
| 3 | V 292.402† | 22598.9 | 23464.8 | 149.52 ug/L | 149.52 ppb | 10:02:13 |
| 3 | Zn 213.857† | 20826.9 | 19631.3 | 186.18 ug/L | 186.18 ppb | 10:02:13 |
| 3 | SiO2† | 1241551.7 | 1205850.4 | 83801 ug/L | 83801 ppb | 10:02:51 |

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**Mean Data: 245969015|948756|1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 903396.1 | 102.98 | % | 0.895 | | | | 0.87% |
| Sc Radial | 3848.9 | 98.2 | % | 0.32 | | | | 0.33% |
| Y 371.029 | 810789.3 | 107.27 | % | 0.998 | | | | 0.93% |
| Y RADIAL | 4687.6 | 106.3 | % | 1.91 | | | | 1.80% |
| Ag 328.068† | -5155.5 | -0.5024 | ug/L | 0.57811 | -0.5024 | ppb | 0.57811 | 115.06% |
| Al 396.153Radial† | 78258.2 | 73397 | ug/L | 1293.0 | 73397 | ppb | 1293.0 | 1.76% |
| As 188.979† | -28.9 | 32.345 | ug/L | 1.4060 | 32.345 | ppb | 1.4060 | 4.35% |
| B 249.677† | 939.7 | 10.572 | ug/L | 0.7842 | 10.572 | ppb | 0.7842 | 7.42% |
| Ba 233.527† | 132118.8 | 1039.4 | ug/L | 5.17 | 1039.4 | ppb | 5.17 | 0.50% |
| Be 313.107† | 15098.5 | 12.963 | ug/L | 0.0268 | 12.963 | ppb | 0.0268 | 0.21% |
| Ca 317.933Radial† | 7856.5 | 16424 | ug/L | 239.2 | 16424 | ppb | 239.2 | 1.46% |
| Cd 226.502† | 793.9 | 1.5207 | ug/L | 0.12103 | 1.5207 | ppb | 0.12103 | 7.96% |
| Co 228.616† | 2047.4 | 35.553 | ug/L | 0.1895 | 35.553 | ppb | 0.1895 | 0.53% |
| Cr 267.716† | 5410.7 | 68.081 | ug/L | 0.3459 | 68.081 | ppb | 0.3459 | 0.51% |
| Cu 324.752† | 23561.3 | 75.683 | ug/L | 0.4539 | 75.683 | ppb | 0.4539 | 0.60% |
| Fe 238.204 Radial† | 5273.5 | 74439 | ug/L | 1344.7 | 74439 | ppb | 1344.7 | 1.81% |
| K 766.490 Radial† | 64545.2 | 12380 | ug/L | 203.3 | 12380 | ppb | 203.3 | 1.64% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 273.8 | 13200 | ug/L | 24.4 | 13200 | ppb | 24.4 | 0.18% |
| Mn 257.610† | 2438747.3 | 2782.0 | ug/L | 5.47 | 2782.0 | ppb | 5.47 | 0.20% |
| Mo 202.031† | -45.9 | 2.6077 | ug/L | 0.40677 | 2.6077 | ppb | 0.40677 | 15.60% |
| Na 589.592 Radial† | 1299.0 | 400.52 | ug/L | 7.102 | 400.52 | ppb | 7.102 | 1.77% |
| Ni 231.604† | 1949.4 | 49.554 | ug/L | 0.2085 | 49.554 | ppb | 0.2085 | 0.42% |
| P 214.914† | 1182.3 | 655.68 | ug/L | 2.979 | 655.68 | ppb | 2.979 | 0.45% |
| Pb 220.353† | 1703.3 | 216.91 | ug/L | 1.726 | 216.91 | ppb | 1.726 | 0.80% |
| S 181.975 Axial† | 485.4 | 684.76 | ug/L | 4.860 | 684.76 | ppb | 4.860 | 0.71% |
| Sb 206.836† | 33.2 | -1.6683 | ug/L | 3.46016 | -1.6683 | ppb | 3.46016 | 207.41% |
| Se 196.026† | -356.2 | -1.9317 | ug/L | 5.00149 | -1.9317 | ppb | 5.00149 | 258.92% |
| Si 251.611† | 1196821.8 | 38728 | ug/L | 98.7 | 38728 | ppb | 98.7 | 0.25% |
| Sn 189.927† | -106.3 | -20.425 | ug/L | 1.2490 | -20.425 | ppb | 1.2490 | 6.11% |
| Sr 421.552† | 27920.2 | 193.07 | ug/L | 3.489 | 193.07 | ppb | 3.489 | 1.81% |
| Ti 334.940† | 2043318.5 | 3212.0 | ug/L | 7.22 | 3212.0 | ppb | 7.22 | 0.22% |
| Tl 190.801† | -123.4 | -0.0313 | ug/L | 1.85386 | -0.0313 | ppb | 1.85386 | >999.9% |
| U 409.014† | -2858.1 | -87.545 | ug/L | 4.2932 | -87.545 | ppb | 4.2932 | 4.90% |
| V 292.402† | 23478.5 | 149.51 | ug/L | 0.262 | 149.51 | ppb | 0.262 | 0.17% |
| Zn 213.857† | 19676.6 | 186.52 | ug/L | 1.008 | 186.52 | ppb | 1.008 | 0.54% |
| SiO2† | 1203199.0 | 83617 | ug/L | 615.3 | 83617 | ppb | 615.3 | 0.74% |

Sequence No.: 137
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 10:05:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3785.9 | 3785.9 | 96.6 | % | | | 10:07:15 |
| 1 | Y RADIAL | 4343.6 | 4343.6 | 98.47 | % | | | 10:06:55 |
| 1 | Al 396.153Radial† | 5364.8 | 5665.6 | 5290.3 | ug/L | 5290.3 | ppb | 10:06:55 |
| 1 | Ca 317.933Radial† | 2395.2 | 2459.6 | 5141.8 | ug/L | 5141.8 | ppb | 10:07:15 |
| 1 | Fe 238.204 Radial† | 330.3 | 330.6 | 4680.8 | ug/L | 4680.8 | ppb | 10:07:15 |
| 1 | K 766.490 Radial† | 28931.3 | 27307.6 | 5233.8 | ug/L | 5233.8 | ppb | 10:06:55 |
| 1 | Mg 279.077 IEC† | 100.3 | 99.7 | 4836.6 | ug/L | 4836.6 | ppb | 10:07:15 |
| 1 | Na 589.592 Radial† | 31877.5 | 33816.6 | 10427 | ug/L | 10427 | ppb | 10:06:55 |
| 1 | Sr 421.552† | 72090.3 | 74585.9 | 516.06 | ug/L | 516.06 | ppb | 10:06:55 |
| 1 | Sc 361.383 | 900335.0 | 900335.0 | 102.63 | % | | | 10:08:13 |
| 1 | Y 371.029 | 751475.1 | 751475.1 | 99.422 | % | | | 10:08:13 |
| 1 | Ag 328.068† | 107420.3 | 104423.3 | 486.73 | ug/L | 486.73 | ppb | 10:08:18 |
| 1 | As 188.979† | 1091.6 | 1081.8 | 487.19 | ug/L | 487.19 | ppb | 10:08:38 |
| 1 | B 249.677† | 19437.0 | 19336.4 | 466.67 | ug/L | 466.67 | ppb | 10:08:18 |
| 1 | Ba 233.527† | 63129.0 | 61510.5 | 483.90 | ug/L | 483.90 | ppb | 10:08:18 |
| 1 | Be 313.107† | 1336112.5 | 1305588.2 | 491.73 | ug/L | 491.73 | ppb | 10:08:13 |
| 1 | Cd 226.502† | 43033.6 | 42125.6 | 487.73 | ug/L | 487.73 | ppb | 10:08:18 |
| 1 | Co 228.616† | 23670.0 | 23129.1 | 484.58 | ug/L | 484.58 | ppb | 10:08:18 |
| 1 | Cr 267.716† | 44529.0 | 43308.6 | 487.11 | ug/L | 487.11 | ppb | 10:08:18 |
| 1 | Cu 324.752† | 167839.2 | 157541.5 | 479.40 | ug/L | 479.40 | ppb | 10:08:18 |
| 1 | Mn 257.610† | 440391.5 | 428631.7 | 488.02 | ug/L | 488.02 | ppb | 10:08:13 |
| 1 | Mo 202.031† | 6728.1 | 6545.3 | 480.96 | ug/L | 480.96 | ppb | 10:08:38 |
| 1 | Ni 231.604† | 19743.5 | 19174.4 | 487.37 | ug/L | 487.37 | ppb | 10:08:18 |
| 1 | P 214.914† | 4319.7 | 3998.3 | 2313.8 | ug/L | 2313.8 | ppb | 10:08:38 |
| 1 | Pb 220.353† | 4033.8 | 3988.4 | 492.12 | ug/L | 492.12 | ppb | 10:08:38 |
| 1 | S 181.975 Axial† | 739.2 | 679.5 | 976.78 | ug/L | 976.78 | ppb | 10:08:38 |
| 1 | Sb 206.836† | 1425.0 | 1351.7 | 489.74 | ug/L | 489.74 | ppb | 10:08:38 |
| 1 | Se 196.026† | 721.5 | 730.8 | 494.73 | ug/L | 494.73 | ppb | 10:08:38 |
| 1 | Si 251.611† | 77317.6 | 74775.2 | 2413.7 | ug/L | 2413.7 | ppb | 10:08:18 |
| 1 | Sn 189.927† | 2742.2 | 2661.3 | 478.16 | ug/L | 478.16 | ppb | 10:08:38 |
| 1 | Ti 334.940† | 312067.6 | 305433.6 | 479.87 | ug/L | 479.87 | ppb | 10:08:18 |
| 1 | Tl 190.801† | 1512.3 | 1506.1 | 484.81 | ug/L | 484.81 | ppb | 10:08:38 |
| 1 | U 409.014† | 14664.2 | 17174.5 | 472.64 | ug/L | 472.64 | ppb | 10:08:18 |
| 1 | V 292.402† | 69565.2 | 69285.7 | 489.55 | ug/L | 489.55 | ppb | 10:08:18 |
| 1 | Zn 213.857† | 50238.0 | 48342.8 | 482.19 | ug/L | 482.19 | ppb | 10:08:18 |
| 1 | SiO2† | 76066.7 | 73560.4 | 5099.0 | ug/L | 5099.0 | ppb | 10:09:45 |
| 2 | Sc Radial | 3805.3 | 3805.3 | 97.1 | % | | | 10:07:41 |
| 2 | Y RADIAL | 4264.1 | 4264.1 | 96.67 | % | | | 10:07:21 |
| 2 | Al 396.153Radial† | 5233.8 | 5502.4 | 5137.3 | ug/L | 5137.3 | ppb | 10:07:21 |
| 2 | Ca 317.933Radial† | 2394.4 | 2446.2 | 5113.7 | ug/L | 5113.7 | ppb | 10:07:41 |
| 2 | Fe 238.204 Radial† | 331.8 | 330.4 | 4678.1 | ug/L | 4678.1 | ppb | 10:07:41 |
| 2 | K 766.490 Radial† | 28285.1 | 26489.6 | 5077.0 | ug/L | 5077.0 | ppb | 10:07:21 |
| 2 | Mg 279.077 IEC† | 100.5 | 99.4 | 4819.0 | ug/L | 4819.0 | ppb | 10:07:41 |
| 2 | Na 589.592 Radial† | 30960.3 | 32704.0 | 10084 | ug/L | 10084 | ppb | 10:07:21 |
| 2 | Sr 421.552† | 70283.7 | 72345.4 | 500.56 | ug/L | 500.56 | ppb | 10:07:21 |
| 2 | Sc 361.383 | 898842.1 | 898842.1 | 102.46 | % | | | 10:08:44 |
| 2 | Y 371.029 | 749480.3 | 749480.3 | 99.158 | % | | | 10:08:44 |
| 2 | Ag 328.068† | 106447.7 | 103647.9 | 483.12 | ug/L | 483.12 | ppb | 10:08:49 |
| 2 | As 188.979† | 1082.0 | 1074.3 | 483.78 | ug/L | 483.78 | ppb | 10:09:09 |
| 2 | B 249.677† | 19236.9 | 19172.6 | 462.71 | ug/L | 462.71 | ppb | 10:08:49 |
| 2 | Ba 233.527† | 62377.5 | 60879.2 | 478.94 | ug/L | 478.94 | ppb | 10:08:49 |
| 2 | Be 313.107† | 1332352.6 | 1304081.0 | 491.15 | ug/L | 491.15 | ppb | 10:08:44 |
| 2 | Cd 226.502† | 42406.5 | 41583.2 | 481.45 | ug/L | 481.45 | ppb | 10:08:49 |
| 2 | Co 228.616† | 23412.8 | 22916.4 | 480.13 | ug/L | 480.13 | ppb | 10:08:49 |
| 2 | Cr 267.716† | 44037.0 | 42900.5 | 482.53 | ug/L | 482.53 | ppb | 10:08:49 |
| 2 | Cu 324.752† | 166358.3 | 156367.7 | 475.83 | ug/L | 475.83 | ppb | 10:08:49 |
| 2 | Mn 257.610† | 439773.1 | 428740.9 | 488.15 | ug/L | 488.15 | ppb | 10:08:44 |
| 2 | Mo 202.031† | 6711.4 | 6539.9 | 480.56 | ug/L | 480.56 | ppb | 10:09:09 |
| 2 | Ni 231.604† | 19506.9 | 18975.4 | 482.31 | ug/L | 482.31 | ppb | 10:08:49 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4330.1 | 4015.5 | 2324.8 ug/L | 2324.8 ppb | 10:09:09 |
| 2 | Pb 220.353† | 4018.6 | 3980.1 | 491.07 ug/L | 491.07 ppb | 10:09:09 |
| 2 | S 181.975 Axial† | 739.8 | 681.2 | 979.37 ug/L | 979.37 ppb | 10:09:09 |
| 2 | Sb 206.836† | 1427.5 | 1356.5 | 491.41 ug/L | 491.41 ppb | 10:09:09 |
| 2 | Se 196.026† | 733.0 | 743.1 | 502.83 ug/L | 502.83 ppb | 10:09:09 |
| 2 | Si 251.611† | 76289.1 | 73896.6 | 2385.3 ug/L | 2385.3 ppb | 10:08:49 |
| 2 | Sn 189.927† | 2742.0 | 2665.6 | 478.91 ug/L | 478.91 ppb | 10:09:09 |
| 2 | Ti 334.940† | 308971.6 | 302917.1 | 475.92 ug/L | 475.92 ppb | 10:08:49 |
| 2 | Tl 190.801† | 1518.6 | 1514.7 | 487.55 ug/L | 487.55 ppb | 10:09:09 |
| 2 | U 409.014† | 14483.7 | 17022.1 | 468.44 ug/L | 468.44 ppb | 10:08:49 |
| 2 | V 292.402† | 68965.0 | 68812.6 | 486.24 ug/L | 486.24 ppb | 10:08:49 |
| 2 | Zn 213.857† | 49566.8 | 47769.0 | 476.45 ug/L | 476.45 ppb | 10:08:49 |
| 2 | SiO2† | 76274.5 | 73886.2 | 5121.7 ug/L | 5121.7 ppb | 10:09:51 |
| 3 | Sc Radial | 3807.0 | 3807.0 | 97.1 % | | 10:08:06 |
| 3 | Y RADIAL | 4270.2 | 4270.2 | 96.81 % | | 10:07:46 |
| 3 | Al 396.153Radial† | 5257.3 | 5524.2 | 5157.8 ug/L | 5157.8 ppb | 10:07:46 |
| 3 | Ca 317.933Radial† | 2407.0 | 2458.0 | 5138.6 ug/L | 5138.6 ppb | 10:08:06 |
| 3 | Fe 238.204 Radial† | 328.8 | 327.1 | 4631.4 ug/L | 4631.4 ppb | 10:08:06 |
| 3 | K 766.490 Radial† | 28568.6 | 26768.5 | 5130.5 ug/L | 5130.5 ppb | 10:07:46 |
| 3 | Mg 279.077 IEC† | 101.4 | 100.3 | 4862.6 ug/L | 4862.6 ppb | 10:08:06 |
| 3 | Na 589.592 Radial† | 31000.0 | 32730.7 | 10092 ug/L | 10092 ppb | 10:07:46 |
| 3 | Sr 421.552† | 70605.8 | 72644.9 | 502.63 ug/L | 502.63 ppb | 10:07:46 |
| 3 | Sc 361.383 | 904112.5 | 904112.5 | 103.06 % | | 10:09:15 |
| 3 | Y 371.029 | 755421.3 | 755421.3 | 99.944 % | | 10:09:15 |
| 3 | Ag 328.068† | 106166.0 | 102769.1 | 479.03 ug/L | 479.03 ppb | 10:09:20 |
| 3 | As 188.979† | 1104.9 | 1090.3 | 490.89 ug/L | 490.89 ppb | 10:09:40 |
| 3 | B 249.677† | 19130.9 | 18960.3 | 457.58 ug/L | 457.58 ppb | 10:09:20 |
| 3 | Ba 233.527† | 62474.7 | 60618.6 | 476.88 ug/L | 476.88 ppb | 10:09:20 |
| 3 | Be 313.107† | 1342036.7 | 1305897.1 | 491.82 ug/L | 491.82 ppb | 10:09:15 |
| 3 | Cd 226.502† | 42511.7 | 41444.0 | 479.84 ug/L | 479.84 ppb | 10:09:20 |
| 3 | Co 228.616† | 23371.7 | 22743.3 | 476.51 ug/L | 476.51 ppb | 10:09:20 |
| 3 | Cr 267.716† | 44062.2 | 42674.5 | 479.99 ug/L | 479.99 ppb | 10:09:20 |
| 3 | Cu 324.752† | 165320.6 | 154414.5 | 469.88 ug/L | 469.88 ppb | 10:09:20 |
| 3 | Mn 257.610† | 441170.1 | 427594.3 | 486.83 ug/L | 486.83 ppb | 10:09:15 |
| 3 | Mo 202.031† | 6727.4 | 6517.3 | 478.90 ug/L | 478.90 ppb | 10:09:40 |
| 3 | Ni 231.604† | 19558.1 | 18914.1 | 480.76 ug/L | 480.76 ppb | 10:09:20 |
| 3 | P 214.914† | 4321.8 | 3982.8 | 2306.3 ug/L | 2306.3 ppb | 10:09:40 |
| 3 | Pb 220.353† | 4028.0 | 3966.4 | 489.39 ug/L | 489.39 ppb | 10:09:40 |
| 3 | S 181.975 Axial† | 746.8 | 683.8 | 983.04 ug/L | 983.04 ppb | 10:09:40 |
| 3 | Sb 206.836† | 1429.6 | 1350.4 | 489.25 ug/L | 489.25 ppb | 10:09:40 |
| 3 | Se 196.026† | 729.1 | 735.2 | 497.46 ug/L | 497.46 ppb | 10:09:40 |
| 3 | Si 251.611† | 76148.6 | 73326.3 | 2366.9 ug/L | 2366.9 ppb | 10:09:20 |
| 3 | Sn 189.927† | 2750.0 | 2657.7 | 477.51 ug/L | 477.51 ppb | 10:09:40 |
| 3 | Ti 334.940† | 308223.8 | 300433.7 | 472.02 ug/L | 472.02 ppb | 10:09:20 |
| 3 | Tl 190.801† | 1519.4 | 1506.8 | 485.03 ug/L | 485.03 ppb | 10:09:40 |
| 3 | U 409.014† | 14317.8 | 16778.7 | 461.73 ug/L | 461.73 ppb | 10:09:20 |
| 3 | V 292.402† | 68795.8 | 68256.0 | 482.34 ug/L | 482.34 ppb | 10:09:20 |
| 3 | Zn 213.857† | 49553.0 | 47473.6 | 473.50 ug/L | 473.50 ppb | 10:09:20 |
| 3 | SiO2† | 75935.8 | 73123.7 | 5068.7 ug/L | 5068.7 ppb | 10:09:56 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 901096.5 | 102.72 | % | 0.310 | | | | 0.30% |
| Sc Radial | 3799.4 | 97.0 | % | 0.30 | | | | 0.31% |
| Y 371.029 | 752125.6 | 99.508 | % | 0.4000 | | | | 0.40% |
| Y RADIAL | 4292.6 | 97.32 | % | 1.003 | | | | 1.03% |
| Ag 328.068† | 103613.4 | 482.96 | ug/L | 3.852 | 482.96 | ppb | 3.852 | 0.80% |
| QC value within limits for Ag 328.068 Recovery = 96.59% | | | | | | | | |
| Al 396.153Radial† | 5564.1 | 5195.1 | ug/L | 83.06 | 5195.1 | ppb | 83.06 | 1.60% |
| QC value within limits for Al 396.153Radial Recovery = 103.90% | | | | | | | | |
| As 188.979† | 1082.1 | 487.29 | ug/L | 3.556 | 487.29 | ppb | 3.556 | 0.73% |
| QC value within limits for As 188.979 Recovery = 97.46% | | | | | | | | |
| B 249.677† | 19156.4 | 462.32 | ug/L | 4.556 | 462.32 | ppb | 4.556 | 0.99% |
| QC value within limits for B 249.677 Recovery = 92.46% | | | | | | | | |
| Ba 233.527† | 61002.7 | 479.91 | ug/L | 3.607 | 479.91 | ppb | 3.607 | 0.75% |
| QC value within limits for Ba 233.527 Recovery = 95.98% | | | | | | | | |
| Be 313.107† | 1305188.7 | 491.57 | ug/L | 0.364 | 491.57 | ppb | 0.364 | 0.07% |
| QC value within limits for Be 313.107 Recovery = 98.31% | | | | | | | | |
| Ca 317.933Radial† | 2454.6 | 5131.3 | ug/L | 15.36 | 5131.3 | ppb | 15.36 | 0.30% |

QC value within limits for Ca 317.933Radial Recovery = 102.63%

| | | | | | | |
|---|---|---|---|---|---|---|
| Cd 226.502† | 41717.6 | 483.00 ug/L | 4.172 | 483.00 ppb | 4.172 | 0.86% |
| QC value within limits for Cd 226.502 Recovery = 96.60% | | | | | | |
| Co 228.616† | 22929.6 | 480.41 ug/L | 4.041 | 480.41 ppb | 4.041 | 0.84% |
| QC value within limits for Co 228.616 Recovery = 96.08% | | | | | | |
| Cr 267.716† | 42961.2 | 483.21 ug/L | 3.613 | 483.21 ppb | 3.613 | 0.75% |
| QC value within limits for Cr 267.716 Recovery = 96.64% | | | | | | |
| Cu 324.752† | 156107.9 | 475.04 ug/L | 4.805 | 475.04 ppb | 4.805 | 1.01% |
| QC value within limits for Cu 324.752 Recovery = 95.01% | | | | | | |
| Fe 238.204 Radial† | 329.4 | 4663.4 ug/L | 27.78 | 4663.4 ppb | 27.78 | 0.60% |
| QC value within limits for Fe 238.204 Radial Recovery = 93.27% | | | | | | |
| K 766.490 Radial† | 26855.2 | 5147.1 ug/L | 79.72 | 5147.1 ppb | 79.72 | 1.55% |
| QC value within limits for K 766.490 Radial Recovery = 102.94% | | | | | | |
| Mg 279.077 IEC† | 99.8 | 4839.4 ug/L | 21.91 | 4839.4 ppb | 21.91 | 0.45% |
| QC value within limits for Mg 279.077 IEC Recovery = 96.79% | | | | | | |
| Mn 257.610† | 428322.3 | 487.67 ug/L | 0.724 | 487.67 ppb | 0.724 | 0.15% |
| QC value within limits for Mn 257.610 Recovery = 97.53% | | | | | | |
| Mo 202.031† | 6534.2 | 480.14 ug/L | 1.094 | 480.14 ppb | 1.094 | 0.23% |
| QC value within limits for Mo 202.031 Recovery = 96.03% | | | | | | |
| Na 589.592 Radial† | 33083.8 | 10201 ug/L | 195.7 | 10201 ppb | 195.7 | 1.92% |
| QC value within limits for Na 589.592 Radial Recovery = 102.01% | | | | | | |
| Ni 231.604† | 19021.3 | 483.48 ug/L | 3.458 | 483.48 ppb | 3.458 | 0.72% |
| QC value within limits for Ni 231.604 Recovery = 96.70% | | | | | | |
| P 214.914† | 3998.8 | 2315.0 ug/L | 9.29 | 2315.0 ppb | 9.29 | 0.40% |
| QC value within limits for P 214.914 Recovery = 92.60% | | | | | | |
| Pb 220.353† | 3978.3 | 490.86 ug/L | 1.379 | 490.86 ppb | 1.379 | 0.28% |
| QC value within limits for Pb 220.353 Recovery = 98.17% | | | | | | |
| S 181.975 Axial† | 681.5 | 979.73 ug/L | 3.145 | 979.73 ppb | 3.145 | 0.32% |
| QC value within limits for S 181.975 Axial Recovery = 97.97% | | | | | | |
| Sb 206.836† | 1352.9 | 490.13 ug/L | 1.132 | 490.13 ppb | 1.132 | 0.23% |
| QC value within limits for Sb 206.836 Recovery = 98.03% | | | | | | |
| Se 196.026† | 736.4 | 498.34 ug/L | 4.120 | 498.34 ppb | 4.120 | 0.83% |
| QC value within limits for Se 196.026 Recovery = 99.67% | | | | | | |
| Si 251.611† | 73999.4 | 2388.6 ug/L | 23.61 | 2388.6 ppb | 23.61 | 0.99% |
| QC value within limits for Si 251.611 Recovery = 95.54% | | | | | | |
| Sn 189.927† | 2661.5 | 478.19 ug/L | 0.702 | 478.19 ppb | 0.702 | 0.15% |
| QC value within limits for Sn 189.927 Recovery = 95.64% | | | | | | |
| Sr 421.552† | 73192.1 | 506.42 ug/L | 8.417 | 506.42 ppb | 8.417 | 1.66% |
| QC value within limits for Sr 421.552 Recovery = 101.28% | | | | | | |
| Ti 334.940† | 302928.1 | 475.93 ug/L | 3.926 | 475.93 ppb | 3.926 | 0.82% |
| QC value within limits for Ti 334.940 Recovery = 95.19% | | | | | | |
| Tl 190.801† | 1509.2 | 485.80 ug/L | 1.520 | 485.80 ppb | 1.520 | 0.31% |
| QC value within limits for Tl 190.801 Recovery = 97.16% | | | | | | |
| U 409.014† | 16991.8 | 467.60 ug/L | 5.502 | 467.60 ppb | 5.502 | 1.18% |
| QC value within limits for U 409.014 Recovery = 93.52% | | | | | | |
| V 292.402† | 68784.8 | 486.04 ug/L | 3.610 | 486.04 ppb | 3.610 | 0.74% |
| QC value within limits for V 292.402 Recovery = 97.21% | | | | | | |
| Zn 213.857† | 47861.8 | 477.38 ug/L | 4.418 | 477.38 ppb | 4.418 | 0.93% |
| QC value within limits for Zn 213.857 Recovery = 95.48% | | | | | | |
| SiO2† | 73523.4 | 5096.5 ug/L | 26.57 | 5096.5 ppb | 26.57 | 0.52% |
| QC value within limits for SiO2 Recovery = 95.31% | | | | | | |

All analyte(s) passed QC.

Sequence No.: 138
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 10:12:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 3813.4 | 3813.4 | 97.3 | % | | | 10:14:19 |
| 1 | Y RADIAL | 4307.7 | 4307.7 | 97.66 | % | | | 10:13:59 |
| 1 | Al 396.153Radial† | -85.8 | 24.3 | 22.741 | ug/L | 22.741 | ppb | 10:13:59 |
| 1 | Ca 317.933Radial† | 25.7 | 6.7 | 14.048 | ug/L | 14.048 | ppb | 10:14:19 |
| 1 | Fe 238.204 Radial† | 9.7 | -1.4 | -19.065 | ug/L | -19.065 | ppb | 10:14:19 |
| 1 | K 766.490 Radial† | 2870.6 | 310.4 | 59.584 | ug/L | 59.584 | ppb | 10:13:59 |
| 1 | Mg 279.077 IEC† | 4.8 | 0.9 | 41.788 | ug/L | 41.788 | ppb | 10:14:19 |
| 1 | Na 589.592 Radial† | -963.0 | -169.8 | -52.368 | ug/L | -52.368 | ppb | 10:13:59 |
| 1 | Sr 421.552† | 46.1 | 11.6 | 0.0802 | ug/L | 0.0802 | ppb | 10:13:59 |
| 1 | Sc 361.383 | 876207.9 | 876207.9 | 99.883 | % | | | 10:15:15 |
| 1 | Y 371.029 | 756679.1 | 756679.1 | 100.11 | % | | | 10:15:15 |
| 1 | Ag 328.068† | 263.1 | 22.9 | 0.1048 | ug/L | 0.1048 | ppb | 10:15:15 |
| 1 | As 188.979† | -15.5 | 2.8 | 1.2235 | ug/L | 1.2235 | ppb | 10:15:35 |
| 1 | B 249.677† | -464.0 | -66.3 | -1.6047 | ug/L | -1.6047 | ppb | 10:15:35 |
| 1 | Ba 233.527† | 23.3 | 24.7 | 0.1931 | ug/L | 0.1931 | ppb | 10:15:35 |
| 1 | Be 313.107† | -3690.5 | 67.4 | 0.0249 | ug/L | 0.0249 | ppb | 10:15:15 |
| 1 | Cd 226.502† | -191.1 | 5.0 | 0.0585 | ug/L | 0.0585 | ppb | 10:15:35 |
| 1 | Co 228.616† | -51.0 | 15.5 | 0.3273 | ug/L | 0.3273 | ppb | 10:15:35 |
| 1 | Cr 267.716† | 62.0 | -15.7 | -0.1753 | ug/L | -0.1753 | ppb | 10:15:35 |
| 1 | Cu 324.752† | 6054.1 | 70.4 | 0.2166 | ug/L | 0.2166 | ppb | 10:15:15 |
| 1 | Mn 257.610† | 546.1 | 88.0 | 0.0965 | ug/L | 0.0965 | ppb | 10:15:35 |
| 1 | Mo 202.031† | 20.2 | 10.1 | 0.7418 | ug/L | 0.7418 | ppb | 10:15:35 |
| 1 | Ni 231.604† | 74.9 | 12.6 | 0.3191 | ug/L | 0.3191 | ppb | 10:15:35 |
| 1 | P 214.914† | 205.3 | -5.0 | -2.9979 | ug/L | -2.9979 | ppb | 10:15:35 |
| 1 | Pb 220.353† | -8.0 | 50.1 | 6.1741 | ug/L | 6.1741 | ppb | 10:15:35 |
| 1 | S 181.975 Axial† | 41.8 | 1.1 | 1.5712 | ug/L | 1.5712 | ppb | 10:15:35 |
| 1 | Sb 206.836† | 44.4 | 7.8 | 2.7463 | ug/L | 2.7463 | ppb | 10:15:35 |
| 1 | Se 196.026† | -34.3 | -6.6 | -4.3895 | ug/L | -4.3895 | ppb | 10:15:35 |
| 1 | Si 251.611† | 582.4 | 24.8 | 0.7928 | ug/L | 0.7928 | ppb | 10:15:35 |
| 1 | Sn 189.927† | 14.7 | 4.2 | 0.7570 | ug/L | 0.7570 | ppb | 10:15:35 |
| 1 | Ti 334.940† | -1498.7 | -126.3 | -0.1972 | ug/L | -0.1972 | ppb | 10:15:15 |
| 1 | Tl 190.801† | -34.1 | -1.6 | -0.5129 | ug/L | -0.5129 | ppb | 10:15:35 |
| 1 | U 409.014† | -3108.9 | -225.9 | -6.2364 | ug/L | -6.2364 | ppb | 10:15:15 |
| 1 | V 292.402† | -1523.2 | -19.4 | -0.1325 | ug/L | -0.1325 | ppb | 10:15:15 |
| 1 | Zn 213.857† | 722.2 | 117.0 | 1.1782 | ug/L | 1.1782 | ppb | 10:15:35 |
| 1 | SiO2† | 588.2 | 34.5 | 2.3743 | ug/L | 2.3743 | ppb | 10:16:31 |
| 2 | Sc Radial | 3796.1 | 3796.1 | 96.9 | % | | | 10:14:44 |
| 2 | Y RADIAL | 4336.5 | 4336.5 | 98.31 | % | | | 10:14:24 |
| 2 | Al 396.153Radial† | -123.7 | -15.3 | -14.353 | ug/L | -14.353 | ppb | 10:14:24 |
| 2 | Ca 317.933Radial† | 26.1 | 7.3 | 15.285 | ug/L | 15.285 | ppb | 10:14:44 |
| 2 | Fe 238.204 Radial† | 11.6 | 0.6 | 8.5548 | ug/L | 8.5548 | ppb | 10:14:44 |
| 2 | K 766.490 Radial† | 2893.8 | 347.7 | 66.739 | ug/L | 66.739 | ppb | 10:14:24 |
| 2 | Mg 279.077 IEC† | 0.6 | -3.4 | -166.38 | ug/L | -166.38 | ppb | 10:14:44 |
| 2 | Na 589.592 Radial† | -944.2 | -154.9 | -47.765 | ug/L | -47.765 | ppb | 10:14:24 |
| 2 | Sr 421.552† | 2.0 | -33.7 | -0.2332 | ug/L | -0.2332 | ppb | 10:14:24 |
| 2 | Sc 361.383 | 871214.1 | 871214.1 | 99.314 | % | | | 10:15:41 |
| 2 | Y 371.029 | 751749.1 | 751749.1 | 99.458 | % | | | 10:15:41 |
| 2 | Ag 328.068† | 235.5 | -3.3 | -0.0066 | ug/L | -0.0066 | ppb | 10:15:41 |
| 2 | As 188.979† | -22.0 | -3.9 | -1.7297 | ug/L | -1.7297 | ppb | 10:16:01 |
| 2 | B 249.677† | -486.2 | -91.3 | -2.2153 | ug/L | -2.2153 | ppb | 10:16:01 |
| 2 | Ba 233.527† | 16.5 | 18.1 | 0.1430 | ug/L | 0.1430 | ppb | 10:16:01 |
| 2 | Be 313.107† | -3537.5 | 200.2 | 0.0753 | ug/L | 0.0753 | ppb | 10:15:41 |
| 2 | Cd 226.502† | -161.6 | 33.6 | 0.3873 | ug/L | 0.3873 | ppb | 10:16:01 |
| 2 | Co 228.616† | -61.2 | 4.9 | 0.1024 | ug/L | 0.1024 | ppb | 10:16:01 |
| 2 | Cr 267.716† | 67.3 | -10.0 | -0.1083 | ug/L | -0.1083 | ppb | 10:16:01 |
| 2 | Cu 324.752† | 5919.2 | -30.7 | -0.0901 | ug/L | -0.0901 | ppb | 10:15:41 |
| 2 | Mn 257.610† | 543.9 | 88.9 | 0.1088 | ug/L | 0.1088 | ppb | 10:16:01 |
| 2 | Mo 202.031† | 4.5 | -5.7 | -0.4150 | ug/L | -0.4150 | ppb | 10:16:01 |
| 2 | Ni 231.604† | 73.7 | 11.8 | 0.2993 | ug/L | 0.2993 | ppb | 10:16:01 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 191.9 | -17.3 | -10.394 | ug/L | -10.394 | ppb | 10:16:01 |
| 2 | Pb 220.353† | -6.6 | 51.4 | 6.3209 | ug/L | 6.3209 | ppb | 10:16:01 |
| 2 | S 181.975 Axial† | 44.0 | 3.5 | 5.0976 | ug/L | 5.0976 | ppb | 10:16:01 |
| 2 | Sb 206.836† | 42.4 | 6.0 | 2.0718 | ug/L | 2.0718 | ppb | 10:16:01 |
| 2 | Se 196.026† | -33.7 | -6.2 | -4.0087 | ug/L | -4.0087 | ppb | 10:16:01 |
| 2 | Si 251.611† | 625.5 | 71.5 | 2.3202 | ug/L | 2.3202 | ppb | 10:16:01 |
| 2 | Sn 189.927† | 4.6 | -5.9 | -1.0558 | ug/L | -1.0558 | ppb | 10:16:01 |
| 2 | Ti 334.940† | -1347.6 | 17.2 | 0.0450 | ug/L | 0.0450 | ppb | 10:15:41 |
| 2 | Tl 190.801† | -26.3 | 6.1 | 1.9567 | ug/L | 1.9567 | ppb | 10:16:01 |
| 2 | U 409.014† | -3056.8 | -191.3 | -5.2842 | ug/L | -5.2842 | ppb | 10:15:41 |
| 2 | V 292.402† | -1428.3 | 67.5 | 0.4501 | ug/L | 0.4501 | ppb | 10:15:41 |
| 2 | Zn 213.857† | 735.2 | 134.2 | 1.3482 | ug/L | 1.3482 | ppb | 10:16:01 |
| 2 | SiO2† | 598.1 | 47.9 | 3.3382 | ug/L | 3.3382 | ppb | 10:16:36 |
| 3 | Sc Radial | 3834.5 | 3834.5 | 97.8 | % | | | 10:15:09 |
| 3 | Y RADIAL | 4324.6 | 4324.6 | 98.04 | % | | | 10:14:49 |
| 3 | Al 396.153Radial† | -112.1 | -2.2 | -2.0358 | ug/L | -2.0358 | ppb | 10:14:49 |
| 3 | Ca 317.933Radial† | 28.4 | 9.3 | 19.521 | ug/L | 19.521 | ppb | 10:15:09 |
| 3 | Fe 238.204 Radial† | 11.5 | 0.4 | 5.3680 | ug/L | 5.3680 | ppb | 10:15:09 |
| 3 | K 766.490 Radial† | 2890.8 | 314.8 | 60.425 | ug/L | 60.425 | ppb | 10:14:49 |
| 3 | Mg 279.077 IEC† | 0.2 | -3.8 | -186.11 | ug/L | -186.11 | ppb | 10:15:09 |
| 3 | Na 589.592 Radial† | -988.7 | -190.7 | -58.796 | ug/L | -58.796 | ppb | 10:14:49 |
| 3 | Sr 421.552† | 15.1 | -20.3 | -0.1407 | ug/L | -0.1407 | ppb | 10:14:49 |
| 3 | Sc 361.383 | 862907.9 | 862907.9 | 98.367 | % | | | 10:16:06 |
| 3 | Y 371.029 | 742509.4 | 742509.4 | 98.236 | % | | | 10:16:06 |
| 3 | Ag 328.068† | 333.0 | 98.1 | 0.4564 | ug/L | 0.4564 | ppb | 10:16:06 |
| 3 | As 188.979† | -14.5 | 3.5 | 1.5492 | ug/L | 1.5492 | ppb | 10:16:26 |
| 3 | B 249.677† | -463.5 | -72.9 | -1.7694 | ug/L | -1.7694 | ppb | 10:16:26 |
| 3 | Ba 233.527† | 18.0 | 19.7 | 0.1533 | ug/L | 0.1533 | ppb | 10:16:26 |
| 3 | Be 313.107† | -3633.1 | 68.7 | 0.0253 | ug/L | 0.0253 | ppb | 10:16:06 |
| 3 | Cd 226.502† | -184.9 | 8.3 | 0.0951 | ug/L | 0.0951 | ppb | 10:16:26 |
| 3 | Co 228.616† | -56.0 | 9.6 | 0.2024 | ug/L | 0.2024 | ppb | 10:16:26 |
| 3 | Cr 267.716† | 71.3 | -5.2 | -0.0576 | ug/L | -0.0576 | ppb | 10:16:26 |
| 3 | Cu 324.752† | 5915.4 | 22.8 | 0.0721 | ug/L | 0.0721 | ppb | 10:16:06 |
| 3 | Mn 257.610† | 518.3 | 68.2 | 0.0857 | ug/L | 0.0857 | ppb | 10:16:26 |
| 3 | Mo 202.031† | 13.2 | 3.3 | 0.2444 | ug/L | 0.2444 | ppb | 10:16:26 |
| 3 | Ni 231.604† | 77.7 | 16.6 | 0.4213 | ug/L | 0.4213 | ppb | 10:16:26 |
| 3 | P 214.914† | 202.5 | -4.7 | -2.8387 | ug/L | -2.8387 | ppb | 10:16:26 |
| 3 | Pb 220.353† | -20.9 | 36.9 | 4.5370 | ug/L | 4.5370 | ppb | 10:16:26 |
| 3 | S 181.975 Axial† | 36.5 | -3.7 | -5.3832 | ug/L | -5.3832 | ppb | 10:16:26 |
| 3 | Sb 206.836† | 38.2 | 2.1 | 0.7399 | ug/L | 0.7399 | ppb | 10:16:26 |
| 3 | Se 196.026† | -30.8 | -3.6 | -2.3197 | ug/L | -2.3197 | ppb | 10:16:26 |
| 3 | Si 251.611† | 570.7 | 21.8 | 0.7033 | ug/L | 0.7033 | ppb | 10:16:26 |
| 3 | Sn 189.927† | 5.8 | -4.6 | -0.8244 | ug/L | -0.8244 | ppb | 10:16:26 |
| 3 | Ti 334.940† | -1493.0 | -143.7 | -0.2060 | ug/L | -0.2060 | ppb | 10:16:06 |
| 3 | Tl 190.801† | -38.4 | -6.4 | -2.0514 | ug/L | -2.0514 | ppb | 10:16:26 |
| 3 | U 409.014† | -3001.9 | -165.1 | -4.5597 | ug/L | -4.5597 | ppb | 10:16:06 |
| 3 | V 292.402† | -1594.2 | -115.0 | -0.8112 | ug/L | -0.8112 | ppb | 10:16:06 |
| 3 | Zn 213.857† | 740.9 | 147.1 | 1.4774 | ug/L | 1.4774 | ppb | 10:16:26 |
| 3 | SiO2† | 611.8 | 67.5 | 4.6874 | ug/L | 4.6874 | ppb | 10:16:42 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 870110.0 | 99.188 | % | 0.7659 | | | | 0.77% |
| Sc Radial | 3814.7 | 97.3 | % | 0.49 | | | | 0.50% |
| Y 371.029 | 750312.5 | 99.268 | % | 0.9517 | | | | 0.96% |
| Y RADIAL | 4322.9 | 98.01 | % | 0.328 | | | | 0.33% |
| Ag 328.068† | 39.3 | 0.1849 | ug/L | 0.24167 | 0.1849 | ppb | 0.24167 | 130.71% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 2.3 | 2.1175 | ug/L | 18.89236 | 2.1175 | ppb | 18.89236 | 892.18% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | 0.8 | 0.3477 | ug/L | 1.80643 | 0.3477 | ppb | 1.80643 | 519.56% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -76.8 | -1.8632 | ug/L | 0.31591 | -1.8632 | ppb | 0.31591 | 16.96% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 20.8 | 0.1631 | ug/L | 0.02648 | 0.1631 | ppb | 0.02648 | 16.23% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 112.1 | 0.0418 | ug/L | 0.02899 | 0.0418 | ppb | 0.02899 | 69.31% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 7.8 | 16.284 | ug/L | 2.8703 | 16.284 | ppb | 2.8703 | 17.63% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                15.6      0.1803 ug/L       0.18020      0.1803 ppb        0.18020  99.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                10.0      0.2107 ug/L       0.11268      0.2107 ppb        0.11268  53.47%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -10.3     -0.1137 ug/L       0.05904     -0.1137 ppb        0.05904  51.91%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                20.8      0.0662 ug/L       0.15344      0.0662 ppb        0.15344 231.83%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -1.7139 ug/L      15.11030     -1.7139 ppb       15.11030 881.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         324.3      62.249 ug/L        3.9106      62.249 ppb         3.9106   6.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.1     -103.57 ug/L       126.268     -103.57 ppb       126.268 121.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                81.7      0.0970 ug/L       0.01155      0.0970 ppb        0.01155  11.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.6      0.1904 ug/L       0.58028      0.1904 ppb        0.58028 304.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -171.8     -52.976 ug/L        5.5403     -52.976 ppb         5.5403  10.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.6      0.3465 ug/L       0.06546      0.3465 ppb        0.06546  18.89%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.0     -5.4102 ug/L       4.31687     -5.4102 ppb        4.31687  79.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                46.2      5.6773 ug/L       0.99027      5.6773 ppb        0.99027  17.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.3      0.4285 ug/L       5.33299      0.4285 ppb        5.33299 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.3      1.8527 ug/L       1.02097      1.8527 ppb        1.02097  55.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.4     -3.5726 ug/L       1.10161     -3.5726 ppb        1.10161  30.83%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.4      1.2721 ug/L       0.90879      1.2721 ppb        0.90879  71.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -0.3744 ug/L       0.98661     -0.3744 ppb        0.98661 263.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.1     -0.0979 ug/L       0.16101     -0.0979 ppb        0.16101 164.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -84.3     -0.1194 ug/L       0.14247     -0.1194 ppb        0.14247 119.31%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.2025 ug/L       2.02203     -0.2025 ppb        2.02203 998.41%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -194.1     -5.3601 ug/L       0.84091     -5.3601 ppb        0.84091  15.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -22.3     -0.1645 ug/L       0.63128     -0.1645 ppb        0.63128 383.69%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               132.8      1.3346 ug/L       0.15002      1.3346 ppb        0.15002  11.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      50.0      3.4667 ug/L       1.16188      3.4667 ppb        1.16188  33.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Reprocessing Begun
Logged In Analyst: Optima3 Technique: ICP Continuous

Results Data Set (original): 030110
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 030110A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX Method Last Saved: 3/1/2010 13:26:24
IEC File: 011110.iec MSF File:
Method Description:

| Analyte | Calibration Equation | Processing | View | Internal Standard | IEC |
|---|---|---|---|---|---|
| Ag 328.068 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Al 396.153Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| As 188.979 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| B 249.677 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Ba 233.527 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Be 313.107 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Ca 317.933Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | No |
| Cd 226.502 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Co 228.616 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Cr 267.716 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Cu 324.752 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Fe 238.204 Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| K 766.490 Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| Mg 279.077 IEC | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| Mn 257.610 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Mo 202.031 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Na 589.592 Radial | Lin Thru 0 | Peak Area | Radial | Sc Radial | No |
| Ni 231.604 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| P 214.914 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Pb 220.353 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| S 181.975 Axial | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sb 206.836 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sc 361.383 | Lin Thru 0 | Peak Area | Axial | n/a | n/a |
| Sc Radial | Lin, Calc Int | Peak Area | Radial | n/a | n/a |
| Se 196.026 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Si 251.611 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sn 189.927 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sr 421.552 | Lin Thru 0 | Peak Area | Radial | Sc Radial | Yes |
| Ti 334.940 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Tl 190.801 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| U 409.014 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| V 292.402 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Y 371.029 | Lin, Calc Int | Peak Area | Axial | n/a | n/a |
| Zn 213.857 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Y RADIAL | Lin, Calc Int | Peak Area | Radial | n/a | n/a |
| SiO2 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |

Sequence No.: 1 Autosampler Location: 8
Sample ID: S0 Date Collected: 3/1/2010 11:32:10
Analyst: Data Type: Reprocessed on 3/1/2010 13:29:20
Logged In Analyst (Original) : Optima3
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: S0

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 771077.3 | 771077.3 | 100.41 | % | 11:35:20 |
| 1 | Sc Radial | 4720.0 | 4720.0 | 100 | % | 11:34:03 |
| 1 | Y 371.029 | 691300.5 | 691300.5 | 100.33 | % | 11:35:20 |
| 1 | Y RADIAL | 5001.3 | 5001.3 | 100.3 | % | 11:34:03 |
| 1 | Ag 328.068† | 250.1 | 249.0 | [0.00] | ug/L | 11:35:20 |

| | | | | | |
|---|---|---|---|---|---|
| 1 | Al 396.153Radial† | -83.3 | -83.0 | [0.00] ug/L | 11:34:23 |
| 1 | As 188.979† | -21.8 | -21.8 | [0.00] ug/L | 11:35:40 |
| 1 | B 249.677† | -446.4 | -444.5 | [0.00] ug/L | 11:35:40 |
| 1 | Ba 233.527† | 3.2 | 3.2 | [0.00] ug/L | 11:35:40 |
| 1 | Be 313.107† | -8975.1 | -8938.6 | [0.00] ug/L | 11:35:20 |
| 1 | Ca 317.933Radial† | 22.4 | 22.3 | [0.00] ug/L | 11:34:23 |
| 1 | Cd 226.502† | -194.3 | -193.5 | [0.00] ug/L | 11:35:40 |
| 1 | Co 228.616† | -48.1 | -47.9 | [0.00] ug/L | 11:35:40 |
| 1 | Cr 267.716† | 76.3 | 76.0 | [0.00] ug/L | 11:35:40 |
| 1 | Cu 324.752† | 7463.3 | 7433.0 | [0.00] ug/L | 11:35:20 |
| 1 | Fe 238.204 Radial† | 5.7 | 5.6 | [0.00] ug/L | 11:34:23 |
| 1 | K 766.490 Radial† | 2178.5 | 2172.4 | [0.00] ug/L | 11:34:03 |
| 1 | Mg 279.077 IEC† | 2.6 | 2.6 | [0.00] ug/L | 11:34:23 |
| 1 | Mn 257.610† | 457.0 | 455.2 | [0.00] ug/L | 11:35:40 |
| 1 | Mo 202.031† | 15.5 | 15.4 | [0.00] ug/L | 11:35:40 |
| 1 | Na 589.592 Radial† | -839.3 | -836.9 | [0.00] ug/L | 11:34:03 |
| 1 | Ni 231.604† | 92.4 | 92.0 | [0.00] ug/L | 11:35:40 |
| 1 | P 214.914† | 189.2 | 188.5 | [0.00] ug/L | 11:35:40 |
| 1 | Pb 220.353† | -69.6 | -69.3 | [0.00] ug/L | 11:35:40 |
| 1 | S 181.975 Axial† | 44.5 | 44.3 | [0.00] ug/L | 11:35:40 |
| 1 | Sb 206.836† | 42.1 | 41.9 | [0.00] ug/L | 11:35:40 |
| 1 | Se 196.026† | -20.4 | -20.3 | [0.00] ug/L | 11:35:40 |
| 1 | Si 251.611† | 573.0 | 570.6 | [0.00] ug/L | 11:35:40 |
| 1 | Sn 189.927† | 7.1 | 7.0 | [0.00] ug/L | 11:35:40 |
| 1 | Sr 421.552† | 7.2 | 7.1 | [0.00] ug/L | 11:34:03 |
| 1 | Ti 334.940† | -1385.7 | -1380.1 | [0.00] ug/L | 11:35:20 |
| 1 | Tl 190.801† | -30.6 | -30.5 | [0.00] ug/L | 11:35:40 |
| 1 | U 409.014† | -2567.7 | -2557.2 | [0.00] ug/L | 11:35:20 |
| 1 | V 292.402† | -1650.4 | -1643.7 | [0.00] ug/L | 11:35:20 |
| 1 | Zn 213.857† | 709.8 | 706.9 | [0.00] ug/L | 11:35:40 |
| 1 | SiO2† | 599.2 | 596.8 | [0.00] ug/L | 11:36:36 |
| 2 | Sc 361.383 | 771656.5 | 771656.5 | 100.48 % | 11:35:45 |
| 2 | Sc Radial | 4764.1 | 4764.1 | 101 % | 11:34:28 |
| 2 | Y 371.029 | 692601.0 | 692601.0 | 100.52 % | 11:35:45 |
| 2 | Y RADIAL | 5064.2 | 5064.2 | 101.6 % | 11:34:28 |
| 2 | Ag 328.068† | 275.0 | 273.7 | [0.00] ug/L | 11:35:45 |
| 2 | Al 396.153Radial† | -85.9 | -84.8 | [0.00] ug/L | 11:34:48 |
| 2 | As 188.979† | -26.2 | -26.1 | [0.00] ug/L | 11:36:05 |
| 2 | B 249.677† | -458.7 | -456.5 | [0.00] ug/L | 11:36:05 |
| 2 | Ba 233.527† | 14.1 | 14.1 | [0.00] ug/L | 11:36:05 |
| 2 | Be 313.107† | -9023.6 | -8980.1 | [0.00] ug/L | 11:35:45 |
| 2 | Ca 317.933Radial† | 18.8 | 18.5 | [0.00] ug/L | 11:34:48 |
| 2 | Cd 226.502† | -180.2 | -179.4 | [0.00] ug/L | 11:36:05 |
| 2 | Co 228.616† | -71.9 | -71.5 | [0.00] ug/L | 11:36:05 |
| 2 | Cr 267.716† | 75.3 | 74.9 | [0.00] ug/L | 11:36:05 |
| 2 | Cu 324.752† | 7571.0 | 7534.5 | [0.00] ug/L | 11:35:45 |
| 2 | Fe 238.204 Radial† | 8.4 | 8.3 | [0.00] ug/L | 11:34:48 |
| 2 | K 766.490 Radial† | 2281.5 | 2254.0 | [0.00] ug/L | 11:34:28 |
| 2 | Mg 279.077 IEC† | 3.6 | 3.6 | [0.00] ug/L | 11:34:48 |
| 2 | Mn 257.610† | 459.1 | 456.9 | [0.00] ug/L | 11:36:05 |
| 2 | Mo 202.031† | 15.8 | 15.7 | [0.00] ug/L | 11:36:05 |
| 2 | Na 589.592 Radial† | -873.6 | -863.0 | [0.00] ug/L | 11:34:28 |
| 2 | Ni 231.604† | 106.1 | 105.6 | [0.00] ug/L | 11:36:05 |
| 2 | P 214.914† | 206.2 | 205.2 | [0.00] ug/L | 11:36:05 |
| 2 | Pb 220.353† | -80.9 | -80.5 | [0.00] ug/L | 11:36:05 |
| 2 | S 181.975 Axial† | 37.6 | 37.4 | [0.00] ug/L | 11:36:05 |
| 2 | Sb 206.836† | 19.0 | 18.9 | [0.00] ug/L | 11:36:05 |
| 2 | Se 196.026† | -12.0 | -12.0 | [0.00] ug/L | 11:36:05 |
| 2 | Si 251.611† | 602.2 | 599.3 | [0.00] ug/L | 11:36:05 |
| 2 | Sn 189.927† | 8.1 | 8.1 | [0.00] ug/L | 11:36:05 |
| 2 | Sr 421.552† | -8.0 | -7.9 | [0.00] ug/L | 11:34:28 |
| 2 | Ti 334.940† | -1287.1 | -1280.9 | [0.00] ug/L | 11:35:45 |
| 2 | Tl 190.801† | -22.7 | -22.6 | [0.00] ug/L | 11:36:05 |
| 2 | U 409.014† | -2503.9 | -2491.8 | [0.00] ug/L | 11:35:45 |
| 2 | V 292.402† | -1592.0 | -1584.3 | [0.00] ug/L | 11:35:45 |
| 2 | Zn 213.857† | 715.3 | 711.8 | [0.00] ug/L | 11:36:05 |
| 2 | SiO2† | 612.8 | 609.9 | [0.00] ug/L | 11:36:41 |
| 3 | Sc 361.383 | 761083.0 | 761083.0 | 99.107 % | 11:36:11 |
| 3 | Sc Radial | 4635.9 | 4635.9 | 98.5 % | 11:34:53 |
| 3 | Y 371.029 | 683202.5 | 683202.5 | 99.154 % | 11:36:11 |
| 3 | Y RADIAL | 4890.8 | 4890.8 | 98.10 % | 11:34:53 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | Ag 328.068† | 242.1 | 244.3 | [0.00] | ug/L | 11:36:11 |
| 3 | Al 396.153Radial† | -92.1 | -93.5 | [0.00] | ug/L | 11:35:13 |
| 3 | As 188.979† | -27.0 | -27.2 | [0.00] | ug/L | 11:36:31 |
| 3 | B 249.677† | -455.2 | -459.3 | [0.00] | ug/L | 11:36:31 |
| 3 | Ba 233.527† | -10.0 | -10.1 | [0.00] | ug/L | 11:36:31 |
| 3 | Be 313.107† | -8948.7 | -9029.3 | [0.00] | ug/L | 11:36:11 |
| 3 | Ca 317.933Radial† | 25.2 | 25.6 | [0.00] | ug/L | 11:35:13 |
| 3 | Cd 226.502† | -185.4 | -187.1 | [0.00] | ug/L | 11:36:31 |
| 3 | Co 228.616† | -52.5 | -53.0 | [0.00] | ug/L | 11:36:31 |
| 3 | Cr 267.716† | 75.2 | 75.9 | [0.00] | ug/L | 11:36:31 |
| 3 | Cu 324.752† | 7572.7 | 7641.0 | [0.00] | ug/L | 11:36:11 |
| 3 | Fe 238.204 Radial† | 7.9 | 8.0 | [0.00] | ug/L | 11:35:13 |
| 3 | K 766.490 Radial† | 2323.1 | 2358.5 | [0.00] | ug/L | 11:34:53 |
| 3 | Mg 279.077 IEC† | 2.5 | 2.5 | [0.00] | ug/L | 11:35:13 |
| 3 | Mn 257.610† | 467.2 | 471.4 | [0.00] | ug/L | 11:36:31 |
| 3 | Mo 202.031† | 11.9 | 12.1 | [0.00] | ug/L | 11:36:31 |
| 3 | Na 589.592 Radial† | -830.7 | -843.4 | [0.00] | ug/L | 11:34:53 |
| 3 | Ni 231.604† | 105.5 | 106.4 | [0.00] | ug/L | 11:36:31 |
| 3 | P 214.914† | 190.7 | 192.4 | [0.00] | ug/L | 11:36:31 |
| 3 | Pb 220.353† | -61.8 | -62.3 | [0.00] | ug/L | 11:36:31 |
| 3 | S 181.975 Axial† | 45.4 | 45.8 | [0.00] | ug/L | 11:36:31 |
| 3 | Sb 206.836† | 29.0 | 29.2 | [0.00] | ug/L | 11:36:31 |
| 3 | Se 196.026† | -26.9 | -27.1 | [0.00] | ug/L | 11:36:31 |
| 3 | Si 251.611† | 592.3 | 597.7 | [0.00] | ug/L | 11:36:31 |
| 3 | Sn 189.927† | 9.0 | 9.1 | [0.00] | ug/L | 11:36:31 |
| 3 | Sr 421.552† | -0.6 | -0.7 | [0.00] | ug/L | 11:34:53 |
| 3 | Ti 334.940† | -1231.1 | -1242.1 | [0.00] | ug/L | 11:36:11 |
| 3 | Tl 190.801† | -40.2 | -40.5 | [0.00] | ug/L | 11:36:31 |
| 3 | U 409.014† | -2538.6 | -2561.4 | [0.00] | ug/L | 11:36:11 |
| 3 | V 292.402† | -1641.2 | -1655.9 | [0.00] | ug/L | 11:36:11 |
| 3 | Zn 213.857† | 705.7 | 712.1 | [0.00] | ug/L | 11:36:31 |
| 3 | SiO2† | 577.5 | 582.7 | [0.00] | ug/L | 11:36:46 |

**Mean Data: S0**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 767938.9 | 5944.49 | 0.77% | 100.00 | % |
| Sc Radial | 4706.6 | 65.13 | 1.38% | 100 | % |
| Y 371.029 | 689034.7 | 5092.47 | 0.74% | 100.000 | % |
| Y RADIAL | 4985.4 | 87.80 | 1.76% | 100.0 | % |
| Ag 328.068† | 255.7 | 15.78 | 6.17% | [0.00] | ug/L |
| Al 396.153Radial† | -87.1 | 5.59 | 6.42% | [0.00] | ug/L |
| As 188.979† | -25.0 | 2.87 | 11.48% | [0.00] | ug/L |
| B 249.677† | -453.4 | 7.84 | 1.73% | [0.00] | ug/L |
| Ba 233.527† | 2.4 | 12.08 | 503.84% | [0.00] | ug/L |
| Be 313.107† | -8982.7 | 45.41 | 0.51% | [0.00] | ug/L |
| Ca 317.933Radial† | 22.2 | 3.54 | 15.98% | [0.00] | ug/L |
| Cd 226.502† | -186.6 | 7.06 | 3.78% | [0.00] | ug/L |
| Co 228.616† | -57.5 | 12.42 | 21.61% | [0.00] | ug/L |
| Cr 267.716† | 75.6 | 0.58 | 0.77% | [0.00] | ug/L |
| Cu 324.752† | 7536.1 | 104.01 | 1.38% | [0.00] | ug/L |
| Fe 238.204 Radial† | 7.3 | 1.46 | 19.98% | [0.00] | ug/L |
| K 766.490 Radial† | 2261.6 | 93.32 | 4.13% | [0.00] | ug/L |
| Mg 279.077 IEC† | 2.9 | 0.58 | 19.93% | [0.00] | ug/L |
| Mn 257.610† | 461.1 | 8.91 | 1.93% | [0.00] | ug/L |
| Mo 202.031† | 14.4 | 2.02 | 14.03% | [0.00] | ug/L |
| Na 589.592 Radial† | -847.8 | 13.58 | 1.60% | [0.00] | ug/L |
| Ni 231.604† | 101.3 | 8.11 | 8.00% | [0.00] | ug/L |
| P 214.914† | 195.4 | 8.75 | 4.48% | [0.00] | ug/L |
| Pb 220.353† | -70.7 | 9.15 | 12.94% | [0.00] | ug/L |
| S 181.975 Axial† | 42.5 | 4.49 | 10.57% | [0.00] | ug/L |
| Sb 206.836† | 30.0 | 11.49 | 38.28% | [0.00] | ug/L |
| Se 196.026† | -19.8 | 7.60 | 38.38% | [0.00] | ug/L |
| Si 251.611† | 589.2 | 16.10 | 2.73% | [0.00] | ug/L |
| Sn 189.927† | 8.1 | 1.02 | 12.57% | [0.00] | ug/L |
| Sr 421.552† | -0.5 | 7.54 | >999.9% | [0.00] | ug/L |
| Ti 334.940† | -1301.0 | 71.15 | 5.47% | [0.00] | ug/L |
| Tl 190.801† | -31.2 | 9.00 | 28.84% | [0.00] | ug/L |
| U 409.014† | -2536.8 | 39.04 | 1.54% | [0.00] | ug/L |
| V 292.402† | -1628.0 | 38.29 | 2.35% | [0.00] | ug/L |

| | | | | |
|---|---|---|---|---|
| Zn 213.857† | 710.3 | 2.91 | 0.41% | [0.00] ug/L |
| SiO2† | 596.4 | 13.60 | 2.28% | [0.00] ug/L |

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/1/2010 11:38:57
Data Type: Reprocessed on 3/1/2010 13:29:22

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 778142.1 | 778142.1 | 101.33 | % | 11:41:22 |
| 1 | Sc Radial | 4713.9 | 4713.9 | 100 | % | 11:40:55 |
| 1 | Y 371.029 | 696918.7 | 696918.7 | 101.14 | % | 11:41:22 |
| 1 | Y RADIAL | 4985.6 | 4985.6 | 100.0 | % | 11:40:55 |
| 1 | Ag 328.068† | 19692.1 | 19178.2 | [100] | ug/L | 11:41:22 |
| 1 | As 188.979† | 198.5 | 220.9 | [100] | ug/L | 11:41:42 |
| 1 | B 249.677† | 3443.4 | 3851.7 | [100] | ug/L | 11:41:22 |
| 1 | Ba 233.527† | 8531.0 | 8416.8 | [100] | ug/L | 11:41:22 |
| 1 | Be 313.107† | 242750.5 | 248550.2 | [100] | ug/L | 11:41:22 |
| 1 | Cd 226.502† | 6779.8 | 6877.6 | [100] | ug/L | 11:41:42 |
| 1 | Co 228.616† | 3281.4 | 3295.8 | [100] | ug/L | 11:41:42 |
| 1 | Cr 267.716† | 7523.2 | 7348.9 | [100] | ug/L | 11:41:22 |
| 1 | Cu 324.752† | 33895.6 | 25915.0 | [100] | ug/L | 11:41:22 |
| 1 | K 766.490 Radial† | 7290.4 | 5017.6 | [1000] | ug/L | 11:40:50 |
| 1 | Mn 257.610† | 64656.4 | 63347.5 | [100] | ug/L | 11:41:22 |
| 1 | Mo 202.031† | 1119.9 | 1090.8 | [100] | ug/L | 11:41:42 |
| 1 | Ni 231.604† | 3233.3 | 3089.5 | [100] | ug/L | 11:41:42 |
| 1 | P 214.914† | 1086.5 | 876.8 | [500] | ug/L | 11:41:42 |
| 1 | Pb 220.353† | 545.6 | 609.2 | [100] | ug/L | 11:41:42 |
| 1 | S 181.975 Axial† | 195.3 | 150.2 | [200] | ug/L | 11:41:42 |
| 1 | Sb 206.836† | 267.7 | 234.2 | [100] | ug/L | 11:41:42 |
| 1 | Se 196.026† | 141.5 | 159.5 | [100] | ug/L | 11:41:42 |
| 1 | Si 251.611† | 14319.0 | 13542.1 | [500] | ug/L | 11:41:22 |
| 1 | Sn 189.927† | 428.2 | 414.5 | [100] | ug/L | 11:41:42 |
| 1 | Sr 421.552† | 13640.7 | 13620.3 | [100] | ug/L | 11:40:55 |
| 1 | Ti 334.940† | 49216.9 | 49872.6 | [100] | ug/L | 11:41:22 |
| 1 | Tl 190.801† | 183.0 | 211.9 | [100] | ug/L | 11:41:42 |
| 1 | U 409.014† | 482.0 | 3012.5 | [100] | ug/L | 11:41:22 |
| 1 | V 292.402† | 10893.8 | 12378.9 | [100] | ug/L | 11:41:22 |
| 1 | Zn 213.857† | 9808.8 | 8969.9 | [100] | ug/L | 11:41:22 |
| 1 | SiO2† | 14406.9 | 13621.6 | [1069.5] | ug/L | 11:42:38 |
| 2 | Sc 361.383 | 773296.3 | 773296.3 | 100.70 | % | 11:41:47 |
| 2 | Sc Radial | 4723.0 | 4723.0 | 100 | % | 11:41:05 |
| 2 | Y 371.029 | 692513.1 | 692513.1 | 100.50 | % | 11:41:47 |
| 2 | Y RADIAL | 4999.7 | 4999.7 | 100.3 | % | 11:41:05 |
| 2 | Ag 328.068† | 19573.1 | 19181.8 | [100] | ug/L | 11:41:47 |
| 2 | As 188.979† | 199.3 | 223.0 | [100] | ug/L | 11:42:07 |
| 2 | B 249.677† | 3373.9 | 3804.0 | [100] | ug/L | 11:41:47 |
| 2 | Ba 233.527† | 8516.8 | 8455.4 | [100] | ug/L | 11:41:47 |
| 2 | Be 313.107† | 241861.3 | 249168.4 | [100] | ug/L | 11:41:47 |
| 2 | Cd 226.502† | 6779.2 | 6918.9 | [100] | ug/L | 11:42:07 |
| 2 | Co 228.616† | 3298.5 | 3333.1 | [100] | ug/L | 11:42:07 |
| 2 | Cr 267.716† | 7432.1 | 7305.0 | [100] | ug/L | 11:41:47 |
| 2 | Cu 324.752† | 33649.0 | 25879.8 | [100] | ug/L | 11:41:47 |
| 2 | K 766.490 Radial† | 7257.0 | 4970.2 | [1000] | ug/L | 11:41:00 |
| 2 | Mn 257.610† | 64411.1 | 63503.7 | [100] | ug/L | 11:41:47 |
| 2 | Mo 202.031† | 1106.3 | 1084.2 | [100] | ug/L | 11:42:07 |
| 2 | Ni 231.604† | 3232.0 | 3108.3 | [100] | ug/L | 11:42:07 |
| 2 | P 214.914† | 1089.5 | 886.6 | [500] | ug/L | 11:42:07 |
| 2 | Pb 220.353† | 553.9 | 620.8 | [100] | ug/L | 11:42:07 |
| 2 | S 181.975 Axial† | 199.4 | 155.5 | [200] | ug/L | 11:42:07 |
| 2 | Sb 206.836† | 273.7 | 241.8 | [100] | ug/L | 11:42:07 |
| 2 | Se 196.026† | 140.9 | 159.7 | [100] | ug/L | 11:42:07 |
| 2 | Si 251.611† | 14283.1 | 13594.9 | [500] | ug/L | 11:41:47 |
| 2 | Sn 189.927† | 424.2 | 413.2 | [100] | ug/L | 11:42:07 |
| 2 | Sr 421.552† | 13667.2 | 13620.3 | [100] | ug/L | 11:41:05 |
| 2 | Ti 334.940† | 48811.0 | 49773.9 | [100] | ug/L | 11:41:47 |
| 2 | Tl 190.801† | 184.2 | 214.1 | [100] | ug/L | 11:42:07 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | U 409.014† | 517.4 | 3050.7 | [100] | ug/L | 11:41:47 |
| 2 | V 292.402† | 10815.8 | 12368.9 | [100] | ug/L | 11:41:47 |
| 2 | Zn 213.857† | 9815.8 | 9037.5 | [100] | ug/L | 11:41:47 |
| 2 | SiO2† | 14287.5 | 13592.1 | [1069.5] | ug/L | 11:42:43 |
| 3 | Sc 361.383 | 771392.6 | 771392.6 | 100.45 | % | 11:42:13 |
| 3 | Sc Radial | 4684.6 | 4684.6 | 99.5 | % | 11:41:15 |
| 3 | Y 371.029 | 689472.4 | 689472.4 | 100.06 | % | 11:42:13 |
| 3 | Y RADIAL | 4931.4 | 4931.4 | 98.92 | % | 11:41:15 |
| 3 | Ag 328.068† | 19554.4 | 19211.2 | [100] | ug/L | 11:42:13 |
| 3 | As 188.979† | 195.4 | 219.5 | [100] | ug/L | 11:42:33 |
| 3 | B 249.677† | 3421.3 | 3859.4 | [100] | ug/L | 11:42:13 |
| 3 | Ba 233.527† | 8545.6 | 8504.9 | [100] | ug/L | 11:42:13 |
| 3 | Be 313.107† | 240812.5 | 248717.0 | [100] | ug/L | 11:42:13 |
| 3 | Cd 226.502† | 6764.8 | 6921.1 | [100] | ug/L | 11:42:33 |
| 3 | Co 228.616† | 3279.8 | 3322.6 | [100] | ug/L | 11:42:33 |
| 3 | Cr 267.716† | 7461.9 | 7352.9 | [100] | ug/L | 11:42:13 |
| 3 | Cu 324.752† | 33538.9 | 25852.6 | [100] | ug/L | 11:42:13 |
| 3 | K 766.490 Radial† | 7330.3 | 5103.1 | [1000] | ug/L | 11:41:10 |
| 3 | Mn 257.610† | 64366.7 | 63617.4 | [100] | ug/L | 11:42:13 |
| 3 | Mo 202.031† | 1090.9 | 1071.7 | [100] | ug/L | 11:42:33 |
| 3 | Ni 231.604† | 3225.7 | 3110.0 | [100] | ug/L | 11:42:33 |
| 3 | P 214.914† | 1080.6 | 880.3 | [500] | ug/L | 11:42:33 |
| 3 | Pb 220.353† | 551.5 | 619.7 | [100] | ug/L | 11:42:33 |
| 3 | S 181.975 Axial† | 199.5 | 156.1 | [200] | ug/L | 11:42:33 |
| 3 | Sb 206.836† | 271.9 | 240.7 | [100] | ug/L | 11:42:33 |
| 3 | Se 196.026† | 144.0 | 163.2 | [100] | ug/L | 11:42:33 |
| 3 | Si 251.611† | 14287.1 | 13633.9 | [500] | ug/L | 11:42:13 |
| 3 | Sn 189.927† | 429.0 | 419.0 | [100] | ug/L | 11:42:33 |
| 3 | Sr 421.552† | 13646.5 | 13711.1 | [100] | ug/L | 11:41:15 |
| 3 | Ti 334.940† | 48626.0 | 49709.3 | [100] | ug/L | 11:42:13 |
| 3 | Tl 190.801† | 186.0 | 216.4 | [100] | ug/L | 11:42:33 |
| 3 | U 409.014† | 412.8 | 2947.7 | [100] | ug/L | 11:42:13 |
| 3 | V 292.402† | 10813.4 | 12393.0 | [100] | ug/L | 11:42:13 |
| 3 | Zn 213.857† | 9811.2 | 9057.0 | [100] | ug/L | 11:42:13 |
| 3 | SiO2† | 14311.4 | 13650.9 | [1069.5] | ug/L | 11:42:48 |

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**Mean Data: S0.1**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 774277.0 | 3480.00 | 0.45% | 100.83 | % |
| Sc Radial | 4707.2 | 20.05 | 0.43% | 100 | % |
| Y 371.029 | 692968.1 | 3743.96 | 0.54% | 100.57 | % |
| Y RADIAL | 4972.2 | 36.05 | 0.73% | 99.73 | % |
| Ag 328.068† | 19190.4 | 18.08 | 0.09% | [100] | ug/L |
| As 188.979† | 221.1 | 1.73 | 0.78% | [100] | ug/L |
| B 249.677† | 3838.4 | 30.02 | 0.78% | [100] | ug/L |
| Ba 233.527† | 8459.0 | 44.17 | 0.52% | [100] | ug/L |
| Be 313.107† | 248811.8 | 319.84 | 0.13% | [100] | ug/L |
| Cd 226.502† | 6905.9 | 24.53 | 0.36% | [100] | ug/L |
| Co 228.616† | 3317.2 | 19.19 | 0.58% | [100] | ug/L |
| Cr 267.716† | 7335.6 | 26.60 | 0.36% | [100] | ug/L |
| Cu 324.752† | 25882.5 | 31.29 | 0.12% | [100] | ug/L |
| K 766.490 Radial† | 5030.3 | 67.36 | 1.34% | [1000] | ug/L |
| Mn 257.610† | 63489.5 | 135.52 | 0.21% | [100] | ug/L |
| Mo 202.031† | 1082.2 | 9.73 | 0.90% | [100] | ug/L |
| Ni 231.604† | 3102.6 | 11.33 | 0.37% | [100] | ug/L |
| P 214.914† | 881.3 | 4.93 | 0.56% | [500] | ug/L |
| Pb 220.353† | 616.5 | 6.42 | 1.04% | [100] | ug/L |
| S 181.975 Axial† | 153.9 | 3.27 | 2.12% | [200] | ug/L |
| Sb 206.836† | 238.9 | 4.10 | 1.72% | [100] | ug/L |
| Se 196.026† | 160.8 | 2.06 | 1.28% | [100] | ug/L |
| Si 251.611† | 13590.3 | 46.10 | 0.34% | [500] | ug/L |
| Sn 189.927† | 415.6 | 3.08 | 0.74% | [100] | ug/L |
| Sr 421.552† | 13650.5 | 52.40 | 0.38% | [100] | ug/L |
| Ti 334.940† | 49785.3 | 82.23 | 0.17% | [100] | ug/L |
| Tl 190.801† | 214.1 | 2.28 | 1.07% | [100] | ug/L |
| U 409.014† | 3003.6 | 52.03 | 1.73% | [100] | ug/L |
| V 292.402† | 12380.3 | 12.11 | 0.10% | [100] | ug/L |
| Zn 213.857† | 9021.5 | 45.70 | 0.51% | [100] | ug/L |
| SiO2† | 13621.5 | 29.42 | 0.22% | [1069.5] | ug/L |

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/1/2010 11:44:59
Data Type: Reprocessed on 3/1/2010 13:29:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 790109.5 | 790109.5 | 102.89 | % | 11:48:08 |
| 1 | Sc Radial | 4632.9 | 4632.9 | 98.4 | % | 11:46:51 |
| 1 | Y 371.029 | 699903.0 | 699903.0 | 101.58 | % | 11:48:08 |
| 1 | Y RADIAL | 4914.6 | 4914.6 | 98.58 | % | 11:46:51 |
| 1 | Ag 328.068† | 97511.0 | 94519.2 | [500] | ug/L | 11:48:14 |
| 1 | Al 396.153Radial† | 5188.1 | 5357.8 | [5000] | ug/L | 11:46:51 |
| 1 | As 188.979† | 1107.8 | 1101.7 | [500] | ug/L | 11:48:34 |
| 1 | B 249.677† | 19417.9 | 19326.4 | [500] | ug/L | 11:48:14 |
| 1 | Ba 233.527† | 42572.9 | 41375.9 | [500] | ug/L | 11:48:14 |
| 1 | Be 313.107† | 1263820.9 | 1237340.6 | [500] | ug/L | 11:48:08 |
| 1 | Ca 317.933Radial† | 2804.8 | 2827.2 | [5000] | ug/L | 11:47:11 |
| 1 | Cd 226.502† | 35370.6 | 34564.8 | [500] | ug/L | 11:48:14 |
| 1 | Co 228.616† | 16446.3 | 16042.3 | [500] | ug/L | 11:48:34 |
| 1 | Cr 267.716† | 36946.9 | 35834.6 | [500] | ug/L | 11:48:14 |
| 1 | Cu 324.752† | 140635.4 | 129153.0 | [500] | ug/L | 11:48:14 |
| 1 | K 766.490 Radial† | 27232.8 | 25404.3 | [5000] | ug/L | 11:46:51 |
| 1 | Mg 279.077 IEC† | 133.4 | 132.6 | [5000] | ug/L | 11:47:11 |
| 1 | Mn 257.610† | 314138.7 | 304862.8 | [500] | ug/L | 11:48:14 |
| 1 | Mo 202.031† | 5445.4 | 5278.2 | [500] | ug/L | 11:48:34 |
| 1 | Ni 231.604† | 16123.9 | 15570.2 | [500] | ug/L | 11:48:14 |
| 1 | P 214.914† | 4676.0 | 4349.4 | [2500] | ug/L | 11:48:34 |
| 1 | Pb 220.353† | 3034.6 | 3020.1 | [500] | ug/L | 11:48:34 |
| 1 | S 181.975 Axial† | 813.3 | 748.0 | [1000] | ug/L | 11:48:34 |
| 1 | Sb 206.836† | 1254.5 | 1189.3 | [500] | ug/L | 11:48:34 |
| 1 | Se 196.026† | 800.3 | 797.7 | [500] | ug/L | 11:48:34 |
| 1 | Si 251.611† | 68794.6 | 66275.0 | [2500] | ug/L | 11:48:14 |
| 1 | Sn 189.927† | 2106.7 | 2039.5 | [500] | ug/L | 11:48:34 |
| 1 | Sr 421.552† | 68297.0 | 69383.9 | [500] | ug/L | 11:46:51 |
| 1 | Ti 334.940† | 246507.0 | 240891.1 | [500] | ug/L | 11:48:14 |
| 1 | Tl 190.801† | 1050.3 | 1052.0 | [500] | ug/L | 11:48:34 |
| 1 | U 409.014† | 12315.1 | 14506.4 | [500] | ug/L | 11:48:14 |
| 1 | V 292.402† | 61427.8 | 61332.1 | [500] | ug/L | 11:48:14 |
| 1 | Zn 213.857† | 46350.5 | 44339.6 | [500] | ug/L | 11:48:14 |
| 1 | SiO2† | 68687.1 | 66163.3 | [5347.5] | ug/L | 11:49:41 |
| 2 | Sc 361.383 | 790740.8 | 790740.8 | 102.97 | % | 11:48:39 |
| 2 | Sc Radial | 4662.2 | 4662.2 | 99.1 | % | 11:47:16 |
| 2 | Y 371.029 | 699967.4 | 699967.4 | 101.59 | % | 11:48:39 |
| 2 | Y RADIAL | 4898.5 | 4898.5 | 98.26 | % | 11:47:16 |
| 2 | Ag 328.068† | 98433.1 | 95339.0 | [500] | ug/L | 11:48:44 |
| 2 | Al 396.153Radial† | 5177.9 | 5314.4 | [5000] | ug/L | 11:47:16 |
| 2 | As 188.979† | 1104.4 | 1097.5 | [500] | ug/L | 11:49:04 |
| 2 | B 249.677† | 19693.8 | 19579.4 | [500] | ug/L | 11:48:44 |
| 2 | Ba 233.527† | 43001.0 | 41758.6 | [500] | ug/L | 11:48:44 |
| 2 | Be 313.107† | 1263373.0 | 1235924.9 | [500] | ug/L | 11:48:39 |
| 2 | Ca 317.933Radial† | 2802.7 | 2807.2 | [5000] | ug/L | 11:47:36 |
| 2 | Cd 226.502† | 35805.4 | 34959.5 | [500] | ug/L | 11:48:44 |
| 2 | Co 228.616† | 16656.2 | 16233.3 | [500] | ug/L | 11:49:04 |
| 2 | Cr 267.716† | 37284.3 | 36133.5 | [500] | ug/L | 11:48:44 |
| 2 | Cu 324.752† | 142165.2 | 130529.6 | [500] | ug/L | 11:48:44 |
| 2 | K 766.490 Radial† | 27213.5 | 25211.5 | [5000] | ug/L | 11:47:16 |
| 2 | Mg 279.077 IEC† | 131.8 | 130.2 | [5000] | ug/L | 11:47:36 |
| 2 | Mn 257.610† | 317713.4 | 308090.7 | [500] | ug/L | 11:48:44 |
| 2 | Mo 202.031† | 5517.3 | 5343.8 | [500] | ug/L | 11:49:04 |
| 2 | Ni 231.604† | 16230.5 | 15661.1 | [500] | ug/L | 11:48:44 |
| 2 | P 214.914† | 4727.1 | 4395.4 | [2500] | ug/L | 11:49:04 |
| 2 | Pb 220.353† | 3079.3 | 3061.2 | [500] | ug/L | 11:49:04 |
| 2 | S 181.975 Axial† | 823.9 | 757.7 | [1000] | ug/L | 11:49:04 |
| 2 | Sb 206.836† | 1291.3 | 1224.0 | [500] | ug/L | 11:49:04 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Se 196.026† | 808.8 | 805.2 | [500] | ug/L | 11:49:04 |
| 2 | Si 251.611† | 69551.7 | 66956.9 | [2500] | ug/L | 11:48:44 |
| 2 | Sn 189.927† | 2136.7 | 2067.0 | [500] | ug/L | 11:49:04 |
| 2 | Sr 421.552† | 68378.5 | 69031.3 | [500] | ug/L | 11:47:16 |
| 2 | Ti 334.940† | 248868.0 | 242992.6 | [500] | ug/L | 11:48:44 |
| 2 | Tl 190.801† | 1071.9 | 1072.2 | [500] | ug/L | 11:49:04 |
| 2 | U 409.014† | 12438.0 | 14616.1 | [500] | ug/L | 11:48:44 |
| 2 | V 292.402† | 62019.9 | 61859.5 | [500] | ug/L | 11:48:44 |
| 2 | Zn 213.857† | 46860.7 | 44799.2 | [500] | ug/L | 11:48:44 |
| 2 | SiO2† | 68889.7 | 66306.7 | [5347.5] | ug/L | 11:49:46 |
| 3 | Sc 361.383 | 782342.0 | 782342.0 | 101.88 | % | 11:49:10 |
| 3 | Sc Radial | 4768.5 | 4768.5 | 101 | % | 11:47:41 |
| 3 | Y 371.029 | 693075.9 | 693075.9 | 100.59 | % | 11:49:10 |
| 3 | Y RADIAL | 5014.8 | 5014.8 | 100.6 | % | 11:47:41 |
| 3 | Ag 328.068† | 98042.5 | 95981.8 | [500] | ug/L | 11:49:15 |
| 3 | Al 396.153Radial† | 5274.4 | 5293.1 | [5000] | ug/L | 11:47:41 |
| 3 | As 188.979† | 1097.5 | 1102.3 | [500] | ug/L | 11:49:35 |
| 3 | B 249.677† | 19586.2 | 19679.1 | [500] | ug/L | 11:49:15 |
| 3 | Ba 233.527† | 42805.1 | 42014.7 | [500] | ug/L | 11:49:15 |
| 3 | Be 313.107† | 1250417.1 | 1236379.4 | [500] | ug/L | 11:49:10 |
| 3 | Ca 317.933Radial† | 2810.5 | 2751.9 | [5000] | ug/L | 11:48:01 |
| 3 | Cd 226.502† | 35501.0 | 35034.0 | [500] | ug/L | 11:49:15 |
| 3 | Co 228.616† | 16417.7 | 16172.9 | [500] | ug/L | 11:49:35 |
| 3 | Cr 267.716† | 37022.2 | 36265.0 | [500] | ug/L | 11:49:15 |
| 3 | Cu 324.752† | 141604.8 | 131461.7 | [500] | ug/L | 11:49:15 |
| 3 | K 766.490 Radial† | 27791.7 | 25169.7 | [5000] | ug/L | 11:47:41 |
| 3 | Mg 279.077 IEC† | 137.0 | 132.3 | [5000] | ug/L | 11:48:01 |
| 3 | Mn 257.610† | 315616.6 | 309344.9 | [500] | ug/L | 11:49:15 |
| 3 | Mo 202.031† | 5467.8 | 5352.7 | [500] | ug/L | 11:49:35 |
| 3 | Ni 231.604† | 16114.0 | 15716.0 | [500] | ug/L | 11:49:15 |
| 3 | P 214.914† | 4674.3 | 4392.9 | [2500] | ug/L | 11:49:35 |
| 3 | Pb 220.353† | 3023.0 | 3038.0 | [500] | ug/L | 11:49:35 |
| 3 | S 181.975 Axial† | 817.5 | 759.9 | [1000] | ug/L | 11:49:35 |
| 3 | Sb 206.836† | 1247.7 | 1194.7 | [500] | ug/L | 11:49:35 |
| 3 | Se 196.026† | 797.5 | 802.6 | [500] | ug/L | 11:49:35 |
| 3 | Si 251.611† | 69130.1 | 67268.1 | [2500] | ug/L | 11:49:15 |
| 3 | Sn 189.927† | 2096.6 | 2049.9 | [500] | ug/L | 11:49:35 |
| 3 | Sr 421.552† | 70108.2 | 69199.4 | [500] | ug/L | 11:47:41 |
| 3 | Ti 334.940† | 247878.1 | 244615.7 | [500] | ug/L | 11:49:15 |
| 3 | Tl 190.801† | 1067.6 | 1079.2 | [500] | ug/L | 11:49:35 |
| 3 | U 409.014† | 12484.0 | 14791.0 | [500] | ug/L | 11:49:15 |
| 3 | V 292.402† | 61750.0 | 62241.1 | [500] | ug/L | 11:49:15 |
| 3 | Zn 213.857† | 46561.7 | 44994.2 | [500] | ug/L | 11:49:15 |
| 3 | SiO2† | 68604.0 | 66744.6 | [5347.5] | ug/L | 11:49:51 |

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**Mean Data: S0.5**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 787730.8 | 4677.50 | 0.59% | 102.58 | % |
| Sc Radial | 4687.9 | 71.33 | 1.52% | 99.6 | % |
| Y 371.029 | 697648.8 | 3960.38 | 0.57% | 101.25 | % |
| Y RADIAL | 4942.6 | 63.03 | 1.28% | 99.14 | % |
| Ag 328.068† | 95280.0 | 733.09 | 0.77% | [500] | ug/L |
| Al 396.153Radial† | 5321.7 | 32.96 | 0.62% | [5000] | ug/L |
| As 188.979† | 1100.5 | 2.60 | 0.24% | [500] | ug/L |
| B 249.677† | 19528.3 | 181.79 | 0.93% | [500] | ug/L |
| Ba 233.527† | 41716.4 | 321.48 | 0.77% | [500] | ug/L |
| Be 313.107† | 1236548.3 | 722.81 | 0.06% | [500] | ug/L |
| Ca 317.933Radial† | 2795.5 | 39.05 | 1.40% | [5000] | ug/L |
| Cd 226.502† | 34852.8 | 252.19 | 0.72% | [500] | ug/L |
| Co 228.616† | 16149.5 | 97.65 | 0.60% | [500] | ug/L |
| Cr 267.716† | 36077.7 | 220.58 | 0.61% | [500] | ug/L |
| Cu 324.752† | 130381.4 | 1161.43 | 0.89% | [500] | ug/L |
| K 766.490 Radial† | 25261.8 | 125.16 | 0.50% | [5000] | ug/L |
| Mg 279.077 IEC† | 131.7 | 1.32 | 1.00% | [5000] | ug/L |
| Mn 257.610† | 307432.8 | 2312.33 | 0.75% | [500] | ug/L |
| Mo 202.031† | 5324.9 | 40.70 | 0.76% | [500] | ug/L |
| Ni 231.604† | 15649.1 | 73.67 | 0.47% | [500] | ug/L |
| P 214.914† | 4379.2 | 25.87 | 0.59% | [2500] | ug/L |
| Pb 220.353† | 3039.8 | 20.61 | 0.68% | [500] | ug/L |

| | | | | | |
|---|---|---|---|---|---|
| S 181.975 Axial† | 755.2 | 6.34 | 0.84% | [1000] | ug/L |
| Sb 206.836† | 1202.7 | 18.67 | 1.55% | [500] | ug/L |
| Se 196.026† | 801.8 | 3.85 | 0.48% | [500] | ug/L |
| Si 251.611† | 66833.4 | 507.96 | 0.76% | [2500] | ug/L |
| Sn 189.927† | 2052.1 | 13.87 | 0.68% | [500] | ug/L |
| Sr 421.552† | 69204.9 | 176.36 | 0.25% | [500] | ug/L |
| Ti 334.940† | 242833.1 | 1867.41 | 0.77% | [500] | ug/L |
| Tl 190.801† | 1067.8 | 14.10 | 1.32% | [500] | ug/L |
| U 409.014† | 14637.8 | 143.55 | 0.98% | [500] | ug/L |
| V 292.402† | 61810.9 | 456.44 | 0.74% | [500] | ug/L |
| Zn 213.857† | 44711.0 | 336.06 | 0.75% | [500] | ug/L |
| SiO2† | 66404.9 | 302.81 | 0.46% | [5347.5] | ug/L |

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/1/2010 11:52:01
Data Type: Reprocessed on 3/1/2010 13:29:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 764373.9 | 764373.9 | 99.536 | % | 11:55:17 |
| 1 | Sc Radial | 4594.5 | 4594.5 | 97.6 | % | 11:53:54 |
| 1 | Y 371.029 | 678498.0 | 678498.0 | 98.471 | % | 11:55:17 |
| 1 | Y RADIAL | 4835.7 | 4835.7 | 97.00 | % | 11:53:54 |
| 1 | Ag 328.068† | 194905.6 | 195558.9 | [1000] | ug/L | 11:55:17 |
| 1 | Al 396.153Radial† | 10324.1 | 10663.1 | [10000] | ug/L | 11:53:54 |
| 1 | As 188.979† | 2217.4 | 2252.8 | [1000] | ug/L | 11:55:37 |
| 1 | B 249.677† | 39539.4 | 40177.2 | [1000] | ug/L | 11:55:17 |
| 1 | Ba 233.527† | 84709.4 | 85102.0 | [1000] | ug/L | 11:55:17 |
| 1 | Be 313.107† | 2496774.2 | 2517401.8 | [1000] | ug/L | 11:55:11 |
| 1 | Ca 317.933Radial† | 5522.2 | 5634.7 | [10000] | ug/L | 11:53:54 |
| 1 | Cd 226.502† | 70329.3 | 70844.0 | [1000] | ug/L | 11:55:17 |
| 1 | Co 228.616† | 33153.7 | 33365.8 | [1000] | ug/L | 11:55:37 |
| 1 | Cr 267.716† | 73226.0 | 73491.9 | [1000] | ug/L | 11:55:17 |
| 1 | Cu 324.752† | 275147.3 | 268894.4 | [1000] | ug/L | 11:55:17 |
| 1 | Fe 238.204 Radial† | 977.3 | 993.9 | [10000] | ug/L | 11:54:14 |
| 1 | K 766.490 Radial† | 51251.7 | 50240.4 | [10000] | ug/L | 11:53:54 |
| 1 | Mg 279.077 IEC† | 255.7 | 259.1 | [10000] | ug/L | 11:54:14 |
| 1 | Mn 257.610† | 625097.1 | 627551.4 | [1000] | ug/L | 11:55:17 |
| 1 | Mo 202.031† | 10936.9 | 10973.5 | [1000] | ug/L | 11:55:37 |
| 1 | Na 589.592 Radial† | 27964.2 | 29494.3 | [10000] | ug/L | 11:53:54 |
| 1 | Ni 231.604† | 31284.4 | 31329.0 | [1000] | ug/L | 11:55:37 |
| 1 | P 214.914† | 9171.0 | 9018.4 | [5000] | ug/L | 11:55:37 |
| 1 | Pb 220.353† | 6157.2 | 6256.6 | [1000] | ug/L | 11:55:37 |
| 1 | S 181.975 Axial† | 1587.3 | 1552.2 | [2000] | ug/L | 11:55:37 |
| 1 | Sb 206.836† | 2501.1 | 2482.7 | [1000] | ug/L | 11:55:37 |
| 1 | Se 196.026† | 1617.2 | 1644.6 | [1000] | ug/L | 11:55:37 |
| 1 | Si 251.611† | 137914.9 | 137968.9 | [5000] | ug/L | 11:55:17 |
| 1 | Sn 189.927† | 4281.5 | 4293.4 | [1000] | ug/L | 11:55:37 |
| 1 | Sr 421.552† | 134424.0 | 137703.9 | [1000] | ug/L | 11:53:54 |
| 1 | Ti 334.940† | 495663.3 | 499276.1 | [1000] | ug/L | 11:55:17 |
| 1 | Tl 190.801† | 2150.4 | 2191.7 | [1000] | ug/L | 11:55:37 |
| 1 | U 409.014† | 27272.9 | 29936.9 | [1000] | ug/L | 11:55:17 |
| 1 | V 292.402† | 124028.5 | 126234.9 | [1000] | ug/L | 11:55:17 |
| 1 | Zn 213.857† | 91300.7 | 91016.3 | [1000] | ug/L | 11:55:17 |
| 1 | SiO2† | 137615.6 | 137661.0 | [10695] | ug/L | 11:56:45 |
| 2 | Sc 361.383 | 760055.8 | 760055.8 | 98.973 | % | 11:55:48 |
| 2 | Sc Radial | 4648.4 | 4648.4 | 98.8 | % | 11:54:19 |
| 2 | Y 371.029 | 673845.2 | 673845.2 | 97.796 | % | 11:55:48 |
| 2 | Y RADIAL | 4896.3 | 4896.3 | 98.21 | % | 11:54:19 |
| 2 | Ag 328.068† | 193600.0 | 195352.3 | [1000] | ug/L | 11:55:48 |
| 2 | Al 396.153Radial† | 10430.5 | 10648.3 | [10000] | ug/L | 11:54:19 |
| 2 | As 188.979† | 2224.8 | 2272.9 | [1000] | ug/L | 11:56:08 |
| 2 | B 249.677† | 39308.2 | 40169.3 | [1000] | ug/L | 11:55:48 |
| 2 | Ba 233.527† | 84410.6 | 85283.7 | [1000] | ug/L | 11:55:48 |
| 2 | Be 313.107† | 2500143.8 | 2535057.6 | [1000] | ug/L | 11:55:42 |
| 2 | Ca 317.933Radial† | 5612.1 | 5660.2 | [10000] | ug/L | 11:54:19 |
| 2 | Cd 226.502† | 70124.0 | 71037.9 | [1000] | ug/L | 11:55:48 |
| 2 | Co 228.616† | 33014.1 | 33414.0 | [1000] | ug/L | 11:56:08 |
| 2 | Cr 267.716† | 72996.6 | 73678.1 | [1000] | ug/L | 11:55:48 |
| 2 | Cu 324.752† | 272480.3 | 267770.3 | [1000] | ug/L | 11:55:48 |
| 2 | Fe 238.204 Radial† | 978.2 | 983.2 | [10000] | ug/L | 11:54:39 |
| 2 | K 766.490 Radial† | 51829.1 | 50216.5 | [10000] | ug/L | 11:54:19 |
| 2 | Mg 279.077 IEC† | 258.4 | 258.8 | [10000] | ug/L | 11:54:39 |
| 2 | Mn 257.610† | 622130.2 | 628121.7 | [1000] | ug/L | 11:55:48 |
| 2 | Mo 202.031† | 10909.8 | 11008.6 | [1000] | ug/L | 11:56:08 |
| 2 | Na 589.592 Radial† | 28443.5 | 29647.4 | [10000] | ug/L | 11:54:19 |
| 2 | Ni 231.604† | 31196.1 | 31418.4 | [1000] | ug/L | 11:56:08 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 9144.6 | 9044.1 | [5000] | ug/L | 11:56:08 |
| 2 | Pb 220.353† | 6123.9 | 6258.1 | [1000] | ug/L | 11:56:08 |
| 2 | S 181.975 Axial† | 1578.8 | 1552.6 | [2000] | ug/L | 11:56:08 |
| 2 | Sb 206.836† | 2495.6 | 2491.5 | [1000] | ug/L | 11:56:08 |
| 2 | Se 196.026† | 1605.7 | 1642.1 | [1000] | ug/L | 11:56:08 |
| 2 | Si 251.611† | 137090.1 | 137922.7 | [5000] | ug/L | 11:55:48 |
| 2 | Sn 189.927† | 4258.4 | 4294.5 | [1000] | ug/L | 11:56:08 |
| 2 | Sr 421.552† | 135779.9 | 137480.6 | [1000] | ug/L | 11:54:19 |
| 2 | Ti 334.940† | 492315.4 | 498722.7 | [1000] | ug/L | 11:55:48 |
| 2 | Tl 190.801† | 2144.1 | 2197.5 | [1000] | ug/L | 11:56:08 |
| 2 | U 409.014† | 27067.1 | 29884.6 | [1000] | ug/L | 11:55:48 |
| 2 | V 292.402† | 123262.1 | 126168.5 | [1000] | ug/L | 11:55:48 |
| 2 | Zn 213.857† | 90887.3 | 91119.7 | [1000] | ug/L | 11:55:48 |
| 2 | SiO2† | 138658.0 | 139499.7 | [10695] | ug/L | 11:56:50 |
| 3 | Sc 361.383 | 763813.6 | 763813.6 | 99.463 | % | 11:56:19 |
| 3 | Sc Radial | 4595.7 | 4595.7 | 97.6 | % | 11:54:44 |
| 3 | Y 371.029 | 677242.1 | 677242.1 | 98.289 | % | 11:56:19 |
| 3 | Y RADIAL | 4859.4 | 4859.4 | 97.47 | % | 11:54:44 |
| 3 | Ag 328.068† | 194810.4 | 195606.9 | [1000] | ug/L | 11:56:19 |
| 3 | Al 396.153Radial† | 10282.6 | 10617.8 | [10000] | ug/L | 11:54:44 |
| 3 | As 188.979† | 2201.3 | 2238.2 | [1000] | ug/L | 11:56:39 |
| 3 | B 249.677† | 39491.5 | 40158.3 | [1000] | ug/L | 11:56:19 |
| 3 | Ba 233.527† | 84390.4 | 84843.8 | [1000] | ug/L | 11:56:19 |
| 3 | Be 313.107† | 2505418.6 | 2527933.1 | [1000] | ug/L | 11:56:14 |
| 3 | Ca 317.933Radial† | 5509.7 | 5620.5 | [10000] | ug/L | 11:54:44 |
| 3 | Cd 226.502† | 69846.3 | 70410.2 | [1000] | ug/L | 11:56:19 |
| 3 | Co 228.616† | 32838.2 | 33073.1 | [1000] | ug/L | 11:56:39 |
| 3 | Cr 267.716† | 72876.8 | 73194.8 | [1000] | ug/L | 11:56:19 |
| 3 | Cu 324.752† | 275543.0 | 269495.1 | [1000] | ug/L | 11:56:19 |
| 3 | Fe 238.204 Radial† | 962.4 | 978.3 | [10000] | ug/L | 11:55:04 |
| 3 | K 766.490 Radial† | 51059.4 | 50029.8 | [10000] | ug/L | 11:54:44 |
| 3 | Mg 279.077 IEC† | 260.6 | 264.0 | [10000] | ug/L | 11:55:04 |
| 3 | Mn 257.610† | 622791.6 | 625694.1 | [1000] | ug/L | 11:56:19 |
| 3 | Mo 202.031† | 10850.7 | 10894.9 | [1000] | ug/L | 11:56:39 |
| 3 | Na 589.592 Radial† | 27728.1 | 29245.0 | [10000] | ug/L | 11:54:44 |
| 3 | Ni 231.604† | 31028.9 | 31095.2 | [1000] | ug/L | 11:56:39 |
| 3 | P 214.914† | 9096.7 | 8950.5 | [5000] | ug/L | 11:56:39 |
| 3 | Pb 220.353† | 6078.9 | 6182.4 | [1000] | ug/L | 11:56:39 |
| 3 | S 181.975 Axial† | 1581.0 | 1547.1 | [2000] | ug/L | 11:56:39 |
| 3 | Sb 206.836† | 2484.0 | 2467.4 | [1000] | ug/L | 11:56:39 |
| 3 | Se 196.026† | 1605.8 | 1634.3 | [1000] | ug/L | 11:56:39 |
| 3 | Si 251.611† | 137568.5 | 137722.3 | [5000] | ug/L | 11:56:19 |
| 3 | Sn 189.927† | 4245.6 | 4260.5 | [1000] | ug/L | 11:56:39 |
| 3 | Sr 421.552† | 133510.6 | 136732.7 | [1000] | ug/L | 11:54:44 |
| 3 | Ti 334.940† | 494757.9 | 498731.2 | [1000] | ug/L | 11:56:19 |
| 3 | Tl 190.801† | 2133.6 | 2176.3 | [1000] | ug/L | 11:56:39 |
| 3 | U 409.014† | 27519.3 | 30204.8 | [1000] | ug/L | 11:56:19 |
| 3 | V 292.402† | 123543.8 | 125839.0 | [1000] | ug/L | 11:56:19 |
| 3 | Zn 213.857† | 91057.2 | 90838.7 | [1000] | ug/L | 11:56:19 |
| 3 | SiO2† | 137947.6 | 138096.2 | [10695] | ug/L | 11:56:55 |

**Mean Data: SCAL**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 762747.7 | 2348.09 | 0.31% | 99.324 | % |
| Sc Radial | 4612.9 | 30.77 | 0.67% | 98.0 | % |
| Y 371.029 | 676528.4 | 2407.10 | 0.36% | 98.185 | % |
| Y RADIAL | 4863.8 | 30.56 | 0.63% | 97.56 | % |
| Ag 328.068† | 195506.1 | 135.29 | 0.07% | [1000] | ug/L |
| Al 396.153Radial† | 10643.0 | 23.08 | 0.22% | [10000] | ug/L |
| As 188.979† | 2254.6 | 17.46 | 0.77% | [1000] | ug/L |
| B 249.677† | 40168.3 | 9.53 | 0.02% | [1000] | ug/L |
| Ba 233.527† | 85076.5 | 221.08 | 0.26% | [1000] | ug/L |
| Be 313.107† | 2526797.5 | 8882.47 | 0.35% | [1000] | ug/L |
| Ca 317.933Radial† | 5638.5 | 20.11 | 0.36% | [10000] | ug/L |
| Cd 226.502† | 70764.0 | 321.42 | 0.45% | [1000] | ug/L |
| Co 228.616† | 33284.3 | 184.52 | 0.55% | [1000] | ug/L |
| Cr 267.716† | 73455.0 | 243.79 | 0.33% | [1000] | ug/L |
| Cu 324.752† | 268719.9 | 875.55 | 0.33% | [1000] | ug/L |
| Fe 238.204 Radial† | 985.1 | 7.96 | 0.81% | [10000] | ug/L |

| | | | | | |
|---|---|---|---|---|---|
| K 766.490 Radial† | 50162.2 | 115.29 | 0.23% | [10000] | ug/L |
| Mg 279.077 IEC† | 260.6 | 2.93 | 1.12% | [10000] | ug/L |
| Mn 257.610† | 627122.4 | 1269.35 | 0.20% | [1000] | ug/L |
| Mo 202.031† | 10959.0 | 58.21 | 0.53% | [1000] | ug/L |
| Na 589.592 Radial† | 29462.2 | 203.12 | 0.69% | [10000] | ug/L |
| Ni 231.604† | 31280.8 | 166.87 | 0.53% | [1000] | ug/L |
| P 214.914† | 9004.3 | 48.36 | 0.54% | [5000] | ug/L |
| Pb 220.353† | 6232.4 | 43.27 | 0.69% | [1000] | ug/L |
| S 181.975 Axial† | 1550.6 | 3.08 | 0.20% | [2000] | ug/L |
| Sb 206.836† | 2480.5 | 12.19 | 0.49% | [1000] | ug/L |
| Se 196.026† | 1640.3 | 5.41 | 0.33% | [1000] | ug/L |
| Si 251.611† | 137871.3 | 131.08 | 0.10% | [5000] | ug/L |
| Sn 189.927† | 4282.8 | 19.32 | 0.45% | [1000] | ug/L |
| Sr 421.552† | 137305.7 | 508.66 | 0.37% | [1000] | ug/L |
| Ti 334.940† | 498910.0 | 317.08 | 0.06% | [1000] | ug/L |
| Tl 190.801† | 2188.5 | 10.94 | 0.50% | [1000] | ug/L |
| U 409.014† | 30008.8 | 171.74 | 0.57% | [1000] | ug/L |
| V 292.402† | 126080.8 | 212.01 | 0.17% | [1000] | ug/L |
| Zn 213.857† | 90991.6 | 142.12 | 0.16% | [1000] | ug/L |
| SiO2† | 138419.0 | 960.93 | 0.69% | [10695] | ug/L |

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/1/2010 11:59:07
Data Type: Reprocessed on 3/1/2010 13:29:32

Initial Sample Vol:
Sample Prep Vol:

**Replicate Data: S10**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 770445.5 | 770445.5 | 100.33 | % | 12:02:17 |
| 1 | Sc Radial | 4543.4 | 4543.4 | 96.5 | % | 12:01:20 |
| 1 | Y 371.029 | 678491.0 | 678491.0 | 98.470 | % | 12:02:17 |
| 1 | Y RADIAL | 4785.7 | 4785.7 | 95.99 | % | 12:01:20 |
| 1 | Al 396.153Radial† | 51636.6 | 53578.6 | [50000] | ug/L | 12:01:00 |
| 1 | Ca 317.933Radial† | 26617.7 | 27551.7 | [50000] | ug/L | 12:01:00 |
| 1 | Fe 238.204 Radial† | 1858.9 | 1918.3 | [20000] | ug/L | 12:01:20 |
| 1 | Mg 279.077 IEC† | 1216.6 | 1257.4 | [50000] | ug/L | 12:01:20 |
| 1 | Na 589.592 Radial† | 56343.4 | 59215.1 | [20000] | ug/L | 12:01:00 |
| 2 | Sc 361.383 | 765160.6 | 765160.6 | 99.638 | % | 12:02:23 |
| 2 | Sc Radial | 4573.4 | 4573.4 | 97.2 | % | 12:01:45 |
| 2 | Y 371.029 | 673725.2 | 673725.2 | 97.778 | % | 12:02:23 |
| 2 | Y RADIAL | 4797.4 | 4797.4 | 96.23 | % | 12:01:45 |
| 2 | Al 396.153Radial† | 51907.2 | 53506.7 | [50000] | ug/L | 12:01:25 |
| 2 | Ca 317.933Radial† | 26783.4 | 27541.7 | [50000] | ug/L | 12:01:25 |
| 2 | Fe 238.204 Radial† | 1867.4 | 1914.5 | [20000] | ug/L | 12:01:45 |
| 2 | Mg 279.077 IEC† | 1226.8 | 1259.6 | [50000] | ug/L | 12:01:45 |
| 2 | Na 589.592 Radial† | 56031.4 | 58511.8 | [20000] | ug/L | 12:01:25 |
| 3 | Sc 361.383 | 768716.6 | 768716.6 | 100.10 | % | 12:02:28 |
| 3 | Sc Radial | 4539.8 | 4539.8 | 96.5 | % | 12:02:10 |
| 3 | Y 371.029 | 676808.4 | 676808.4 | 98.226 | % | 12:02:28 |
| 3 | Y RADIAL | 4768.2 | 4768.2 | 95.64 | % | 12:02:10 |
| 3 | Al 396.153Radial† | 51332.8 | 53306.6 | [50000] | ug/L | 12:01:50 |
| 3 | Ca 317.933Radial† | 26420.1 | 27369.0 | [50000] | ug/L | 12:01:50 |
| 3 | Fe 238.204 Radial† | 1857.5 | 1918.5 | [20000] | ug/L | 12:02:10 |
| 3 | Mg 279.077 IEC† | 1212.2 | 1253.9 | [50000] | ug/L | 12:02:10 |
| 3 | Na 589.592 Radial† | 55271.5 | 58150.7 | [20000] | ug/L | 12:01:50 |

**Mean Data: S10**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 768107.6 | 2694.59 | 0.35% | 100.02 | % |
| Sc Radial | 4552.2 | 18.44 | 0.41% | 96.7 | % |
| Y 371.029 | 676341.5 | 2416.96 | 0.36% | 98.158 | % |
| Y RADIAL | 4783.8 | 14.71 | 0.31% | 95.96 | % |
| Al 396.153Radial† | 53464.0 | 140.93 | 0.26% | [50000] | ug/L |
| Ca 317.933Radial† | 27487.5 | 102.68 | 0.37% | [50000] | ug/L |
| Fe 238.204 Radial† | 1917.1 | 2.27 | 0.12% | [20000] | ug/L |
| Mg 279.077 IEC† | 1257.0 | 2.91 | 0.23% | [50000] | ug/L |
| Na 589.592 Radial† | 58625.9 | 541.29 | 0.92% | [20000] | ug/L |

**Calibration Summary**

| Analyte | Stds. | Equation | Intercept | Slope | Curvature | Corr. Coef. | Reslope |
|---|---|---|---|---|---|---|---|
| Ag 328.068 | 3 | Lin Thru 0 | 0.0 | 194.5 | 0.00000 | 0.999948 | |
| Al 396.153Radial | 3 | Lin Thru 0 | 0.0 | 1.069 | 0.00000 | 1.000000 | |
| As 188.979 | 3 | Lin Thru 0 | 0.0 | 2.244 | 0.00000 | 0.999954 | |
| B 249.677 | 3 | Lin Thru 0 | 0.0 | 39.93 | 0.00000 | 0.999932 | |
| Ba 233.527 | 3 | Lin Thru 0 | 0.0 | 84.75 | 0.00000 | 0.999970 | |
| Be 313.107 | 3 | Lin Thru 0 | 0.0 | 2516 | 0.00000 | 0.999963 | |
| Ca 317.933Radial | 3 | Lin Thru 0 | 0.0 | 0.5504 | 0.00000 | 0.999987 | |
| Cd 226.502 | 3 | Lin Thru 0 | 0.0 | 70.54 | 0.00000 | 0.999980 | |
| Co 228.616 | 3 | Lin Thru 0 | 0.0 | 33.09 | 0.00000 | 0.999930 | |
| Cr 267.716 | 3 | Lin Thru 0 | 0.0 | 73.20 | 0.00000 | 0.999975 | |
| Cu 324.752 | 3 | Lin Thru 0 | 0.0 | 267.1 | 0.00000 | 0.999926 | |
| Fe 238.204 Radia | 2 | Lin Thru 0 | 0.0 | 0.0964 | 0.00000 | 0.999939 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| K 766.490 Radial | 3 | Lin Thru 0 | 0.0 | 5.024 | 0.00000 | 0.999996 |
| Mg 279.077 IEC | 3 | Lin Thru 0 | 0.0 | 0.0252 | 0.00000 | 0.999965 |
| Mn 257.610 | 3 | Lin Thru 0 | 0.0 | 624.8 | 0.00000 | 0.999968 |
| Mo 202.031 | 3 | Lin Thru 0 | 0.0 | 10.90 | 0.00000 | 0.999936 |
| Na 589.592 Radia | 2 | Lin Thru 0 | 0.0 | 2.934 | 0.00000 | 0.999998 |
| Ni 231.604 | 3 | Lin Thru 0 | 0.0 | 31.28 | 0.00000 | 1.000000 |
| P 214.914 | 3 | Lin Thru 0 | 0.0 | 1.791 | 0.00000 | 0.999939 |
| Pb 220.353 | 3 | Lin Thru 0 | 0.0 | 6.202 | 0.00000 | 0.999952 |
| S 181.975 Axial | 3 | Lin Thru 0 | 0.0 | 0.7713 | 0.00000 | 0.999946 |
| Sb 206.836 | 3 | Lin Thru 0 | 0.0 | 2.465 | 0.00000 | 0.999922 |
| Se 196.026 | 3 | Lin Thru 0 | 0.0 | 1.633 | 0.00000 | 0.999959 |
| Si 251.611 | 3 | Lin Thru 0 | 0.0 | 27.40 | 0.00000 | 0.999925 |
| Sn 189.927 | 3 | Lin Thru 0 | 0.0 | 4.246 | 0.00000 | 0.999858 |
| Sr 421.552 | 3 | Lin Thru 0 | 0.0 | 137.5 | 0.00000 | 0.999995 |
| Ti 334.940 | 3 | Lin Thru 0 | 0.0 | 496.3 | 0.00000 | 0.999943 |
| Tl 190.801 | 3 | Lin Thru 0 | 0.0 | 2.178 | 0.00000 | 0.999952 |
| U 409.014 | 3 | Lin Thru 0 | 0.0 | 29.86 | 0.00000 | 0.999952 |
| V 292.402 | 3 | Lin Thru 0 | 0.0 | 125.6 | 0.00000 | 0.999969 |
| Zn 213.857 | 3 | Lin Thru 0 | 0.0 | 90.67 | 0.00000 | 0.999976 |
| SiO2 | 3 | Lin Thru 0 | 0.0 | 12.84 | 0.00000 | 0.999867 |

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/1/2010 12:04:40
Data Type: Reprocessed on 3/1/2010 13:29:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 784981.8 | 784981.8 | 102.22 | % | | | 12:07:50 |
| 1 | Sc Radial | 4649.6 | 4649.6 | 98.8 | % | | | 12:06:32 |
| 1 | Y 371.029 | 695335.6 | 695335.6 | 100.91 | % | | | 12:07:50 |
| 1 | Y RADIAL | 4903.6 | 4903.6 | 98.36 | % | | | 12:06:32 |
| 1 | Ag 328.068† | 51531.9 | 50157.4 | 261.07 | ug/L | 261.07 | ppb | 12:07:50 |
| 1 | Al 396.153Radial† | 5284.2 | 5436.1 | 5059.3 | ug/L | 5059.3 | ppb | 12:06:32 |
| 1 | As 188.979† | 1048.7 | 1050.9 | 472.71 | ug/L | 472.71 | ppb | 12:08:10 |
| 1 | B 249.677† | 20755.0 | 20757.8 | 517.52 | ug/L | 517.52 | ppb | 12:07:50 |
| 1 | Ba 233.527† | 43949.7 | 42993.1 | 508.60 | ug/L | 508.60 | ppb | 12:07:50 |
| 1 | Be 313.107† | 657976.6 | 652673.8 | 260.57 | ug/L | 260.57 | ppb | 12:07:50 |
| 1 | Ca 317.933Radial† | 2793.0 | 2805.0 | 5096.6 | ug/L | 5096.6 | ppb | 12:06:53 |
| 1 | Cd 226.502† | 34855.5 | 34285.3 | 485.92 | ug/L | 485.92 | ppb | 12:08:10 |
| 1 | Co 228.616† | 17128.9 | 16814.4 | 508.31 | ug/L | 508.31 | ppb | 12:08:10 |
| 1 | Cr 267.716† | 36537.1 | 35668.2 | 487.92 | ug/L | 487.92 | ppb | 12:07:50 |
| 1 | Cu 324.752† | 145500.6 | 134805.5 | 504.77 | ug/L | 504.77 | ppb | 12:07:50 |
| 1 | Fe 238.204 Radial† | 499.2 | 498.0 | 5182.3 | ug/L | 5182.3 | ppb | 12:06:53 |
| 1 | K 766.490 Radial† | 14710.2 | 12628.9 | 2510.5 | ug/L | 2510.5 | ppb | 12:06:32 |
| 1 | Mg 279.077 IEC† | 136.4 | 135.2 | 5368.3 | ug/L | 5368.3 | ppb | 12:06:53 |
| 1 | Mn 257.610† | 334228.8 | 326511.2 | 522.92 | ug/L | 522.92 | ppb | 12:07:50 |
| 1 | Mo 202.031† | 5924.1 | 5781.1 | 531.01 | ug/L | 531.01 | ppb | 12:08:10 |
| 1 | Na 589.592 Radial† | 6277.5 | 7202.2 | 2454.5 | ug/L | 2454.5 | ppb | 12:06:32 |
| 1 | Ni 231.604† | 16276.4 | 15821.7 | 505.47 | ug/L | 505.47 | ppb | 12:08:10 |
| 1 | P 214.914† | 4739.1 | 4440.9 | 2381.7 | ug/L | 2381.7 | ppb | 12:08:10 |
| 1 | Pb 220.353† | 3062.8 | 3067.0 | 496.47 | ug/L | 496.47 | ppb | 12:08:10 |
| 1 | S 181.975 Axial† | 1984.6 | 1899.0 | 2461.2 | ug/L | 2461.2 | ppb | 12:08:10 |
| 1 | Sb 206.836† | 1283.6 | 1225.7 | 516.38 | ug/L | 516.38 | ppb | 12:08:10 |
| 1 | Se 196.026† | 4171.1 | 4100.4 | 2524.9 | ug/L | 2524.9 | ppb | 12:08:10 |
| 1 | Si 251.611† | 136009.9 | 132467.8 | 4827.3 | ug/L | 4827.3 | ppb | 12:07:50 |
| 1 | Sn 189.927† | 2314.6 | 2256.3 | 531.96 | ug/L | 531.96 | ppb | 12:08:10 |
| 1 | Sr 421.552† | 71138.6 | 72011.1 | 523.61 | ug/L | 523.61 | ppb | 12:06:32 |
| 1 | Ti 334.940† | 254476.2 | 250252.3 | 504.12 | ug/L | 504.12 | ppb | 12:07:50 |
| 1 | Tl 190.801† | 1131.0 | 1137.7 | 525.94 | ug/L | 525.94 | ppb | 12:08:10 |
| 1 | U 409.014† | 12389.3 | 14657.1 | 489.12 | ug/L | 489.12 | ppb | 12:07:50 |
| 1 | V 292.402† | 64046.6 | 64284.1 | 518.99 | ug/L | 518.99 | ppb | 12:07:50 |
| 1 | Zn 213.857† | 48398.4 | 46637.4 | 509.66 | ug/L | 509.66 | ppb | 12:07:50 |
| 1 | SiO2† | 137020.9 | 133449.6 | 10381 | ug/L | 10381 | ppb | 12:09:08 |
| 2 | Sc 361.383 | 788850.1 | 788850.1 | 102.72 | % | | | 12:08:16 |
| 2 | Sc Radial | 4754.2 | 4754.2 | 101 | % | | | 12:06:58 |
| 2 | Y 371.029 | 700164.8 | 700164.8 | 101.62 | % | | | 12:08:16 |
| 2 | Y RADIAL | 5055.9 | 5055.9 | 101.4 | % | | | 12:06:58 |
| 2 | Ag 328.068† | 51408.5 | 49790.1 | 259.14 | ug/L | 259.14 | ppb | 12:08:16 |
| 2 | Al 396.153Radial† | 5402.3 | 5435.4 | 5058.7 | ug/L | 5058.7 | ppb | 12:06:58 |
| 2 | As 188.979† | 1048.2 | 1045.4 | 470.18 | ug/L | 470.18 | ppb | 12:08:36 |
| 2 | B 249.677† | 20691.6 | 20596.5 | 513.50 | ug/L | 513.50 | ppb | 12:08:16 |
| 2 | Ba 233.527† | 43858.5 | 42693.5 | 505.05 | ug/L | 505.05 | ppb | 12:08:16 |
| 2 | Be 313.107† | 658498.4 | 650025.4 | 259.51 | ug/L | 259.51 | ppb | 12:08:16 |
| 2 | Ca 317.933Radial† | 2784.9 | 2734.9 | 4969.1 | ug/L | 4969.1 | ppb | 12:07:18 |
| 2 | Cd 226.502† | 34942.2 | 34202.6 | 484.76 | ug/L | 484.76 | ppb | 12:08:36 |
| 2 | Co 228.616† | 17162.6 | 16765.1 | 506.82 | ug/L | 506.82 | ppb | 12:08:36 |
| 2 | Cr 267.716† | 36417.9 | 35376.9 | 483.94 | ug/L | 483.94 | ppb | 12:08:16 |
| 2 | Cu 324.752† | 145750.1 | 134350.3 | 503.06 | ug/L | 503.06 | ppb | 12:08:16 |
| 2 | Fe 238.204 Radial† | 498.7 | 486.4 | 5061.0 | ug/L | 5061.0 | ppb | 12:07:18 |
| 2 | K 766.490 Radial† | 15123.7 | 12710.8 | 2526.8 | ug/L | 2526.8 | ppb | 12:06:58 |
| 2 | Mg 279.077 IEC† | 136.6 | 132.4 | 5255.8 | ug/L | 5255.8 | ppb | 12:07:18 |
| 2 | Mn 257.610† | 333515.9 | 324213.8 | 519.23 | ug/L | 519.23 | ppb | 12:08:16 |
| 2 | Mo 202.031† | 5951.1 | 5779.0 | 530.80 | ug/L | 530.80 | ppb | 12:08:36 |
| 2 | Na 589.592 Radial† | 6399.9 | 7183.7 | 2448.2 | ug/L | 2448.2 | ppb | 12:06:58 |
| 2 | Ni 231.604† | 16270.8 | 15738.2 | 502.80 | ug/L | 502.80 | ppb | 12:08:36 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4771.8 | 4450.0 | 2387.1 | ug/L | 2387.1 ppb | 12:08:36 |
| 2 | Pb 220.353† | 3039.0 | 3029.2 | 490.39 | ug/L | 490.39 ppb | 12:08:36 |
| 2 | S 181.975 Axial† | 1992.8 | 1897.5 | 2459.2 | ug/L | 2459.2 ppb | 12:08:36 |
| 2 | Sb 206.836† | 1293.2 | 1228.9 | 517.63 | ug/L | 517.63 ppb | 12:08:36 |
| 2 | Se 196.026† | 4189.2 | 4097.9 | 2523.2 | ug/L | 2523.2 ppb | 12:08:36 |
| 2 | Si 251.611† | 135544.0 | 131361.7 | 4786.9 | ug/L | 4786.9 ppb | 12:08:16 |
| 2 | Sn 189.927† | 2311.8 | 2242.5 | 528.68 | ug/L | 528.68 ppb | 12:08:36 |
| 2 | Sr 421.552† | 72988.6 | 72259.2 | 525.41 | ug/L | 525.41 ppb | 12:06:58 |
| 2 | Ti 334.940† | 254195.8 | 248758.5 | 501.10 | ug/L | 501.10 ppb | 12:08:16 |
| 2 | Tl 190.801† | 1134.2 | 1135.4 | 524.83 | ug/L | 524.83 ppb | 12:08:36 |
| 2 | U 409.014† | 12481.0 | 14687.0 | 490.15 | ug/L | 490.15 ppb | 12:08:16 |
| 2 | V 292.402† | 64051.9 | 63982.0 | 516.60 | ug/L | 516.60 ppb | 12:08:16 |
| 2 | Zn 213.857† | 48251.5 | 46262.1 | 505.56 | ug/L | 505.56 ppb | 12:08:16 |
| 2 | SiO2† | 136513.5 | 132298.3 | 10292 | ug/L | 10292 ppb | 12:09:13 |
| 3 | Sc 361.383 | 792006.3 | 792006.3 | 103.13 | % | | 12:08:42 |
| 3 | Sc Radial | 4646.4 | 4646.4 | 98.7 | % | | 12:07:23 |
| 3 | Y 371.029 | 703352.1 | 703352.1 | 102.08 | % | | 12:08:42 |
| 3 | Y RADIAL | 4906.2 | 4906.2 | 98.41 | % | | 12:07:23 |
| 3 | Ag 328.068† | 51696.9 | 49870.2 | 259.60 | ug/L | 259.60 ppb | 12:08:42 |
| 3 | Al 396.153Radial† | 5301.8 | 5457.6 | 5079.4 | ug/L | 5079.4 ppb | 12:07:23 |
| 3 | As 188.979† | 1054.9 | 1047.9 | 471.32 | ug/L | 471.32 ppb | 12:09:02 |
| 3 | B 249.677† | 20800.1 | 20621.5 | 514.10 | ug/L | 514.10 ppb | 12:08:42 |
| 3 | Ba 233.527† | 44036.7 | 42696.1 | 505.09 | ug/L | 505.09 ppb | 12:08:42 |
| 3 | Be 313.107† | 662340.7 | 651196.3 | 259.98 | ug/L | 259.98 ppb | 12:08:42 |
| 3 | Ca 317.933Radial† | 2791.5 | 2805.5 | 5097.5 | ug/L | 5097.5 ppb | 12:07:43 |
| 3 | Cd 226.502† | 35234.9 | 34350.8 | 486.85 | ug/L | 486.85 ppb | 12:09:02 |
| 3 | Co 228.616† | 17314.9 | 16846.2 | 509.27 | ug/L | 509.27 ppb | 12:09:02 |
| 3 | Cr 267.716† | 36654.9 | 35465.4 | 485.15 | ug/L | 485.15 ppb | 12:08:42 |
| 3 | Cu 324.752† | 146661.2 | 134668.4 | 504.26 | ug/L | 504.26 ppb | 12:08:42 |
| 3 | Fe 238.204 Radial† | 501.3 | 500.4 | 5207.3 | ug/L | 5207.3 ppb | 12:07:43 |
| 3 | K 766.490 Radial† | 14756.8 | 12686.5 | 2521.9 | ug/L | 2521.9 ppb | 12:07:23 |
| 3 | Mg 279.077 IEC† | 135.6 | 134.5 | 5339.2 | ug/L | 5339.2 ppb | 12:07:43 |
| 3 | Mn 257.610† | 335113.8 | 324469.2 | 519.65 | ug/L | 519.65 ppb | 12:08:42 |
| 3 | Mo 202.031† | 5985.5 | 5789.3 | 531.76 | ug/L | 531.76 ppb | 12:09:02 |
| 3 | Na 589.592 Radial† | 6221.9 | 7150.4 | 2436.8 | ug/L | 2436.8 ppb | 12:07:23 |
| 3 | Ni 231.604† | 16398.4 | 15798.8 | 504.73 | ug/L | 504.73 ppb | 12:09:02 |
| 3 | P 214.914† | 4793.8 | 4452.8 | 2388.4 | ug/L | 2388.4 ppb | 12:09:02 |
| 3 | Pb 220.353† | 3094.4 | 3071.1 | 497.14 | ug/L | 497.14 ppb | 12:09:02 |
| 3 | S 181.975 Axial† | 2018.2 | 1914.4 | 2481.1 | ug/L | 2481.1 ppb | 12:09:02 |
| 3 | Sb 206.836† | 1307.4 | 1237.7 | 521.28 | ug/L | 521.28 ppb | 12:09:02 |
| 3 | Se 196.026† | 4219.9 | 4111.5 | 2531.8 | ug/L | 2531.8 ppb | 12:09:02 |
| 3 | Si 251.611† | 136519.5 | 131781.7 | 4802.3 | ug/L | 4802.3 ppb | 12:08:42 |
| 3 | Sn 189.927† | 2341.9 | 2262.6 | 533.44 | ug/L | 533.44 ppb | 12:09:02 |
| 3 | Sr 421.552† | 71578.4 | 72506.9 | 527.21 | ug/L | 527.21 ppb | 12:07:23 |
| 3 | Ti 334.940† | 255503.9 | 249040.7 | 501.68 | ug/L | 501.68 ppb | 12:08:42 |
| 3 | Tl 190.801† | 1134.3 | 1131.0 | 522.84 | ug/L | 522.84 ppb | 12:09:02 |
| 3 | U 409.014† | 12405.1 | 14565.0 | 486.04 | ug/L | 486.04 ppb | 12:08:42 |
| 3 | V 292.402† | 64392.4 | 64063.7 | 517.24 | ug/L | 517.24 ppb | 12:08:42 |
| 3 | Zn 213.857† | 48556.1 | 46370.3 | 506.72 | ug/L | 506.72 ppb | 12:08:42 |
| 3 | SiO2† | 135032.5 | 130332.7 | 10139 | ug/L | 10139 ppb | 12:09:18 |

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**Mean Data: ICV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 788612.7 | 102.69 | % | 0.458 | | | | 0.45% |
| Sc Radial | 4683.4 | 99.5 | % | 1.30 | | | | 1.31% |
| Y 371.029 | 699617.5 | 101.54 | % | 0.586 | | | | 0.58% |
| Y RADIAL | 4955.2 | 99.39 | % | 1.749 | | | | 1.76% |
| Ag 328.068† | 49939.2 | 259.94 | ug/L | 1.010 | 259.94 | ppb | 1.010 | 0.39% |
| QC value within limits for Ag 328.068 Recovery = 103.97% | | | | | | | | |
| Al 396.153Radial† | 5443.0 | 5065.8 | ug/L | 11.79 | 5065.8 | ppb | 11.79 | 0.23% |
| QC value within limits for Al 396.153Radial Recovery = 101.32% | | | | | | | | |
| As 188.979† | 1048.1 | 471.40 | ug/L | 1.265 | 471.40 | ppb | 1.265 | 0.27% |
| QC value within limits for As 188.979 Recovery = 94.28% | | | | | | | | |
| B 249.677† | 20658.6 | 515.04 | ug/L | 2.168 | 515.04 | ppb | 2.168 | 0.42% |
| QC value within limits for B 249.677 Recovery = 103.01% | | | | | | | | |
| Ba 233.527† | 42794.2 | 506.25 | ug/L | 2.036 | 506.25 | ppb | 2.036 | 0.40% |
| QC value within limits for Ba 233.527 Recovery = 101.25% | | | | | | | | |
| Be 313.107† | 651298.5 | 260.02 | ug/L | 0.531 | 260.02 | ppb | 0.531 | 0.20% |
| QC value within limits for Be 313.107 Recovery = 104.01% | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ca 317.933Radial† | 2781.8 | 5054.4 ug/L | 73.87 | 5054.4 ppb | 73.87 | 1.46% |
| QC value within limits for Ca 317.933Radial Recovery = 101.09% | | | | | | |
| Cd 226.502† | 34279.6 | 485.84 ug/L | 1.046 | 485.84 ppb | 1.046 | 0.22% |
| QC value within limits for Cd 226.502 Recovery = 97.17% | | | | | | |
| Co 228.616† | 16808.6 | 508.13 ug/L | 1.233 | 508.13 ppb | 1.233 | 0.24% |
| QC value within limits for Co 228.616 Recovery = 101.63% | | | | | | |
| Cr 267.716† | 35503.5 | 485.67 ug/L | 2.043 | 485.67 ppb | 2.043 | 0.42% |
| QC value within limits for Cr 267.716 Recovery = 97.13% | | | | | | |
| Cu 324.752† | 134608.1 | 504.03 ug/L | 0.879 | 504.03 ppb | 0.879 | 0.17% |
| QC value within limits for Cu 324.752 Recovery = 100.81% | | | | | | |
| Fe 238.204 Radial† | 494.9 | 5150.2 ug/L | 78.23 | 5150.2 ppb | 78.23 | 1.52% |
| QC value within limits for Fe 238.204 Radial Recovery = 103.00% | | | | | | |
| K 766.490 Radial† | 12675.4 | 2519.7 ug/L | 8.39 | 2519.7 ppb | 8.39 | 0.33% |
| QC value within limits for K 766.490 Radial Recovery = 100.79% | | | | | | |
| Mg 279.077 IEC† | 134.0 | 5321.1 ug/L | 58.40 | 5321.1 ppb | 58.40 | 1.10% |
| QC value within limits for Mg 279.077 IEC Recovery = 106.42% | | | | | | |
| Mn 257.610† | 325064.7 | 520.60 ug/L | 2.017 | 520.60 ppb | 2.017 | 0.39% |
| QC value within limits for Mn 257.610 Recovery = 104.12% | | | | | | |
| Mo 202.031† | 5783.1 | 531.19 ug/L | 0.503 | 531.19 ppb | 0.503 | 0.09% |
| QC value within limits for Mo 202.031 Recovery = 106.24% | | | | | | |
| Na 589.592 Radial† | 7178.8 | 2446.5 ug/L | 8.95 | 2446.5 ppb | 8.95 | 0.37% |
| QC value within limits for Na 589.592 Radial Recovery = 97.86% | | | | | | |
| Ni 231.604† | 15786.2 | 504.33 ug/L | 1.379 | 504.33 ppb | 1.379 | 0.27% |
| QC value within limits for Ni 231.604 Recovery = 100.87% | | | | | | |
| P 214.914† | 4447.9 | 2385.7 ug/L | 3.58 | 2385.7 ppb | 3.58 | 0.15% |
| QC value within limits for P 214.914 Recovery = 95.43% | | | | | | |
| Pb 220.353† | 3055.7 | 494.67 ug/L | 3.722 | 494.67 ppb | 3.722 | 0.75% |
| QC value within limits for Pb 220.353 Recovery = 98.93% | | | | | | |
| S 181.975 Axial† | 1903.6 | 2467.2 ug/L | 12.10 | 2467.2 ppb | 12.10 | 0.49% |
| QC value within limits for S 181.975 Axial Recovery = 98.69% | | | | | | |
| Sb 206.836† | 1230.8 | 518.43 ug/L | 2.547 | 518.43 ppb | 2.547 | 0.49% |
| QC value within limits for Sb 206.836 Recovery = 103.69% | | | | | | |
| Se 196.026† | 4103.2 | 2526.6 ug/L | 4.55 | 2526.6 ppb | 4.55 | 0.18% |
| QC value within limits for Se 196.026 Recovery = 101.06% | | | | | | |
| Si 251.611† | 131870.4 | 4805.5 ug/L | 20.37 | 4805.5 ppb | 20.37 | 0.42% |
| QC value within limits for Si 251.611 Recovery = 96.11% | | | | | | |
| Sn 189.927† | 2253.8 | 531.36 ug/L | 2.435 | 531.36 ppb | 2.435 | 0.46% |
| QC value within limits for Sn 189.927 Recovery = 106.27% | | | | | | |
| Sr 421.552† | 72259.0 | 525.41 ug/L | 1.803 | 525.41 ppb | 1.803 | 0.34% |
| QC value within limits for Sr 421.552 Recovery = 105.08% | | | | | | |
| Ti 334.940† | 249350.5 | 502.30 ug/L | 1.601 | 502.30 ppb | 1.601 | 0.32% |
| QC value within limits for Ti 334.940 Recovery = 100.46% | | | | | | |
| Tl 190.801† | 1134.7 | 524.54 ug/L | 1.569 | 524.54 ppb | 1.569 | 0.30% |
| QC value within limits for Tl 190.801 Recovery = 104.91% | | | | | | |
| U 409.014† | 14636.4 | 488.44 ug/L | 2.137 | 488.44 ppb | 2.137 | 0.44% |
| QC value within limits for U 409.014 Recovery = 97.69% | | | | | | |
| V 292.402† | 64109.9 | 517.61 ug/L | 1.236 | 517.61 ppb | 1.236 | 0.24% |
| QC value within limits for V 292.402 Recovery = 103.52% | | | | | | |
| Zn 213.857† | 46423.3 | 507.31 ug/L | 2.114 | 507.31 ppb | 2.114 | 0.42% |
| QC value within limits for Zn 213.857 Recovery = 101.46% | | | | | | |
| SiO2† | 132026.9 | 10271 ug/L | 122.8 | 10271 ppb | 122.8 | 1.20% |
| QC value within limits for SiO2 Recovery = 96.03% | | | | | | |

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/1/2010 12:11:29
Data Type: Reprocessed on 3/1/2010 13:29:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 758808.1 | 758808.1 | 98.811 | % | | | 12:14:39 |
| 1 | Sc Radial | 4656.0 | 4656.0 | 98.9 | % | | | 12:13:22 |
| 1 | Y 371.029 | 678679.2 | 678679.2 | 98.497 | % | | | 12:14:39 |
| 1 | Y RADIAL | 4939.4 | 4939.4 | 99.08 | % | | | 12:13:22 |
| 1 | Ag 328.068† | 241.0 | -11.7 | -0.0650 | ug/L | -0.0650 | ppb | 12:14:39 |
| 1 | Al 396.153Radial† | -83.2 | 3.0 | 2.8298 | ug/L | 2.8298 | ppb | 12:13:42 |
| 1 | As 188.979† | -34.5 | -9.9 | -4.4161 | ug/L | -4.4161 | ppb | 12:14:59 |
| 1 | B 249.677† | -140.5 | 311.3 | 7.7971 | ug/L | 7.7971 | ppb | 12:14:59 |
| 1 | Ba 233.527† | 11.9 | 9.7 | 0.1142 | ug/L | 0.1142 | ppb | 12:14:59 |
| 1 | Be 313.107† | -8966.4 | -91.6 | -0.0368 | ug/L | -0.0368 | ppb | 12:14:39 |
| 1 | Ca 317.933Radial† | 18.4 | -3.6 | -6.5093 | ug/L | -6.5093 | ppb | 12:13:42 |
| 1 | Cd 226.502† | -186.6 | -2.2 | -0.0295 | ug/L | -0.0295 | ppb | 12:14:59 |
| 1 | Co 228.616† | -66.6 | -9.9 | -0.2994 | ug/L | -0.2994 | ppb | 12:14:59 |
| 1 | Cr 267.716† | 70.4 | -4.4 | -0.0616 | ug/L | -0.0616 | ppb | 12:14:59 |
| 1 | Cu 324.752† | 7353.6 | -94.0 | -0.3546 | ug/L | -0.3546 | ppb | 12:14:39 |
| 1 | Fe 238.204 Radial† | 6.7 | -0.5 | -5.3824 | ug/L | -5.3824 | ppb | 12:13:42 |
| 1 | K 766.490 Radial† | 2274.4 | 37.4 | 7.4499 | ug/L | 7.4499 | ppb | 12:13:22 |
| 1 | Mg 279.077 IEC† | 3.1 | 0.2 | 8.3929 | ug/L | 8.3929 | ppb | 12:13:42 |
| 1 | Mn 257.610† | 444.4 | -11.4 | -0.0191 | ug/L | -0.0191 | ppb | 12:14:59 |
| 1 | Mo 202.031† | 17.3 | 3.2 | 0.2894 | ug/L | 0.2894 | ppb | 12:14:59 |
| 1 | Na 589.592 Radial† | -787.4 | 51.8 | 17.655 | ug/L | 17.655 | ppb | 12:13:22 |
| 1 | Ni 231.604† | 96.7 | -3.5 | -0.1109 | ug/L | -0.1109 | ppb | 12:14:59 |
| 1 | P 214.914† | 196.4 | 3.4 | 1.9905 | ug/L | 1.9905 | ppb | 12:14:59 |
| 1 | Pb 220.353† | -68.2 | 1.7 | 0.2737 | ug/L | 0.2737 | ppb | 12:14:59 |
| 1 | S 181.975 Axial† | 46.3 | 4.3 | 5.5891 | ug/L | 5.5891 | ppb | 12:14:59 |
| 1 | Sb 206.836† | 43.0 | 13.5 | 5.4900 | ug/L | 5.4900 | ppb | 12:14:59 |
| 1 | Se 196.026† | -26.0 | -6.5 | -3.9688 | ug/L | -3.9688 | ppb | 12:14:59 |
| 1 | Si 251.611† | 582.5 | 0.3 | 0.0073 | ug/L | 0.0073 | ppb | 12:14:59 |
| 1 | Sn 189.927† | 11.4 | 3.5 | 0.8176 | ug/L | 0.8176 | ppb | 12:14:59 |
| 1 | Sr 421.552† | 19.4 | 20.1 | 0.1460 | ug/L | 0.1460 | ppb | 12:13:22 |
| 1 | Ti 334.940† | -1376.3 | -91.8 | -0.1883 | ug/L | -0.1883 | ppb | 12:14:39 |
| 1 | Tl 190.801† | -34.8 | -4.0 | -1.8601 | ug/L | -1.8601 | ppb | 12:14:59 |
| 1 | U 409.014† | -2387.3 | 120.8 | 4.0454 | ug/L | 4.0454 | ppb | 12:14:39 |
| 1 | V 292.402† | -1601.3 | 7.4 | 0.0720 | ug/L | 0.0720 | ppb | 12:14:39 |
| 1 | Zn 213.857† | 616.6 | -86.2 | -0.9491 | ug/L | -0.9491 | ppb | 12:14:59 |
| 1 | SiO2† | 632.6 | 43.8 | 3.4057 | ug/L | 3.4057 | ppb | 12:15:55 |
| 2 | Sc 361.383 | 775920.5 | 775920.5 | 101.04 | % | | | 12:15:04 |
| 2 | Sc Radial | 4685.8 | 4685.8 | 99.6 | % | | | 12:13:47 |
| 2 | Y 371.029 | 694648.1 | 694648.1 | 100.81 | % | | | 12:15:04 |
| 2 | Y RADIAL | 5001.0 | 5001.0 | 100.3 | % | | | 12:13:47 |
| 2 | Ag 328.068† | 254.2 | -4.1 | -0.0242 | ug/L | -0.0242 | ppb | 12:15:04 |
| 2 | Al 396.153Radial† | -82.5 | 4.3 | 3.9611 | ug/L | 3.9611 | ppb | 12:14:07 |
| 2 | As 188.979† | -18.3 | 6.9 | 3.0791 | ug/L | 3.0791 | ppb | 12:15:24 |
| 2 | B 249.677† | -175.2 | 280.0 | 7.0126 | ug/L | 7.0126 | ppb | 12:15:24 |
| 2 | Ba 233.527† | 0.6 | -1.8 | -0.0209 | ug/L | -0.0209 | ppb | 12:15:24 |
| 2 | Be 313.107† | -9071.7 | 4.3 | 0.0024 | ug/L | 0.0024 | ppb | 12:15:04 |
| 2 | Ca 317.933Radial† | 22.7 | 0.7 | 1.2181 | ug/L | 1.2181 | ppb | 12:14:07 |
| 2 | Cd 226.502† | -200.3 | -11.6 | -0.1629 | ug/L | -0.1629 | ppb | 12:15:24 |
| 2 | Co 228.616† | -51.9 | 6.1 | 0.1869 | ug/L | 0.1869 | ppb | 12:15:24 |
| 2 | Cr 267.716† | 60.8 | -15.4 | -0.2113 | ug/L | -0.2113 | ppb | 12:15:24 |
| 2 | Cu 324.752† | 7519.2 | -94.3 | -0.3542 | ug/L | -0.3542 | ppb | 12:15:04 |
| 2 | Fe 238.204 Radial† | 6.6 | -0.7 | -6.8362 | ug/L | -6.8362 | ppb | 12:14:07 |
| 2 | K 766.490 Radial† | 2207.8 | -44.0 | -8.7572 | ug/L | -8.7572 | ppb | 12:13:47 |
| 2 | Mg 279.077 IEC† | 3.0 | 0.1 | 4.5344 | ug/L | 4.5344 | ppb | 12:14:07 |
| 2 | Mn 257.610† | 452.3 | -13.4 | -0.0224 | ug/L | -0.0224 | ppb | 12:15:24 |
| 2 | Mo 202.031† | 24.6 | 10.0 | 0.9186 | ug/L | 0.9186 | ppb | 12:15:24 |
| 2 | Na 589.592 Radial† | -862.6 | -18.6 | -6.3517 | ug/L | -6.3517 | ppb | 12:13:47 |
| 2 | Ni 231.604† | 103.5 | 1.1 | 0.0341 | ug/L | 0.0341 | ppb | 12:15:24 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 198.4 | 1.0 | 0.6627 | ug/L | 0.6627 | ppb | 12:15:24 |
| 2 | Pb 220.353† | -63.5 | 7.8 | 1.2656 | ug/L | 1.2656 | ppb | 12:15:24 |
| 2 | S 181.975 Axial† | 36.2 | -6.7 | -8.6998 | ug/L | -8.6998 | ppb | 12:15:24 |
| 2 | Sb 206.836† | 41.5 | 11.0 | 4.5298 | ug/L | 4.5298 | ppb | 12:15:24 |
| 2 | Se 196.026† | -27.2 | -7.1 | -4.3642 | ug/L | -4.3642 | ppb | 12:15:24 |
| 2 | Si 251.611† | 586.5 | -8.8 | -0.3317 | ug/L | -0.3317 | ppb | 12:15:24 |
| 2 | Sn 189.927† | 19.8 | 11.5 | 2.7088 | ug/L | 2.7088 | ppb | 12:15:24 |
| 2 | Sr 421.552† | 10.3 | 10.9 | 0.0790 | ug/L | 0.0790 | ppb | 12:13:47 |
| 2 | Ti 334.940† | -1172.8 | 140.3 | 0.2819 | ug/L | 0.2819 | ppb | 12:15:04 |
| 2 | Tl 190.801† | -42.2 | -10.6 | -4.8462 | ug/L | -4.8462 | ppb | 12:15:24 |
| 2 | U 409.014† | -2516.9 | 45.8 | 1.5350 | ug/L | 1.5350 | ppb | 12:15:04 |
| 2 | V 292.402† | -1631.4 | 13.3 | 0.1229 | ug/L | 0.1229 | ppb | 12:15:04 |
| 2 | Zn 213.857† | 618.0 | -98.6 | -1.0866 | ug/L | -1.0866 | ppb | 12:15:24 |
| 2 | SiO2† | 593.3 | -9.3 | -0.7477 | ug/L | -0.7477 | ppb | 12:16:00 |
| 3 | Sc 361.383 | 768099.9 | 768099.9 | 100.02 | % | | | 12:15:30 |
| 3 | Sc Radial | 4626.1 | 4626.1 | 98.3 | % | | | 12:14:12 |
| 3 | Y 371.029 | 688037.7 | 688037.7 | 99.855 | % | | | 12:15:30 |
| 3 | Y RADIAL | 4875.4 | 4875.4 | 97.79 | % | | | 12:14:12 |
| 3 | Ag 328.068† | 290.8 | 35.0 | 0.1764 | ug/L | 0.1764 | ppb | 12:15:30 |
| 3 | Al 396.153Radial† | -80.1 | 5.7 | 5.3322 | ug/L | 5.3322 | ppb | 12:14:32 |
| 3 | As 188.979† | -19.7 | 5.3 | 2.3529 | ug/L | 2.3529 | ppb | 12:15:50 |
| 3 | B 249.677† | -176.9 | 276.5 | 6.9230 | ug/L | 6.9230 | ppb | 12:15:50 |
| 3 | Ba 233.527† | 2.7 | 0.3 | 0.0032 | ug/L | 0.0032 | ppb | 12:15:50 |
| 3 | Be 313.107† | -8947.7 | 36.8 | 0.0146 | ug/L | 0.0146 | ppb | 12:15:30 |
| 3 | Ca 317.933Radial† | 19.4 | -2.4 | -4.4249 | ug/L | -4.4249 | ppb | 12:14:32 |
| 3 | Cd 226.502† | -182.9 | 3.7 | 0.0531 | ug/L | 0.0531 | ppb | 12:15:50 |
| 3 | Co 228.616† | -54.3 | 3.2 | 0.0948 | ug/L | 0.0948 | ppb | 12:15:50 |
| 3 | Cr 267.716† | 69.5 | -6.1 | -0.0864 | ug/L | -0.0864 | ppb | 12:15:50 |
| 3 | Cu 324.752† | 7437.2 | -100.5 | -0.3798 | ug/L | -0.3798 | ppb | 12:15:30 |
| 3 | Fe 238.204 Radial† | 8.2 | 1.0 | 10.690 | ug/L | 10.690 | ppb | 12:14:32 |
| 3 | K 766.490 Radial† | 2304.9 | 83.4 | 16.595 | ug/L | 16.595 | ppb | 12:14:12 |
| 3 | Mg 279.077 IEC† | 4.0 | 1.2 | 45.673 | ug/L | 45.673 | ppb | 12:14:32 |
| 3 | Mn 257.610† | 432.8 | -28.4 | -0.0463 | ug/L | -0.0463 | ppb | 12:15:50 |
| 3 | Mo 202.031† | 7.2 | -7.2 | -0.6569 | ug/L | -0.6569 | ppb | 12:15:50 |
| 3 | Na 589.592 Radial† | -834.4 | -1.1 | -0.3818 | ug/L | -0.3818 | ppb | 12:14:12 |
| 3 | Ni 231.604† | 83.8 | -17.6 | -0.5619 | ug/L | -0.5619 | ppb | 12:15:50 |
| 3 | P 214.914† | 196.5 | 1.1 | 0.6780 | ug/L | 0.6780 | ppb | 12:15:50 |
| 3 | Pb 220.353† | -71.8 | -1.1 | -0.1835 | ug/L | -0.1835 | ppb | 12:15:50 |
| 3 | S 181.975 Axial† | 45.5 | 3.0 | 3.9028 | ug/L | 3.9028 | ppb | 12:15:50 |
| 3 | Sb 206.836† | 37.5 | 7.4 | 3.0112 | ug/L | 3.0112 | ppb | 12:15:50 |
| 3 | Se 196.026† | -13.9 | 5.9 | 3.6451 | ug/L | 3.6451 | ppb | 12:15:50 |
| 3 | Si 251.611† | 602.4 | 13.1 | 0.4853 | ug/L | 0.4853 | ppb | 12:15:50 |
| 3 | Sn 189.927† | 12.9 | 4.8 | 1.1347 | ug/L | 1.1347 | ppb | 12:15:50 |
| 3 | Sr 421.552† | 3.6 | 4.2 | 0.0304 | ug/L | 0.0304 | ppb | 12:14:12 |
| 3 | Ti 334.940† | -1312.3 | -11.0 | -0.0297 | ug/L | -0.0297 | ppb | 12:15:30 |
| 3 | Tl 190.801† | -33.9 | -2.6 | -1.2156 | ug/L | -1.2156 | ppb | 12:15:50 |
| 3 | U 409.014† | -2311.6 | 225.7 | 7.5562 | ug/L | 7.5562 | ppb | 12:15:30 |
| 3 | V 292.402† | -1657.2 | -28.9 | -0.2252 | ug/L | -0.2252 | ppb | 12:15:30 |
| 3 | Zn 213.857† | 616.0 | -94.4 | -1.0390 | ug/L | -1.0390 | ppb | 12:15:50 |
| 3 | SiO2† | 588.8 | -7.8 | -0.5890 | ug/L | -0.5890 | ppb | 12:16:05 |

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**Mean Data: ICB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 767609.5 | 99.957 | % | 1.1155 | | | | 1.12% |
| Sc Radial | 4656.0 | 98.9 | % | 0.63 | | | | 0.64% |
| Y 371.029 | 687121.7 | 99.722 | % | 1.1645 | | | | 1.17% |
| Y RADIAL | 4938.6 | 99.06 | % | 1.259 | | | | 1.27% |
| Ag 328.068† | 6.4 | 0.0291 | ug/L | 0.12921 | 0.0291 | ppb | 0.12921 | 444.61% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 4.3 | 4.0410 | ug/L | 1.25313 | 4.0410 | ppb | 1.25313 | 31.01% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | 0.8 | 0.3386 | ug/L | 4.13372 | 0.3386 | ppb | 4.13372 | >999.9% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 289.3 | 7.2442 | ug/L | 0.48092 | 7.2442 | ppb | 0.48092 | 6.64% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 2.7 | 0.0322 | ug/L | 0.07204 | 0.0322 | ppb | 0.07204 | 223.94% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | -16.8 | -0.0066 | ug/L | 0.02687 | -0.0066 | ppb | 0.02687 | 404.73% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |

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Ca 317.933Radial†          -1.8     -3.2387 ug/L       3.99792     -3.2387 ppb        3.99792 123.44%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.3     -0.0464 ug/L       0.10898     -0.0464 ppb        0.10898 234.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.2     -0.0059 ug/L       0.25833     -0.0059 ppb        0.25833 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -8.6     -0.1198 ug/L       0.08025     -0.1198 ppb        0.08025  67.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -96.3     -0.3629 ug/L       0.01469     -0.3629 ppb        0.01469   4.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.5095 ug/L       9.72638     -0.5095 ppb        9.72638 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          25.6      5.0957 ug/L      12.83879      5.0957 ppb       12.83879 251.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5     19.533 ug/L       22.7196      19.533 ppb        22.7196 116.31%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -17.7     -0.0293 ug/L       0.01487     -0.0293 ppb        0.01487  50.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.0      0.1837 ug/L       0.79307      0.1837 ppb        0.79307 431.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.7      3.6404 ug/L      12.49850      3.6404 ppb       12.49850 343.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.7     -0.2129 ug/L       0.31082     -0.2129 ppb        0.31082 146.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.8      1.1104 ug/L       0.76223      1.1104 ppb        0.76223  68.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.8      0.4519 ug/L       0.74082      0.4519 ppb        0.74082 163.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.2      0.2640 ug/L       7.80858      0.2640 ppb        7.80858 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.6      4.3437 ug/L       1.24985      4.3437 ppb        1.24985  28.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.6     -1.5626 ug/L       4.51434     -1.5626 ppb        4.51434 288.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 1.5      0.0536 ug/L       0.41047      0.0536 ppb        0.41047 765.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.6      1.5537 ug/L       1.01284      1.5537 ppb        1.01284  65.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.7      0.0851 ug/L       0.05805      0.0851 ppb        0.05805  68.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.5      0.0213 ug/L       0.23924      0.0213 ppb        0.23924 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.8     -2.6406 ug/L       1.93707     -2.6406 ppb        1.93707  73.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                130.8      4.3789 ug/L       3.02443      4.3789 ppb        3.02443  69.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -2.7     -0.0101 ug/L       0.18805     -0.0101 ppb        0.18805 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -93.1     -1.0249 ug/L       0.06982     -1.0249 ppb        0.06982   6.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       8.9      0.6896 ug/L       2.35349      0.6896 ppb        2.35349 341.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/1/2010 12:18:17
Data Type: Reprocessed on 3/1/2010 13:29:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 781108.3 | 781108.3 | 101.71 | % | | | 12:21:27 |
| 1 | Sc Radial | 4645.8 | 4645.8 | 98.7 | % | | | 12:20:10 |
| 1 | Y 371.029 | 698977.5 | 698977.5 | 101.44 | % | | | 12:21:27 |
| 1 | Y RADIAL | 4932.5 | 4932.5 | 98.94 | % | | | 12:20:10 |
| 1 | Ag 328.068† | 1071.2 | 797.5 | 4.1043 | ug/L | 4.1043 | ppb | 12:21:27 |
| 1 | Al 396.153Radial† | 127.3 | 216.1 | 201.66 | ug/L | 201.66 | ppb | 12:20:30 |
| 1 | As 188.979† | 30.9 | 55.4 | 24.736 | ug/L | 24.736 | ppb | 12:21:47 |
| 1 | B 249.677† | 1608.3 | 2034.7 | 50.921 | ug/L | 50.921 | ppb | 12:21:27 |
| 1 | Ba 233.527† | 420.4 | 410.9 | 4.8632 | ug/L | 4.8632 | ppb | 12:21:47 |
| 1 | Be 313.107† | 3192.6 | 12121.5 | 4.8295 | ug/L | 4.8295 | ppb | 12:21:27 |
| 1 | Ca 317.933Radial† | 125.4 | 104.9 | 190.61 | ug/L | 190.61 | ppb | 12:20:30 |
| 1 | Cd 226.502† | 166.3 | 350.1 | 4.9664 | ug/L | 4.9664 | ppb | 12:21:47 |
| 1 | Co 228.616† | 99.6 | 155.4 | 4.7063 | ug/L | 4.7063 | ppb | 12:21:47 |
| 1 | Cr 267.716† | 425.7 | 342.9 | 4.6715 | ug/L | 4.6715 | ppb | 12:21:47 |
| 1 | Cu 324.752† | 10229.2 | 2520.5 | 9.4125 | ug/L | 9.4125 | ppb | 12:21:27 |
| 1 | Fe 238.204 Radial† | 17.0 | 9.9 | 102.61 | ug/L | 102.61 | ppb | 12:20:30 |
| 1 | K 766.490 Radial† | 3046.7 | 825.0 | 164.02 | ug/L | 164.02 | ppb | 12:20:10 |
| 1 | Mg 279.077 IEC† | 5.6 | 2.8 | 111.94 | ug/L | 111.94 | ppb | 12:20:30 |
| 1 | Mn 257.610† | 6914.8 | 6337.1 | 10.149 | ug/L | 10.149 | ppb | 12:21:27 |
| 1 | Mo 202.031† | 115.7 | 99.3 | 9.1255 | ug/L | 9.1255 | ppb | 12:21:47 |
| 1 | Na 589.592 Radial† | 68.9 | 917.6 | 312.71 | ug/L | 312.71 | ppb | 12:20:10 |
| 1 | Ni 231.604† | 246.7 | 141.2 | 4.5097 | ug/L | 4.5097 | ppb | 12:21:47 |
| 1 | P 214.914† | 471.9 | 268.6 | 148.17 | ug/L | 148.17 | ppb | 12:21:47 |
| 1 | Pb 220.353† | -4.7 | 66.0 | 10.708 | ug/L | 10.708 | ppb | 12:21:47 |
| 1 | S 181.975 Axial† | 115.8 | 71.3 | 92.468 | ug/L | 92.468 | ppb | 12:21:47 |
| 1 | Sb 206.836† | 53.9 | 23.0 | 9.6362 | ug/L | 9.6362 | ppb | 12:21:47 |
| 1 | Se 196.026† | 25.8 | 45.1 | 27.917 | ug/L | 27.917 | ppb | 12:21:47 |
| 1 | Si 251.611† | 3178.0 | 2535.2 | 92.399 | ug/L | 92.399 | ppb | 12:21:47 |
| 1 | Sn 189.927† | 45.7 | 36.8 | 8.7009 | ug/L | 8.7009 | ppb | 12:21:47 |
| 1 | Sr 421.552† | 667.8 | 677.0 | 4.9214 | ug/L | 4.9214 | ppb | 12:20:10 |
| 1 | Ti 334.940† | 1215.3 | 2495.8 | 5.0193 | ug/L | 5.0193 | ppb | 12:21:27 |
| 1 | Tl 190.801† | 7.3 | 38.4 | 17.696 | ug/L | 17.696 | ppb | 12:21:47 |
| 1 | U 409.014† | -881.1 | 1670.6 | 55.919 | ug/L | 55.919 | ppb | 12:21:27 |
| 1 | V 292.402† | -994.3 | 650.5 | 5.3959 | ug/L | 5.3959 | ppb | 12:21:27 |
| 1 | Zn 213.857† | 1537.8 | 801.6 | 8.7837 | ug/L | 8.7837 | ppb | 12:21:47 |
| 1 | SiO2† | 3293.5 | 2641.5 | 205.53 | ug/L | 205.53 | ppb | 12:22:43 |
| 2 | Sc 361.383 | 764797.2 | 764797.2 | 99.591 | % | | | 12:21:52 |
| 2 | Sc Radial | 4643.6 | 4643.6 | 98.7 | % | | | 12:20:35 |
| 2 | Y 371.029 | 683958.2 | 683958.2 | 99.263 | % | | | 12:21:52 |
| 2 | Y RADIAL | 4937.3 | 4937.3 | 99.03 | % | | | 12:20:35 |
| 2 | Ag 328.068† | 1132.9 | 881.9 | 4.5372 | ug/L | 4.5372 | ppb | 12:21:52 |
| 2 | Al 396.153Radial† | 121.4 | 210.1 | 196.11 | ug/L | 196.11 | ppb | 12:20:55 |
| 2 | As 188.979† | 29.7 | 54.8 | 24.476 | ug/L | 24.476 | ppb | 12:22:12 |
| 2 | B 249.677† | 1589.8 | 2049.8 | 51.299 | ug/L | 51.299 | ppb | 12:21:52 |
| 2 | Ba 233.527† | 411.2 | 410.5 | 4.8581 | ug/L | 4.8581 | ppb | 12:22:12 |
| 2 | Be 313.107† | 3087.7 | 12083.0 | 4.8140 | ug/L | 4.8140 | ppb | 12:21:52 |
| 2 | Ca 317.933Radial† | 125.0 | 104.6 | 190.03 | ug/L | 190.03 | ppb | 12:20:55 |
| 2 | Cd 226.502† | 157.0 | 344.3 | 4.8847 | ug/L | 4.8847 | ppb | 12:22:12 |
| 2 | Co 228.616† | 106.6 | 164.5 | 4.9828 | ug/L | 4.9828 | ppb | 12:22:12 |
| 2 | Cr 267.716† | 444.7 | 370.9 | 5.0547 | ug/L | 5.0547 | ppb | 12:22:12 |
| 2 | Cu 324.752† | 9987.7 | 2492.6 | 9.3082 | ug/L | 9.3082 | ppb | 12:21:52 |
| 2 | Fe 238.204 Radial† | 16.6 | 9.5 | 99.114 | ug/L | 99.114 | ppb | 12:20:55 |
| 2 | K 766.490 Radial† | 3010.2 | 789.4 | 156.95 | ug/L | 156.95 | ppb | 12:20:35 |
| 2 | Mg 279.077 IEC† | 10.5 | 7.8 | 308.17 | ug/L | 308.17 | ppb | 12:20:55 |
| 2 | Mn 257.610† | 6721.0 | 6287.5 | 10.061 | ug/L | 10.061 | ppb | 12:21:52 |
| 2 | Mo 202.031† | 118.8 | 104.9 | 9.6350 | ug/L | 9.6350 | ppb | 12:22:12 |
| 2 | Na 589.592 Radial† | 29.4 | 877.6 | 299.07 | ug/L | 299.07 | ppb | 12:20:35 |
| 2 | Ni 231.604† | 257.5 | 157.2 | 5.0231 | ug/L | 5.0231 | ppb | 12:22:12 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 467.5 | 274.1 | 151.25 ug/L | 151.25 ppb | 12:22:12 |
| 2 | Pb 220.353† | -12.7 | 57.9 | 9.4032 ug/L | 9.4032 ppb | 12:22:12 |
| 2 | S 181.975 Axial† | 111.8 | 69.8 | 90.410 ug/L | 90.410 ppb | 12:22:12 |
| 2 | Sb 206.836† | 63.6 | 33.8 | 14.073 ug/L | 14.073 ppb | 12:22:12 |
| 2 | Se 196.026† | 36.0 | 55.9 | 34.528 ug/L | 34.528 ppb | 12:22:12 |
| 2 | Si 251.611† | 3157.6 | 2581.4 | 94.078 ug/L | 94.078 ppb | 12:22:12 |
| 2 | Sn 189.927† | 50.0 | 42.2 | 9.9563 ug/L | 9.9563 ppb | 12:22:12 |
| 2 | Sr 421.552† | 678.1 | 687.8 | 5.0000 ug/L | 5.0000 ppb | 12:20:35 |
| 2 | Ti 334.940† | 1149.4 | 2455.2 | 4.9215 ug/L | 4.9215 ppb | 12:21:52 |
| 2 | Tl 190.801† | 9.1 | 40.4 | 18.597 ug/L | 18.597 ppb | 12:22:12 |
| 2 | U 409.014† | -891.1 | 1642.0 | 54.962 ug/L | 54.962 ppb | 12:21:52 |
| 2 | V 292.402† | -1003.4 | 620.5 | 5.1665 ug/L | 5.1665 ppb | 12:21:52 |
| 2 | Zn 213.857† | 1526.9 | 822.8 | 9.0153 ug/L | 9.0153 ppb | 12:22:12 |
| 2 | SiO2† | 3255.5 | 2672.5 | 207.93 ug/L | 207.93 ppb | 12:22:48 |
| 3 | Sc 361.383 | 769305.9 | 769305.9 | 100.18 % | | 12:22:17 |
| 3 | Sc Radial | 4649.0 | 4649.0 | 98.8 % | | 12:21:00 |
| 3 | Y 371.029 | 689181.3 | 689181.3 | 100.02 % | | 12:22:17 |
| 3 | Y RADIAL | 4939.7 | 4939.7 | 99.08 % | | 12:21:00 |
| 3 | Ag 328.068† | 1152.2 | 894.5 | 4.6045 ug/L | 4.6045 ppb | 12:22:17 |
| 3 | Al 396.153Radial† | 132.6 | 221.4 | 206.59 ug/L | 206.59 ppb | 12:21:20 |
| 3 | As 188.979† | 26.1 | 51.1 | 22.805 ug/L | 22.805 ppb | 12:22:37 |
| 3 | B 249.677† | 1559.9 | 2010.5 | 50.316 ug/L | 50.316 ppb | 12:22:17 |
| 3 | Ba 233.527† | 452.4 | 449.2 | 5.3150 ug/L | 5.3150 ppb | 12:22:37 |
| 3 | Be 313.107† | 3138.9 | 12116.0 | 4.8274 ug/L | 4.8274 ppb | 12:22:17 |
| 3 | Ca 317.933Radial† | 128.2 | 107.6 | 195.48 ug/L | 195.48 ppb | 12:21:20 |
| 3 | Cd 226.502† | 163.1 | 349.5 | 4.9567 ug/L | 4.9567 ppb | 12:22:37 |
| 3 | Co 228.616† | 96.4 | 153.6 | 4.6546 ug/L | 4.6546 ppb | 12:22:37 |
| 3 | Cr 267.716† | 438.7 | 362.3 | 4.9364 ug/L | 4.9364 ppb | 12:22:37 |
| 3 | Cu 324.752† | 9981.6 | 2427.8 | 9.0656 ug/L | 9.0656 ppb | 12:22:17 |
| 3 | Fe 238.204 Radial† | 17.6 | 10.5 | 109.01 ug/L | 109.01 ppb | 12:21:20 |
| 3 | K 766.490 Radial† | 3044.2 | 820.3 | 163.09 ug/L | 163.09 ppb | 12:21:00 |
| 3 | Mg 279.077 IEC† | 7.0 | 4.2 | 167.98 ug/L | 167.98 ppb | 12:21:20 |
| 3 | Mn 257.610† | 6813.4 | 6340.1 | 10.152 ug/L | 10.152 ppb | 12:22:17 |
| 3 | Mo 202.031† | 120.8 | 106.2 | 9.7546 ug/L | 9.7546 ppb | 12:22:37 |
| 3 | Na 589.592 Radial† | 40.2 | 888.5 | 302.79 ug/L | 302.79 ppb | 12:21:00 |
| 3 | Ni 231.604† | 245.4 | 143.7 | 4.5895 ug/L | 4.5895 ppb | 12:22:37 |
| 3 | P 214.914† | 465.0 | 268.8 | 148.35 ug/L | 148.35 ppb | 12:22:37 |
| 3 | Pb 220.353† | 4.5 | 75.2 | 12.195 ug/L | 12.195 ppb | 12:22:37 |
| 3 | S 181.975 Axial† | 121.0 | 78.3 | 101.44 ug/L | 101.44 ppb | 12:22:37 |
| 3 | Sb 206.836† | 55.7 | 25.6 | 10.712 ug/L | 10.712 ppb | 12:22:37 |
| 3 | Se 196.026† | 30.5 | 50.2 | 31.056 ug/L | 31.056 ppb | 12:22:37 |
| 3 | Si 251.611† | 3207.2 | 2612.3 | 95.203 ug/L | 95.203 ppb | 12:22:37 |
| 3 | Sn 189.927† | 46.7 | 38.5 | 9.1059 ug/L | 9.1059 ppb | 12:22:37 |
| 3 | Sr 421.552† | 671.2 | 680.0 | 4.9431 ug/L | 4.9431 ppb | 12:21:00 |
| 3 | Ti 334.940† | 1206.0 | 2504.9 | 5.0337 ug/L | 5.0337 ppb | 12:22:17 |
| 3 | Tl 190.801† | 16.5 | 47.7 | 21.979 ug/L | 21.979 ppb | 12:22:37 |
| 3 | U 409.014† | -882.4 | 1656.0 | 55.428 ug/L | 55.428 ppb | 12:22:17 |
| 3 | V 292.402† | -1016.2 | 613.6 | 5.1105 ug/L | 5.1105 ppb | 12:22:17 |
| 3 | Zn 213.857† | 1533.5 | 820.5 | 8.9910 ug/L | 8.9910 ppb | 12:22:37 |
| 3 | SiO2† | 3271.5 | 2669.3 | 207.67 ug/L | 207.67 ppb | 12:22:53 |

**Mean Data: PQL**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 771737.1 | 100.49 | % | 1.097 | | | | 1.09% |
| Sc Radial | 4646.1 | 98.7 | % | 0.06 | | | | 0.06% |
| Y 371.029 | 690705.6 | 100.24 | % | 1.107 | | | | 1.10% |
| Y RADIAL | 4936.5 | 99.02 | % | 0.074 | | | | 0.07% |
| Ag 328.068† | 858.0 | 4.4153 | ug/L | 0.27144 | 4.4153 | ppb | 0.27144 | 6.15% |
| QC value within limits for Ag 328.068 Recovery = 88.31% | | | | | | | | |
| Al 396.153Radial† | 215.9 | 201.45 | ug/L | 5.244 | 201.45 | ppb | 5.244 | 2.60% |
| QC value within limits for Al 396.153Radial Recovery = 100.73% | | | | | | | | |
| As 188.979† | 53.8 | 24.005 | ug/L | 1.0479 | 24.005 | ppb | 1.0479 | 4.37% |
| QC value within limits for As 188.979 Recovery = 80.02% | | | | | | | | |
| B 249.677† | 2031.7 | 50.846 | ug/L | 0.4959 | 50.846 | ppb | 0.4959 | 0.98% |
| QC value within limits for B 249.677 Recovery = 101.69% | | | | | | | | |
| Ba 233.527† | 423.6 | 5.0121 | ug/L | 0.26238 | 5.0121 | ppb | 0.26238 | 5.23% |
| QC value within limits for Ba 233.527 Recovery = 100.24% | | | | | | | | |
| Be 313.107† | 12106.8 | 4.8236 | ug/L | 0.00839 | 4.8236 | ppb | 0.00839 | 0.17% |
| QC value within limits for Be 313.107 Recovery = 96.47% | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ca 317.933Radial† | 105.7 | 192.04 ug/L | 2.992 | 192.04 ppb | 2.992 | 1.56% |
| QC value within limits for Ca 317.933Radial Recovery = 96.02% | | | | | | |
| Cd 226.502† | 348.0 | 4.9360 ug/L | 0.04465 | 4.9360 ppb | 0.04465 | 0.90% |
| QC value within limits for Cd 226.502 Recovery = 98.72% | | | | | | |
| Co 228.616† | 157.9 | 4.7812 ug/L | 0.17647 | 4.7812 ppb | 0.17647 | 3.69% |
| QC value within limits for Co 228.616 Recovery = 95.62% | | | | | | |
| Cr 267.716† | 358.7 | 4.8875 ug/L | 0.19625 | 4.8875 ppb | 0.19625 | 4.02% |
| QC value within limits for Cr 267.716 Recovery = 97.75% | | | | | | |
| Cu 324.752† | 2480.3 | 9.2621 ug/L | 0.17795 | 9.2621 ppb | 0.17795 | 1.92% |
| QC value within limits for Cu 324.752 Recovery = 92.62% | | | | | | |
| Fe 238.204 Radial† | 10.0 | 103.58 ug/L | 5.018 | 103.58 ppb | 5.018 | 4.85% |
| QC value within limits for Fe 238.204 Radial Recovery = 103.58% | | | | | | |
| K 766.490 Radial† | 811.6 | 161.35 ug/L | 3.839 | 161.35 ppb | 3.839 | 2.38% |
| QC value within limits for K 766.490 Radial Recovery = 107.57% | | | | | | |
| Mg 279.077 IEC† | 4.9 | 196.03 ug/L | 101.077 | 196.03 ppb | 101.077 | 51.56% |
| QC value less than the lower limit for Mg 279.077 IEC Recovery = 65.34% | | | | | | |
| Mn 257.610† | 6321.6 | 10.121 ug/L | 0.0516 | 10.121 ppb | 0.0516 | 0.51% |
| QC value within limits for Mn 257.610 Recovery = 101.21% | | | | | | |
| Mo 202.031† | 103.5 | 9.5050 ug/L | 0.33404 | 9.5050 ppb | 0.33404 | 3.51% |
| QC value within limits for Mo 202.031 Recovery = 95.05% | | | | | | |
| Na 589.592 Radial† | 894.5 | 304.86 ug/L | 7.050 | 304.86 ppb | 7.050 | 2.31% |
| QC value within limits for Na 589.592 Radial Recovery = 101.62% | | | | | | |
| Ni 231.604† | 147.3 | 4.7074 ug/L | 0.27627 | 4.7074 ppb | 0.27627 | 5.87% |
| QC value within limits for Ni 231.604 Recovery = 94.15% | | | | | | |
| P 214.914† | 270.5 | 149.26 ug/L | 1.726 | 149.26 ppb | 1.726 | 1.16% |
| QC value within limits for P 214.914 Recovery = 99.50% | | | | | | |
| Pb 220.353† | 66.4 | 10.769 ug/L | 1.3968 | 10.769 ppb | 1.3968 | 12.97% |
| QC value within limits for Pb 220.353 Recovery = 107.69% | | | | | | |
| S 181.975 Axial† | 73.1 | 94.774 ug/L | 5.8678 | 94.774 ppb | 5.8678 | 6.19% |
| QC value within limits for S 181.975 Axial Recovery = 94.77% | | | | | | |
| Sb 206.836† | 27.5 | 11.474 ug/L | 2.3145 | 11.474 ppb | 2.3145 | 20.17% |
| QC value within limits for Sb 206.836 Recovery = 114.74% | | | | | | |
| Se 196.026† | 50.4 | 31.167 ug/L | 3.3067 | 31.167 ppb | 3.3067 | 10.61% |
| QC value within limits for Se 196.026 Recovery = 103.89% | | | | | | |
| Si 251.611† | 2576.3 | 93.893 ug/L | 1.4115 | 93.893 ppb | 1.4115 | 1.50% |
| QC value within limits for Si 251.611 Recovery = 93.89% | | | | | | |
| Sn 189.927† | 39.2 | 9.2544 ug/L | 0.64074 | 9.2544 ppb | 0.64074 | 6.92% |
| QC value within limits for Sn 189.927 Recovery = 92.54% | | | | | | |
| Sr 421.552† | 681.6 | 4.9548 ug/L | 0.04062 | 4.9548 ppb | 0.04062 | 0.82% |
| QC value within limits for Sr 421.552 Recovery = 99.10% | | | | | | |
| Ti 334.940† | 2485.3 | 4.9915 ug/L | 0.06104 | 4.9915 ppb | 0.06104 | 1.22% |
| QC value within limits for Ti 334.940 Recovery = 99.83% | | | | | | |
| Tl 190.801† | 42.2 | 19.424 ug/L | 2.2580 | 19.424 ppb | 2.2580 | 11.62% |
| QC value within limits for Tl 190.801 Recovery = 97.12% | | | | | | |
| U 409.014† | 1656.2 | 55.436 ug/L | 0.4786 | 55.436 ppb | 0.4786 | 0.86% |
| QC value within limits for U 409.014 Recovery = 110.87% | | | | | | |
| V 292.402† | 628.2 | 5.2243 ug/L | 0.15122 | 5.2243 ppb | 0.15122 | 2.89% |
| QC value within limits for V 292.402 Recovery = 104.49% | | | | | | |
| Zn 213.857† | 815.0 | 8.9300 ug/L | 0.12725 | 8.9300 ppb | 0.12725 | 1.42% |
| QC value within limits for Zn 213.857 Recovery = 89.30% | | | | | | |
| SiO2† | 2661.1 | 207.04 ug/L | 1.318 | 207.04 ppb | 1.318 | 0.64% |
| QC value within limits for SiO2 Recovery = 97.20% | | | | | | |

QC Failed. Continue with analysis.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/1/2010 12:25:05
Data Type: Reprocessed on 3/1/2010 13:29:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 692739.2 | 692739.2 | 90.208 | % | | | 12:27:30 |
| 1 | Sc Radial | 4213.4 | 4213.4 | 89.5 | % | | | 12:27:03 |
| 1 | Y 371.029 | 606235.6 | 606235.6 | 87.983 | % | | | 12:27:30 |
| 1 | Y RADIAL | 4424.5 | 4424.5 | 88.75 | % | | | 12:27:03 |
| 1 | Ag 328.068† | -9846.6 | -11171.1 | -7.2296 | ug/L | -7.2296 | ppb | 12:27:30 |
| 1 | Al 396.153Radial† | 498573.5 | 557024.9 | 521050 | ug/L | 521050 | ppb | 12:26:58 |
| 1 | As 188.979† | -77.3 | -60.6 | 16.042 | ug/L | 16.042 | ppb | 12:27:51 |
| 1 | B 249.677† | 331.1 | 820.5 | -9.4216 | ug/L | -9.4216 | ppb | 12:27:30 |
| 1 | Ba 233.527† | -502.3 | -559.2 | -0.9524 | ug/L | -0.9524 | ppb | 12:27:51 |
| 1 | Be 313.107† | -9213.7 | -1231.3 | -0.5420 | ug/L | -0.5420 | ppb | 12:27:30 |
| 1 | Ca 317.933Radial† | 236617.8 | 264294.7 | 480210 | ug/L | 480210 | ppb | 12:26:58 |
| 1 | Cd 226.502† | 1103.5 | 1409.9 | 0.9377 | ug/L | 0.9377 | ppb | 12:27:51 |
| 1 | Co 228.616† | -33.9 | 19.9 | -2.0592 | ug/L | -2.0592 | ppb | 12:27:51 |
| 1 | Cr 267.716† | -4.7 | -80.8 | 2.4331 | ug/L | 2.4331 | ppb | 12:27:51 |
| 1 | Cu 324.752† | 4937.9 | -2062.2 | 2.0156 | ug/L | 2.0156 | ppb | 12:27:30 |
| 1 | Fe 238.204 Radial† | 15929.1 | 17786.5 | 184530 | ug/L | 184530 | ppb | 12:27:03 |
| 1 | K 766.490 Radial† | 2201.2 | 197.2 | -121.37 | ug/L | -121.37 | ppb | 12:27:03 |
| 1 | Mg 279.077 IEC† | 10950.5 | 12229.5 | 485380 | ug/L | 485380 | ppb | 12:27:03 |
| 1 | Mn 257.610† | -668.0 | -1201.6 | -3.5511 | ug/L | -3.5511 | ppb | 12:27:30 |
| 1 | Mo 202.031† | -156.9 | -188.3 | 2.7540 | ug/L | 2.7540 | ppb | 12:27:51 |
| 1 | Na 589.592 Radial† | -650.8 | 120.8 | 41.167 | ug/L | 41.167 | ppb | 12:27:03 |
| 1 | Ni 231.604† | 157.3 | 73.0 | 2.3338 | ug/L | 2.3338 | ppb | 12:27:51 |
| 1 | P 214.914† | 181.1 | 5.4 | -14.933 | ug/L | -14.933 | ppb | 12:27:51 |
| 1 | Pb 220.353† | -673.5 | -675.9 | 9.7170 | ug/L | 9.7170 | ppb | 12:27:51 |
| 1 | S 181.975 Axial† | 57.3 | 21.0 | -70.396 | ug/L | -70.396 | ppb | 12:27:51 |
| 1 | Sb 206.836† | 58.4 | 34.8 | -3.4957 | ug/L | -3.4957 | ppb | 12:27:51 |
| 1 | Se 196.026† | -734.2 | -794.1 | -23.568 | ug/L | -23.568 | ppb | 12:27:51 |
| 1 | Si 251.611† | 535.4 | 4.3 | 0.3708 | ug/L | 0.3708 | ppb | 12:27:51 |
| 1 | Sn 189.927† | -302.1 | -343.0 | -6.0541 | ug/L | -6.0541 | ppb | 12:27:51 |
| 1 | Sr 421.552† | 454.9 | 508.6 | 0.1125 | ug/L | 0.1125 | ppb | 12:27:03 |
| 1 | Ti 334.940† | -11551.5 | -11504.4 | 1.5431 | ug/L | 1.5431 | ppb | 12:27:30 |
| 1 | Tl 190.801† | -55.8 | -30.6 | -14.280 | ug/L | -14.280 | ppb | 12:27:51 |
| 1 | U 409.014† | -832.4 | 1614.1 | 33.014 | ug/L | 33.014 | ppb | 12:27:30 |
| 1 | V 292.402† | 169.3 | 1815.7 | -3.1552 | ug/L | -3.1552 | ppb | 12:27:51 |
| 1 | Zn 213.857† | 2801.3 | 2395.2 | -1.2049 | ug/L | -1.2049 | ppb | 12:27:51 |
| 1 | SiO2† | 533.5 | -5.1 | 0.0768 | ug/L | 0.0768 | ppb | 12:28:47 |
| 2 | Sc 361.383 | 694839.9 | 694839.9 | 90.481 | % | | | 12:27:56 |
| 2 | Sc Radial | 4240.1 | 4240.1 | 90.1 | % | | | 12:27:13 |
| 2 | Y 371.029 | 608131.1 | 608131.1 | 88.258 | % | | | 12:27:56 |
| 2 | Y RADIAL | 4457.5 | 4457.5 | 89.41 | % | | | 12:27:13 |
| 2 | Ag 328.068† | -9940.6 | -11242.0 | -7.4057 | ug/L | -7.4057 | ppb | 12:27:56 |
| 2 | Al 396.153Radial† | 491658.2 | 545840.9 | 510590 | ug/L | 510590 | ppb | 12:27:08 |
| 2 | As 188.979† | -94.3 | -79.2 | 7.8009 | ug/L | 7.8009 | ppb | 12:28:16 |
| 2 | B 249.677† | 235.1 | 713.3 | -12.137 | ug/L | -12.137 | ppb | 12:27:56 |
| 2 | Ba 233.527† | -492.9 | -547.2 | -0.8042 | ug/L | -0.8042 | ppb | 12:28:16 |
| 2 | Be 313.107† | -9312.3 | -1309.4 | -0.5736 | ug/L | -0.5736 | ppb | 12:27:56 |
| 2 | Ca 317.933Radial† | 233334.1 | 258984.9 | 470560 | ug/L | 470560 | ppb | 12:27:08 |
| 2 | Cd 226.502† | 1124.9 | 1429.9 | 1.2033 | ug/L | 1.2033 | ppb | 12:28:16 |
| 2 | Co 228.616† | -13.5 | 42.6 | -1.3759 | ug/L | -1.3759 | ppb | 12:28:16 |
| 2 | Cr 267.716† | -93.3 | -178.7 | 1.1009 | ug/L | 1.1009 | ppb | 12:28:16 |
| 2 | Cu 324.752† | 4943.6 | -2072.5 | 1.9880 | ug/L | 1.9880 | ppb | 12:27:56 |
| 2 | Fe 238.204 Radial† | 16045.2 | 17803.3 | 184710 | ug/L | 184710 | ppb | 12:27:13 |
| 2 | K 766.490 Radial† | 2285.4 | 275.2 | -102.62 | ug/L | -102.62 | ppb | 12:27:13 |
| 2 | Mg 279.077 IEC† | 11078.4 | 12294.5 | 487950 | ug/L | 487950 | ppb | 12:27:13 |
| 2 | Mn 257.610† | -776.9 | -1319.8 | -3.8285 | ug/L | -3.8285 | ppb | 12:27:56 |
| 2 | Mo 202.031† | -163.6 | -195.2 | 2.0250 | ug/L | 2.0250 | ppb | 12:28:16 |
| 2 | Na 589.592 Radial† | -617.5 | 162.4 | 55.338 | ug/L | 55.338 | ppb | 12:27:13 |
| 2 | Ni 231.604† | 180.5 | 98.1 | 3.1356 | ug/L | 3.1356 | ppb | 12:28:16 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 183.8 | 7.7 | -16.351 ug/L | -16.351 ppb | 12:28:16 |
| 2 | Pb 220.353† | -660.8 | -659.6 | 9.6532 ug/L | 9.6532 ppb | 12:28:16 |
| 2 | S 181.975 Axial† | 58.5 | 22.2 | -66.935 ug/L | -66.935 ppb | 12:28:16 |
| 2 | Sb 206.836† | 53.6 | 29.2 | -5.4814 ug/L | -5.4814 ppb | 12:28:16 |
| 2 | Se 196.026† | -750.4 | -809.5 | -33.622 ug/L | -33.622 ppb | 12:28:16 |
| 2 | Si 251.611† | 542.8 | 10.7 | 0.6098 ug/L | 0.6098 ppb | 12:28:16 |
| 2 | Sn 189.927† | -301.7 | -341.6 | -7.4405 ug/L | -7.4405 ppb | 12:28:16 |
| 2 | Sr 421.552† | 458.3 | 509.3 | 0.1895 ug/L | 0.1895 ppb | 12:27:13 |
| 2 | Ti 334.940† | -11693.2 | -11622.3 | -0.1974 ug/L | -0.1974 ppb | 12:27:56 |
| 2 | Tl 190.801† | -61.5 | -36.8 | -17.137 ug/L | -17.137 ppb | 12:28:16 |
| 2 | U 409.014† | -903.2 | 1538.5 | 30.467 ug/L | 30.467 ppb | 12:27:56 |
| 2 | V 292.402† | 221.7 | 1873.0 | -2.6869 ug/L | -2.6869 ppb | 12:28:16 |
| 2 | Zn 213.857† | 2766.3 | 2347.1 | -1.7663 ug/L | -1.7663 ppb | 12:28:16 |
| 2 | SiO2† | 512.5 | -30.1 | -1.8545 ug/L | -1.8545 ppb | 12:28:52 |
| 3 | Sc 361.383 | 698608.7 | 698608.7 | 90.972 % | | 12:28:21 |
| 3 | Sc Radial | 4199.1 | 4199.1 | 89.2 % | | 12:27:24 |
| 3 | Y 371.029 | 610888.9 | 610888.9 | 88.659 % | | 12:28:21 |
| 3 | Y RADIAL | 4439.7 | 4439.7 | 89.05 % | | 12:27:24 |
| 3 | Ag 328.068† | -9991.8 | -11239.1 | -7.2188 ug/L | -7.2188 ppb | 12:28:21 |
| 3 | Al 396.153Radial† | 485919.6 | 544744.6 | 509560 ug/L | 509560 ppb | 12:27:19 |
| 3 | As 188.979† | -79.2 | -62.1 | 15.580 ug/L | 15.580 ppb | 12:28:41 |
| 3 | B 249.677† | 297.5 | 780.5 | -10.550 ug/L | -10.550 ppb | 12:28:21 |
| 3 | Ba 233.527† | -511.7 | -564.8 | -0.9955 ug/L | -0.9955 ppb | 12:28:41 |
| 3 | Be 313.107† | -9408.4 | -1359.4 | -0.5935 ug/L | -0.5935 ppb | 12:28:21 |
| 3 | Ca 317.933Radial† | 231332.5 | 259273.8 | 471090 ug/L | 471090 ppb | 12:27:19 |
| 3 | Cd 226.502† | 1108.3 | 1404.9 | 0.7890 ug/L | 0.7890 ppb | 12:28:41 |
| 3 | Co 228.616† | -15.4 | 40.5 | -1.4499 ug/L | -1.4499 ppb | 12:28:41 |
| 3 | Cr 267.716† | -30.0 | -108.6 | 2.0689 ug/L | 2.0689 ppb | 12:28:41 |
| 3 | Cu 324.752† | 5085.6 | -1945.8 | 2.4932 ug/L | 2.4932 ppb | 12:28:21 |
| 3 | Fe 238.204 Radial† | 15940.3 | 17859.8 | 185290 ug/L | 185290 ppb | 12:27:24 |
| 3 | K 766.490 Radial† | 2168.8 | 169.3 | -123.86 ug/L | -123.86 ppb | 12:27:24 |
| 3 | Mg 279.077 IEC† | 10977.9 | 12302.0 | 488250 ug/L | 488250 ppb | 12:27:24 |
| 3 | Mn 257.610† | -750.9 | -1286.6 | -3.7297 ug/L | -3.7297 ppb | 12:28:21 |
| 3 | Mo 202.031† | -174.5 | -206.2 | 1.0638 ug/L | 1.0638 ppb | 12:28:41 |
| 3 | Na 589.592 Radial† | -660.2 | 107.8 | 36.735 ug/L | 36.735 ppb | 12:27:24 |
| 3 | Ni 231.604† | 202.2 | 121.0 | 3.8664 ug/L | 3.8664 ppb | 12:28:41 |
| 3 | P 214.914† | 168.3 | -10.3 | -27.273 ug/L | -27.273 ppb | 12:28:41 |
| 3 | Pb 220.353† | -667.4 | -663.0 | 8.8179 ug/L | 8.8179 ppb | 12:28:41 |
| 3 | S 181.975 Axial† | 63.5 | 27.3 | -60.061 ug/L | -60.061 ppb | 12:28:41 |
| 3 | Sb 206.836† | 55.5 | 30.9 | -4.7868 ug/L | -4.7868 ppb | 12:28:41 |
| 3 | Se 196.026† | -744.5 | -798.5 | -25.701 ug/L | -25.701 ppb | 12:28:41 |
| 3 | Si 251.611† | 540.2 | 4.6 | 0.4000 ug/L | 0.4000 ppb | 12:28:41 |
| 3 | Sn 189.927† | -306.9 | -345.4 | -8.2867 ug/L | -8.2867 ppb | 12:28:41 |
| 3 | Sr 421.552† | 460.2 | 516.3 | 0.2370 ug/L | 0.2370 ppb | 12:27:24 |
| 3 | Ti 334.940† | -11744.9 | -11609.4 | -0.1259 ug/L | -0.1259 ppb | 12:28:21 |
| 3 | Tl 190.801† | -57.7 | -32.2 | -15.024 ug/L | -15.024 ppb | 12:28:41 |
| 3 | U 409.014† | -908.7 | 1537.9 | 30.376 ug/L | 30.376 ppb | 12:28:21 |
| 3 | V 292.402† | 179.1 | 1824.8 | -3.1653 ug/L | -3.1653 ppb | 12:28:41 |
| 3 | Zn 213.857† | 2821.7 | 2391.4 | -1.3707 ug/L | -1.3707 ppb | 12:28:41 |
| 3 | SiO2† | 546.0 | 3.8 | 0.8110 ug/L | 0.8110 ppb | 12:28:57 |

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**Mean Data: ICSA**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 695395.9 | 90.554 | % | 0.3873 | | | | 0.43% |
| Sc Radial | 4217.5 | 89.6 | % | 0.44 | | | | 0.49% |
| Y 371.029 | 608418.5 | 88.300 | % | 0.3396 | | | | 0.38% |
| Y RADIAL | 4440.6 | 89.07 | % | 0.331 | | | | 0.37% |
| Ag 328.068† | -11217.4 | -7.2847 | ug/L | 0.10491 | -7.2847 | ppb | 0.10491 | 1.44% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 549203.4 | 513730 | ug/L | 6356.8 | 513730 | ppb | 6356.8 | 1.24% |
| QC value within limits for Al 396.153Radial Recovery = 102.75% | | | | | | | | |
| As 188.979† | -67.3 | 13.141 | ug/L | 4.6305 | 13.141 | ppb | 4.6305 | 35.24% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 771.4 | -10.703 | ug/L | 1.3639 | -10.703 | ppb | 1.3639 | 12.74% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | -557.1 | -0.9174 | ug/L | 0.10036 | -0.9174 | ppb | 0.10036 | 10.94% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | -1300.0 | -0.5697 | ug/L | 0.02593 | -0.5697 | ppb | 0.02593 | 4.55% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |

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Ca 317.933Radial†     260851.1      473950 ug/L        5424.8      473950 ppb        5424.8   1.14%
   QC value within limits for Ca 317.933Radial  Recovery = 94.79%
Cd 226.502†             1414.9      0.9767 ug/L       0.20984      0.9767 ppb       0.20984  21.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               34.3     -1.6283 ug/L       0.37495     -1.6283 ppb       0.37495  23.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -122.7      1.8676 ug/L       0.68852      1.8676 ppb       0.68852  36.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2026.8      2.1656 ug/L       0.28403      2.1656 ppb       0.28403  13.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     17816.5      184850 ug/L         398.7      184850 ppb         398.7   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.42%
K 766.490 Radial†        213.9     -115.95 ug/L        11.610     -115.95 ppb        11.610  10.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        12275.3      487200 ug/L        1582.3      487200 ppb        1582.3   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.44%
Mn 257.610†            -1269.3     -3.7031 ug/L       0.14056     -3.7031 ppb       0.14056   3.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -196.6      1.9476 ug/L       0.84777      1.9476 ppb       0.84777  43.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       130.3      44.413 ug/L        9.7171      44.413 ppb        9.7171  21.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               97.4      3.1119 ug/L       0.76662      3.1119 ppb       0.76662  24.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.9     -19.519 ug/L        6.7523     -19.519 ppb        6.7523  34.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -666.2      9.3960 ug/L       0.50171      9.3960 ppb       0.50171   5.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          23.5     -65.798 ug/L        5.2607     -65.798 ppb        5.2607   8.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               31.6     -4.5880 ug/L       1.00768     -4.5880 ppb       1.00768  21.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -800.7     -27.630 ug/L        5.2975     -27.630 ppb        5.2975  19.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                6.5      0.4602 ug/L       0.13038      0.4602 ppb       0.13038  28.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -343.3     -7.2604 ug/L       1.12715     -7.2604 ppb       1.12715  15.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              511.4      0.1797 ug/L       0.06279      0.1797 ppb       0.06279  34.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -11578.7      0.4066 ug/L       0.98488      0.4066 ppb       0.98488 242.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -33.2     -15.480 ug/L        1.4822     -15.480 ppb        1.4822   9.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1563.5      31.286 ug/L        1.4971      31.286 ppb        1.4971   4.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1837.8     -3.0025 ug/L       0.27335     -3.0025 ppb       0.27335   9.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2377.9     -1.4473 ug/L       0.28840     -1.4473 ppb       0.28840  19.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -10.4     -0.3222 ug/L       1.37684     -0.3222 ppb       1.37684 427.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/1/2010 12:31:09
Data Type: Reprocessed on 3/1/2010 13:29:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 704340.1 | 704340.1 | 91.718 | % | | | 12:34:20 |
| 1 | Sc Radial | 4225.3 | 4225.3 | 89.8 | % | | | 12:33:21 |
| 1 | Y 371.029 | 616031.0 | 616031.0 | 89.405 | % | | | 12:34:20 |
| 1 | Y RADIAL | 4471.3 | 4471.3 | 89.69 | % | | | 12:33:21 |
| 1 | Ag 328.068† | 38036.6 | 41215.5 | 263.83 | ug/L | 263.83 | ppb | 12:34:20 |
| 1 | Al 396.153Radial† | 493154.2 | 549415.5 | 513910 | ug/L | 513910 | ppb | 12:33:01 |
| 1 | As 188.979† | 946.3 | 1056.8 | 517.37 | ug/L | 517.37 | ppb | 12:34:40 |
| 1 | B 249.677† | 18925.1 | 21087.4 | 496.75 | ug/L | 496.75 | ppb | 12:34:20 |
| 1 | Ba 233.527† | 38107.9 | 41546.5 | 496.98 | ug/L | 496.98 | ppb | 12:34:20 |
| 1 | Be 313.107† | 535444.0 | 592774.9 | 236.72 | ug/L | 236.72 | ppb | 12:34:20 |
| 1 | Ca 317.933Radial† | 234604.4 | 261305.6 | 474780 | ug/L | 474780 | ppb | 12:33:01 |
| 1 | Cd 226.502† | 30187.9 | 33100.4 | 450.56 | ug/L | 450.56 | ppb | 12:34:40 |
| 1 | Co 228.616† | 14038.6 | 15363.7 | 461.74 | ug/L | 461.74 | ppb | 12:34:40 |
| 1 | Cr 267.716† | 31729.1 | 34518.4 | 475.63 | ug/L | 475.63 | ppb | 12:34:20 |
| 1 | Cu 324.752† | 145564.9 | 151172.7 | 575.53 | ug/L | 575.53 | ppb | 12:34:20 |
| 1 | Fe 238.204 Radial† | 15986.5 | 17800.2 | 184690 | ug/L | 184690 | ppb | 12:33:21 |
| 1 | K 766.490 Radial† | 26360.5 | 27101.5 | 5233.4 | ug/L | 5233.4 | ppb | 12:33:01 |
| 1 | Mg 279.077 IEC† | 11111.9 | 12374.8 | 491150 | ug/L | 491150 | ppb | 12:33:21 |
| 1 | Mn 257.610† | 283824.2 | 308991.1 | 492.73 | ug/L | 492.73 | ppb | 12:34:20 |
| 1 | Mo 202.031† | 4589.3 | 4989.3 | 477.86 | ug/L | 477.86 | ppb | 12:34:40 |
| 1 | Na 589.592 Radial† | 12952.5 | 15275.7 | 5205.9 | ug/L | 5205.9 | ppb | 12:33:01 |
| 1 | Ni 231.604† | 13064.0 | 14142.3 | 451.81 | ug/L | 451.81 | ppb | 12:34:40 |
| 1 | P 214.914† | 4284.3 | 4475.8 | 2370.1 | ug/L | 2370.1 | ppb | 12:34:40 |
| 1 | Pb 220.353† | 2037.4 | 2292.0 | 487.34 | ug/L | 487.34 | ppb | 12:34:40 |
| 1 | S 181.975 Axial† | 1853.4 | 1978.2 | 2468.5 | ug/L | 2468.5 | ppb | 12:34:40 |
| 1 | Sb 206.836† | 1276.2 | 1361.4 | 552.34 | ug/L | 552.34 | ppb | 12:34:40 |
| 1 | Se 196.026† | 3049.4 | 3344.5 | 2512.2 | ug/L | 2512.2 | ppb | 12:34:40 |
| 1 | Si 251.611† | 133993.5 | 145503.3 | 5303.9 | ug/L | 5303.9 | ppb | 12:34:20 |
| 1 | Sn 189.927† | 1602.0 | 1738.6 | 483.17 | ug/L | 483.17 | ppb | 12:34:40 |
| 1 | Sr 421.552† | 61221.6 | 68195.7 | 492.36 | ug/L | 492.36 | ppb | 12:33:01 |
| 1 | Ti 334.940† | 219311.1 | 240414.9 | 507.58 | ug/L | 507.58 | ppb | 12:34:20 |
| 1 | Tl 190.801† | 935.6 | 1051.3 | 486.15 | ug/L | 486.15 | ppb | 12:34:40 |
| 1 | U 409.014† | 12541.6 | 16210.8 | 520.72 | ug/L | 520.72 | ppb | 12:34:20 |
| 1 | V 292.402† | 56887.3 | 63651.9 | 496.30 | ug/L | 496.30 | ppb | 12:34:20 |
| 1 | Zn 213.857† | 43887.7 | 47140.3 | 488.61 | ug/L | 488.61 | ppb | 12:34:20 |
| 1 | SiO2† | 131981.8 | 143302.7 | 11151 | ug/L | 11151 | ppb | 12:35:37 |
| 2 | Sc 361.383 | 696859.8 | 696859.8 | 90.744 | % | | | 12:34:46 |
| 2 | Sc Radial | 4208.5 | 4208.5 | 89.4 | % | | | 12:33:47 |
| 2 | Y 371.029 | 609654.8 | 609654.8 | 88.480 | % | | | 12:34:46 |
| 2 | Y RADIAL | 4449.6 | 4449.6 | 89.25 | % | | | 12:33:47 |
| 2 | Ag 328.068† | 37638.7 | 41222.2 | 263.88 | ug/L | 263.88 | ppb | 12:34:46 |
| 2 | Al 396.153Radial† | 492018.9 | 550339.1 | 514770 | ug/L | 514770 | ppb | 12:33:27 |
| 2 | As 188.979† | 954.2 | 1076.6 | 526.18 | ug/L | 526.18 | ppb | 12:35:06 |
| 2 | B 249.677† | 18678.6 | 21037.3 | 495.45 | ug/L | 495.45 | ppb | 12:34:46 |
| 2 | Ba 233.527† | 37631.3 | 41467.2 | 496.04 | ug/L | 496.04 | ppb | 12:34:46 |
| 2 | Be 313.107† | 528866.4 | 591793.0 | 236.33 | ug/L | 236.33 | ppb | 12:34:46 |
| 2 | Ca 317.933Radial† | 233297.6 | 260887.5 | 474020 | ug/L | 474020 | ppb | 12:33:27 |
| 2 | Cd 226.502† | 30372.6 | 33657.3 | 458.45 | ug/L | 458.45 | ppb | 12:35:06 |
| 2 | Co 228.616† | 14147.0 | 15647.5 | 470.33 | ug/L | 470.33 | ppb | 12:35:06 |
| 2 | Cr 267.716† | 31537.7 | 34678.9 | 477.82 | ug/L | 477.82 | ppb | 12:34:46 |
| 2 | Cu 324.752† | 143499.5 | 150600.2 | 573.39 | ug/L | 573.39 | ppb | 12:34:46 |
| 2 | Fe 238.204 Radial† | 15930.7 | 17808.9 | 184780 | ug/L | 184780 | ppb | 12:33:47 |
| 2 | K 766.490 Radial† | 26323.0 | 27176.8 | 5248.6 | ug/L | 5248.6 | ppb | 12:33:27 |
| 2 | Mg 279.077 IEC† | 11061.7 | 12368.0 | 490880 | ug/L | 490880 | ppb | 12:33:47 |
| 2 | Mn 257.610† | 280620.7 | 308782.6 | 492.42 | ug/L | 492.42 | ppb | 12:34:46 |
| 2 | Mo 202.031† | 4608.4 | 5064.1 | 484.73 | ug/L | 484.73 | ppb | 12:35:06 |
| 2 | Na 589.592 Radial† | 12874.8 | 15246.4 | 5196.0 | ug/L | 5196.0 | ppb | 12:33:27 |
| 2 | Ni 231.604† | 13173.5 | 14415.8 | 460.55 | ug/L | 460.55 | ppb | 12:35:06 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4313.6 | 4558.2 | 2416.8 | ug/L | 2416.8 ppb | 12:35:06 |
| 2 | Pb 220.353† | 2040.3 | 2319.1 | 491.91 | ug/L | 491.91 ppb | 12:35:06 |
| 2 | S 181.975 Axial† | 1870.3 | 2018.6 | 2520.7 | ug/L | 2520.7 ppb | 12:35:06 |
| 2 | Sb 206.836† | 1294.0 | 1395.9 | 566.58 | ug/L | 566.58 ppb | 12:35:06 |
| 2 | Se 196.026† | 3067.2 | 3399.9 | 2546.4 | ug/L | 2546.4 ppb | 12:35:06 |
| 2 | Si 251.611† | 132325.6 | 145233.5 | 5293.9 | ug/L | 5293.9 ppb | 12:34:46 |
| 2 | Sn 189.927† | 1615.0 | 1771.7 | 490.82 | ug/L | 490.82 ppb | 12:35:06 |
| 2 | Sr 421.552† | 61000.5 | 68220.7 | 492.54 | ug/L | 492.54 ppb | 12:33:27 |
| 2 | Ti 334.940† | 217190.8 | 240645.1 | 507.96 | ug/L | 507.96 ppb | 12:34:46 |
| 2 | Tl 190.801† | 928.9 | 1054.9 | 487.78 | ug/L | 487.78 ppb | 12:35:06 |
| 2 | U 409.014† | 12713.3 | 16546.9 | 531.96 | ug/L | 531.96 ppb | 12:34:46 |
| 2 | V 292.402† | 56175.0 | 63532.8 | 495.45 | ug/L | 495.45 ppb | 12:34:46 |
| 2 | Zn 213.857† | 43390.4 | 47105.9 | 488.16 | ug/L | 488.16 ppb | 12:34:46 |
| 2 | SiO2† | 132995.2 | 145964.2 | 11358 | ug/L | 11358 ppb | 12:35:42 |
| 3 | Sc 361.383 | 711334.7 | 711334.7 | 92.629 | % | | 12:35:12 |
| 3 | Sc Radial | 4245.6 | 4245.6 | 90.2 | % | | 12:34:12 |
| 3 | Y 371.029 | 620828.2 | 620828.2 | 90.101 | % | | 12:35:12 |
| 3 | Y RADIAL | 4479.2 | 4479.2 | 89.85 | % | | 12:34:12 |
| 3 | Ag 328.068† | 38184.6 | 40967.4 | 262.55 | ug/L | 262.55 ppb | 12:35:12 |
| 3 | Al 396.153Radial† | 490418.7 | 543766.7 | 508630 | ug/L | 508630 ppb | 12:33:52 |
| 3 | As 188.979† | 942.0 | 1042.0 | 510.73 | ug/L | 510.73 ppb | 12:35:32 |
| 3 | B 249.677† | 19191.0 | 21171.6 | 498.90 | ug/L | 498.90 ppb | 12:35:12 |
| 3 | Ba 233.527† | 38418.5 | 41473.3 | 496.10 | ug/L | 496.10 ppb | 12:35:12 |
| 3 | Be 313.107† | 537296.8 | 589034.7 | 235.23 | ug/L | 235.23 ppb | 12:35:12 |
| 3 | Ca 317.933Radial† | 233252.0 | 258561.7 | 469790 | ug/L | 469790 ppb | 12:33:52 |
| 3 | Cd 226.502† | 30167.6 | 32754.8 | 445.67 | ug/L | 445.67 ppb | 12:35:32 |
| 3 | Co 228.616† | 13958.9 | 15127.2 | 454.59 | ug/L | 454.59 ppb | 12:35:32 |
| 3 | Cr 267.716† | 32066.5 | 34542.6 | 475.95 | ug/L | 475.95 ppb | 12:35:12 |
| 3 | Cu 324.752† | 146988.8 | 151149.2 | 575.43 | ug/L | 575.43 ppb | 12:35:12 |
| 3 | Fe 238.204 Radial† | 16048.8 | 17784.4 | 184530 | ug/L | 184530 ppb | 12:34:12 |
| 3 | K 766.490 Radial† | 26138.4 | 26715.5 | 5158.2 | ug/L | 5158.2 ppb | 12:33:52 |
| 3 | Mg 279.077 IEC† | 11161.3 | 12370.6 | 490980 | ug/L | 490980 ppb | 12:34:12 |
| 3 | Mn 257.610† | 285976.0 | 308271.4 | 491.57 | ug/L | 491.57 ppb | 12:35:12 |
| 3 | Mo 202.031† | 4590.3 | 4941.1 | 473.37 | ug/L | 473.37 ppb | 12:35:32 |
| 3 | Na 589.592 Radial† | 12800.0 | 15037.9 | 5124.9 | ug/L | 5124.9 ppb | 12:33:52 |
| 3 | Ni 231.604† | 13042.8 | 13979.4 | 446.60 | ug/L | 446.60 ppb | 12:35:32 |
| 3 | P 214.914† | 4266.0 | 4410.1 | 2332.2 | ug/L | 2332.2 ppb | 12:35:32 |
| 3 | Pb 220.353† | 2003.0 | 2233.1 | 476.47 | ug/L | 476.47 ppb | 12:35:32 |
| 3 | S 181.975 Axial† | 1846.6 | 1951.0 | 2434.3 | ug/L | 2434.3 ppb | 12:35:32 |
| 3 | Sb 206.836† | 1279.2 | 1351.0 | 548.09 | ug/L | 548.09 ppb | 12:35:32 |
| 3 | Se 196.026† | 3008.7 | 3267.9 | 2464.4 | ug/L | 2464.4 ppb | 12:35:32 |
| 3 | Si 251.611† | 134990.8 | 145143.5 | 5290.8 | ug/L | 5290.8 ppb | 12:35:12 |
| 3 | Sn 189.927† | 1598.8 | 1718.0 | 477.44 | ug/L | 477.44 ppb | 12:35:32 |
| 3 | Sr 421.552† | 60729.3 | 67325.2 | 486.06 | ug/L | 486.06 ppb | 12:33:52 |
| 3 | Ti 334.940† | 221304.6 | 240215.9 | 506.52 | ug/L | 506.52 ppb | 12:35:12 |
| 3 | Tl 190.801† | 918.7 | 1023.0 | 473.22 | ug/L | 473.22 ppb | 12:35:32 |
| 3 | U 409.014† | 12848.6 | 16407.9 | 527.34 | ug/L | 527.34 ppb | 12:35:12 |
| 3 | V 292.402† | 57099.5 | 63271.1 | 493.24 | ug/L | 493.24 ppb | 12:35:12 |
| 3 | Zn 213.857† | 44289.2 | 47103.3 | 488.25 | ug/L | 488.25 ppb | 12:35:12 |
| 3 | SiO2† | 131154.4 | 140994.6 | 10971 | ug/L | 10971 ppb | 12:35:47 |

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**Mean Data: ICSAB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 704178.2 | 91.697 | % | 0.9426 | | | | 1.03% |
| Sc Radial | 4226.5 | 89.8 | % | 0.39 | | | | 0.44% |
| Y 371.029 | 615504.7 | 89.329 | % | 0.8135 | | | | 0.91% |
| Y RADIAL | 4466.7 | 89.60 | % | 0.307 | | | | 0.34% |
| Ag 328.068† | 41135.0 | 263.42 | ug/L | 0.754 | 263.42 | ppb | 0.754 | 0.29% |
| QC value within limits for Ag 328.068 Recovery = 105.37% | | | | | | | | |
| Al 396.153Radial† | 547840.5 | 512440 | ug/L | 3328.0 | 512440 | ppb | 3328.0 | 0.65% |
| QC value within limits for Al 396.153Radial Recovery = 102.49% | | | | | | | | |
| As 188.979† | 1058.4 | 518.09 | ug/L | 7.754 | 518.09 | ppb | 7.754 | 1.50% |
| QC value within limits for As 188.979 Recovery = 103.62% | | | | | | | | |
| B 249.677† | 21098.7 | 497.03 | ug/L | 1.742 | 497.03 | ppb | 1.742 | 0.35% |
| QC value within limits for B 249.677 Recovery = 99.41% | | | | | | | | |
| Ba 233.527† | 41495.7 | 496.38 | ug/L | 0.524 | 496.38 | ppb | 0.524 | 0.11% |
| QC value within limits for Ba 233.527 Recovery = 99.28% | | | | | | | | |
| Be 313.107† | 591200.9 | 236.09 | ug/L | 0.771 | 236.09 | ppb | 0.771 | 0.33% |
| QC value within limits for Be 313.107 Recovery = 94.44% | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ca 317.933Radial† | 260251.6 | 472860 ug/L | 2686.1 | 472860 ppb | 2686.1 | 0.57% |
| QC value within limits for Ca 317.933Radial Recovery = 94.57% | | | | | | |
| Cd 226.502† | 33170.8 | 451.56 ug/L | 6.447 | 451.56 ppb | 6.447 | 1.43% |
| QC value within limits for Cd 226.502 Recovery = 90.31% | | | | | | |
| Co 228.616† | 15379.4 | 462.22 ug/L | 7.883 | 462.22 ppb | 7.883 | 1.71% |
| QC value within limits for Co 228.616 Recovery = 92.44% | | | | | | |
| Cr 267.716† | 34580.0 | 476.46 ug/L | 1.182 | 476.46 ppb | 1.182 | 0.25% |
| QC value within limits for Cr 267.716 Recovery = 95.29% | | | | | | |
| Cu 324.752† | 150974.0 | 574.78 ug/L | 1.211 | 574.78 ppb | 1.211 | 0.21% |
| QC value within limits for Cu 324.752 Recovery = 114.96% | | | | | | |
| Fe 238.204 Radial† | 17797.8 | 184670 ug/L | 129.1 | 184670 ppb | 129.1 | 0.07% |
| QC value within limits for Fe 238.204 Radial Recovery = 92.33% | | | | | | |
| K 766.490 Radial† | 26997.9 | 5213.4 ug/L | 48.39 | 5213.4 ppb | 48.39 | 0.93% |
| QC value within limits for K 766.490 Radial Recovery = 104.27% | | | | | | |
| Mg 279.077 IEC† | 12371.1 | 491000 ug/L | 134.9 | 491000 ppb | 134.9 | 0.03% |
| QC value within limits for Mg 279.077 IEC Recovery = 98.20% | | | | | | |
| Mn 257.610† | 308681.7 | 492.24 ug/L | 0.601 | 492.24 ppb | 0.601 | 0.12% |
| QC value within limits for Mn 257.610 Recovery = 98.45% | | | | | | |
| Mo 202.031† | 4998.2 | 478.65 ug/L | 5.719 | 478.65 ppb | 5.719 | 1.19% |
| QC value within limits for Mo 202.031 Recovery = 95.73% | | | | | | |
| Na 589.592 Radial† | 15186.7 | 5175.6 ug/L | 44.19 | 5175.6 ppb | 44.19 | 0.85% |
| QC value within limits for Na 589.592 Radial Recovery = 103.51% | | | | | | |
| Ni 231.604† | 14179.2 | 452.98 ug/L | 7.046 | 452.98 ppb | 7.046 | 1.56% |
| QC value within limits for Ni 231.604 Recovery = 90.60% | | | | | | |
| P 214.914† | 4481.4 | 2373.1 ug/L | 42.35 | 2373.1 ppb | 42.35 | 1.78% |
| QC value within limits for P 214.914 Recovery = 94.92% | | | | | | |
| Pb 220.353† | 2281.4 | 485.24 ug/L | 7.932 | 485.24 ppb | 7.932 | 1.63% |
| QC value within limits for Pb 220.353 Recovery = 97.05% | | | | | | |
| S 181.975 Axial† | 1982.6 | 2474.5 ug/L | 43.52 | 2474.5 ppb | 43.52 | 1.76% |
| QC value within limits for S 181.975 Axial Recovery = 98.98% | | | | | | |
| Sb 206.836† | 1369.4 | 555.67 ug/L | 9.684 | 555.67 ppb | 9.684 | 1.74% |
| QC value within limits for Sb 206.836 Recovery = 111.13% | | | | | | |
| Se 196.026† | 3337.4 | 2507.6 ug/L | 41.19 | 2507.6 ppb | 41.19 | 1.64% |
| QC value within limits for Se 196.026 Recovery = 100.31% | | | | | | |
| Si 251.611† | 145293.4 | 5296.2 ug/L | 6.83 | 5296.2 ppb | 6.83 | 0.13% |
| QC value within limits for Si 251.611 Recovery = 105.92% | | | | | | |
| Sn 189.927† | 1742.7 | 483.81 ug/L | 6.713 | 483.81 ppb | 6.713 | 1.39% |
| QC value within limits for Sn 189.927 Recovery = 96.76% | | | | | | |
| Sr 421.552† | 67913.9 | 490.32 ug/L | 3.689 | 490.32 ppb | 3.689 | 0.75% |
| QC value within limits for Sr 421.552 Recovery = 98.06% | | | | | | |
| Ti 334.940† | 240425.3 | 507.35 ug/L | 0.745 | 507.35 ppb | 0.745 | 0.15% |
| QC value within limits for Ti 334.940 Recovery = 101.47% | | | | | | |
| Tl 190.801† | 1043.1 | 482.38 ug/L | 7.980 | 482.38 ppb | 7.980 | 1.65% |
| QC value within limits for Tl 190.801 Recovery = 96.48% | | | | | | |
| U 409.014† | 16388.5 | 526.67 ug/L | 5.648 | 526.67 ppb | 5.648 | 1.07% |
| QC value within limits for U 409.014 Recovery = 105.33% | | | | | | |
| V 292.402† | 63485.3 | 494.99 ug/L | 1.580 | 494.99 ppb | 1.580 | 0.32% |
| QC value within limits for V 292.402 Recovery = 99.00% | | | | | | |
| Zn 213.857† | 47116.5 | 488.34 ug/L | 0.234 | 488.34 ppb | 0.234 | 0.05% |
| QC value within limits for Zn 213.857 Recovery = 97.67% | | | | | | |
| SiO2† | 143420.5 | 11160 ug/L | 193.6 | 11160 ppb | 193.6 | 1.73% |
| QC value within limits for SiO2 Recovery = 104.35% | | | | | | |

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/1/2010 12:37:57
Data Type: Reprocessed on 3/1/2010 13:29:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 686767.6 | 686767.6 | 89.430 | % | | | 12:41:08 |
| 1 | Sc Radial | 4122.0 | 4122.0 | 87.6 | % | | | 12:40:10 |
| 1 | Y 371.029 | 601213.8 | 601213.8 | 87.255 | % | | | 12:41:08 |
| 1 | Y RADIAL | 4361.2 | 4361.2 | 87.48 | % | | | 12:40:10 |
| 1 | Ag 328.068† | -20956.2 | -23688.7 | -10.393 | ug/L | -10.393 | ppb | 12:41:08 |
| 1 | Al 396.153Radial† | 480771.6 | 549041.9 | 513580 | ug/L | 513580 | ppb | 12:39:50 |
| 1 | As 188.979† | -141.7 | -133.4 | 39.576 | ug/L | 39.576 | ppb | 12:41:29 |
| 1 | B 249.677† | 909.2 | 1470.1 | -31.931 | ug/L | -31.931 | ppb | 12:41:08 |
| 1 | Ba 233.527† | -1256.2 | -1407.1 | -3.6801 | ug/L | -3.6801 | ppb | 12:41:29 |
| 1 | Be 313.107† | -14739.2 | -7498.6 | -3.0284 | ug/L | -3.0284 | ppb | 12:41:08 |
| 1 | Ca 317.933Radial† | 229140.4 | 261615.0 | 475340 | ug/L | 475340 | ppb | 12:39:50 |
| 1 | Cd 226.502† | 3021.3 | 3565.1 | 9.7623 | ug/L | 9.7623 | ppb | 12:41:29 |
| 1 | Co 228.616† | 125.5 | 197.8 | -0.1878 | ug/L | -0.1878 | ppb | 12:41:29 |
| 1 | Cr 267.716† | 13.3 | -60.7 | 1.3378 | ug/L | 1.3378 | ppb | 12:41:29 |
| 1 | Cu 324.752† | 2512.7 | -4726.5 | -3.6433 | ug/L | -3.6433 | ppb | 12:41:08 |
| 1 | Fe 238.204 Radial† | 35732.5 | 40792.8 | 423220 | ug/L | 423220 | ppb | 12:40:10 |
| 1 | K 766.490 Radial† | 3769.7 | 2042.7 | 57.081 | ug/L | 57.081 | ppb | 12:39:50 |
| 1 | Mg 279.077 IEC† | 10832.4 | 12365.8 | 490540 | ug/L | 490540 | ppb | 12:40:10 |
| 1 | Mn 257.610† | -19567.0 | -22340.8 | -14.034 | ug/L | -14.034 | ppb | 12:41:08 |
| 1 | Mo 202.031† | -368.1 | -426.0 | -0.5878 | ug/L | -0.5878 | ppb | 12:41:29 |
| 1 | Na 589.592 Radial† | 1254868.7 | 1433682.2 | 488600 | ug/L | 488600 | ppb | 12:39:50 |
| 1 | Ni 231.604† | 227.3 | 152.9 | 4.8834 | ug/L | 4.8834 | ppb | 12:41:29 |
| 1 | P 214.914† | 491.6 | 354.4 | -12.244 | ug/L | -12.244 | ppb | 12:41:29 |
| 1 | Pb 220.353† | -508.5 | -497.9 | 17.358 | ug/L | 17.358 | ppb | 12:41:29 |
| 1 | S 181.975 Axial† | 75.3 | 41.7 | -42.221 | ug/L | -42.221 | ppb | 12:41:29 |
| 1 | Sb 206.836† | 55.2 | 31.7 | -7.7022 | ug/L | -7.7022 | ppb | 12:41:29 |
| 1 | Se 196.026† | -1821.2 | -2016.7 | -238.73 | ug/L | -238.73 | ppb | 12:41:29 |
| 1 | Si 251.611† | -295.1 | -919.2 | -33.061 | ug/L | -33.061 | ppb | 12:41:29 |
| 1 | Sn 189.927† | -319.9 | -365.8 | -25.996 | ug/L | -25.996 | ppb | 12:41:29 |
| 1 | Sr 421.552† | 1457.0 | 1664.2 | 8.5520 | ug/L | 8.5520 | ppb | 12:40:10 |
| 1 | Ti 334.940† | -10515.5 | -10457.4 | -4.0393 | ug/L | -4.0393 | ppb | 12:41:08 |
| 1 | Tl 190.801† | -87.8 | -66.9 | -31.150 | ug/L | -31.150 | ppb | 12:41:29 |
| 1 | U 409.014† | 400386.5 | 450246.4 | 15029 | ug/L | 15029 | ppb | 12:41:08 |
| 1 | V 292.402† | 928.2 | 2665.9 | -2.6029 | ug/L | -2.6029 | ppb | 12:41:29 |
| 1 | Zn 213.857† | 5023.9 | 4907.4 | -9.2212 | ug/L | -9.2212 | ppb | 12:41:29 |
| 1 | SiO2† | -297.9 | -929.5 | -71.347 | ug/L | -71.347 | ppb | 12:42:25 |
| 2 | Sc 361.383 | 698587.1 | 698587.1 | 90.969 | % | | | 12:41:34 |
| 2 | Sc Radial | 4111.8 | 4111.8 | 87.4 | % | | | 12:40:36 |
| 2 | Y 371.029 | 611197.6 | 611197.6 | 88.703 | % | | | 12:41:34 |
| 2 | Y RADIAL | 4353.6 | 4353.6 | 87.33 | % | | | 12:40:36 |
| 2 | Ag 328.068† | -21331.8 | -23705.1 | -10.229 | ug/L | -10.229 | ppb | 12:41:34 |
| 2 | Al 396.153Radial† | 481893.3 | 551691.8 | 516060 | ug/L | 516060 | ppb | 12:40:16 |
| 2 | As 188.979† | -162.4 | -153.5 | 30.815 | ug/L | 30.815 | ppb | 12:41:54 |
| 2 | B 249.677† | 1044.8 | 1602.0 | -28.754 | ug/L | -28.754 | ppb | 12:41:34 |
| 2 | Ba 233.527† | -1298.2 | -1429.5 | -3.9206 | ug/L | -3.9206 | ppb | 12:41:54 |
| 2 | Be 313.107† | -15028.9 | -7538.2 | -3.0428 | ug/L | -3.0428 | ppb | 12:41:34 |
| 2 | Ca 317.933Radial† | 229225.9 | 262363.8 | 476700 | ug/L | 476700 | ppb | 12:40:16 |
| 2 | Cd 226.502† | 2974.3 | 3456.2 | 8.1325 | ug/L | 8.1325 | ppb | 12:41:54 |
| 2 | Co 228.616† | 134.8 | 205.6 | 0.0344 | ug/L | 0.0344 | ppb | 12:41:54 |
| 2 | Cr 267.716† | 95.5 | 29.4 | 2.5996 | ug/L | 2.5996 | ppb | 12:41:54 |
| 2 | Cu 324.752† | 2468.3 | -4822.8 | -3.9426 | ug/L | -3.9426 | ppb | 12:41:34 |
| 2 | Fe 238.204 Radial† | 35707.9 | 40866.1 | 423980 | ug/L | 423980 | ppb | 12:40:36 |
| 2 | K 766.490 Radial† | 3807.8 | 2097.0 | 67.154 | ug/L | 67.154 | ppb | 12:40:16 |
| 2 | Mg 279.077 IEC† | 10811.2 | 12372.3 | 490790 | ug/L | 490790 | ppb | 12:40:36 |
| 2 | Mn 257.610† | -19964.4 | -22407.5 | -14.076 | ug/L | -14.076 | ppb | 12:41:34 |
| 2 | Mo 202.031† | -376.0 | -427.7 | -0.6620 | ug/L | -0.6620 | ppb | 12:41:54 |
| 2 | Na 589.592 Radial† | 1253696.5 | 1435905.8 | 489360 | ug/L | 489360 | ppb | 12:40:16 |
| 2 | Ni 231.604† | 221.7 | 142.4 | 4.5481 | ug/L | 4.5481 | ppb | 12:41:54 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 500.0 | 354.3 | -12.162 | ug/L | -12.162 ppb | 12:41:54 |
| 2 | Pb 220.353† | -509.8 | -489.8 | 19.237 | ug/L | 19.237 ppb | 12:41:54 |
| 2 | S 181.975 Axial† | 81.0 | 46.5 | -36.378 | ug/L | -36.378 ppb | 12:41:54 |
| 2 | Sb 206.836† | 19.3 | -8.8 | -24.136 | ug/L | -24.136 ppb | 12:41:54 |
| 2 | Se 196.026† | -1799.7 | -1958.6 | -201.24 | ug/L | -201.24 ppb | 12:41:54 |
| 2 | Si 251.611† | -276.4 | -893.0 | -32.104 | ug/L | -32.104 ppb | 12:41:54 |
| 2 | Sn 189.927† | -306.6 | -345.1 | -20.930 | ug/L | -20.930 ppb | 12:41:54 |
| 2 | Sr 421.552† | 1473.2 | 1686.8 | 8.7066 | ug/L | 8.7066 ppb | 12:40:36 |
| 2 | Ti 334.940† | -10433.7 | -10168.5 | -3.2793 | ug/L | -3.2793 ppb | 12:41:34 |
| 2 | Tl 190.801† | -93.1 | -71.1 | -33.081 | ug/L | -33.081 ppb | 12:41:54 |
| 2 | U 409.014† | 406236.9 | 449102.7 | 14990 | ug/L | 14990 ppb | 12:41:34 |
| 2 | V 292.402† | 983.3 | 2708.9 | -2.4425 | ug/L | -2.4425 ppb | 12:41:54 |
| 2 | Zn 213.857† | 5022.5 | 4810.8 | -10.398 | ug/L | -10.398 ppb | 12:41:54 |
| 2 | SiO2† | -358.4 | -990.4 | -76.088 | ug/L | -76.088 ppb | 12:42:30 |
| 3 | Sc 361.383 | 689597.3 | 689597.3 | 89.798 | % | | 12:42:00 |
| 3 | Sc Radial | 4087.4 | 4087.4 | 86.8 | % | | 12:41:01 |
| 3 | Y 371.029 | 602594.6 | 602594.6 | 87.455 | % | | 12:42:00 |
| 3 | Y RADIAL | 4345.6 | 4345.6 | 87.17 | % | | 12:41:01 |
| 3 | Ag 328.068† | -21229.9 | -23897.4 | -11.215 | ug/L | -11.215 ppb | 12:42:00 |
| 3 | Al 396.153Radial† | 478076.8 | 550594.4 | 515040 | ug/L | 515040 ppb | 12:40:41 |
| 3 | As 188.979† | -167.3 | -161.3 | 27.351 | ug/L | 27.351 ppb | 12:42:20 |
| 3 | B 249.677† | 880.0 | 1433.4 | -32.969 | ug/L | -32.969 ppb | 12:42:00 |
| 3 | Ba 233.527† | -1265.4 | -1411.5 | -3.7087 | ug/L | -3.7087 ppb | 12:42:20 |
| 3 | Be 313.107† | -15003.2 | -7725.0 | -3.1166 | ug/L | -3.1166 ppb | 12:42:00 |
| 3 | Ca 317.933Radial† | 227420.5 | 261853.4 | 475770 | ug/L | 475770 ppb | 12:40:41 |
| 3 | Cd 226.502† | 2972.8 | 3497.1 | 8.7172 | ug/L | 8.7172 ppb | 12:42:20 |
| 3 | Co 228.616† | 119.8 | 190.9 | -0.4170 | ug/L | -0.4170 ppb | 12:42:20 |
| 3 | Cr 267.716† | 75.5 | 8.5 | 2.3123 | ug/L | 2.3123 ppb | 12:42:20 |
| 3 | Cu 324.752† | 2406.4 | -4856.4 | -4.0718 | ug/L | -4.0718 ppb | 12:42:00 |
| 3 | Fe 238.204 Radial† | 35493.6 | 40863.6 | 423960 | ug/L | 423960 ppb | 12:41:01 |
| 3 | K 766.490 Radial† | 3660.3 | 1953.3 | 39.706 | ug/L | 39.706 ppb | 12:40:41 |
| 3 | Mg 279.077 IEC† | 10734.3 | 12357.7 | 490220 | ug/L | 490220 ppb | 12:41:01 |
| 3 | Mn 257.610† | -19381.1 | -22044.0 | -13.473 | ug/L | -13.473 ppb | 12:42:00 |
| 3 | Mo 202.031† | -393.4 | -452.5 | -2.9511 | ug/L | -2.9511 ppb | 12:42:20 |
| 3 | Na 589.592 Radial† | 1240645.9 | 1429456.2 | 487160 | ug/L | 487160 ppb | 12:40:41 |
| 3 | Ni 231.604† | 240.6 | 166.6 | 5.3210 | ug/L | 5.3210 ppb | 12:42:20 |
| 3 | P 214.914† | 499.7 | 361.1 | -8.6219 | ug/L | -8.6219 ppb | 12:42:20 |
| 3 | Pb 220.353† | -491.5 | -476.6 | 21.087 | ug/L | 21.087 ppb | 12:42:20 |
| 3 | S 181.975 Axial† | 67.9 | 33.1 | -53.672 | ug/L | -53.672 ppb | 12:42:20 |
| 3 | Sb 206.836† | 60.3 | 37.1 | -5.6258 | ug/L | -5.6258 ppb | 12:42:20 |
| 3 | Se 196.026† | -1787.0 | -1970.2 | -208.53 | ug/L | -208.53 ppb | 12:42:20 |
| 3 | Si 251.611† | -312.3 | -937.0 | -33.680 | ug/L | -33.680 ppb | 12:42:20 |
| 3 | Sn 189.927† | -325.1 | -370.1 | -26.966 | ug/L | -26.966 ppb | 12:42:20 |
| 3 | Sr 421.552† | 1458.4 | 1679.8 | 8.6627 | ug/L | 8.6627 ppb | 12:41:01 |
| 3 | Ti 334.940† | -10216.9 | -10076.6 | -3.1731 | ug/L | -3.1731 ppb | 12:42:00 |
| 3 | Tl 190.801† | -87.3 | -66.0 | -30.702 | ug/L | -30.702 ppb | 12:42:20 |
| 3 | U 409.014† | 401117.0 | 449222.7 | 14994 | ug/L | 14994 ppb | 12:42:00 |
| 3 | V 292.402† | 999.5 | 2741.1 | -2.2187 | ug/L | -2.2187 ppb | 12:42:20 |
| 3 | Zn 213.857† | 5001.3 | 4859.2 | -9.8651 | ug/L | -9.8651 ppb | 12:42:20 |
| 3 | SiO2† | -347.8 | -983.8 | -75.505 | ug/L | -75.505 ppb | 12:42:36 |

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**Mean Data: LR1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 691650.7 | 90.066 | % | 0.8036 | | | | 0.89% |
| Sc Radial | 4107.1 | 87.3 | % | 0.38 | | | | 0.43% |
| Y 371.029 | 605002.0 | 87.804 | % | 0.7851 | | | | 0.89% |
| Y RADIAL | 4353.5 | 87.32 | % | 0.156 | | | | 0.18% |
| Ag 328.068† | -23763.7 | -10.612 | ug/L | 0.5283 | -10.612 | ppb | 0.5283 | 4.98% |
| Al 396.153Radial† | 550442.7 | 514890 | ug/L | 1245.5 | 514890 | ppb | 1245.5 | 0.24% |
| QC value within limits for Al 396.153Radial Recovery = 102.98% | | | | | | | | |
| As 188.979† | -149.4 | 32.581 | ug/L | 6.3010 | 32.581 | ppb | 6.3010 | 19.34% |
| B 249.677† | 1501.9 | -31.218 | ug/L | 2.1962 | -31.218 | ppb | 2.1962 | 7.03% |
| Ba 233.527† | -1416.0 | -3.7698 | ug/L | 0.13141 | -3.7698 | ppb | 0.13141 | 3.49% |
| Be 313.107† | -7587.3 | -3.0626 | ug/L | 0.04734 | -3.0626 | ppb | 0.04734 | 1.55% |
| Ca 317.933Radial† | 261944.1 | 475940 | ug/L | 695.1 | 475940 | ppb | 695.1 | 0.15% |
| QC value within limits for Ca 317.933Radial Recovery = 95.19% | | | | | | | | |
| Cd 226.502† | 3506.1 | 8.8707 | ug/L | 0.82563 | 8.8707 | ppb | 0.82563 | 9.31% |
| Co 228.616† | 198.1 | -0.1901 | ug/L | 0.22570 | -0.1901 | ppb | 0.22570 | 118.70% |
| Cr 267.716† | -7.6 | 2.0832 | ug/L | 0.66134 | 2.0832 | ppb | 0.66134 | 31.75% |

| | | | | | | |
|---|---|---|---|---|---|---|
| Cu 324.752† | -4801.9 | -3.8859 ug/L | 0.21982 | -3.8859 ppb | 0.21982 | 5.66% |
| Fe 238.204 Radial† | 40840.8 | 423720 ug/L | 432.1 | 423720 ppb | 432.1 | 0.10% |
| QC value less than the lower limit for Fe 238.204 Radial Recovery = 84.74% | | | | | | |
| K 766.490 Radial† | 2031.0 | 54.647 ug/L | 13.8847 | 54.647 ppb | 13.8847 | 25.41% |
| Mg 279.077 IEC† | 12365.3 | 490520 ug/L | 288.9 | 490520 ppb | 288.9 | 0.06% |
| QC value within limits for Mg 279.077 IEC Recovery = 98.10% | | | | | | |
| Mn 257.610† | -22264.1 | -13.861 ug/L | 0.3366 | -13.861 ppb | 0.3366 | 2.43% |
| Mo 202.031† | -435.4 | -1.4003 ug/L | 1.34357 | -1.4003 ppb | 1.34357 | 95.95% |
| Na 589.592 Radial† | 1433014.8 | 488370 ug/L | 1116.5 | 488370 ppb | 1116.5 | 0.23% |
| QC value within limits for Na 589.592 Radial Recovery = 97.67% | | | | | | |
| Ni 231.604† | 153.9 | 4.9175 ug/L | 0.38760 | 4.9175 ppb | 0.38760 | 7.88% |
| P 214.914† | 356.6 | -11.009 ug/L | 2.0680 | -11.009 ppb | 2.0680 | 18.78% |
| Pb 220.353† | -488.1 | 19.228 ug/L | 1.8645 | 19.228 ppb | 1.8645 | 9.70% |
| S 181.975 Axial† | 40.4 | -44.090 ug/L | 8.7975 | -44.090 ppb | 8.7975 | 19.95% |
| Sb 206.836† | 20.0 | -12.488 ug/L | 10.1408 | -12.488 ppb | 10.1408 | 81.20% |
| Se 196.026† | -1981.8 | -216.17 ug/L | 19.881 | -216.17 ppb | 19.881 | 9.20% |
| Si 251.611† | -916.4 | -32.948 ug/L | 0.7939 | -32.948 ppb | 0.7939 | 2.41% |
| Sn 189.927† | -360.3 | -24.630 ug/L | 3.2411 | -24.630 ppb | 3.2411 | 13.16% |
| Sr 421.552† | 1676.9 | 8.6405 ug/L | 0.07972 | 8.6405 ppb | 0.07972 | 0.92% |
| Ti 334.940† | -10234.1 | -3.4973 ug/L | 0.47244 | -3.4973 ppb | 0.47244 | 13.51% |
| Tl 190.801† | -68.0 | -31.644 ug/L | 1.2645 | -31.644 ppb | 1.2645 | 4.00% |
| U 409.014† | 449523.9 | 15004 ug/L | 21.1 | 15004 ppb | 21.1 | 0.14% |
| QC value within limits for U 409.014 Recovery = 100.03% | | | | | | |
| V 292.402† | 2705.3 | -2.4214 ug/L | 0.19300 | -2.4214 ppb | 0.19300 | 7.97% |
| Zn 213.857† | 4859.1 | -9.8281 ug/L | 0.58917 | -9.8281 ppb | 0.58917 | 5.99% |
| SiO2† | -967.9 | -74.313 ug/L | 2.5855 | -74.313 ppb | 2.5855 | 3.48% |

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/1/2010 12:44:45
Data Type: Reprocessed on 3/1/2010 13:29:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 782532.9 | 782532.9 | 101.90 | % | | | 12:48:21 |
| 1 | Sc Radial | 4642.2 | 4642.2 | 98.6 | % | | | 12:46:43 |
| 1 | Y 371.029 | 684711.6 | 684711.6 | 99.373 | % | | | 12:48:21 |
| 1 | Y RADIAL | 4828.2 | 4828.2 | 96.85 | % | | | 12:46:43 |
| 1 | Ag 328.068† | -6161.1 | -6301.9 | 7.2805 | ug/L | 7.2805 | ppb | 12:48:26 |
| 1 | Al 396.153Radial† | 409.5 | 502.3 | 5.5185 | ug/L | 5.5185 | ppb | 12:46:43 |
| 1 | As 188.979† | 21598.3 | 21220.5 | 9517.6 | ug/L | 9517.6 | ppb | 12:48:26 |
| 1 | B 249.677† | 200037.2 | 196760.0 | 4899.5 | ug/L | 4899.5 | ppb | 12:48:21 |
| 1 | Ba 233.527† | 1207446.3 | 1184925.5 | 14004 | ug/L | 14004 | ppb | 12:48:21 |
| 1 | Be 313.107† | 6921766.5 | 6801660.8 | 2725.2 | ug/L | 2725.2 | ppb | 12:48:14 |
| 1 | Ca 317.933Radial† | 33.0 | 11.3 | 20.516 | ug/L | 20.516 | ppb | 12:47:03 |
| 1 | Cd 226.502† | 692804.5 | 680070.6 | 9647.1 | ug/L | 9647.1 | ppb | 12:48:21 |
| 1 | Co 228.616† | 327054.1 | 321012.1 | 9700.2 | ug/L | 9700.2 | ppb | 12:48:26 |
| 1 | Cr 267.716† | 1776350.6 | 1743146.8 | 23829 | ug/L | 23829 | ppb | 12:48:21 |
| 1 | Cu 324.752† | 5513657.3 | 5403293.6 | 20232 | ug/L | 20232 | ppb | 12:48:14 |
| 1 | Fe 238.204 Radial† | -17.1 | -24.7 | 34.458 | ug/L | 34.458 | ppb | 12:47:03 |
| 1 | K 766.490 Radial† | 1449010.1 | 1466853.5 | 291980 | ug/L | 291980 | ppb | 12:46:38 |
| 1 | Mg 279.077 IEC† | -2.9 | -5.9 | -133.00 | ug/L | -133.00 | ppb | 12:47:03 |
| 1 | Mn 257.610† | 5985441.4 | 5873354.0 | 9401.1 | ug/L | 9401.1 | ppb | 12:48:14 |
| 1 | Mo 202.031† | 106340.9 | 104343.3 | 9575.8 | ug/L | 9575.8 | ppb | 12:48:26 |
| 1 | Na 589.592 Radial† | -65.4 | 781.5 | 266.32 | ug/L | 266.32 | ppb | 12:46:43 |
| 1 | Ni 231.604† | 312178.7 | 306255.3 | 9784.2 | ug/L | 9784.2 | ppb | 12:48:26 |
| 1 | P 214.914† | 30822.0 | 30051.8 | 12858 | ug/L | 12858 | ppb | 12:48:26 |
| 1 | Pb 220.353† | 154527.6 | 151716.5 | 24477 | ug/L | 24477 | ppb | 12:48:26 |
| 1 | S 181.975 Axial† | 39401.6 | 38624.2 | 50078 | ug/L | 50078 | ppb | 12:48:26 |
| 1 | Sb 206.836† | 26528.1 | 26003.3 | 10908 | ug/L | 10908 | ppb | 12:48:26 |
| 1 | Se 196.026† | 16594.0 | 16304.3 | 10014 | ug/L | 10014 | ppb | 12:48:26 |
| 1 | Si 251.611† | 1299129.9 | 1274312.4 | 46383 | ug/L | 46383 | ppb | 12:48:21 |
| 1 | Sn 189.927† | 43970.3 | 43142.2 | 10160 | ug/L | 10160 | ppb | 12:48:26 |
| 1 | Sr 421.552† | 1306985.7 | 1325120.6 | 9635.9 | ug/L | 9635.9 | ppb | 12:46:38 |
| 1 | Ti 334.940† | 4832677.1 | 4743850.6 | 9550.3 | ug/L | 9550.3 | ppb | 12:48:14 |
| 1 | Tl 190.801† | 22457.7 | 22070.1 | 10198 | ug/L | 10198 | ppb | 12:48:26 |
| 1 | U 409.014† | -1171.6 | 1387.1 | -6.8173 | ug/L | -6.8173 | ppb | 12:48:26 |
| 1 | V 292.402† | 1257655.0 | 1235828.2 | 9957.9 | ug/L | 9957.9 | ppb | 12:48:21 |
| 1 | Zn 213.857† | 1274909.2 | 1250422.3 | 13701 | ug/L | 13701 | ppb | 12:48:21 |
| 1 | SiO2† | 1276728.6 | 1252321.6 | 97297 | ug/L | 97297 | ppb | 12:49:12 |
| 2 | Sc 361.383 | 777689.9 | 777689.9 | 101.27 | % | | | 12:48:40 |
| 2 | Sc Radial | 4601.6 | 4601.6 | 97.8 | % | | | 12:47:14 |
| 2 | Y 371.029 | 680527.1 | 680527.1 | 98.765 | % | | | 12:48:40 |
| 2 | Y RADIAL | 4806.9 | 4806.9 | 96.42 | % | | | 12:47:14 |
| 2 | Ag 328.068† | -6103.3 | -6282.4 | 7.1415 | ug/L | 7.1415 | ppb | 12:48:46 |
| 2 | Al 396.153Radial† | 410.5 | 507.0 | 12.459 | ug/L | 12.459 | ppb | 12:47:14 |
| 2 | As 188.979† | 21355.1 | 21112.4 | 9471.9 | ug/L | 9471.9 | ppb | 12:48:46 |
| 2 | B 249.677† | 197412.6 | 195390.8 | 4865.4 | ug/L | 4865.4 | ppb | 12:48:40 |
| 2 | Ba 233.527† | 1193882.5 | 1178910.8 | 13933 | ug/L | 13933 | ppb | 12:48:40 |
| 2 | Be 313.107† | 7068217.4 | 6988576.2 | 2800.1 | ug/L | 2800.1 | ppb | 12:48:34 |
| 2 | Ca 317.933Radial† | 33.7 | 12.3 | 22.341 | ug/L | 22.341 | ppb | 12:47:34 |
| 2 | Cd 226.502† | 685092.6 | 676689.3 | 9599.2 | ug/L | 9599.2 | ppb | 12:48:40 |
| 2 | Co 228.616† | 323493.1 | 319494.5 | 9653.7 | ug/L | 9653.7 | ppb | 12:48:46 |
| 2 | Cr 267.716† | 1756735.6 | 1734633.4 | 23712 | ug/L | 23712 | ppb | 12:48:40 |
| 2 | Cu 324.752† | 5628722.1 | 5550611.1 | 20784 | ug/L | 20784 | ppb | 12:48:34 |
| 2 | Fe 238.204 Radial† | -16.4 | -24.1 | 39.221 | ug/L | 39.221 | ppb | 12:47:34 |
| 2 | K 766.490 Radial† | 1448208.3 | 1479004.1 | 294400 | ug/L | 294400 | ppb | 12:47:09 |
| 2 | Mg 279.077 IEC† | -4.3 | -7.3 | -188.67 | ug/L | -188.67 | ppb | 12:47:34 |
| 2 | Mn 257.610† | 6123112.2 | 6045877.2 | 9677.2 | ug/L | 9677.2 | ppb | 12:48:34 |
| 2 | Mo 202.031† | 105089.6 | 103757.6 | 9522.0 | ug/L | 9522.0 | ppb | 12:48:46 |
| 2 | Na 589.592 Radial† | -125.0 | 720.0 | 245.36 | ug/L | 245.36 | ppb | 12:47:14 |
| 2 | Ni 231.604† | 308881.1 | 304906.9 | 9741.1 | ug/L | 9741.1 | ppb | 12:48:46 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 30500.6 | 29922.8 | 12676 | ug/L | 12676 ppb | 12:48:46 |
| 2 | Pb 220.353† | 152893.2 | 151046.8 | 24368 | ug/L | 24368 ppb | 12:48:46 |
| 2 | S 181.975 Axial† | 38908.3 | 38378.0 | 49759 | ug/L | 49759 ppb | 12:48:46 |
| 2 | Sb 206.836† | 26191.2 | 25832.8 | 10835 | ug/L | 10835 ppb | 12:48:46 |
| 2 | Se 196.026† | 16333.3 | 16148.3 | 9918.7 | ug/L | 9918.7 ppb | 12:48:46 |
| 2 | Si 251.611† | 1284144.0 | 1267453.8 | 46133 | ug/L | 46133 ppb | 12:48:40 |
| 2 | Sn 189.927† | 43436.1 | 42883.4 | 10099 | ug/L | 10099 ppb | 12:48:46 |
| 2 | Sr 421.552† | 1303990.6 | 1333756.6 | 9698.7 | ug/L | 9698.7 ppb | 12:47:09 |
| 2 | Ti 334.940† | 4935183.4 | 4874605.3 | 9813.8 | ug/L | 9813.8 ppb | 12:48:34 |
| 2 | Tl 190.801† | 22100.6 | 21854.7 | 10103 | ug/L | 10103 ppb | 12:48:46 |
| 2 | U 409.014† | -1159.3 | 1392.1 | -6.3906 | ug/L | -6.3906 ppb | 12:48:46 |
| 2 | V 292.402† | 1242294.0 | 1228345.7 | 9897.3 | ug/L | 9897.3 ppb | 12:48:40 |
| 2 | Zn 213.857† | 1262211.2 | 1245674.8 | 13648 | ug/L | 13648 ppb | 12:48:40 |
| 2 | SiO2† | 1273958.1 | 1257388.3 | 97693 | ug/L | 97693 ppb | 12:49:18 |
| 3 | Sc 361.383 | 780596.0 | 780596.0 | 101.65 | % | | 12:49:00 |
| 3 | Sc Radial | 4673.4 | 4673.4 | 99.3 | % | | 12:47:44 |
| 3 | Y 371.029 | 683014.5 | 683014.5 | 99.126 | % | | 12:49:00 |
| 3 | Y RADIAL | 4901.1 | 4901.1 | 98.31 | % | | 12:47:44 |
| 3 | Ag 328.068† | -6012.2 | -6170.4 | 7.7025 | ug/L | 7.7025 ppb | 12:49:05 |
| 3 | Al 396.153Radial† | 389.4 | 479.3 | -5.2635 | ug/L | -5.2635 ppb | 12:47:44 |
| 3 | As 188.979† | 20985.6 | 20670.4 | 9274.5 | ug/L | 9274.5 ppb | 12:49:05 |
| 3 | B 249.677† | 198627.6 | 195860.4 | 4877.6 | ug/L | 4877.6 ppb | 12:49:00 |
| 3 | Ba 233.527† | 1196921.8 | 1177511.8 | 13916 | ug/L | 13916 ppb | 12:49:00 |
| 3 | Be 313.107† | 7026646.0 | 6921694.7 | 2773.3 | ug/L | 2773.3 ppb | 12:48:54 |
| 3 | Ca 317.933Radial† | 37.0 | 15.1 | 27.403 | ug/L | 27.403 ppb | 12:48:04 |
| 3 | Cd 226.502† | 685216.7 | 674292.9 | 9565.1 | ug/L | 9565.1 ppb | 12:49:00 |
| 3 | Co 228.616† | 318810.6 | 313698.7 | 9478.4 | ug/L | 9478.4 ppb | 12:49:05 |
| 3 | Cr 267.716† | 1759386.5 | 1730783.2 | 23660 | ug/L | 23660 ppb | 12:49:00 |
| 3 | Cu 324.752† | 5591149.3 | 5492955.1 | 20568 | ug/L | 20568 ppb | 12:48:54 |
| 3 | Fe 238.204 Radial† | -19.7 | -27.2 | 1.9320 | ug/L | 1.9320 ppb | 12:48:04 |
| 3 | K 766.490 Radial† | 1473685.9 | 1481895.8 | 294980 | ug/L | 294980 ppb | 12:47:39 |
| 3 | Mg 279.077 IEC† | -11.1 | -14.0 | -458.65 | ug/L | -458.65 ppb | 12:48:04 |
| 3 | Mn 257.610† | 6091386.4 | 5992156.1 | 9591.2 | ug/L | 9591.2 ppb | 12:48:54 |
| 3 | Mo 202.031† | 103625.2 | 101930.6 | 9354.3 | ug/L | 9354.3 ppb | 12:49:05 |
| 3 | Na 589.592 Radial† | -195.6 | 650.8 | 221.78 | ug/L | 221.78 ppb | 12:47:44 |
| 3 | Ni 231.604† | 304752.8 | 299710.0 | 9575.1 | ug/L | 9575.1 ppb | 12:49:05 |
| 3 | P 214.914† | 29959.8 | 29278.7 | 12358 | ug/L | 12358 ppb | 12:49:05 |
| 3 | Pb 220.353† | 150873.8 | 148498.1 | 23957 | ug/L | 23957 ppb | 12:49:05 |
| 3 | S 181.975 Axial† | 38400.4 | 37735.3 | 48926 | ug/L | 48926 ppb | 12:49:05 |
| 3 | Sb 206.836† | 25783.6 | 25335.5 | 10628 | ug/L | 10628 ppb | 12:49:05 |
| 3 | Se 196.026† | 15988.1 | 15748.6 | 9673.3 | ug/L | 9673.3 ppb | 12:49:05 |
| 3 | Si 251.611† | 1291751.4 | 1270217.0 | 46236 | ug/L | 46236 ppb | 12:49:00 |
| 3 | Sn 189.927† | 42953.4 | 42248.8 | 9949.4 | ug/L | 9949.4 ppb | 12:49:05 |
| 3 | Sr 421.552† | 1323486.9 | 1332891.7 | 9692.5 | ug/L | 9692.5 ppb | 12:47:39 |
| 3 | Ti 334.940† | 4907763.8 | 4829487.5 | 9723.0 | ug/L | 9723.0 ppb | 12:48:54 |
| 3 | Tl 190.801† | 21724.9 | 21403.8 | 9895.5 | ug/L | 9895.5 ppb | 12:49:05 |
| 3 | U 409.014† | -1401.8 | 1157.7 | -14.117 | ug/L | -14.117 ppb | 12:49:05 |
| 3 | V 292.402† | 1246575.0 | 1227990.3 | 9892.2 | ug/L | 9892.2 ppb | 12:49:00 |
| 3 | Zn 213.857† | 1263738.1 | 1242536.8 | 13615 | ug/L | 13615 ppb | 12:49:00 |
| 3 | SiO2† | 1298149.9 | 1276504.6 | 99187 | ug/L | 99187 ppb | 12:49:24 |

**Mean Data: LR2**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 780272.9 | 101.61 | % | 0.317 | | | | 0.31% |
| Sc Radial | 4639.1 | 98.6 | % | 0.77 | | | | 0.78% |
| Y 371.029 | 682751.1 | 99.088 | % | 0.3055 | | | | 0.31% |
| Y RADIAL | 4845.4 | 97.19 | % | 0.991 | | | | 1.02% |
| Ag 328.068† | -6251.6 | 7.3749 | ug/L | 0.29217 | 7.3749 | ppb | 0.29217 | 3.96% |
| Al 396.153Radial† | 496.2 | 4.2380 | ug/L | 8.93035 | 4.2380 | ppb | 8.93035 | 210.72% |
| As 188.979† | 21001.1 | 9421.3 | ug/L | 129.22 | 9421.3 | ppb | 129.22 | 1.37% |
| QC value within limits for As 188.979 Recovery = 94.21% | | | | | | | | |
| B 249.677† | 196003.8 | 4880.8 | ug/L | 17.30 | 4880.8 | ppb | 17.30 | 0.35% |
| QC value within limits for B 249.677 Recovery = 97.62% | | | | | | | | |
| Ba 233.527† | 1180449.4 | 13951 | ug/L | 46.6 | 13951 | ppb | 46.6 | 0.33% |
| QC value within limits for Ba 233.527 Recovery = 93.01% | | | | | | | | |
| Be 313.107† | 6903977.2 | 2766.2 | ug/L | 37.95 | 2766.2 | ppb | 37.95 | 1.37% |
| QC value within limits for Be 313.107 Recovery = 92.21% | | | | | | | | |
| Ca 317.933Radial† | 12.9 | 23.420 | ug/L | 3.5683 | 23.420 | ppb | 3.5683 | 15.24% |
| Cd 226.502† | 677017.6 | 9603.8 | ug/L | 41.21 | 9603.8 | ppb | 41.21 | 0.43% |

```
   QC value within limits for Cd 226.502  Recovery = 96.04%
Co 228.616†          318068.4      9610.8 ug/L        117.00      9610.8 ppb        117.00   1.22%
   QC value within limits for Co 228.616  Recovery = 96.11%
Cr 267.716†         1736187.8       23733 ug/L          86.5       23733 ppb          86.5   0.36%
   QC value within limits for Cr 267.716  Recovery = 94.93%
Cu 324.752†         5482286.6       20528 ug/L         278.0       20528 ppb         278.0   1.35%
   QC value within limits for Cu 324.752  Recovery = 102.64%
Fe 238.204 Radial†      -25.3      25.204 ug/L       20.2941      25.204 ppb       20.2941  80.52%
K 766.490 Radial†   1475917.8      293790 ug/L        1589.0      293790 ppb        1589.0   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 97.93%
Mg 279.077 IEC†          -9.1     -260.10 ug/L       174.182     -260.10 ppb       174.182  66.97%
Mn 257.610†         5970462.5      9556.5 ug/L        141.31      9556.5 ppb        141.31   1.48%
   QC value within limits for Mn 257.610  Recovery = 95.57%
Mo 202.031†          103343.8      9484.0 ug/L        115.49      9484.0 ppb        115.49   1.22%
   QC value within limits for Mo 202.031  Recovery = 94.84%
Na 589.592 Radial†       717.4      244.49 ug/L        22.281      244.49 ppb        22.281   9.11%
Ni 231.604†          303624.1      9700.1 ug/L        110.41      9700.1 ppb        110.41   1.14%
   QC value within limits for Ni 231.604  Recovery = 97.00%
P 214.914†            29751.1       12631 ug/L         253.2       12631 ppb         253.2   2.00%
   QC value less than the lower limit for P 214.914  Recovery = 84.20%
Pb 220.353†          150420.5       24267 ug/L         274.2       24267 ppb         274.2   1.13%
   QC value within limits for Pb 220.353  Recovery = 97.07%
S 181.975 Axial†      38245.8       49588 ug/L         595.1       49588 ppb         595.1   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 99.18%
Sb 206.836†           25723.9       10790 ug/L         145.1       10790 ppb         145.1   1.35%
   QC value within limits for Sb 206.836  Recovery = 107.90%
Se 196.026†           16067.1      9868.8 ug/L        175.92      9868.8 ppb        175.92   1.78%
   QC value within limits for Se 196.026  Recovery = 98.69%
Si 251.611†         1270661.1       46251 ug/L         125.4       46251 ppb         125.4   0.27%
   QC value within limits for Si 251.611  Recovery = 92.50%
Sn 189.927†           42758.1       10069 ug/L         108.2       10069 ppb         108.2   1.08%
   QC value within limits for Sn 189.927  Recovery = 100.69%
Sr 421.552†         1330589.6      9675.7 ug/L         34.58      9675.7 ppb         34.58   0.36%
   QC value within limits for Sr 421.552  Recovery = 96.76%
Ti 334.940†         4815981.1      9695.7 ug/L        133.86      9695.7 ppb        133.86   1.38%
   QC value within limits for Ti 334.940  Recovery = 96.96%
Tl 190.801†           21776.2       10066 ug/L         154.7       10066 ppb         154.7   1.54%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†             1312.3     -9.1083 ug/L       4.34296     -9.1083 ppb       4.34296  47.68%
V 292.402†          1230721.4      9915.8 ug/L         36.54      9915.8 ppb         36.54   0.37%
   QC value within limits for V 292.402  Recovery = 99.16%
Zn 213.857†         1246211.3       13654 ug/L          43.4       13654 ppb          43.4   0.32%
   QC value within limits for Zn 213.857  Recovery = 91.03%
SiO2†               1262071.5       98059 ug/L         996.7       98059 ppb         996.7   1.02%
   QC value within limits for SiO2  Recovery = 91.64%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 12:51:34
Data Type: Reprocessed on 3/1/2010 13:29:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 822882.6 | 822882.6 | 107.15 | % | | | 12:54:43 |
| 1 | Sc Radial | 4809.3 | 4809.3 | 102 | % | | | 12:53:26 |
| 1 | Y 371.029 | 728740.1 | 728740.1 | 105.76 | % | | | 12:54:43 |
| 1 | Y RADIAL | 5065.3 | 5065.3 | 101.6 | % | | | 12:53:26 |
| 1 | Ag 328.068† | 102975.6 | 95844.3 | 495.91 | ug/L | 495.91 | ppb | 12:54:48 |
| 1 | Al 396.153Radial† | 5501.9 | 5471.6 | 5094.4 | ug/L | 5094.4 | ppb | 12:53:26 |
| 1 | As 188.979† | 1234.4 | 1177.0 | 528.91 | ug/L | 528.91 | ppb | 12:55:08 |
| 1 | B 249.677† | 22207.5 | 21178.2 | 528.05 | ug/L | 528.05 | ppb | 12:54:48 |
| 1 | Ba 233.527† | 45158.0 | 42140.4 | 498.50 | ug/L | 498.50 | ppb | 12:54:48 |
| 1 | Be 313.107† | 1327236.4 | 1247599.9 | 497.02 | ug/L | 497.02 | ppb | 12:54:43 |
| 1 | Ca 317.933Radial† | 2946.9 | 2861.9 | 5199.9 | ug/L | 5199.9 | ppb | 12:53:46 |
| 1 | Cd 226.502† | 37567.8 | 35246.0 | 499.54 | ug/L | 499.54 | ppb | 12:54:48 |
| 1 | Co 228.616† | 17860.7 | 16725.6 | 505.54 | ug/L | 505.54 | ppb | 12:54:48 |
| 1 | Cr 267.716† | 39093.8 | 36407.9 | 498.00 | ug/L | 498.00 | ppb | 12:54:48 |
| 1 | Cu 324.752† | 149252.5 | 131750.8 | 493.33 | ug/L | 493.33 | ppb | 12:54:48 |
| 1 | Fe 238.204 Radial† | 519.5 | 501.1 | 5214.2 | ug/L | 5214.2 | ppb | 12:53:46 |
| 1 | K 766.490 Radial† | 29938.5 | 27037.9 | 5376.0 | ug/L | 5376.0 | ppb | 12:53:26 |
| 1 | Mg 279.077 IEC† | 141.8 | 135.9 | 5393.9 | ug/L | 5393.9 | ppb | 12:53:46 |
| 1 | Mn 257.610† | 332636.2 | 309965.0 | 496.43 | ug/L | 496.43 | ppb | 12:54:48 |
| 1 | Mo 202.031† | 5749.3 | 5351.1 | 491.54 | ug/L | 491.54 | ppb | 12:55:08 |
| 1 | Na 589.592 Radial† | 28044.9 | 28294.2 | 9642.6 | ug/L | 9642.6 | ppb | 12:53:26 |
| 1 | Ni 231.604† | 17043.8 | 15804.4 | 504.92 | ug/L | 504.92 | ppb | 12:54:48 |
| 1 | P 214.914† | 4924.0 | 4399.8 | 2360.7 | ug/L | 2360.7 | ppb | 12:55:08 |
| 1 | Pb 220.353† | 3273.5 | 3125.7 | 505.86 | ug/L | 505.86 | ppb | 12:55:08 |
| 1 | S 181.975 Axial† | 861.9 | 761.9 | 986.84 | ug/L | 986.84 | ppb | 12:55:08 |
| 1 | Sb 206.836† | 1385.7 | 1263.2 | 530.23 | ug/L | 530.23 | ppb | 12:55:08 |
| 1 | Se 196.026† | 857.3 | 819.8 | 515.74 | ug/L | 515.74 | ppb | 12:55:08 |
| 1 | Si 251.611† | 73316.3 | 67831.8 | 2469.2 | ug/L | 2469.2 | ppb | 12:54:48 |
| 1 | Sn 189.927† | 2267.6 | 2108.2 | 497.09 | ug/L | 497.09 | ppb | 12:55:08 |
| 1 | Sr 421.552† | 69652.3 | 68166.3 | 495.65 | ug/L | 495.65 | ppb | 12:53:26 |
| 1 | Ti 334.940† | 261113.4 | 244980.0 | 493.49 | ug/L | 493.49 | ppb | 12:54:48 |
| 1 | Tl 190.801† | 1118.1 | 1074.7 | 496.83 | ug/L | 496.83 | ppb | 12:55:08 |
| 1 | U 409.014† | 13419.9 | 15060.6 | 502.61 | ug/L | 502.61 | ppb | 12:54:48 |
| 1 | V 292.402† | 65036.2 | 62321.7 | 502.84 | ug/L | 502.84 | ppb | 12:54:48 |
| 1 | Zn 213.857† | 49138.2 | 45147.0 | 493.24 | ug/L | 493.24 | ppb | 12:54:48 |
| 1 | SiO2† | 72354.7 | 66927.1 | 5200.4 | ug/L | 5200.4 | ppb | 12:56:15 |
| 2 | Sc 361.383 | 817634.9 | 817634.9 | 106.47 | % | | | 12:55:14 |
| 2 | Sc Radial | 4813.6 | 4813.6 | 102 | % | | | 12:53:51 |
| 2 | Y 371.029 | 723758.5 | 723758.5 | 105.04 | % | | | 12:55:14 |
| 2 | Y RADIAL | 5082.9 | 5082.9 | 102.0 | % | | | 12:53:51 |
| 2 | Ag 328.068† | 102723.2 | 96224.0 | 497.86 | ug/L | 497.86 | ppb | 12:55:19 |
| 2 | Al 396.153Radial† | 5489.1 | 5454.3 | 5078.1 | ug/L | 5078.1 | ppb | 12:53:51 |
| 2 | As 188.979† | 1225.4 | 1175.9 | 528.43 | ug/L | 528.43 | ppb | 12:55:39 |
| 2 | B 249.677† | 22096.5 | 21206.9 | 528.75 | ug/L | 528.75 | ppb | 12:55:19 |
| 2 | Ba 233.527† | 45029.9 | 42290.6 | 500.28 | ug/L | 500.28 | ppb | 12:55:19 |
| 2 | Be 313.107† | 1316819.1 | 1245765.3 | 496.29 | ug/L | 496.29 | ppb | 12:55:14 |
| 2 | Ca 317.933Radial† | 2930.4 | 2843.1 | 5165.8 | ug/L | 5165.8 | ppb | 12:54:11 |
| 2 | Cd 226.502† | 37458.6 | 35368.5 | 501.28 | ug/L | 501.28 | ppb | 12:55:19 |
| 2 | Co 228.616† | 17920.1 | 16888.4 | 510.47 | ug/L | 510.47 | ppb | 12:55:19 |
| 2 | Cr 267.716† | 38967.4 | 36523.3 | 499.58 | ug/L | 499.58 | ppb | 12:55:19 |
| 2 | Cu 324.752† | 148589.3 | 132021.8 | 494.34 | ug/L | 494.34 | ppb | 12:55:19 |
| 2 | Fe 238.204 Radial† | 519.6 | 500.7 | 5210.4 | ug/L | 5210.4 | ppb | 12:54:11 |
| 2 | K 766.490 Radial† | 29656.3 | 26735.8 | 5315.8 | ug/L | 5315.8 | ppb | 12:53:51 |
| 2 | Mg 279.077 IEC† | 141.8 | 135.7 | 5389.4 | ug/L | 5389.4 | ppb | 12:54:11 |
| 2 | Mn 257.610† | 331860.9 | 311229.2 | 498.46 | ug/L | 498.46 | ppb | 12:55:19 |
| 2 | Mo 202.031† | 5743.4 | 5379.9 | 494.19 | ug/L | 494.19 | ppb | 12:55:39 |
| 2 | Na 589.592 Radial† | 28298.1 | 28517.1 | 9718.6 | ug/L | 9718.6 | ppb | 12:53:51 |
| 2 | Ni 231.604† | 16958.9 | 15826.8 | 505.63 | ug/L | 505.63 | ppb | 12:55:19 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4909.8 | 4416.0 | 2369.5 ug/L | 2369.5 ppb | 12:55:39 |
| 2 | Pb 220.353† | 3253.2 | 3126.2 | 505.94 ug/L | 505.94 ppb | 12:55:39 |
| 2 | S 181.975 Axial† | 867.7 | 772.4 | 1000.6 ug/L | 1000.6 ppb | 12:55:39 |
| 2 | Sb 206.836† | 1376.8 | 1263.1 | 530.27 ug/L | 530.27 ppb | 12:55:39 |
| 2 | Se 196.026† | 851.8 | 819.8 | 515.71 ug/L | 515.71 ppb | 12:55:39 |
| 2 | Si 251.611† | 72997.4 | 67971.4 | 2474.2 ug/L | 2474.2 ppb | 12:55:19 |
| 2 | Sn 189.927† | 2258.0 | 2112.7 | 498.15 ug/L | 498.15 ppb | 12:55:39 |
| 2 | Sr 421.552† | 70069.5 | 68513.1 | 498.17 ug/L | 498.17 ppb | 12:53:51 |
| 2 | Ti 334.940† | 260009.9 | 245507.5 | 494.55 ug/L | 494.55 ppb | 12:55:19 |
| 2 | Tl 190.801† | 1117.5 | 1080.8 | 499.64 ug/L | 499.64 ppb | 12:55:39 |
| 2 | U 409.014† | 13322.1 | 15049.2 | 502.22 ug/L | 502.22 ppb | 12:55:19 |
| 2 | V 292.402† | 64734.1 | 62427.6 | 503.71 ug/L | 503.71 ppb | 12:55:19 |
| 2 | Zn 213.857† | 49045.6 | 45354.3 | 495.52 ug/L | 495.52 ppb | 12:55:19 |
| 2 | SiO2† | 73690.7 | 68615.4 | 5331.8 ug/L | 5331.8 ppb | 12:56:21 |
| 3 | Sc 361.383 | 813886.2 | 813886.2 | 105.98 % | | 12:55:45 |
| 3 | Sc Radial | 4829.5 | 4829.5 | 103 % | | 12:54:16 |
| 3 | Y 371.029 | 719850.0 | 719850.0 | 104.47 % | | 12:55:45 |
| 3 | Y RADIAL | 5079.5 | 5079.5 | 101.9 % | | 12:54:16 |
| 3 | Ag 328.068† | 102643.6 | 96593.3 | 499.75 ug/L | 499.75 ppb | 12:55:50 |
| 3 | Al 396.153Radial† | 5521.5 | 5468.2 | 5091.0 ug/L | 5091.0 ppb | 12:54:16 |
| 3 | As 188.979† | 1222.4 | 1178.4 | 529.51 ug/L | 529.51 ppb | 12:56:10 |
| 3 | B 249.677† | 22055.0 | 21263.3 | 530.18 ug/L | 530.18 ppb | 12:55:50 |
| 3 | Ba 233.527† | 44920.6 | 42382.3 | 501.36 ug/L | 501.36 ppb | 12:55:50 |
| 3 | Be 313.107† | 1310616.1 | 1245609.1 | 496.24 ug/L | 496.24 ppb | 12:55:45 |
| 3 | Ca 317.933Radial† | 2924.3 | 2827.7 | 5137.9 ug/L | 5137.9 ppb | 12:54:36 |
| 3 | Cd 226.502† | 37476.3 | 35547.2 | 503.82 ug/L | 503.82 ppb | 12:55:50 |
| 3 | Co 228.616† | 17812.9 | 16864.8 | 509.76 ug/L | 509.76 ppb | 12:55:50 |
| 3 | Cr 267.716† | 38851.6 | 36582.7 | 500.39 ug/L | 500.39 ppb | 12:55:50 |
| 3 | Cu 324.752† | 148529.8 | 132608.5 | 496.54 ug/L | 496.54 ppb | 12:55:50 |
| 3 | Fe 238.204 Radial† | 513.6 | 493.2 | 5132.3 ug/L | 5132.3 ppb | 12:54:36 |
| 3 | K 766.490 Radial† | 29760.8 | 26742.3 | 5317.2 ug/L | 5317.2 ppb | 12:54:16 |
| 3 | Mg 279.077 IEC† | 140.0 | 133.6 | 5302.4 ug/L | 5302.4 ppb | 12:54:36 |
| 3 | Mn 257.610† | 331356.1 | 312188.6 | 499.99 ug/L | 499.99 ppb | 12:55:50 |
| 3 | Mo 202.031† | 5746.6 | 5407.8 | 496.75 ug/L | 496.75 ppb | 12:56:10 |
| 3 | Na 589.592 Radial† | 28279.4 | 28408.0 | 9681.4 ug/L | 9681.4 ppb | 12:54:16 |
| 3 | Ni 231.604† | 16997.8 | 15936.9 | 509.15 ug/L | 509.15 ppb | 12:55:50 |
| 3 | P 214.914† | 4934.1 | 4460.2 | 2393.8 ug/L | 2393.8 ppb | 12:56:10 |
| 3 | Pb 220.353† | 3246.2 | 3133.6 | 507.15 ug/L | 507.15 ppb | 12:56:10 |
| 3 | S 181.975 Axial† | 873.3 | 781.5 | 1012.3 ug/L | 1012.3 ppb | 12:56:10 |
| 3 | Sb 206.836† | 1377.0 | 1269.2 | 532.84 ug/L | 532.84 ppb | 12:56:10 |
| 3 | Se 196.026† | 845.5 | 817.6 | 514.21 ug/L | 514.21 ppb | 12:56:10 |
| 3 | Si 251.611† | 72871.7 | 68168.6 | 2481.4 ug/L | 2481.4 ppb | 12:55:50 |
| 3 | Sn 189.927† | 2261.8 | 2126.1 | 501.30 ug/L | 501.30 ppb | 12:56:10 |
| 3 | Sr 421.552† | 70036.8 | 68256.1 | 496.30 ug/L | 496.30 ppb | 12:54:16 |
| 3 | Ti 334.940† | 259985.2 | 246609.1 | 496.78 ug/L | 496.78 ppb | 12:55:50 |
| 3 | Tl 190.801† | 1107.0 | 1075.7 | 497.34 ug/L | 497.34 ppb | 12:56:10 |
| 3 | U 409.014† | 13085.7 | 14883.7 | 496.69 ug/L | 496.69 ppb | 12:55:50 |
| 3 | V 292.402† | 64604.1 | 62584.9 | 505.00 ug/L | 505.00 ppb | 12:55:50 |
| 3 | Zn 213.857† | 48922.5 | 45450.3 | 496.57 ug/L | 496.57 ppb | 12:55:50 |
| 3 | SiO2† | 73204.9 | 68475.7 | 5320.9 ug/L | 5320.9 ppb | 12:56:26 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 818134.5 | 106.54 | % | 0.588 | | | | 0.55% |
| Sc Radial | 4817.4 | 102 | % | 0.2 | | | | 0.22% |
| Y 371.029 | 724116.2 | 105.09 | % | 0.647 | | | | 0.62% |
| Y RADIAL | 5075.9 | 101.8 | % | 0.19 | | | | 0.18% |
| Ag 328.068† | 96220.5 | 497.84 | ug/L | 1.920 | 497.84 | ppb | 1.920 | 0.39% |
| QC value within limits for Ag 328.068 Recovery = 99.57% | | | | | | | | |
| Al 396.153Radial† | 5464.7 | 5087.8 | ug/L | 8.59 | 5087.8 | ppb | 8.59 | 0.17% |
| QC value within limits for Al 396.153Radial Recovery = 101.76% | | | | | | | | |
| As 188.979† | 1177.1 | 528.95 | ug/L | 0.539 | 528.95 | ppb | 0.539 | 0.10% |
| QC value within limits for As 188.979 Recovery = 105.79% | | | | | | | | |
| B 249.677† | 21216.1 | 528.99 | ug/L | 1.087 | 528.99 | ppb | 1.087 | 0.21% |
| QC value within limits for B 249.677 Recovery = 105.80% | | | | | | | | |
| Ba 233.527† | 42271.1 | 500.05 | ug/L | 1.442 | 500.05 | ppb | 1.442 | 0.29% |
| QC value within limits for Ba 233.527 Recovery = 100.01% | | | | | | | | |
| Be 313.107† | 1246324.8 | 496.52 | ug/L | 0.437 | 496.52 | ppb | 0.437 | 0.09% |
| QC value within limits for Be 313.107 Recovery = 99.30% | | | | | | | | |

```
Ca 317.933Radial†        2844.3      5167.9 ug/L        31.06      5167.9 ppb        31.06   0.60%
   QC value within limits for Ca 317.933Radial  Recovery = 103.36%
Cd 226.502†             35387.3      501.54 ug/L        2.152      501.54 ppb        2.152   0.43%
   QC value within limits for Cd 226.502  Recovery = 100.31%
Co 228.616†             16826.3      508.59 ug/L        2.661      508.59 ppb        2.661   0.52%
   QC value within limits for Co 228.616  Recovery = 101.72%
Cr 267.716†             36504.6      499.32 ug/L        1.216      499.32 ppb        1.216   0.24%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†            132127.0      494.74 ug/L        1.641      494.74 ppb        1.641   0.33%
   QC value within limits for Cu 324.752  Recovery = 98.95%
Fe 238.204 Radial†        498.4      5185.6 ug/L        46.21      5185.6 ppb        46.21   0.89%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.71%
K 766.490 Radial†       26838.7      5336.3 ug/L        34.37      5336.3 ppb        34.37   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 106.73%
Mg 279.077 IEC†           135.1      5361.9 ug/L        51.55      5361.9 ppb        51.55   0.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.24%
Mn 257.610†            311127.6      498.29 ug/L        1.783      498.29 ppb        1.783   0.36%
   QC value within limits for Mn 257.610  Recovery = 99.66%
Mo 202.031†             5379.6      494.16 ug/L        2.601      494.16 ppb        2.601   0.53%
   QC value within limits for Mo 202.031  Recovery = 98.83%
Na 589.592 Radial†      28406.5      9680.9 ug/L        37.99      9680.9 ppb        37.99   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 96.81%
Ni 231.604†             15856.1      506.56 ug/L        2.266      506.56 ppb        2.266   0.45%
   QC value within limits for Ni 231.604  Recovery = 101.31%
P 214.914†               4425.3      2374.7 ug/L        17.17      2374.7 ppb        17.17   0.72%
   QC value within limits for P 214.914  Recovery = 94.99%
Pb 220.353†              3128.5      506.32 ug/L        0.725      506.32 ppb        0.725   0.14%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†          771.9      999.89 ug/L       12.726      999.89 ppb       12.726   1.27%
   QC value within limits for S 181.975 Axial  Recovery = 99.99%
Sb 206.836†              1265.2      531.12 ug/L        1.496      531.12 ppb        1.496   0.28%
   QC value within limits for Sb 206.836  Recovery = 106.22%
Se 196.026†               819.1      515.22 ug/L        0.875      515.22 ppb        0.875   0.17%
   QC value within limits for Se 196.026  Recovery = 103.04%
Si 251.611†             67990.6      2474.9 ug/L         6.14      2474.9 ppb         6.14   0.25%
   QC value within limits for Si 251.611  Recovery = 99.00%
Sn 189.927†              2115.6      498.84 ug/L        2.193      498.84 ppb        2.193   0.44%
   QC value within limits for Sn 189.927  Recovery = 99.77%
Sr 421.552†             68311.9      496.71 ug/L        1.309      496.71 ppb        1.309   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.34%
Ti 334.940†            245698.8      494.94 ug/L        1.676      494.94 ppb        1.676   0.34%
   QC value within limits for Ti 334.940  Recovery = 98.99%
Tl 190.801†              1077.1      497.94 ug/L        1.499      497.94 ppb        1.499   0.30%
   QC value within limits for Tl 190.801  Recovery = 99.59%
U 409.014†              14997.8      500.51 ug/L        3.311      500.51 ppb        3.311   0.66%
   QC value within limits for U 409.014  Recovery = 100.10%
V 292.402†              62444.7      503.85 ug/L        1.088      503.85 ppb        1.088   0.22%
   QC value within limits for V 292.402  Recovery = 100.77%
Zn 213.857†             45317.2      495.11 ug/L        1.701      495.11 ppb        1.701   0.34%
   QC value within limits for Zn 213.857  Recovery = 99.02%
SiO2†                   68006.1      5284.3 ug/L        72.93      5284.3 ppb        72.93   1.38%
   QC value within limits for SiO2  Recovery = 98.82%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 12:58:36
Data Type: Reprocessed on 3/1/2010 13:29:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 801042.3 | 801042.3 | 104.31 | % | | | 13:01:45 |
| 1 | Sc Radial | 4860.2 | 4860.2 | 103 | % | | | 13:00:29 |
| 1 | Y 371.029 | 720663.8 | 720663.8 | 104.59 | % | | | 13:01:45 |
| 1 | Y RADIAL | 5132.1 | 5132.1 | 102.9 | % | | | 13:00:29 |
| 1 | Ag 328.068† | 218.3 | -46.4 | -0.2407 | ug/L | -0.2407 | ppb | 13:01:45 |
| 1 | Al 396.153Radial† | -79.4 | 10.2 | 9.5181 | ug/L | 9.5181 | ppb | 13:00:49 |
| 1 | As 188.979† | -1.0 | 24.1 | 10.725 | ug/L | 10.725 | ppb | 13:02:05 |
| 1 | B 249.677† | 580.1 | 1009.5 | 25.279 | ug/L | 25.279 | ppb | 13:02:05 |
| 1 | Ba 233.527† | 25.8 | 22.4 | 0.2631 | ug/L | 0.2631 | ppb | 13:02:05 |
| 1 | Be 313.107† | -9173.5 | 188.2 | 0.0754 | ug/L | 0.0754 | ppb | 13:01:45 |
| 1 | Ca 317.933Radial† | 28.1 | 5.1 | 9.2452 | ug/L | 9.2452 | ppb | 13:00:49 |
| 1 | Cd 226.502† | -193.7 | 1.0 | 0.0138 | ug/L | 0.0138 | ppb | 13:02:05 |
| 1 | Co 228.616† | -53.6 | 6.1 | 0.1849 | ug/L | 0.1849 | ppb | 13:02:05 |
| 1 | Cr 267.716† | 99.4 | 19.7 | 0.2678 | ug/L | 0.2678 | ppb | 13:02:05 |
| 1 | Cu 324.752† | 7791.8 | -66.3 | -0.2498 | ug/L | -0.2498 | ppb | 13:01:45 |
| 1 | Fe 238.204 Radial† | 8.4 | 0.8 | 8.2681 | ug/L | 8.2681 | ppb | 13:00:49 |
| 1 | K 766.490 Radial† | 2775.3 | 425.9 | 84.760 | ug/L | 84.760 | ppb | 13:00:29 |
| 1 | Mg 279.077 IEC† | 3.2 | 0.2 | 7.4569 | ug/L | 7.4569 | ppb | 13:00:49 |
| 1 | Mn 257.610† | 481.9 | 0.8 | 0.0019 | ug/L | 0.0019 | ppb | 13:02:05 |
| 1 | Mo 202.031† | 17.3 | 2.2 | 0.2014 | ug/L | 0.2014 | ppb | 13:02:05 |
| 1 | Na 589.592 Radial† | -681.4 | 188.0 | 64.060 | ug/L | 64.060 | ppb | 13:00:29 |
| 1 | Ni 231.604† | 109.4 | 3.6 | 0.1147 | ug/L | 0.1147 | ppb | 13:02:05 |
| 1 | P 214.914† | 196.8 | -6.7 | -3.6663 | ug/L | -3.6663 | ppb | 13:02:05 |
| 1 | Pb 220.353† | -32.6 | 39.4 | 6.3560 | ug/L | 6.3560 | ppb | 13:02:05 |
| 1 | S 181.975 Axial† | 43.7 | -0.6 | -0.8071 | ug/L | -0.8071 | ppb | 13:02:05 |
| 1 | Sb 206.836† | 45.8 | 13.9 | 5.6621 | ug/L | 5.6621 | ppb | 13:02:05 |
| 1 | Se 196.026† | -15.6 | 4.9 | 3.0021 | ug/L | 3.0021 | ppb | 13:02:05 |
| 1 | Si 251.611† | 692.9 | 75.0 | 2.7361 | ug/L | 2.7361 | ppb | 13:02:05 |
| 1 | Sn 189.927† | 12.7 | 4.1 | 0.9588 | ug/L | 0.9588 | ppb | 13:02:05 |
| 1 | Sr 421.552† | 47.3 | 46.2 | 0.3362 | ug/L | 0.3362 | ppb | 13:00:29 |
| 1 | Ti 334.940† | -1216.3 | 135.0 | 0.2711 | ug/L | 0.2711 | ppb | 13:01:45 |
| 1 | Tl 190.801† | -34.9 | -2.3 | -1.0317 | ug/L | -1.0317 | ppb | 13:02:05 |
| 1 | U 409.014† | -2546.6 | 95.5 | 3.1959 | ug/L | 3.1959 | ppb | 13:01:45 |
| 1 | V 292.402† | -1758.8 | -58.2 | -0.4556 | ug/L | -0.4556 | ppb | 13:01:45 |
| 1 | Zn 213.857† | 763.7 | 21.8 | 0.2389 | ug/L | 0.2389 | ppb | 13:02:05 |
| 1 | SiO2† | 688.1 | 63.2 | 4.9216 | ug/L | 4.9216 | ppb | 13:03:01 |
| 2 | Sc 361.383 | 801808.8 | 801808.8 | 104.41 | % | | | 13:02:11 |
| 2 | Sc Radial | 4879.3 | 4879.3 | 104 | % | | | 13:00:54 |
| 2 | Y 371.029 | 721183.9 | 721183.9 | 104.67 | % | | | 13:02:11 |
| 2 | Y RADIAL | 5127.6 | 5127.6 | 102.9 | % | | | 13:00:54 |
| 2 | Ag 328.068† | 194.9 | -69.0 | -0.3594 | ug/L | -0.3594 | ppb | 13:02:11 |
| 2 | Al 396.153Radial† | -81.0 | 9.0 | 8.4529 | ug/L | 8.4529 | ppb | 13:01:14 |
| 2 | As 188.979† | -12.0 | 13.5 | 6.0097 | ug/L | 6.0097 | ppb | 13:02:31 |
| 2 | B 249.677† | 515.7 | 947.4 | 23.725 | ug/L | 23.725 | ppb | 13:02:31 |
| 2 | Ba 233.527† | 24.5 | 21.1 | 0.2489 | ug/L | 0.2489 | ppb | 13:02:31 |
| 2 | Be 313.107† | -9270.9 | 103.4 | 0.0414 | ug/L | 0.0414 | ppb | 13:02:11 |
| 2 | Ca 317.933Radial† | 31.2 | 8.0 | 14.486 | ug/L | 14.486 | ppb | 13:01:14 |
| 2 | Cd 226.502† | -175.5 | 18.6 | 0.2638 | ug/L | 0.2638 | ppb | 13:02:31 |
| 2 | Co 228.616† | -63.2 | -3.1 | -0.0940 | ug/L | -0.0940 | ppb | 13:02:31 |
| 2 | Cr 267.716† | 73.4 | -5.4 | -0.0753 | ug/L | -0.0753 | ppb | 13:02:31 |
| 2 | Cu 324.752† | 7821.8 | -44.7 | -0.1705 | ug/L | -0.1705 | ppb | 13:02:11 |
| 2 | Fe 238.204 Radial† | 7.5 | -0.0 | -0.4398 | ug/L | -0.4398 | ppb | 13:01:14 |
| 2 | K 766.490 Radial† | 2782.1 | 422.0 | 83.980 | ug/L | 83.980 | ppb | 13:00:54 |
| 2 | Mg 279.077 IEC† | 0.7 | -2.2 | -87.558 | ug/L | -87.558 | ppb | 13:01:14 |
| 2 | Mn 257.610† | 454.2 | -26.1 | -0.0383 | ug/L | -0.0383 | ppb | 13:02:31 |
| 2 | Mo 202.031† | 13.3 | -1.7 | -0.1537 | ug/L | -0.1537 | ppb | 13:02:31 |
| 2 | Na 589.592 Radial† | -727.7 | 145.8 | 49.704 | ug/L | 49.704 | ppb | 13:00:54 |
| 2 | Ni 231.604† | 91.1 | -14.1 | -0.4511 | ug/L | -0.4511 | ppb | 13:02:31 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 204.9 | 0.9 | 0.5662 ug/L | 0.5662 ppb | 13:02:31 |
| 2 | Pb 220.353† | -40.4 | 32.0 | 5.1682 ug/L | 5.1682 ppb | 13:02:31 |
| 2 | S 181.975 Axial† | 51.3 | 6.6 | 8.5889 ug/L | 8.5889 ppb | 13:02:31 |
| 2 | Sb 206.836† | 53.9 | 21.6 | 8.7842 ug/L | 8.7842 ppb | 13:02:31 |
| 2 | Se 196.026† | -15.4 | 5.1 | 3.1128 ug/L | 3.1128 ppb | 13:02:31 |
| 2 | Si 251.611† | 729.1 | 109.1 | 3.9823 ug/L | 3.9823 ppb | 13:02:31 |
| 2 | Sn 189.927† | 20.1 | 11.2 | 2.6364 ug/L | 2.6364 ppb | 13:02:31 |
| 2 | Sr 421.552† | 50.2 | 48.9 | 0.3556 ug/L | 0.3556 ppb | 13:00:54 |
| 2 | Ti 334.940† | -1292.3 | 63.4 | 0.1344 ug/L | 0.1344 ppb | 13:02:11 |
| 2 | Tl 190.801† | -29.8 | 2.7 | 1.2231 ug/L | 1.2231 ppb | 13:02:31 |
| 2 | U 409.014† | -2480.3 | 161.3 | 5.4021 ug/L | 5.4021 ppb | 13:02:11 |
| 2 | V 292.402† | -1698.8 | 0.9 | 0.0139 ug/L | 0.0139 ppb | 13:02:11 |
| 2 | Zn 213.857† | 766.9 | 24.2 | 0.2698 ug/L | 0.2698 ppb | 13:02:31 |
| 2 | SiO2† | 702.2 | 76.1 | 5.9342 ug/L | 5.9342 ppb | 13:03:07 |
| 3 | Sc 361.383 | 802421.1 | 802421.1 | 104.49 % | | 13:02:36 |
| 3 | Sc Radial | 4984.7 | 4984.7 | 106 % | | 13:01:19 |
| 3 | Y 371.029 | 720635.8 | 720635.8 | 104.59 % | | 13:02:36 |
| 3 | Y RADIAL | 5262.4 | 5262.4 | 105.6 % | | 13:01:19 |
| 3 | Ag 328.068† | 218.6 | -46.4 | -0.2424 ug/L | -0.2424 ppb | 13:02:36 |
| 3 | Al 396.153Radial† | -75.3 | 16.0 | 14.904 ug/L | 14.904 ppb | 13:01:39 |
| 3 | As 188.979† | -5.2 | 20.0 | 8.9136 ug/L | 8.9136 ppb | 13:02:56 |
| 3 | B 249.677† | 455.9 | 889.8 | 22.278 ug/L | 22.278 ppb | 13:02:56 |
| 3 | Ba 233.527† | 16.4 | 13.3 | 0.1587 ug/L | 0.1587 ppb | 13:02:56 |
| 3 | Be 313.107† | -9310.5 | 72.3 | 0.0291 ug/L | 0.0291 ppb | 13:02:36 |
| 3 | Ca 317.933Radial† | 31.6 | 7.7 | 14.027 ug/L | 14.027 ppb | 13:01:39 |
| 3 | Cd 226.502† | -178.9 | 15.5 | 0.2204 ug/L | 0.2204 ppb | 13:02:56 |
| 3 | Co 228.616† | -45.3 | 14.1 | 0.4286 ug/L | 0.4286 ppb | 13:02:56 |
| 3 | Cr 267.716† | 85.1 | 5.8 | 0.0766 ug/L | 0.0766 ppb | 13:02:56 |
| 3 | Cu 324.752† | 7786.8 | -84.0 | -0.3203 ug/L | -0.3203 ppb | 13:02:36 |
| 3 | Fe 238.204 Radial† | 8.7 | 0.9 | 9.5950 ug/L | 9.5950 ppb | 13:01:39 |
| 3 | K 766.490 Radial† | 2681.9 | 270.6 | 53.842 ug/L | 53.842 ppb | 13:01:19 |
| 3 | Mg 279.077 IEC† | 0.0 | -2.9 | -113.77 ug/L | -113.77 ppb | 13:01:39 |
| 3 | Mn 257.610† | 480.8 | -1.0 | 0.0039 ug/L | 0.0039 ppb | 13:02:56 |
| 3 | Mo 202.031† | 29.8 | 14.1 | 1.2981 ug/L | 1.2981 ppb | 13:02:56 |
| 3 | Na 589.592 Radial† | -699.5 | 187.3 | 63.846 ug/L | 63.846 ppb | 13:01:19 |
| 3 | Ni 231.604† | 107.4 | 1.4 | 0.0453 ug/L | 0.0453 ppb | 13:02:56 |
| 3 | P 214.914† | 208.2 | 3.9 | 2.2321 ug/L | 2.2321 ppb | 13:02:56 |
| 3 | Pb 220.353† | -30.4 | 41.6 | 6.7188 ug/L | 6.7188 ppb | 13:02:56 |
| 3 | S 181.975 Axial† | 51.5 | 6.8 | 8.8228 ug/L | 8.8228 ppb | 13:02:56 |
| 3 | Sb 206.836† | 48.5 | 16.3 | 6.6726 ug/L | 6.6726 ppb | 13:02:56 |
| 3 | Se 196.026† | -14.5 | 5.9 | 3.6674 ug/L | 3.6674 ppb | 13:02:56 |
| 3 | Si 251.611† | 643.8 | 27.0 | 0.9678 ug/L | 0.9678 ppb | 13:02:56 |
| 3 | Sn 189.927† | 12.4 | 3.8 | 0.8994 ug/L | 0.8994 ppb | 13:02:56 |
| 3 | Sr 421.552† | 30.9 | 29.7 | 0.2158 ug/L | 0.2158 ppb | 13:01:19 |
| 3 | Ti 334.940† | -1266.2 | 89.3 | 0.1860 ug/L | 0.1860 ppb | 13:02:36 |
| 3 | Tl 190.801† | -23.8 | 8.4 | 3.8648 ug/L | 3.8648 ppb | 13:02:56 |
| 3 | U 409.014† | -2295.2 | 340.2 | 11.392 ug/L | 11.392 ppb | 13:02:36 |
| 3 | V 292.402† | -1605.2 | 91.7 | 0.7669 ug/L | 0.7669 ppb | 13:02:36 |
| 3 | Zn 213.857† | 762.4 | 19.4 | 0.2123 ug/L | 0.2123 ppb | 13:02:56 |
| 3 | SiO2† | 670.4 | 45.2 | 3.4842 ug/L | 3.4842 ppb | 13:03:12 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 801757.4 | 104.40 | % | 0.090 | | | | 0.09% |
| Sc Radial | 4908.1 | 104 | % | 1.4 | | | | 1.37% |
| Y 371.029 | 720827.8 | 104.61 | % | 0.045 | | | | 0.04% |
| Y RADIAL | 5174.0 | 103.8 | % | 1.54 | | | | 1.48% |
| Ag 328.068† | -53.9 | -0.2808 | ug/L | 0.06804 | -0.2808 | ppb | 0.06804 | 24.23% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 11.7 | 10.958 | ug/L | 3.4582 | 10.958 | ppb | 3.4582 | 31.56% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | 19.2 | 8.5495 | ug/L | 2.37877 | 8.5495 | ppb | 2.37877 | 27.82% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 948.9 | 23.761 | ug/L | 1.5006 | 23.761 | ppb | 1.5006 | 6.32% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 18.9 | 0.2236 | ug/L | 0.05663 | 0.2236 | ppb | 0.05663 | 25.33% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 121.3 | 0.0486 | ug/L | 0.02400 | 0.0486 | ppb | 0.02400 | 49.33% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |

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Ca 317.933Radial†          6.9      12.586 ug/L        2.9022      12.586 ppb        2.9022  23.06%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               11.7       0.1660 ug/L       0.13359       0.1660 ppb       0.13359  80.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.7       0.1732 ug/L       0.26151       0.1732 ppb       0.26151 150.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.7       0.0897 ug/L       0.17192       0.0897 ppb       0.17192 191.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -65.0      -0.2468 ug/L       0.07496      -0.2468 ppb       0.07496  30.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.6       5.8078 ug/L       5.45111       5.8078 ppb       5.45111  93.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        372.9      74.194 ug/L       17.6298      74.194 ppb       17.6298  23.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.6     -64.623 ug/L       63.7835     -64.623 ppb       63.7835  98.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -8.8      -0.0108 ug/L       0.02379      -0.0108 ppb       0.02379 219.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.9       0.4486 ug/L       0.75680       0.4486 ppb       0.75680 168.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       173.7      59.203 ug/L        8.2277      59.203 ppb        8.2277  13.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.0      -0.0970 ug/L       0.30861      -0.0970 ppb       0.30861 318.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.6      -0.2893 ug/L       3.04083      -0.2893 ppb       3.04083 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               37.7       6.0810 ug/L       0.81105       6.0810 ppb       0.81105  13.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.3       5.5349 ug/L       5.49352       5.5349 ppb       5.49352  99.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               17.3       7.0396 ug/L       1.59305       7.0396 ppb       1.59305  22.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.3       3.2608 ug/L       0.35649       3.2608 ppb       0.35649  10.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               70.4       2.5621 ug/L       1.51474       2.5621 ppb       1.51474  59.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.4       1.4982 ug/L       0.98615       1.4982 ppb       0.98615  65.82%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               41.6       0.3025 ug/L       0.07575       0.3025 ppb       0.07575  25.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               95.9       0.1972 ug/L       0.06901       0.1972 ppb       0.06901  35.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9       1.3520 ug/L       2.45081       1.3520 ppb       2.45081 181.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               199.0       6.6632 ug/L       4.24084       6.6632 ppb       4.24084  63.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                11.5       0.1084 ug/L       0.61669       0.1084 ppb       0.61669 568.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               21.8       0.2403 ug/L       0.02876       0.2403 ppb       0.02876  11.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     61.5       4.7800 ug/L       1.23111       4.7800 ppb       1.23111  25.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 3/1/2010 13:05:17
Data Type: Reprocessed on 3/1/2010 13:29:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 812300.2 | 812300.2 | 105.78 | % | | | 13:08:28 |
| 1 | Sc Radial | 4755.7 | 4755.7 | 101 | % | | | 13:07:10 |
| 1 | Y 371.029 | 723774.4 | 723774.4 | 105.04 | % | | | 13:08:28 |
| 1 | Y RADIAL | 5069.1 | 5069.1 | 101.7 | % | | | 13:07:10 |
| 1 | Ag 328.068† | -22401.9 | -21434.2 | 4.1408 | ug/L | 4.1408 | ppb | 13:08:28 |
| 1 | Al 396.153Radial† | -117.7 | -29.3 | -26.040 | ug/L | -26.040 | ppb | 13:07:30 |
| 1 | As 188.979† | -163.5 | -129.5 | 29.374 | ug/L | 29.374 | ppb | 13:08:48 |
| 1 | B 249.677† | 1509.6 | 1880.6 | -13.289 | ug/L | -13.289 | ppb | 13:08:28 |
| 1 | Ba 233.527† | -1484.1 | -1405.5 | -5.1702 | ug/L | -5.1702 | ppb | 13:08:28 |
| 1 | Be 313.107† | -9274.1 | 215.0 | 0.0858 | ug/L | 0.0858 | ppb | 13:08:28 |
| 1 | Ca 317.933Radial† | 19.1 | -3.2 | -5.9044 | ug/L | -5.9044 | ppb | 13:07:30 |
| 1 | Cd 226.502† | 2669.8 | 2710.6 | 0.0647 | ug/L | 0.0647 | ppb | 13:08:28 |
| 1 | Co 228.616† | 506.4 | 536.2 | 10.767 | ug/L | 10.767 | ppb | 13:08:48 |
| 1 | Cr 267.716† | -425.4 | -477.8 | 0.6391 | ug/L | 0.6391 | ppb | 13:08:48 |
| 1 | Cu 324.752† | 1326.9 | -6281.7 | -3.8952 | ug/L | -3.8952 | ppb | 13:08:28 |
| 1 | Fe 238.204 Radial† | 36191.5 | 35810.8 | 371530 | ug/L | 371530 | ppb | 13:07:10 |
| 1 | K 766.490 Radial† | 2181.4 | -102.7 | -20.418 | ug/L | -20.418 | ppb | 13:07:10 |
| 1 | Mg 279.077 IEC† | 11.4 | 8.4 | -57.254 | ug/L | -57.254 | ppb | 13:07:30 |
| 1 | Mn 257.610† | -28426.4 | -27335.2 | -7.0721 | ug/L | -7.0721 | ppb | 13:08:28 |
| 1 | Mo 202.031† | -313.7 | -310.9 | 0.3065 | ug/L | 0.3065 | ppb | 13:08:28 |
| 1 | Na 589.592 Radial† | -665.5 | 189.2 | 64.484 | ug/L | 64.484 | ppb | 13:07:10 |
| 1 | Ni 231.604† | 155.8 | 46.0 | 1.4604 | ug/L | 1.4604 | ppb | 13:08:48 |
| 1 | P 214.914† | 603.9 | 375.6 | -84.913 | ug/L | -84.913 | ppb | 13:08:48 |
| 1 | Pb 220.353† | 161.1 | 223.0 | 6.1224 | ug/L | 6.1224 | ppb | 13:08:48 |
| 1 | S 181.975 Axial† | 60.1 | 14.3 | 18.519 | ug/L | 18.519 | ppb | 13:08:48 |
| 1 | Sb 206.836† | 38.8 | 6.6 | -1.9799 | ug/L | -1.9799 | ppb | 13:08:48 |
| 1 | Se 196.026† | -1479.5 | -1378.9 | -12.765 | ug/L | -12.765 | ppb | 13:08:48 |
| 1 | Si 251.611† | -190.6 | -769.4 | -27.725 | ug/L | -27.725 | ppb | 13:08:28 |
| 1 | Sn 189.927† | -18.8 | -25.8 | -27.414 | ug/L | -27.414 | ppb | 13:08:48 |
| 1 | Sr 421.552† | 69.6 | 69.4 | 0.5044 | ug/L | 0.5044 | ppb | 13:07:10 |
| 1 | Ti 334.940† | -1295.8 | 76.0 | 0.0966 | ug/L | 0.0966 | ppb | 13:08:28 |
| 1 | Tl 190.801† | -36.8 | -3.6 | -2.0113 | ug/L | -2.0113 | ppb | 13:08:48 |
| 1 | U 409.014† | -447.2 | 2114.1 | 28.450 | ug/L | 28.450 | ppb | 13:08:28 |
| 1 | V 292.402† | 4922.8 | 6281.9 | -4.3450 | ug/L | -4.3450 | ppb | 13:08:28 |
| 1 | Zn 213.857† | 3652.0 | 2742.3 | -25.334 | ug/L | -25.334 | ppb | 13:08:48 |
| 1 | SiO2† | -213.0 | -797.8 | -61.371 | ug/L | -61.371 | ppb | 13:09:45 |
| 2 | Sc 361.383 | 796825.3 | 796825.3 | 103.76 | % | | | 13:08:54 |
| 2 | Sc Radial | 4763.9 | 4763.9 | 101 | % | | | 13:07:35 |
| 2 | Y 371.029 | 709451.5 | 709451.5 | 102.96 | % | | | 13:08:54 |
| 2 | Y RADIAL | 5057.6 | 5057.6 | 101.4 | % | | | 13:07:35 |
| 2 | Ag 328.068† | -22071.9 | -21527.4 | 3.6128 | ug/L | 3.6128 | ppb | 13:08:54 |
| 2 | Al 396.153Radial† | -120.5 | -32.0 | -28.690 | ug/L | -28.690 | ppb | 13:07:55 |
| 2 | As 188.979† | -156.2 | -125.5 | 31.118 | ug/L | 31.118 | ppb | 13:09:14 |
| 2 | B 249.677† | 1545.9 | 1943.3 | -11.695 | ug/L | -11.695 | ppb | 13:08:54 |
| 2 | Ba 233.527† | -1438.7 | -1389.0 | -4.9795 | ug/L | -4.9795 | ppb | 13:08:54 |
| 2 | Be 313.107† | -9114.4 | 198.7 | 0.0792 | ug/L | 0.0792 | ppb | 13:08:54 |
| 2 | Ca 317.933Radial† | 18.7 | -3.7 | -6.6481 | ug/L | -6.6481 | ppb | 13:07:55 |
| 2 | Cd 226.502† | 2684.2 | 2773.5 | 0.9721 | ug/L | 0.9721 | ppb | 13:08:54 |
| 2 | Co 228.616† | 510.3 | 549.2 | 11.172 | ug/L | 11.172 | ppb | 13:09:14 |
| 2 | Cr 267.716† | -445.0 | -504.4 | 0.2703 | ug/L | 0.2703 | ppb | 13:09:14 |
| 2 | Cu 324.752† | 1205.1 | -6374.7 | -4.2540 | ug/L | -4.2540 | ppb | 13:08:54 |
| 2 | Fe 238.204 Radial† | 36239.1 | 35796.5 | 371390 | ug/L | 371390 | ppb | 13:07:35 |
| 2 | K 766.490 Radial† | 2339.3 | 49.5 | 9.8927 | ug/L | 9.8927 | ppb | 13:07:35 |
| 2 | Mg 279.077 IEC† | 9.2 | 6.2 | -144.14 | ug/L | -144.14 | ppb | 13:07:55 |
| 2 | Mn 257.610† | -27751.5 | -27206.6 | -6.8774 | ug/L | -6.8774 | ppb | 13:08:54 |
| 2 | Mo 202.031† | -268.3 | -273.0 | 3.7794 | ug/L | 3.7794 | ppb | 13:08:54 |
| 2 | Na 589.592 Radial† | -739.4 | 117.3 | 39.971 | ug/L | 39.971 | ppb | 13:07:35 |
| 2 | Ni 231.604† | 141.7 | 35.2 | 1.1157 | ug/L | 1.1157 | ppb | 13:09:14 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 609.4 | 392.0 | -75.560 | ug/L | -75.560 ppb | 13:09:14 |
| 2 | Pb 220.353† | 162.0 | 226.8 | 6.7588 | ug/L | 6.7588 ppb | 13:09:14 |
| 2 | S 181.975 Axial† | 53.0 | 8.6 | 11.113 | ug/L | 11.113 ppb | 13:09:14 |
| 2 | Sb 206.836† | 21.5 | -9.3 | -8.3688 | ug/L | -8.3688 ppb | 13:09:14 |
| 2 | Se 196.026† | -1481.4 | -1407.8 | -30.833 | ug/L | -30.833 ppb | 13:09:14 |
| 2 | Si 251.611† | -139.9 | -724.1 | -26.113 | ug/L | -26.113 ppb | 13:08:54 |
| 2 | Sn 189.927† | -14.0 | -21.6 | -26.402 | ug/L | -26.402 ppb | 13:09:14 |
| 2 | Sr 421.552† | 96.5 | 95.8 | 0.6967 | ug/L | 0.6967 ppb | 13:07:35 |
| 2 | Ti 334.940† | -1295.4 | 52.6 | 0.0544 | ug/L | 0.0544 ppb | 13:08:54 |
| 2 | Tl 190.801† | -33.9 | -1.4 | -1.0302 | ug/L | -1.0302 ppb | 13:09:14 |
| 2 | U 409.014† | -285.3 | 2261.8 | 33.416 | ug/L | 33.416 ppb | 13:08:54 |
| 2 | V 292.402† | 4855.5 | 6307.4 | -4.0630 | ug/L | -4.0630 ppb | 13:08:54 |
| 2 | Zn 213.857† | 3703.4 | 2858.9 | -24.024 | ug/L | -24.024 ppb | 13:09:14 |
| 2 | SiO2† | -297.0 | -882.7 | -68.078 | ug/L | -68.078 ppb | 13:09:50 |
| 3 | Sc 361.383 | 797370.0 | 797370.0 | 103.83 | % | | 13:09:20 |
| 3 | Sc Radial | 4772.0 | 4772.0 | 101 | % | | 13:08:00 |
| 3 | Y 371.029 | 709955.2 | 709955.2 | 103.04 | % | | 13:09:20 |
| 3 | Y RADIAL | 5050.4 | 5050.4 | 101.3 | % | | 13:08:00 |
| 3 | Ag 328.068† | -22095.9 | -21536.0 | 2.8813 | ug/L | 2.8813 ppb | 13:09:20 |
| 3 | Al 396.153Radial† | -115.8 | -27.1 | -24.221 | ug/L | -24.221 ppb | 13:08:20 |
| 3 | As 188.979† | -144.6 | -114.2 | 35.607 | ug/L | 35.607 ppb | 13:09:40 |
| 3 | B 249.677† | 1380.0 | 1782.5 | -15.362 | ug/L | -15.362 ppb | 13:09:20 |
| 3 | Ba 233.527† | -1528.7 | -1474.6 | -6.0580 | ug/L | -6.0580 ppb | 13:09:20 |
| 3 | Be 313.107† | -9262.9 | 61.6 | 0.0243 | ug/L | 0.0243 ppb | 13:09:20 |
| 3 | Ca 317.933Radial† | 17.1 | -5.3 | -9.6166 | ug/L | -9.6166 ppb | 13:08:20 |
| 3 | Cd 226.502† | 2696.8 | 2783.9 | 1.3503 | ug/L | 1.3503 ppb | 13:09:20 |
| 3 | Co 228.616† | 537.1 | 574.8 | 11.980 | ug/L | 11.980 ppb | 13:09:40 |
| 3 | Cr 267.716† | -410.6 | -471.0 | 0.6830 | ug/L | 0.6830 ppb | 13:09:40 |
| 3 | Cu 324.752† | 1301.5 | -6282.7 | -4.0297 | ug/L | -4.0297 ppb | 13:09:20 |
| 3 | Fe 238.204 Radial† | 36083.0 | 35581.7 | 369160 | ug/L | 369160 ppb | 13:08:00 |
| 3 | K 766.490 Radial† | 2313.2 | 19.9 | 3.9864 | ug/L | 3.9864 ppb | 13:08:00 |
| 3 | Mg 279.077 IEC† | 9.2 | 6.1 | -142.68 | ug/L | -142.68 ppb | 13:08:20 |
| 3 | Mn 257.610† | -27718.6 | -27156.6 | -7.0174 | ug/L | -7.0174 ppb | 13:09:20 |
| 3 | Mo 202.031† | -245.2 | -250.5 | 5.6684 | ug/L | 5.6684 ppb | 13:09:20 |
| 3 | Na 589.592 Radial† | -751.9 | 106.1 | 36.175 | ug/L | 36.175 ppb | 13:08:00 |
| 3 | Ni 231.604† | 118.9 | 13.2 | 0.4100 | ug/L | 0.4100 ppb | 13:09:40 |
| 3 | P 214.914† | 587.4 | 370.3 | -85.919 | ug/L | -85.919 ppb | 13:09:40 |
| 3 | Pb 220.353† | 159.1 | 223.9 | 6.4788 | ug/L | 6.4788 ppb | 13:09:40 |
| 3 | S 181.975 Axial† | 50.8 | 6.4 | 8.3546 | ug/L | 8.3546 ppb | 13:09:40 |
| 3 | Sb 206.836† | 31.6 | 0.4 | -4.3721 | ug/L | -4.3721 ppb | 13:09:40 |
| 3 | Se 196.026† | -1466.2 | -1392.3 | -26.291 | ug/L | -26.291 ppb | 13:09:40 |
| 3 | Si 251.611† | -195.3 | -777.3 | -28.081 | ug/L | -28.081 ppb | 13:09:20 |
| 3 | Sn 189.927† | -20.1 | -27.4 | -27.653 | ug/L | -27.653 ppb | 13:09:40 |
| 3 | Sr 421.552† | 74.7 | 74.1 | 0.5392 | ug/L | 0.5392 ppb | 13:08:00 |
| 3 | Ti 334.940† | -1388.2 | -36.0 | -0.1263 | ug/L | -0.1263 ppb | 13:09:20 |
| 3 | Tl 190.801† | -29.1 | 3.2 | 1.0833 | ug/L | 1.0833 ppb | 13:09:40 |
| 3 | U 409.014† | -164.7 | 2378.1 | 37.563 | ug/L | 37.563 ppb | 13:09:20 |
| 3 | V 292.402† | 4878.9 | 6326.8 | -3.5477 | ug/L | -3.5477 ppb | 13:09:20 |
| 3 | Zn 213.857† | 3671.2 | 2825.4 | -24.055 | ug/L | -24.055 ppb | 13:09:40 |
| 3 | SiO2† | -288.3 | -874.1 | -67.468 | ug/L | -67.468 ppb | 13:09:55 |

**Mean Data: LR1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 802165.1 | 104.46 | % | 1.144 | | | | 1.09% |
| Sc Radial | 4763.8 | 101 | % | 0.2 | | | | 0.17% |
| Y 371.029 | 714393.7 | 103.68 | % | 1.180 | | | | 1.14% |
| Y RADIAL | 5059.0 | 101.5 | % | 0.19 | | | | 0.19% |
| Ag 328.068† | -21499.2 | 3.5450 | ug/L | 0.63250 | 3.5450 | ppb | 0.63250 | 17.84% |
| Al 396.153Radial† | -29.5 | -26.317 | ug/L | 2.2473 | -26.317 | ppb | 2.2473 | 8.54% |
| As 188.979† | -123.1 | 32.033 | ug/L | 3.2155 | 32.033 | ppb | 3.2155 | 10.04% |
| B 249.677† | 1868.8 | -13.449 | ug/L | 1.8391 | -13.449 | ppb | 1.8391 | 13.67% |
| Ba 233.527† | -1423.0 | -5.4026 | ug/L | 0.57556 | -5.4026 | ppb | 0.57556 | 10.65% |
| Be 313.107† | 158.4 | 0.0631 | ug/L | 0.03375 | 0.0631 | ppb | 0.03375 | 53.47% |
| Ca 317.933Radial† | -4.1 | -7.3897 | ug/L | 1.96406 | -7.3897 | ppb | 1.96406 | 26.58% |
| Cd 226.502† | 2756.0 | 0.7957 | ug/L | 0.66070 | 0.7957 | ppb | 0.66070 | 83.04% |
| Co 228.616† | 553.4 | 11.306 | ug/L | 0.6175 | 11.306 | ppb | 0.6175 | 5.46% |
| Cr 267.716† | -484.4 | 0.5308 | ug/L | 0.22664 | 0.5308 | ppb | 0.22664 | 42.70% |
| Cu 324.752† | -6313.0 | -4.0597 | ug/L | 0.18125 | -4.0597 | ppb | 0.18125 | 4.46% |
| Fe 238.204 Radial† | 35729.7 | 370690 | ug/L | 1331.1 | 370690 | ppb | 1331.1 | 0.36% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| K 766.490 Radial† | -11.1 | -2.1797 | ug/L | 16.06862 | -2.1797 | ppb | 16.06862 737.20% |
| Mg 279.077 IEC† | 6.9 | -114.69 | ug/L | 49.747 | -114.69 | ppb | 49.747 43.37% |
| Mn 257.610† | -27232.8 | -6.9890 | ug/L | 0.10041 | -6.9890 | ppb | 0.10041 1.44% |
| Mo 202.031† | -278.1 | 3.2514 | ug/L | 2.71969 | 3.2514 | ppb | 2.71969 83.65% |
| Na 589.592 Radial† | 137.5 | 46.876 | ug/L | 15.3661 | 46.876 | ppb | 15.3661 32.78% |
| Ni 231.604† | 31.5 | 0.9953 | ug/L | 0.53546 | 0.9953 | ppb | 0.53546 53.80% |
| P 214.914† | 379.3 | -82.131 | ug/L | 5.7127 | -82.131 | ppb | 5.7127 6.96% |
| Pb 220.353† | 224.6 | 6.4533 | ug/L | 0.31893 | 6.4533 | ppb | 0.31893 4.94% |
| S 181.975 Axial† | 9.8 | 12.662 | ug/L | 5.2564 | 12.662 | ppb | 5.2564 41.51% |
| Sb 206.836† | -0.8 | -4.9069 | ug/L | 3.22782 | -4.9069 | ppb | 3.22782 65.78% |
| Se 196.026† | -1393.0 | -23.296 | ug/L | 9.3990 | -23.296 | ppb | 9.3990 40.35% |
| Si 251.611† | -756.9 | -27.306 | ug/L | 1.0485 | -27.306 | ppb | 1.0485 3.84% |
| Sn 189.927† | -24.9 | -27.156 | ug/L | 0.6640 | -27.156 | ppb | 0.6640 2.45% |
| Sr 421.552† | 79.8 | 0.5801 | ug/L | 0.10244 | 0.5801 | ppb | 0.10244 17.66% |
| Ti 334.940† | 30.9 | 0.0082 | ug/L | 0.11840 | 0.0082 | ppb | 0.11840 >999.9% |
| Tl 190.801† | -0.6 | -0.6527 | ug/L | 1.58142 | -0.6527 | ppb | 1.58142 242.28% |
| U 409.014† | 2251.3 | 33.143 | ug/L | 4.5629 | 33.143 | ppb | 4.5629 13.77% |
| V 292.402† | 6305.4 | -3.9853 | ug/L | 0.40429 | -3.9853 | ppb | 0.40429 10.14% |
| Zn 213.857† | 2808.9 | -24.471 | ug/L | 0.7475 | -24.471 | ppb | 0.7475 3.05% |
| SiO2† | -851.5 | -65.639 | ug/L | 3.7086 | -65.639 | ppb | 3.7086 5.65% |

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 13:12:07
Data Type: Reprocessed on 3/1/2010 13:29:45

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 812020.3 | 812020.3 | 105.74 | % | | | 13:15:17 |
| 1 | Sc Radial | 4863.6 | 4863.6 | 103 | % | | | 13:13:59 |
| 1 | Y 371.029 | 719915.3 | 719915.3 | 104.48 | % | | | 13:15:17 |
| 1 | Y RADIAL | 5099.8 | 5099.8 | 102.3 | % | | | 13:13:59 |
| 1 | Ag 328.068† | 102563.9 | 96740.4 | 500.54 | ug/L | 500.54 | ppb | 13:15:22 |
| 1 | Al 396.153Radial† | 5533.1 | 5441.6 | 5066.2 | ug/L | 5066.2 | ppb | 13:13:59 |
| 1 | As 188.979† | 1168.9 | 1130.5 | 508.20 | ug/L | 508.20 | ppb | 13:15:42 |
| 1 | B 249.677† | 20941.1 | 20257.8 | 504.98 | ug/L | 504.98 | ppb | 13:15:22 |
| 1 | Ba 233.527† | 44881.5 | 42442.6 | 502.08 | ug/L | 502.08 | ppb | 13:15:22 |
| 1 | Be 313.107† | 1307756.2 | 1245745.9 | 496.29 | ug/L | 496.29 | ppb | 13:15:17 |
| 1 | Ca 317.933Radial† | 2944.6 | 2827.4 | 5137.2 | ug/L | 5137.2 | ppb | 13:14:19 |
| 1 | Cd 226.502† | 37379.9 | 35537.3 | 503.67 | ug/L | 503.67 | ppb | 13:15:22 |
| 1 | Co 228.616† | 17841.0 | 16930.0 | 511.72 | ug/L | 511.72 | ppb | 13:15:22 |
| 1 | Cr 267.716† | 38994.1 | 36801.7 | 503.39 | ug/L | 503.39 | ppb | 13:15:22 |
| 1 | Cu 324.752† | 148770.2 | 133157.9 | 498.60 | ug/L | 498.60 | ppb | 13:15:22 |
| 1 | Fe 238.204 Radial† | 526.2 | 501.9 | 5222.5 | ug/L | 5222.5 | ppb | 13:14:19 |
| 1 | K 766.490 Radial† | 28898.2 | 25703.7 | 5110.3 | ug/L | 5110.3 | ppb | 13:13:59 |
| 1 | Mg 279.077 IEC† | 137.4 | 130.0 | 5163.1 | ug/L | 5163.1 | ppb | 13:14:19 |
| 1 | Mn 257.610† | 331243.1 | 312800.1 | 500.98 | ug/L | 500.98 | ppb | 13:15:22 |
| 1 | Mo 202.031† | 5719.9 | 5395.0 | 495.57 | ug/L | 495.57 | ppb | 13:15:42 |
| 1 | Na 589.592 Radial† | 29528.5 | 29423.1 | 10027 | ug/L | 10027 | ppb | 13:13:59 |
| 1 | Ni 231.604† | 16931.6 | 15911.1 | 508.32 | ug/L | 508.32 | ppb | 13:15:22 |
| 1 | P 214.914† | 4912.9 | 4450.8 | 2388.0 | ug/L | 2388.0 | ppb | 13:15:42 |
| 1 | Pb 220.353† | 3189.5 | 3087.0 | 499.62 | ug/L | 499.62 | ppb | 13:15:42 |
| 1 | S 181.975 Axial† | 860.8 | 771.6 | 999.46 | ug/L | 999.46 | ppb | 13:15:42 |
| 1 | Sb 206.836† | 1334.2 | 1231.7 | 517.47 | ug/L | 517.47 | ppb | 13:15:42 |
| 1 | Se 196.026† | 846.2 | 820.0 | 515.88 | ug/L | 515.88 | ppb | 13:15:42 |
| 1 | Si 251.611† | 72800.9 | 68259.6 | 2484.7 | ug/L | 2484.7 | ppb | 13:15:22 |
| 1 | Sn 189.927† | 2219.7 | 2091.2 | 493.07 | ug/L | 493.07 | ppb | 13:15:42 |
| 1 | Sr 421.552† | 71418.0 | 69113.0 | 502.53 | ug/L | 502.53 | ppb | 13:13:59 |
| 1 | Ti 334.940† | 260272.1 | 247444.0 | 498.47 | ug/L | 498.47 | ppb | 13:15:22 |
| 1 | Tl 190.801† | 1102.3 | 1073.7 | 496.38 | ug/L | 496.38 | ppb | 13:15:42 |
| 1 | U 409.014† | 13062.6 | 14890.3 | 496.89 | ug/L | 496.89 | ppb | 13:15:22 |
| 1 | V 292.402† | 64813.9 | 62923.4 | 507.66 | ug/L | 507.66 | ppb | 13:15:22 |
| 1 | Zn 213.857† | 48794.6 | 45435.4 | 496.39 | ug/L | 496.39 | ppb | 13:15:22 |
| 1 | SiO2† | 72942.2 | 68386.1 | 5313.9 | ug/L | 5313.9 | ppb | 13:16:49 |
| 2 | Sc 361.383 | 813811.3 | 813811.3 | 105.97 | % | | | 13:15:47 |
| 2 | Sc Radial | 4865.8 | 4865.8 | 103 | % | | | 13:14:24 |
| 2 | Y 371.029 | 720903.6 | 720903.6 | 104.63 | % | | | 13:15:47 |
| 2 | Y RADIAL | 5108.9 | 5108.9 | 102.5 | % | | | 13:14:24 |
| 2 | Ag 328.068† | 101911.1 | 95911.0 | 496.26 | ug/L | 496.26 | ppb | 13:15:53 |
| 2 | Al 396.153Radial† | 5473.4 | 5381.4 | 5009.9 | ug/L | 5009.9 | ppb | 13:14:24 |
| 2 | As 188.979† | 1160.9 | 1120.5 | 503.70 | ug/L | 503.70 | ppb | 13:16:13 |
| 2 | B 249.677† | 20791.7 | 20073.1 | 500.36 | ug/L | 500.36 | ppb | 13:15:53 |
| 2 | Ba 233.527† | 44701.5 | 42179.4 | 498.97 | ug/L | 498.97 | ppb | 13:15:53 |
| 2 | Be 313.107† | 1314042.1 | 1248955.8 | 497.56 | ug/L | 497.56 | ppb | 13:15:47 |
| 2 | Ca 317.933Radial† | 2945.2 | 2826.7 | 5135.9 | ug/L | 5135.9 | ppb | 13:14:44 |
| 2 | Cd 226.502† | 37205.6 | 35295.0 | 500.23 | ug/L | 500.23 | ppb | 13:15:53 |
| 2 | Co 228.616† | 17802.6 | 16856.6 | 509.51 | ug/L | 509.51 | ppb | 13:15:53 |
| 2 | Cr 267.716† | 38619.8 | 36367.3 | 497.45 | ug/L | 497.45 | ppb | 13:15:53 |
| 2 | Cu 324.752† | 147549.5 | 131696.4 | 493.13 | ug/L | 493.13 | ppb | 13:15:53 |
| 2 | Fe 238.204 Radial† | 527.6 | 503.0 | 5233.9 | ug/L | 5233.9 | ppb | 13:14:44 |
| 2 | K 766.490 Radial† | 28858.3 | 25652.7 | 5100.1 | ug/L | 5100.1 | ppb | 13:14:24 |
| 2 | Mg 279.077 IEC† | 139.3 | 131.9 | 5236.0 | ug/L | 5236.0 | ppb | 13:14:44 |
| 2 | Mn 257.610† | 329381.0 | 310353.6 | 497.06 | ug/L | 497.06 | ppb | 13:15:53 |
| 2 | Mo 202.031† | 5731.3 | 5393.8 | 495.47 | ug/L | 495.47 | ppb | 13:16:13 |
| 2 | Na 589.592 Radial† | 29341.6 | 29229.6 | 9961.4 | ug/L | 9961.4 | ppb | 13:14:24 |
| 2 | Ni 231.604† | 16871.9 | 15819.5 | 505.39 | ug/L | 505.39 | ppb | 13:15:53 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 4927.2 | 4454.1 | 2390.9 ug/L | 2390.9 ppb | 13:16:13 |
| 2 | Pb 220.353† | 3211.0 | 3100.7 | 501.81 ug/L | 501.81 ppb | 13:16:13 |
| 2 | S 181.975 Axial† | 861.5 | 770.4 | 997.93 ug/L | 997.93 ppb | 13:16:13 |
| 2 | Sb 206.836† | 1348.4 | 1242.3 | 521.80 ug/L | 521.80 ppb | 13:16:13 |
| 2 | Se 196.026† | 857.7 | 829.2 | 521.51 ug/L | 521.51 ppb | 13:16:13 |
| 2 | Si 251.611† | 72316.4 | 67650.9 | 2462.5 ug/L | 2462.5 ppb | 13:15:53 |
| 2 | Sn 189.927† | 2226.1 | 2092.5 | 493.39 ug/L | 493.39 ppb | 13:16:13 |
| 2 | Sr 421.552† | 71143.7 | 68817.0 | 500.38 ug/L | 500.38 ppb | 13:14:24 |
| 2 | Ti 334.940† | 258466.2 | 245198.2 | 493.94 ug/L | 493.94 ppb | 13:15:53 |
| 2 | Tl 190.801† | 1114.1 | 1082.5 | 500.41 ug/L | 500.41 ppb | 13:16:13 |
| 2 | U 409.014† | 13006.7 | 14810.4 | 494.23 ug/L | 494.23 ppb | 13:15:53 |
| 2 | V 292.402† | 64402.0 | 62399.8 | 503.49 ug/L | 503.49 ppb | 13:15:53 |
| 2 | Zn 213.857† | 48693.6 | 45238.6 | 494.25 ug/L | 494.25 ppb | 13:15:53 |
| 2 | SiO2† | 72357.4 | 67682.4 | 5259.1 ug/L | 5259.1 ppb | 13:16:54 |
| 3 | Sc 361.383 | 826056.0 | 826056.0 | 107.57 % | | 13:16:18 |
| 3 | Sc Radial | 4827.1 | 4827.1 | 103 % | | 13:14:50 |
| 3 | Y 371.029 | 729803.6 | 729803.6 | 105.92 % | | 13:16:18 |
| 3 | Y RADIAL | 5073.6 | 5073.6 | 101.8 % | | 13:14:50 |
| 3 | Ag 328.068† | 102086.2 | 94648.2 | 489.74 ug/L | 489.74 ppb | 13:16:23 |
| 3 | Al 396.153Radial† | 5507.4 | 5457.0 | 5081.0 ug/L | 5081.0 ppb | 13:14:50 |
| 3 | As 188.979† | 1149.1 | 1093.2 | 491.53 ug/L | 491.53 ppb | 13:16:43 |
| 3 | B 249.677† | 20848.5 | 19835.2 | 494.43 ug/L | 494.43 ppb | 13:16:23 |
| 3 | Ba 233.527† | 44848.9 | 41691.2 | 493.19 ug/L | 493.19 ppb | 13:16:23 |
| 3 | Be 313.107† | 1328033.0 | 1243582.0 | 495.41 ug/L | 495.41 ppb | 13:16:18 |
| 3 | Ca 317.933Radial† | 2936.0 | 2840.5 | 5161.1 ug/L | 5161.1 ppb | 13:15:10 |
| 3 | Cd 226.502† | 37177.5 | 34748.5 | 492.48 ug/L | 492.48 ppb | 13:16:23 |
| 3 | Co 228.616† | 17794.4 | 16599.9 | 501.75 ug/L | 501.75 ppb | 13:16:23 |
| 3 | Cr 267.716† | 38712.8 | 35913.6 | 491.24 ug/L | 491.24 ppb | 13:16:23 |
| 3 | Cu 324.752† | 147458.5 | 129547.9 | 485.09 ug/L | 485.09 ppb | 13:16:23 |
| 3 | Fe 238.204 Radial† | 521.3 | 501.0 | 5213.0 ug/L | 5213.0 ppb | 13:15:10 |
| 3 | K 766.490 Radial† | 28625.2 | 25649.0 | 5099.4 ug/L | 5099.4 ppb | 13:14:50 |
| 3 | Mg 279.077 IEC† | 139.1 | 132.8 | 5270.6 ug/L | 5270.6 ppb | 13:15:10 |
| 3 | Mn 257.610† | 329726.2 | 306067.2 | 490.20 ug/L | 490.20 ppb | 13:16:23 |
| 3 | Mo 202.031† | 5713.1 | 5296.8 | 486.56 ug/L | 486.56 ppb | 13:16:43 |
| 3 | Na 589.592 Radial† | 29108.6 | 29229.8 | 9961.5 ug/L | 9961.5 ppb | 13:14:50 |
| 3 | Ni 231.604† | 16821.7 | 15536.9 | 496.36 ug/L | 496.36 ppb | 13:16:23 |
| 3 | P 214.914† | 4912.6 | 4371.6 | 2346.5 ug/L | 2346.5 ppb | 13:16:43 |
| 3 | Pb 220.353† | 3191.7 | 3037.8 | 491.68 ug/L | 491.68 ppb | 13:16:43 |
| 3 | S 181.975 Axial† | 857.3 | 754.5 | 977.26 ug/L | 977.26 ppb | 13:16:43 |
| 3 | Sb 206.836† | 1333.5 | 1209.6 | 508.24 ug/L | 508.24 ppb | 13:16:43 |
| 3 | Se 196.026† | 829.0 | 790.4 | 497.72 ug/L | 497.72 ppb | 13:16:43 |
| 3 | Si 251.611† | 72262.7 | 66589.4 | 2423.9 ug/L | 2423.9 ppb | 13:16:23 |
| 3 | Sn 189.927† | 2230.2 | 2065.2 | 486.97 ug/L | 486.97 ppb | 13:16:43 |
| 3 | Sr 421.552† | 70763.1 | 68997.1 | 501.69 ug/L | 501.69 ppb | 13:14:50 |
| 3 | Ti 334.940† | 258767.4 | 241862.9 | 487.23 ug/L | 487.23 ppb | 13:16:23 |
| 3 | Tl 190.801† | 1102.1 | 1055.8 | 488.10 ug/L | 488.10 ppb | 13:16:43 |
| 3 | U 409.014† | 13109.0 | 14723.5 | 491.34 ug/L | 491.34 ppb | 13:16:23 |
| 3 | V 292.402† | 64389.0 | 61486.9 | 496.10 ug/L | 496.10 ppb | 13:16:23 |
| 3 | Zn 213.857† | 48575.3 | 44447.5 | 485.59 ug/L | 485.59 ppb | 13:16:23 |
| 3 | SiO2† | 73293.1 | 67540.1 | 5248.2 ug/L | 5248.2 ppb | 13:16:59 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 817295.9 | 106.43 | % | 0.995 | | | | 0.93% |
| Sc Radial | 4852.2 | 103 | % | 0.5 | | | | 0.45% |
| Y 371.029 | 723540.8 | 105.01 | % | 0.790 | | | | 0.75% |
| Y RADIAL | 5094.1 | 102.2 | % | 0.37 | | | | 0.36% |
| Ag 328.068† | 95766.5 | 495.51 | ug/L | 5.440 | 495.51 | ppb | 5.440 | 1.10% |
| QC value within limits for Ag 328.068 Recovery = 99.10% | | | | | | | | |
| Al 396.153Radial† | 5426.7 | 5052.3 | ug/L | 37.52 | 5052.3 | ppb | 37.52 | 0.74% |
| QC value within limits for Al 396.153Radial Recovery = 101.05% | | | | | | | | |
| As 188.979† | 1114.7 | 501.14 | ug/L | 8.624 | 501.14 | ppb | 8.624 | 1.72% |
| QC value within limits for As 188.979 Recovery = 100.23% | | | | | | | | |
| B 249.677† | 20055.4 | 499.92 | ug/L | 5.290 | 499.92 | ppb | 5.290 | 1.06% |
| QC value within limits for B 249.677 Recovery = 99.98% | | | | | | | | |
| Ba 233.527† | 42104.4 | 498.08 | ug/L | 4.512 | 498.08 | ppb | 4.512 | 0.91% |
| QC value within limits for Ba 233.527 Recovery = 99.62% | | | | | | | | |
| Be 313.107† | 1246094.6 | 496.42 | ug/L | 1.081 | 496.42 | ppb | 1.081 | 0.22% |
| QC value within limits for Be 313.107 Recovery = 99.28% | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ca 317.933Radial† | 2831.5 | 5144.7 ug/L | 14.18 | 5144.7 ppb | 14.18 | 0.28% |
| QC value within limits for Ca 317.933Radial Recovery = 102.89% | | | | | | |
| Cd 226.502† | 35193.6 | 498.79 ug/L | 5.732 | 498.79 ppb | 5.732 | 1.15% |
| QC value within limits for Cd 226.502 Recovery = 99.76% | | | | | | |
| Co 228.616† | 16795.5 | 507.66 ug/L | 5.238 | 507.66 ppb | 5.238 | 1.03% |
| QC value within limits for Co 228.616 Recovery = 101.53% | | | | | | |
| Cr 267.716† | 36360.8 | 497.36 ug/L | 6.074 | 497.36 ppb | 6.074 | 1.22% |
| QC value within limits for Cr 267.716 Recovery = 99.47% | | | | | | |
| Cu 324.752† | 131467.4 | 492.27 ug/L | 6.798 | 492.27 ppb | 6.798 | 1.38% |
| QC value within limits for Cu 324.752 Recovery = 98.45% | | | | | | |
| Fe 238.204 Radial† | 502.0 | 5223.1 ug/L | 10.45 | 5223.1 ppb | 10.45 | 0.20% |
| QC value within limits for Fe 238.204 Radial Recovery = 104.46% | | | | | | |
| K 766.490 Radial† | 25668.4 | 5103.3 ug/L | 6.07 | 5103.3 ppb | 6.07 | 0.12% |
| QC value within limits for K 766.490 Radial Recovery = 102.07% | | | | | | |
| Mg 279.077 IEC† | 131.6 | 5223.2 ug/L | 54.89 | 5223.2 ppb | 54.89 | 1.05% |
| QC value within limits for Mg 279.077 IEC Recovery = 104.46% | | | | | | |
| Mn 257.610† | 309740.3 | 496.08 ug/L | 5.458 | 496.08 ppb | 5.458 | 1.10% |
| QC value within limits for Mn 257.610 Recovery = 99.22% | | | | | | |
| Mo 202.031† | 5361.9 | 492.54 ug/L | 5.172 | 492.54 ppb | 5.172 | 1.05% |
| QC value within limits for Mo 202.031 Recovery = 98.51% | | | | | | |
| Na 589.592 Radial† | 29294.2 | 9983.4 ug/L | 38.04 | 9983.4 ppb | 38.04 | 0.38% |
| QC value within limits for Na 589.592 Radial Recovery = 99.83% | | | | | | |
| Ni 231.604† | 15755.8 | 503.36 ug/L | 6.233 | 503.36 ppb | 6.233 | 1.24% |
| QC value within limits for Ni 231.604 Recovery = 100.67% | | | | | | |
| P 214.914† | 4425.5 | 2375.1 ug/L | 24.87 | 2375.1 ppb | 24.87 | 1.05% |
| QC value within limits for P 214.914 Recovery = 95.01% | | | | | | |
| Pb 220.353† | 3075.2 | 497.71 ug/L | 5.332 | 497.71 ppb | 5.332 | 1.07% |
| QC value within limits for Pb 220.353 Recovery = 99.54% | | | | | | |
| S 181.975 Axial† | 765.5 | 991.55 ug/L | 12.401 | 991.55 ppb | 12.401 | 1.25% |
| QC value within limits for S 181.975 Axial Recovery = 99.15% | | | | | | |
| Sb 206.836† | 1227.9 | 515.84 ug/L | 6.927 | 515.84 ppb | 6.927 | 1.34% |
| QC value within limits for Sb 206.836 Recovery = 103.17% | | | | | | |
| Se 196.026† | 813.2 | 511.70 ug/L | 12.435 | 511.70 ppb | 12.435 | 2.43% |
| QC value within limits for Se 196.026 Recovery = 102.34% | | | | | | |
| Si 251.611† | 67500.0 | 2457.1 ug/L | 30.78 | 2457.1 ppb | 30.78 | 1.25% |
| QC value within limits for Si 251.611 Recovery = 98.28% | | | | | | |
| Sn 189.927† | 2083.0 | 491.14 ug/L | 3.622 | 491.14 ppb | 3.622 | 0.74% |
| QC value within limits for Sn 189.927 Recovery = 98.23% | | | | | | |
| Sr 421.552† | 68975.7 | 501.54 ug/L | 1.085 | 501.54 ppb | 1.085 | 0.22% |
| QC value within limits for Sr 421.552 Recovery = 100.31% | | | | | | |
| Ti 334.940† | 244835.0 | 493.21 ug/L | 5.658 | 493.21 ppb | 5.658 | 1.15% |
| QC value within limits for Ti 334.940 Recovery = 98.64% | | | | | | |
| Tl 190.801† | 1070.7 | 494.96 ug/L | 6.277 | 494.96 ppb | 6.277 | 1.27% |
| QC value within limits for Tl 190.801 Recovery = 98.99% | | | | | | |
| U 409.014† | 14808.0 | 494.15 ug/L | 2.779 | 494.15 ppb | 2.779 | 0.56% |
| QC value within limits for U 409.014 Recovery = 98.83% | | | | | | |
| V 292.402† | 62270.0 | 502.42 ug/L | 5.853 | 502.42 ppb | 5.853 | 1.16% |
| QC value within limits for V 292.402 Recovery = 100.48% | | | | | | |
| Zn 213.857† | 45040.5 | 492.08 ug/L | 5.717 | 492.08 ppb | 5.717 | 1.16% |
| QC value within limits for Zn 213.857 Recovery = 98.42% | | | | | | |
| SiO2† | 67869.5 | 5273.7 ug/L | 35.20 | 5273.7 ppb | 35.20 | 0.67% |
| QC value within limits for SiO2 Recovery = 98.62% | | | | | | |

All analyte(s) passed QC.

Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 13:19:10
Data Type: Reprocessed on 3/1/2010 13:29:46

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc 361.383 | 810277.2 | 810277.2 | 105.51 | % | | | 13:22:19 |
| 1 | Sc Radial | 4862.4 | 4862.4 | 103 | % | | | 13:21:02 |
| 1 | Y 371.029 | 730937.1 | 730937.1 | 106.08 | % | | | 13:22:19 |
| 1 | Y RADIAL | 5156.5 | 5156.5 | 103.4 | % | | | 13:21:02 |
| 1 | Ag 328.068† | 194.7 | -71.2 | -0.3643 | ug/L | -0.3643 | ppb | 13:22:19 |
| 1 | Al 396.153Radial† | -78.9 | 10.7 | 10.042 | ug/L | 10.042 | ppb | 13:21:22 |
| 1 | As 188.979† | -31.1 | -4.4 | -1.9674 | ug/L | -1.9674 | ppb | 13:22:39 |
| 1 | B 249.677† | -33.5 | 421.7 | 10.556 | ug/L | 10.556 | ppb | 13:22:39 |
| 1 | Ba 233.527† | 19.4 | 16.0 | 0.1900 | ug/L | 0.1900 | ppb | 13:22:39 |
| 1 | Be 313.107† | -9262.9 | 203.7 | 0.0817 | ug/L | 0.0817 | ppb | 13:22:19 |
| 1 | Ca 317.933Radial† | 30.9 | 7.7 | 14.063 | ug/L | 14.063 | ppb | 13:21:22 |
| 1 | Cd 226.502† | -192.9 | 3.8 | 0.0532 | ug/L | 0.0532 | ppb | 13:22:39 |
| 1 | Co 228.616† | -58.1 | 2.4 | 0.0721 | ug/L | 0.0721 | ppb | 13:22:39 |
| 1 | Cr 267.716† | 90.6 | 10.2 | 0.1388 | ug/L | 0.1388 | ppb | 13:22:39 |
| 1 | Cu 324.752† | 7847.5 | -98.7 | -0.3715 | ug/L | -0.3715 | ppb | 13:22:19 |
| 1 | Fe 238.204 Radial† | 9.1 | 1.5 | 15.345 | ug/L | 15.345 | ppb | 13:21:22 |
| 1 | K 766.490 Radial† | 2382.5 | 44.6 | 8.8454 | ug/L | 8.8454 | ppb | 13:21:02 |
| 1 | Mg 279.077 IEC† | 1.1 | -1.8 | -71.376 | ug/L | -71.376 | ppb | 13:21:22 |
| 1 | Mn 257.610† | 447.3 | -37.2 | -0.0552 | ug/L | -0.0552 | ppb | 13:22:39 |
| 1 | Mo 202.031† | 14.0 | -1.1 | -0.1034 | ug/L | -0.1034 | ppb | 13:22:39 |
| 1 | Na 589.592 Radial† | -714.9 | 155.8 | 53.086 | ug/L | 53.086 | ppb | 13:21:02 |
| 1 | Ni 231.604† | 110.2 | 3.1 | 0.0990 | ug/L | 0.0990 | ppb | 13:22:39 |
| 1 | P 214.914† | 213.8 | 7.3 | 4.1503 | ug/L | 4.1503 | ppb | 13:22:39 |
| 1 | Pb 220.353† | -61.1 | 12.8 | 2.0625 | ug/L | 2.0625 | ppb | 13:22:39 |
| 1 | S 181.975 Axial† | 46.4 | 1.5 | 1.9452 | ug/L | 1.9452 | ppb | 13:22:39 |
| 1 | Sb 206.836† | 43.0 | 10.8 | 4.3950 | ug/L | 4.3950 | ppb | 13:22:39 |
| 1 | Se 196.026† | -8.9 | 11.4 | 7.0057 | ug/L | 7.0057 | ppb | 13:22:39 |
| 1 | Si 251.611† | 629.3 | 7.2 | 0.2636 | ug/L | 0.2636 | ppb | 13:22:39 |
| 1 | Sn 189.927† | 17.3 | 8.3 | 1.9670 | ug/L | 1.9670 | ppb | 13:22:39 |
| 1 | Sr 421.552† | 13.0 | 13.1 | 0.0952 | ug/L | 0.0952 | ppb | 13:21:02 |
| 1 | Ti 334.940† | -1209.9 | 154.3 | 0.3165 | ug/L | 0.3165 | ppb | 13:22:19 |
| 1 | Tl 190.801† | -30.7 | 2.1 | 0.9794 | ug/L | 0.9794 | ppb | 13:22:39 |
| 1 | U 409.014† | -2521.8 | 146.8 | 4.9130 | ug/L | 4.9130 | ppb | 13:22:19 |
| 1 | V 292.402† | -1680.2 | 35.6 | 0.2874 | ug/L | 0.2874 | ppb | 13:22:19 |
| 1 | Zn 213.857† | 772.4 | 21.7 | 0.2371 | ug/L | 0.2371 | ppb | 13:22:39 |
| 1 | SiO2† | 612.1 | -16.4 | -1.2714 | ug/L | -1.2714 | ppb | 13:23:35 |
| 2 | Sc 361.383 | 814797.3 | 814797.3 | 106.10 | % | | | 13:22:44 |
| 2 | Sc Radial | 4967.9 | 4967.9 | 106 | % | | | 13:21:27 |
| 2 | Y 371.029 | 734106.6 | 734106.6 | 106.54 | % | | | 13:22:44 |
| 2 | Y RADIAL | 5264.3 | 5264.3 | 105.6 | % | | | 13:21:27 |
| 2 | Ag 328.068† | 194.8 | -72.1 | -0.3747 | ug/L | -0.3747 | ppb | 13:22:44 |
| 2 | Al 396.153Radial† | -71.0 | 19.8 | 18.547 | ug/L | 18.547 | ppb | 13:21:47 |
| 2 | As 188.979† | -24.6 | 1.8 | 0.8228 | ug/L | 0.8228 | ppb | 13:23:04 |
| 2 | B 249.677† | -28.9 | 426.2 | 10.672 | ug/L | 10.672 | ppb | 13:23:04 |
| 2 | Ba 233.527† | 11.2 | 8.2 | 0.0978 | ug/L | 0.0978 | ppb | 13:23:04 |
| 2 | Be 313.107† | -9362.0 | 159.0 | 0.0638 | ug/L | 0.0638 | ppb | 13:22:44 |
| 2 | Ca 317.933Radial† | 31.1 | 7.3 | 13.318 | ug/L | 13.318 | ppb | 13:21:47 |
| 2 | Cd 226.502† | -197.0 | 1.0 | 0.0144 | ug/L | 0.0144 | ppb | 13:23:04 |
| 2 | Co 228.616† | -63.8 | -2.6 | -0.0812 | ug/L | -0.0812 | ppb | 13:23:04 |
| 2 | Cr 267.716† | 77.9 | -2.2 | -0.0331 | ug/L | -0.0331 | ppb | 13:23:04 |
| 2 | Cu 324.752† | 7860.4 | -127.7 | -0.4832 | ug/L | -0.4832 | ppb | 13:22:44 |
| 2 | Fe 238.204 Radial† | 8.4 | 0.7 | 6.9292 | ug/L | 6.9292 | ppb | 13:21:47 |
| 2 | K 766.490 Radial† | 2417.9 | 29.1 | 5.7731 | ug/L | 5.7731 | ppb | 13:21:27 |
| 2 | Mg 279.077 IEC† | -0.8 | -3.6 | -143.72 | ug/L | -143.72 | ppb | 13:21:47 |
| 2 | Mn 257.610† | 433.3 | -52.7 | -0.0779 | ug/L | -0.0779 | ppb | 13:23:04 |
| 2 | Mo 202.031† | 11.6 | -3.5 | -0.3167 | ug/L | -0.3167 | ppb | 13:23:04 |
| 2 | Na 589.592 Radial† | -699.1 | 185.5 | 63.207 | ug/L | 63.207 | ppb | 13:21:27 |
| 2 | Ni 231.604† | 93.7 | -13.0 | -0.4163 | ug/L | -0.4163 | ppb | 13:23:04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 196.5 | -10.1 | -5.5656 | ug/L | -5.5656 ppb | 13:23:04 |
| 2 | Pb 220.353† | -51.9 | 21.7 | 3.5099 | ug/L | 3.5099 ppb | 13:23:04 |
| 2 | S 181.975 Axial† | 42.6 | -2.4 | -3.1100 | ug/L | -3.1100 ppb | 13:23:04 |
| 2 | Sb 206.836† | 39.3 | 7.0 | 2.8282 | ug/L | 2.8282 ppb | 13:23:04 |
| 2 | Se 196.026† | -24.6 | -3.3 | -2.0299 | ug/L | -2.0299 ppb | 13:23:04 |
| 2 | Si 251.611† | 618.5 | -6.2 | -0.2238 | ug/L | -0.2238 ppb | 13:23:04 |
| 2 | Sn 189.927† | 10.0 | 1.4 | 0.3266 | ug/L | 0.3266 ppb | 13:23:04 |
| 2 | Sr 421.552† | 51.0 | 48.8 | 0.3546 | ug/L | 0.3546 ppb | 13:21:27 |
| 2 | Ti 334.940† | -1237.5 | 134.7 | 0.2809 | ug/L | 0.2809 ppb | 13:22:44 |
| 2 | Tl 190.801† | -38.4 | -5.0 | -2.3044 | ug/L | -2.3044 ppb | 13:23:04 |
| 2 | U 409.014† | -2390.9 | 283.4 | 9.4882 | ug/L | 9.4882 ppb | 13:22:44 |
| 2 | V 292.402† | -1673.9 | 50.4 | 0.4107 | ug/L | 0.4107 ppb | 13:22:44 |
| 2 | Zn 213.857† | 760.3 | 6.3 | 0.0721 | ug/L | 0.0721 ppb | 13:23:04 |
| 2 | SiO2† | 610.5 | -21.1 | -1.6327 | ug/L | -1.6327 ppb | 13:23:40 |
| 3 | Sc 361.383 | 804933.5 | 804933.5 | 104.82 | % | | 13:23:09 |
| 3 | Sc Radial | 4961.0 | 4961.0 | 105 | % | | 13:21:52 |
| 3 | Y 371.029 | 724081.2 | 724081.2 | 105.09 | % | | 13:23:09 |
| 3 | Y RADIAL | 5272.6 | 5272.6 | 105.8 | % | | 13:21:52 |
| 3 | Ag 328.068† | 244.9 | -22.0 | -0.1231 | ug/L | -0.1231 ppb | 13:23:09 |
| 3 | Al 396.153Radial† | -83.4 | 8.0 | 7.4930 | ug/L | 7.4930 ppb | 13:22:12 |
| 3 | As 188.979† | -29.4 | -3.0 | -1.3442 | ug/L | -1.3442 ppb | 13:23:30 |
| 3 | B 249.677† | -52.9 | 402.9 | 10.093 | ug/L | 10.093 ppb | 13:23:30 |
| 3 | Ba 233.527† | 12.4 | 9.5 | 0.1119 | ug/L | 0.1119 ppb | 13:23:30 |
| 3 | Be 313.107† | -9348.5 | 63.8 | 0.0257 | ug/L | 0.0257 ppb | 13:23:09 |
| 3 | Ca 317.933Radial† | 31.8 | 8.0 | 14.549 | ug/L | 14.549 ppb | 13:22:12 |
| 3 | Cd 226.502† | -197.9 | -2.2 | -0.0285 | ug/L | -0.0285 ppb | 13:23:30 |
| 3 | Co 228.616† | -68.1 | -7.5 | -0.2254 | ug/L | -0.2254 ppb | 13:23:30 |
| 3 | Cr 267.716† | 77.6 | -1.5 | -0.0245 | ug/L | -0.0245 ppb | 13:23:30 |
| 3 | Cu 324.752† | 7766.6 | -126.5 | -0.4791 | ug/L | -0.4791 ppb | 13:23:09 |
| 3 | Fe 238.204 Radial† | 6.5 | -1.1 | -11.602 | ug/L | -11.602 ppb | 13:22:12 |
| 3 | K 766.490 Radial† | 2405.0 | 20.1 | 3.9680 | ug/L | 3.9680 ppb | 13:21:52 |
| 3 | Mg 279.077 IEC† | 2.7 | -0.3 | -12.789 | ug/L | -12.789 ppb | 13:22:12 |
| 3 | Mn 257.610† | 432.0 | -49.0 | -0.0790 | ug/L | -0.0790 ppb | 13:23:30 |
| 3 | Mo 202.031† | 15.7 | 0.6 | 0.0514 | ug/L | 0.0514 ppb | 13:23:30 |
| 3 | Na 589.592 Radial† | -721.3 | 163.5 | 55.725 | ug/L | 55.725 ppb | 13:21:52 |
| 3 | Ni 231.604† | 95.3 | -10.4 | -0.3321 | ug/L | -0.3321 ppb | 13:23:30 |
| 3 | P 214.914† | 208.0 | 3.0 | 1.7986 | ug/L | 1.7986 ppb | 13:23:30 |
| 3 | Pb 220.353† | -60.9 | 12.6 | 2.0348 | ug/L | 2.0348 ppb | 13:23:30 |
| 3 | S 181.975 Axial† | 41.6 | -2.8 | -3.6233 | ug/L | -3.6233 ppb | 13:23:30 |
| 3 | Sb 206.836† | 44.5 | 12.4 | 5.0231 | ug/L | 5.0231 ppb | 13:23:30 |
| 3 | Se 196.026† | -11.6 | 8.7 | 5.3236 | ug/L | 5.3236 ppb | 13:23:30 |
| 3 | Si 251.611† | 598.2 | -18.6 | -0.6777 | ug/L | -0.6777 ppb | 13:23:30 |
| 3 | Sn 189.927† | 8.3 | -0.2 | -0.0374 | ug/L | -0.0374 ppb | 13:23:30 |
| 3 | Sr 421.552† | 20.2 | 19.7 | 0.1430 | ug/L | 0.1430 ppb | 13:21:52 |
| 3 | Ti 334.940† | -1280.3 | 79.6 | 0.1595 | ug/L | 0.1595 ppb | 13:23:09 |
| 3 | Tl 190.801† | -29.6 | 3.0 | 1.3776 | ug/L | 1.3776 ppb | 13:23:30 |
| 3 | U 409.014† | -2382.8 | 263.5 | 8.8255 | ug/L | 8.8255 ppb | 13:23:09 |
| 3 | V 292.402† | -1669.3 | 35.4 | 0.3009 | ug/L | 0.3009 ppb | 13:23:09 |
| 3 | Zn 213.857† | 752.1 | 7.3 | 0.0847 | ug/L | 0.0847 ppb | 13:23:30 |
| 3 | SiO2† | 638.4 | 12.6 | 0.9782 | ug/L | 0.9782 ppb | 13:23:45 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 810002.7 | 105.48 | % | 0.643 | | | | 0.61% |
| Sc Radial | 4930.4 | 105 | % | 1.3 | | | | 1.20% |
| Y 371.029 | 729708.3 | 105.90 | % | 0.744 | | | | 0.70% |
| Y RADIAL | 5231.1 | 104.9 | % | 1.30 | | | | 1.24% |
| Ag 328.068† | -55.1 | -0.2874 | ug/L | 0.14233 | -0.2874 | ppb | 0.14233 | 49.53% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 12.9 | 12.027 | ug/L | 5.7882 | 12.027 | ppb | 5.7882 | 48.13% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.9 | -0.8296 | ug/L | 1.46457 | -0.8296 | ppb | 1.46457 | 176.54% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 416.9 | 10.440 | ug/L | 0.3065 | 10.440 | ppb | 0.3065 | 2.94% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 11.2 | 0.1333 | ug/L | 0.04967 | 0.1333 | ppb | 0.04967 | 37.27% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 142.2 | 0.0571 | ug/L | 0.02859 | 0.0571 | ppb | 0.02859 | 50.09% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |

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Ca 317.933Radial†          7.7      13.977 ug/L        0.6201      13.977 ppb        0.6201   4.44%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.8       0.0131 ug/L       0.04087      0.0131 ppb       0.04087 313.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -2.6      -0.0782 ug/L       0.14876     -0.0782 ppb       0.14876 190.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.2       0.0270 ug/L       0.09684      0.0270 ppb       0.09684 357.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -117.6      -0.4446 ug/L       0.06337     -0.4446 ppb       0.06337  14.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.3       3.5571 ug/L      13.78636      3.5571 ppb      13.78636 387.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         31.3       6.1955 ug/L       2.46600      6.1955 ppb       2.46600  39.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.9     -75.961 ug/L       65.5845     -75.961 ppb       65.5845  86.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -46.3      -0.0707 ug/L       0.01345     -0.0707 ppb       0.01345  19.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.3      -0.1229 ug/L       0.18481     -0.1229 ppb       0.18481 150.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       168.3      57.340 ug/L        5.2500      57.340 ppb        5.2500   9.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -6.8      -0.2165 ug/L       0.27642     -0.2165 ppb       0.27642 127.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.1       0.1278 ug/L       5.06885      0.1278 ppb       5.06885 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               15.7       2.5357 ug/L       0.84374      2.5357 ppb       0.84374  33.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2      -1.5960 ug/L       3.07750     -1.5960 ppb       3.07750 192.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               10.0       4.0821 ug/L       1.13043      4.0821 ppb       1.13043  27.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.6       3.4331 ug/L       4.80533      3.4331 ppb       4.80533 139.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -5.9      -0.2126 ug/L       0.47075     -0.2126 ppb       0.47075 221.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.2       0.7521 ug/L       1.06777      0.7521 ppb       1.06777 141.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               27.2       0.1976 ug/L       0.13806      0.1976 ppb       0.13806  69.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              122.9       0.2523 ug/L       0.08231      0.2523 ppb       0.08231  32.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.0       0.0175 ug/L       2.02068      0.0175 ppb       2.02068 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               231.2       7.7422 ug/L       2.47252      7.7422 ppb       2.47252  31.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                40.5       0.3330 ug/L       0.06763      0.3330 ppb       0.06763  20.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               11.8       0.1313 ug/L       0.09183      0.1313 ppb       0.09183  69.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -8.3      -0.6420 ug/L       1.41470     -0.6420 ppb       1.41470 220.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 3/1/2010 13:31:00
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601
Plasma On Time: 3/1/2010 06:57:40
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030110.sif
Batch ID:
Results Data Set: 030110A
Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 1
Sample ID: 1202032590|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:
Autosampler Location: 38
Date Collected: 3/1/2010 13:31:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032590|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 5017.9 | 5017.9 | 107 | % | | | 13:32:55 |
| 1 | Y RADIAL | 5296.7 | 5296.7 | 106.2 | % | | | 13:32:55 |
| 1 | Al 396.153Radial† | -38.5 | 51.0 | 47.715 | ug/L | 47.715 | ppb | 13:33:15 |
| 1 | Ca 317.933Radial† | 42.7 | 17.9 | 32.496 | ug/L | 32.496 | ppb | 13:33:15 |
| 1 | Fe 238.204 Radial† | 11.7 | 3.7 | 38.332 | ug/L | 38.332 | ppb | 13:33:15 |
| 1 | K 766.490 Radial† | 2463.0 | 48.6 | 9.6286 | ug/L | 9.6286 | ppb | 13:32:55 |
| 1 | Mg 279.077 IEC† | 3.5 | 0.4 | 16.759 | ug/L | 16.759 | ppb | 13:33:15 |
| 1 | Na 589.592 Radial† | -680.7 | 209.4 | 71.350 | ug/L | 71.350 | ppb | 13:32:55 |
| 1 | Sr 421.552† | 84.7 | 79.9 | 0.5809 | ug/L | 0.5809 | ppb | 13:32:55 |
| 1 | Sc 361.383 | 833825.8 | 833825.8 | 108.58 | % | | | 13:34:12 |
| 1 | Y 371.029 | 745030.2 | 745030.2 | 108.13 | % | | | 13:34:12 |
| 1 | Ag 328.068† | 268.4 | -8.4 | -0.0313 | ug/L | -0.0313 | ppb | 13:34:17 |
| 1 | As 188.979† | -22.2 | 4.5 | 2.0439 | ug/L | 2.0439 | ppb | 13:34:37 |
| 1 | B 249.677† | -176.6 | 290.8 | 7.2752 | ug/L | 7.2752 | ppb | 13:34:37 |
| 1 | Ba 233.527† | 49.0 | 42.7 | 0.5083 | ug/L | 0.5083 | ppb | 13:34:37 |
| 1 | Be 313.107† | -9090.0 | 610.9 | 0.2455 | ug/L | 0.2455 | ppb | 13:34:17 |
| 1 | Cd 226.502† | -191.7 | 10.1 | 0.1401 | ug/L | 0.1401 | ppb | 13:34:37 |
| 1 | Co 228.616† | -53.9 | 7.9 | 0.2333 | ug/L | 0.2333 | ppb | 13:34:37 |
| 1 | Cr 267.716† | 142.9 | 56.0 | 0.7652 | ug/L | 0.7652 | ppb | 13:34:37 |
| 1 | Cu 324.752† | 7874.0 | -284.4 | -1.0663 | ug/L | -1.0663 | ppb | 13:34:17 |
| 1 | Mn 257.610† | 1052.2 | 508.0 | 0.8161 | ug/L | 0.8161 | ppb | 13:34:37 |
| 1 | Mo 202.031† | 9.6 | -5.5 | -0.5034 | ug/L | -0.5034 | ppb | 13:34:37 |
| 1 | Ni 231.604† | 96.7 | -12.2 | -0.3916 | ug/L | -0.3916 | ppb | 13:34:37 |
| 1 | P 214.914† | 214.2 | 1.9 | 1.2803 | ug/L | 1.2803 | ppb | 13:34:37 |
| 1 | Pb 220.353† | -46.3 | 28.1 | 4.5352 | ug/L | 4.5352 | ppb | 13:34:37 |
| 1 | S 181.975 Axial† | 52.1 | 5.4 | 7.0525 | ug/L | 7.0525 | ppb | 13:34:37 |
| 1 | Sb 206.836† | 39.5 | 6.4 | 2.6079 | ug/L | 2.6079 | ppb | 13:34:37 |
| 1 | Se 196.026† | -20.4 | 1.0 | 0.7090 | ug/L | 0.7090 | ppb | 13:34:37 |
| 1 | Si 251.611† | 1678.7 | 956.9 | 34.923 | ug/L | 34.923 | ppb | 13:34:37 |
| 1 | Sn 189.927† | 21.2 | 11.5 | 2.7028 | ug/L | 2.7028 | ppb | 13:34:37 |
| 1 | Ti 334.940† | -791.2 | 572.3 | 1.1532 | ug/L | 1.1532 | ppb | 13:34:17 |
| 1 | Tl 190.801† | -36.3 | -2.2 | -1.0235 | ug/L | -1.0235 | ppb | 13:34:37 |
| 1 | U 409.014† | -2547.2 | 190.9 | 6.3869 | ug/L | 6.3869 | ppb | 13:34:12 |
| 1 | V 292.402† | -1565.7 | 186.0 | 1.4794 | ug/L | 1.4794 | ppb | 13:34:17 |
| 1 | Zn 213.857† | 945.7 | 160.7 | 1.7699 | ug/L | 1.7699 | ppb | 13:34:37 |
| 1 | SiO2† | 1701.6 | 970.7 | 75.636 | ug/L | 75.636 | ppb | 13:35:43 |
| 2 | Sc Radial | 5009.0 | 5009.0 | 106 | % | | | 13:33:20 |
| 2 | Y RADIAL | 5297.1 | 5297.1 | 106.3 | % | | | 13:33:20 |
| 2 | Al 396.153Radial† | -48.1 | 42.0 | 39.244 | ug/L | 39.244 | ppb | 13:33:40 |
| 2 | Ca 317.933Radial† | 40.8 | 16.2 | 29.370 | ug/L | 29.370 | ppb | 13:33:40 |
| 2 | Fe 238.204 Radial† | 11.4 | 3.4 | 35.634 | ug/L | 35.634 | ppb | 13:33:40 |
| 2 | K 766.490 Radial† | 2612.2 | 192.8 | 38.348 | ug/L | 38.348 | ppb | 13:33:20 |
| 2 | Mg 279.077 IEC† | -0.3 | -3.1 | -125.03 | ug/L | -125.03 | ppb | 13:33:40 |
| 2 | Na 589.592 Radial† | -658.0 | 229.5 | 78.218 | ug/L | 78.218 | ppb | 13:33:20 |
| 2 | Sr 421.552† | 69.9 | 66.2 | 0.4810 | ug/L | 0.4810 | ppb | 13:33:20 |
| 2 | Sc 361.383 | 835954.5 | 835954.5 | 108.86 | % | | | 13:34:42 |
| 2 | Y 371.029 | 746469.9 | 746469.9 | 108.34 | % | | | 13:34:42 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Ag 328.068† | 281.6 | 3.0 | 0.0220 ug/L | 0.0220 ppb | 13:34:48 |
| 2 | As 188.979† | -2.1 | 23.1 | 10.299 ug/L | 10.299 ppb | 13:35:08 |
| 2 | B 249.677† | -239.2 | 233.7 | 5.8468 ug/L | 5.8468 ppb | 13:35:08 |
| 2 | Ba 233.527† | 61.4 | 54.0 | 0.6413 ug/L | 0.6413 ppb | 13:35:08 |
| 2 | Be 313.107† | -9174.3 | 554.8 | 0.2233 ug/L | 0.2233 ppb | 13:34:48 |
| 2 | Cd 226.502† | -188.8 | 13.2 | 0.1859 ug/L | 0.1859 ppb | 13:35:08 |
| 2 | Co 228.616† | -71.0 | -7.8 | -0.2376 ug/L | -0.2376 ppb | 13:35:08 |
| 2 | Cr 267.716† | 125.6 | 39.8 | 0.5412 ug/L | 0.5412 ppb | 13:35:08 |
| 2 | Cu 324.752† | 7798.5 | -372.2 | -1.3976 ug/L | -1.3976 ppb | 13:34:48 |
| 2 | Mn 257.610† | 1044.0 | 497.9 | 0.8056 ug/L | 0.8056 ppb | 13:35:08 |
| 2 | Mo 202.031† | 17.6 | 1.8 | 0.1644 ug/L | 0.1644 ppb | 13:35:08 |
| 2 | Ni 231.604† | 117.7 | 6.8 | 0.2180 ug/L | 0.2180 ppb | 13:35:08 |
| 2 | P 214.914† | 205.3 | -6.8 | -3.5068 ug/L | -3.5068 ppb | 13:35:08 |
| 2 | Pb 220.353† | -51.1 | 23.8 | 3.8437 ug/L | 3.8437 ppb | 13:35:08 |
| 2 | S 181.975 Axial† | 48.6 | 2.1 | 2.7644 ug/L | 2.7644 ppb | 13:35:08 |
| 2 | Sb 206.836† | 39.8 | 6.5 | 2.6855 ug/L | 2.6855 ppb | 13:35:08 |
| 2 | Se 196.026† | -13.8 | 7.1 | 4.4454 ug/L | 4.4454 ppb | 13:35:08 |
| 2 | Si 251.611† | 1672.9 | 947.5 | 34.574 ug/L | 34.574 ppb | 13:35:08 |
| 2 | Sn 189.927† | 24.1 | 14.1 | 3.3244 ug/L | 3.3244 ppb | 13:35:08 |
| 2 | Ti 334.940† | -744.0 | 617.6 | 1.2537 ug/L | 1.2537 ppb | 13:34:48 |
| 2 | Tl 190.801† | -32.5 | 1.4 | 0.6457 ug/L | 0.6457 ppb | 13:35:08 |
| 2 | U 409.014† | -2416.3 | 317.1 | 10.614 ug/L | 10.614 ppb | 13:34:42 |
| 2 | V 292.402† | -1619.5 | 140.2 | 1.1302 ug/L | 1.1302 ppb | 13:34:48 |
| 2 | Zn 213.857† | 929.9 | 143.9 | 1.5824 ug/L | 1.5824 ppb | 13:35:08 |
| 2 | SiO2† | 1722.7 | 986.1 | 76.816 ug/L | 76.816 ppb | 13:35:48 |
| 3 | Sc Radial | 5025.3 | 5025.3 | 107 % | | 13:33:45 |
| 3 | Y RADIAL | 5290.6 | 5290.6 | 106.1 % | | 13:33:45 |
| 3 | Al 396.153Radial† | -40.3 | 49.4 | 46.222 ug/L | 46.222 ppb | 13:34:05 |
| 3 | Ca 317.933Radial† | 43.3 | 18.4 | 33.434 ug/L | 33.434 ppb | 13:34:05 |
| 3 | Fe 238.204 Radial† | 10.1 | 2.2 | 22.548 ug/L | 22.548 ppb | 13:34:05 |
| 3 | K 766.490 Radial† | 2451.8 | 34.7 | 6.8694 ug/L | 6.8694 ppb | 13:33:45 |
| 3 | Mg 279.077 IEC† | 1.5 | -1.5 | -60.486 ug/L | -60.486 ppb | 13:34:05 |
| 3 | Na 589.592 Radial† | -712.9 | 180.1 | 61.382 ug/L | 61.382 ppb | 13:33:45 |
| 3 | Sr 421.552† | 58.0 | 54.8 | 0.3983 ug/L | 0.3983 ppb | 13:33:45 |
| 3 | Sc 361.383 | 829731.2 | 829731.2 | 108.05 % | | 13:35:13 |
| 3 | Y 371.029 | 740352.2 | 740352.2 | 107.45 % | | 13:35:13 |
| 3 | Ag 328.068† | 298.7 | 20.8 | 0.1067 ug/L | 0.1067 ppb | 13:35:18 |
| 3 | As 188.979† | -20.2 | 6.3 | 2.8451 ug/L | 2.8451 ppb | 13:35:38 |
| 3 | B 249.677† | -204.8 | 263.9 | 6.6060 ug/L | 6.6060 ppb | 13:35:38 |
| 3 | Ba 233.527† | 66.7 | 59.3 | 0.7026 ug/L | 0.7026 ppb | 13:35:38 |
| 3 | Be 313.107† | -9222.2 | 447.2 | 0.1804 ug/L | 0.1804 ppb | 13:35:18 |
| 3 | Cd 226.502† | -181.1 | 19.0 | 0.2701 ug/L | 0.2701 ppb | 13:35:38 |
| 3 | Co 228.616† | -77.2 | -14.0 | -0.4260 ug/L | -0.4260 ppb | 13:35:38 |
| 3 | Cr 267.716† | 127.1 | 42.0 | 0.5702 ug/L | 0.5702 ppb | 13:35:38 |
| 3 | Cu 324.752† | 7839.9 | -280.1 | -1.0544 ug/L | -1.0544 ppb | 13:35:18 |
| 3 | Mn 257.610† | 1014.9 | 478.2 | 0.7701 ug/L | 0.7701 ppb | 13:35:38 |
| 3 | Mo 202.031† | 15.0 | -0.5 | -0.0443 ug/L | -0.0443 ppb | 13:35:38 |
| 3 | Ni 231.604† | 125.1 | 14.5 | 0.4623 ug/L | 0.4623 ppb | 13:35:38 |
| 3 | P 214.914† | 211.2 | 0.1 | 0.2759 ug/L | 0.2759 ppb | 13:35:38 |
| 3 | Pb 220.353† | -36.8 | 36.7 | 5.9209 ug/L | 5.9209 ppb | 13:35:38 |
| 3 | S 181.975 Axial† | 52.1 | 5.7 | 7.3506 ug/L | 7.3506 ppb | 13:35:38 |
| 3 | Sb 206.836† | 42.8 | 9.6 | 3.9427 ug/L | 3.9427 ppb | 13:35:38 |
| 3 | Se 196.026† | -14.5 | 6.4 | 3.9849 ug/L | 3.9849 ppb | 13:35:38 |
| 3 | Si 251.611† | 1657.7 | 945.0 | 34.484 ug/L | 34.484 ppb | 13:35:38 |
| 3 | Sn 189.927† | 26.3 | 16.2 | 3.8294 ug/L | 3.8294 ppb | 13:35:38 |
| 3 | Ti 334.940† | -789.8 | 570.0 | 1.1525 ug/L | 1.1525 ppb | 13:35:18 |
| 3 | Tl 190.801† | -37.6 | -3.5 | -1.6115 ug/L | -1.6115 ppb | 13:35:38 |
| 3 | U 409.014† | -2346.7 | 364.9 | 12.214 ug/L | 12.214 ppb | 13:35:13 |
| 3 | V 292.402† | -1651.7 | 99.3 | 0.8075 ug/L | 0.8075 ppb | 13:35:18 |
| 3 | Zn 213.857† | 924.2 | 145.0 | 1.5947 ug/L | 1.5947 ppb | 13:35:38 |
| 3 | SiO2† | 1723.5 | 998.7 | 77.801 ug/L | 77.801 ppb | 13:35:53 |

**Mean Data: 1202032590|948756|1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 833170.5 | 108.49 | % | 0.412 | | | | 0.38% |
| Sc Radial | 5017.4 | 107 | % | 0.2 | | | | 0.16% |
| Y 371.029 | 743950.8 | 107.97 | % | 0.464 | | | | 0.43% |
| Y RADIAL | 5294.8 | 106.2 | % | 0.07 | | | | 0.07% |
| Ag 328.068† | 5.1 | 0.0325 | ug/L | 0.06962 | 0.0325 | ppb | 0.06962 | 214.45% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Al 396.153Radial† | 47.5 | 44.394 | ug/L | 4.5218 | 44.394 | ppb | 4.5218 | 10.19% |
| As 188.979† | 11.3 | 5.0625 | ug/L | 4.55223 | 5.0625 | ppb | 4.55223 | 89.92% |
| B 249.677† | 262.8 | 6.5760 | ug/L | 0.71467 | 6.5760 | ppb | 0.71467 | 10.87% |
| Ba 233.527† | 52.0 | 0.6174 | ug/L | 0.09934 | 0.6174 | ppb | 0.09934 | 16.09% |
| Be 313.107† | 537.6 | 0.2164 | ug/L | 0.03309 | 0.2164 | ppb | 0.03309 | 15.29% |
| Ca 317.933Radial† | 17.5 | 31.767 | ug/L | 2.1281 | 31.767 | ppb | 2.1281 | 6.70% |
| Cd 226.502† | 14.1 | 0.1987 | ug/L | 0.06593 | 0.1987 | ppb | 0.06593 | 33.18% |
| Co 228.616† | -4.6 | -0.1434 | ug/L | 0.33963 | -0.1434 | ppb | 0.33963 | 236.78% |
| Cr 267.716† | 45.9 | 0.6255 | ug/L | 0.12184 | 0.6255 | ppb | 0.12184 | 19.48% |
| Cu 324.752† | -312.2 | -1.1728 | ug/L | 0.19482 | -1.1728 | ppb | 0.19482 | 16.61% |
| Fe 238.204 Radial† | 3.1 | 32.171 | ug/L | 8.4422 | 32.171 | ppb | 8.4422 | 26.24% |
| K 766.490 Radial† | 92.0 | 18.282 | ug/L | 17.4326 | 18.282 | ppb | 17.4326 | 95.35% |
| Mg 279.077 IEC† | -1.4 | -56.253 | ug/L | 70.9899 | -56.253 | ppb | 70.9899 | 126.20% |
| Mn 257.610† | 494.7 | 0.7973 | ug/L | 0.02410 | 0.7973 | ppb | 0.02410 | 3.02% |
| Mo 202.031† | -1.4 | -0.1278 | ug/L | 0.34164 | -0.1278 | ppb | 0.34164 | 267.39% |
| Na 589.592 Radial† | 206.3 | 70.317 | ug/L | 8.4651 | 70.317 | ppb | 8.4651 | 12.04% |
| Ni 231.604† | 3.0 | 0.0962 | ug/L | 0.43978 | 0.0962 | ppb | 0.43978 | 457.01% |
| P 214.914† | -1.6 | -0.6502 | ug/L | 2.52435 | -0.6502 | ppb | 2.52435 | 388.24% |
| Pb 220.353† | 29.5 | 4.7666 | ug/L | 1.05775 | 4.7666 | ppb | 1.05775 | 22.19% |
| S 181.975 Axial† | 4.4 | 5.7225 | ug/L | 2.56612 | 5.7225 | ppb | 2.56612 | 44.84% |
| Sb 206.836† | 7.5 | 3.0787 | ug/L | 0.74924 | 3.0787 | ppb | 0.74924 | 24.34% |
| Se 196.026† | 4.9 | 3.0464 | ug/L | 2.03734 | 3.0464 | ppb | 2.03734 | 66.88% |
| Si 251.611† | 949.8 | 34.661 | ug/L | 0.2321 | 34.661 | ppb | 0.2321 | 0.67% |
| Sn 189.927† | 13.9 | 3.2855 | ug/L | 0.56434 | 3.2855 | ppb | 0.56434 | 17.18% |
| Sr 421.552† | 67.0 | 0.4868 | ug/L | 0.09144 | 0.4868 | ppb | 0.09144 | 18.78% |
| Ti 334.940† | 586.6 | 1.1865 | ug/L | 0.05827 | 1.1865 | ppb | 0.05827 | 4.91% |
| Tl 190.801† | -1.5 | -0.6631 | ug/L | 1.17096 | -0.6631 | ppb | 1.17096 | 176.59% |
| U 409.014† | 291.0 | 9.7385 | ug/L | 3.01083 | 9.7385 | ppb | 3.01083 | 30.92% |
| V 292.402† | 141.8 | 1.1390 | ug/L | 0.33605 | 1.1390 | ppb | 0.33605 | 29.50% |
| Zn 213.857† | 149.9 | 1.6490 | ug/L | 0.10489 | 1.6490 | ppb | 0.10489 | 6.36% |
| SiO2† | 985.2 | 76.751 | ug/L | 1.0838 | 76.751 | ppb | 1.0838 | 1.41% |

Sequence No.: 3
Sample ID: 245969003|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 3/1/2010 13:45:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969003|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 5176.1 | 5176.1 | 110 | % | | | 13:46:58 |
| 1 | Y RADIAL | 6055.3 | 6055.3 | 121.5 | % | | | 13:46:58 |
| 1 | Al 396.153Radial† | 51262.1 | 46699.9 | 43684 | ug/L | 43684 | ppb | 13:46:58 |
| 1 | Ca 317.933Radial† | 17022.2 | 15456.1 | 28083 | ug/L | 28083 | ppb | 13:46:58 |
| 1 | Fe 238.204 Radial† | 8940.2 | 8122.0 | 84266 | ug/L | 84266 | ppb | 13:46:58 |
| 1 | K 766.490 Radial† | 35448.9 | 29972.1 | 5955.1 | ug/L | 5955.1 | ppb | 13:46:58 |
| 1 | Mg 279.077 IEC† | 272.9 | 245.3 | 9651.1 | ug/L | 9651.1 | ppb | 13:47:18 |
| 1 | Na 589.592 Radial† | 7250.8 | 7440.9 | 2535.9 | ug/L | 2535.9 | ppb | 13:46:58 |
| 1 | Sr 421.552† | 23681.6 | 21534.2 | 156.38 | ug/L | 156.38 | ppb | 13:46:58 |
| 1 | Sc 361.383 | 845401.7 | 845401.7 | 110.09 | % | | | 13:48:16 |
| 1 | Y 371.029 | 835229.3 | 835229.3 | 121.22 | % | | | 13:48:16 |
| 1 | Ag 328.068† | -4899.6 | -4706.3 | 1.8407 | ug/L | 1.8407 | ppb | 13:48:21 |
| 1 | As 188.979† | -18.9 | 7.8 | 34.837 | ug/L | 34.837 | ppb | 13:48:41 |
| 1 | B 249.677† | 824.1 | 1202.0 | 16.301 | ug/L | 16.301 | ppb | 13:48:21 |
| 1 | Ba 233.527† | 41919.0 | 38075.6 | 452.05 | ug/L | 452.05 | ppb | 13:48:21 |
| 1 | Be 313.107† | -4062.5 | 5292.4 | 5.1478 | ug/L | 5.1478 | ppb | 13:48:21 |
| 1 | Cd 226.502† | 510.8 | 650.7 | 0.5656 | ug/L | 0.5656 | ppb | 13:48:41 |
| 1 | Co 228.616† | 1412.3 | 1340.3 | 36.597 | ug/L | 36.597 | ppb | 13:48:41 |
| 1 | Cr 267.716† | 19178.1 | 17345.3 | 238.79 | ug/L | 238.79 | ppb | 13:48:21 |
| 1 | Cu 324.752† | 29626.3 | 19375.5 | 77.114 | ug/L | 77.114 | ppb | 13:48:21 |
| 1 | Mn 257.610† | 1519324.9 | 1379650.5 | 2216.2 | ug/L | 2216.2 | ppb | 13:48:16 |
| 1 | Mo 202.031† | 36.6 | 18.9 | 8.6092 | ug/L | 8.6092 | ppb | 13:48:41 |
| 1 | Ni 231.604† | 4559.7 | 4040.5 | 129.14 | ug/L | 129.14 | ppb | 13:48:41 |
| 1 | P 214.914† | 679.8 | 422.2 | 164.12 | ug/L | 164.12 | ppb | 13:48:41 |
| 1 | Pb 220.353† | 461.8 | 490.2 | 83.281 | ug/L | 83.281 | ppb | 13:48:41 |
| 1 | S 181.975 Axial† | 226.4 | 163.1 | 203.29 | ug/L | 203.29 | ppb | 13:48:41 |
| 1 | Sb 206.836† | 63.0 | 27.2 | 4.4995 | ug/L | 4.4995 | ppb | 13:48:41 |
| 1 | Se 196.026† | -339.4 | -288.5 | 16.152 | ug/L | 16.152 | ppb | 13:48:41 |
| 1 | Si 251.611† | 1278179.8 | 1160473.0 | 42346 | ug/L | 42346 | ppb | 13:48:16 |
| 1 | Sn 189.927† | -107.7 | -106.0 | -24.799 | ug/L | -24.799 | ppb | 13:48:41 |
| 1 | Ti 334.940† | 731127.2 | 665436.2 | 1343.8 | ug/L | 1343.8 | ppb | 13:48:16 |
| 1 | Tl 190.801† | -105.1 | -64.3 | -8.1732 | ug/L | -8.1732 | ppb | 13:48:41 |
| 1 | U 409.014† | -8935.0 | -5579.5 | -196.97 | ug/L | -196.97 | ppb | 13:48:16 |
| 1 | V 292.402† | 10733.8 | 11378.3 | 76.684 | ug/L | 76.684 | ppb | 13:48:21 |
| 1 | Zn 213.857† | 41265.9 | 36774.5 | 392.04 | ug/L | 392.04 | ppb | 13:48:21 |
| 1 | SiO2† | 1279230.4 | 1161420.2 | 90476 | ug/L | 90476 | ppb | 13:49:49 |
| 2 | Sc Radial | 5100.3 | 5100.3 | 108 | % | | | 13:47:23 |
| 2 | Y RADIAL | 5975.9 | 5975.9 | 119.9 | % | | | 13:47:23 |
| 2 | Al 396.153Radial† | 50406.6 | 46603.5 | 43594 | ug/L | 43594 | ppb | 13:47:23 |
| 2 | Ca 317.933Radial† | 16772.5 | 15455.9 | 28082 | ug/L | 28082 | ppb | 13:47:23 |
| 2 | Fe 238.204 Radial† | 8828.1 | 8139.5 | 84448 | ug/L | 84448 | ppb | 13:47:23 |
| 2 | K 766.490 Radial† | 34992.6 | 30030.3 | 5966.7 | ug/L | 5966.7 | ppb | 13:47:23 |
| 2 | Mg 279.077 IEC† | 275.3 | 251.1 | 9882.3 | ug/L | 9882.3 | ppb | 13:47:43 |
| 2 | Na 589.592 Radial† | 6934.9 | 7247.5 | 2469.9 | ug/L | 2469.9 | ppb | 13:47:23 |
| 2 | Sr 421.552† | 23231.7 | 21439.3 | 155.69 | ug/L | 155.69 | ppb | 13:47:23 |
| 2 | Sc 361.383 | 849296.7 | 849296.7 | 110.59 | % | | | 13:48:47 |
| 2 | Y 371.029 | 838461.5 | 838461.5 | 121.69 | % | | | 13:48:47 |
| 2 | Ag 328.068† | -4774.5 | -4572.8 | 2.5805 | ug/L | 2.5805 | ppb | 13:48:52 |
| 2 | As 188.979† | 1.6 | 26.5 | 43.160 | ug/L | 43.160 | ppb | 13:49:12 |
| 2 | B 249.677† | 851.2 | 1223.1 | 16.799 | ug/L | 16.799 | ppb | 13:48:52 |
| 2 | Ba 233.527† | 41389.6 | 37422.3 | 444.35 | ug/L | 444.35 | ppb | 13:48:52 |
| 2 | Be 313.107† | -4032.9 | 5336.1 | 5.1550 | ug/L | 5.1550 | ppb | 13:48:52 |
| 2 | Cd 226.502† | 492.2 | 631.7 | 0.2785 | ug/L | 0.2785 | ppb | 13:49:12 |
| 2 | Co 228.616† | 1424.2 | 1345.2 | 36.749 | ug/L | 36.749 | ppb | 13:49:12 |
| 2 | Cr 267.716† | 18870.3 | 16987.0 | 233.90 | ug/L | 233.90 | ppb | 13:48:52 |
| 2 | Cu 324.752† | 29213.9 | 18879.2 | 75.267 | ug/L | 75.267 | ppb | 13:48:52 |
| 2 | Mn 257.610† | 1519294.9 | 1373294.0 | 2206.1 | ug/L | 2206.1 | ppb | 13:48:47 |
| 2 | Mo 202.031† | 27.0 | 10.1 | 7.8124 | ug/L | 7.8124 | ppb | 13:49:12 |
| 2 | Ni 231.604† | 4626.2 | 4081.7 | 130.45 | ug/L | 130.45 | ppb | 13:49:12 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 682.8 | 422.0 | 164.24 | ug/L | 164.24 ppb | 13:49:12 |
| 2 | Pb 220.353† | 472.4 | 497.9 | 84.478 | ug/L | 84.478 ppb | 13:49:12 |
| 2 | S 181.975 Axial† | 232.9 | 168.1 | 209.73 | ug/L | 209.73 ppb | 13:49:12 |
| 2 | Sb 206.836† | 51.9 | 16.9 | 0.3483 | ug/L | 0.3483 ppb | 13:49:12 |
| 2 | Se 196.026† | -344.0 | -291.2 | 14.851 | ug/L | 14.851 ppb | 13:49:12 |
| 2 | Si 251.611† | 1277333.7 | 1154383.3 | 42124 | ug/L | 42124 ppb | 13:48:47 |
| 2 | Sn 189.927† | -104.2 | -102.3 | -23.940 | ug/L | -23.940 ppb | 13:49:12 |
| 2 | Ti 334.940† | 732048.7 | 663223.6 | 1339.4 | ug/L | 1339.4 ppb | 13:48:47 |
| 2 | Tl 190.801† | -93.6 | -53.4 | -3.2857 | ug/L | -3.2857 ppb | 13:49:12 |
| 2 | U 409.014† | -9065.4 | -5660.1 | -199.68 | ug/L | -199.68 ppb | 13:48:47 |
| 2 | V 292.402† | 10626.1 | 11236.1 | 75.520 | ug/L | 75.520 ppb | 13:48:52 |
| 2 | Zn 213.857† | 40730.3 | 36118.3 | 384.77 | ug/L | 384.77 ppb | 13:48:52 |
| 2 | SiO2† | 1272309.2 | 1149832.8 | 89574 | ug/L | 89574 ppb | 13:49:55 |
| 3 | Sc Radial | 5061.4 | 5061.4 | 108 | % | | 13:47:48 |
| 3 | Y RADIAL | 5974.0 | 5974.0 | 119.8 | % | | 13:47:48 |
| 3 | Al 396.153Radial† | 51616.4 | 48086.0 | 44980 | ug/L | 44980 ppb | 13:47:48 |
| 3 | Ca 317.933Radial† | 17129.4 | 15906.8 | 28902 | ug/L | 28902 ppb | 13:47:48 |
| 3 | Fe 238.204 Radial† | 8976.7 | 8340.3 | 86531 | ug/L | 86531 ppb | 13:47:48 |
| 3 | K 766.490 Radial† | 35672.9 | 30911.1 | 6141.8 | ug/L | 6141.8 ppb | 13:47:48 |
| 3 | Mg 279.077 IEC† | 276.2 | 253.9 | 9992.0 | ug/L | 9992.0 ppb | 13:48:08 |
| 3 | Na 589.592 Radial† | 7162.3 | 7508.2 | 2558.8 | ug/L | 2558.8 ppb | 13:47:48 |
| 3 | Sr 421.552† | 23823.3 | 22154.1 | 160.88 | ug/L | 160.88 ppb | 13:47:48 |
| 3 | Sc 361.383 | 847783.5 | 847783.5 | 110.40 | % | | 13:49:18 |
| 3 | Y 371.029 | 837032.7 | 837032.7 | 121.48 | % | | 13:49:18 |
| 3 | Ag 328.068† | -4900.7 | -4694.8 | 2.5822 | ug/L | 2.5822 ppb | 13:49:23 |
| 3 | As 188.979† | -15.0 | 11.4 | 36.929 | ug/L | 36.929 ppb | 13:49:43 |
| 3 | B 249.677† | 859.7 | 1232.2 | 16.688 | ug/L | 16.688 ppb | 13:49:23 |
| 3 | Ba 233.527† | 41768.3 | 37832.1 | 449.25 | ug/L | 449.25 ppb | 13:49:23 |
| 3 | Be 313.107† | -4037.8 | 5325.2 | 5.1465 | ug/L | 5.1465 ppb | 13:49:23 |
| 3 | Cd 226.502† | 483.6 | 624.7 | -0.0355 | ug/L | -0.0355 ppb | 13:49:43 |
| 3 | Co 228.616† | 1426.6 | 1349.8 | 36.861 | ug/L | 36.861 ppb | 13:49:43 |
| 3 | Cr 267.716† | 19154.5 | 17274.9 | 237.87 | ug/L | 237.87 ppb | 13:49:23 |
| 3 | Cu 324.752† | 29664.4 | 19334.4 | 77.079 | ug/L | 77.079 ppb | 13:49:23 |
| 3 | Mn 257.610† | 1513675.7 | 1370656.0 | 2202.1 | ug/L | 2202.1 ppb | 13:49:18 |
| 3 | Mo 202.031† | 38.3 | 20.3 | 8.9226 | ug/L | 8.9226 ppb | 13:49:43 |
| 3 | Ni 231.604† | 4607.6 | 4072.4 | 130.16 | ug/L | 130.16 ppb | 13:49:43 |
| 3 | P 214.914† | 677.0 | 417.9 | 160.24 | ug/L | 160.24 ppb | 13:49:43 |
| 3 | Pb 220.353† | 462.1 | 489.3 | 83.280 | ug/L | 83.280 ppb | 13:49:43 |
| 3 | S 181.975 Axial† | 235.5 | 170.8 | 212.98 | ug/L | 212.98 ppb | 13:49:43 |
| 3 | Sb 206.836† | 47.7 | 13.1 | -1.2504 | ug/L | -1.2504 ppb | 13:49:43 |
| 3 | Se 196.026† | -351.4 | -298.5 | 15.182 | ug/L | 15.182 ppb | 13:49:43 |
| 3 | Si 251.611† | 1274624.1 | 1153990.4 | 42110 | ug/L | 42110 ppb | 13:49:18 |
| 3 | Sn 189.927† | -112.1 | -109.6 | -25.650 | ug/L | -25.650 ppb | 13:49:43 |
| 3 | Ti 334.940† | 729741.4 | 662315.2 | 1337.6 | ug/L | 1337.6 ppb | 13:49:18 |
| 3 | Tl 190.801† | -102.7 | -61.8 | -7.1564 | ug/L | -7.1564 ppb | 13:49:43 |
| 3 | U 409.014† | -8923.3 | -5546.1 | -196.11 | ug/L | -196.11 ppb | 13:49:18 |
| 3 | V 292.402† | 10708.7 | 11328.1 | 75.972 | ug/L | 75.972 ppb | 13:49:23 |
| 3 | Zn 213.857† | 41202.0 | 36611.3 | 389.89 | ug/L | 389.89 ppb | 13:49:23 |
| 3 | SiO2† | 1270018.3 | 1149811.1 | 89572 | ug/L | 89572 ppb | 13:50:01 |

**Mean Data: 245969003|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 847494.0 | 110.36 | % | 0.256 | | | | 0.23% |
| Sc Radial | 5112.6 | 109 | % | 1.2 | | | | 1.14% |
| Y 371.029 | 836907.8 | 121.46 | % | 0.235 | | | | 0.19% |
| Y RADIAL | 6001.8 | 120.4 | % | 0.93 | | | | 0.77% |
| Ag 328.068† | -4658.0 | 2.3345 | ug/L | 0.42762 | 2.3345 | ppb | 0.42762 | 18.32% |
| Al 396.153Radial† | 47129.8 | 44086 | ug/L | 775.9 | 44086 | ppb | 775.9 | 1.76% |
| As 188.979† | 15.3 | 38.309 | ug/L | 4.3298 | 38.309 | ppb | 4.3298 | 11.30% |
| B 249.677† | 1219.1 | 16.596 | ug/L | 0.2616 | 16.596 | ppb | 0.2616 | 1.58% |
| Ba 233.527† | 37776.7 | 448.55 | ug/L | 3.900 | 448.55 | ppb | 3.900 | 0.87% |
| Be 313.107† | 5317.9 | 5.1498 | ug/L | 0.00457 | 5.1498 | ppb | 0.00457 | 0.09% |
| Ca 317.933Radial† | 15606.3 | 28356 | ug/L | 472.8 | 28356 | ppb | 472.8 | 1.67% |
| Cd 226.502† | 635.7 | 0.2695 | ug/L | 0.30063 | 0.2695 | ppb | 0.30063 | 111.54% |
| Co 228.616† | 1345.1 | 36.736 | ug/L | 0.1327 | 36.736 | ppb | 0.1327 | 0.36% |
| Cr 267.716† | 17202.4 | 236.85 | ug/L | 2.600 | 236.85 | ppb | 2.600 | 1.10% |
| Cu 324.752† | 19196.4 | 76.487 | ug/L | 1.0567 | 76.487 | ppb | 1.0567 | 1.38% |
| Fe 238.204 Radial† | 8200.6 | 85082 | ug/L | 1258.5 | 85082 | ppb | 1258.5 | 1.48% |
| K 766.490 Radial† | 30304.5 | 6021.2 | ug/L | 104.57 | 6021.2 | ppb | 104.57 | 1.74% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 250.1 | 9841.8 | ug/L | 174.00 | 9841.8 | ppb | 174.00 | 1.77% |
| Mn 257.610† | 1374533.5 | 2208.1 | ug/L | 7.31 | 2208.1 | ppb | 7.31 | 0.33% |
| Mo 202.031† | 16.4 | 8.4481 | ug/L | 0.57237 | 8.4481 | ppb | 0.57237 | 6.78% |
| Na 589.592 Radial† | 7398.9 | 2521.5 | ug/L | 46.12 | 2521.5 | ppb | 46.12 | 1.83% |
| Ni 231.604† | 4064.9 | 129.92 | ug/L | 0.689 | 129.92 | ppb | 0.689 | 0.53% |
| P 214.914† | 420.7 | 162.86 | ug/L | 2.276 | 162.86 | ppb | 2.276 | 1.40% |
| Pb 220.353† | 492.4 | 83.679 | ug/L | 0.6915 | 83.679 | ppb | 0.6915 | 0.83% |
| S 181.975 Axial† | 167.3 | 208.67 | ug/L | 4.933 | 208.67 | ppb | 4.933 | 2.36% |
| Sb 206.836† | 19.1 | 1.1992 | ug/L | 2.96785 | 1.1992 | ppb | 2.96785 | 247.49% |
| Se 196.026† | -292.7 | 15.395 | ug/L | 0.6764 | 15.395 | ppb | 0.6764 | 4.39% |
| Si 251.611† | 1156282.2 | 42193 | ug/L | 132.6 | 42193 | ppb | 132.6 | 0.31% |
| Sn 189.927† | -105.9 | -24.796 | ug/L | 0.8553 | -24.796 | ppb | 0.8553 | 3.45% |
| Sr 421.552† | 21709.2 | 157.65 | ug/L | 2.819 | 157.65 | ppb | 2.819 | 1.79% |
| Ti 334.940† | 663658.3 | 1340.3 | ug/L | 3.20 | 1340.3 | ppb | 3.20 | 0.24% |
| Tl 190.801† | -59.8 | -6.2051 | ug/L | 2.57890 | -6.2051 | ppb | 2.57890 | 41.56% |
| U 409.014† | -5595.2 | -197.59 | ug/L | 1.865 | -197.59 | ppb | 1.865 | 0.94% |
| V 292.402† | 11314.2 | 76.059 | ug/L | 0.5868 | 76.059 | ppb | 0.5868 | 0.77% |
| Zn 213.857† | 36501.3 | 388.90 | ug/L | 3.735 | 388.90 | ppb | 3.735 | 0.96% |
| SiO2† | 1153688.0 | 89874 | ug/L | 521.6 | 89874 | ppb | 521.6 | 0.58% |

Sequence No.: 4
Sample ID: 245969005|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 3/1/2010 13:52:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969005|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 5021.3 | 5021.3 | 107 | % | | | 13:54:04 |
| 1 | Y RADIAL | 6219.0 | 6219.0 | 124.7 | % | | | 13:54:04 |
| 1 | Al 396.153Radial† | 31531.4 | 29642.6 | 27728 | ug/L | 27728 | ppb | 13:54:04 |
| 1 | Ca 317.933Radial† | 3404.9 | 3169.4 | 5758.6 | ug/L | 5758.6 | ppb | 13:54:24 |
| 1 | Fe 238.204 Radial† | 10460.2 | 9797.4 | 101650 | ug/L | 101650 | ppb | 13:54:04 |
| 1 | K 766.490 Radial† | 38943.8 | 34241.8 | 6812.2 | ug/L | 6812.2 | ppb | 13:54:04 |
| 1 | Mg 279.077 IEC† | 126.3 | 115.5 | 4479.0 | ug/L | 4479.0 | ppb | 13:54:24 |
| 1 | Na 589.592 Radial† | 9180.3 | 9452.8 | 3221.5 | ug/L | 3221.5 | ppb | 13:54:04 |
| 1 | Sr 421.552† | 8934.0 | 8374.6 | 60.855 | ug/L | 60.855 | ppb | 13:54:04 |
| 1 | Sc 361.383 | 835097.5 | 835097.5 | 108.75 | % | | | 13:55:22 |
| 1 | Y 371.029 | 870835.5 | 870835.5 | 126.38 | % | | | 13:55:22 |
| 1 | Ag 328.068† | -5751.1 | -5544.3 | 3.1837 | ug/L | 3.1837 | ppb | 13:55:27 |
| 1 | As 188.979† | -42.3 | -13.9 | 39.628 | ug/L | 39.628 | ppb | 13:55:47 |
| 1 | B 249.677† | 820.4 | 1207.9 | 13.419 | ug/L | 13.419 | ppb | 13:55:27 |
| 1 | Ba 233.527† | 30859.2 | 28375.1 | 338.12 | ug/L | 338.12 | ppb | 13:55:27 |
| 1 | Be 313.107† | -15264.5 | -5054.2 | 3.7562 | ug/L | 3.7562 | ppb | 13:55:27 |
| 1 | Cd 226.502† | 715.6 | 844.7 | 1.4702 | ug/L | 1.4702 | ppb | 13:55:47 |
| 1 | Co 228.616† | 3981.6 | 3718.9 | 105.74 | ug/L | 105.74 | ppb | 13:55:47 |
| 1 | Cr 267.716† | 5169.0 | 4677.7 | 66.059 | ug/L | 66.059 | ppb | 13:55:47 |
| 1 | Cu 324.752† | 69433.2 | 56313.2 | 216.34 | ug/L | 216.34 | ppb | 13:55:27 |
| 1 | Mn 257.610† | 1546358.9 | 1421539.6 | 2285.2 | ug/L | 2285.2 | ppb | 13:55:22 |
| 1 | Mo 202.031† | 33.0 | 16.0 | 9.4270 | ug/L | 9.4270 | ppb | 13:55:47 |
| 1 | Ni 231.604† | 1783.8 | 1539.0 | 49.130 | ug/L | 49.130 | ppb | 13:55:47 |
| 1 | P 214.914† | 1063.4 | 782.5 | 320.19 | ug/L | 320.19 | ppb | 13:55:47 |
| 1 | Pb 220.353† | 1051.2 | 1037.3 | 165.84 | ug/L | 165.84 | ppb | 13:55:47 |
| 1 | S 181.975 Axial† | 161.5 | 106.0 | 132.27 | ug/L | 132.27 | ppb | 13:55:47 |
| 1 | Sb 206.836† | 47.7 | 13.8 | -4.2127 | ug/L | -4.2127 | ppb | 13:55:47 |
| 1 | Se 196.026† | -418.7 | -365.2 | 6.5446 | ug/L | 6.5446 | ppb | 13:55:47 |
| 1 | Si 251.611† | 1070320.0 | 983655.6 | 35894 | ug/L | 35894 | ppb | 13:55:22 |
| 1 | Sn 189.927† | 42.1 | 30.6 | 2.3999 | ug/L | 2.3999 | ppb | 13:55:47 |
| 1 | Ti 334.940† | 1369043.8 | 1260246.4 | 2539.9 | ug/L | 2539.9 | ppb | 13:55:22 |
| 1 | Tl 190.801† | -119.8 | -79.0 | -4.9769 | ug/L | -4.9769 | ppb | 13:55:47 |
| 1 | U 409.014† | -8735.3 | -5496.0 | -195.77 | ug/L | -195.77 | ppb | 13:55:22 |
| 1 | V 292.402† | 10860.0 | 11614.6 | 74.730 | ug/L | 74.730 | ppb | 13:55:27 |
| 1 | Zn 213.857† | 33879.3 | 30444.4 | 319.95 | ug/L | 319.95 | ppb | 13:55:27 |
| 1 | SiO2† | 1068162.3 | 981664.3 | 76473 | ug/L | 76473 | ppb | 13:56:56 |
| 2 | Sc Radial | 5236.6 | 5236.6 | 111 | % | | | 13:54:30 |
| 2 | Y RADIAL | 6503.8 | 6503.8 | 130.5 | % | | | 13:54:30 |
| 2 | Al 396.153Radial† | 33335.2 | 30048.6 | 28108 | ug/L | 28108 | ppb | 13:54:30 |
| 2 | Ca 317.933Radial† | 3406.1 | 3039.2 | 5522.1 | ug/L | 5522.1 | ppb | 13:54:50 |
| 2 | Fe 238.204 Radial† | 11028.1 | 9904.7 | 102760 | ug/L | 102760 | ppb | 13:54:30 |
| 2 | K 766.490 Radial† | 40945.0 | 34539.5 | 6871.6 | ug/L | 6871.6 | ppb | 13:54:30 |
| 2 | Mg 279.077 IEC† | 129.5 | 113.5 | 4398.0 | ug/L | 4398.0 | ppb | 13:54:50 |
| 2 | Na 589.592 Radial† | 9760.7 | 9620.7 | 3278.7 | ug/L | 3278.7 | ppb | 13:54:30 |
| 2 | Sr 421.552† | 9472.6 | 8514.4 | 61.873 | ug/L | 61.873 | ppb | 13:54:30 |
| 2 | Sc 361.383 | 854952.1 | 854952.1 | 111.33 | % | | | 13:55:53 |
| 2 | Y 371.029 | 889281.4 | 889281.4 | 129.06 | % | | | 13:55:53 |
| 2 | Ag 328.068† | -5727.0 | -5399.8 | 4.2569 | ug/L | 4.2569 | ppb | 13:55:58 |
| 2 | As 188.979† | -39.8 | -10.7 | 41.025 | ug/L | 41.025 | ppb | 13:56:18 |
| 2 | B 249.677† | 834.9 | 1203.4 | 13.135 | ug/L | 13.135 | ppb | 13:55:58 |
| 2 | Ba 233.527† | 30682.6 | 27557.4 | 328.50 | ug/L | 328.50 | ppb | 13:55:58 |
| 2 | Be 313.107† | -15218.2 | -4686.7 | 3.8301 | ug/L | 3.8301 | ppb | 13:55:58 |
| 2 | Cd 226.502† | 729.0 | 841.5 | 1.3099 | ug/L | 1.3099 | ppb | 13:56:18 |
| 2 | Co 228.616† | 3955.8 | 3610.7 | 102.52 | ug/L | 102.52 | ppb | 13:56:18 |
| 2 | Cr 267.716† | 5142.3 | 4543.3 | 64.238 | ug/L | 64.238 | ppb | 13:56:18 |
| 2 | Cu 324.752† | 68838.7 | 54296.5 | 208.85 | ug/L | 208.85 | ppb | 13:55:58 |
| 2 | Mn 257.610† | 1560342.3 | 1401076.6 | 2252.6 | ug/L | 2252.6 | ppb | 13:55:53 |
| 2 | Mo 202.031† | 28.0 | 10.8 | 9.0327 | ug/L | 9.0327 | ppb | 13:56:18 |
| 2 | Ni 231.604† | 1755.8 | 1475.8 | 47.111 | ug/L | 47.111 | ppb | 13:56:18 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1079.5 | 774.2 | 316.26 | ug/L | 316.26 ppb | 13:56:18 |
| 2 | Pb 220.353† | 1048.4 | 1012.4 | 161.82 | ug/L | 161.82 ppb | 13:56:18 |
| 2 | S 181.975 Axial† | 161.4 | 102.5 | 127.60 | ug/L | 127.60 ppb | 13:56:18 |
| 2 | Sb 206.836† | 50.7 | 15.6 | -3.4693 | ug/L | -3.4693 ppb | 13:56:18 |
| 2 | Se 196.026† | -415.3 | -353.3 | 16.400 | ug/L | 16.400 ppb | 13:56:18 |
| 2 | Si 251.611† | 1081230.3 | 970598.4 | 35418 | ug/L | 35418 ppb | 13:55:53 |
| 2 | Sn 189.927† | 37.8 | 25.9 | 1.1723 | ug/L | 1.1723 ppb | 13:56:18 |
| 2 | Ti 334.940† | 1384035.0 | 1244475.3 | 2508.1 | ug/L | 2508.1 ppb | 13:55:53 |
| 2 | Tl 190.801† | -119.8 | -76.4 | -4.2077 | ug/L | -4.2077 ppb | 13:56:18 |
| 2 | U 409.014† | -8719.7 | -5295.4 | -189.17 | ug/L | -189.17 ppb | 13:55:53 |
| 2 | V 292.402† | 10775.3 | 11306.7 | 72.155 | ug/L | 72.155 ppb | 13:55:58 |
| 2 | Zn 213.857† | 33686.9 | 29548.1 | 309.92 | ug/L | 309.92 ppb | 13:55:58 |
| 2 | SiO2† | 1077429.0 | 967176.7 | 75345 | ug/L | 75345 ppb | 13:57:02 |
| 3 | Sc Radial | 5059.1 | 5059.1 | 107 | % | | 13:54:55 |
| 3 | Y RADIAL | 6276.4 | 6276.4 | 125.9 | % | | 13:54:55 |
| 3 | Al 396.153Radial† | 32763.3 | 30567.6 | 28593 | ug/L | 28593 ppb | 13:54:55 |
| 3 | Ca 317.933Radial† | 3416.4 | 3156.2 | 5734.7 | ug/L | 5734.7 ppb | 13:55:15 |
| 3 | Fe 238.204 Radial† | 10806.6 | 10046.3 | 104230 | ug/L | 104230 ppb | 13:54:55 |
| 3 | K 766.490 Radial† | 40376.7 | 35301.8 | 7023.2 | ug/L | 7023.2 ppb | 13:54:55 |
| 3 | Mg 279.077 IEC† | 131.3 | 119.3 | 4626.1 | ug/L | 4626.1 ppb | 13:55:15 |
| 3 | Na 589.592 Radial† | 9409.9 | 9602.0 | 3272.4 | ug/L | 3272.4 ppb | 13:54:55 |
| 3 | Sr 421.552† | 9226.0 | 8583.6 | 62.375 | ug/L | 62.375 ppb | 13:54:55 |
| 3 | Sc 361.383 | 847139.5 | 847139.5 | 110.31 | % | | 13:56:24 |
| 3 | Y 371.029 | 882394.3 | 882394.3 | 128.06 | % | | 13:56:24 |
| 3 | Ag 328.068† | -5798.7 | -5512.2 | 4.1349 | ug/L | 4.1349 ppb | 13:56:29 |
| 3 | As 188.979† | -40.4 | -11.6 | 40.960 | ug/L | 40.960 ppb | 13:56:49 |
| 3 | B 249.677† | 756.6 | 1139.3 | 11.287 | ug/L | 11.287 ppb | 13:56:29 |
| 3 | Ba 233.527† | 30746.9 | 27869.9 | 332.23 | ug/L | 332.23 ppb | 13:56:29 |
| 3 | Be 313.107† | -15260.8 | -4851.3 | 3.7615 | ug/L | 3.7615 ppb | 13:56:29 |
| 3 | Cd 226.502† | 723.1 | 842.2 | 1.1682 | ug/L | 1.1682 ppb | 13:56:49 |
| 3 | Co 228.616† | 3970.2 | 3656.5 | 103.89 | ug/L | 103.89 ppb | 13:56:49 |
| 3 | Cr 267.716† | 5155.3 | 4597.7 | 65.013 | ug/L | 65.013 ppb | 13:56:49 |
| 3 | Cu 324.752† | 68912.7 | 54933.8 | 211.31 | ug/L | 211.31 ppb | 13:56:29 |
| 3 | Mn 257.610† | 1547884.6 | 1402708.9 | 2255.3 | ug/L | 2255.3 ppb | 13:56:24 |
| 3 | Mo 202.031† | 38.6 | 20.6 | 10.049 | ug/L | 10.049 ppb | 13:56:49 |
| 3 | Ni 231.604† | 1787.3 | 1518.8 | 48.486 | ug/L | 48.486 ppb | 13:56:49 |
| 3 | P 214.914† | 1069.6 | 774.2 | 314.75 | ug/L | 314.75 ppb | 13:56:49 |
| 3 | Pb 220.353† | 1047.4 | 1020.2 | 163.08 | ug/L | 163.08 ppb | 13:56:49 |
| 3 | S 181.975 Axial† | 168.7 | 110.5 | 137.86 | ug/L | 137.86 ppb | 13:56:49 |
| 3 | Sb 206.836† | 48.1 | 13.6 | -4.2246 | ug/L | -4.2246 ppb | 13:56:49 |
| 3 | Se 196.026† | -407.8 | -349.9 | 21.792 | ug/L | 21.792 ppb | 13:56:49 |
| 3 | Si 251.611† | 1071546.4 | 970776.4 | 35424 | ug/L | 35424 ppb | 13:56:24 |
| 3 | Sn 189.927† | 51.4 | 38.5 | 4.1098 | ug/L | 4.1098 ppb | 13:56:49 |
| 3 | Ti 334.940† | 1370622.4 | 1243781.4 | 2506.7 | ug/L | 2506.7 ppb | 13:56:24 |
| 3 | Tl 190.801† | -127.0 | -83.9 | -7.6567 | ug/L | -7.6567 ppb | 13:56:49 |
| 3 | U 409.014† | -8742.4 | -5388.3 | -192.45 | ug/L | -192.45 ppb | 13:56:24 |
| 3 | V 292.402† | 10846.4 | 11460.4 | 73.177 | ug/L | 73.177 ppb | 13:56:29 |
| 3 | Zn 213.857† | 33688.4 | 29828.5 | 312.78 | ug/L | 312.78 ppb | 13:56:29 |
| 3 | SiO2† | 1066080.2 | 965814.0 | 75238 | ug/L | 75238 ppb | 13:57:08 |

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**Mean Data: 245969005|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 845729.7 | 110.13 | % | 1.302 | | | | 1.18% |
| Sc Radial | 5105.7 | 108 | % | 2.4 | | | | 2.25% |
| Y 371.029 | 880837.1 | 127.84 | % | 1.353 | | | | 1.06% |
| Y RADIAL | 6333.1 | 127.0 | % | 3.02 | | | | 2.38% |
| Ag 328.068† | -5485.4 | 3.8585 | ug/L | 0.58753 | 3.8585 | ppb | 0.58753 | 15.23% |
| Al 396.153Radial† | 30086.3 | 28143 | ug/L | 433.7 | 28143 | ppb | 433.7 | 1.54% |
| As 188.979† | -12.0 | 40.538 | ug/L | 0.7887 | 40.538 | ppb | 0.7887 | 1.95% |
| B 249.677† | 1183.5 | 12.614 | ug/L | 1.1575 | 12.614 | ppb | 1.1575 | 9.18% |
| Ba 233.527† | 27934.1 | 332.95 | ug/L | 4.850 | 332.95 | ppb | 4.850 | 1.46% |
| Be 313.107† | -4864.1 | 3.7826 | ug/L | 0.04123 | 3.7826 | ppb | 0.04123 | 1.09% |
| Ca 317.933Radial† | 3121.6 | 5671.8 | ug/L | 130.18 | 5671.8 | ppb | 130.18 | 2.30% |
| Cd 226.502† | 842.8 | 1.3161 | ug/L | 0.15106 | 1.3161 | ppb | 0.15106 | 11.48% |
| Co 228.616† | 3662.0 | 104.05 | ug/L | 1.618 | 104.05 | ppb | 1.618 | 1.56% |
| Cr 267.716† | 4606.3 | 65.103 | ug/L | 0.9138 | 65.103 | ppb | 0.9138 | 1.40% |
| Cu 324.752† | 55181.2 | 212.17 | ug/L | 3.821 | 212.17 | ppb | 3.821 | 1.80% |
| Fe 238.204 Radial† | 9916.1 | 102880 | ug/L | 1295.5 | 102880 | ppb | 1295.5 | 1.26% |
| K 766.490 Radial† | 34694.4 | 6902.3 | ug/L | 108.82 | 6902.3 | ppb | 108.82 | 1.58% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 116.1 | 4501.1 | ug/L | 115.65 | 4501.1 | ppb | 115.65 | 2.57% |
| Mn 257.610† | 1408441.7 | 2264.4 | ug/L | 18.10 | 2264.4 | ppb | 18.10 | 0.80% |
| Mo 202.031† | 15.8 | 9.5030 | ug/L | 0.51246 | 9.5030 | ppb | 0.51246 | 5.39% |
| Na 589.592 Radial† | 9558.5 | 3257.5 | ug/L | 31.35 | 3257.5 | ppb | 31.35 | 0.96% |
| Ni 231.604† | 1511.2 | 48.242 | ug/L | 1.0313 | 48.242 | ppb | 1.0313 | 2.14% |
| P 214.914† | 777.0 | 317.07 | ug/L | 2.808 | 317.07 | ppb | 2.808 | 0.89% |
| Pb 220.353† | 1023.3 | 163.58 | ug/L | 2.055 | 163.58 | ppb | 2.055 | 1.26% |
| S 181.975 Axial† | 106.3 | 132.58 | ug/L | 5.132 | 132.58 | ppb | 5.132 | 3.87% |
| Sb 206.836† | 14.3 | -3.9689 | ug/L | 0.43266 | -3.9689 | ppb | 0.43266 | 10.90% |
| Se 196.026† | -356.1 | 14.912 | ug/L | 7.7319 | 14.912 | ppb | 7.7319 | 51.85% |
| Si 251.611† | 975010.2 | 35579 | ug/L | 273.2 | 35579 | ppb | 273.2 | 0.77% |
| Sn 189.927† | 31.7 | 2.5607 | ug/L | 1.47531 | 2.5607 | ppb | 1.47531 | 57.61% |
| Sr 421.552† | 8490.9 | 61.701 | ug/L | 0.7746 | 61.701 | ppb | 0.7746 | 1.26% |
| Ti 334.940† | 1249501.0 | 2518.2 | ug/L | 18.78 | 2518.2 | ppb | 18.78 | 0.75% |
| Tl 190.801† | -79.8 | -5.6138 | ug/L | 1.81055 | -5.6138 | ppb | 1.81055 | 32.25% |
| U 409.014† | -5393.2 | -192.47 | ug/L | 3.297 | -192.47 | ppb | 3.297 | 1.71% |
| V 292.402† | 11460.5 | 73.354 | ug/L | 1.2969 | 73.354 | ppb | 1.2969 | 1.77% |
| Zn 213.857† | 29940.3 | 314.21 | ug/L | 5.166 | 314.21 | ppb | 5.166 | 1.64% |
| SiO2† | 971551.7 | 75685 | ug/L | 684.3 | 75685 | ppb | 684.3 | 0.90% |

Sequence No.: 5
Sample ID: 245969009|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 3/1/2010 13:59:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969009|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 5190.0 | 5190.0 | 110 | % | | | 14:01:31 |
| 1 | Y RADIAL | 6012.4 | 6012.4 | 120.6 | % | | | 14:01:31 |
| 1 | Al 396.153Radial† | 135431.9 | 122906.7 | 114970 | ug/L | 114970 | ppb | 14:01:11 |
| 1 | Ca 317.933Radial† | 16582.9 | 15016.4 | 27284 | ug/L | 27284 | ppb | 14:01:11 |
| 1 | Fe 238.204 Radial† | 14640.4 | 13269.6 | 137670 | ug/L | 137670 | ppb | 14:01:11 |
| 1 | K 766.490 Radial† | 86884.4 | 76531.5 | 15224 | ug/L | 15224 | ppb | 14:01:11 |
| 1 | Mg 279.077 IEC† | 564.2 | 508.8 | 20057 | ug/L | 20057 | ppb | 14:01:31 |
| 1 | Na 589.592 Radial† | 2885.2 | 3464.3 | 1180.6 | ug/L | 1180.6 | ppb | 14:01:11 |
| 1 | Sr 421.552† | 38511.0 | 34925.1 | 253.76 | ug/L | 253.76 | ppb | 14:01:11 |
| 1 | Sc 361.383 | 859251.9 | 859251.9 | 111.89 | % | | | 14:02:29 |
| 1 | Y 371.029 | 838650.8 | 838650.8 | 121.71 | % | | | 14:02:29 |
| 1 | Ag 328.068† | -8601.4 | -7943.0 | 2.1834 | ug/L | 2.1834 | ppb | 14:02:29 |
| 1 | As 188.979† | 8.0 | 32.1 | 59.316 | ug/L | 59.316 | ppb | 14:02:49 |
| 1 | B 249.677† | 1203.3 | 1528.8 | 15.685 | ug/L | 15.685 | ppb | 14:02:29 |
| 1 | Ba 233.527† | 115555.8 | 103273.2 | 1223.3 | ug/L | 1223.3 | ppb | 14:02:29 |
| 1 | Be 313.107† | 8653.8 | 16716.8 | 9.9831 | ug/L | 9.9831 | ppb | 14:02:29 |
| 1 | Cd 226.502† | 987.3 | 1069.0 | 0.9455 | ug/L | 0.9455 | ppb | 14:02:49 |
| 1 | Co 228.616† | 3078.6 | 2808.9 | 80.357 | ug/L | 80.357 | ppb | 14:02:49 |
| 1 | Cr 267.716† | 7410.5 | 6547.4 | 92.485 | ug/L | 92.485 | ppb | 14:02:29 |
| 1 | Cu 324.752† | 32613.9 | 21611.9 | 88.309 | ug/L | 88.309 | ppb | 14:02:29 |
| 1 | Mn 257.610† | 1407267.6 | 1257255.7 | 2025.2 | ug/L | 2025.2 | ppb | 14:02:29 |
| 1 | Mo 202.031† | -54.0 | -62.6 | 5.2676 | ug/L | 5.2676 | ppb | 14:02:49 |
| 1 | Ni 231.604† | 2626.9 | 2246.4 | 71.759 | ug/L | 71.759 | ppb | 14:02:49 |
| 1 | P 214.914† | 1367.8 | 1027.1 | 475.04 | ug/L | 475.04 | ppb | 14:02:49 |
| 1 | Pb 220.353† | 638.7 | 641.5 | 120.72 | ug/L | 120.72 | ppb | 14:02:49 |
| 1 | S 181.975 Axial† | 636.5 | 526.4 | 660.90 | ug/L | 660.90 | ppb | 14:02:49 |
| 1 | Sb 206.836† | 41.6 | 7.1 | -6.3511 | ug/L | -6.3511 | ppb | 14:02:49 |
| 1 | Se 196.026† | -579.9 | -498.4 | 13.901 | ug/L | 13.901 | ppb | 14:02:49 |
| 1 | Si 251.611† | 1452697.3 | 1297729.6 | 47355 | ug/L | 47355 | ppb | 14:02:29 |
| 1 | Sn 189.927† | -94.4 | -92.5 | -24.833 | ug/L | -24.833 | ppb | 14:02:49 |
| 1 | Ti 334.940† | 815105.2 | 729784.8 | 1472.6 | ug/L | 1472.6 | ppb | 14:02:29 |
| 1 | Tl 190.801† | -108.3 | -65.6 | -9.1112 | ug/L | -9.1112 | ppb | 14:02:49 |
| 1 | U 409.014† | -8742.9 | -5277.0 | -192.60 | ug/L | -192.60 | ppb | 14:02:29 |
| 1 | V 292.402† | 30563.8 | 28943.8 | 208.82 | ug/L | 208.82 | ppb | 14:02:29 |
| 1 | Zn 213.857† | 33634.4 | 29349.7 | 302.51 | ug/L | 302.51 | ppb | 14:02:29 |
| 1 | SiO2† | 1456076.7 | 1300742.6 | 101330 | ug/L | 101330 | ppb | 14:03:47 |
| 2 | Sc Radial | 5140.6 | 5140.6 | 109 | % | | | 14:01:56 |
| 2 | Y RADIAL | 5969.1 | 5969.1 | 119.7 | % | | | 14:01:56 |
| 2 | Al 396.153Radial† | 135079.6 | 123764.0 | 115770 | ug/L | 115770 | ppb | 14:01:36 |
| 2 | Ca 317.933Radial† | 16563.3 | 15142.9 | 27514 | ug/L | 27514 | ppb | 14:01:36 |
| 2 | Fe 238.204 Radial† | 14595.2 | 13355.8 | 138570 | ug/L | 138570 | ppb | 14:01:36 |
| 2 | K 766.490 Radial† | 86098.6 | 76569.0 | 15232 | ug/L | 15232 | ppb | 14:01:36 |
| 2 | Mg 279.077 IEC† | 563.0 | 512.6 | 20207 | ug/L | 20207 | ppb | 14:01:56 |
| 2 | Na 589.592 Radial† | 2845.0 | 3452.7 | 1176.7 | ug/L | 1176.7 | ppb | 14:01:36 |
| 2 | Sr 421.552† | 38097.5 | 34882.0 | 253.45 | ug/L | 253.45 | ppb | 14:01:36 |
| 2 | Sc 361.383 | 865263.0 | 865263.0 | 112.67 | % | | | 14:02:55 |
| 2 | Y 371.029 | 843698.4 | 843698.4 | 122.45 | % | | | 14:02:55 |
| 2 | Ag 328.068† | -8688.3 | -7966.7 | 2.3296 | ug/L | 2.3296 | ppb | 14:02:55 |
| 2 | As 188.979† | 9.9 | 33.8 | 60.241 | ug/L | 60.241 | ppb | 14:03:15 |
| 2 | B 249.677† | 1142.7 | 1467.6 | 14.007 | ug/L | 14.007 | ppb | 14:02:55 |
| 2 | Ba 233.527† | 116068.6 | 103010.9 | 1220.2 | ug/L | 1220.2 | ppb | 14:02:55 |
| 2 | Be 313.107† | 8648.8 | 16658.6 | 9.9504 | ug/L | 9.9504 | ppb | 14:02:55 |
| 2 | Cd 226.502† | 993.8 | 1068.7 | 0.8481 | ug/L | 0.8481 | ppb | 14:03:15 |
| 2 | Co 228.616† | 3091.3 | 2801.1 | 80.112 | ug/L | 80.112 | ppb | 14:03:15 |
| 2 | Cr 267.716† | 7434.7 | 6522.8 | 92.165 | ug/L | 92.165 | ppb | 14:02:55 |
| 2 | Cu 324.752† | 32741.8 | 21522.9 | 88.023 | ug/L | 88.023 | ppb | 14:02:55 |
| 2 | Mn 257.610† | 1412753.8 | 1253387.2 | 2019.1 | ug/L | 2019.1 | ppb | 14:02:55 |
| 2 | Mo 202.031† | -65.7 | -72.7 | 4.4109 | ug/L | 4.4109 | ppb | 14:03:15 |
| 2 | Ni 231.604† | 2612.6 | 2217.4 | 70.833 | ug/L | 70.833 | ppb | 14:03:15 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1377.3 | 1027.0 | 474.57 | ug/L | 474.57 ppb | 14:03:15 |
| 2 | Pb 220.353† | 651.3 | 648.8 | 122.02 | ug/L | 122.02 ppb | 14:03:15 |
| 2 | S 181.975 Axial† | 638.3 | 524.0 | 657.70 | ug/L | 657.70 ppb | 14:03:15 |
| 2 | Sb 206.836† | 30.3 | -3.1 | -10.506 | ug/L | -10.506 ppb | 14:03:15 |
| 2 | Se 196.026† | -600.9 | -513.5 | 6.7300 | ug/L | 6.7300 ppb | 14:03:15 |
| 2 | Si 251.611† | 1459600.4 | 1294836.5 | 47249 | ug/L | 47249 ppb | 14:02:55 |
| 2 | Sn 189.927† | -80.1 | -79.1 | -21.700 | ug/L | -21.700 ppb | 14:03:15 |
| 2 | Ti 334.940† | 818433.7 | 727678.0 | 1468.4 | ug/L | 1468.4 ppb | 14:02:55 |
| 2 | Tl 190.801† | -102.6 | -59.8 | -6.5136 | ug/L | -6.5136 ppb | 14:03:15 |
| 2 | U 409.014† | -8779.1 | -5254.8 | -191.96 | ug/L | -191.96 ppb | 14:02:55 |
| 2 | V 292.402† | 30678.4 | 28855.7 | 207.98 | ug/L | 207.98 ppb | 14:02:55 |
| 2 | Zn 213.857† | 33714.9 | 29212.4 | 300.87 | ug/L | 300.87 ppb | 14:02:55 |
| 2 | SiO2† | 1455365.1 | 1291070.3 | 100580 | ug/L | 100580 ppb | 14:03:53 |
| 3 | Sc Radial | 5046.0 | 5046.0 | 107 | % | | 14:02:21 |
| 3 | Y RADIAL | 5850.1 | 5850.1 | 117.3 | % | | 14:02:21 |
| 3 | Al 396.153Radial† | 134918.6 | 125931.6 | 117800 | ug/L | 117800 ppb | 14:02:01 |
| 3 | Ca 317.933Radial† | 16500.4 | 15368.5 | 27924 | ug/L | 27924 ppb | 14:02:01 |
| 3 | Fe 238.204 Radial† | 14594.5 | 13605.7 | 141160 | ug/L | 141160 ppb | 14:02:01 |
| 3 | K 766.490 Radial† | 85943.0 | 77901.2 | 15497 | ug/L | 15497 ppb | 14:02:01 |
| 3 | Mg 279.077 IEC† | 558.0 | 517.6 | 20402 | ug/L | 20402 ppb | 14:02:21 |
| 3 | Na 589.592 Radial† | 2908.2 | 3560.4 | 1213.4 | ug/L | 1213.4 ppb | 14:02:01 |
| 3 | Sr 421.552† | 38106.5 | 35544.1 | 258.26 | ug/L | 258.26 ppb | 14:02:01 |
| 3 | Sc 361.383 | 850207.3 | 850207.3 | 110.71 | % | | 14:03:21 |
| 3 | Y 371.029 | 831598.7 | 831598.7 | 120.69 | % | | 14:03:21 |
| 3 | Ag 328.068† | -8434.3 | -7873.8 | 3.5999 | ug/L | 3.5999 ppb | 14:03:21 |
| 3 | As 188.979† | 12.4 | 36.2 | 61.932 | ug/L | 61.932 ppb | 14:03:41 |
| 3 | B 249.677† | 1058.2 | 1409.2 | 12.118 | ug/L | 12.118 ppb | 14:03:21 |
| 3 | Ba 233.527† | 114038.7 | 103001.7 | 1220.2 | ug/L | 1220.2 ppb | 14:03:21 |
| 3 | Be 313.107† | 8617.7 | 16766.5 | 9.9947 | ug/L | 9.9947 ppb | 14:03:21 |
| 3 | Cd 226.502† | 1009.9 | 1098.8 | 1.0090 | ug/L | 1.0090 ppb | 14:03:41 |
| 3 | Co 228.616† | 3118.9 | 2874.6 | 82.298 | ug/L | 82.298 ppb | 14:03:41 |
| 3 | Cr 267.716† | 7324.6 | 6540.2 | 92.453 | ug/L | 92.453 ppb | 14:03:21 |
| 3 | Cu 324.752† | 32151.2 | 21504.0 | 88.088 | ug/L | 88.088 ppb | 14:03:21 |
| 3 | Mn 257.610† | 1389177.6 | 1254295.9 | 2020.8 | ug/L | 2020.8 ppb | 14:03:21 |
| 3 | Mo 202.031† | -55.1 | -64.2 | 5.4008 | ug/L | 5.4008 ppb | 14:03:41 |
| 3 | Ni 231.604† | 2622.3 | 2267.2 | 72.425 | ug/L | 72.425 ppb | 14:03:41 |
| 3 | P 214.914† | 1385.8 | 1056.3 | 489.38 | ug/L | 489.38 ppb | 14:03:41 |
| 3 | Pb 220.353† | 650.1 | 657.9 | 123.78 | ug/L | 123.78 ppb | 14:03:41 |
| 3 | S 181.975 Axial† | 632.4 | 528.7 | 663.36 | ug/L | 663.36 ppb | 14:03:41 |
| 3 | Sb 206.836† | 38.7 | 4.9 | -7.2966 | ug/L | -7.2966 ppb | 14:03:41 |
| 3 | Se 196.026† | -590.6 | -513.7 | 12.636 | ug/L | 12.636 ppb | 14:03:41 |
| 3 | Si 251.611† | 1433841.3 | 1294509.8 | 47238 | ug/L | 47238 ppb | 14:03:21 |
| 3 | Sn 189.927† | -75.2 | -76.0 | -21.049 | ug/L | -21.049 ppb | 14:03:41 |
| 3 | Ti 334.940† | 804560.0 | 728009.7 | 1469.1 | ug/L | 1469.1 ppb | 14:03:21 |
| 3 | Tl 190.801† | -99.1 | -58.3 | -5.8173 | ug/L | -5.8173 ppb | 14:03:41 |
| 3 | U 409.014† | -8537.2 | -5174.3 | -189.56 | ug/L | -189.56 ppb | 14:03:21 |
| 3 | V 292.402† | 30274.4 | 28973.0 | 208.56 | ug/L | 208.56 ppb | 14:03:21 |
| 3 | Zn 213.857† | 33203.3 | 29280.2 | 301.22 | ug/L | 301.22 ppb | 14:03:21 |
| 3 | SiO2† | 1459495.5 | 1317674.4 | 102650 | ug/L | 102650 ppb | 14:03:59 |

**Mean Data: 245969009|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 858240.7 | 111.76 | % | 0.987 | | | | 0.88% |
| Sc Radial | 5125.5 | 109 | % | 1.6 | | | | 1.43% |
| Y 371.029 | 837982.6 | 121.62 | % | 0.882 | | | | 0.73% |
| Y RADIAL | 5943.9 | 119.2 | % | 1.69 | | | | 1.41% |
| Ag 328.068† | -7927.8 | 2.7043 | ug/L | 0.77907 | 2.7043 | ppb | 0.77907 | 28.81% |
| Al 396.153Radial† | 124200.8 | 116180 | ug/L | 1458.4 | 116180 | ppb | 1458.4 | 1.26% |
| As 188.979† | 34.0 | 60.497 | ug/L | 1.3266 | 60.497 | ppb | 1.3266 | 2.19% |
| B 249.677† | 1468.5 | 13.936 | ug/L | 1.7848 | 13.936 | ppb | 1.7848 | 12.81% |
| Ba 233.527† | 103095.3 | 1221.3 | ug/L | 1.78 | 1221.3 | ppb | 1.78 | 0.15% |
| Be 313.107† | 16714.0 | 9.9761 | ug/L | 0.02302 | 9.9761 | ppb | 0.02302 | 0.23% |
| Ca 317.933Radial† | 15176.0 | 27574 | ug/L | 324.1 | 27574 | ppb | 324.1 | 1.18% |
| Cd 226.502† | 1078.9 | 0.9342 | ug/L | 0.08107 | 0.9342 | ppb | 0.08107 | 8.68% |
| Co 228.616† | 2828.2 | 80.922 | ug/L | 1.1974 | 80.922 | ppb | 1.1974 | 1.48% |
| Cr 267.716† | 6536.8 | 92.368 | ug/L | 0.1763 | 92.368 | ppb | 0.1763 | 0.19% |
| Cu 324.752† | 21546.3 | 88.140 | ug/L | 0.1502 | 88.140 | ppb | 0.1502 | 0.17% |
| Fe 238.204 Radial† | 13410.4 | 139130 | ug/L | 1810.8 | 139130 | ppb | 1810.8 | 1.30% |
| K 766.490 Radial† | 77000.6 | 15318 | ug/L | 155.2 | 15318 | ppb | 155.2 | 1.01% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 513.0 | 20222 | ug/L | 172.8 | 20222 | ppb | 172.8 | 0.85% |
| Mn 257.610† | 1254979.6 | 2021.7 | ug/L | 3.15 | 2021.7 | ppb | 3.15 | 0.16% |
| Mo 202.031† | -66.5 | 5.0265 | ug/L | 0.53724 | 5.0265 | ppb | 0.53724 | 10.69% |
| Na 589.592 Radial† | 3492.5 | 1190.2 | ug/L | 20.15 | 1190.2 | ppb | 20.15 | 1.69% |
| Ni 231.604† | 2243.7 | 71.672 | ug/L | 0.7993 | 71.672 | ppb | 0.7993 | 1.12% |
| P 214.914† | 1036.8 | 479.67 | ug/L | 8.421 | 479.67 | ppb | 8.421 | 1.76% |
| Pb 220.353† | 649.4 | 122.17 | ug/L | 1.537 | 122.17 | ppb | 1.537 | 1.26% |
| S 181.975 Axial† | 526.3 | 660.65 | ug/L | 2.836 | 660.65 | ppb | 2.836 | 0.43% |
| Sb 206.836† | 3.0 | -8.0514 | ug/L | 2.17809 | -8.0514 | ppb | 2.17809 | 27.05% |
| Se 196.026† | -508.6 | 11.089 | ug/L | 3.8275 | 11.089 | ppb | 3.8275 | 34.52% |
| Si 251.611† | 1295691.9 | 47281 | ug/L | 64.7 | 47281 | ppb | 64.7 | 0.14% |
| Sn 189.927† | -82.5 | -22.528 | ug/L | 2.0231 | -22.528 | ppb | 2.0231 | 8.98% |
| Sr 421.552† | 35117.1 | 255.16 | ug/L | 2.692 | 255.16 | ppb | 2.692 | 1.05% |
| Ti 334.940† | 728490.8 | 1470.0 | ug/L | 2.26 | 1470.0 | ppb | 2.26 | 0.15% |
| Tl 190.801† | -61.2 | -7.1474 | ug/L | 1.73603 | -7.1474 | ppb | 1.73603 | 24.29% |
| U 409.014† | -5235.4 | -191.37 | ug/L | 1.602 | -191.37 | ppb | 1.602 | 0.84% |
| V 292.402† | 28924.1 | 208.45 | ug/L | 0.428 | 208.45 | ppb | 0.428 | 0.21% |
| Zn 213.857† | 29280.8 | 301.54 | ug/L | 0.865 | 301.54 | ppb | 0.865 | 0.29% |
| SiO2† | 1303162.4 | 101520 | ug/L | 1049.0 | 101520 | ppb | 1049.0 | 1.03% |

Sequence No.: 6
Sample ID: 245969011|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 3/1/2010 14:06:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969011|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 5098.8 | 5098.8 | 108 | % | | | 14:08:22 |
| 1 | Y RADIAL | 5943.4 | 5943.4 | 119.2 | % | | | 14:08:22 |
| 1 | Al 396.153Radial† | 91062.0 | 84144.5 | 78710 | ug/L | 78710 | ppb | 14:08:02 |
| 1 | Ca 317.933Radial† | 10973.9 | 10107.6 | 18365 | ug/L | 18365 | ppb | 14:08:02 |
| 1 | Fe 238.204 Radial† | 11457.6 | 10569.0 | 109650 | ug/L | 109650 | ppb | 14:08:02 |
| 1 | K 766.490 Radial† | 54001.0 | 47585.5 | 9464.6 | ug/L | 9464.6 | ppb | 14:08:02 |
| 1 | Mg 279.077 IEC† | 447.9 | 410.5 | 16185 | ug/L | 16185 | ppb | 14:08:22 |
| 1 | Na 589.592 Radial† | 7800.0 | 8047.8 | 2742.7 | ug/L | 2742.7 | ppb | 14:08:02 |
| 1 | Sr 421.552† | 31255.7 | 28852.0 | 209.67 | ug/L | 209.67 | ppb | 14:08:02 |
| 1 | Sc 361.383 | 846872.9 | 846872.9 | 110.28 | % | | | 14:09:19 |
| 1 | Y 371.029 | 831470.6 | 831470.6 | 120.67 | % | | | 14:09:19 |
| 1 | Ag 328.068† | -6568.8 | -6212.2 | 2.4162 | ug/L | 2.4162 | ppb | 14:09:25 |
| 1 | As 188.979† | -20.5 | 6.4 | 48.910 | ug/L | 48.910 | ppb | 14:09:45 |
| 1 | B 249.677† | 708.1 | 1095.5 | 9.4555 | ug/L | 9.4555 | ppb | 14:09:25 |
| 1 | Ba 233.527† | 71860.2 | 65160.0 | 772.62 | ug/L | 772.62 | ppb | 14:09:25 |
| 1 | Be 313.107† | -3231.3 | 6052.5 | 7.7463 | ug/L | 7.7463 | ppb | 14:09:25 |
| 1 | Cd 226.502† | 737.2 | 855.1 | 0.8150 | ug/L | 0.8150 | ppb | 14:09:45 |
| 1 | Co 228.616† | 2131.2 | 1990.0 | 53.944 | ug/L | 53.944 | ppb | 14:09:45 |
| 1 | Cr 267.716† | 9982.1 | 8976.1 | 125.07 | ug/L | 125.07 | ppb | 14:09:25 |
| 1 | Cu 324.752† | 20824.2 | 11347.1 | 48.397 | ug/L | 48.397 | ppb | 14:09:25 |
| 1 | Mn 257.610† | 1271800.4 | 1152799.3 | 1855.4 | ug/L | 1855.4 | ppb | 14:09:19 |
| 1 | Mo 202.031† | 6.5 | -8.4 | 7.9561 | ug/L | 7.9561 | ppb | 14:09:45 |
| 1 | Ni 231.604† | 3148.8 | 2753.9 | 87.999 | ug/L | 87.999 | ppb | 14:09:45 |
| 1 | P 214.914† | 897.3 | 618.3 | 268.01 | ug/L | 268.01 | ppb | 14:09:45 |
| 1 | Pb 220.353† | 442.5 | 471.9 | 86.702 | ug/L | 86.702 | ppb | 14:09:45 |
| 1 | S 181.975 Axial† | 471.6 | 385.1 | 484.57 | ug/L | 484.57 | ppb | 14:09:45 |
| 1 | Sb 206.836† | 61.3 | 25.6 | -0.3894 | ug/L | -0.3894 | ppb | 14:09:45 |
| 1 | Se 196.026† | -466.8 | -403.5 | 5.8834 | ug/L | 5.8834 | ppb | 14:09:45 |
| 1 | Si 251.611† | 1463002.9 | 1326052.5 | 48389 | ug/L | 48389 | ppb | 14:09:19 |
| 1 | Sn 189.927† | -57.3 | -60.1 | -17.180 | ug/L | -17.180 | ppb | 14:09:45 |
| 1 | Ti 334.940† | 1285992.8 | 1167431.1 | 2353.6 | ug/L | 2353.6 | ppb | 14:09:19 |
| 1 | Tl 190.801† | -123.5 | -80.8 | -9.3810 | ug/L | -9.3810 | ppb | 14:09:45 |
| 1 | U 409.014† | -9007.3 | -5631.0 | -201.33 | ug/L | -201.33 | ppb | 14:09:19 |
| 1 | V 292.402† | 23799.2 | 23209.0 | 166.26 | ug/L | 166.26 | ppb | 14:09:25 |
| 1 | Zn 213.857† | 25495.1 | 22408.5 | 230.11 | ug/L | 230.11 | ppb | 14:09:25 |
| 1 | SiO2† | 1473679.3 | 1335726.5 | 104060 | ug/L | 104060 | ppb | 14:10:53 |
| 2 | Sc Radial | 5077.8 | 5077.8 | 108 | % | | | 14:08:47 |
| 2 | Y RADIAL | 5905.7 | 5905.7 | 118.5 | % | | | 14:08:47 |
| 2 | Al 396.153Radial† | 91315.4 | 84728.5 | 79256 | ug/L | 79256 | ppb | 14:08:27 |
| 2 | Ca 317.933Radial† | 10965.7 | 10142.1 | 18428 | ug/L | 18428 | ppb | 14:08:27 |
| 2 | Fe 238.204 Radial† | 11448.3 | 10604.3 | 110020 | ug/L | 110020 | ppb | 14:08:27 |
| 2 | K 766.490 Radial† | 54112.9 | 47896.3 | 9526.5 | ug/L | 9526.5 | ppb | 14:08:27 |
| 2 | Mg 279.077 IEC† | 452.5 | 416.5 | 16422 | ug/L | 16422 | ppb | 14:08:47 |
| 2 | Na 589.592 Radial† | 7746.2 | 8027.9 | 2735.9 | ug/L | 2735.9 | ppb | 14:08:27 |
| 2 | Sr 421.552† | 31368.8 | 29076.6 | 211.30 | ug/L | 211.30 | ppb | 14:08:27 |
| 2 | Sc 361.383 | 852515.4 | 852515.4 | 111.01 | % | | | 14:09:51 |
| 2 | Y 371.029 | 838047.5 | 838047.5 | 121.63 | % | | | 14:09:51 |
| 2 | Ag 328.068† | -6584.5 | -6186.9 | 2.6588 | ug/L | 2.6588 | ppb | 14:09:56 |
| 2 | As 188.979† | -9.7 | 16.3 | 53.463 | ug/L | 53.463 | ppb | 14:10:16 |
| 2 | B 249.677† | 742.9 | 1122.6 | 10.076 | ug/L | 10.076 | ppb | 14:09:56 |
| 2 | Ba 233.527† | 71919.3 | 64781.9 | 768.18 | ug/L | 768.18 | ppb | 14:09:56 |
| 2 | Be 313.107† | -3400.8 | 5919.2 | 7.7038 | ug/L | 7.7038 | ppb | 14:09:56 |
| 2 | Cd 226.502† | 716.2 | 831.8 | 0.4465 | ug/L | 0.4465 | ppb | 14:10:16 |
| 2 | Co 228.616† | 2121.6 | 1968.6 | 53.277 | ug/L | 53.277 | ppb | 14:10:16 |
| 2 | Cr 267.716† | 9932.3 | 8871.3 | 123.64 | ug/L | 123.64 | ppb | 14:09:56 |
| 2 | Cu 324.752† | 21168.6 | 11532.4 | 49.110 | ug/L | 49.110 | ppb | 14:09:56 |
| 2 | Mn 257.610† | 1279060.7 | 1151706.3 | 1853.7 | ug/L | 1853.7 | ppb | 14:09:51 |
| 2 | Mo 202.031† | -10.8 | -24.1 | 6.5452 | ug/L | 6.5452 | ppb | 14:10:16 |
| 2 | Ni 231.604† | 3153.1 | 2738.9 | 87.519 | ug/L | 87.519 | ppb | 14:10:16 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 911.1 | 625.4 | 271.66 | ug/L | 271.66 ppb | 14:10:16 |
| 2 | Pb 220.353† | 451.0 | 476.9 | 87.612 | ug/L | 87.612 ppb | 14:10:16 |
| 2 | S 181.975 Axial† | 473.9 | 384.3 | 483.46 | ug/L | 483.46 ppb | 14:10:16 |
| 2 | Sb 206.836† | 51.6 | 16.4 | -4.1266 | ug/L | -4.1266 ppb | 14:10:16 |
| 2 | Se 196.026† | -463.6 | -397.8 | 10.231 | ug/L | 10.231 ppb | 14:10:16 |
| 2 | Si 251.611† | 1474106.0 | 1327273.4 | 48433 | ug/L | 48433 ppb | 14:09:51 |
| 2 | Sn 189.927† | -50.3 | -53.4 | -15.610 | ug/L | -15.610 ppb | 14:10:16 |
| 2 | Ti 334.940† | 1297105.1 | 1169722.7 | 2358.2 | ug/L | 2358.2 ppb | 14:09:51 |
| 2 | Tl 190.801† | -115.0 | -72.3 | -5.4585 | ug/L | -5.4585 ppb | 14:10:16 |
| 2 | U 409.014† | -9074.5 | -5637.4 | -201.59 | ug/L | -201.59 ppb | 14:09:51 |
| 2 | V 292.402† | 23996.6 | 23244.0 | 166.46 | ug/L | 166.46 ppb | 14:09:56 |
| 2 | Zn 213.857† | 25611.0 | 22359.9 | 229.52 | ug/L | 229.52 ppb | 14:09:56 |
| 2 | SiO2† | 1470801.3 | 1324289.4 | 103160 | ug/L | 103160 ppb | 14:10:59 |
| 3 | Sc Radial | 5080.1 | 5080.1 | 108 | % | | 14:09:12 |
| 3 | Y RADIAL | 5910.1 | 5910.1 | 118.5 | % | | 14:09:12 |
| 3 | Al 396.153Radial† | 90813.9 | 84224.6 | 78785 | ug/L | 78785 ppb | 14:08:52 |
| 3 | Ca 317.933Radial† | 10948.9 | 10121.8 | 18391 | ug/L | 18391 ppb | 14:08:52 |
| 3 | Fe 238.204 Radial† | 11424.4 | 10577.1 | 109740 | ug/L | 109740 ppb | 14:08:52 |
| 3 | K 766.490 Radial† | 53959.6 | 47731.0 | 9493.6 | ug/L | 9493.6 ppb | 14:08:52 |
| 3 | Mg 279.077 IEC† | 453.4 | 417.2 | 16450 | ug/L | 16450 ppb | 14:09:12 |
| 3 | Na 589.592 Radial† | 7758.6 | 8036.0 | 2738.7 | ug/L | 2738.7 ppb | 14:08:52 |
| 3 | Sr 421.552† | 31108.5 | 28822.0 | 209.45 | ug/L | 209.45 ppb | 14:08:52 |
| 3 | Sc 361.383 | 852949.3 | 852949.3 | 111.07 | % | | 14:10:22 |
| 3 | Y 371.029 | 839140.3 | 839140.3 | 121.78 | % | | 14:10:22 |
| 3 | Ag 328.068† | -6587.8 | -6186.9 | 2.5735 | ug/L | 2.5735 ppb | 14:10:27 |
| 3 | As 188.979† | -17.4 | 9.4 | 50.319 | ug/L | 50.319 ppb | 14:10:47 |
| 3 | B 249.677† | 709.7 | 1092.4 | 9.3657 | ug/L | 9.3657 ppb | 14:10:27 |
| 3 | Ba 233.527† | 72257.7 | 65053.6 | 771.37 | ug/L | 771.37 ppb | 14:10:27 |
| 3 | Be 313.107† | -3301.6 | 6010.1 | 7.7412 | ug/L | 7.7412 ppb | 14:10:27 |
| 3 | Cd 226.502† | 727.7 | 841.8 | 0.6167 | ug/L | 0.6167 ppb | 14:10:47 |
| 3 | Co 228.616† | 2124.0 | 1969.8 | 53.317 | ug/L | 53.317 ppb | 14:10:47 |
| 3 | Cr 267.716† | 10063.2 | 8984.6 | 125.19 | ug/L | 125.19 ppb | 14:10:27 |
| 3 | Cu 324.752† | 21162.8 | 11517.4 | 49.038 | ug/L | 49.038 ppb | 14:10:27 |
| 3 | Mn 257.610† | 1280292.6 | 1152229.3 | 1854.5 | ug/L | 1854.5 ppb | 14:10:22 |
| 3 | Mo 202.031† | -16.7 | -29.4 | 6.0366 | ug/L | 6.0366 ppb | 14:10:47 |
| 3 | Ni 231.604† | 3121.9 | 2709.4 | 86.576 | ug/L | 86.576 ppb | 14:10:47 |
| 3 | P 214.914† | 906.4 | 620.7 | 269.20 | ug/L | 269.20 ppb | 14:10:47 |
| 3 | Pb 220.353† | 459.5 | 484.4 | 88.722 | ug/L | 88.722 ppb | 14:10:47 |
| 3 | S 181.975 Axial† | 472.2 | 382.7 | 481.36 | ug/L | 481.36 ppb | 14:10:47 |
| 3 | Sb 206.836† | 45.5 | 10.9 | -6.3723 | ug/L | -6.3723 ppb | 14:10:47 |
| 3 | Se 196.026† | -457.8 | -392.4 | 12.883 | ug/L | 12.883 ppb | 14:10:47 |
| 3 | Si 251.611† | 1475291.8 | 1327665.6 | 48447 | ug/L | 48447 ppb | 14:10:22 |
| 3 | Sn 189.927† | -52.7 | -55.5 | -16.111 | ug/L | -16.111 ppb | 14:10:47 |
| 3 | Ti 334.940† | 1298067.8 | 1169995.1 | 2358.7 | ug/L | 2358.7 ppb | 14:10:22 |
| 3 | Tl 190.801† | -115.7 | -73.0 | -5.7350 | ug/L | -5.7350 ppb | 14:10:47 |
| 3 | U 409.014† | -9009.5 | -5574.7 | -199.46 | ug/L | -199.46 ppb | 14:10:22 |
| 3 | V 292.402† | 24087.8 | 23315.1 | 167.07 | ug/L | 167.07 ppb | 14:10:27 |
| 3 | Zn 213.857† | 25703.0 | 22431.0 | 230.35 | ug/L | 230.35 ppb | 14:10:27 |
| 3 | SiO2† | 1479935.2 | 1331838.9 | 103750 | ug/L | 103750 ppb | 14:11:05 |

**Mean Data: 245969011|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 850779.2 | 110.79 | % | 0.441 | | | | 0.40% |
| Sc Radial | 5085.6 | 108 | % | 0.2 | | | | 0.23% |
| Y 371.029 | 836219.5 | 121.36 | % | 0.602 | | | | 0.50% |
| Y RADIAL | 5919.7 | 118.7 | % | 0.41 | | | | 0.35% |
| Ag 328.068† | -6195.3 | 2.5495 | ug/L | 0.12309 | 2.5495 | ppb | 0.12309 | 4.83% |
| Al 396.153Radial† | 84365.9 | 78917 | ug/L | 296.2 | 78917 | ppb | 296.2 | 0.38% |
| As 188.979† | 10.7 | 50.897 | ug/L | 2.3307 | 50.897 | ppb | 2.3307 | 4.58% |
| B 249.677† | 1103.5 | 9.6323 | ug/L | 0.38666 | 9.6323 | ppb | 0.38666 | 4.01% |
| Ba 233.527† | 64998.5 | 770.72 | ug/L | 2.295 | 770.72 | ppb | 2.295 | 0.30% |
| Be 313.107† | 5994.0 | 7.7305 | ug/L | 0.02320 | 7.7305 | ppb | 0.02320 | 0.30% |
| Ca 317.933Radial† | 10123.8 | 18394 | ug/L | 31.4 | 18394 | ppb | 31.4 | 0.17% |
| Cd 226.502† | 842.9 | 0.6261 | ug/L | 0.18444 | 0.6261 | ppb | 0.18444 | 29.46% |
| Co 228.616† | 1976.1 | 53.513 | ug/L | 0.3743 | 53.513 | ppb | 0.3743 | 0.70% |
| Cr 267.716† | 8944.0 | 124.63 | ug/L | 0.859 | 124.63 | ppb | 0.859 | 0.69% |
| Cu 324.752† | 11465.6 | 48.848 | ug/L | 0.3925 | 48.848 | ppb | 0.3925 | 0.80% |
| Fe 238.204 Radial† | 10583.5 | 109800 | ug/L | 191.5 | 109800 | ppb | 191.5 | 0.17% |
| K 766.490 Radial† | 47737.6 | 9494.9 | ug/L | 30.94 | 9494.9 | ppb | 30.94 | 0.33% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 414.7 | 16353 | ug/L | 145.6 | 16353 | ppb | 145.6 | 0.89% |
| Mn 257.610† | 1152245.0 | 1854.5 | ug/L | 0.86 | 1854.5 | ppb | 0.86 | 0.05% |
| Mo 202.031† | -20.7 | 6.8460 | ug/L | 0.99450 | 6.8460 | ppb | 0.99450 | 14.53% |
| Na 589.592 Radial† | 8037.2 | 2739.1 | ug/L | 3.41 | 2739.1 | ppb | 3.41 | 0.12% |
| Ni 231.604† | 2734.1 | 87.365 | ug/L | 0.7242 | 87.365 | ppb | 0.7242 | 0.83% |
| P 214.914† | 621.5 | 269.62 | ug/L | 1.864 | 269.62 | ppb | 1.864 | 0.69% |
| Pb 220.353† | 477.7 | 87.679 | ug/L | 1.0119 | 87.679 | ppb | 1.0119 | 1.15% |
| S 181.975 Axial† | 384.0 | 483.13 | ug/L | 1.626 | 483.13 | ppb | 1.626 | 0.34% |
| Sb 206.836† | 17.6 | -3.6294 | ug/L | 3.02230 | -3.6294 | ppb | 3.02230 | 83.27% |
| Se 196.026† | -397.9 | 9.6659 | ug/L | 3.53396 | 9.6659 | ppb | 3.53396 | 36.56% |
| Si 251.611† | 1326997.2 | 48423 | ug/L | 30.7 | 48423 | ppb | 30.7 | 0.06% |
| Sn 189.927† | -56.3 | -16.300 | ug/L | 0.8022 | -16.300 | ppb | 0.8022 | 4.92% |
| Sr 421.552† | 28916.9 | 210.14 | ug/L | 1.012 | 210.14 | ppb | 1.012 | 0.48% |
| Ti 334.940† | 1169049.6 | 2356.8 | ug/L | 2.83 | 2356.8 | ppb | 2.83 | 0.12% |
| Tl 190.801† | -75.4 | -6.8582 | ug/L | 2.18920 | -6.8582 | ppb | 2.18920 | 31.92% |
| U 409.014† | -5614.4 | -200.79 | ug/L | 1.162 | -200.79 | ppb | 1.162 | 0.58% |
| V 292.402† | 23256.0 | 166.60 | ug/L | 0.420 | 166.60 | ppb | 0.420 | 0.25% |
| Zn 213.857† | 22399.8 | 229.99 | ug/L | 0.428 | 229.99 | ppb | 0.428 | 0.19% |
| SiO2† | 1330618.3 | 103660 | ug/L | 453.0 | 103660 | ppb | 453.0 | 0.44% |

Sequence No.: 7
Sample ID: 245969014|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 3/1/2010 14:13:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969014|948756|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 5177.3 | 5177.3 | 110 | % | | | 14:15:09 |
| 1 | Y RADIAL | 6096.1 | 6096.1 | 122.3 | % | | | 14:15:09 |
| 1 | Al 396.153Radial† | 41380.4 | 37705.8 | 35271 | ug/L | 35271 | ppb | 14:15:09 |
| 1 | Ca 317.933Radial† | 5103.2 | 4617.1 | 8389.0 | ug/L | 8389.0 | ppb | 14:15:09 |
| 1 | Fe 238.204 Radial† | 8147.6 | 7399.6 | 76771 | ug/L | 76771 | ppb | 14:15:09 |
| 1 | K 766.490 Radial† | 36743.4 | 31141.5 | 6195.2 | ug/L | 6195.2 | ppb | 14:15:09 |
| 1 | Mg 279.077 IEC† | 204.6 | 183.1 | 7190.6 | ug/L | 7190.6 | ppb | 14:15:29 |
| 1 | Na 589.592 Radial† | 1997.8 | 2664.0 | 907.90 | ug/L | 907.90 | ppb | 14:15:09 |
| 1 | Sr 421.552† | 14201.9 | 12911.3 | 93.825 | ug/L | 93.825 | ppb | 14:15:09 |
| 1 | Sc 361.383 | 839160.2 | 839160.2 | 109.27 | % | | | 14:16:26 |
| 1 | Y 371.029 | 828884.4 | 828884.4 | 120.30 | % | | | 14:16:26 |
| 1 | Ag 328.068† | -4165.2 | -4067.4 | 3.0818 | ug/L | 3.0818 | ppb | 14:16:26 |
| 1 | As 188.979† | -39.2 | -10.9 | 33.574 | ug/L | 33.574 | ppb | 14:16:46 |
| 1 | B 249.677† | 452.3 | 867.4 | 9.1560 | ug/L | 9.1560 | ppb | 14:16:26 |
| 1 | Ba 233.527† | 43700.3 | 39989.0 | 474.50 | ug/L | 474.50 | ppb | 14:16:26 |
| 1 | Be 313.107† | -5908.1 | 3576.0 | 6.7746 | ug/L | 6.7746 | ppb | 14:16:26 |
| 1 | Cd 226.502† | 492.0 | 636.9 | 1.1464 | ug/L | 1.1464 | ppb | 14:16:46 |
| 1 | Co 228.616† | 1175.3 | 1133.0 | 28.377 | ug/L | 28.377 | ppb | 14:16:46 |
| 1 | Cr 267.716† | 7982.0 | 7229.0 | 100.41 | ug/L | 100.41 | ppb | 14:16:26 |
| 1 | Cu 324.752† | 77871.8 | 63726.5 | 242.66 | ug/L | 242.66 | ppb | 14:16:26 |
| 1 | Mn 257.610† | 1348858.0 | 1233916.4 | 1982.3 | ug/L | 1982.3 | ppb | 14:16:26 |
| 1 | Mo 202.031† | 7.9 | -7.1 | 5.4067 | ug/L | 5.4067 | ppb | 14:16:46 |
| 1 | Ni 231.604† | 2117.9 | 1836.8 | 58.697 | ug/L | 58.697 | ppb | 14:16:46 |
| 1 | P 214.914† | 1137.2 | 845.3 | 371.62 | ug/L | 371.62 | ppb | 14:16:46 |
| 1 | Pb 220.353† | 875.1 | 871.5 | 142.95 | ug/L | 142.95 | ppb | 14:16:46 |
| 1 | S 181.975 Axial† | 229.2 | 167.2 | 210.17 | ug/L | 210.17 | ppb | 14:16:46 |
| 1 | Sb 206.836† | 59.6 | 24.5 | 0.7997 | ug/L | 0.7997 | ppb | 14:16:46 |
| 1 | Se 196.026† | -299.3 | -254.1 | 19.640 | ug/L | 19.640 | ppb | 14:16:46 |
| 1 | Si 251.611† | 1081022.0 | 988684.2 | 36078 | ug/L | 36078 | ppb | 14:16:26 |
| 1 | Sn 189.927† | 21.6 | 11.7 | -0.1659 | ug/L | -0.1659 | ppb | 14:16:46 |
| 1 | Ti 334.940† | 1277308.2 | 1170201.4 | 2358.4 | ug/L | 2358.4 | ppb | 14:16:26 |
| 1 | Tl 190.801† | -116.4 | -75.3 | -5.9876 | ug/L | -5.9876 | ppb | 14:16:46 |
| 1 | U 409.014† | -1130.5 | 1502.2 | 41.331 | ug/L | 41.331 | ppb | 14:16:26 |
| 1 | V 292.402† | 16952.7 | 17141.9 | 123.02 | ug/L | 123.02 | ppb | 14:16:26 |
| 1 | Zn 213.857† | 25148.9 | 22304.1 | 233.80 | ug/L | 233.80 | ppb | 14:16:26 |
| 1 | SiO2† | 1094317.4 | 1000844.0 | 77967 | ug/L | 77967 | ppb | 14:17:45 |
| 2 | Sc Radial | 5261.6 | 5261.6 | 112 | % | | | 14:15:34 |
| 2 | Y RADIAL | 6194.0 | 6194.0 | 124.2 | % | | | 14:15:34 |
| 2 | Al 396.153Radial† | 42080.6 | 37729.0 | 35292 | ug/L | 35292 | ppb | 14:15:34 |
| 2 | Ca 317.933Radial† | 5161.9 | 4595.2 | 8349.3 | ug/L | 8349.3 | ppb | 14:15:34 |
| 2 | Fe 238.204 Radial† | 8252.2 | 7374.4 | 76510 | ug/L | 76510 | ppb | 14:15:34 |
| 2 | K 766.490 Radial† | 37324.1 | 31125.4 | 6192.0 | ug/L | 6192.0 | ppb | 14:15:34 |
| 2 | Mg 279.077 IEC† | 202.0 | 177.8 | 6978.4 | ug/L | 6978.4 | ppb | 14:15:54 |
| 2 | Na 589.592 Radial† | 2042.4 | 2674.8 | 911.57 | ug/L | 911.57 | ppb | 14:15:34 |
| 2 | Sr 421.552† | 14437.3 | 12914.9 | 93.851 | ug/L | 93.851 | ppb | 14:15:34 |
| 2 | Sc 361.383 | 833826.7 | 833826.7 | 108.58 | % | | | 14:16:52 |
| 2 | Y 371.029 | 824481.1 | 824481.1 | 119.66 | % | | | 14:16:52 |
| 2 | Ag 328.068† | -4235.7 | -4156.7 | 2.5465 | ug/L | 2.5465 | ppb | 14:16:52 |
| 2 | As 188.979† | -26.9 | 0.2 | 38.441 | ug/L | 38.441 | ppb | 14:17:12 |
| 2 | B 249.677† | 423.4 | 843.4 | 8.5973 | ug/L | 8.5973 | ppb | 14:16:52 |
| 2 | Ba 233.527† | 43323.6 | 39897.8 | 473.42 | ug/L | 473.42 | ppb | 14:16:52 |
| 2 | Be 313.107† | -5988.4 | 3467.5 | 6.7307 | ug/L | 6.7307 | ppb | 14:16:52 |
| 2 | Cd 226.502† | 486.7 | 634.9 | 1.1436 | ug/L | 1.1436 | ppb | 14:17:12 |
| 2 | Co 228.616† | 1168.6 | 1133.7 | 28.402 | ug/L | 28.402 | ppb | 14:17:12 |
| 2 | Cr 267.716† | 7940.5 | 7237.4 | 100.52 | ug/L | 100.52 | ppb | 14:16:52 |
| 2 | Cu 324.752† | 77272.1 | 63630.0 | 242.28 | ug/L | 242.28 | ppb | 14:16:52 |
| 2 | Mn 257.610† | 1338474.7 | 1232249.2 | 1979.6 | ug/L | 1979.6 | ppb | 14:16:52 |
| 2 | Mo 202.031† | 18.0 | 2.2 | 6.2378 | ug/L | 6.2378 | ppb | 14:17:12 |
| 2 | Ni 231.604† | 2132.3 | 1862.5 | 59.518 | ug/L | 59.518 | ppb | 14:17:12 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 1129.5 | 844.8 | 371.67 ug/L | 371.67 ppb | 14:17:12 |
| 2 | Pb 220.353† | 873.9 | 875.5 | 143.62 ug/L | 143.62 ppb | 14:17:12 |
| 2 | S 181.975 Axial† | 234.7 | 173.7 | 218.57 ug/L | 218.57 ppb | 14:17:12 |
| 2 | Sb 206.836† | 47.4 | 13.6 | -3.5633 ug/L | -3.5633 ppb | 14:17:12 |
| 2 | Se 196.026† | -317.5 | -272.6 | 7.7287 ug/L | 7.7287 ppb | 14:17:12 |
| 2 | Si 251.611† | 1073697.6 | 988266.4 | 36062 ug/L | 36062 ppb | 14:16:52 |
| 2 | Sn 189.927† | 33.0 | 22.3 | 2.3490 ug/L | 2.3490 ppb | 14:17:12 |
| 2 | Ti 334.940† | 1268998.4 | 1170025.0 | 2358.1 ug/L | 2358.1 ppb | 14:16:52 |
| 2 | Tl 190.801† | -118.1 | -77.6 | -7.0332 ug/L | -7.0332 ppb | 14:17:12 |
| 2 | U 409.014† | -1348.5 | 1294.8 | 34.414 ug/L | 34.414 ppb | 14:16:52 |
| 2 | V 292.402† | 16778.8 | 17080.9 | 122.57 ug/L | 122.57 ppb | 14:16:52 |
| 2 | Zn 213.857† | 24945.5 | 22264.1 | 233.39 ug/L | 233.39 ppb | 14:16:52 |
| 2 | SiO2† | 1096759.5 | 1009498.8 | 78642 ug/L | 78642 ppb | 14:17:51 |
| 3 | Sc Radial | 5060.4 | 5060.4 | 108 % | | 14:15:59 |
| 3 | Y RADIAL | 5949.4 | 5949.4 | 119.3 % | | 14:15:59 |
| 3 | Al 396.153Radial† | 40845.0 | 38076.6 | 35617 ug/L | 35617 ppb | 14:15:59 |
| 3 | Ca 317.933Radial† | 5038.6 | 4664.2 | 8474.5 ug/L | 8474.5 ppb | 14:15:59 |
| 3 | Fe 238.204 Radial† | 8066.9 | 7495.6 | 77767 ug/L | 77767 ppb | 14:15:59 |
| 3 | K 766.490 Radial† | 36483.0 | 31670.8 | 6300.6 ug/L | 6300.6 ppb | 14:15:59 |
| 3 | Mg 279.077 IEC† | 205.7 | 188.5 | 7401.7 ug/L | 7401.7 ppb | 14:16:19 |
| 3 | Na 589.592 Radial† | 1936.1 | 2648.5 | 902.61 ug/L | 902.61 ppb | 14:15:59 |
| 3 | Sr 421.552† | 13921.5 | 12948.7 | 94.096 ug/L | 94.096 ppb | 14:15:59 |
| 3 | Sc 361.383 | 841389.5 | 841389.5 | 109.56 % | | 14:17:18 |
| 3 | Y 371.029 | 831342.0 | 831342.0 | 120.65 % | | 14:17:18 |
| 3 | Ag 328.068† | -4327.1 | -4205.1 | 2.6770 ug/L | 2.6770 ppb | 14:17:18 |
| 3 | As 188.979† | -26.2 | 1.1 | 39.115 ug/L | 39.115 ppb | 14:17:38 |
| 3 | B 249.677† | 421.5 | 838.2 | 8.2644 ug/L | 8.2644 ppb | 14:17:18 |
| 3 | Ba 233.527† | 43814.0 | 39986.8 | 474.51 ug/L | 474.51 ppb | 14:17:18 |
| 3 | Be 313.107† | -6084.8 | 3429.0 | 6.7144 ug/L | 6.7144 ppb | 14:17:18 |
| 3 | Cd 226.502† | 483.4 | 627.9 | 0.9152 ug/L | 0.9152 ppb | 14:17:38 |
| 3 | Co 228.616† | 1157.6 | 1114.0 | 27.791 ug/L | 27.791 ppb | 14:17:38 |
| 3 | Cr 267.716† | 8056.2 | 7277.3 | 101.09 ug/L | 101.09 ppb | 14:17:18 |
| 3 | Cu 324.752† | 78295.7 | 63924.5 | 243.45 ug/L | 243.45 ppb | 14:17:18 |
| 3 | Mn 257.610† | 1351622.8 | 1233169.3 | 1981.2 ug/L | 1981.2 ppb | 14:17:18 |
| 3 | Mo 202.031† | 15.4 | -0.3 | 6.1067 ug/L | 6.1067 ppb | 14:17:38 |
| 3 | Ni 231.604† | 2119.1 | 1832.8 | 58.569 ug/L | 58.569 ppb | 14:17:38 |
| 3 | P 214.914† | 1133.5 | 839.2 | 367.37 ug/L | 367.37 ppb | 14:17:38 |
| 3 | Pb 220.353† | 854.7 | 850.8 | 139.61 ug/L | 139.61 ppb | 14:17:38 |
| 3 | S 181.975 Axial† | 227.9 | 165.5 | 207.86 ug/L | 207.86 ppb | 14:17:38 |
| 3 | Sb 206.836† | 57.5 | 22.4 | -0.0038 ug/L | -0.0038 ppb | 14:17:38 |
| 3 | Se 196.026† | -316.1 | -268.7 | 12.951 ug/L | 12.951 ppb | 14:17:38 |
| 3 | Si 251.611† | 1084685.6 | 989406.9 | 36104 ug/L | 36104 ppb | 14:17:18 |
| 3 | Sn 189.927† | 33.8 | 22.7 | 2.3939 ug/L | 2.3939 ppb | 14:17:38 |
| 3 | Ti 334.940† | 1280272.1 | 1169809.5 | 2357.7 ug/L | 2357.7 ppb | 14:17:18 |
| 3 | Tl 190.801† | -120.2 | -78.5 | -7.4702 ug/L | -7.4702 ppb | 14:17:38 |
| 3 | U 409.014† | -1091.9 | 1540.2 | 42.487 ug/L | 42.487 ppb | 14:17:18 |
| 3 | V 292.402† | 16977.5 | 17123.4 | 122.74 ug/L | 122.74 ppb | 14:17:18 |
| 3 | Zn 213.857† | 25170.1 | 22262.5 | 233.19 ug/L | 233.19 ppb | 14:17:18 |
| 3 | SiO2† | 1099614.3 | 1003025.1 | 78137 ug/L | 78137 ppb | 14:17:56 |

**Mean Data: 245969014|948756|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 838125.5 | 109.14 | % | 0.506 | | | | 0.46% |
| Sc Radial | 5166.5 | 110 | % | 2.1 | | | | 1.96% |
| Y 371.029 | 828235.9 | 120.20 | % | 0.504 | | | | 0.42% |
| Y RADIAL | 6079.8 | 122.0 | % | 2.47 | | | | 2.03% |
| Ag 328.068† | -4143.0 | 2.7684 | ug/L | 0.27911 | 2.7684 | ppb | 0.27911 | 10.08% |
| Al 396.153Radial† | 37837.1 | 35393 | ug/L | 194.3 | 35393 | ppb | 194.3 | 0.55% |
| As 188.979† | -3.2 | 37.043 | ug/L | 3.0234 | 37.043 | ppb | 3.0234 | 8.16% |
| B 249.677† | 849.7 | 8.6726 | ug/L | 0.45057 | 8.6726 | ppb | 0.45057 | 5.20% |
| Ba 233.527† | 39957.9 | 474.14 | ug/L | 0.628 | 474.14 | ppb | 0.628 | 0.13% |
| Be 313.107† | 3490.8 | 6.7399 | ug/L | 0.03116 | 6.7399 | ppb | 0.03116 | 0.46% |
| Ca 317.933Radial† | 4625.5 | 8404.3 | ug/L | 64.02 | 8404.3 | ppb | 64.02 | 0.76% |
| Cd 226.502† | 633.2 | 1.0684 | ug/L | 0.13267 | 1.0684 | ppb | 0.13267 | 12.42% |
| Co 228.616† | 1126.9 | 28.190 | ug/L | 0.3460 | 28.190 | ppb | 0.3460 | 1.23% |
| Cr 267.716† | 7247.9 | 100.67 | ug/L | 0.364 | 100.67 | ppb | 0.364 | 0.36% |
| Cu 324.752† | 63760.4 | 242.80 | ug/L | 0.595 | 242.80 | ppb | 0.595 | 0.25% |
| Fe 238.204 Radial† | 7423.2 | 77016 | ug/L | 663.4 | 77016 | ppb | 663.4 | 0.86% |
| K 766.490 Radial† | 31312.6 | 6229.3 | ug/L | 61.76 | 6229.3 | ppb | 61.76 | 0.99% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 183.1 | 7190.2 | ug/L | 211.63 | 7190.2 | ppb | 211.63 | 2.94% |
| Mn 257.610† | 1233111.7 | 1981.1 | ug/L | 1.35 | 1981.1 | ppb | 1.35 | 0.07% |
| Mo 202.031† | -1.8 | 5.9171 | ug/L | 0.44682 | 5.9171 | ppb | 0.44682 | 7.55% |
| Na 589.592 Radial† | 2662.4 | 907.36 | ug/L | 4.500 | 907.36 | ppb | 4.500 | 0.50% |
| Ni 231.604† | 1844.0 | 58.928 | ug/L | 0.5153 | 58.928 | ppb | 0.5153 | 0.87% |
| P 214.914† | 843.1 | 370.22 | ug/L | 2.469 | 370.22 | ppb | 2.469 | 0.67% |
| Pb 220.353† | 866.0 | 142.06 | ug/L | 2.149 | 142.06 | ppb | 2.149 | 1.51% |
| S 181.975 Axial† | 168.8 | 212.20 | ug/L | 5.635 | 212.20 | ppb | 5.635 | 2.66% |
| Sb 206.836† | 20.2 | -0.9225 | ug/L | 2.32206 | -0.9225 | ppb | 2.32206 | 251.72% |
| Se 196.026† | -265.1 | 13.440 | ug/L | 5.9708 | 13.440 | ppb | 5.9708 | 44.43% |
| Si 251.611† | 988785.8 | 36081 | ug/L | 21.1 | 36081 | ppb | 21.1 | 0.06% |
| Sn 189.927† | 18.9 | 1.5257 | ug/L | 1.46512 | 1.5257 | ppb | 1.46512 | 96.03% |
| Sr 421.552† | 12925.0 | 93.924 | ug/L | 0.1495 | 93.924 | ppb | 0.1495 | 0.16% |
| Ti 334.940† | 1170012.0 | 2358.1 | ug/L | 0.40 | 2358.1 | ppb | 0.40 | 0.02% |
| Tl 190.801† | -77.1 | -6.8303 | ug/L | 0.76187 | -6.8303 | ppb | 0.76187 | 11.15% |
| U 409.014† | 1445.8 | 39.411 | ug/L | 4.3653 | 39.411 | ppb | 4.3653 | 11.08% |
| V 292.402† | 17115.4 | 122.78 | ug/L | 0.228 | 122.78 | ppb | 0.228 | 0.19% |
| Zn 213.857† | 22276.9 | 233.46 | ug/L | 0.310 | 233.46 | ppb | 0.310 | 0.13% |
| SiO2† | 1004455.9 | 78249 | ug/L | 350.6 | 78249 | ppb | 350.6 | 0.45% |

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 14:20:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 5106.5 | 5106.5 | 108 | % | | | 14:21:59 |
| 1 | Y RADIAL | 5370.5 | 5370.5 | 107.7 | % | | | 14:21:59 |
| 1 | Al 396.153Radial† | 5786.0 | 5420.0 | 5045.8 | ug/L | 5045.8 | ppb | 14:21:59 |
| 1 | Ca 317.933Radial† | 3030.2 | 2770.8 | 5034.4 | ug/L | 5034.4 | ppb | 14:22:19 |
| 1 | Fe 238.204 Radial† | 542.1 | 492.3 | 5122.9 | ug/L | 5122.9 | ppb | 14:22:19 |
| 1 | K 766.490 Radial† | 29833.1 | 25235.4 | 5017.1 | ug/L | 5017.1 | ppb | 14:21:59 |
| 1 | Mg 279.077 IEC† | 145.0 | 130.8 | 5191.4 | ug/L | 5191.4 | ppb | 14:22:19 |
| 1 | Na 589.592 Radial† | 30899.7 | 29327.9 | 9994.9 | ug/L | 9994.9 | ppb | 14:21:59 |
| 1 | Sr 421.552† | 74979.2 | 69108.5 | 502.50 | ug/L | 502.50 | ppb | 14:21:59 |
| 1 | Sc 361.383 | 826727.5 | 826727.5 | 107.66 | % | | | 14:23:17 |
| 1 | Y 371.029 | 729362.4 | 729362.4 | 105.85 | % | | | 14:23:17 |
| 1 | Ag 328.068† | 104560.7 | 96869.8 | 501.16 | ug/L | 501.16 | ppb | 14:23:22 |
| 1 | As 188.979† | 1187.5 | 1128.0 | 507.10 | ug/L | 507.10 | ppb | 14:23:42 |
| 1 | B 249.677† | 20897.5 | 19864.9 | 495.15 | ug/L | 495.15 | ppb | 14:23:22 |
| 1 | Ba 233.527† | 45864.8 | 42601.0 | 503.95 | ug/L | 503.95 | ppb | 14:23:22 |
| 1 | Be 313.107† | 1348946.3 | 1262005.5 | 502.76 | ug/L | 502.76 | ppb | 14:23:17 |
| 1 | Cd 226.502† | 38090.1 | 35568.2 | 504.12 | ug/L | 504.12 | ppb | 14:23:22 |
| 1 | Co 228.616† | 18229.1 | 16990.3 | 513.55 | ug/L | 513.55 | ppb | 14:23:22 |
| 1 | Cr 267.716† | 39521.4 | 36635.4 | 501.11 | ug/L | 501.11 | ppb | 14:23:22 |
| 1 | Cu 324.752† | 152344.6 | 133975.3 | 501.65 | ug/L | 501.65 | ppb | 14:23:22 |
| 1 | Mn 257.610† | 338312.0 | 313793.5 | 502.56 | ug/L | 502.56 | ppb | 14:23:22 |
| 1 | Mo 202.031† | 5874.9 | 5442.8 | 499.95 | ug/L | 499.95 | ppb | 14:23:42 |
| 1 | Ni 231.604† | 17162.4 | 15840.6 | 506.07 | ug/L | 506.07 | ppb | 14:23:22 |
| 1 | P 214.914† | 5041.7 | 4487.8 | 2408.2 | ug/L | 2408.2 | ppb | 14:23:42 |
| 1 | Pb 220.353† | 3262.9 | 3101.6 | 501.98 | ug/L | 501.98 | ppb | 14:23:42 |
| 1 | S 181.975 Axial† | 887.9 | 782.2 | 1013.3 | ug/L | 1013.3 | ppb | 14:23:42 |
| 1 | Sb 206.836† | 1366.6 | 1239.4 | 520.76 | ug/L | 520.76 | ppb | 14:23:42 |
| 1 | Se 196.026† | 866.9 | 825.0 | 518.74 | ug/L | 518.74 | ppb | 14:23:42 |
| 1 | Si 251.611† | 74504.2 | 68617.0 | 2497.7 | ug/L | 2497.7 | ppb | 14:23:22 |
| 1 | Sn 189.927† | 2281.9 | 2111.6 | 497.87 | ug/L | 497.87 | ppb | 14:23:42 |
| 1 | Ti 334.940† | 266197.5 | 248569.3 | 500.72 | ug/L | 500.72 | ppb | 14:23:22 |
| 1 | Tl 190.801† | 1134.6 | 1085.1 | 501.65 | ug/L | 501.65 | ppb | 14:23:42 |
| 1 | U 409.014† | 13786.7 | 15343.1 | 512.07 | ug/L | 512.07 | ppb | 14:23:22 |
| 1 | V 292.402† | 65975.8 | 62912.3 | 507.68 | ug/L | 507.68 | ppb | 14:23:22 |
| 1 | Zn 213.857† | 49751.0 | 45502.9 | 497.16 | ug/L | 497.16 | ppb | 14:23:22 |
| 1 | SiO2† | 74476.3 | 68583.9 | 5329.2 | ug/L | 5329.2 | ppb | 14:24:49 |
| 2 | Sc Radial | 4922.9 | 4922.9 | 105 | % | | | 14:22:25 |
| 2 | Y RADIAL | 5179.3 | 5179.3 | 103.9 | % | | | 14:22:25 |
| 2 | Al 396.153Radial† | 5689.1 | 5526.3 | 5145.4 | ug/L | 5145.4 | ppb | 14:22:25 |
| 2 | Ca 317.933Radial† | 3022.8 | 2867.8 | 5210.7 | ug/L | 5210.7 | ppb | 14:22:45 |
| 2 | Fe 238.204 Radial† | 546.5 | 515.2 | 5360.3 | ug/L | 5360.3 | ppb | 14:22:45 |
| 2 | K 766.490 Radial† | 29347.0 | 25796.2 | 5128.6 | ug/L | 5128.6 | ppb | 14:22:25 |
| 2 | Mg 279.077 IEC† | 144.3 | 135.1 | 5362.4 | ug/L | 5362.4 | ppb | 14:22:45 |
| 2 | Na 589.592 Radial† | 30283.4 | 29800.9 | 10156 | ug/L | 10156 | ppb | 14:22:25 |
| 2 | Sr 421.552† | 73566.0 | 70334.9 | 511.42 | ug/L | 511.42 | ppb | 14:22:25 |
| 2 | Sc 361.383 | 827747.3 | 827747.3 | 107.79 | % | | | 14:23:47 |
| 2 | Y 371.029 | 732457.2 | 732457.2 | 106.30 | % | | | 14:23:47 |
| 2 | Ag 328.068† | 104699.6 | 96878.9 | 501.28 | ug/L | 501.28 | ppb | 14:23:53 |
| 2 | As 188.979† | 1183.3 | 1122.8 | 504.82 | ug/L | 504.82 | ppb | 14:24:13 |
| 2 | B 249.677† | 20929.2 | 19870.4 | 495.26 | ug/L | 495.26 | ppb | 14:23:53 |
| 2 | Ba 233.527† | 46007.2 | 42680.6 | 504.89 | ug/L | 504.89 | ppb | 14:23:53 |
| 2 | Be 313.107† | 1345459.0 | 1257226.4 | 500.86 | ug/L | 500.86 | ppb | 14:23:47 |
| 2 | Cd 226.502† | 38045.1 | 35482.8 | 502.88 | ug/L | 502.88 | ppb | 14:23:53 |
| 2 | Co 228.616† | 18208.5 | 16950.3 | 512.33 | ug/L | 512.33 | ppb | 14:23:53 |
| 2 | Cr 267.716† | 39574.4 | 36639.3 | 501.17 | ug/L | 501.17 | ppb | 14:23:53 |
| 2 | Cu 324.752† | 152379.4 | 133833.1 | 501.13 | ug/L | 501.13 | ppb | 14:23:53 |
| 2 | Mn 257.610† | 338226.6 | 313327.2 | 501.83 | ug/L | 501.83 | ppb | 14:23:53 |
| 2 | Mo 202.031† | 5846.1 | 5409.3 | 496.90 | ug/L | 496.90 | ppb | 14:24:13 |
| 2 | Ni 231.604† | 17221.9 | 15876.2 | 507.20 | ug/L | 507.20 | ppb | 14:23:53 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | P 214.914† | 5035.5 | 4476.3 | 2401.7 ug/L | 2401.7 ppb | 14:24:13 |
| 2 | Pb 220.353† | 3257.7 | 3093.0 | 500.59 ug/L | 500.59 ppb | 14:24:13 |
| 2 | S 181.975 Axial† | 876.8 | 770.9 | 998.55 ug/L | 998.55 ppb | 14:24:13 |
| 2 | Sb 206.836† | 1362.0 | 1233.5 | 518.27 ug/L | 518.27 ppb | 14:24:13 |
| 2 | Se 196.026† | 875.3 | 831.8 | 523.44 ug/L | 523.44 ppb | 14:24:13 |
| 2 | Si 251.611† | 74525.3 | 68551.3 | 2495.4 ug/L | 2495.4 ppb | 14:23:53 |
| 2 | Sn 189.927† | 2274.1 | 2101.7 | 495.57 ug/L | 495.57 ppb | 14:24:13 |
| 2 | Ti 334.940† | 266227.9 | 248292.9 | 500.17 ug/L | 500.17 ppb | 14:23:53 |
| 2 | Tl 190.801† | 1146.7 | 1095.0 | 506.21 ug/L | 506.21 ppb | 14:24:13 |
| 2 | U 409.014† | 13694.6 | 15242.0 | 508.66 ug/L | 508.66 ppb | 14:23:53 |
| 2 | V 292.402† | 66061.4 | 62916.1 | 507.63 ug/L | 507.63 ppb | 14:23:53 |
| 2 | Zn 213.857† | 49748.1 | 45443.3 | 496.46 ug/L | 496.46 ppb | 14:23:53 |
| 2 | SiO2† | 74098.9 | 68148.4 | 5295.4 ug/L | 5295.4 ppb | 14:24:54 |
| 3 | Sc Radial | 4997.1 | 4997.1 | 106 % | | 14:22:50 |
| 3 | Y RADIAL | 5257.7 | 5257.7 | 105.5 % | | 14:22:50 |
| 3 | Al 396.153Radial† | 5759.9 | 5512.2 | 5132.0 ug/L | 5132.0 ppb | 14:22:50 |
| 3 | Ca 317.933Radial† | 3025.9 | 2827.8 | 5138.0 ug/L | 5138.0 ppb | 14:23:10 |
| 3 | Fe 238.204 Radial† | 542.6 | 503.7 | 5241.7 ug/L | 5241.7 ppb | 14:23:10 |
| 3 | K 766.490 Radial† | 29692.0 | 25704.5 | 5110.4 ug/L | 5110.4 ppb | 14:22:50 |
| 3 | Mg 279.077 IEC† | 144.4 | 133.2 | 5286.6 ug/L | 5286.6 ppb | 14:23:10 |
| 3 | Na 589.592 Radial† | 30661.5 | 29727.0 | 10131 ug/L | 10131 ppb | 14:22:50 |
| 3 | Sr 421.552† | 74595.9 | 70260.3 | 510.88 ug/L | 510.88 ppb | 14:22:50 |
| 3 | Sc 361.383 | 828096.0 | 828096.0 | 107.83 % | | 14:24:18 |
| 3 | Y 371.029 | 732734.7 | 732734.7 | 106.34 % | | 14:24:18 |
| 3 | Ag 328.068† | 105136.8 | 97243.5 | 503.13 ug/L | 503.13 ppb | 14:24:24 |
| 3 | As 188.979† | 1195.9 | 1134.1 | 509.81 ug/L | 509.81 ppb | 14:24:44 |
| 3 | B 249.677† | 21085.8 | 20007.5 | 498.70 ug/L | 498.70 ppb | 14:24:24 |
| 3 | Ba 233.527† | 45960.5 | 42619.3 | 504.17 ug/L | 504.17 ppb | 14:24:24 |
| 3 | Be 313.107† | 1346591.1 | 1257750.6 | 501.07 ug/L | 501.07 ppb | 14:24:18 |
| 3 | Cd 226.502† | 38249.0 | 35657.0 | 505.37 ug/L | 505.37 ppb | 14:24:24 |
| 3 | Co 228.616† | 18343.5 | 17068.4 | 515.91 ug/L | 515.91 ppb | 14:24:24 |
| 3 | Cr 267.716† | 39643.9 | 36688.3 | 501.84 ug/L | 501.84 ppb | 14:24:24 |
| 3 | Cu 324.752† | 152708.4 | 134078.7 | 502.04 ug/L | 502.04 ppb | 14:24:24 |
| 3 | Mn 257.610† | 339250.8 | 314144.7 | 503.13 ug/L | 503.13 ppb | 14:24:24 |
| 3 | Mo 202.031† | 5877.3 | 5436.0 | 499.34 ug/L | 499.34 ppb | 14:24:44 |
| 3 | Ni 231.604† | 17346.3 | 15984.8 | 510.67 ug/L | 510.67 ppb | 14:24:24 |
| 3 | P 214.914† | 5050.0 | 4487.8 | 2408.0 ug/L | 2408.0 ppb | 14:24:44 |
| 3 | Pb 220.353† | 3269.9 | 3103.0 | 502.22 ug/L | 502.22 ppb | 14:24:44 |
| 3 | S 181.975 Axial† | 891.0 | 783.8 | 1015.3 ug/L | 1015.3 ppb | 14:24:44 |
| 3 | Sb 206.836† | 1381.4 | 1251.0 | 525.41 ug/L | 525.41 ppb | 14:24:44 |
| 3 | Se 196.026† | 870.5 | 827.0 | 520.24 ug/L | 520.24 ppb | 14:24:44 |
| 3 | Si 251.611† | 74682.0 | 68667.5 | 2499.6 ug/L | 2499.6 ppb | 14:24:24 |
| 3 | Sn 189.927† | 2274.4 | 2101.1 | 495.42 ug/L | 495.42 ppb | 14:24:44 |
| 3 | Ti 334.940† | 266619.9 | 248552.3 | 500.69 ug/L | 500.69 ppb | 14:24:24 |
| 3 | Tl 190.801† | 1154.8 | 1102.2 | 509.48 ug/L | 509.48 ppb | 14:24:44 |
| 3 | U 409.014† | 13704.4 | 15245.7 | 508.79 ug/L | 508.79 ppb | 14:24:24 |
| 3 | V 292.402† | 66211.2 | 63029.3 | 508.58 ug/L | 508.58 ppb | 14:24:24 |
| 3 | Zn 213.857† | 49976.7 | 45635.8 | 498.58 ug/L | 498.58 ppb | 14:24:24 |
| 3 | SiO2† | 74184.0 | 68198.4 | 5299.2 ug/L | 5299.2 ppb | 14:24:59 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 827523.6 | 107.76 | % | 0.093 | | | | 0.09% |
| Sc Radial | 5008.8 | 106 | % | 2.0 | | | | 1.84% |
| Y 371.029 | 731518.1 | 106.17 | % | 0.272 | | | | 0.26% |
| Y RADIAL | 5269.1 | 105.7 | % | 1.93 | | | | 1.82% |
| Ag 328.068† | 96997.4 | 501.86 | ug/L | 1.100 | 501.86 | ppb | 1.100 | 0.22% |
| QC value within limits for Ag 328.068 Recovery = 100.37% | | | | | | | | |
| Al 396.153Radial† | 5486.2 | 5107.7 | ug/L | 54.07 | 5107.7 | ppb | 54.07 | 1.06% |
| QC value within limits for Al 396.153Radial Recovery = 102.15% | | | | | | | | |
| As 188.979† | 1128.3 | 507.24 | ug/L | 2.499 | 507.24 | ppb | 2.499 | 0.49% |
| QC value within limits for As 188.979 Recovery = 101.45% | | | | | | | | |
| B 249.677† | 19914.3 | 496.37 | ug/L | 2.017 | 496.37 | ppb | 2.017 | 0.41% |
| QC value within limits for B 249.677 Recovery = 99.27% | | | | | | | | |
| Ba 233.527† | 42633.6 | 504.34 | ug/L | 0.495 | 504.34 | ppb | 0.495 | 0.10% |
| QC value within limits for Ba 233.527 Recovery = 100.87% | | | | | | | | |
| Be 313.107† | 1258994.2 | 501.56 | ug/L | 1.042 | 501.56 | ppb | 1.042 | 0.21% |
| QC value within limits for Be 313.107 Recovery = 100.31% | | | | | | | | |
| Ca 317.933Radial† | 2822.2 | 5127.7 | ug/L | 88.62 | 5127.7 | ppb | 88.62 | 1.73% |

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   QC value within limits for Ca 317.933Radial  Recovery = 102.55%
Cd 226.502†            35569.3      504.12 ug/L        1.242      504.12 ppb        1.242   0.25%
   QC value within limits for Cd 226.502  Recovery = 100.82%
Co 228.616†            17003.0      513.93 ug/L        1.818      513.93 ppb        1.818   0.35%
   QC value within limits for Co 228.616  Recovery = 102.79%
Cr 267.716†            36654.4      501.37 ug/L        0.404      501.37 ppb        0.404   0.08%
   QC value within limits for Cr 267.716  Recovery = 100.27%
Cu 324.752†           133962.4      501.61 ug/L        0.458      501.61 ppb        0.458   0.09%
   QC value within limits for Cu 324.752  Recovery = 100.32%
Fe 238.204 Radial†       503.7      5241.6 ug/L       118.67      5241.6 ppb       118.67   2.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.83%
K 766.490 Radial†      25578.7      5085.4 ug/L        59.82      5085.4 ppb        59.82   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 101.71%
Mg 279.077 IEC†          133.0      5280.1 ug/L        85.70      5280.1 ppb        85.70   1.62%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.60%
Mn 257.610†           313755.1      502.51 ug/L        0.652      502.51 ppb        0.652   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†             5429.4      498.73 ug/L        1.613      498.73 ppb        1.613   0.32%
   QC value within limits for Mo 202.031  Recovery = 99.75%
Na 589.592 Radial†     29618.6       10094 ug/L         86.7       10094 ppb         86.7   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 100.94%
Ni 231.604†            15900.5      507.98 ug/L        2.400      507.98 ppb        2.400   0.47%
   QC value within limits for Ni 231.604  Recovery = 101.60%
P 214.914†              4484.0      2406.0 ug/L         3.72      2406.0 ppb         3.72   0.15%
   QC value within limits for P 214.914  Recovery = 96.24%
Pb 220.353†             3099.2      501.60 ug/L        0.878      501.60 ppb        0.878   0.18%
   QC value within limits for Pb 220.353  Recovery = 100.32%
S 181.975 Axial†         779.0      1009.0 ug/L         9.13      1009.0 ppb         9.13   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 100.90%
Sb 206.836†             1241.3      521.48 ug/L        3.622      521.48 ppb        3.622   0.69%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              828.0      520.80 ug/L        2.400      520.80 ppb        2.400   0.46%
   QC value within limits for Se 196.026  Recovery = 104.16%
Si 251.611†            68612.0      2497.6 ug/L         2.11      2497.6 ppb         2.11   0.08%
   QC value within limits for Si 251.611  Recovery = 99.90%
Sn 189.927†             2104.8      496.29 ug/L        1.375      496.29 ppb        1.375   0.28%
   QC value within limits for Sn 189.927  Recovery = 99.26%
Sr 421.552†            69901.2      508.27 ug/L        4.999      508.27 ppb        4.999   0.98%
   QC value within limits for Sr 421.552  Recovery = 101.65%
Ti 334.940†           248471.5      500.52 ug/L        0.308      500.52 ppb        0.308   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.10%
Tl 190.801†             1094.1      505.78 ug/L        3.930      505.78 ppb        3.930   0.78%
   QC value within limits for Tl 190.801  Recovery = 101.16%
U 409.014†             15276.9      509.84 ug/L        1.934      509.84 ppb        1.934   0.38%
   QC value within limits for U 409.014  Recovery = 101.97%
V 292.402†             62952.6      507.96 ug/L        0.535      507.96 ppb        0.535   0.11%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            45527.3      497.40 ug/L        1.079      497.40 ppb        1.079   0.22%
   QC value within limits for Zn 213.857  Recovery = 99.48%
SiO2†                  68310.3      5307.9 ug/L        18.53      5307.9 ppb        18.53   0.35%
   QC value within limits for SiO2  Recovery = 99.26%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 14:27:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc Radial | 5218.0 | 5218.0 | 111 | % | | | 14:29:02 |
| 1 | Y RADIAL | 5544.9 | 5544.9 | 111.2 | % | | | 14:29:02 |
| 1 | Al 396.153Radial† | -77.7 | 17.1 | 15.981 | ug/L | 15.981 | ppb | 14:29:22 |
| 1 | Ca 317.933Radial† | 26.4 | 1.6 | 2.9394 | ug/L | 2.9394 | ppb | 14:29:22 |
| 1 | Fe 238.204 Radial† | 6.9 | -1.1 | -11.400 | ug/L | -11.400 | ppb | 14:29:22 |
| 1 | K 766.490 Radial† | 2305.6 | -182.0 | -36.259 | ug/L | -36.259 | ppb | 14:29:02 |
| 1 | Mg 279.077 IEC† | 0.6 | -2.4 | -94.447 | ug/L | -94.447 | ppb | 14:29:22 |
| 1 | Na 589.592 Radial† | -704.6 | 212.2 | 72.333 | ug/L | 72.333 | ppb | 14:29:02 |
| 1 | Sr 421.552† | 28.1 | 25.8 | 0.1875 | ug/L | 0.1875 | ppb | 14:29:02 |
| 1 | Sc 361.383 | 818015.8 | 818015.8 | 106.52 | % | | | 14:30:19 |
| 1 | Y 371.029 | 730161.0 | 730161.0 | 105.97 | % | | | 14:30:19 |
| 1 | Ag 328.068† | 171.6 | -94.6 | -0.4967 | ug/L | -0.4967 | ppb | 14:30:19 |
| 1 | As 188.979† | -32.1 | -5.1 | -2.2835 | ug/L | -2.2835 | ppb | 14:30:39 |
| 1 | B 249.677† | -275.0 | 195.3 | 4.8931 | ug/L | 4.8931 | ppb | 14:30:39 |
| 1 | Ba 233.527† | 33.1 | 28.6 | 0.3385 | ug/L | 0.3385 | ppb | 14:30:39 |
| 1 | Be 313.107† | -9561.3 | 6.7 | 0.0033 | ug/L | 0.0033 | ppb | 14:30:19 |
| 1 | Cd 226.502† | -194.1 | 4.4 | 0.0659 | ug/L | 0.0659 | ppb | 14:30:39 |
| 1 | Co 228.616† | -60.4 | 0.8 | 0.0227 | ug/L | 0.0227 | ppb | 14:30:39 |
| 1 | Cr 267.716† | 76.3 | -4.0 | -0.0578 | ug/L | -0.0578 | ppb | 14:30:39 |
| 1 | Cu 324.752† | 7961.1 | -62.4 | -0.2399 | ug/L | -0.2399 | ppb | 14:30:19 |
| 1 | Mn 257.610† | 462.2 | -27.3 | -0.0409 | ug/L | -0.0409 | ppb | 14:30:39 |
| 1 | Mo 202.031† | 10.4 | -4.6 | -0.4211 | ug/L | -0.4211 | ppb | 14:30:39 |
| 1 | Ni 231.604† | 92.0 | -15.0 | -0.4788 | ug/L | -0.4788 | ppb | 14:30:39 |
| 1 | P 214.914† | 203.0 | -4.8 | -2.6490 | ug/L | -2.6490 | ppb | 14:30:39 |
| 1 | Pb 220.353† | -70.8 | 4.2 | 0.6871 | ug/L | 0.6871 | ppb | 14:30:39 |
| 1 | S 181.975 Axial† | 48.0 | 2.5 | 3.3025 | ug/L | 3.3025 | ppb | 14:30:39 |
| 1 | Sb 206.836† | 34.9 | 2.7 | 1.0817 | ug/L | 1.0817 | ppb | 14:30:39 |
| 1 | Se 196.026† | -20.6 | 0.5 | 0.2706 | ug/L | 0.2706 | ppb | 14:30:39 |
| 1 | Si 251.611† | 641.9 | 13.4 | 0.4936 | ug/L | 0.4936 | ppb | 14:30:39 |
| 1 | Sn 189.927† | 1.4 | -6.7 | -1.5826 | ug/L | -1.5826 | ppb | 14:30:39 |
| 1 | Ti 334.940† | -1226.9 | 149.3 | 0.3043 | ug/L | 0.3043 | ppb | 14:30:19 |
| 1 | Tl 190.801† | -32.6 | 0.6 | 0.2786 | ug/L | 0.2786 | ppb | 14:30:39 |
| 1 | U 409.014† | -2367.3 | 314.4 | 10.530 | ug/L | 10.530 | ppb | 14:30:19 |
| 1 | V 292.402† | -1671.2 | 59.0 | 0.4840 | ug/L | 0.4840 | ppb | 14:30:19 |
| 1 | Zn 213.857† | 768.6 | 11.3 | 0.1294 | ug/L | 0.1294 | ppb | 14:30:39 |
| 1 | SiO2† | 941.4 | 287.3 | 22.396 | ug/L | 22.396 | ppb | 14:31:35 |
| 2 | Sc Radial | 4894.3 | 4894.3 | 104 | % | | | 14:29:27 |
| 2 | Y RADIAL | 5151.7 | 5151.7 | 103.3 | % | | | 14:29:27 |
| 2 | Al 396.153Radial† | -72.5 | 17.4 | 16.310 | ug/L | 16.310 | ppb | 14:29:47 |
| 2 | Ca 317.933Radial† | 30.3 | 7.0 | 12.674 | ug/L | 12.674 | ppb | 14:29:47 |
| 2 | Fe 238.204 Radial† | 7.3 | -0.3 | -2.8340 | ug/L | -2.8340 | ppb | 14:29:47 |
| 2 | K 766.490 Radial† | 2376.3 | 23.5 | 4.6600 | ug/L | 4.6600 | ppb | 14:29:27 |
| 2 | Mg 279.077 IEC† | -1.5 | -4.3 | -171.82 | ug/L | -171.82 | ppb | 14:29:47 |
| 2 | Na 589.592 Radial† | -730.3 | 145.5 | 49.591 | ug/L | 49.591 | ppb | 14:29:27 |
| 2 | Sr 421.552† | 47.6 | 46.2 | 0.3361 | ug/L | 0.3361 | ppb | 14:29:27 |
| 2 | Sc 361.383 | 826087.4 | 826087.4 | 107.57 | % | | | 14:30:44 |
| 2 | Y 371.029 | 736765.2 | 736765.2 | 106.93 | % | | | 14:30:44 |
| 2 | Ag 328.068† | 286.3 | 10.5 | 0.0460 | ug/L | 0.0460 | ppb | 14:30:44 |
| 2 | As 188.979† | -26.6 | 0.3 | 0.1195 | ug/L | 0.1195 | ppb | 14:31:04 |
| 2 | B 249.677† | -282.8 | 190.5 | 4.7711 | ug/L | 4.7711 | ppb | 14:31:04 |
| 2 | Ba 233.527† | 24.2 | 20.1 | 0.2383 | ug/L | 0.2383 | ppb | 14:31:04 |
| 2 | Be 313.107† | -9617.7 | 41.9 | 0.0173 | ug/L | 0.0173 | ppb | 14:30:44 |
| 2 | Cd 226.502† | -184.9 | 14.8 | 0.2112 | ug/L | 0.2112 | ppb | 14:31:04 |
| 2 | Co 228.616† | -57.8 | 3.8 | 0.1138 | ug/L | 0.1138 | ppb | 14:31:04 |
| 2 | Cr 267.716† | 68.8 | -11.6 | -0.1624 | ug/L | -0.1624 | ppb | 14:31:04 |
| 2 | Cu 324.752† | 8077.0 | -27.6 | -0.1094 | ug/L | -0.1094 | ppb | 14:30:44 |
| 2 | Mn 257.610† | 457.6 | -35.7 | -0.0505 | ug/L | -0.0505 | ppb | 14:31:04 |
| 2 | Mo 202.031† | 15.1 | -0.4 | -0.0350 | ug/L | -0.0350 | ppb | 14:31:04 |
| 2 | Ni 231.604† | 82.9 | -24.2 | -0.7749 | ug/L | -0.7749 | ppb | 14:31:04 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | P 214.914† | 209.6 | -0.5 | -0.2668 | ug/L | -0.2668 | ppb | 14:31:04 |
| 2 | Pb 220.353† | -65.5 | 9.8 | 1.5802 | ug/L | 1.5802 | ppb | 14:31:04 |
| 2 | S 181.975 Axial† | 47.6 | 1.7 | 2.2181 | ug/L | 2.2181 | ppb | 14:31:04 |
| 2 | Sb 206.836† | 40.9 | 8.0 | 3.2413 | ug/L | 3.2413 | ppb | 14:31:04 |
| 2 | Se 196.026† | -18.5 | 2.6 | 1.5708 | ug/L | 1.5708 | ppb | 14:31:04 |
| 2 | Si 251.611† | 616.6 | -16.0 | -0.5841 | ug/L | -0.5841 | ppb | 14:31:04 |
| 2 | Sn 189.927† | 8.8 | 0.1 | 0.0315 | ug/L | 0.0315 | ppb | 14:31:04 |
| 2 | Ti 334.940† | -1256.3 | 133.1 | 0.2795 | ug/L | 0.2795 | ppb | 14:30:44 |
| 2 | Tl 190.801† | -31.6 | 1.8 | 0.8279 | ug/L | 0.8279 | ppb | 14:31:04 |
| 2 | U 409.014† | -2397.0 | 308.5 | 10.332 | ug/L | 10.332 | ppb | 14:30:44 |
| 2 | V 292.402† | -1694.5 | 52.7 | 0.4359 | ug/L | 0.4359 | ppb | 14:30:44 |
| 2 | Zn 213.857† | 775.3 | 10.4 | 0.1202 | ug/L | 0.1202 | ppb | 14:31:04 |
| 2 | SiO2† | 920.1 | 258.9 | 20.171 | ug/L | 20.171 | ppb | 14:31:40 |
| 3 | Sc Radial | 5105.8 | 5105.8 | 108 | % | | | 14:29:52 |
| 3 | Y RADIAL | 5352.2 | 5352.2 | 107.4 | % | | | 14:29:52 |
| 3 | Al 396.153Radial† | -71.6 | 21.1 | 19.753 | ug/L | 19.753 | ppb | 14:30:12 |
| 3 | Ca 317.933Radial† | 28.4 | 4.0 | 7.3248 | ug/L | 7.3248 | ppb | 14:30:12 |
| 3 | Fe 238.204 Radial† | 7.6 | -0.3 | -3.2048 | ug/L | -3.2048 | ppb | 14:30:12 |
| 3 | K 766.490 Radial† | 2357.6 | -88.3 | -17.604 | ug/L | -17.604 | ppb | 14:29:52 |
| 3 | Mg 279.077 IEC† | 2.6 | -0.5 | -21.163 | ug/L | -21.163 | ppb | 14:30:12 |
| 3 | Na 589.592 Radial† | -717.6 | 186.3 | 63.493 | ug/L | 63.493 | ppb | 14:29:52 |
| 3 | Sr 421.552† | 26.4 | 24.8 | 0.1805 | ug/L | 0.1805 | ppb | 14:29:52 |
| 3 | Sc 361.383 | 828191.4 | 828191.4 | 107.85 | % | | | 14:31:10 |
| 3 | Y 371.029 | 738495.9 | 738495.9 | 107.18 | % | | | 14:31:10 |
| 3 | Ag 328.068† | 235.0 | -37.7 | -0.2027 | ug/L | -0.2027 | ppb | 14:31:10 |
| 3 | As 188.979† | -27.5 | -0.4 | -0.1939 | ug/L | -0.1939 | ppb | 14:31:30 |
| 3 | B 249.677† | -243.9 | 227.3 | 5.6914 | ug/L | 5.6914 | ppb | 14:31:30 |
| 3 | Ba 233.527† | 31.0 | 26.3 | 0.3114 | ug/L | 0.3114 | ppb | 14:31:30 |
| 3 | Be 313.107† | -9667.4 | 18.6 | 0.0084 | ug/L | 0.0084 | ppb | 14:31:10 |
| 3 | Cd 226.502† | -185.7 | 14.5 | 0.2072 | ug/L | 0.2072 | ppb | 14:31:30 |
| 3 | Co 228.616† | -56.4 | 5.1 | 0.1535 | ug/L | 0.1535 | ppb | 14:31:30 |
| 3 | Cr 267.716† | 55.6 | -24.0 | -0.3321 | ug/L | -0.3321 | ppb | 14:31:30 |
| 3 | Cu 324.752† | 8025.1 | -94.9 | -0.3621 | ug/L | -0.3621 | ppb | 14:31:10 |
| 3 | Mn 257.610† | 526.6 | 27.2 | 0.0440 | ug/L | 0.0440 | ppb | 14:31:30 |
| 3 | Mo 202.031† | 10.0 | -5.1 | -0.4724 | ug/L | -0.4724 | ppb | 14:31:30 |
| 3 | Ni 231.604† | 94.5 | -13.7 | -0.4386 | ug/L | -0.4386 | ppb | 14:31:30 |
| 3 | P 214.914† | 202.3 | -7.8 | -4.2895 | ug/L | -4.2895 | ppb | 14:31:30 |
| 3 | Pb 220.353† | -68.3 | 7.4 | 1.1910 | ug/L | 1.1910 | ppb | 14:31:30 |
| 3 | S 181.975 Axial† | 41.9 | -3.6 | -4.6868 | ug/L | -4.6868 | ppb | 14:31:30 |
| 3 | Sb 206.836† | 36.9 | 4.2 | 1.6841 | ug/L | 1.6841 | ppb | 14:31:30 |
| 3 | Se 196.026† | -12.9 | 7.8 | 4.7720 | ug/L | 4.7720 | ppb | 14:31:30 |
| 3 | Si 251.611† | 677.7 | 39.2 | 1.4351 | ug/L | 1.4351 | ppb | 14:31:30 |
| 3 | Sn 189.927† | 6.8 | -1.8 | -0.4216 | ug/L | -0.4216 | ppb | 14:31:30 |
| 3 | Ti 334.940† | -1153.1 | 231.9 | 0.4648 | ug/L | 0.4648 | ppb | 14:31:10 |
| 3 | Tl 190.801† | -37.2 | -3.3 | -1.5222 | ug/L | -1.5222 | ppb | 14:31:30 |
| 3 | U 409.014† | -2354.5 | 353.6 | 11.843 | ug/L | 11.843 | ppb | 14:31:10 |
| 3 | V 292.402† | -1686.9 | 63.8 | 0.5238 | ug/L | 0.5238 | ppb | 14:31:10 |
| 3 | Zn 213.857† | 767.6 | 1.5 | 0.0198 | ug/L | 0.0198 | ppb | 14:31:30 |
| 3 | SiO2† | 850.9 | 192.6 | 15.014 | ug/L | 15.014 | ppb | 14:31:45 |

**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 824098.2 | 107.31 | % | 0.699 | | | | 0.65% |
| Sc Radial | 5072.7 | 108 | % | 3.5 | | | | 3.24% |
| Y 371.029 | 735140.7 | 106.69 | % | 0.638 | | | | 0.60% |
| Y RADIAL | 5349.6 | 107.3 | % | 3.94 | | | | 3.67% |
| Ag 328.068† | -40.6 | -0.2178 | ug/L | 0.27163 | -0.2178 | ppb | 0.27163 | 124.71% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 18.5 | 17.348 | ug/L | 2.0891 | 17.348 | ppb | 2.0891 | 12.04% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.8 | -0.7860 | ug/L | 1.30634 | -0.7860 | ppb | 1.30634 | 166.21% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 204.4 | 5.1185 | ug/L | 0.49985 | 5.1185 | ppb | 0.49985 | 9.77% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 25.0 | 0.2961 | ug/L | 0.05185 | 0.2961 | ppb | 0.05185 | 17.52% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 22.4 | 0.0097 | ug/L | 0.00705 | 0.0097 | ppb | 0.00705 | 72.75% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 4.2 | 7.6459 | ug/L | 4.87507 | 7.6459 | ppb | 4.87507 | 63.76% |

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              11.2      0.1614 ug/L       0.08279      0.1614 ppb        0.08279  51.28%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.2      0.0967 ug/L       0.06705      0.0967 ppb        0.06705  69.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.2     -0.1841 ug/L       0.13844     -0.1841 ppb        0.13844  75.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -61.6     -0.2371 ug/L       0.12639     -0.2371 ppb        0.12639  53.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.6     -5.8130 ug/L       4.84221     -5.8130 ppb        4.84221  83.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -82.3     -16.401 ug/L       20.4862     -16.401 ppb        20.4862 124.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.4     -95.811 ug/L       75.3398     -95.811 ppb        75.3398  78.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -12.0     -0.0158 ug/L       0.05201     -0.0158 ppb        0.05201 329.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.4     -0.3095 ug/L       0.23909     -0.3095 ppb        0.23909  77.24%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      181.4      61.806 ug/L       11.4646      61.806 ppb        11.4646  18.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -17.6     -0.5641 ug/L       0.18364     -0.5641 ppb        0.18364  32.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.4     -2.4018 ug/L       2.02272     -2.4018 ppb        2.02272  84.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.1      1.1528 ug/L       0.44776      1.1528 ppb        0.44776  38.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.2      0.2779 ug/L       4.33364      0.2779 ppb        4.33364 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.0      2.0024 ug/L       1.11439      2.0024 ppb        1.11439  55.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.6      2.2045 ug/L       2.31661      2.2045 ppb        2.31661 105.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              12.2      0.4482 ug/L       1.01036      0.4482 ppb        1.01036 225.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.8     -0.6576 ug/L       0.83250     -0.6576 ppb        0.83250 126.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              32.3      0.2347 ug/L       0.08787      0.2347 ppb        0.08787  37.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             171.4      0.3496 ug/L       0.10060      0.3496 ppb        0.10060  28.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.3     -0.1386 ug/L       1.22934     -0.1386 ppb        1.22934 887.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              325.5      10.902 ug/L        0.8213      10.902 ppb         0.8213   7.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               58.5      0.4812 ug/L       0.04400      0.4812 ppb        0.04400   9.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               7.7      0.0898 ug/L       0.06078      0.0898 ppb        0.06078  67.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   246.3      19.193 ug/L        3.7872      19.193 ppb         3.7872  19.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

# ICPMS #6 Daily Performance Report

**Sample ID: Sample**
Sample Date/Time: Wednesday, February 24, 2010 20:05:11
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1670
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD |
|---|---|---|---|---|---|---|
| | Be | 9.0 | 5289.2 | 5289.179 | 79.968 | 1.5 |
| | Mg | 24.0 | 40829.9 | 40829.877 | 661.407 | 1.6 |
| | Co | 58.9 | 72281.4 | 72281.406 | 484.155 | 0.7 |
| | Rh | 102.9 | 145598.6 | 145598.606 | 422.996 | 0.3 |
| | In | 114.9 | 158237.8 | 158237.766 | 875.794 | 0.6 |
| | Pb | 208.0 | 106955.3 | 106955.296 | 557.337 | 0.5 |
| ⌈> | Ba | 137.9 | 153396.6 | 153396.628 | 955.116 | 0.6 |
| ⌊ | Ba++ | 69.0 | 3562.5 | 0.023 | 0.000 | 0.3 |
| ⌈> | Ce | 139.9 | 200701.0 | 200701.014 | 795.254 | 0.4 |
| ⌊ | CeO | 155.9 | 4381.4 | 0.022 | 0.000 | 1.9 |
| | Bkgd | 220.0 | 8.8 | 8.800 | 3.528 | 40.1 |

### Current Optimization File Data

| Current Value | Description |
|---|---|
| 0.83 | Nebulizer Gas Flow |
| 4.75 | Lens Voltage |
| 1450.00 | ICP RF Power |
| -1800.00 | Analog Stage Voltage |
| 900.00 | Pulse Stage Voltage |
| 25.00 | Discriminator Threshold |
| -6.00 | AC Rod Offset |

### Current Autolens Data

| Analyte | Mass | Num of Pts | DAC Value | Maximum Intensity |
|---|---|---|---|---|
| Be | 9 | 11 | 5.8 | 6056.0 |
| Co | 59 | 11 | 6.3 | 73371.3 |
| In | 115 | 11 | 7.0 | 161562.4 |

# ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Pk. Width |
|---|---|---|---|---|---|
| He | 3.0 | 3.0 | 576 | 2080 | 0.655 |
| Be | 9.0 | 9.1 | 2049 | 2080 | 0.679 |
| Mg | 24.0 | 24.0 | 5686 | 2124 | 0.603 |
| Mg | 25.0 | 24.9 | 5914 | 2080 | 0.717 |
| Mg | 26.0 | 25.9 | 6132 | 2120 | 0.668 |
| Co | 58.9 | 58.9 | 14183 | 2170 | 0.627 |
| Rh | 102.9 | 102.9 | 24865 | 2230 | 0.704 |
| In | 114.9 | 114.9 | 27791 | 2260 | 0.689 |
| Ce | 139.9 | 139.9 | 33855 | 2280 | 0.759 |
| Pb | 206.0 | 206.0 | 49960 | 2420 | 0.795 |
| Pb | 207.0 | 207.0 | 50123 | 2385 | 0.698 |
| Pb | 208.0 | 208.0 | 50475 | 2430 | 0.748 |
| U | 238.1 | 238.0 | 57723 | 2470 | 0.749 |

Report Date/Time: Wednesday, February 24, 2010 20:03:24

# ICPMS#6 - Summary Report

**Sample ID: Blank**
**Sample Date/Time: Thursday, February 25, 2010 10:02:22**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\Blank.209**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | ug/L | | 137 | |
| | Be | 9 | | ug/L | | 15 | |
| | B | 11 | | ug/L | | 672 | |
| | Na | 23 | | ug/L | | 39389 | |
| | Mg | 24 | | ug/L | | 17345 | |
| | Al | 27 | | ug/L | | 28028 | |
| | P | 31 | | ug/L | | 7326 | |
| | K | 39 | | ug/L | | 457903 | |
| | Ca | 43 | | ug/L | | 319 | |
| > | Sc | 45 | | ug/L | | 1620343 | |
| | V | 51 | | ug/L | | 16790 | |
| | Cr | 52 | | ug/L | | 6536 | |
| | Cr | 53 | | ug/L | | 114204 | |
| | Mn | 55 | | ug/L | | 2227 | |
| | Fe | 57 | | ug/L | | 4938 | |
| | Co | 59 | | ug/L | | 176 | |
| | Ni | 60 | | ug/L | | 137 | |
| | Cu | 63 | | ug/L | | 284 | |
| | Cu | 65 | | ug/L | | 152 | |
| | Zn | 66 | | ug/L | | 385 | |
| | Zn | 67 | | ug/L | | 18139 | |
| | Zn | 68 | | ug/L | | 1407 | |
| > | Ge | 74 | | ug/L | | 365364 | |
| | As | 75 | | ug/L | | 1114 | |
| | Se | 77 | | ug/L | | 5530 | |
| | Se | 82 | | ug/L | | 6 | |
| | Kr | 83 | | ug/L | | 79 | |
| | Sr | 88 | | ug/L | | 504 | |
| | Y | 89 | | ug/L | | 75 | |
| | Ag | 107 | | ug/L | | 100 | |
| | Cd | 111 | | ug/L | | 30 | |
| | Cd | 114 | | ug/L | | 85 | |
| > | In | 115 | | ug/L | | 216719 | |
| | Sn | 120 | | ug/L | | 439 | |
| | Sb | 121 | | ug/L | | 622 | |
| | Sb | 123 | | ug/L | | 492 | |
| | Ba | 135 | | ug/L | | 63 | |
| | Ba | 137 | | ug/L | | 97 | |
| | Ho | 165 | | ug/L | | 12 | |
| > | Lu | 175 | | ug/L | | 307942 | |
| | Tl | 205 | | ug/L | | 385 | |
| | Pb | 208 | | ug/L | | 6301 | |
| | Bi | 209 | | ug/L | | 59 | |
| | U | 238 | | ug/L | | 770 | |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Simple Linear | |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Simple Linear | |
| Na | 23 | Simple Linear | |
| Mg | 24 | Simple Linear | |
| Al | 27 | Simple Linear | |
| P | 31 | Simple Linear | |
| K | 39 | Simple Linear | |
| Ca | 43 | Simple Linear | |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Simple Linear | |
| Cr | 52 | Simple Linear | |
| Cr | 53 | Simple Linear | |
| Mn | 55 | Simple Linear | |
| Fe | 57 | Simple Linear | |
| Co | 59 | Simple Linear | |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Simple Linear | |
| Cu | 65 | Simple Linear | |
| Zn | 66 | Simple Linear | |
| Zn | 67 | Simple Linear | |
| Zn | 68 | Simple Linear | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Simple Linear | |
| Y | 89 | Simple Linear | |
| Ag | 107 | Simple Linear | |
| Cd | 111 | Simple Linear | |
| Cd | 114 | Simple Linear | |
| In | 115 | Simple Linear | |
| Sn | 120 | Simple Linear | |
| Sb | 121 | Simple Linear | |
| Sb | 123 | Simple Linear | |
| Ba | 135 | Simple Linear | |
| Ba | 137 | Simple Linear | |
| Ho | 165 | Simple Linear | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Simple Linear | |
| Bi | 209 | Simple Linear | |
| U | 238 | Simple Linear | |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Thursday, February 25, 2010 10:04:54

# ICPMS#6 - Summary Report

**Sample ID: Standard 1**
**Sample Date/Time: Thursday, February 25, 2010 10:08:17**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\Standard 1.210**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 10.000 | ug/L | 0.832 | 22027 | 0.013 |
| | Be | 9 | 10.000 | ug/L | 0.798 | 5554 | 0.003 |
| | B | 11 | 20.000 | ug/L | 1.875 | 12592 | 0.007 |
| | Na | 23 | 1000.000 | ug/L | 1.642 | 4912707 | 2.943 |
| | Mg | 24 | 1000.000 | ug/L | 5.278 | 3329112 | 2.000 |
| | Al | 27 | 1000.000 | ug/L | 2.840 | 4965172 | 2.982 |
| | P | 31 | 1000.000 | ug/L | 0.482 | 282365 | 0.166 |
| | K | 39 | 1000.000 | ug/L | 6.149 | 5915142 | 3.291 |
| | Ca | 43 | 1000.000 | ug/L | 0.901 | 13021 | 0.008 |
| > | Sc | 45 | | ug/L | | 1655297 | 1655296.554 |
| | V | 51 | 10.000 | ug/L | 0.798 | 81984 | 0.039 |
| | Cr | 52 | 10.000 | ug/L | 0.449 | 61297 | 0.033 |
| | Cr | 53 | | ug/L | | 119663 | 0.002 |
| | Mn | 55 | 10.000 | ug/L | 1.215 | 82484 | 0.048 |
| | Fe | 57 | 1000.000 | ug/L | 0.967 | 161122 | 0.094 |
| | Co | 59 | 10.000 | ug/L | 0.693 | 57864 | 0.035 |
| | Ni | 60 | 10.000 | ug/L | 1.420 | 12258 | 0.007 |
| | Cu | 63 | | ug/L | | 29372 | 0.018 |
| | Cu | 65 | 10.000 | ug/L | 1.044 | 14738 | 0.009 |
| | Zn | 66 | 10.000 | ug/L | 1.803 | 9795 | 0.025 |
| | Zn | 67 | | ug/L | | 19136 | 0.001 |
| | Zn | 68 | | ug/L | | 8455 | 0.019 |
| > | Ge | 74 | | ug/L | | 376106 | 376106.412 |
| | As | 75 | 10.000 | ug/L | 5.806 | 10651 | 0.025 |
| | Se | 77 | | ug/L | | 6503 | 0.002 |
| | Se | 82 | 10.000 | ug/L | 3.437 | 954 | 0.003 |
| | Kr | 83 | | ug/L | | 77 | -0.000 |
| | Sr | 88 | 10.000 | ug/L | 1.397 | 120241 | 0.542 |
| | Y | 89 | | ug/L | | 88 | 0.000 |
| | Ag | 107 | 10.000 | ug/L | 2.466 | 49072 | 0.222 |
| | Cd | 111 | 10.000 | ug/L | 2.800 | 11950 | 0.054 |
| | Cd | 114 | | ug/L | | 27259 | 0.123 |
| > | In | 115 | | ug/L | | 221108 | 221108.457 |
| | Sn | 120 | 10.000 | ug/L | 1.886 | 48450 | 0.217 |
| | Sb | 121 | 10.000 | ug/L | 0.985 | 40400 | 0.180 |
| | Sb | 123 | | ug/L | | 31565 | 0.140 |
| | Ba | 135 | | ug/L | | 11712 | 0.036 |
| | Ba | 137 | 10.000 | ug/L | 0.683 | 20511 | 0.063 |
| | Ho | 165 | | ug/L | | 13 | 0.000 |
| > | Lu | 175 | | ug/L | | 323557 | 323557.328 |
| | Tl | 205 | 10.000 | ug/L | 1.127 | 98308 | 0.303 |
| | Pb | 208 | 10.000 | ug/L | 0.452 | 175473 | 0.522 |
| | Bi | 209 | | ug/L | | 69 | 0.000 |
| | U | 238 | 10.000 | ug/L | 0.670 | 185307 | 0.570 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Thursday, February 25, 2010 10:10:46

# ICPMS#6 - Summary Report

**Sample ID: Standard 2**
**Sample Date/Time: Thursday, February 25, 2010 10:14:08**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\Standard 2.211**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 99.988 | ug/L | 0.399 | 216618 | 0.131 |
| | Be | 9 | 100.004 | ug/L | 1.148 | 55721 | 0.034 |
| | B | 11 | 200.033 | ug/L | 3.519 | 121868 | 0.073 |
| | Na | 23 | 9997.812 | ug/L | 3.949 | 47758975 | 28.795 |
| | Mg | 24 | 10001.923 | ug/L | 6.204 | 33822275 | 20.396 |
| | Al | 27 | 10001.453 | ug/L | 6.281 | 50192404 | 30.261 |
| | P | 31 | 9998.845 | ug/L | 1.460 | 2728117 | 1.642 |
| | K | 39 | 10001.403 | ug/L | 3.065 | 55802182 | 33.386 |
| | Ca | 43 | 10001.099 | ug/L | 0.457 | 128863 | 0.078 |
| > | Sc | 45 | | ug/L | | 1657337 | 1657337.011 |
| | V | 51 | 99.996 | ug/L | 1.348 | 663533 | 0.390 |
| | Cr | 52 | 99.987 | ug/L | 0.927 | 546400 | 0.326 |
| | Cr | 53 | | ug/L | | 174509 | 0.035 |
| | Mn | 55 | 99.979 | ug/L | 0.717 | 788949 | 0.475 |
| | Fe | 57 | 9994.487 | ug/L | 0.809 | 1485361 | 0.893 |
| | Co | 59 | 99.973 | ug/L | 0.734 | 562421 | 0.339 |
| | Ni | 60 | 99.974 | ug/L | 0.837 | 118395 | 0.071 |
| | Cu | 63 | | ug/L | | 279469 | 0.168 |
| | Cu | 65 | 99.957 | ug/L | 0.622 | 140126 | 0.084 |
| | Zn | 66 | 99.994 | ug/L | 0.597 | 92572 | 0.248 |
| | Zn | 67 | | ug/L | | 33242 | 0.040 |
| | Zn | 68 | | ug/L | | 70709 | 0.187 |
| > | Ge | 74 | | ug/L | | 371273 | 371272.659 |
| | As | 75 | 100.073 | ug/L | 1.322 | 102388 | 0.273 |
| | Se | 77 | | ug/L | | 13658 | 0.022 |
| | Se | 82 | 100.012 | ug/L | 1.511 | 9479 | 0.026 |
| | Kr | 83 | | ug/L | | 100 | 0.000 |
| | Sr | 88 | 99.989 | ug/L | 0.387 | 1145060 | 5.356 |
| | Y | 89 | | ug/L | | 182 | 0.001 |
| | Ag | 107 | 99.988 | ug/L | 0.633 | 467885 | 2.189 |
| | Cd | 111 | 100.006 | ug/L | 0.558 | 116013 | 0.543 |
| | Cd | 114 | | ug/L | | 263679 | 1.233 |
| > | In | 115 | | ug/L | | 213712 | 213711.837 |
| | Sn | 120 | 100.017 | ug/L | 1.027 | 472565 | 2.209 |
| | Sb | 121 | 100.054 | ug/L | 1.491 | 407108 | 1.902 |
| | Sb | 123 | | ug/L | | 314709 | 1.471 |
| | Ba | 135 | | ug/L | | 116615 | 0.375 |
| | Ba | 137 | 100.040 | ug/L | 0.367 | 204487 | 0.657 |
| | Ho | 165 | | ug/L | | 14 | 0.000 |
| > | Lu | 175 | | ug/L | | 310935 | 310935.362 |
| | Tl | 205 | 99.982 | ug/L | 1.044 | 924555 | 2.972 |
| | Pb | 208 | 100.006 | ug/L | 0.835 | 1638259 | 5.249 |
| | Bi | 209 | | ug/L | | 177 | 0.000 |
| | U | 238 | 99.924 | ug/L | 0.834 | 1647428 | 5.296 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 1**
**Sample Date/Time: Thursday, February 25, 2010 10:20:00**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtlmozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 1.212**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **51.261** | **ug/L** | 0.966 | 113750 | 0.067 |
| | Be | 9 | **51.260** | **ug/L** | 1.082 | 29245 | 0.017 |
| | B | 11 | **107.398** | **ug/L** | 2.518 | 67298 | 0.039 |
| | Na | 23 | **4709.164** | **ug/L** | 4.698 | 23050339 | 13.563 |
| | Mg | 24 | **4770.601** | **ug/L** | 5.246 | 16519477 | 9.728 |
| | Al | 27 | **5134.102** | **ug/L** | 2.851 | 26380991 | 15.534 |
| | P | 31 | **4844.335** | **ug/L** | 0.915 | 1356931 | 0.795 |
| | K | 39 | **4731.357** | **ug/L** | 5.721 | 27281067 | 15.794 |
| | Ca | 43 | **4824.366** | **ug/L** | 0.627 | 63807 | 0.037 |
| > | Sc | 45 | | **ug/L** | | 1696576 | 1696575.996 |
| | V | 51 | **50.563** | **ug/L** | 0.642 | 352146 | 0.197 |
| | Cr | 52 | **51.408** | **ug/L** | 1.332 | 290895 | 0.167 |
| | Cr | 53 | | **ug/L** | | 149638 | 0.018 |
| | Mn | 55 | **52.076** | **ug/L** | 0.279 | 421789 | 0.247 |
| | Fe | 57 | **5041.939** | **ug/L** | 0.677 | 769625 | 0.451 |
| | Co | 59 | **50.093** | **ug/L** | 0.841 | 288577 | 0.170 |
| | Ni | 60 | **51.509** | **ug/L** | 1.024 | 62512 | 0.037 |
| | Cu | 63 | | **ug/L** | | 147457 | 0.087 |
| | Cu | 65 | **51.488** | **ug/L** | 1.459 | 73964 | 0.044 |
| | Zn | 66 | **52.547** | **ug/L** | 0.456 | 49877 | 0.130 |
| | Zn | 67 | | **ug/L** | | 26082 | 0.019 |
| | Zn | 68 | | **ug/L** | | 38026 | 0.096 |
| > | Ge | 74 | | **ug/L** | | 379226 | 379226.496 |
| | As | 75 | **47.600** | **ug/L** | 1.094 | 50346 | 0.130 |
| | Se | 77 | | **ug/L** | | 10259 | 0.012 |
| | Se | 82 | **50.347** | **ug/L** | 0.633 | 4877 | 0.013 |
| | Kr | 83 | | **ug/L** | | 82 | 0.000 |
| | Sr | 88 | **51.159** | **ug/L** | 1.062 | 612373 | 2.740 |
| | Y | 89 | | **ug/L** | | 145 | 0.000 |
| | Ag | 107 | **51.223** | **ug/L** | 0.643 | 250488 | 1.121 |
| | Cd | 111 | **49.877** | **ug/L** | 1.141 | 60471 | 0.271 |
| | Cd | 114 | | **ug/L** | | 137019 | 0.613 |
| > | In | 115 | | **ug/L** | | 223295 | 223295.226 |
| | Sn | 120 | **49.330** | **ug/L** | 1.604 | 243763 | 1.090 |
| | Sb | 121 | **48.522** | **ug/L** | 1.715 | 206627 | 0.923 |
| | Sb | 123 | | **ug/L** | | 160999 | 0.719 |
| | Ba | 135 | | **ug/L** | | 60753 | 0.191 |
| | Ba | 137 | **51.852** | **ug/L** | 0.190 | 108081 | 0.341 |
| | Ho | 165 | | **ug/L** | | 24 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 316938 | 316938.264 |
| | Tl | 205 | **49.939** | **ug/L** | 1.891 | 470880 | 1.485 |
| | Pb | 208 | **52.181** | **ug/L** | 1.090 | 874396 | 2.739 |
| | Bi | 209 | | **ug/L** | | 212 | 0.000 |
| | U | 238 | **55.556** | **ug/L** | 0.591 | 933987 | 2.945 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 102.522 | | | | |
| | Be | 9 | 102.520 | | | | |
| | B | 11 | 107.398 | | | | |
| | Na | 23 | 94.183 | | | | |
| | Mg | 24 | 95.412 | | | | |
| | Al | 27 | 101.665 | | | | |
| | P | 31 | 96.887 | | | | |
| | K | 39 | 94.627 | | | | |
| | Ca | 43 | 96.487 | | | | |
| > | Sc | 45 | | 104.7 | | | |
| | V | 51 | 101.126 | | | | |
| | Cr | 52 | 102.816 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 104.151 | | | | |
| | Fe | 57 | 100.839 | | | | |
| | Co | 59 | 100.187 | | | | |
| | Ni | 60 | 103.018 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 102.977 | | | | |
| | Zn | 66 | 105.094 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 103.8 | | | |
| | As | 75 | 95.200 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 100.694 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 102.318 | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | 102.446 | | | | |
| | Cd | 111 | 99.755 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 103.0 | | | |
| | Sn | 120 | 98.659 | | | | |
| | Sb | 121 | 97.045 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 103.703 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 102.9 | | | |
| | Tl | 205 | 99.879 | | | | |
| | Pb | 208 | 104.362 | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | 111.112 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 1 | U | 238 | ICV is out of limits (+/- 10%) |

# QC Action

QC Action Line: Continue

Sample ID: QC Std 1

Report Date/Time: Thursday, February 25, 2010 10:22:30

# ICPMS#6 - Summary Report

**Sample ID: QC Std 2**
**Sample Date/Time: Thursday, February 25, 2010 10:25:54**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 2.213**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 0.015 | ug/L | 37.717 | 179 | 0.000 |
| | Be | 9 | 0.005 | ug/L | 171.018 | 19 | 0.000 |
| | B | 11 | 3.150 | ug/L | 18.639 | 2687 | 0.001 |
| | Na | 23 | -0.618 | ug/L | 230.143 | 38720 | -0.002 |
| | Mg | 24 | -0.388 | ug/L | 137.132 | 17010 | -0.001 |
| | Al | 27 | -0.133 | ug/L | 633.930 | 29030 | -0.000 |
| | P | 31 | -1.269 | ug/L | 55.927 | 7405 | -0.000 |
| | K | 39 | -4.569 | ug/L | 50.077 | 458924 | -0.015 |
| | Ca | 43 | -0.266 | ug/L | 986.427 | 334 | -0.000 |
| > | Sc | 45 | | ug/L | | 1716811 | 1716811.196 |
| | V | 51 | 0.841 | ug/L | 63.131 | 23412 | 0.003 |
| | Cr | 52 | 0.331 | ug/L | 16.184 | 8775 | 0.001 |
| | Cr | 53 | | ug/L | | 125069 | 0.002 |
| | Mn | 55 | -0.019 | ug/L | 40.133 | 2203 | -0.000 |
| | Fe | 57 | 2.286 | ug/L | 84.635 | 5581 | 0.000 |
| | Co | 59 | 0.006 | ug/L | 83.591 | 219 | 0.000 |
| | Ni | 60 | -0.010 | ug/L | 27.786 | 133 | -0.000 |
| | Cu | 63 | | ug/L | | 289 | -0.000 |
| | Cu | 65 | 0.010 | ug/L | 144.547 | 176 | 0.000 |
| | Zn | 66 | -0.018 | ug/L | 118.490 | 388 | -0.000 |
| | Zn | 67 | | ug/L | | 18201 | -0.002 |
| | Zn | 68 | | ug/L | | 1429 | -0.000 |
| > | Ge | 74 | | ug/L | | 383941 | 383940.749 |
| | As | 75 | -0.289 | ug/L | 54.350 | 868 | -0.001 |
| | Se | 77 | | ug/L | | 6753 | 0.002 |
| | Se | 82 | -0.007 | ug/L | 1831.627 | 6 | -0.000 |
| | Kr | 83 | | ug/L | | 80 | -0.000 |
| | Sr | 88 | 0.003 | ug/L | 54.273 | 567 | 0.000 |
| | Y | 89 | | ug/L | | 54 | -0.000 |
| | Ag | 107 | 0.008 | ug/L | 36.419 | 146 | 0.000 |
| | Cd | 111 | 0.010 | ug/L | 26.559 | 44 | 0.000 |
| | Cd | 114 | | ug/L | | 88 | -0.000 |
| > | In | 115 | | ug/L | | 226588 | 226587.586 |
| | Sn | 120 | 0.066 | ug/L | 22.272 | 787 | 0.001 |
| | Sb | 121 | 0.497 | ug/L | 20.445 | 2793 | 0.009 |
| | Sb | 123 | | ug/L | | 2215 | 0.008 |
| | Ba | 135 | | ug/L | | 60 | -0.000 |
| | Ba | 137 | 0.003 | ug/L | 32.388 | 109 | 0.000 |
| | Ho | 165 | | ug/L | | 13 | 0.000 |
| > | Lu | 175 | | ug/L | | 323734 | 323734.011 |
| | Tl | 205 | 0.054 | ug/L | 28.533 | 925 | 0.002 |
| | Pb | 208 | -0.125 | ug/L | 4.263 | 4506 | -0.007 |
| | Bi | 209 | | ug/L | | 50 | -0.000 |
| | U | 238 | 0.012 | ug/L | 32.616 | 1010 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | 106.0 | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | 105.1 | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | 104.6 | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | 105.1 | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Thursday, February 25, 2010 10:28:26

# ICPMS#6 - Summary Report

**Sample ID: QC Std 3**
**Sample Date/Time: Thursday, February 25, 2010 10:31:49**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 3.214**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **11.853** | **ug/L** | 1.370 | 26356 | 0.015 |
| | Be | 9 | **0.511** | **ug/L** | 1.925 | 307 | 0.000 |
| | B | 11 | **17.845** | **ug/L** | 1.434 | 11744 | 0.007 |
| | Na | 23 | **278.599** | **ug/L** | 8.283 | 1399631 | 0.802 |
| | Mg | 24 | **14.017** | **ug/L** | 10.137 | 66488 | 0.029 |
| | Al | 27 | **29.319** | **ug/L** | 3.164 | 179454 | 0.089 |
| | P | 31 | **53.201** | **ug/L** | 0.618 | 22439 | 0.009 |
| | K | 39 | **287.081** | **ug/L** | 4.533 | 2100886 | 0.958 |
| | Ca | 43 | **223.999** | **ug/L** | 1.822 | 3274 | 0.002 |
| > | Sc | 45 | | **ug/L** | | 1692833 | 1692833.138 |
| | V | 51 | **11.972** | **ug/L** | 2.320 | 96591 | 0.047 |
| | Cr | 52 | **11.781** | **ug/L** | 1.273 | 71785 | 0.038 |
| | Cr | 53 | | **ug/L** | | 132583 | 0.008 |
| | Mn | 55 | **5.962** | **ug/L** | 0.470 | 50240 | 0.028 |
| | Fe | 57 | **115.222** | **ug/L** | 2.583 | 22589 | 0.010 |
| | Co | 59 | **1.154** | **ug/L** | 0.566 | 6815 | 0.004 |
| | Ni | 60 | **2.346** | **ug/L** | 1.294 | 2977 | 0.002 |
| | Cu | 63 | | **ug/L** | | 3914 | 0.002 |
| | Cu | 65 | **1.288** | **ug/L** | 3.752 | 2001 | 0.001 |
| | Zn | 66 | **11.869** | **ug/L** | 1.480 | 11728 | 0.029 |
| | Zn | 67 | | **ug/L** | | 20187 | 0.003 |
| | Zn | 68 | | **ug/L** | | 9555 | 0.021 |
| > | Ge | 74 | | **ug/L** | | 384225 | 384224.671 |
| | As | 75 | **5.436** | **ug/L** | 11.082 | 6861 | 0.015 |
| | Se | 77 | | **ug/L** | | 7057 | 0.003 |
| | Se | 82 | **5.666** | **ug/L** | 2.878 | 562 | 0.001 |
| | Kr | 83 | | **ug/L** | | 75 | -0.000 |
| | Sr | 88 | **11.549** | **ug/L** | 1.512 | 141469 | 0.619 |
| | Y | 89 | | **ug/L** | | 60 | -0.000 |
| | Ag | 107 | **1.006** | **ug/L** | 1.655 | 5125 | 0.022 |
| | Cd | 111 | **1.138** | **ug/L** | 1.747 | 1438 | 0.006 |
| | Cd | 114 | | **ug/L** | | 3192 | 0.014 |
| > | In | 115 | | **ug/L** | | 227860 | 227859.854 |
| | Sn | 120 | **5.270** | **ug/L** | 1.192 | 26985 | 0.116 |
| | Sb | 121 | **3.035** | **ug/L** | 1.035 | 13800 | 0.058 |
| | Sb | 123 | | **ug/L** | | 10750 | 0.045 |
| | Ba | 135 | | **ug/L** | | 2663 | 0.008 |
| | Ba | 137 | **2.120** | **ug/L** | 4.236 | 4599 | 0.014 |
| | Ho | 165 | | **ug/L** | | 11 | -0.000 |
| > | Lu | 175 | | **ug/L** | | 322948 | 322947.620 |
| | Tl | 205 | **1.102** | **ug/L** | 6.342 | 10981 | 0.033 |
| | Pb | 208 | **2.050** | **ug/L** | 3.019 | 41339 | 0.108 |
| | Bi | 209 | | **ug/L** | | 59 | -0.000 |
| | U | 238 | **0.228** | **ug/L** | 2.257 | 4702 | 0.012 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

Sample ID: QC Std 3

Report Date/Time: Thursday, February 25, 2010 10:34:19

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 118.527 | | | | |
| | Be | 9 | 102.287 | | | | |
| | B | 11 | 118.964 | | | | |
| | Na | 23 | 111.439 | | | | |
| | Mg | 24 | 93.445 | | | | |
| | Al | 27 | 97.730 | | | | |
| | P | 31 | 106.402 | | | | |
| | K | 39 | 95.694 | | | | |
| | Ca | 43 | 112.000 | | | | |
| > | Sc | 45 | | 104.5 | | | |
| | V | 51 | 119.722 | | | | |
| | Cr | 52 | 117.806 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 119.232 | | | | |
| | Fe | 57 | 115.222 | | | | |
| | Co | 59 | 115.429 | | | | |
| | Ni | 60 | 117.307 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 128.823 | | | | |
| | Zn | 66 | 118.686 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 105.2 | | | |
| | As | 75 | 108.722 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 113.319 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 115.487 | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | 100.649 | | | | |
| | Cd | 111 | 113.758 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 105.1 | | | |
| | Sn | 120 | 105.390 | | | | |
| | Sb | 121 | 101.152 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 106.017 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 104.9 | | | |
| | Tl | 205 | 110.182 | | | | |
| | Pb | 208 | 102.484 | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | 113.804 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Thursday, February 25, 2010 10:34:19

# ICPMS#6 - Summary Report

**Sample ID: QC Std 4**
**Sample Date/Time: Thursday, February 25, 2010 10:37:43**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 noirs thtlmozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 4.215**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **0.089** | ug/L | 26.450 | 290 | 0.000 |
| | Be | 9 | **0.094** | ug/L | 7.958 | 59 | 0.000 |
| | B | 11 | **1.526** | ug/L | 9.273 | 1403 | 0.001 |
| | Na | 23 | **94185.556** | ug/L | 1.041 | 391358270 | 271.268 |
| | Mg | 24 | **92733.800** | ug/L | 0.517 | 272810123 | 189.101 |
| | Al | 27 | **93944.370** | ug/L | 4.508 | 410104490 | 284.244 |
| | P | 31 | **91552.286** | ug/L | 0.372 | 21689040 | 15.030 |
| | K | 39 | **89159.650** | ug/L | 1.777 | 429765378 | 297.624 |
| | Ca | 43 | **88770.896** | ug/L | 0.631 | 993369 | 0.688 |
| > | Sc | 45 | | ug/L | | 1442593 | 1442593.451 |
| | V | 51 | **0.917** | ug/L | 28.782 | 20111 | 0.004 |
| | Cr | 52 | **2.578** | ug/L | 1.970 | 17933 | 0.008 |
| | Cr | 53 | | ug/L | | 97586 | -0.003 |
| | Mn | 55 | **5.604** | ug/L | 0.430 | 40363 | 0.027 |
| | Fe | 57 | **89190.394** | ug/L | 0.984 | 11503260 | 7.971 |
| | Co | 59 | **0.426** | ug/L | 4.098 | 2245 | 0.001 |
| | Ni | 60 | **4.182** | ug/L | 1.294 | 4428 | 0.003 |
| | Cu | 63 | | ug/L | | 6942 | 0.005 |
| | Cu | 65 | **4.438** | ug/L | 0.555 | 5545 | 0.004 |
| | Zn | 66 | **5.434** | ug/L | 0.331 | 4669 | 0.013 |
| | Zn | 67 | | ug/L | | 15854 | -0.000 |
| | Zn | 68 | | ug/L | | 1807 | 0.002 |
| > | Ge | 74 | | ug/L | | 321008 | 321008.438 |
| | As | 75 | **-0.183** | ug/L | 321.416 | 819 | -0.000 |
| | Se | 77 | | ug/L | | 7747 | 0.009 |
| | Se | 82 | **-2.273** | ug/L | 10.306 | -181 | -0.001 |
| | Kr | 83 | | ug/L | | 301 | 0.001 |
| | Sr | 88 | **2.865** | ug/L | 0.789 | 29652 | 0.153 |
| | Y | 89 | | ug/L | | 415 | 0.002 |
| | Ag | 107 | **0.132** | ug/L | 4.893 | 637 | 0.003 |
| | Cd | 111 | **0.468** | ug/L | 23.089 | 509 | 0.003 |
| | Cd | 114 | | ug/L | | 9769 | 0.051 |
| > | In | 115 | | ug/L | | 190349 | 190348.867 |
| | Sn | 120 | **0.263** | ug/L | 9.217 | 1493 | 0.006 |
| | Sb | 121 | **0.185** | ug/L | 21.513 | 1216 | 0.004 |
| | Sb | 123 | | ug/L | | 910 | 0.003 |
| | Ba | 135 | | ug/L | | 789 | 0.003 |
| | Ba | 137 | **0.692** | ug/L | 1.481 | 1359 | 0.005 |
| | Ho | 165 | | ug/L | | 5309 | 0.019 |
| > | Lu | 175 | | ug/L | | 279495 | 279494.598 |
| | Tl | 205 | **0.003** | ug/L | 23.030 | 375 | 0.000 |
| | Pb | 208 | **-0.023** | ug/L | 18.707 | 5384 | -0.001 |
| | Bi | 209 | | ug/L | | 2265 | 0.008 |
| | U | 238 | **-0.041** | ug/L | 2.105 | 89 | -0.002 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

Sample ID: QC Std 4
Report Date/Time: Thursday, February 25, 2010 10:40:13

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | 94.186 | | | | |
| | Mg | 24 | 92.734 | | | | |
| | Al | 27 | 93.944 | | | | |
| | P | 31 | 91.552 | | | | |
| | K | 39 | 89.160 | | | | |
| | Ca | 43 | 88.771 | | | | |
| > | Sc | 45 | | 89.0 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | 78.125 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 96.618 | | | | |
| | Fe | 57 | 89.190 | | | | |
| | Co | 59 | 181.461 | | | | |
| | Ni | 60 | 126.357 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 132.883 | | | | |
| | Zn | 66 | 144.509 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 87.9 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 96.794 | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | 105.415 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 87.8 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 86.696 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 90.8 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | -12.060 | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Thursday, February 25, 2010 10:40:13

# ICPMS#6 - Summary Report

**Sample ID: QC Std 5**
**Sample Date/Time: Thursday, February 25, 2010 10:43:37**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 5.216**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **19.531** | **ug/L** | 0.288 | 36360 | 0.026 |
| | Be | 9 | **19.009** | **ug/L** | 0.457 | 9088 | 0.006 |
| | B | 11 | **19.512** | **ug/L** | 1.782 | 10719 | 0.007 |
| | Na | 23 | **94605.705** | **ug/L** | 2.442 | 387046696 | 272.478 |
| | Mg | 24 | **92351.292** | **ug/L** | 2.382 | 267487836 | 188.321 |
| | Al | 27 | **94978.525** | **ug/L** | 2.758 | 408220133 | 287.373 |
| | P | 31 | **90987.776** | **ug/L** | 1.084 | 21223226 | 14.938 |
| | K | 39 | **89132.634** | **ug/L** | 2.368 | 423033686 | 297.533 |
| | Ca | 43 | **88059.509** | **ug/L** | 0.545 | 970221 | 0.683 |
| > | Sc | 45 | | **ug/L** | | 1420373 | 1420373.138 |
| | V | 51 | **21.308** | **ug/L** | 1.019 | 132760 | 0.083 |
| | Cr | 52 | **22.391** | **ug/L** | 1.130 | 109310 | 0.073 |
| | Cr | 53 | | **ug/L** | | 103058 | 0.002 |
| | Mn | 55 | **25.785** | **ug/L** | 0.477 | 175832 | 0.122 |
| | Fe | 57 | **89590.855** | **ug/L** | 0.746 | 11376732 | 8.007 |
| | Co | 59 | **19.796** | **ug/L** | 0.091 | 95568 | 0.067 |
| | Ni | 60 | **22.833** | **ug/L** | 0.343 | 23267 | 0.016 |
| | Cu | 63 | | **ug/L** | | 50444 | 0.035 |
| | Cu | 65 | **22.690** | **ug/L** | 1.010 | 27364 | 0.019 |
| | Zn | 66 | **23.736** | **ug/L** | 0.338 | 19127 | 0.059 |
| | Zn | 67 | | **ug/L** | | 18127 | 0.007 |
| | Zn | 68 | | **ug/L** | | 12827 | 0.036 |
| > | Ge | 74 | | **ug/L** | | 318822 | 318821.910 |
| | As | 75 | **21.003** | **ug/L** | 1.472 | 19222 | 0.057 |
| | Se | 77 | | **ug/L** | | 8491 | 0.011 |
| | Se | 82 | **18.777** | **ug/L** | 5.405 | 1533 | 0.005 |
| | Kr | 83 | | **ug/L** | | 301 | 0.001 |
| | Sr | 88 | **23.584** | **ug/L** | 0.904 | 236805 | 1.263 |
| | Y | 89 | | **ug/L** | | 398 | 0.002 |
| | Ag | 107 | **19.493** | **ug/L** | 0.431 | 79936 | 0.427 |
| | Cd | 111 | **19.784** | **ug/L** | 1.219 | 20116 | 0.107 |
| | Cd | 114 | | **ug/L** | | 53437 | 0.285 |
| > | In | 115 | | **ug/L** | | 187126 | 187126.378 |
| | Sn | 120 | **20.181** | **ug/L** | 1.121 | 83796 | 0.446 |
| | Sb | 121 | **20.753** | **ug/L** | 0.380 | 74370 | 0.395 |
| | Sb | 123 | | **ug/L** | | 58180 | 0.309 |
| | Ba | 135 | | **ug/L** | | 21488 | 0.076 |
| | Ba | 137 | **20.505** | **ug/L** | 0.840 | 38036 | 0.135 |
| | Ho | 165 | | **ug/L** | | 5256 | 0.019 |
| > | Lu | 175 | | **ug/L** | | 281656 | 281655.671 |
| | Tl | 205 | **19.226** | **ug/L** | 1.844 | 161326 | 0.572 |
| | Pb | 208 | **19.733** | **ug/L** | 0.991 | 297449 | 1.036 |
| | Bi | 209 | | **ug/L** | | 2466 | 0.009 |
| | U | 238 | **22.463** | **ug/L** | 1.194 | 336012 | 1.191 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

Sample ID: QC Std 5

Report Date/Time: Thursday, February 25, 2010 10:46:08

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 97.655 | | | | |
| | Be | 9 | 95.043 | | | | |
| | B | 11 | 97.558 | | | | |
| | Na | 23 | 94.606 | | | | |
| | Mg | 24 | 92.351 | | | | |
| | Al | 27 | 94.979 | | | | |
| | P | 31 | 90.988 | | | | |
| | K | 39 | 89.133 | | | | |
| | Ca | 43 | 88.060 | | | | |
| > | Sc | 45 | | 87.7 | | | |
| | V | 51 | 106.541 | | | | |
| | Cr | 52 | 96.097 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 99.942 | | | | |
| | Fe | 57 | 89.591 | | | | |
| | Co | 59 | 97.757 | | | | |
| | Ni | 60 | 97.956 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 99.085 | | | | |
| | Zn | 66 | 99.899 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 87.3 | | | |
| | As | 75 | 105.013 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 93.883 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 102.720 | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | 97.465 | | | | |
| | Cd | 111 | 96.773 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 86.3 | | | |
| | Sn | 120 | 100.906 | | | | |
| | Sb | 121 | 103.766 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 99.201 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 91.5 | | | |
| | Tl | 205 | 96.130 | | | | |
| | Pb | 208 | 97.689 | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | 112.313 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Thursday, February 25, 2010 10:46:08

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 10:49:30**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 6.217**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **52.575** | **ug/L** | 1.259 | 109454 | 0.069 |
| | Be | 9 | **51.864** | **ug/L** | 0.811 | 27761 | 0.017 |
| | B | 11 | **103.511** | **ug/L** | 2.970 | 60882 | 0.038 |
| | Na | 23 | **5091.516** | **ug/L** | 6.137 | 23381998 | 14.664 |
| | Mg | 24 | **4765.869** | **ug/L** | 3.705 | 15486674 | 9.718 |
| | Al | 27 | **4902.298** | **ug/L** | 9.742 | 23640108 | 14.833 |
| | P | 31 | **4839.633** | **ug/L** | 0.419 | 1271837 | 0.795 |
| | K | 39 | **4683.215** | **ug/L** | 4.471 | 25332419 | 15.633 |
| | Ca | 43 | **4889.997** | **ug/L** | 1.082 | 60673 | 0.038 |
| > | Sc | 45 | | **ug/L** | | 1591683 | 1591683.285 |
| | V | 51 | **51.338** | **ug/L** | 0.878 | 335192 | 0.200 |
| | Cr | 52 | **51.620** | **ug/L** | 1.477 | 274019 | 0.168 |
| | Cr | 53 | | **ug/L** | | 141182 | 0.018 |
| | Mn | 55 | **52.622** | **ug/L** | 0.590 | 399837 | 0.250 |
| | Fe | 57 | **5104.689** | **ug/L** | 0.846 | 730986 | 0.456 |
| | Co | 59 | **50.750** | **ug/L** | 0.371 | 274286 | 0.172 |
| | Ni | 60 | **52.092** | **ug/L** | 0.488 | 59312 | 0.037 |
| | Cu | 63 | | **ug/L** | | 139196 | 0.087 |
| | Cu | 65 | **51.734** | **ug/L** | 0.740 | 69726 | 0.044 |
| | Zn | 66 | **51.222** | **ug/L** | 0.556 | 47116 | 0.127 |
| | Zn | 67 | | **ug/L** | | 24807 | 0.018 |
| | Zn | 68 | | **ug/L** | | 36239 | 0.095 |
| > | Ge | 74 | | **ug/L** | | 367418 | 367417.666 |
| | As | 75 | **46.792** | **ug/L** | 1.315 | 47974 | 0.128 |
| | Se | 77 | | **ug/L** | | 9718 | 0.011 |
| | Se | 82 | **50.960** | **ug/L** | 0.690 | 4783 | 0.013 |
| | Kr | 83 | | **ug/L** | | 73 | -0.000 |
| | Sr | 88 | **51.223** | **ug/L** | 1.268 | 593815 | 2.744 |
| | Y | 89 | | **ug/L** | | 126 | 0.000 |
| | Ag | 107 | **51.067** | **ug/L** | 0.592 | 241859 | 1.118 |
| | Cd | 111 | **50.343** | **ug/L** | 1.359 | 59111 | 0.273 |
| | Cd | 114 | | **ug/L** | | 133910 | 0.619 |
| > | In | 115 | | **ug/L** | | 216265 | 216265.207 |
| | Sn | 120 | **49.514** | **ug/L** | 0.157 | 236976 | 1.094 |
| | Sb | 121 | **48.339** | **ug/L** | 2.144 | 199360 | 0.919 |
| | Sb | 123 | | **ug/L** | | 156619 | 0.722 |
| | Ba | 135 | | **ug/L** | | 59342 | 0.190 |
| | Ba | 137 | **51.038** | **ug/L** | 1.676 | 104998 | 0.335 |
| | Ho | 165 | | **ug/L** | | 28 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 312796 | 312796.469 |
| | Tl | 205 | **50.140** | **ug/L** | 0.350 | 466656 | 1.491 |
| | Pb | 208 | **52.054** | **ug/L** | 0.559 | 860956 | 2.732 |
| | Bi | 209 | | **ug/L** | | 210 | 0.000 |
| | U | 238 | **55.886** | **ug/L** | 0.309 | 927284 | 2.962 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

Sample ID: QC Std 6

Report Date/Time: Thursday, February 25, 2010 10:52:00

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 105.150 | | | | |
| | Be | 9 | 103.727 | | | | |
| | B | 11 | 103.511 | | | | |
| | Na | 23 | 101.830 | | | | |
| | Mg | 24 | 95.317 | | | | |
| | Al | 27 | 97.075 | | | | |
| | P | 31 | 96.793 | | | | |
| | K | 39 | 93.664 | | | | |
| | Ca | 43 | 97.800 | | | | |
| > | Sc | 45 | | 98.2 | | | |
| | V | 51 | 102.676 | | | | |
| | Cr | 52 | 103.239 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 105.244 | | | | |
| | Fe | 57 | 102.094 | | | | |
| | Co | 59 | 101.499 | | | | |
| | Ni | 60 | 104.184 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 103.468 | | | | |
| | Zn | 66 | 102.443 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 100.6 | | | |
| | As | 75 | 93.584 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 101.919 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 102.446 | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | 102.134 | | | | |
| | Cd | 111 | 100.687 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 99.8 | | | |
| | Sn | 120 | 99.027 | | | | |
| | Sb | 121 | 96.679 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 102.075 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 101.6 | | | |
| | Tl | 205 | 100.280 | | | | |
| | Pb | 208 | 104.108 | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | 111.772 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 6 | U | 238 | CCV is out of limits (+/- 10%) |

# QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 10:55:25**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 7.218**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **0.054** | **ug/L** | 0.620 | 255 | 0.000 |
| | Be | 9 | **0.011** | **ug/L** | 79.657 | 22 | 0.000 |
| | B | 11 | **2.167** | **ug/L** | 20.184 | 1983 | 0.001 |
| | Na | 23 | **4.272** | **ug/L** | 26.128 | 60127 | 0.012 |
| | Mg | 24 | **0.024** | **ug/L** | 4534.680 | 17678 | 0.000 |
| | Al | 27 | **0.936** | **ug/L** | 63.487 | 33038 | 0.003 |
| | P | 31 | **0.795** | **ug/L** | 131.477 | 7641 | 0.000 |
| | K | 39 | **-1.613** | **ug/L** | 585.054 | 455552 | -0.005 |
| | Ca | 43 | **1.137** | **ug/L** | 193.763 | 337 | 0.000 |
| > | Sc | 45 | | **ug/L** | | 1642236 | 1642235.866 |
| | V | 51 | **0.663** | **ug/L** | 62.643 | 21257 | 0.003 |
| | Cr | 52 | **-0.020** | **ug/L** | 242.538 | 6519 | -0.000 |
| | Cr | 53 | | **ug/L** | | 118029 | 0.001 |
| | Mn | 55 | **-0.027** | **ug/L** | 13.638 | 2042 | -0.000 |
| | Fe | 57 | **2.147** | **ug/L** | 26.323 | 5320 | 0.000 |
| | Co | 59 | **0.004** | **ug/L** | 96.094 | 199 | 0.000 |
| | Ni | 60 | **0.006** | **ug/L** | 153.420 | 146 | 0.000 |
| | Cu | 63 | | **ug/L** | | 299 | 0.000 |
| | Cu | 65 | **0.019** | **ug/L** | 29.498 | 181 | 0.000 |
| | Zn | 66 | **-0.015** | **ug/L** | 144.335 | 383 | -0.000 |
| | Zn | 67 | | **ug/L** | | 17314 | -0.004 |
| | Zn | 68 | | **ug/L** | | 1357 | -0.000 |
| > | Ge | 74 | | **ug/L** | | 375963 | 375963.207 |
| | As | 75 | **-0.191** | **ug/L** | 215.461 | 953 | -0.001 |
| | Se | 77 | | **ug/L** | | 6542 | 0.002 |
| | Se | 82 | **0.020** | **ug/L** | 346.898 | 8 | 0.000 |
| | Kr | 83 | | **ug/L** | | 69 | -0.000 |
| | Sr | 88 | **0.002** | **ug/L** | 119.591 | 547 | 0.000 |
| | Y | 89 | | **ug/L** | | 60 | -0.000 |
| | Ag | 107 | **0.003** | **ug/L** | 31.621 | 119 | 0.000 |
| | Cd | 111 | **0.013** | **ug/L** | 67.076 | 46 | 0.000 |
| | Cd | 114 | | **ug/L** | | 87 | -0.000 |
| > | In | 115 | | **ug/L** | | 223901 | 223901.134 |
| | Sn | 120 | **0.041** | **ug/L** | 36.626 | 654 | 0.001 |
| | Sb | 121 | **0.286** | **ug/L** | 27.495 | 1859 | 0.005 |
| | Sb | 123 | | **ug/L** | | 1501 | 0.004 |
| | Ba | 135 | | **ug/L** | | 56 | -0.000 |
| | Ba | 137 | **-0.005** | **ug/L** | 128.904 | 92 | -0.000 |
| | Ho | 165 | | **ug/L** | | 11 | -0.000 |
| > | Lu | 175 | | **ug/L** | | 325080 | 325080.457 |
| | Tl | 205 | **0.053** | **ug/L** | 31.477 | 920 | 0.002 |
| | Pb | 208 | **-0.151** | **ug/L** | 1.192 | 4074 | -0.008 |
| | Bi | 209 | | **ug/L** | | 50 | -0.000 |
| | U | 238 | **0.010** | **ug/L** | 34.892 | 987 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 101.4 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 102.9 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 103.3 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 105.6 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 25, 2010 10:57:56

# ICPMS#6 - Summary Report

**Sample ID: 1202032600**
**Sample Date/Time: Thursday, February 25, 2010 11:01:18**
**Sample Type:**
**Sample Description: LANL 6020 MB**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032600.219**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 0.013 | ug/L | 52.977 | 167 | 0.000 |
| | Be | 9 | 0.092 | ug/L | 10.679 | 66 | 0.000 |
| | B | 11 | 0.799 | ug/L | 4.745 | 1155 | 0.000 |
| | Na | 23 | 5.610 | ug/L | 23.009 | 66154 | 0.016 |
| | Mg | 24 | 3.362 | ug/L | 44.475 | 28696 | 0.007 |
| | Al | 27 | 24.373 | ug/L | 13.540 | 148776 | 0.074 |
| | P | 31 | 21.288 | ug/L | 8.321 | 13103 | 0.003 |
| | K | 39 | -0.929 | ug/L | 442.723 | 456870 | -0.003 |
| | Ca | 43 | 17.138 | ug/L | 4.977 | 539 | 0.000 |
| > | Sc | 45 | | ug/L | | 1634470 | 1634470.048 |
| | V | 51 | 0.269 | ug/L | 81.410 | 18652 | 0.001 |
| | Cr | 52 | 0.385 | ug/L | 9.188 | 8644 | 0.001 |
| | Cr | 53 | | ug/L | | 85364 | -0.018 |
| | Mn | 55 | 1.033 | ug/L | 3.239 | 10265 | 0.005 |
| | Fe | 57 | 51.763 | ug/L | 1.353 | 12542 | 0.005 |
| | Co | 59 | 0.139 | ug/L | 4.793 | 947 | 0.000 |
| | Ni | 60 | 0.305 | ug/L | 1.399 | 493 | 0.000 |
| | Cu | 63 | | ug/L | | 1420 | 0.001 |
| | Cu | 65 | 0.459 | ug/L | 2.509 | 737 | 0.000 |
| | Zn | 66 | 2.022 | ug/L | 2.420 | 2249 | 0.005 |
| | Zn | 67 | | ug/L | | 12108 | -0.017 |
| | Zn | 68 | | ug/L | | 2494 | 0.003 |
| > | Ge | 74 | | ug/L | | 370167 | 370166.749 |
| | As | 75 | -0.599 | ug/L | 23.915 | 526 | -0.002 |
| | Se | 77 | | ug/L | | 4419 | -0.003 |
| | Se | 82 | 0.333 | ug/L | 23.427 | 38 | 0.000 |
| | Kr | 83 | | ug/L | | 60 | -0.000 |
| | Sr | 88 | 0.418 | ug/L | 0.738 | 5623 | 0.022 |
| | Y | 89 | | ug/L | | 245 | 0.001 |
| | Ag | 107 | 0.032 | ug/L | 1.884 | 265 | 0.001 |
| | Cd | 111 | 0.066 | ug/L | 6.298 | 113 | 0.000 |
| | Cd | 114 | | ug/L | | 258 | 0.001 |
| > | In | 115 | | ug/L | | 227454 | 227454.187 |
| | Sn | 120 | 1.854 | ug/L | 7.986 | 9772 | 0.041 |
| | Sb | 121 | 0.221 | ug/L | 12.867 | 1608 | 0.004 |
| | Sb | 123 | | ug/L | | 1226 | 0.003 |
| | Ba | 135 | | ug/L | | 920 | 0.003 |
| | Ba | 137 | 0.680 | ug/L | 1.678 | 1620 | 0.004 |
| | Ho | 165 | | ug/L | | 20 | 0.000 |
| > | Lu | 175 | | ug/L | | 338882 | 338881.588 |
| | Tl | 205 | 0.186 | ug/L | 2.632 | 2294 | 0.006 |
| | Pb | 208 | -0.024 | ug/L | 38.603 | 6514 | -0.001 |
| | Bi | 209 | | ug/L | | 117 | 0.000 |
| | U | 238 | -0.034 | ug/L | 6.516 | 228 | -0.002 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 100.9 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 101.3 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 105.0 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 110.0 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032605**
**Sample Date/Time: Thursday, February 25, 2010 11:07:11**
**Sample Type:**
**Sample Description: LANL 6020 LCS**
**Number of Replicates: 3**
**Batch ID: 948759|40|rm|**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032605.220**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **2.626** | **ug/L** | 0.809 | 5793 | 0.003 |
| | Be | 9 | **19.749** | **ug/L** | 2.019 | 10951 | 0.007 |
| | B | 11 | **36.801** | **ug/L** | 3.095 | 22842 | 0.013 |
| | Na | 23 | **275.328** | **ug/L** | 2.561 | 1346648 | 0.793 |
| | Mg | 24 | **965.750** | **ug/L** | 1.680 | 3262047 | 1.969 |
| | Al | 27 | **2979.023** | **ug/L** | 2.269 | 14879457 | 9.014 |
| | P | 31 | **188.594** | **ug/L** | 1.586 | 58461 | 0.031 |
| | K | 39 | **1047.866** | **ug/L** | 3.790 | 6227922 | 3.498 |
| | Ca | 43 | **2412.284** | **ug/L** | 0.417 | 31144 | 0.019 |
| > | Sc | 45 | | **ug/L** | | 1647543 | 1647543.488 |
| | V | 51 | **27.463** | **ug/L** | 2.815 | 193523 | 0.107 |
| | Cr | 52 | **58.106** | **ug/L** | 1.181 | 318437 | 0.189 |
| | Cr | 53 | | **ug/L** | | 146893 | 0.019 |
| | Mn | 55 | **134.322** | **ug/L** | 0.326 | 1052938 | 0.638 |
| | Fe | 57 | **4306.298** | **ug/L** | 0.200 | 639084 | 0.385 |
| | Co | 59 | **23.965** | **ug/L** | 0.945 | 134158 | 0.081 |
| | Ni | 60 | **34.937** | **ug/L** | 1.400 | 41220 | 0.025 |
| | Cu | 63 | | **ug/L** | | 121922 | 0.074 |
| | Cu | 65 | **43.399** | **ug/L** | 0.319 | 60569 | 0.037 |
| | Zn | 66 | **148.665** | **ug/L** | 1.182 | 137999 | 0.369 |
| | Zn | 67 | | **ug/L** | | 38564 | 0.054 |
| | Zn | 68 | | **ug/L** | | 102425 | 0.271 |
| > | Ge | 74 | | **ug/L** | | 372805 | 372805.367 |
| | As | 75 | **25.806** | **ug/L** | 0.893 | 27355 | 0.070 |
| | Se | 77 | | **ug/L** | | 10991 | 0.014 |
| | Se | 82 | **72.570** | **ug/L** | 2.173 | 6908 | 0.019 |
| | Kr | 83 | | **ug/L** | | 74 | -0.000 |
| | Sr | 88 | **55.850** | **ug/L** | 0.879 | 669663 | 2.991 |
| | Y | 89 | | **ug/L** | | 38178 | 0.170 |
| | Ag | 107 | **5.092** | **ug/L** | 0.336 | 25040 | 0.111 |
| | Cd | 111 | **14.545** | **ug/L** | 0.797 | 17687 | 0.079 |
| | Cd | 114 | | **ug/L** | | 41035 | 0.183 |
| > | In | 115 | | **ug/L** | | 223701 | 223701.271 |
| | Sn | 120 | **7.983** | **ug/L** | 0.426 | 39901 | 0.176 |
| | Sb | 121 | **11.637** | **ug/L** | 0.401 | 50135 | 0.221 |
| | Sb | 123 | | **ug/L** | | 39051 | 0.172 |
| | Ba | 135 | | **ug/L** | | 57360 | 0.176 |
| | Ba | 137 | **47.126** | **ug/L** | 1.812 | 101063 | 0.310 |
| | Ho | 165 | | **ug/L** | | 2053 | 0.006 |
| > | Lu | 175 | | **ug/L** | | 326046 | 326046.300 |
| | Tl | 205 | **30.245** | **ug/L** | 0.416 | 293578 | 0.899 |
| | Pb | 208 | **20.992** | **ug/L** | 1.065 | 365887 | 1.102 |
| | Bi | 209 | | **ug/L** | | 2884 | 0.009 |
| | U | 238 | **0.464** | **ug/L** | 2.179 | 8833 | 0.025 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 101.7 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 102.0 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 103.2 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 105.9 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 11:13:03**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 6.221**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **53.222** | **ug/L** | 0.680 | 112697 | 0.070 |
| | Be | 9 | **51.651** | **ug/L** | 1.252 | 28120 | 0.017 |
| | B | 11 | **102.383** | **ug/L** | 2.714 | 61257 | 0.037 |
| | Na | 23 | **5005.690** | **ug/L** | 3.855 | 23381998 | 14.417 |
| | Mg | 24 | **4987.768** | **ug/L** | 5.842 | 16484603 | 10.171 |
| | Al | 27 | **4755.572** | **ug/L** | 4.892 | 23318911 | 14.389 |
| | P | 31 | **4696.742** | **ug/L** | 0.294 | 1255627 | 0.771 |
| | K | 39 | **4636.010** | **ug/L** | 9.835 | 25509569 | 15.475 |
| | Ca | 43 | **4782.084** | **ug/L** | 0.395 | 60355 | 0.037 |
| > | Sc | 45 | | **ug/L** | | 1618932 | 1618932.402 |
| | V | 51 | **50.123** | **ug/L** | 1.099 | 333250 | 0.195 |
| | Cr | 52 | **50.861** | **ug/L** | 0.413 | 274713 | 0.166 |
| | Cr | 53 | | **ug/L** | | 137755 | 0.015 |
| | Mn | 55 | **51.796** | **ug/L** | 0.268 | 400338 | 0.246 |
| | Fe | 57 | **5034.001** | **ug/L** | 1.032 | 733253 | 0.450 |
| | Co | 59 | **50.628** | **ug/L** | 1.074 | 278303 | 0.172 |
| | Ni | 60 | **51.936** | **ug/L** | 0.808 | 60147 | 0.037 |
| | Cu | 63 | | **ug/L** | | 141034 | 0.087 |
| | Cu | 65 | **51.703** | **ug/L** | 0.916 | 70873 | 0.044 |
| | Zn | 66 | **52.885** | **ug/L** | 1.268 | 48152 | 0.131 |
| | Zn | 67 | | **ug/L** | | 24391 | 0.017 |
| | Zn | 68 | | **ug/L** | | 36574 | 0.097 |
| > | Ge | 74 | | **ug/L** | | 363805 | 363805.018 |
| | As | 75 | **48.021** | **ug/L** | 0.681 | 48720 | 0.131 |
| | Se | 77 | | **ug/L** | | 9269 | 0.010 |
| | Se | 82 | **52.033** | **ug/L** | 2.563 | 4835 | 0.013 |
| | Kr | 83 | | **ug/L** | | 72 | -0.000 |
| | Sr | 88 | **51.325** | **ug/L** | 1.255 | 603104 | 2.749 |
| | Y | 89 | | **ug/L** | | 145 | 0.000 |
| | Ag | 107 | **50.249** | **ug/L** | 0.366 | 241233 | 1.100 |
| | Cd | 111 | **50.774** | **ug/L** | 1.608 | 60425 | 0.276 |
| | Cd | 114 | | **ug/L** | | 138152 | 0.630 |
| > | In | 115 | | **ug/L** | | 219209 | 219208.658 |
| | Sn | 120 | **49.335** | **ug/L** | 1.317 | 239310 | 1.090 |
| | Sb | 121 | **49.502** | **ug/L** | 2.866 | 206885 | 0.941 |
| | Sb | 123 | | **ug/L** | | 161351 | 0.734 |
| | Ba | 135 | | **ug/L** | | 58598 | 0.181 |
| | Ba | 137 | **49.008** | **ug/L** | 2.321 | 104479 | 0.322 |
| | Ho | 165 | | **ug/L** | | 28 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 324228 | 324228.156 |
| | Tl | 205 | **48.951** | **ug/L** | 1.764 | 472144 | 1.455 |
| | Pb | 208 | **51.292** | **ug/L** | 1.791 | 879240 | 2.692 |
| | Bi | 209 | | **ug/L** | | 198 | 0.000 |
| | U | 238 | **54.393** | **ug/L** | 1.255 | 935362 | 2.883 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

Sample ID: QC Std 6

Report Date/Time: Thursday, February 25, 2010 11:15:33

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 106.445 | | | | |
| | Be | 9 | 103.303 | | | | |
| | B | 11 | 102.383 | | | | |
| | Na | 23 | 100.114 | | | | |
| | Mg | 24 | 99.755 | | | | |
| | Al | 27 | 94.170 | | | | |
| | P | 31 | 93.935 | | | | |
| | K | 39 | 92.720 | | | | |
| | Ca | 43 | 95.642 | | | | |
| > | Sc | 45 | | 99.9 | | | |
| | V | 51 | 100.247 | | | | |
| | Cr | 52 | 101.722 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 103.592 | | | | |
| | Fe | 57 | 100.680 | | | | |
| | Co | 59 | 101.255 | | | | |
| | Ni | 60 | 103.872 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 103.405 | | | | |
| | Zn | 66 | 105.771 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 99.6 | | | |
| | As | 75 | 96.042 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 104.067 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 102.651 | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | 100.497 | | | | |
| | Cd | 111 | 101.549 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 101.1 | | | |
| | Sn | 120 | 98.670 | | | | |
| | Sb | 121 | 99.004 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 98.016 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 105.3 | | | |
| | Tl | 205 | 97.902 | | | | |
| | Pb | 208 | 102.583 | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | 108.785 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 25, 2010 11:15:33

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 11:18:58**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 7.222**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **0.024** | ug/L | 20.655 | 190 | 0.000 |
| | Be | 9 | **0.016** | ug/L | 52.620 | 24 | 0.000 |
| | B | 11 | **2.244** | ug/L | 26.811 | 2018 | 0.001 |
| | Na | 23 | **1.622** | ug/L | 66.859 | 47413 | 0.005 |
| | Mg | 24 | **-1.347** | ug/L | 45.337 | 13006 | -0.003 |
| | Al | 27 | **0.354** | ug/L | 355.677 | 30032 | 0.001 |
| | P | 31 | **-0.600** | ug/L | 57.134 | 7231 | -0.000 |
| | K | 39 | **-8.307** | ug/L | 76.463 | 416683 | -0.028 |
| | Ca | 43 | **-1.603** | ug/L | 95.153 | 301 | -0.000 |
| > | Sc | 45 | | ug/L | | 1634990 | 1634989.570 |
| | V | 51 | **0.303** | ug/L | 27.737 | 18871 | 0.001 |
| | Cr | 52 | **-0.019** | ug/L | 111.776 | 6494 | -0.000 |
| | Cr | 53 | | ug/L | | 113863 | -0.001 |
| | Mn | 55 | **-0.038** | ug/L | 3.043 | 1950 | -0.000 |
| | Fe | 57 | **-1.225** | ug/L | 33.606 | 4803 | -0.000 |
| | Co | 59 | **0.004** | ug/L | 19.148 | 200 | 0.000 |
| | Ni | 60 | **0.004** | ug/L | 193.319 | 143 | 0.000 |
| | Cu | 63 | | ug/L | | 279 | -0.000 |
| | Cu | 65 | **0.013** | ug/L | 114.570 | 172 | 0.000 |
| | Zn | 66 | **-0.030** | ug/L | 81.044 | 360 | -0.000 |
| | Zn | 67 | | ug/L | | 16802 | -0.004 |
| | Zn | 68 | | ug/L | | 1322 | -0.000 |
| > | Ge | 74 | | ug/L | | 367587 | 367587.221 |
| | As | 75 | **-0.222** | ug/L | 76.750 | 898 | -0.001 |
| | Se | 77 | | ug/L | | 6176 | 0.002 |
| | Se | 82 | **0.136** | ug/L | 52.578 | 19 | 0.000 |
| | Kr | 83 | | ug/L | | 64 | -0.000 |
| | Sr | 88 | **0.003** | ug/L | 17.238 | 565 | 0.000 |
| | Y | 89 | | ug/L | | 56 | -0.000 |
| | Ag | 107 | **0.003** | ug/L | 63.357 | 119 | 0.000 |
| | Cd | 111 | **0.007** | ug/L | 40.796 | 39 | 0.000 |
| | Cd | 114 | | ug/L | | 94 | 0.000 |
| > | In | 115 | | ug/L | | 225602 | 225601.922 |
| | Sn | 120 | **0.041** | ug/L | 10.202 | 660 | 0.001 |
| | Sb | 121 | **0.200** | ug/L | 34.644 | 1507 | 0.004 |
| | Sb | 123 | | ug/L | | 1122 | 0.003 |
| | Ba | 135 | | ug/L | | 59 | -0.000 |
| | Ba | 137 | **-0.000** | ug/L | 20391.731 | 103 | -0.000 |
| | Ho | 165 | | ug/L | | 9 | -0.000 |
| > | Lu | 175 | | ug/L | | 327107 | 327106.557 |
| | Tl | 205 | **0.083** | ug/L | 19.166 | 1217 | 0.002 |
| | Pb | 208 | **-0.138** | ug/L | 5.817 | 4326 | -0.007 |
| | Bi | 209 | | ug/L | | 49 | -0.000 |
| | U | 238 | **0.007** | ug/L | 62.530 | 936 | 0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 100.9 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 100.6 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 104.1 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 106.2 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969001**
**Sample Date/Time: Thursday, February 25, 2010 11:24:53**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969001.223**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **14.943** | ug/L | 0.927 | 32121 | 0.020 |
| | Be | 9 | **1.135** | ug/L | 2.776 | 640 | 0.000 |
| | B | 11 | **1.600** | ug/L | 5.175 | 1638 | 0.001 |
| | Na | 23 | **1163.895** | ug/L | 5.559 | 5531978 | 3.352 |
| | Mg | 24 | **842.134** | ug/L | 8.134 | 2830147 | 1.717 |
| | Al | 27 | **5799.954** | ug/L | 1.996 | 28779262 | 17.549 |
| | P | 31 | **164.843** | ug/L | 0.428 | 51748 | 0.027 |
| | K | 39 | **1621.941** | ug/L | 1.230 | 9333579 | 5.414 |
| | Ca | 43 | **1550.598** | ug/L | 1.804 | 20025 | 0.012 |
| > | Sc | 45 | | ug/L | | 1638417 | 1638417.001 |
| | V | 51 | **6.361** | ug/L | 2.325 | 57627 | 0.025 |
| | Cr | 52 | **8.428** | ug/L | 0.990 | 51586 | 0.027 |
| | Cr | 53 | | ug/L | | 80713 | -0.021 |
| | Mn | 55 | **697.843** | ug/L | 0.584 | 5430557 | 3.313 |
| | Fe | 57 | **17586.342** | ug/L | 0.669 | 2580005 | 1.572 |
| | Co | 59 | **18.462** | ug/L | 0.915 | 102818 | 0.063 |
| | Ni | 60 | **14.662** | ug/L | 0.664 | 17284 | 0.010 |
| | Cu | 63 | | ug/L | | 38228 | 0.023 |
| | Cu | 65 | **14.120** | ug/L | 0.489 | 19702 | 0.012 |
| | Zn | 66 | **70.722** | ug/L | 1.934 | 63962 | 0.176 |
| | Zn | 67 | | ug/L | | 21275 | 0.009 |
| | Zn | 68 | | ug/L | | 48314 | 0.130 |
| > | Ge | 74 | | ug/L | | 362113 | 362112.981 |
| | As | 75 | **4.418** | ug/L | 2.819 | 5464 | 0.012 |
| | Se | 77 | | ug/L | | 4015 | -0.004 |
| | Se | 82 | **0.714** | ug/L | 46.118 | 72 | 0.000 |
| | Kr | 83 | | ug/L | | 173 | 0.000 |
| | Sr | 88 | **6.922** | ug/L | 0.641 | 85583 | 0.371 |
| | Y | 89 | | ug/L | | 1206829 | 5.260 |
| | Ag | 107 | **0.300** | ug/L | 2.872 | 1610 | 0.007 |
| | Cd | 111 | **1.331** | ug/L | 7.123 | 1689 | 0.007 |
| | Cd | 114 | | ug/L | | 108 | 0.000 |
| > | In | 115 | | ug/L | | 229405 | 229404.715 |
| | Sn | 120 | **6.391** | ug/L | 0.561 | 32849 | 0.141 |
| | Sb | 121 | **0.633** | ug/L | 4.041 | 3418 | 0.012 |
| | Sb | 123 | | ug/L | | 2621 | 0.009 |
| | Ba | 135 | | ug/L | | 87709 | 0.250 |
| | Ba | 137 | **67.563** | ug/L | 1.062 | 155571 | 0.444 |
| | Ho | 165 | | ug/L | | 68710 | 0.196 |
| > | Lu | 175 | | ug/L | | 350171 | 350170.979 |
| | Tl | 205 | **0.142** | ug/L | 1.839 | 1921 | 0.004 |
| | Pb | 208 | **56.523** | ug/L | 1.242 | 1045909 | 2.967 |
| | Bi | 209 | | ug/L | | 7511 | 0.021 |
| | U | 238 | **3.093** | ug/L | 1.278 | 58271 | 0.164 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 101.1 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 99.1 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 105.9 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 113.7 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032601**
**Sample Date/Time: Thursday, February 25, 2010 11:30:47**
**Sample Type:**
**Sample Description: LANL 6020 DUP**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032601.224**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **16.975** | ug/L | 1.222 | 36869 | 0.022 |
| | Be | 9 | **1.060** | ug/L | 2.242 | 606 | 0.000 |
| | B | 11 | **1.142** | ug/L | 4.909 | 1378 | 0.000 |
| | Na | 23 | **1228.936** | ug/L | 5.768 | 5902504 | 3.540 |
| | Mg | 24 | **855.023** | ug/L | 1.833 | 2905260 | 1.744 |
| | Al | 27 | **5839.017** | ug/L | 4.107 | 29293178 | 17.667 |
| | P | 31 | **153.245** | ug/L | 0.033 | 49156 | 0.025 |
| | K | 39 | **1720.939** | ug/L | 5.190 | 9984051 | 5.745 |
| | Ca | 43 | **1451.527** | ug/L | 0.961 | 18968 | 0.011 |
| > | Sc | 45 | | ug/L | | 1656210 | 1656209.901 |
| | V | 51 | **6.827** | ug/L | 3.532 | 61263 | 0.027 |
| | Cr | 52 | **8.673** | ug/L | 1.373 | 53468 | 0.028 |
| | Cr | 53 | | ug/L | | 76177 | -0.024 |
| | Mn | 55 | **690.907** | ug/L | 0.549 | 5435118 | 3.280 |
| | Fe | 57 | **15956.185** | ug/L | 1.086 | 2366902 | 1.426 |
| | Co | 59 | **20.654** | ug/L | 0.146 | 116260 | 0.070 |
| | Ni | 60 | **15.022** | ug/L | 1.119 | 17897 | 0.011 |
| | Cu | 63 | | ug/L | | 59449 | 0.036 |
| | Cu | 65 | **21.484** | ug/L | 0.970 | 30219 | 0.018 |
| | Zn | 66 | **78.276** | ug/L | 0.743 | 71039 | 0.194 |
| | Zn | 67 | | ug/L | | 21557 | 0.010 |
| | Zn | 68 | | ug/L | | 53081 | 0.142 |
| > | Ge | 74 | | ug/L | | 363536 | 363536.088 |
| | As | 75 | **4.692** | ug/L | 4.856 | 5757 | 0.013 |
| | Se | 77 | | ug/L | | 3835 | -0.005 |
| | Se | 82 | **0.836** | ug/L | 33.840 | 84 | 0.000 |
| | Kr | 83 | | ug/L | | 182 | 0.000 |
| | Sr | 88 | **7.062** | ug/L | 1.359 | 87017 | 0.378 |
| | Y | 89 | | ug/L | | 1236574 | 5.408 |
| | Ag | 107 | **0.300** | ug/L | 1.927 | 1606 | 0.007 |
| | Cd | 111 | **1.322** | ug/L | 3.004 | 1672 | 0.007 |
| | Cd | 114 | | ug/L | | 82 | -0.000 |
| > | In | 115 | | ug/L | | 228655 | 228655.315 |
| | Sn | 120 | **19.740** | ug/L | 0.851 | 100162 | 0.436 |
| | Sb | 121 | **0.930** | ug/L | 3.113 | 4699 | 0.018 |
| | Sb | 123 | | ug/L | | 3721 | 0.014 |
| | Ba | 135 | | ug/L | | 92515 | 0.259 |
| | Ba | 137 | **69.311** | ug/L | 1.203 | 162445 | 0.455 |
| | Ho | 165 | | ug/L | | 70186 | 0.197 |
| > | Lu | 175 | | ug/L | | 356473 | 356473.272 |
| | Tl | 205 | **0.129** | ug/L | 4.293 | 1813 | 0.004 |
| | Pb | 208 | **127.747** | ug/L | 0.798 | 2397167 | 6.705 |
| | Bi | 209 | | ug/L | | 7416 | 0.021 |
| | U | 238 | **3.896** | ug/L | 2.578 | 74490 | 0.207 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 102.2 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 99.5 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 105.5 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 115.8 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032603**
**Sample Date/Time: Thursday, February 25, 2010 11:36:40**
**Sample Type:**
**Sample Description: LANL 6020 MS**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032603.225**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **53.989** | **ug/L** | 0.574 | 110975 | 0.071 |
| | Be | 9 | **25.387** | **ug/L** | 1.005 | 13425 | 0.009 |
| | B | 11 | **51.009** | **ug/L** | 1.113 | 29955 | 0.019 |
| | Na | 23 | **2461.647** | **ug/L** | 4.499 | 11180554 | 7.090 |
| | Mg | 24 | **2294.724** | **ug/L** | 4.792 | 7371797 | 4.679 |
| | Al | 27 | **9361.245** | **ug/L** | 5.823 | 44539335 | 28.324 |
| | P | 31 | **988.278** | **ug/L** | 0.761 | 262082 | 0.162 |
| | K | 39 | **2995.963** | **ug/L** | 4.209 | 16159382 | 10.001 |
| | Ca | 43 | **3012.247** | **ug/L** | 1.246 | 37019 | 0.023 |
| > | Sc | 45 | | **ug/L** | | 1571581 | 1571580.514 |
| | V | 51 | **33.280** | **ug/L** | 0.471 | 220271 | 0.130 |
| | Cr | 52 | **35.875** | **ug/L** | 0.556 | 189968 | 0.117 |
| | Cr | 53 | | **ug/L** | | 81123 | -0.019 |
| | Mn | 55 | **792.299** | **ug/L** | 0.415 | 5913893 | 3.762 |
| | Fe | 57 | **21422.183** | **ug/L** | 0.697 | 3013628 | 1.914 |
| | Co | 59 | **49.381** | **ug/L** | 0.453 | 263518 | 0.168 |
| | Ni | 60 | **41.508** | **ug/L** | 0.723 | 46691 | 0.030 |
| | Cu | 63 | | **ug/L** | | 117284 | 0.074 |
| | Cu | 65 | **44.567** | **ug/L** | 0.591 | 59326 | 0.038 |
| | Zn | 66 | **123.556** | **ug/L** | 0.309 | 105398 | 0.307 |
| | Zn | 67 | | **ug/L** | | 26422 | 0.028 |
| | Zn | 68 | | **ug/L** | | 78480 | 0.225 |
| > | Ge | 74 | | **ug/L** | | 342373 | 342372.826 |
| | As | 75 | **42.112** | **ug/L** | 0.159 | 40337 | 0.115 |
| | Se | 77 | | **ug/L** | | 3783 | -0.004 |
| | Se | 82 | **10.263** | **ug/L** | 1.138 | 902 | 0.003 |
| | Kr | 83 | | **ug/L** | | 161 | 0.000 |
| | Sr | 88 | **34.810** | **ug/L** | 0.588 | 402940 | 1.864 |
| | Y | 89 | | **ug/L** | | 1322524 | 6.127 |
| | Ag | 107 | **24.988** | **ug/L** | 0.735 | 118170 | 0.547 |
| | Cd | 111 | **6.828** | **ug/L** | 2.131 | 8028 | 0.037 |
| | Cd | 114 | | **ug/L** | | 13161 | 0.061 |
| > | In | 115 | | **ug/L** | | 215849 | 215848.701 |
| | Sn | 120 | **32.135** | **ug/L** | 0.762 | 153652 | 0.710 |
| | Sb | 121 | **79.827** | **ug/L** | 0.847 | 328200 | 1.518 |
| | Sb | 123 | | **ug/L** | | 257139 | 1.189 |
| | Ba | 135 | | **ug/L** | | 124712 | 0.366 |
| | Ba | 137 | **97.889** | **ug/L** | 1.115 | 219070 | 0.643 |
| | Ho | 165 | | **ug/L** | | 76114 | 0.224 |
| > | Lu | 175 | | **ug/L** | | 340467 | 340467.018 |
| | Tl | 205 | **44.841** | **ug/L** | 2.007 | 454215 | 1.333 |
| | Pb | 208 | **204.878** | **ug/L** | 1.516 | 3667328 | 10.753 |
| | Bi | 209 | | **ug/L** | | 7852 | 0.023 |
| | U | 238 | **6915.094** | **ug/L** | 2.116 | 124756743 | 366.506 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | 97.0 | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | 93.7 | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | 99.6 | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | 110.6 | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| | U | 238 | Sample is out of limits (over linear range) |

# QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: 1202032604**
**Sample Date/Time: Thursday, February 25, 2010 11:42:33**
**Sample Type:**
**Sample Description: LANL 6020 MSD**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032604.226**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **47.969** | **ug/L** | 0.326 | 103637 | 0.063 |
| | Be | 9 | **24.272** | **ug/L** | 0.358 | 13489 | 0.008 |
| | B | 11 | **49.951** | **ug/L** | 2.205 | 30841 | 0.018 |
| | Na | 23 | **2278.161** | **ug/L** | 1.396 | 10877397 | 6.561 |
| | Mg | 24 | **2157.201** | **ug/L** | 7.813 | 7283271 | 4.399 |
| | Al | 27 | **8118.811** | **ug/L** | 2.398 | 40599317 | 24.565 |
| | P | 31 | **1004.849** | **ug/L** | 0.851 | 279928 | 0.165 |
| | K | 39 | **2805.406** | **ug/L** | 1.223 | 15932409 | 9.365 |
| | Ca | 43 | **2892.838** | **ug/L** | 1.897 | 37378 | 0.022 |
| > | Sc | 45 | | **ug/L** | | 1651577 | 1651576.639 |
| | V | 51 | **32.446** | **ug/L** | 0.447 | 226115 | 0.127 |
| | Cr | 52 | **35.796** | **ug/L** | 0.098 | 199218 | 0.117 |
| | Cr | 53 | | **ug/L** | | 86350 | -0.018 |
| | Mn | 55 | **823.972** | **ug/L** | 0.850 | 6463247 | 3.912 |
| | Fe | 57 | **26544.242** | **ug/L** | 1.280 | 3922914 | 2.372 |
| | Co | 59 | **42.183** | **ug/L** | 0.545 | 236589 | 0.143 |
| | Ni | 60 | **40.592** | **ug/L** | 1.599 | 47985 | 0.029 |
| | Cu | 63 | | **ug/L** | | 119749 | 0.072 |
| | Cu | 65 | **43.147** | **ug/L** | 1.037 | 60365 | 0.036 |
| | Zn | 66 | **101.411** | **ug/L** | 0.450 | 92028 | 0.252 |
| | Zn | 67 | | **ug/L** | | 24936 | 0.019 |
| | Zn | 68 | | **ug/L** | | 69126 | 0.186 |
| > | Ge | 74 | | **ug/L** | | 363955 | 363954.613 |
| | As | 75 | **41.401** | **ug/L** | 1.407 | 42172 | 0.113 |
| | Se | 77 | | **ug/L** | | 3955 | -0.004 |
| | Se | 82 | **9.849** | **ug/L** | 1.753 | 921 | 0.003 |
| | Kr | 83 | | **ug/L** | | 192 | 0.000 |
| | Sr | 88 | **33.303** | **ug/L** | 0.542 | 403799 | 1.784 |
| | Y | 89 | | **ug/L** | | 1344045 | 5.945 |
| | Ag | 107 | **24.179** | **ug/L** | 1.390 | 119765 | 0.529 |
| | Cd | 111 | **6.561** | **ug/L** | 1.845 | 8081 | 0.036 |
| | Cd | 114 | | **ug/L** | | 13421 | 0.059 |
| > | In | 115 | | **ug/L** | | 226090 | 226089.809 |
| | Sn | 120 | **31.392** | **ug/L** | 1.629 | 157224 | 0.693 |
| | Sb | 121 | **80.759** | **ug/L** | 1.844 | 347761 | 1.535 |
| | Sb | 123 | | **ug/L** | | 271949 | 1.201 |
| | Ba | 135 | | **ug/L** | | 126134 | 0.352 |
| | Ba | 137 | **95.464** | **ug/L** | 0.411 | 224624 | 0.627 |
| | Ho | 165 | | **ug/L** | | 79197 | 0.221 |
| > | Lu | 175 | | **ug/L** | | 357915 | 357914.748 |
| | Tl | 205 | **43.264** | **ug/L** | 1.811 | 460834 | 1.286 |
| | Pb | 208 | **178.774** | **ug/L** | 0.326 | 3365539 | 9.383 |
| | Bi | 209 | | **ug/L** | | 8094 | 0.022 |
| | U | 238 | **32.059** | **ug/L** | 0.933 | 609033 | 1.699 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 101.9 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 99.6 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 104.3 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 116.2 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032602**
**Sample Date/Time: Thursday, February 25, 2010 11:48:27**
**Sample Type:**
**Sample Description: LANL 6020 SDILT**
**Number of Replicates: 3**
**Batch ID: 948759|10|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032602.227**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **3.013** | ug/L | 1.143 | 6511 | 0.004 |
| | Be | 9 | **0.243** | ug/L | 12.224 | 147 | 0.000 |
| | B | 11 | **1.313** | ug/L | 22.001 | 1448 | 0.000 |
| | Na | 23 | **245.637** | ug/L | 3.375 | 1184883 | 0.707 |
| | Mg | 24 | **156.146** | ug/L | 6.780 | 532777 | 0.318 |
| | Al | 27 | **1126.947** | ug/L | 3.137 | 5548680 | 3.410 |
| | P | 31 | **32.444** | ug/L | 3.329 | 15945 | 0.005 |
| | K | 39 | **297.376** | ug/L | 3.980 | 2064902 | 0.993 |
| | Ca | 43 | **303.145** | ug/L | 1.985 | 4125 | 0.002 |
| > | Sc | 45 | | ug/L | | 1619119 | 1619118.713 |
| | V | 51 | **1.007** | ug/L | 27.259 | 23134 | 0.004 |
| | Cr | 52 | **1.491** | ug/L | 2.551 | 14396 | 0.005 |
| | Cr | 53 | | ug/L | | 90980 | -0.014 |
| | Mn | 55 | **142.634** | ug/L | 0.394 | 1098656 | 0.677 |
| | Fe | 57 | **3747.590** | ug/L | 0.372 | 547207 | 0.335 |
| | Co | 59 | **3.672** | ug/L | 0.447 | 20354 | 0.012 |
| | Ni | 60 | **2.945** | ug/L | 1.552 | 3540 | 0.002 |
| | Cu | 63 | | ug/L | | 7739 | 0.005 |
| | Cu | 65 | **2.758** | ug/L | 0.362 | 3925 | 0.002 |
| | Zn | 66 | **15.112** | ug/L | 1.710 | 13914 | 0.038 |
| | Zn | 67 | | ug/L | | 16296 | -0.004 |
| | Zn | 68 | | ug/L | | 11086 | 0.027 |
| > | Ge | 74 | | ug/L | | 360678 | 360678.284 |
| | As | 75 | **0.238** | ug/L | 87.528 | 1334 | 0.001 |
| | Se | 77 | | ug/L | | 4580 | -0.002 |
| | Se | 82 | **0.120** | ug/L | 96.417 | 17 | 0.000 |
| | Kr | 83 | | ug/L | | 81 | 0.000 |
| | Sr | 88 | **1.355** | ug/L | 1.704 | 16846 | 0.073 |
| | Y | 89 | | ug/L | | 244304 | 1.086 |
| | Ag | 107 | **0.049** | ug/L | 4.121 | 343 | 0.001 |
| | Cd | 111 | **0.258** | ug/L | 19.540 | 346 | 0.001 |
| | Cd | 114 | | ug/L | | 43 | -0.000 |
| > | In | 115 | | ug/L | | 224955 | 224955.024 |
| | Sn | 120 | **1.235** | ug/L | 0.203 | 6594 | 0.027 |
| | Sb | 121 | **0.106** | ug/L | 18.762 | 1100 | 0.002 |
| | Sb | 123 | | ug/L | | 837 | 0.001 |
| | Ba | 135 | | ug/L | | 17030 | 0.051 |
| | Ba | 137 | **13.701** | ug/L | 1.052 | 30330 | 0.090 |
| | Ho | 165 | | ug/L | | 13321 | 0.040 |
| > | Lu | 175 | | ug/L | | 335756 | 335755.622 |
| | Tl | 205 | **0.179** | ug/L | 24.884 | 2203 | 0.005 |
| | Pb | 208 | **11.487** | ug/L | 1.240 | 209276 | 0.603 |
| | Bi | 209 | | ug/L | | 1498 | 0.004 |
| | U | 238 | **0.904** | ug/L | 5.522 | 16920 | 0.048 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 99.9 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 98.7 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 103.8 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 109.0 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969002**
**Sample Date/Time: Thursday, February 25, 2010 11:54:19**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969002.228**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **51.258** | **ug/L** | 0.745 | 108182 | 0.067 |
| | Be | 9 | **11.314** | **ug/L** | 1.067 | 6151 | 0.004 |
| | B | 11 | **15.245** | **ug/L** | 0.927 | 9660 | 0.006 |
| | Na | 23 | **563.659** | **ug/L** | 4.213 | 2658459 | 1.623 |
| | Mg | 24 | **6204.000** | **ug/L** | 0.590 | 20430714 | 12.651 |
| | Al | 27 | **41750.911** | **ug/L** | 0.258 | 203853109 | 126.324 |
| | P | 31 | **334.365** | **ug/L** | 0.188 | 95866 | 0.055 |
| | K | 39 | **5045.107** | **ug/L** | 5.194 | 27635366 | 16.841 |
| | Ca | 43 | **6161.030** | **ug/L** | 1.881 | 77406 | 0.048 |
| > | Sc | 45 | | **ug/L** | | 1613518 | 1613517.599 |
| | V | 51 | **58.716** | **ug/L** | 0.792 | 386239 | 0.229 |
| | Cr | 52 | **33.581** | **ug/L** | 0.546 | 182992 | 0.109 |
| | Cr | 53 | | **ug/L** | | 84167 | -0.018 |
| | Mn | 55 | **614.126** | **ug/L** | 0.721 | 4706815 | 2.916 |
| | Fe | 57 | **33671.226** | **ug/L** | 0.574 | 4860176 | 3.009 |
| | Co | 59 | **32.499** | **ug/L** | 0.783 | 178111 | 0.110 |
| | Ni | 60 | **28.544** | **ug/L** | 0.237 | 33008 | 0.020 |
| | Cu | 63 | | **ug/L** | | 13207839 | 8.185 |
| | Cu | 65 | **4931.868** | **ug/L** | 0.423 | 6723758 | 4.167 |
| | Zn | 66 | **165.334** | **ug/L** | 1.115 | 142502 | 0.411 |
| | Zn | 67 | | **ug/L** | | 34399 | 0.050 |
| | Zn | 68 | | **ug/L** | | 108998 | 0.311 |
| > | Ge | 74 | | **ug/L** | | 346251 | 346251.270 |
| | As | 75 | **8.529** | **ug/L** | 1.397 | 9103 | 0.023 |
| | Se | 77 | | **ug/L** | | 3195 | -0.006 |
| | Se | 82 | **-0.237** | **ug/L** | 82.890 | -15 | -0.000 |
| | Kr | 83 | | **ug/L** | | 198 | 0.000 |
| | Sr | 88 | **62.673** | **ug/L** | 0.234 | 719857 | 3.357 |
| | Y | 89 | | **ug/L** | | 499889 | 2.332 |
| | Ag | 107 | **1.662** | **ug/L** | 0.846 | 7895 | 0.036 |
| | Cd | 111 | **1.709** | **ug/L** | 1.982 | 2017 | 0.009 |
| | Cd | 114 | | **ug/L** | | 1868 | 0.008 |
| > | In | 115 | | **ug/L** | | 214299 | 214298.962 |
| | Sn | 120 | **4.163** | **ug/L** | 1.269 | 20140 | 0.092 |
| | Sb | 121 | **2.934** | **ug/L** | 1.168 | 12570 | 0.056 |
| | Sb | 123 | | **ug/L** | | 9778 | 0.043 |
| | Ba | 135 | | **ug/L** | | 375880 | 1.136 |
| | Ba | 137 | **299.825** | **ug/L** | 1.179 | 651741 | 1.970 |
| | Ho | 165 | | **ug/L** | | 28381 | 0.086 |
| > | Lu | 175 | | **ug/L** | | 330788 | 330788.312 |
| | Tl | 205 | **0.487** | **ug/L** | 1.261 | 5206 | 0.014 |
| | Pb | 208 | **454.771** | **ug/L** | 0.993 | 7901604 | 23.868 |
| | Bi | 209 | | **ug/L** | | 9048 | 0.027 |
| | U | 238 | **784.922** | **ug/L** | 1.208 | 13761504 | 41.602 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 99.6 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 94.8 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 98.9 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 107.4 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| | Cu | 65 | Sample is out of limits (over linear range) |

# QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: 245969003**
**Sample Date/Time: Thursday, February 25, 2010 12:00:11**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969003.229**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **29.140** | **ug/L** | 1.206 | 64139 | 0.038 |
| | Be | 9 | **2.839** | **ug/L** | 0.877 | 1620 | 0.001 |
| | B | 11 | **7.443** | **ug/L** | 1.602 | 5270 | 0.003 |
| | Na | 23 | **1079.080** | **ug/L** | 8.589 | 5262504 | 3.108 |
| | Mg | 24 | **5855.124** | **ug/L** | 2.829 | 20087341 | 11.940 |
| | Al | 27 | **34477.495** | **ug/L** | 3.944 | 175416457 | 104.317 |
| | P | 31 | **125.338** | **ug/L** | 1.513 | 42191 | 0.021 |
| | K | 39 | **3739.391** | **ug/L** | 3.912 | 21457268 | 12.482 |
| | Ca | 43 | **14782.538** | **ug/L** | 0.142 | 193039 | 0.115 |
| > | Sc | 45 | | **ug/L** | | 1681031 | 1681031.168 |
| | V | 51 | **36.782** | **ug/L** | 0.661 | 258576 | 0.143 |
| | Cr | 52 | **31.056** | **ug/L** | 0.258 | 176819 | 0.101 |
| | Cr | 53 | | **ug/L** | | 81755 | -0.022 |
| | Mn | 55 | **897.362** | **ug/L** | 0.530 | 7164270 | 4.260 |
| | Fe | 57 | **26251.081** | **ug/L** | 0.170 | 3948885 | 2.346 |
| | Co | 59 | **20.591** | **ug/L** | 0.433 | 117640 | 0.070 |
| | Ni | 60 | **30.065** | **ug/L** | 0.438 | 36213 | 0.021 |
| | Cu | 63 | | **ug/L** | | 155713 | 0.092 |
| | Cu | 65 | **55.190** | **ug/L** | 0.679 | 78544 | 0.047 |
| | Zn | 66 | **129.763** | **ug/L** | 0.577 | 114681 | 0.322 |
| | Zn | 67 | | **ug/L** | | 28860 | 0.032 |
| | Zn | 68 | | **ug/L** | | 87773 | 0.244 |
| > | Ge | 74 | | **ug/L** | | 354785 | 354785.479 |
| | As | 75 | **5.713** | **ug/L** | 1.499 | 6606 | 0.016 |
| | Se | 77 | | **ug/L** | | 3486 | -0.005 |
| | Se | 82 | **0.415** | **ug/L** | 47.332 | 44[illegible] | 0.000 |
| | Kr | 83 | | **ug/L** | | 193 | 0.000 |
| | Sr | 88 | **81.673** | **ug/L** | 0.920 | 978608 | 4.374 |
| | Y | 89 | | **ug/L** | | 883805 | 3.953 |
| | Ag | 107 | **0.520** | **ug/L** | 0.543 | 2649 | 0.011 |
| | Cd | 111 | **1.876** | **ug/L** | 8.329 | 2307 | 0.010 |
| | Cd | 114 | | **ug/L** | | 306 | 0.001 |
| > | In | 115 | | **ug/L** | | 223600 | 223599.926 |
| | Sn | 120 | **1.483** | **ug/L** | 0.863 | 7775 | 0.033 |
| | Sb | 121 | **0.238** | **ug/L** | 2.211 | 1653 | 0.005 |
| | Sb | 123 | | **ug/L** | | 1314 | 0.004 |
| | Ba | 135 | | **ug/L** | | 294833 | 0.853 |
| | Ba | 137 | **226.588** | **ug/L** | 2.147 | 514359 | 1.489 |
| | Ho | 165 | | **ug/L** | | 50992 | 0.148 |
| > | Lu | 175 | | **ug/L** | | 345441 | 345441.324 |
| | Tl | 205 | **0.384** | **ug/L** | 0.483 | 4372 | 0.011 |
| | Pb | 208 | **48.064** | **ug/L** | 0.844 | 878423 | 2.523 |
| | Bi | 209 | | **ug/L** | | 3836 | 0.011 |
| | U | 238 | **36.778** | **ug/L** | 0.657 | 674232 | 1.949 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 103.7 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 97.1 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 103.2 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 112.2 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969004**
**Sample Date/Time: Thursday, February 25, 2010 12:06:03**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969004.230**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **40.461** | ug/L | 0.723 | 84617 | 0.053 |
| | Be | 9 | **49.284** | ug/L | 0.993 | 26489 | 0.017 |
| | B | 11 | **8.507** | ug/L | 2.901 | 5633 | 0.003 |
| | Na | 23 | **354.979** | ug/L | 8.893 | 1673383 | 1.022 |
| | Mg | 24 | **4687.047** | ug/L | 1.009 | 15293527 | 9.558 |
| | Al | 27 | **29286.103** | ug/L | 3.880 | 141669346 | 88.610 |
| | P | 31 | **553.333** | ug/L | 1.141 | 152412 | 0.091 |
| | K | 39 | **3069.099** | ug/L | 8.208 | 16818158 | 10.245 |
| | Ca | 43 | **7663.668** | ug/L | 1.292 | 95300 | 0.059 |
| > | Sc | 45 | | ug/L | | 1598326 | 1598326.448 |
| | V | 51 | **38.054** | ug/L | 0.908 | 253773 | 0.148 |
| | Cr | 52 | **63.518** | ug/L | 1.158 | 337089 | 0.207 |
| | Cr | 53 | | ug/L | | 101087 | -0.007 |
| | Mn | 55 | **483.560** | ug/L | 0.909 | 3671421 | 2.296 |
| | Fe | 57 | **23570.617** | ug/L | 0.791 | 3371879 | 2.107 |
| | Co | 59 | **21.005** | ug/L | 0.685 | 114097 | 0.071 |
| | Ni | 60 | **41.309** | ug/L | 0.870 | 47257 | 0.029 |
| | Cu | 63 | | ug/L | | 24558213 | 15.366 |
| | Cu | 65 | **9325.689** | ug/L | 0.867 | 12593775 | 7.880 |
| | Zn | 66 | **671.056** | ug/L | 0.508 | 581829 | 1.666 |
| | Zn | 67 | | ug/L | | 103697 | 0.248 |
| | Zn | 68 | | ug/L | | 433338 | 1.238 |
| > | Ge | 74 | | ug/L | | 348973 | 348973.464 |
| | As | 75 | **7.367** | ug/L | 1.295 | 8071 | 0.020 |
| | Se | 77 | | ug/L | | 3186 | -0.006 |
| | Se | 82 | **-0.068** | ug/L | 229.560 | -0 | -0.000 |
| | Kr | 83 | | ug/L | | 160 | 0.000 |
| | Sr | 88 | **42.309** | ug/L | 0.680 | 483342 | 2.266 |
| | Y | 89 | | ug/L | | 392702 | 1.843 |
| | Ag | 107 | **3.660** | ug/L | 0.255 | 17172 | 0.080 |
| | Cd | 111 | **2.164** | ug/L | 2.343 | 2532 | 0.012 |
| | Cd | 114 | | ug/L | | 3987 | 0.018 |
| > | In | 115 | | ug/L | | 213078 | 213077.662 |
| | Sn | 120 | **17.449** | ug/L | 0.885 | 82555 | 0.385 |
| | Sb | 121 | **11.103** | ug/L | 1.568 | 45585 | 0.211 |
| | Sb | 123 | | ug/L | | 35544 | 0.165 |
| | Ba | 135 | | ug/L | | 418153 | 1.266 |
| | Ba | 137 | **339.662** | ug/L | 0.579 | 737093 | 2.232 |
| | Ho | 165 | | ug/L | | 22095 | 0.067 |
| > | Lu | 175 | | ug/L | | 330222 | 330221.637 |
| | Tl | 205 | **0.255** | ug/L | 1.950 | 2920 | 0.008 |
| | Pb | 208 | **1407.055** | ug/L | 0.822 | 24392761 | 73.847 |
| | Bi | 209 | | ug/L | | 9779 | 0.029 |
| | U | 238 | **1109.749** | ug/L | 1.273 | 19423604 | 58.818 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 98.6 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 95.5 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 98.3 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 107.2 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| | Cu | 65 | Sample is out of limits (over linear range) |

# QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 12:11:56**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 6.231**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **53.287** | **ug/L** | 0.541 | 114855 | 0.070 |
| | Be | 9 | **51.322** | **ug/L** | 1.359 | 28443 | 0.017 |
| | B | 11 | **104.143** | **ug/L** | 2.892 | 63419 | 0.038 |
| | Na | 23 | **5056.457** | **ug/L** | 11.826 | 24045317 | 14.563 |
| | Mg | 24 | **5145.541** | **ug/L** | 5.023 | 17310845 | 10.493 |
| | Al | 27 | **4941.746** | **ug/L** | 2.340 | 24667939 | 14.952 |
| | P | 31 | **4728.763** | **ug/L** | 2.036 | 1286883 | 0.776 |
| | K | 39 | **4520.757** | **ug/L** | 5.602 | 25332419 | 15.091 |
| | Ca | 43 | **4861.973** | **ug/L** | 0.614 | 62460 | 0.038 |
| > | Sc | 45 | | **ug/L** | | 1647963 | 1647963.353 |
| | V | 51 | **49.856** | **ug/L** | 0.452 | 337514 | 0.194 |
| | Cr | 52 | **50.845** | **ug/L** | 0.510 | 279558 | 0.166 |
| | Cr | 53 | | **ug/L** | | 129548 | 0.008 |
| | Mn | 55 | **51.957** | **ug/L** | 0.560 | 408785 | 0.247 |
| | Fe | 57 | **5013.024** | **ug/L** | 0.755 | 743343 | 0.448 |
| | Co | 59 | **50.080** | **ug/L** | 0.350 | 280236 | 0.170 |
| | Ni | 60 | **51.673** | **ug/L** | 0.467 | 60918 | 0.037 |
| | Cu | 63 | | **ug/L** | | 149748 | 0.091 |
| | Cu | 65 | **53.458** | **ug/L** | 0.381 | 74590 | 0.045 |
| | Zn | 66 | **52.207** | **ug/L** | 2.666 | 48171 | 0.130 |
| | Zn | 67 | | **ug/L** | | 22811 | 0.012 |
| | Zn | 68 | | **ug/L** | | 36371 | 0.095 |
| > | Ge | 74 | | **ug/L** | | 368771 | 368771.376 |
| | As | 75 | **47.451** | **ug/L** | 3.322 | 48786 | 0.129 |
| | Se | 77 | | **ug/L** | | 9269 | 0.010 |
| | Se | 82 | **50.332** | **ug/L** | 3.530 | 4738 | 0.013 |
| | Kr | 83 | | **ug/L** | | 81 | 0.000 |
| | Sr | 88 | **52.096** | **ug/L** | 1.583 | 610189 | 2.790 |
| | Y | 89 | | **ug/L** | | 189 | 0.001 |
| | Ag | 107 | **50.557** | **ug/L** | 0.447 | 241942 | 1.107 |
| | Cd | 111 | **49.791** | **ug/L** | 1.187 | 59072 | 0.270 |
| | Cd | 114 | | **ug/L** | | 135038 | 0.618 |
| > | In | 115 | | **ug/L** | | 218517 | 218516.984 |
| | Sn | 120 | **49.704** | **ug/L** | 1.066 | 240356 | 1.098 |
| | Sb | 121 | **48.661** | **ug/L** | 2.273 | 202770 | 0.925 |
| | Sb | 123 | | **ug/L** | | 157487 | 0.718 |
| | Ba | 135 | | **ug/L** | | 60154 | 0.185 |
| | Ba | 137 | **49.933** | **ug/L** | 2.264 | 106535 | 0.328 |
| | Ho | 165 | | **ug/L** | | 35 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 324437 | 324436.927 |
| | Tl | 205 | **48.273** | **ug/L** | 1.429 | 465964 | 1.435 |
| | Pb | 208 | **51.710** | **ug/L** | 1.636 | 887018 | 2.714 |
| | Bi | 209 | | **ug/L** | | 198 | 0.000 |
| | U | 238 | **54.006** | **ug/L** | 1.345 | 929369 | 2.862 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 106.573 | | | | |
| | Be | 9 | 102.645 | | | | |
| | B | 11 | 104.143 | | | | |
| | Na | 23 | 101.129 | | | | |
| | Mg | 24 | 102.911 | | | | |
| | Al | 27 | 97.856 | | | | |
| | P | 31 | 94.575 | | | | |
| | K | 39 | 90.415 | | | | |
| | Ca | 43 | 97.239 | | | | |
| > | Sc | 45 | | 101.7 | | | |
| | V | 51 | 99.711 | | | | |
| | Cr | 52 | 101.690 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 103.915 | | | | |
| | Fe | 57 | 100.260 | | | | |
| | Co | 59 | 100.159 | | | | |
| | Ni | 60 | 103.346 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 106.916 | | | | |
| | Zn | 66 | 104.413 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 100.9 | | | |
| | As | 75 | 94.901 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 100.664 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 104.192 | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | 101.115 | | | | |
| | Cd | 111 | 99.582 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 100.8 | | | |
| | Sn | 120 | 99.408 | | | | |
| | Sb | 121 | 97.321 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 99.866 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 105.4 | | | |
| | Tl | 205 | 96.546 | | | | |
| | Pb | 208 | 103.419 | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | 108.012 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 12:17:51**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 7.232**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 0.009 | ug/L | 29.015 | 166 | 0.000 |
| | Be | 9 | 0.009 | ug/L | 71.177 | 21 | 0.000 |
| | B | 11 | 1.961 | ug/L | 27.798 | 1941 | 0.001 |
| | Na | 23 | 0.800 | ug/L | 212.197 | 45742 | 0.002 |
| | Mg | 24 | -1.239 | ug/L | 125.805 | 14008 | -0.003 |
| | Al | 27 | 0.261 | ug/L | 241.988 | 31034 | 0.001 |
| | P | 31 | -3.971 | ug/L | 10.110 | 6644 | -0.001 |
| | K | 39 | -13.184 | ug/L | 35.645 | 409464 | -0.044 |
| | Ca | 43 | -3.591 | ug/L | 53.889 | 290 | -0.000 |
| > | Sc | 45 | | ug/L | | 1716906 | 1716906.213 |
| | V | 51 | 0.421 | ug/L | 96.195 | 20622 | 0.002 |
| | Cr | 52 | 0.244 | ug/L | 1.744 | 8293 | 0.001 |
| | Cr | 53 | | ug/L | | 110220 | -0.006 |
| | Mn | 55 | -0.011 | ug/L | 51.134 | 2266 | -0.000 |
| | Fe | 57 | -1.693 | ug/L | 30.015 | 4972 | -0.000 |
| | Co | 59 | 0.001 | ug/L | 319.168 | 192 | 0.000 |
| | Ni | 60 | -0.005 | ug/L | 69.179 | 139 | -0.000 |
| | Cu | 63 | | ug/L | | 1516 | 0.001 |
| | Cu | 65 | 0.414 | ug/L | 19.674 | 761 | 0.000 |
| | Zn | 66 | -0.033 | ug/L | 77.124 | 369 | -0.000 |
| | Zn | 67 | | ug/L | | 15665 | -0.008 |
| | Zn | 68 | | ug/L | | 1175 | -0.001 |
| > | Ge | 74 | | ug/L | | 380061 | 380061.075 |
| | As | 75 | -0.494 | ug/L | 65.844 | 646 | -0.001 |
| | Se | 77 | | ug/L | | 6229 | 0.001 |
| | Se | 82 | 0.003 | ug/L | 1841.871 | 7 | 0.000 |
| | Kr | 83 | | ug/L | | 88 | 0.000 |
| | Sr | 88 | 0.005 | ug/L | 17.366 | 588 | 0.000 |
| | Y | 89 | | ug/L | | 70 | -0.000 |
| | Ag | 107 | 0.005 | ug/L | 40.259 | 132 | 0.000 |
| | Cd | 111 | 0.012 | ug/L | 83.646 | 46 | 0.000 |
| | Cd | 114 | | ug/L | | 85 | -0.000 |
| > | In | 115 | | ug/L | | 227193 | 227192.903 |
| | Sn | 120 | 0.032 | ug/L | 55.907 | 620 | 0.001 |
| | Sb | 121 | 0.251 | ug/L | 39.267 | 1733 | 0.005 |
| | Sb | 123 | | ug/L | | 1329 | 0.004 |
| | Ba | 135 | | ug/L | | 65 | -0.000 |
| | Ba | 137 | -0.005 | ug/L | 142.241 | 93 | -0.000 |
| | Ho | 165 | | ug/L | | 11 | -0.000 |
| > | Lu | 175 | | ug/L | | 331118 | 331118.023 |
| | Tl | 205 | 0.046 | ug/L | 31.318 | 864 | 0.001 |
| | Pb | 208 | -0.101 | ug/L | 11.448 | 5027 | -0.005 |
| | Bi | 209 | | ug/L | | 47 | -0.000 |
| | U | 238 | 0.042 | ug/L | 20.189 | 1569 | 0.002 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | 106.0 | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | 104.0 | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | 104.8 | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | 107.5 | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 25, 2010 12:20:23

# ICPMS#6 - Summary Report

**Sample ID: 245969005**
**Sample Date/Time: Thursday, February 25, 2010 12:23:45**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969005.233**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **21.835** | **ug/L** | 1.252 | 46322 | 0.029 |
| | Be | 9 | **1.937** | **ug/L** | 3.709 | 1069 | 0.001 |
| | B | 11 | **4.760** | **ug/L** | 1.116 | 3489 | 0.002 |
| | Na | 23 | **987.104** | **ug/L** | 6.424 | 4643234 | 2.843 |
| | Mg | 24 | **2487.354** | **ug/L** | 0.506 | 8230230 | 5.072 |
| | Al | 27 | **17302.463** | **ug/L** | 1.105 | 84796041 | 52.351 |
| | P | 31 | **198.907** | **ug/L** | 3.090 | 60192 | 0.033 |
| | K | 39 | **2753.046** | **ug/L** | 2.331 | 15337296 | 9.190 |
| | Ca | 43 | **2800.836** | **ug/L** | 0.707 | 35487 | 0.022 |
| > | Sc | 45 | | **ug/L** | | 1619229 | 1619228.710 |
| | V | 51 | **25.014** | **ug/L** | 0.716 | 174748 | 0.098 |
| | Cr | 52 | **19.632** | **ug/L** | 1.290 | 110064 | 0.064 |
| | Cr | 53 | | **ug/L** | | 77839 | -0.022 |
| | Mn | 55 | **814.567** | **ug/L** | 1.377 | 6264027 | 3.867 |
| | Fe | 57 | **42522.951** | **ug/L** | 1.908 | 6158055 | 3.800 |
| | Co | 59 | **44.899** | **ug/L** | 1.152 | 246876 | 0.152 |
| | Ni | 60 | **17.965** | **ug/L** | 1.252 | 20898 | 0.013 |
| | Cu | 63 | | **ug/L** | | 281281 | 0.174 |
| | Cu | 65 | **103.715** | **ug/L** | 0.462 | 142048 | 0.088 |
| | Zn | 66 | **117.331** | **ug/L** | 0.394 | 102948 | 0.291 |
| | Zn | 67 | | **ug/L** | | 26957 | 0.027 |
| | Zn | 68 | | **ug/L** | | 78377 | 0.219 |
| > | Ge | 74 | | **ug/L** | | 352097 | 352096.706 |
| | As | 75 | **4.702** | **ug/L** | 7.950 | 5584 | 0.013 |
| | Se | 77 | | **ug/L** | | 3320 | -0.006 |
| | Se | 82 | **0.336** | **ug/L** | 59.937 | 36 | 0.000 |
| | Kr | 83 | | **ug/L** | | 163 | 0.000 |
| | Sr | 88 | **29.250** | **ug/L** | 0.800 | 348224 | 1.567 |
| | Y | 89 | | **ug/L** | | 822669 | 3.706 |
| | Ag | 107 | **0.428** | **ug/L** | 2.415 | 2185 | 0.009 |
| | Cd | 111 | **1.778** | **ug/L** | 5.591 | 2172 | 0.010 |
| | Cd | 114 | | **ug/L** | | 1430 | 0.006 |
| > | In | 115 | | **ug/L** | | 221950 | 221949.720 |
| | Sn | 120 | **4.839** | **ug/L** | 0.402 | 24174 | 0.107 |
| | Sb | 121 | **0.621** | **ug/L** | 5.608 | 3256 | 0.012 |
| | Sb | 123 | | **ug/L** | | 2602 | 0.009 |
| | Ba | 135 | | **ug/L** | | 172064 | 0.506 |
| | Ba | 137 | **135.407** | **ug/L** | 0.980 | 302398 | 0.890 |
| | Ho | 165 | | **ug/L** | | 44935 | 0.132 |
| > | Lu | 175 | | **ug/L** | | 339775 | 339775.061 |
| | Tl | 205 | **0.218** | **ug/L** | 0.648 | 2628 | 0.006 |
| | Pb | 208 | **96.609** | **ug/L** | 0.669 | 1729665 | 5.070 |
| | Bi | 209 | | **ug/L** | | 22977 | 0.067 |
| | U | 238 | **27.706** | **ug/L** | 0.893 | 499773 | 1.468 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 99.9 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 96.4 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 102.4 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 110.3 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969006**
**Sample Date/Time: Thursday, February 25, 2010 12:29:39**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtlmozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969006.234**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **35.600** | **ug/L** | 0.354 | 76097 | 0.047 |
| | Be | 9 | **6.016** | **ug/L** | 1.016 | 3318 | 0.002 |
| | B | 11 | **7.100** | **ug/L** | 0.730 | 4917 | 0.003 |
| | Na | 23 | **732.835** | **ug/L** | 8.538 | 3487607 | 2.111 |
| | Mg | 24 | **3780.512** | **ug/L** | 3.259 | 12608240 | 7.709 |
| | Al | 27 | **21140.069** | **ug/L** | 0.956 | 104496132 | 63.963 |
| | P | 31 | **269.536** | **ug/L** | 1.408 | 79658 | 0.044 |
| | K | 39 | **2850.850** | **ug/L** | 2.943 | 16004376 | 9.516 |
| | Ca | 43 | **4924.067** | **ug/L** | 1.424 | 62687 | 0.038 |
| > | Sc | 45 | | **ug/L** | | 1633284 | 1633284.224 |
| | V | 51 | **21.436** | **ug/L** | 1.550 | 153471 | 0.084 |
| | Cr | 52 | **38.916** | **ug/L** | 2.325 | 213608 | 0.127 |
| | Cr | 53 | | **ug/L** | | 88219 | -0.016 |
| | Mn | 55 | **675.465** | **ug/L** | 0.899 | 5240063 | 3.207 |
| | Fe | 57 | **19686.745** | **ug/L** | 0.470 | 2878570 | 1.759 |
| | Co | 59 | **15.145** | **ug/L** | 0.962 | 84116 | 0.051 |
| | Ni | 60 | **27.222** | **ug/L** | 1.556 | 31871 | 0.019 |
| | Cu | 63 | | **ug/L** | | 1871345 | 1.146 |
| | Cu | 65 | **713.168** | **ug/L** | 0.878 | 984322 | 0.603 |
| | Zn | 66 | **114.281** | **ug/L** | 0.698 | 101862 | 0.284 |
| | Zn | 67 | | **ug/L** | | 26725 | 0.025 |
| | Zn | 68 | | **ug/L** | | 77599 | 0.213 |
| > | Ge | 74 | | **ug/L** | | 357655 | 357655.212 |
| | As | 75 | **5.950** | **ug/L** | 7.487 | 6888 | 0.016 |
| | Se | 77 | | **ug/L** | | 3213 | -0.006 |
| | Se | 82 | **0.361** | **ug/L** | 38.958 | 39 | 0.000 |
| | Kr | 83 | | **ug/L** | | 215 | 0.000 |
| | Sr | 88 | **40.023** | **ug/L** | 0.651 | 473671 | 2.144 |
| | Y | 89 | | **ug/L** | | 1044996 | 4.734 |
| | Ag | 107 | **1.031** | **ug/L** | 2.801 | 5082 | 0.023 |
| | Cd | 111 | **1.479** | **ug/L** | 2.956 | 1802 | 0.008 |
| | Cd | 114 | | **ug/L** | | 775 | 0.003 |
| > | In | 115 | | **ug/L** | | 220724 | 220724.489 |
| | Sn | 120 | **5.477** | **ug/L** | 0.996 | 27154 | 0.121 |
| | Sb | 121 | **2.043** | **ug/L** | 0.714 | 9205 | 0.039 |
| | Sb | 123 | | **ug/L** | | 7237 | 0.031 |
| | Ba | 135 | | **ug/L** | | 240372 | 0.702 |
| | Ba | 137 | **188.269** | **ug/L** | 1.264 | 423697 | 1.237 |
| | Ho | 165 | | **ug/L** | | 61980 | 0.181 |
| > | Lu | 175 | | **ug/L** | | 342439 | 342439.241 |
| | Tl | 205 | **0.284** | **ug/L** | 3.041 | 3322 | 0.008 |
| | Pb | 208 | **111.643** | **ug/L** | 0.733 | 2013415 | 5.859 |
| | Bi | 209 | | **ug/L** | | 3368 | 0.010 |
| | U | 238 | **173.444** | **ug/L** | 1.756 | 3148513 | 9.193 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 100.8 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 97.9 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 101.8 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 111.2 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969007**
**Sample Date/Time: Thursday, February 25, 2010 12:35:34**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969007.235**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **37.043** | **ug/L** | 1.183 | 76841 | 0.048 |
| | Be | 9 | **6.335** | **ug/L** | 0.727 | 3390 | 0.002 |
| | B | 11 | **9.595** | **ug/L** | 0.759 | 6217 | 0.004 |
| | Na | 23 | **347.255** | **ug/L** | 5.186 | 1624186 | 1.000 |
| | Mg | 24 | **5499.842** | **ug/L** | 7.118 | 17796397 | 11.215 |
| | Al | 27 | **41816.993** | **ug/L** | 1.311 | 200598311 | 126.524 |
| | P | 31 | **238.534** | **ug/L** | 0.325 | 69245 | 0.039 |
| | K | 39 | **4669.317** | **ug/L** | 5.019 | 25155269 | 15.587 |
| | Ca | 43 | **7465.100** | **ug/L** | 1.246 | 92077 | 0.058 |
| > | Sc | 45 | | **ug/L** | | 1585196 | 1585195.692 |
| | V | 51 | **50.024** | **ug/L** | 0.928 | 325699 | 0.195 |
| | Cr | 52 | **31.403** | **ug/L** | 0.462 | 168527 | 0.102 |
| | Cr | 53 | | **ug/L** | | 82522 | -0.018 |
| | Mn | 55 | **599.248** | **ug/L** | 0.702 | 4512064 | 2.845 |
| | Fe | 57 | **28918.017** | **ug/L** | 0.802 | 4101522 | 2.584 |
| | Co | 59 | **13.064** | **ug/L** | 0.358 | 70445 | 0.044 |
| | Ni | 60 | **23.810** | **ug/L** | 0.830 | 27072 | 0.017 |
| | Cu | 63 | | **ug/L** | | 1057957 | 0.667 |
| | Cu | 65 | **405.157** | **ug/L** | 0.132 | 542809 | 0.342 |
| | Zn | 66 | **140.077** | **ug/L** | 0.751 | 118903 | 0.348 |
| | Zn | 67 | | **ug/L** | | 30907 | 0.041 |
| | Zn | 68 | | **ug/L** | | 93228 | 0.270 |
| > | Ge | 74 | | **ug/L** | | 340837 | 340837.481 |
| | As | 75 | **6.903** | **ug/L** | 1.642 | 7451 | 0.019 |
| | Se | 77 | | **ug/L** | | 3103 | -0.006 |
| | Se | 82 | **-0.261** | **ug/L** | 180.680 | -17 | -0.000 |
| | Kr | 83 | | **ug/L** | | 196 | 0.000 |
| | Sr | 88 | **53.398** | **ug/L** | 1.314 | 605527 | 2.860 |
| | Y | 89 | | **ug/L** | | 594182 | 2.808 |
| | Ag | 107 | **0.799** | **ug/L** | 2.542 | 3799 | 0.017 |
| | Cd | 111 | **1.816** | **ug/L** | 2.882 | 2114 | 0.010 |
| | Cd | 114 | | **ug/L** | | 1723 | 0.008 |
| > | In | 115 | | **ug/L** | | 211563 | 211563.333 |
| | Sn | 120 | **1.419** | **ug/L** | 2.300 | 7057 | 0.031 |
| | Sb | 121 | **2.181** | **ug/L** | 2.316 | 9377 | 0.041 |
| | Sb | 123 | | **ug/L** | | 7411 | 0.033 |
| | Ba | 135 | | **ug/L** | | 407436 | 1.264 |
| | Ba | 137 | **333.309** | **ug/L** | 1.210 | 705773 | 2.190 |
| | Ho | 165 | | **ug/L** | | 33068 | 0.103 |
| > | Lu | 175 | | **ug/L** | | 322237 | 322237.174 |
| | Tl | 205 | **0.417** | **ug/L** | 0.702 | 4396 | 0.012 |
| | Pb | 208 | **324.796** | **ug/L** | 0.922 | 5499247 | 17.046 |
| | Bi | 209 | | **ug/L** | | 6842 | 0.021 |
| | U | 238 | **288.224** | **ug/L** | 1.255 | 4922962 | 15.276 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | 97.8 | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | 93.3 | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | 97.6 | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | 104.6 | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969008**
**Sample Date/Time: Thursday, February 25, 2010 12:41:28**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969008.236**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **31.684** | **ug/L** | 0.214 | 65464 | 0.041 |
| | Be | 9 | **7.009** | **ug/L** | 2.586 | 3733 | 0.002 |
| | B | 11 | **11.357** | **ug/L** | 0.967 | 7207 | 0.004 |
| | Na | 23 | **333.754** | **ug/L** | 9.032 | 1556130 | 0.961 |
| | Mg | 24 | **5385.210** | **ug/L** | 7.216 | 17343037 | 10.981 |
| | Al | 27 | **37222.914** | **ug/L** | 5.497 | 177814729 | 112.624 |
| | P | 31 | **440.713** | **ug/L** | 1.050 | 121345 | 0.072 |
| | K | 39 | **5699.163** | **ug/L** | 4.184 | 30469763 | 19.024 |
| | Ca | 43 | **7563.242** | **ug/L** | 1.269 | 92883 | 0.059 |
| > | Sc | 45 | | **ug/L** | | 1578425 | 1578424.946 |
| | V | 51 | **55.152** | **ug/L** | 1.133 | 355898 | 0.215 |
| | Cr | 52 | **29.309** | **ug/L** | 0.744 | 157046 | 0.095 |
| | Cr | 53 | | **ug/L** | | 81176 | -0.019 |
| | Mn | 55 | **1054.832** | **ug/L** | 0.779 | 7906718 | 5.008 |
| | Fe | 57 | **29919.446** | **ug/L** | 0.516 | 4225232 | 2.674 |
| | Co | 59 | **20.589** | **ug/L** | 0.836 | 110447 | 0.070 |
| | Ni | 60 | **24.430** | **ug/L** | 1.375 | 27653 | 0.017 |
| | Cu | 63 | | **ug/L** | | 773122 | 0.490 |
| | Cu | 65 | **294.839** | **ug/L** | 1.135 | 393343 | 0.249 |
| | Zn | 66 | **164.169** | **ug/L** | 0.156 | 139261 | 0.408 |
| | Zn | 67 | | **ug/L** | | 34117 | 0.050 |
| | Zn | 68 | | **ug/L** | | 107254 | 0.311 |
| > | Ge | 74 | | **ug/L** | | 340756 | 340755.515 |
| | As | 75 | **8.411** | **ug/L** | 0.644 | 8850 | 0.023 |
| | Se | 77 | | **ug/L** | | 3103 | -0.006 |
| | Se | 82 | **-0.231** | **ug/L** | 107.356 | -14 | -0.000 |
| | Kr | 83 | | **ug/L** | | 202 | 0.000 |
| | Sr | 88 | **82.734** | **ug/L** | 0.894 | 930736 | 4.431 |
| | Y | 89 | | **ug/L** | | 502465 | 2.393 |
| | Ag | 107 | **0.688** | **ug/L** | 1.129 | 3258 | 0.015 |
| | Cd | 111 | **8.724** | **ug/L** | 0.781 | 9969 | 0.047 |
| | Cd | 114 | | **ug/L** | | 20288 | 0.096 |
| > | In | 115 | | **ug/L** | | 209941 | 209940.693 |
| | Sn | 120 | **1.534** | **ug/L** | 1.227 | 7540 | 0.034 |
| | Sb | 121 | **0.801** | **ug/L** | 1.248 | 3800 | 0.015 |
| | Sb | 123 | | **ug/L** | | 3003 | 0.012 |
| | Ba | 135 | | **ug/L** | | 438168 | 1.341 |
| | Ba | 137 | **354.046** | **ug/L** | 1.008 | 760142 | 2.326 |
| | Ho | 165 | | **ug/L** | | 28505 | 0.087 |
| > | Lu | 175 | | **ug/L** | | 326728 | 326728.127 |
| | Tl | 205 | **0.502** | **ug/L** | 1.264 | 5283 | 0.015 |
| | Pb | 208 | **298.780** | **ug/L** | 1.550 | 5129664 | 15.681 |
| | Bi | 209 | | **ug/L** | | 16616 | 0.051 |
| | U | 238 | **164.607** | **ug/L** | 1.195 | 2851123 | 8.724 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 97.4 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 93.3 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 96.9 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 106.1 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| | Mn | 55 | Sample is out of limits (over linear range) |

# QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: 245969009**
**Sample Date/Time: Thursday, February 25, 2010 12:47:20**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969009.237**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 79.524 | ug/L | 1.773 | 161850 | 0.104 |
| | Be | 9 | 6.192 | ug/L | 2.098 | 3254 | 0.002 |
| | B | 11 | 19.425 | ug/L | 0.963 | 11698 | 0.007 |
| | Na | 23 | 786.973 | ug/L | 6.814 | 3565340 | 2.267 |
| | Mg | 24 | 14980.700 | ug/L | 6.027 | 47557208 | 30.548 |
| | Al | 27 | 109226.079 | ug/L | 1.777 | 514429316 | 330.482 |
| | P | 31 | 369.782 | ug/L | 0.524 | 101534 | 0.061 |
| | K | 39 | 11540.948 | ug/L | 2.745 | 60408077 | 38.525 |
| | Ca | 43 | 14050.765 | ug/L | 0.821 | 169915 | 0.109 |
| > | Sc | 45 | | ug/L | | 1556600 | 1556600.328 |
| | V | 51 | 117.330 | ug/L | 0.355 | 728435 | 0.458 |
| | Cr | 52 | 62.378 | ug/L | 0.698 | 322521 | 0.203 |
| | Cr | 53 | | ug/L | | 98440 | -0.007 |
| | Mn | 55 | 919.244 | ug/L | 0.447 | 6795479 | 4.364 |
| | Fe | 57 | 77362.445 | ug/L | 0.182 | 10766890 | 6.914 |
| | Co | 59 | 49.846 | ug/L | 0.348 | 263469 | 0.169 |
| | Ni | 60 | 49.422 | ug/L | 1.087 | 55041 | 0.035 |
| | Cu | 63 | | ug/L | | 117495 | 0.075 |
| | Cu | 65 | 45.302 | ug/L | 0.688 | 59729 | 0.038 |
| | Zn | 66 | 197.189 | ug/L | 0.983 | 156517 | 0.490 |
| | Zn | 67 | | ug/L | | 39336 | 0.074 |
| | Zn | 68 | | ug/L | | 128028 | 0.398 |
| > | Ge | 74 | | ug/L | | 318985 | 318984.559 |
| | As | 75 | 16.023 | ug/L | 0.973 | 14902 | 0.044 |
| | Se | 77 | | ug/L | | 3253 | -0.005 |
| | Se | 82 | -3.013 | ug/L | 15.218 | -240 | -0.001 |
| | Kr | 83 | | ug/L | | 471 | 0.001 |
| | Sr | 88 | 149.747 | ug/L | 0.698 | 1570141 | 8.021 |
| | Y | 89 | | ug/L | | 705188 | 3.603 |
| | Ag | 107 | 0.808 | ug/L | 4.260 | 3552 | 0.018 |
| | Cd | 111 | 2.685 | ug/L | 1.754 | 2879 | 0.015 |
| | Cd | 114 | | ug/L | | 810 | 0.004 |
| > | In | 115 | | ug/L | | 195713 | 195712.614 |
| | Sn | 120 | 0.653 | ug/L | 3.275 | 3220 | 0.014 |
| | Sb | 121 | 0.183 | ug/L | 7.090 | 1242 | 0.003 |
| | Sb | 123 | | ug/L | | 1007 | 0.003 |
| | Ba | 135 | | ug/L | | 808191 | 2.734 |
| | Ba | 137 | 707.645 | ug/L | 0.995 | 1374788 | 4.650 |
| | Ho | 165 | | ug/L | | 38176 | 0.129 |
| > | Lu | 175 | | ug/L | | 295685 | 295685.306 |
| | Tl | 205 | 0.905 | ug/L | 2.435 | 8328 | 0.027 |
| | Pb | 208 | 74.221 | ug/L | 0.758 | 1157745 | 3.895 |
| | Bi | 209 | | ug/L | | 12026 | 0.040 |
| | U | 238 | 13.585 | ug/L | 1.140 | 213605 | 0.720 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | 96.1 | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | 87.3 | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | 90.3 | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | 96.0 | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| Al 27 Upper, S, EEE | Al | 27 | Sample is out of limits (over linear range) |
| | V | 51 | Sample is out of limits (over linear range) |
| | Fe | 57 | Sample is out of limits (over linear range) |

# QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: 245969010**
**Sample Date/Time: Thursday, February 25, 2010 12:53:12**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969010.238**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **15.581** | **ug/L** | 1.493 | 32117 | 0.020 |
| | Be | 9 | **2.506** | **ug/L** | 4.040 | 1338 | 0.001 |
| | B | 11 | **3.180** | **ug/L** | 1.158 | 2478 | 0.001 |
| | Na | 23 | **489.519** | **ug/L** | 6.633 | 2254249 | 1.410 |
| | Mg | 24 | **2554.914** | **ug/L** | 3.630 | 8200721 | 5.210 |
| | Al | 27 | **9726.388** | **ug/L** | 4.260 | 46252386 | 29.429 |
| | P | 31 | **548.410** | **ug/L** | 0.999 | 148571 | 0.090 |
| | K | 39 | **1713.545** | **ug/L** | 1.652 | 9430458 | 5.720 |
| | Ca | 43 | **9256.310** | **ug/L** | 1.979 | 113106 | 0.072 |
| > | Sc | 45 | | **ug/L** | | 1571173 | 1571172.939 |
| | V | 51 | **28.311** | **ug/L** | 1.668 | 189770 | 0.110 |
| | Cr | 52 | **12.320** | **ug/L** | 0.535 | 69379 | 0.040 |
| | Cr | 53 | | **ug/L** | | 75854 | -0.022 |
| | Mn | 55 | **528.413** | **ug/L** | 1.099 | 3944155 | 2.509 |
| | Fe | 57 | **16878.996** | **ug/L** | 0.570 | 2374943 | 1.508 |
| | Co | 59 | **9.271** | **ug/L** | 0.488 | 49602 | 0.031 |
| | Ni | 60 | **11.957** | **ug/L** | 1.206 | 13540 | 0.009 |
| | Cu | 63 | | **ug/L** | | 236713 | 0.150 |
| | Cu | 65 | **90.248** | **ug/L** | 0.507 | 119950 | 0.076 |
| | Zn | 66 | **302.650** | **ug/L** | 1.368 | 256804 | 0.751 |
| | Zn | 67 | | **ug/L** | | 52132 | 0.103 |
| | Zn | 68 | | **ug/L** | | 192058 | 0.559 |
| > | Ge | 74 | | **ug/L** | | 341278 | 341278.320 |
| | As | 75 | **5.327** | **ug/L** | 2.887 | 5996 | 0.015 |
| | Se | 77 | | **ug/L** | | 3565 | -0.005 |
| | Se | 82 | **0.469** | **ug/L** | 20.025 | 47 | 0.000 |
| | Kr | 83 | | **ug/L** | | 152 | 0.000 |
| | Sr | 88 | **29.207** | **ug/L** | 0.558 | 322770 | 1.564 |
| | Y | 89 | | **ug/L** | | 730407 | 3.545 |
| | Ag | 107 | **25.603** | **ug/L** | 0.202 | 115568 | 0.560 |
| | Cd | 111 | **0.897** | **ug/L** | 4.664 | 1031 | 0.005 |
| | Cd | 114 | | **ug/L** | | 533 | 0.002 |
| > | In | 115 | | **ug/L** | | 206022 | 206021.610 |
| | Sn | 120 | **2.982** | **ug/L** | 1.123 | 13986 | 0.066 |
| | Sb | 121 | **0.731** | **ug/L** | 2.315 | 3454 | 0.014 |
| | Sb | 123 | | **ug/L** | | 2678 | 0.011 |
| | Ba | 135 | | **ug/L** | | 269800 | 0.837 |
| | Ba | 137 | **223.177** | **ug/L** | 0.843 | 472696 | 1.466 |
| | Ho | 165 | | **ug/L** | | 40808 | 0.127 |
| > | Lu | 175 | | **ug/L** | | 322283 | 322283.203 |
| | Tl | 205 | **0.147** | **ug/L** | 2.155 | 1808 | 0.004 |
| | Pb | 208 | **120.220** | **ug/L** | 0.693 | 2039986 | 6.310 |
| | Bi | 209 | | **ug/L** | | 2879 | 0.009 |
| | U | 238 | **20.993** | **ug/L** | 1.629 | 359358 | 1.113 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 97.0 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 93.4 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 95.1 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 104.7 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969011**
**Sample Date/Time: Thursday, February 25, 2010 12:59:04**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969011.239**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **42.848** | **ug/L** | 0.325 | 86683 | 0.056 |
| | Be | 9 | **3.257** | **ug/L** | 3.159 | 1707 | 0.001 |
| | B | 11 | **11.441** | **ug/L** | 2.371 | 7108 | 0.004 |
| | Na | 23 | **1314.096** | **ug/L** | 3.941 | 5889548 | 3.785 |
| | Mg | 24 | **8270.856** | **ug/L** | 2.870 | 26096374 | 16.866 |
| | Al | 27 | **54591.088** | **ug/L** | 5.203 | 255415954 | 165.174 |
| | P | 31 | **198.864** | **ug/L** | 0.802 | 57474 | 0.033 |
| | K | 39 | **5750.036** | **ug/L** | 2.272 | 30115463 | 19.194 |
| | Ca | 43 | **8399.358** | **ug/L** | 0.618 | 101022 | 0.065 |
| > | Sc | 45 | | **ug/L** | | 1546271 | 1546270.893 |
| | V | 51 | **73.557** | **ug/L** | 0.901 | 459628 | 0.287 |
| | Cr | 52 | **39.368** | **ug/L** | 0.685 | 204504 | 0.128 |
| | Cr | 53 | | **ug/L** | | 84526 | -0.016 |
| | Mn | 55 | **828.837** | **ug/L** | 0.917 | 6086728 | 3.935 |
| | Fe | 57 | **42272.089** | **ug/L** | 0.647 | 5846237 | 3.778 |
| | Co | 59 | **36.039** | **ug/L** | 0.518 | 189272 | 0.122 |
| | Ni | 60 | **33.496** | **ug/L** | 0.754 | 37097 | 0.024 |
| | Cu | 63 | | **ug/L** | | 57750 | 0.037 |
| | Cu | 65 | **22.625** | **ug/L** | 0.370 | 29704 | 0.019 |
| | Zn | 66 | **112.908** | **ug/L** | 0.463 | 92148 | 0.280 |
| | Zn | 67 | | **ug/L** | | 27684 | 0.035 |
| | Zn | 68 | | **ug/L** | | 76022 | 0.228 |
| > | Ge | 74 | | **ug/L** | | 327463 | 327462.554 |
| | As | 75 | **8.783** | **ug/L** | 1.521 | 8837 | 0.024 |
| | Se | 77 | | **ug/L** | | 3010 | -0.006 |
| | Se | 82 | **-0.855** | **ug/L** | 34.256 | -66 | -0.000 |
| | Kr | 83 | | **ug/L** | | 272 | 0.001 |
| | Sr | 88 | **105.732** | **ug/L** | 0.563 | 1134257 | 5.663 |
| | Y | 89 | | **ug/L** | | 722323 | 3.608 |
| | Ag | 107 | **0.544** | **ug/L** | 0.675 | 2475 | 0.012 |
| | Cd | 111 | **1.874** | **ug/L** | 3.800 | 2064 | 0.010 |
| | Cd | 114 | | **ug/L** | | 295 | 0.001 |
| > | In | 115 | | **ug/L** | | 200206 | 200206.247 |
| | Sn | 120 | **1.687** | **ug/L** | 2.118 | 7865 | 0.037 |
| | Sb | 121 | **0.192** | **ug/L** | 10.019 | 1306 | 0.004 |
| | Sb | 123 | | **ug/L** | | 1020 | 0.003 |
| | Ba | 135 | | **ug/L** | | 544969 | 1.738 |
| | Ba | 137 | **457.495** | **ug/L** | 1.046 | 942786 | 3.006 |
| | Ho | 165 | | **ug/L** | | 40436 | 0.129 |
| > | Lu | 175 | | **ug/L** | | 313599 | 313599.495 |
| | Tl | 205 | **0.655** | **ug/L** | 2.716 | 6495 | 0.019 |
| | Pb | 208 | **43.079** | **ug/L** | 0.682 | 715435 | 2.261 |
| | Bi | 209 | | **ug/L** | | 8321 | 0.026 |
| | U | 238 | **9.070** | **ug/L** | 0.952 | 151539 | 0.481 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | 95.4 | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | 89.6 | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | 92.4 | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | 101.8 | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| Al 27 Upper, S, EEE | Al | 27 | Sample is out of limits (over linear range) |

# QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: 245969012**
**Sample Date/Time: Thursday, February 25, 2010 13:04:57**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969012.240**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **40.461** | **ug/L** | 0.343 | 82527 | 0.053 |
| | Be | 9 | **4.371** | **ug/L** | 3.189 | 2305 | 0.001 |
| | B | 11 | **12.192** | **ug/L** | 1.424 | 7594 | 0.004 |
| | Na | 23 | **944.920** | **ug/L** | 5.362 | 4280481 | 2.722 |
| | Mg | 24 | **7013.234** | **ug/L** | 6.059 | 22319267 | 14.301 |
| | Al | 27 | **42084.255** | **ug/L** | 1.777 | 198542650 | 127.333 |
| | P | 31 | **152.292** | **ug/L** | 0.207 | 46022 | 0.025 |
| | K | 39 | **5020.813** | **ug/L** | 4.571 | 26572468 | 16.760 |
| | Ca | 43 | **9084.790** | **ug/L** | 0.751 | 110126 | 0.070 |
| > | Sc | 45 | | **ug/L** | | 1558840 | 1558839.752 |
| | V | 51 | **42.412** | **ug/L** | 1.999 | 273981 | 0.165 |
| | Cr | 52 | **29.314** | **ug/L** | 1.123 | 155112 | 0.095 |
| | Cr | 53 | | **ug/L** | | 78762 | -0.020 |
| | Mn | 55 | **849.614** | **ug/L** | 0.388 | 6289996 | 4.034 |
| | Fe | 57 | **38361.835** | **ug/L** | 0.452 | 5349019 | 3.428 |
| | Co | 59 | **47.245** | **ug/L** | 0.709 | 250074 | 0.160 |
| | Ni | 60 | **33.480** | **ug/L** | 0.201 | 37381 | 0.024 |
| | Cu | 63 | | **ug/L** | | 373421 | 0.239 |
| | Cu | 65 | **143.345** | **ug/L** | 1.124 | 188935 | 0.121 |
| | Zn | 66 | **133.259** | **ug/L** | 0.389 | 109648 | 0.331 |
| | Zn | 67 | | **ug/L** | | 28893 | 0.038 |
| | Zn | 68 | | **ug/L** | | 86302 | 0.257 |
| > | Ge | 74 | | **ug/L** | | 330330 | 330329.769 |
| | As | 75 | **8.799** | **ug/L** | 1.325 | 8928 | 0.024 |
| | Se | 77 | | **ug/L** | | 2986 | -0.006 |
| | Se | 82 | **-0.263** | **ug/L** | 61.450 | -17 | -0.000 |
| | Kr | 83 | | **ug/L** | | 250 | 0.001 |
| | Sr | 88 | **82.058** | **ug/L** | 0.694 | 885818 | 4.395 |
| | Y | 89 | | **ug/L** | | 924011 | 4.587 |
| | Ag | 107 | **0.838** | **ug/L** | 0.231 | 3787 | 0.018 |
| | Cd | 111 | **2.234** | **ug/L** | 5.679 | 2470 | 0.012 |
| | Cd | 114 | | **ug/L** | | 499 | 0.002 |
| > | In | 115 | | **ug/L** | | 201441 | 201440.851 |
| | Sn | 120 | **1.060** | **ug/L** | 0.670 | 5125 | 0.023 |
| | Sb | 121 | **0.555** | **ug/L** | 1.151 | 2703 | 0.011 |
| | Sb | 123 | | **ug/L** | | 2097 | 0.008 |
| | Ba | 135 | | **ug/L** | | 365459 | 1.129 |
| | Ba | 137 | **299.285** | **ug/L** | 0.914 | 636588 | 1.967 |
| | Ho | 165 | | **ug/L** | | 54036 | 0.167 |
| > | Lu | 175 | | **ug/L** | | 323675 | 323674.732 |
| | Tl | 205 | **0.317** | **ug/L** | 1.796 | 3459 | 0.009 |
| | Pb | 208 | **137.100** | **ug/L** | 0.747 | 2335550 | 7.195 |
| | Bi | 209 | | **ug/L** | | 5403 | 0.017 |
| | U | 238 | **40.663** | **ug/L** | 0.780 | 698361 | 2.155 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 96.2 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 90.4 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 93.0 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 105.1 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969013**
**Sample Date/Time: Thursday, February 25, 2010 13:10:50**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969013.241**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **27.892** | ug/L | 0.926 | 57023 | 0.036 |
| | Be | 9 | **3.542** | ug/L | 1.590 | 1873 | 0.001 |
| | B | 11 | **8.912** | ug/L | 1.613 | 5734 | 0.003 |
| | Na | 23 | **381.444** | ug/L | 3.143 | 1753043 | 1.099 |
| | Mg | 24 | **4420.195** | ug/L | 1.733 | 14089038 | 9.014 |
| | Al | 27 | **28750.127** | ug/L | 1.396 | 135844971 | 86.988 |
| | P | 31 | **238.656** | ug/L | 0.413 | 68234 | 0.039 |
| | K | 39 | **4266.655** | ug/L | 4.274 | 22675172 | 14.243 |
| | Ca | 43 | **4271.766** | ug/L | 0.642 | 52031 | 0.033 |
| > | Sc | 45 | | ug/L | | 1561384 | 1561383.791 |
| | V | 51 | **48.114** | ug/L | 1.708 | 309164 | 0.188 |
| | Cr | 52 | **27.872** | ug/L | 0.563 | 148034 | 0.091 |
| | Cr | 53 | | ug/L | | 76095 | -0.022 |
| | Mn | 55 | **756.005** | ug/L | 0.683 | 5606425 | 3.589 |
| | Fe | 57 | **27393.031** | ug/L | 0.840 | 3827229 | 2.448 |
| | Co | 59 | **13.258** | ug/L | 1.292 | 70411 | 0.045 |
| | Ni | 60 | **21.750** | ug/L | 1.010 | 24369 | 0.016 |
| | Cu | 63 | | ug/L | | 189347 | 0.121 |
| | Cu | 65 | **72.037** | ug/L | 0.452 | 95181 | 0.061 |
| | Zn | 66 | **96.226** | ug/L | 1.551 | 81488 | 0.239 |
| | Zn | 67 | | ug/L | | 23872 | 0.021 |
| | Zn | 68 | | ug/L | | 63781 | 0.184 |
| > | Ge | 74 | | ug/L | | 339616 | 339616.249 |
| | As | 75 | **6.094** | ug/L | 5.643 | 6672 | 0.017 |
| | Se | 77 | | ug/L | | 2782 | -0.007 |
| | Se | 82 | **0.007** | ug/L | 3413.207 | 7 | 0.000 |
| | Kr | 83 | | ug/L | | 199 | 0.000 |
| | Sr | 88 | **54.073** | ug/L | 0.016 | 600423 | 2.896 |
| | Y | 89 | | ug/L | | 660497 | 3.188 |
| | Ag | 107 | **0.463** | ug/L | 3.086 | 2194 | 0.010 |
| | Cd | 111 | **1.536** | ug/L | 4.128 | 1756 | 0.008 |
| | Cd | 114 | | ug/L | | 859 | 0.004 |
| > | In | 115 | | ug/L | | 207149 | 207148.660 |
| | Sn | 120 | **1.567** | ug/L | 1.830 | 7591 | 0.035 |
| | Sb | 121 | **0.471** | ug/L | 3.246 | 2450 | 0.009 |
| | Sb | 123 | | ug/L | | 1911 | 0.007 |
| | Ba | 135 | | ug/L | | 288301 | 0.891 |
| | Ba | 137 | **238.152** | ug/L | 0.989 | 506068 | 1.565 |
| | Ho | 165 | | ug/L | | 38103 | 0.118 |
| > | Lu | 175 | | ug/L | | 323344 | 323343.573 |
| | Tl | 205 | **0.455** | ug/L | 0.331 | 4781 | 0.014 |
| | Pb | 208 | **57.106** | ug/L | 0.984 | 975686 | 2.997 |
| | Bi | 209 | | ug/L | | 5931 | 0.018 |
| | U | 238 | **85.255** | ug/L | 1.068 | 1461861 | 4.519 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | 96.4 | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | 93.0 | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | 95.6 | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | 105.0 | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969014**
**Sample Date/Time: Thursday, February 25, 2010 13:16:44**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969014.242**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **30.985** | **ug/L** | 0.807 | 63870 | 0.040 |
| | Be | 9 | **2.980** | **ug/L** | 1.431 | 1592 | 0.001 |
| | B | 11 | **9.370** | **ug/L** | 2.385 | 6046 | 0.003 |
| | Na | 23 | **314.468** | **ug/L** | 4.541 | 1464495 | 0.906 |
| | Mg | 24 | **5088.463** | **ug/L** | 2.174 | 16355838 | 10.376 |
| | Al | 27 | **36597.734** | **ug/L** | 1.467 | 174388626 | 110.733 |
| | P | 31 | **188.660** | **ug/L** | 0.386 | 55890 | 0.031 |
| | K | 39 | **4835.980** | **ug/L** | 3.264 | 25863869 | 16.143 |
| | Ca | 43 | **5637.635** | **ug/L** | 1.113 | 69150 | 0.044 |
| > | Sc | 45 | | **ug/L** | | 1574634 | 1574633.970 |
| | V | 51 | **53.215** | **ug/L** | 0.860 | 343131 | 0.208 |
| | Cr | 52 | **30.662** | **ug/L** | 0.837 | 163604 | 0.100 |
| | Cr | 53 | | **ug/L** | | 75546 | -0.023 |
| | Mn | 55 | **801.659** | **ug/L** | 1.138 | 5995333 | 3.806 |
| | Fe | 57 | **26798.887** | **ug/L** | 0.582 | 3776085 | 2.395 |
| | Co | 59 | **14.681** | **ug/L** | 0.665 | 78616 | 0.050 |
| | Ni | 60 | **21.771** | **ug/L** | 0.371 | 24600 | 0.016 |
| | Cu | 63 | | **ug/L** | | 119135 | 0.075 |
| | Cu | 65 | **45.148** | **ug/L** | 0.402 | 60216 | 0.038 |
| | Zn | 66 | **72.839** | **ug/L** | 0.891 | 62161 | 0.181 |
| | Zn | 67 | | **ug/L** | | 20591 | 0.011 |
| | Zn | 68 | | **ug/L** | | 50462 | 0.144 |
| > | Ge | 74 | | **ug/L** | | 341704 | 341704.420 |
| | As | 75 | **5.757** | **ug/L** | 3.797 | 6403 | 0.016 |
| | Se | 77 | | **ug/L** | | 2753 | -0.007 |
| | Se | 82 | **-0.561** | **ug/L** | 33.809 | -43 | -0.000 |
| | Kr | 83 | | **ug/L** | | 193 | 0.000 |
| | Sr | 88 | **67.103** | **ug/L** | 1.134 | 752730 | 3.594 |
| | Y | 89 | | **ug/L** | | 434707 | 2.077 |
| | Ag | 107 | **0.299** | **ug/L** | 5.630 | 1468 | 0.007 |
| | Cd | 111 | **1.121** | **ug/L** | 5.367 | 1303 | 0.006 |
| | Cd | 114 | | **ug/L** | | 649 | 0.003 |
| > | In | 115 | | **ug/L** | | 209315 | 209315.393 |
| | Sn | 120 | **1.044** | **ug/L** | 2.771 | 5249 | 0.023 |
| | Sb | 121 | **0.630** | **ug/L** | 2.207 | 3109 | 0.012 |
| | Sb | 123 | | **ug/L** | | 2464 | 0.010 |
| | Ba | 135 | | **ug/L** | | 338466 | 1.057 |
| | Ba | 137 | **279.362** | **ug/L** | 0.811 | 587848 | 1.836 |
| | Ho | 165 | | **ug/L** | | 25147 | 0.079 |
| > | Lu | 175 | | **ug/L** | | 320203 | 320203.404 |
| | Tl | 205 | **0.439** | **ug/L** | 0.786 | 4580 | 0.013 |
| | Pb | 208 | **356.995** | **ug/L** | 0.372 | 6006073 | 18.736 |
| | Bi | 209 | | **ug/L** | | 7388 | 0.023 |
| | U | 238 | **32.741** | **ug/L** | 1.328 | 556410 | 1.735 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 97.2 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 93.5 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 96.6 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 104.0 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969015**
**Sample Date/Time: Thursday, February 25, 2010 13:22:37**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\245969015.243**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **51.448** | **ug/L** | 0.991 | 104972 | 0.067 |
| | Be | 9 | **18.480** | **ug/L** | 0.784 | 9704 | 0.006 |
| | B | 11 | **16.890** | **ug/L** | 2.764 | 10278 | 0.006 |
| | Na | 23 | **335.424** | **ug/L** | 4.237 | 1545018 | 0.966 |
| | Mg | 24 | **8577.103** | **ug/L** | 8.794 | 27298181 | 17.490 |
| | Al | 27 | **62496.723** | **ug/L** | 3.169 | 294987440 | 189.094 |
| | P | 31 | **447.435** | **ug/L** | 0.848 | 121641 | 0.073 |
| | K | 39 | **8420.463** | **ug/L** | 1.986 | 44287446 | 28.108 |
| | Ca | 43 | **9016.709** | **ug/L** | 0.519 | 109384 | 0.070 |
| > | Sc | 45 | | **ug/L** | | 1559945 | 1559945.458 |
| | V | 51 | **79.333** | **ug/L** | 0.561 | 498837 | 0.309 |
| | Cr | 52 | **39.401** | **ug/L** | 0.569 | 206482 | 0.128 |
| | Cr | 53 | | **ug/L** | | 76508 | -0.021 |
| | Mn | 55 | **1446.796** | **ug/L** | 0.247 | 10717370 | 6.869 |
| | Fe | 57 | **41176.276** | **ug/L** | 0.279 | 5745251 | 3.680 |
| | Co | 59 | **22.154** | **ug/L** | 0.124 | 117444 | 0.075 |
| | Ni | 60 | **32.127** | **ug/L** | 0.212 | 35901 | 0.023 |
| | Cu | 63 | | **ug/L** | | 128835 | 0.082 |
| | Cu | 65 | **50.138** | **ug/L** | 1.057 | 66231 | 0.042 |
| | Zn | 66 | **117.547** | **ug/L** | 0.918 | 96768 | 0.292 |
| | Zn | 67 | | **ug/L** | | 27021 | 0.032 |
| | Zn | 68 | | **ug/L** | | 80343 | 0.239 |
| > | Ge | 74 | | **ug/L** | | 330357 | 330356.730 |
| | As | 75 | **7.927** | **ug/L** | 3.726 | 8144 | 0.022 |
| | Se | 77 | | **ug/L** | | 2754 | -0.007 |
| | Se | 82 | **-1.774** | **ug/L** | 19.609 | -144 | -0.000 |
| | Kr | 83 | | **ug/L** | | 322 | 0.001 |
| | Sr | 88 | **106.186** | **ug/L** | 0.927 | 1173371 | 5.687 |
| | Y | 89 | | **ug/L** | | 518273 | 2.513 |
| | Ag | 107 | **0.487** | **ug/L** | 2.341 | 2293 | 0.011 |
| | Cd | 111 | **1.835** | **ug/L** | 7.684 | 2082 | 0.010 |
| | Cd | 114 | | **ug/L** | | 1891 | 0.009 |
| > | In | 115 | | **ug/L** | | 206232 | 206231.936 |
| | Sn | 120 | **2.485** | **ug/L** | 1.226 | 11737 | 0.055 |
| | Sb | 121 | **0.268** | **ug/L** | 3.016 | 1644 | 0.005 |
| | Sb | 123 | | **ug/L** | | 1299 | 0.004 |
| | Ba | 135 | | **ug/L** | | 670063 | 2.148 |
| | Ba | 137 | **558.632** | **ug/L** | 0.630 | 1144921 | 3.671 |
| | Ho | 165 | | **ug/L** | | 29527 | 0.095 |
| > | Lu | 175 | | **ug/L** | | 311895 | 311895.149 |
| | Tl | 205 | **0.719** | **ug/L** | 2.920 | 7053 | 0.021 |
| | Pb | 208 | **122.171** | **ug/L** | 0.948 | 2006188 | 6.412 |
| | Bi | 209 | | **ug/L** | | 12418 | 0.040 |
| | U | 238 | **60.099** | **ug/L** | 0.857 | 994226 | 3.185 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 96.3 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 90.4 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 95.2 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 101.3 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| Al 27 Upper, S, EEE | Al | 27 | Sample is out of limits (over linear range) |
| | Mn | 55 | Sample is out of limits (over linear range) |

# QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 13:28:30**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 noirs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 6.244**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **50.146** | **ug/L** | 0.242 | 104083 | 0.066 |
| | Be | 9 | **48.336** | **ug/L** | 0.719 | 25794 | 0.016 |
| | B | 11 | **99.250** | **ug/L** | 4.541 | 58242 | 0.036 |
| | Na | 23 | **4527.792** | **ug/L** | 6.217 | 20728722 | 13.041 |
| | Mg | 24 | **4665.520** | **ug/L** | 4.782 | 15119158 | 9.514 |
| | Al | 27 | **4882.278** | **ug/L** | 4.227 | 23468803 | 14.772 |
| | P | 31 | **4682.082** | **ug/L** | 1.105 | 1226999 | 0.769 |
| | K | 39 | **4501.901** | **ug/L** | 13.515 | 24269521 | 15.028 |
| | Ca | 43 | **4695.968** | **ug/L** | 1.277 | 58105 | 0.036 |
| > | Sc | 45 | | **ug/L** | | 1586829 | 1586829.320 |
| | V | 51 | **48.598** | **ug/L** | 1.478 | 317200 | 0.190 |
| | Cr | 52 | **48.896** | **ug/L** | 1.087 | 259097 | 0.159 |
| | Cr | 53 | | **ug/L** | | 117340 | 0.003 |
| | Mn | 55 | **50.503** | **ug/L** | 0.760 | 382648 | 0.240 |
| | Fe | 57 | **4876.394** | **ug/L** | 0.834 | 696347 | 0.436 |
| | Co | 59 | **47.956** | **ug/L** | 0.455 | 258401 | 0.163 |
| | Ni | 60 | **49.162** | **ug/L** | 0.215 | 55813 | 0.035 |
| | Cu | 63 | | **ug/L** | | 132219 | 0.083 |
| | Cu | 65 | **49.232** | **ug/L** | 0.928 | 66151 | 0.042 |
| | Zn | 66 | **50.594** | **ug/L** | 0.872 | 44567 | 0.126 |
| | Zn | 67 | | **ug/L** | | 20912 | 0.010 |
| | Zn | 68 | | **ug/L** | | 34001 | 0.093 |
| > | Ge | 74 | | **ug/L** | | 351803 | 351802.830 |
| | As | 75 | **45.518** | **ug/L** | 1.071 | 44717 | 0.124 |
| | Se | 77 | | **ug/L** | | 8170 | 0.008 |
| | Se | 82 | **48.343** | **ug/L** | 0.517 | 4345 | 0.012 |
| | Kr | 83 | | **ug/L** | | 94 | 0.000 |
| | Sr | 88 | **50.968** | **ug/L** | 1.109 | 562136 | 2.730 |
| | Y | 89 | | **ug/L** | | 169 | 0.000 |
| | Ag | 107 | **50.720** | **ug/L** | 0.428 | 228546 | 1.110 |
| | Cd | 111 | **48.711** | **ug/L** | 1.061 | 54420 | 0.264 |
| | Cd | 114 | | **ug/L** | | 124091 | 0.603 |
| > | In | 115 | | **ug/L** | | 205760 | 205760.052 |
| | Sn | 120 | **49.225** | **ug/L** | 1.810 | 224132 | 1.087 |
| | Sb | 121 | **48.227** | **ug/L** | 1.565 | 189265 | 0.917 |
| | Sb | 123 | | **ug/L** | | 147029 | 0.712 |
| | Ba | 135 | | **ug/L** | | 57277 | 0.187 |
| | Ba | 137 | **50.072** | **ug/L** | 0.767 | 100659 | 0.329 |
| | Ho | 165 | | **ug/L** | | 24 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 305676 | 305675.977 |
| | Tl | 205 | **48.494** | **ug/L** | 1.117 | 441023 | 1.442 |
| | Pb | 208 | **50.888** | **ug/L** | 1.854 | 822475 | 2.671 |
| | Bi | 209 | | **ug/L** | | 179 | 0.000 |
| | U | 238 | **54.252** | **ug/L** | 1.331 | 879587 | 2.875 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

Sample ID: QC Std 6

Record Date/Time: Thursday, February 25, 2010 13:31:00

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 100.291 | | | | |
| | Be | 9 | 96.672 | | | | |
| | B | 11 | 99.250 | | | | |
| | Na | 23 | 90.556 | | | | |
| | Mg | 24 | 93.310 | | | | |
| | Al | 27 | 96.679 | | | | |
| | P | 31 | 93.642 | | | | |
| | K | 39 | 90.038 | | | | |
| | Ca | 43 | 93.919 | | | | |
| > | Sc | 45 | | | 97.9 | | |
| | V | 51 | 97.196 | | | | |
| | Cr | 52 | 97.793 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 101.005 | | | | |
| | Fe | 57 | 97.528 | | | | |
| | Co | 59 | 95.913 | | | | |
| | Ni | 60 | 98.325 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 98.464 | | | | |
| | Zn | 66 | 101.188 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | 96.3 | | |
| | As | 75 | 91.035 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 96.686 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 101.935 | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | 101.440 | | | | |
| | Cd | 111 | 97.421 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | 94.9 | | |
| | Sn | 120 | 98.449 | | | | |
| | Sb | 121 | 96.455 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 100.144 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | 99.3 | | |
| | Tl | 205 | 96.988 | | | | |
| | Pb | 208 | 101.775 | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | 108.505 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 25, 2010 13:31:00

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 13:34:24**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 nolrs thtimozr.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 7.245**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **0.012** | ug/L | 35.430 | 165 | 0.000 |
| | Be | 9 | **0.007** | ug/L | 180.970 | 19 | 0.000 |
| | B | 11 | **2.014** | ug/L | 22.384 | 1903 | 0.001 |
| | Na | 23 | **-0.311** | ug/L | 507.140 | 38720 | -0.001 |
| | Mg | 24 | **-1.690** | ug/L | 34.600 | 12005 | -0.003 |
| | Al | 27 | **1.821** | ug/L | 38.392 | 37717 | 0.006 |
| | P | 31 | **-2.871** | ug/L | 6.131 | 6697 | -0.000 |
| | K | 39 | **-15.193** | ug/L | 21.739 | 383417 | -0.051 |
| | Ca | 43 | **-3.838** | ug/L | 10.996 | 276 | -0.000 |
| > | Sc | 45 | | ug/L | | 1653636 | 1653635.974 |
| | V | 51 | **0.117** | ug/L | 254.314 | 17887 | 0.000 |
| | Cr | 52 | **0.005** | ug/L | 817.428 | 6696 | 0.000 |
| | Cr | 53 | | ug/L | | 97269 | -0.012 |
| | Mn | 55 | **0.075** | ug/L | 20.505 | 2863 | 0.000 |
| | Fe | 57 | **-0.476** | ug/L | 160.529 | 4970 | -0.000 |
| | Co | 59 | **0.003** | ug/L | 89.931 | 196 | 0.000 |
| | Ni | 60 | **-0.004** | ug/L | 359.444 | 135 | -0.000 |
| | Cu | 63 | | ug/L | | 322 | 0.000 |
| | Cu | 65 | **0.015** | ug/L | 16.405 | 176 | 0.000 |
| | Zn | 66 | **-0.074** | ug/L | 42.666 | 319 | -0.000 |
| | Zn | 67 | | ug/L | | 14475 | -0.010 |
| | Zn | 68 | | ug/L | | 1004 | -0.001 |
| > | Ge | 74 | | ug/L | | 366078 | 366078.266 |
| | As | 75 | **-0.274** | ug/L | 91.474 | 843 | -0.001 |
| | Se | 77 | | ug/L | | 5393 | -0.000 |
| | Se | 82 | **0.076** | ug/L | 129.686 | 13 | 0.000 |
| | Kr | 83 | | ug/L | | 72 | -0.000 |
| | Sr | 88 | **0.003** | ug/L | 85.241 | 544 | 0.000 |
| | Y | 89 | | ug/L | | 84 | 0.000 |
| | Ag | 107 | **0.002** | ug/L | 179.928 | 108 | 0.000 |
| | Cd | 111 | **0.010** | ug/L | 31.225 | 42 | 0.000 |
| | Cd | 114 | | ug/L | | 84 | -0.000 |
| > | In | 115 | | ug/L | | 216742 | 216741.905 |
| | Sn | 120 | **0.025** | ug/L | 52.446 | 559 | 0.001 |
| | Sb | 121 | **0.237** | ug/L | 31.570 | 1599 | 0.005 |
| | Sb | 123 | | ug/L | | 1196 | 0.003 |
| | Ba | 135 | | ug/L | | 66 | 0.000 |
| | Ba | 137 | **0.003** | ug/L | 179.838 | 105 | 0.000 |
| | Ho | 165 | | ug/L | | 12 | 0.000 |
| > | Lu | 175 | | ug/L | | 314369 | 314368.829 |
| | Tl | 205 | **0.038** | ug/L | 37.737 | 751 | 0.001 |
| | Pb | 208 | **-0.109** | ug/L | 2.149 | 4639 | -0.006 |
| | Bi | 209 | | ug/L | | 39 | -0.000 |
| | U | 238 | **0.006** | ug/L | 33.613 | 881 | 0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 102.1 | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 100.2 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 100.0 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 102.1 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 25, 2010 13:36:56

# ICPMS #6 Daily Performance Report

**Sample ID: Sample**
Sample Date/Time: Thursday, February 25, 2010 21:10:56
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1673
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD |
|---|---|---|---|---|---|---|
| | Be | 9.0 | 4426.7 | 4426.686 | 125.624 | 2.8 |
| | Mg | 24.0 | 33968.1 | 33968.140 | 360.627 | 1.1 |
| | Co | 58.9 | 55712.4 | 55712.441 | 767.844 | 1.4 |
| | Rh | 102.9 | 102017.2 | 102017.216 | 1333.173 | 1.3 |
| | In | 114.9 | 112334.6 | 112334.589 | 1361.480 | 1.2 |
| | Pb | 208.0 | 82895.7 | 82895.659 | 1277.395 | 1.5 |
| ⌈> | Ba | 137.9 | 106971.7 | 106971.669 | 1685.235 | 1.6 |
| ⌊ | Ba++ | 69.0 | 2397.2 | 0.022 | 0.001 | 3.1 |
| ⌈> | Ce | 139.9 | 138161.7 | 138161.712 | 925.788 | 0.7 |
| ⌊ | CeO | 155.9 | 2844.6 | 0.021 | 0.000 | 1.6 |
| | Bkgd | 220.0 | 6.4 | 6.400 | 1.817 | 28.4 |

### Current Optimization File Data

| Current Value | Description |
|---|---|
| 0.80 | Nebulizer Gas Flow |
| 4.75 | Lens Voltage |
| 1450.00 | ICP RF Power |
| -1800.00 | Analog Stage Voltage |
| 900.00 | Pulse Stage Voltage |
| 25.00 | Discriminator Threshold |
| -6.00 | AC Rod Offset |

### Current Autolens Data

| Analyte | Mass | Num of Pts | DAC Value | Maximum Intensity |
|---|---|---|---|---|
| Be | 9 | 11 | 5.3 | 4785.5 |
| Co | 59 | 11 | 6.0 | 51167.5 |
| In | 115 | 11 | 6.8 | 111813.5 |

# ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Pk. Width |
|---|---|---|---|---|---|
| He | 3.0 | 3.0 | 582 | 2080 | 0.638 |
| Be | 9.0 | 9.0 | 2035 | 2080 | 0.652 |
| Mg | 24.0 | 24.0 | 5692 | 2124 | 0.597 |
| Mg | 25.0 | 25.1 | 5932 | 2080 | 0.693 |
| Mg | 26.0 | 26.1 | 6174 | 2120 | 0.666 |
| Co | 58.9 | 59.0 | 14165 | 2170 | 0.619 |
| Rh | 102.9 | 102.9 | 24868 | 2230 | 0.691 |
| In | 114.9 | 114.9 | 27795 | 2260 | 0.675 |
| Ce | 139.9 | 139.9 | 33858 | 2280 | 0.745 |
| Pb | 206.0 | 206.0 | 49960 | 2428 | 0.744 |
| Pb | 207.0 | 207.0 | 50135 | 2385 | 0.687 |
| Pb | 208.0 | 208.0 | 50463 | 2430 | 0.733 |
| U | 238.1 | 238.0 | 57717 | 2470 | 0.741 |

Report Date/Time: Thursday, February 25, 2010 21:07:47

# ICPMS#6 - Summary Report

**Sample ID: Blank**
**Sample Date/Time: Friday, February 26, 2010 03:43:34**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\Blank.086**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 203014 | |
| | U | 238 | | ug/L | | 91 | |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: Standard 1**
**Sample Date/Time: Friday, February 26, 2010 03:46:38**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\Standard 1.087**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 206614 | 206613.805 |
| | U | 238 | 10.000 | ug/L | 1.156 | 144817 | 0.700 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: Standard 2**
**Sample Date/Time: Friday, February 26, 2010 03:49:40**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\Standard 2.088**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 198554 | 198554.285 |
| | U | 238 | 99.956 | ug/L | 1.349 | 1331121 | 6.704 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 1**
**Sample Date/Time: Friday, February 26, 2010 03:52:43**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 1.089**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 202303 | 202303.277 |
| | U | 238 | 54.254 | ug/L | 0.921 | 736230 | 3.639 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 99.6 | | | |
| | U | 238 | 108.508 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 2**
**Sample Date/Time: Friday, February 26, 2010 03:55:48**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 2.090**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 204161 | 204160.708 |
| | U | 238 | 0.010 | ug/L | 3.323 | 234 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 100.6 | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 3**
**Sample Date/Time: Friday, February 26, 2010 03:58:53**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 3.091**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 206053 | 206053.211 |
| ⌊ | U | 238 | 0.253 | ug/L | 2.965 | 3581 | 0.017 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 101.5 | | | |
| ⌊ | U | 238 | 126.269 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 4**
**Sample Date/Time: Friday, February 26, 2010 04:01:57**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 4.092**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 172562 | 172561.691 |
| | U | 238 | -0.003 | ug/L | 12.246 | 45 | -0.000 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 85.0 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 5**
**Sample Date/Time: Friday, February 26, 2010 04:05:01**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 5.093**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 175342 | 175341.632 |
| | U | 238 | 23.202 | ug/L | 1.574 | 272891 | 1.556 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 86.4 | | | |
| | U | 238 | 116.009 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Friday, February 26, 2010 04:08:05**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 6.094**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 196837 | 196837.434 |
| ⌊ | U | 238 | 54.797 | ug/L | 0.457 | 723448 | 3.675 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 97.0 | | | |
| ⌊ | U | 238 | 109.594 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Friday, February 26, 2010 04:11:10**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 7.095**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 202352 | 202351.789 |
| ⌊ | U | 238 | 0.012 | ug/L | 7.007 | 253 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 99.7 | | | |
| ⌊ | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032600**
**Sample Date/Time: Friday, February 26, 2010 04:14:14**
**Sample Type:**
**Sample Description: LANL 6020 MB**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\1202032600.096**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 220280 | 220280.120 |
| | U | 238 | 0.006 | ug/L | 13.798 | 182 | 0.000 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 108.5 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032605**
**Sample Date/Time: Friday, February 26, 2010 04:17:17**
**Sample Type:**
**Sample Description: LANL 6020 LCS**
**Number of Replicates: 3**
**Batch ID: 948759|40|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\1202032605.097**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 207445 | 207445.136 |
| | U | 238 | 0.494 | ug/L | 1.124 | 6960 | 0.033 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 102.2 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969001**
**Sample Date/Time: Friday, February 26, 2010 04:20:20**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969001.098**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 232721 | 232721.039 |
| ⌊ | U | 238 | 2.924 | ug/L | 1.451 | 45735 | 0.196 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 114.6 | | | |
| ⌊ | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032601**
**Sample Date/Time: Friday, February 26, 2010 04:23:24**
**Sample Type:**
**Sample Description: LANL 6020 DUP**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\1202032601.099**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 235164 | 235163.683 |
| | U | 238 | 3.746 | ug/L | 1.367 | 59186 | 0.251 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 115.8 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032603**
**Sample Date/Time: Friday, February 26, 2010 04:26:28**
**Sample Type:**
**Sample Description: LANL 6020 MS**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\1202032603.100**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 223728 | 223728.435 |
| | U | 238 | 6612.175 | ug/L | 2.084 | 99192039 | 443.445 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 110.2 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| U | 238 Upper, S, EEEU | 238 | Sample is out of limits (over linear range) |

## QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: 1202032604**
**Sample Date/Time: Friday, February 26, 2010 04:29:33**
**Sample Type:**
**Sample Description: LANL 6020 MSD**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\1202032604.101**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 229222 | 229221.680 |
| | U | 238 | 31.598 | ug/L | 0.477 | 485846 | 2.119 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 112.9 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 1202032602**
**Sample Date/Time: Friday, February 26, 2010 04:32:37**
**Sample Type:**
**Sample Description: LANL 6020 SDILT**
**Number of Replicates: 3**
**Batch ID: 948759|10|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\1202032602.102**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 206970 | 206969.940 |
| | U | 238 | 1.106 | ug/L | 0.776 | 15449 | 0.074 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 101.9 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969002**
**Sample Date/Time: Friday, February 26, 2010 04:35:39**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|20|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969002.103**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | ug/L | | 207636 | 207636.102 |
| [ | U | 238 | 81.735 | ug/L | 1.288 | 1138018 | 5.482 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | 102.3 | | | |
| [ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Friday, February 26, 2010 04:38:41**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 6.104**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 220182 | 220181.924 |
| | U | 238 | 52.278 | ug/L | 0.785 | 772003 | 3.506 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 108.5 | | | |
| | U | 238 | 104.557 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Friday, February 26, 2010 04:41:46**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 7.105**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 225335 | 225335.333 |
| | U | 238 | 0.034 | ug/L | 5.198 | 615 | 0.002 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 111.0 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969004**
**Sample Date/Time: Friday, February 26, 2010 04:47:54**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|40|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969004.107**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 232532 | 232531.946 |
| | U | 238 | 60.859 | ug/L | 0.628 | 949222 | 4.082 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 114.5 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969005**
**Sample Date/Time: Friday, February 26, 2010 04:50:58**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969005.108**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | ug/L | | 243940 | 243939.884 |
| [ | U | 238 | 26.228 | ug/L | 0.566 | 429192 | 1.759 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | 120.2 | | | |
| [ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| Lu 175 Int Std for sa | Lu | 175 | |

## QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: 245969006**
**Sample Date/Time: Friday, February 26, 2010 04:54:02**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|10|rm|**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969006.109**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 227021 | 227021.277 |
| | U | 238 | 36.729 | ug/L | 0.629 | 559315 | 2.463 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 111.8 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969007**
**Sample Date/Time: Friday, February 26, 2010 04:57:07**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|10|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969007.110**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 224919 | 224919.195 |
| | U | 238 | 59.801 | ug/L | 0.949 | 902098 | 4.011 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 110.8 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969008**
**Sample Date/Time: Friday, February 26, 2010 05:00:11**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|10|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969008.111**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 224538 | 224538.350 |
| | U | 238 | 34.756 | ug/L | 1.036 | 523420 | 2.331 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 110.6 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969009**
**Sample Date/Time: Friday, February 26, 2010 05:03:14**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969009.112**

## Concentration Results

| Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|
| Lu | 175 | | ug/L | | 219039 | 219039.052 |
| U | 238 | 12.721 | ug/L | 1.184 | 186985 | 0.853 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|
| Lu | 175 | | 107.9 | | | |
| U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969010**
**Sample Date/Time: Friday, February 26, 2010 05:06:18**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969010.113**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 236676 | 236675.648 |
| ⌊ | U | 238 | 20.024 | ug/L | 0.669 | 317937 | 1.343 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 116.6 | | | |
| ⌊ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Friday, February 26, 2010 05:09:21**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 6.114**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 213450 | 213450.455 |
| | U | 238 | 53.688 | ug/L | 0.670 | 768597 | 3.601 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 105.1 | | | |
| | U | 238 | 107.376 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Friday, February 26, 2010 05:12:26**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 7.115**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 216146 | 216146.010 |
| ⌊ | U | 238 | 0.012 | ug/L | 9.489 | 270 | 0.001 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 106.5 | | | |
| ⌊ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969011**
**Sample Date/Time: Friday, February 26, 2010 05:15:31**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969011.116**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | ug/L | | 235516 | 235516.033 |
| [ | U | 238 | 8.489 | ug/L | 0.855 | 134188 | 0.569 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | 116.0 | | | |
| [ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969012**
**Sample Date/Time: Friday, February 26, 2010 05:18:35**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969012.117**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | ug/L | | 231066 | 231066.040 |
| [ | U | 238 | 39.724 | ug/L | 1.192 | 615751 | 2.664 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | 113.8 | | | |
| [ | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969013**
**Sample Date/Time: Friday, February 26, 2010 05:21:39**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rm|**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969013.118**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 233807 | 233806.576 |
| | U | 238 | 83.335 | ug/L | 0.830 | 1306901 | 5.589 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 115.2 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969014**
**Sample Date/Time: Friday, February 26, 2010 05:24:44**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969014.119**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 224418 | 224417.554 |
| ⌊ | U | 238 | 32.270 | ug/L | 0.567 | 485790 | 2.164 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 110.5 | | | |
| ⌊ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969015**
**Sample Date/Time: Friday, February 26, 2010 05:27:48**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\245969015.120**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 218215 | 218215.185 |
| | U | 238 | 58.488 | ug/L | 0.909 | 856058 | 3.922 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 107.5 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Friday, February 26, 2010 05:30:51**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 6.121**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | ug/L | | 205857 | 205856.726 |
| [ | U | 238 | 53.669 | ug/L | 1.496 | 741023 | 3.599 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | 101.4 | | | |
| [ | U | 238 | 107.338 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Friday, February 26, 2010 05:33:56**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100225\QC Std 7.122**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 208067 | 208066.653 |
| | U | 238 | 0.015 | ug/L | 17.134 | 306 | 0.001 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 102.5 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS #6 Daily Performance Report

**Sample ID: Sample**
Sample Date/Time: Saturday, February 27, 2010 23:13:02
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1681
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD |
|---|---|---|---|---|---|---|
| | Be | 9.0 | 1646.5 | 1646.495 | 46.355 | 2.8 |
| | Mg | 24.0 | 10161.0 | 10161.015 | 305.365 | 3.0 |
| | Co | 58.9 | 21345.1 | 21345.142 | 496.401 | 2.3 |
| | Rh | 102.9 | 55538.4 | 55538.377 | 1004.290 | 1.8 |
| | In | 114.9 | 64911.2 | 64911.206 | 1580.503 | 2.4 |
| | Pb | 208.0 | 43468.4 | 43468.440 | 528.057 | 1.2 |
| ⌈> | Ba | 137.9 | 53237.5 | 53237.540 | 1033.858 | 1.9 |
| ⌊ | Ba++ | 69.0 | 741.4 | 0.014 | 0.000 | 1.8 |
| ⌈> | Ce | 139.9 | 72230.6 | 72230.594 | 1349.694 | 1.9 |
| ⌊ | CeO | 155.9 | 1056.0 | 0.015 | 0.001 | 4.3 |
| | Bkgd | 220.0 | 2.8 | 2.800 | 1.204 | 43.0 |

### Current Optimization File Data

| Current Value | Description |
|---|---|
| 0.78 | Nebulizer Gas Flow |
| 4.75 | Lens Voltage |
| 1450.00 | ICP RF Power |
| -1800.00 | Analog Stage Voltage |
| 900.00 | Pulse Stage Voltage |
| 25.00 | Discriminator Threshold |
| -6.00 | AC Rod Offset |

### Current Autolens Data

| Analyte | Mass | Num of Pts | DAC Value | Maximum Intensity |
|---|---|---|---|---|
| Be | 9 | 17 | 5.5 | 1504.1 |
| Co | 59 | 17 | 6.8 | 19845.8 |
| In | 115 | 17 | 8.0 | 65863.1 |

# ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Pk. Width |
|---|---|---|---|---|---|
| He | 3.0 | 3.0 | 581 | 2080 | 0.633 |
| Be | 9.0 | 8.9 | 2028 | 2080 | 0.661 |
| Mg | 24.0 | 24.0 | 5682 | 2124 | 0.568 |
| Mg | 25.0 | 24.9 | 5898 | 2080 | 0.596 |
| Mg | 26.0 | 25.9 | 6177 | 2120 | 0.675 |
| Co | 58.9 | 59.0 | 14168 | 2170 | 0.629 |
| Rh | 102.9 | 102.9 | 24857 | 2230 | 0.691 |
| In | 114.9 | 114.9 | 27785 | 2260 | 0.707 |
| Ce | 139.9 | 140.0 | 33871 | 2280 | 0.770 |
| Pb | 206.0 | 206.0 | 49948 | 2430 | 0.715 |
| Pb | 207.0 | 207.0 | 50147 | 2385 | 0.737 |
| Pb | 208.0 | 207.9 | 50427 | 2430 | 0.749 |
| U | 238.1 | 238.1 | 57734 | 2470 | 0.760 |

Report Date/Time: Saturday, February 27, 2010 23:07:50

# ICPMS#6 - Summary Report

**Sample ID: Blank**
**Sample Date/Time: Sunday, February 28, 2010 02:58:58**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\Blank.061**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 150726 | |
| | U | 238 | | ug/L | | 39 | |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Simple Linear | |
| U | 238 | Simple Linear | |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: Standard 1**
**Sample Date/Time: Sunday, February 28, 2010 03:02:03**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\Standard 1.062**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 153347 | 153346.856 |
| ⌊ | U | 238 | 10.000 | ug/L | 0.253 | 72507 | 0.473 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | | | | |
| ⌊ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: Standard 2**
**Sample Date/Time: Sunday, February 28, 2010 03:05:05**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\Standard 2.063**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 148064 | 148063.906 |
| ⌊ | U | 238 | 100.023 | ug/L | 0.356 | 716370 | 4.838 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | | | | |
| ⌊ | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 1**
**Sample Date/Time: Sunday, February 28, 2010 03:08:08**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 1.064**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 150361 | 150361.398 |
| ⌊ | U | 238 | 53.169 | ug/L | 0.614 | 386755 | 2.572 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 99.8 | | | |
| ⌊ | U | 238 | 106.337 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 2**
**Sample Date/Time: Sunday, February 28, 2010 03:11:12**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 2.065**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 150822 | 150822.267 |
| ⌊ | U | 238 | 0.012 | ug/L | 4.814 | 129 | 0.001 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 100.1 | | | |
| ⌊ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 3**
**Sample Date/Time: Sunday, February 28, 2010 03:14:18**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 3.066**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 151362 | 151361.864 |
| ⌊ | U | 238 | 0.267 | ug/L | 0.528 | 1994 | 0.013 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 100.4 | | | |
| ⌊ | U | 238 | 133.489 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 3 | U | 238 | CRDL is out of limits |

## QC Action

QC Action Line: Continue

# ICPMS#6 - Summary Report

**Sample ID: QC Std 4**
**Sample Date/Time: Sunday, February 28, 2010 03:17:21**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 4.067**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 139097 | 139096.764 |
| | U | 238 | -0.002 | ug/L | 32.516 | 23 | -0.000 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 92.3 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 5**
**Sample Date/Time: Sunday, February 28, 2010 03:20:26**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 5.068**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 135030 | 135030.002 |
| | U | 238 | 22.362 | ug/L | 0.196 | 146089 | 1.082 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 89.6 | | | |
| | U | 238 | 111.809 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Sunday, February 28, 2010 03:23:29**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 6.069**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 145575 | 145574.970 |
| | U | 238 | 53.678 | ug/L | 1.426 | 377902 | 2.596 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 96.6 | | | |
| | U | 238 | 107.356 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Sunday, February 28, 2010 03:26:34**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 7.070**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 148145 | 148144.681 |
| | U | 238 | 0.007 | ug/L | 15.285 | 89 | 0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 98.3 | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: 245969003**
**Sample Date/Time: Sunday, February 28, 2010 03:29:39**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948759|2|rmj**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\245969003.071**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 152928 | 152927.772 |
| | U | 238 | 34.517 | ug/L | 0.271 | 255361 | 1.670 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 101.5 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Sunday, February 28, 2010 03:32:42**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 6.072**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | ug/L | | 148756 | 148755.790 |
| [ | U | 238 | 53.229 | ug/L | 2.267 | 382888 | 2.575 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | 98.7 | | | |
| [ | U | 238 | 106.458 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#6 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Sunday, February 28, 2010 03:35:47**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u.mth**
**Dataset File: C:\elandata\Dataset\100227\QC Std 7.073**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 151253 | 151253.237 |
| | U | 238 | 0.008 | ug/L | 8.601 | 94 | 0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 100.3 | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/18/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021810S1.SIF  Results Data Set Name: 021810S1

==========
Element: Hg  Seq. No.: 1  AS Loc.: 1  Date: 02/18/2010
Sample ID: Calib Blank
---

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | | | 0.0046 | 0.0046 | 09:45:19 | No |
| 2 | | | 0.0045 | 0.0045 | 09:45:54 | No |
| Mean: | | | 0.0046 | | | |
| SD : | | | 0.0001 | | | |
| %RSD: | | | 2.6075 | | | |

Auto-zero performed.

==========
Element: Hg  Seq. No.: 2  AS Loc.: 2  Date: 02/18/2010
Sample ID: S0.2
---

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | | | 0.0019 | 0.0065 | 09:47:17 | No |
| 2 | | | 0.0017 | 0.0063 | 09:47:51 | No |
| Mean: | | | 0.0018 | | | |
| SD : | | | 0.0001 | | | |
| %RSD: | | | 7.2627 | | | |

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000  Slope: 0.00908
Intercept : 0.00000

==========
Element: Hg  Seq. No.: 3  AS Loc.: 3  Date: 02/18/2010
Sample ID: S0.5
---

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | | | 0.0052 | 0.0098 | 09:49:14 | No |
| 2 | | | 0.0054 | 0.0099 | 09:49:48 | No |
| Mean: | | | 0.0053 | | | |
| SD : | | | 0.0001 | | | |
| %RSD: | | | 2.3316 | | | |

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99797  Slope: 0.01065
Intercept : -0.00012

==========
Element: Hg  Seq. No.: 4  AS Loc.: 4  Date: 02/18/2010
Sample ID: S2.0
---

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | | | 0.0209 | 0.0255 | 09:51:13 | No |
| 2 | | | 0.0210 | 0.0255 | 09:51:49 | No |
| Mean: | | | 0.0210 | | | |
| SD : | | | 0.0000 | | | |
| %RSD: | | | 0.1449 | | | |

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99989 Slope: 0.01053
Intercept : -0.00009

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/18/2010
Sample ID: S5.0

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | | | 0.0521 | 0.0567 | 09:53:13 | No |
| 2 | | | 0.0519 | 0.0564 | 09:53:49 | No |
| Mean: | | | 0.0520 | | | |
| SD : | | | 0.0002 | | | |
| %RSD: | | | 0.3044 | | | |

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01042
Intercept : -0.00003

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/18/2010
Sample ID: S10

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | | | 0.1014 | 0.1060 | 09:55:15 | No |
| 2 | | | 0.1009 | 0.1054 | 09:55:50 | No |
| Mean: | | | 0.1011 | | | |
| SD : | | | 0.0004 | | | |
| %RSD: | | | 0.3679 | | | |

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99989 Slope: 0.01014
Intercept : 0.00028

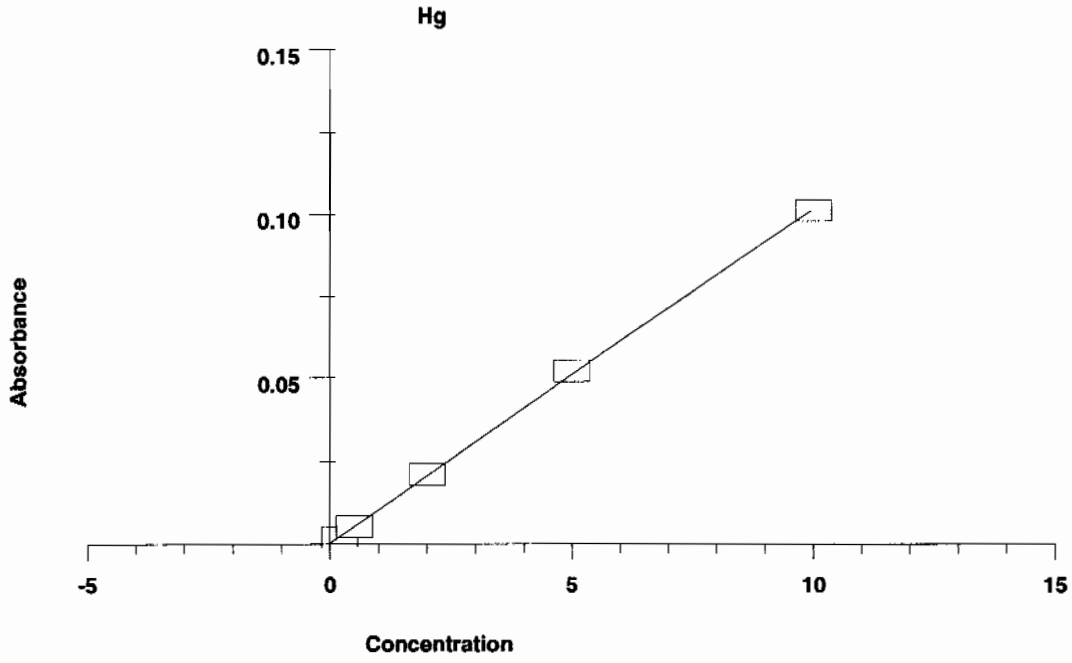
---

Calibration data for Hg

| Standard ID | Mean Signal (Pk Height) | Entered Concentration (µg/L) | Calculated Concentration (µg/L) | Standard Deviation | %RSD |
|---|---|---|---|---|---|
| Calib Blank | 0.0046 | --- | ---- | ---- | ---- |
| S0.2 | 0.0018 | 0.200 | 0.152 | 0.0001 | 7.3 |
| S0.5 | 0.0053 | 0.500 | 0.494 | 0.0001 | 2.3 |
| S2.0 | 0.0210 | 2.000 | 2.039 | 0.0000 | 0.1 |
| S5.0 | 0.0520 | 5.000 | 5.098 | 0.0002 | 0.3 |
| S10 | 0.1011 | 10.000 | 9.944 | 0.0004 | 0.4 |

Correlation Coefficient: 0.99989 Slope: 0.01014 Intercept: 0.0003

---




==========

Element: Hg  Seq. No.: 7  AS Loc.: 9  Date: 02/18/2010
Sample ID: ICV

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 5.154 | 5.154 | 0.0525 | 0.0571 | 09:57:18 | No |
| 2 | 5.108 | 5.108 | 0.0521 | 0.0566 | 09:57:53 | No |
| Mean: | 5.131 | 5.131 | 0.0523 | | | |
| SD : | 0.0323 | 0.0323 | 0.0003 | | | |
| %RSD: | 0.6 | 0.6 | 0.6260 | | | |

QC value within specified limits.

==========

Element: Hg  Seq. No.: 8  AS Loc.: 10  Date: 02/18/2010
Sample ID: ICB

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.120 | -0.120 | -0.0009 | 0.0036 | 09:59:15 | No |
| 2 | -0.138 | -0.138 | -0.0011 | 0.0034 | 09:59:50 | No |
| Mean: | -0.129 | -0.129 | -0.0010 | | | |
| SD : | 0.0127 | 0.0127 | 0.0001 | | | |
| %RSD: | 9.9 | 9.9 | 12.5442 | | | |

QC value within specified limits.

==========

Element: Hg  Seq. No.: 9  AS Loc.: 11  Date: 02/18/2010
Sample ID: CRDL

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.225 | 0.225 | 0.0026 | 0.0071 | 10:01:12 | No |
| 2 | 0.211 | 0.211 | 0.0024 | 0.0070 | 10:01:47 | No |
| Mean: | 0.218 | 0.218 | 0.0025 | | | |
| SD : | 0.0095 | 0.0095 | 0.0001 | | | |
| %RSD: | 4.3 | 4.3 | 3.8605 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 5.040 | 5.040 | 0.0514 | 0.0559 | 10:03:12 | No |
| 2 | 5.078 | 5.078 | 0.0518 | 0.0563 | 10:03:46 | No |
| Mean: | 5.059 | 5.059 | 0.0516 | | | |
| SD : | 0.0274 | 0.0274 | 0.0003 | | | |
| %RSD: | 0.5 | 0.5 | 0.5390 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.040 | -0.040 | -0.0001 | 0.0044 | 10:05:14 | No |
| 2 | -0.052 | -0.052 | -0.0003 | 0.0043 | 10:05:49 | No |
| Mean: | -0.046 | -0.046 | -0.0002 | | | |
| SD : | 0.0083 | 0.0083 | 0.0001 | | | |
| %RSD: | 18.0 | 18.0 | 43.9084 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/18/2010
Sample ID: 1202037115|i||950565|MB

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.073 | -0.073 | -0.0005 | 0.0041 | 10:07:15 | No |
| 2 | -0.088 | -0.088 | -0.0006 | 0.0039 | 10:07:50 | No |
| Mean: | -0.080 | -0.080 | -0.0005 | | | |
| SD : | 0.0102 | 0.0102 | 0.0001 | | | |
| %RSD: | 12.7 | 12.7 | 19.1745 | | | |

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/18/2010
Sample ID: 1202037116|i|10||LCS

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 4.092 | 4.092 | 0.0418 | 0.0463 | 10:09:15 | No |
| 2 | 3.952 | 3.952 | 0.0404 | 0.0449 | 10:09:50 | No |
| Mean: | 4.022 | 4.022 | 0.0411 | | | |
| SD : | 0.0991 | 0.0991 | 0.0010 | | | |
| %RSD: | 2.5 | 2.5 | 2.4475 | | | |

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/18/2010
Sample ID: 245969001|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.246 | 0.246 | 0.0028 | 0.0073 | 10:11:18 | No |
| 2 | 0.244 | 0.244 | 0.0027 | 0.0073 | 10:11:53 | No |
| Mean: | 0.245 | 0.245 | 0.0028 | | | |
| SD : | 0.0019 | 0.0019 | 0.0000 | | | |
| %RSD: | 0.8 | 0.8 | 0.7089 | | | |

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/18/2010
Sample ID: 1202037117|i|||DUP

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.163 | 0.163 | 0.0019 | 0.0065 | 10:13:19 | No |
| 2 | 0.172 | 0.172 | 0.0020 | 0.0066 | 10:13:54 | No |
| Mean: | 0.167 | 0.167 | 0.0020 | | | |
| SD : | 0.0063 | 0.0063 | 0.0001 | | | |
| %RSD: | 3.8 | 3.8 | 3.2652 | | | |

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 02/18/2010
Sample ID: 1202037118|i|||MS

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 2.222 | 2.222 | 0.0228 | 0.0274 | 10:15:21 | No |
| 2 | 2.224 | 2.224 | 0.0228 | 0.0274 | 10:15:56 | No |
| Mean: | 2.223 | 2.223 | 0.0228 | | | |
| SD : | 0.0014 | 0.0014 | 0.0000 | | | |
| %RSD: | | | | | | |

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 02/18/2010
Sample ID: 1202037120|i|||MSD

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 2.341 | 2.341 | 0.0240 | 0.0286 | 10:17:21 | No |
| 2 | 2.293 | 2.293 | 0.0235 | 0.0281 | 10:17:56 | No |
| Mean: | 2.317 | 2.317 | 0.0238 | | | |
| SD : | 0.0336 | 0.0336 | 0.0003 | | | |
| %RSD: | 1.5 | 1.5 | 1.4334 | | | |

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 02/18/2010
Sample ID: 1202037119|i|5||SDILT

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.122 | -0.122 | -0.0010 | 0.0036 | 10:19:17 | No |
| 2 | -0.126 | -0.126 | -0.0010 | 0.0036 | 10:19:52 | No |
| Mean: | -0.124 | -0.124 | -0.0010 | | | |
| SD : | 0.0031 | 0.0031 | 0.0000 | | | |
| %RSD: | 2.5 | 2.5 | 3.2339 | | | |

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 02/18/2010
Sample ID: 245969002|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.149 | 0.149 | 0.0018 | 0.0063 | 10:21:13 | No |
| 2 | 0.125 | 0.125 | 0.0015 | 0.0061 | 10:21:47 | No |
| Mean: | 0.137 | 0.137 | 0.0017 | | | |
| SD : | 0.0170 | 0.0170 | 0.0002 | | | |
| %RSD: | 12.4 | 12.4 | 10.3517 | | | |

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 02/18/2010
Sample ID: 245969003|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.463 | 0.463 | 0.0050 | 0.0095 | 10:23:09 | No |
| 2 | 0.470 | 0.470 | 0.0050 | 0.0096 | 10:23:44 | No |
| Mean: | 0.466 | 0.466 | 0.0050 | | | |
| SD : | 0.0055 | 0.0055 | 0.0001 | | | |

%RSD: 1.2 1.2 1.1178

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/18/2010
Sample ID: 245969004|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.121 | 0.121 | 0.0015 | 0.0061 | 10:25:06 | No |
| 2 | 0.086 | 0.086 | 0.0011 | 0.0057 | 10:25:41 | No |
| Mean: | 0.103 | 0.103 | 0.0013 | | | |
| SD : | 0.0247 | 0.0247 | 0.0003 | | | |
| %RSD: | 23.9 | 23.9 | 18.9148 | | | |

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 5.046 | 5.046 | 0.0515 | 0.0560 | 10:27:06 | No |
| 2 | 5.089 | 5.089 | 0.0519 | 0.0565 | 10:27:40 | No |
| Mean: | 5.068 | 5.068 | 0.0517 | | | |
| SD : | 0.0301 | 0.0301 | 0.0003 | | | |
| %RSD: | 0.6 | 0.6 | 0.5903 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.064 | -0.064 | -0.0004 | 0.0042 | 10:29:09 | No |
| 2 | -0.067 | -0.067 | -0.0004 | 0.0042 | 10:29:44 | No |
| Mean: | -0.065 | -0.065 | -0.0004 | | | |
| SD : | 0.0021 | 0.0021 | 0.0000 | | | |
| %RSD: | 3.3 | 3.3 | 5.6045 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/18/2010
Sample ID: 245969005|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.140 | 0.140 | 0.0017 | 0.0063 | 10:31:09 | No |
| 2 | 0.120 | 0.120 | 0.0015 | 0.0061 | 10:31:44 | No |
| Mean: | 0.130 | 0.130 | 0.0016 | | | |
| SD : | 0.0141 | 0.0141 | 0.0001 | | | |
| %RSD: | 10.8 | 10.8 | 8.9311 | | | |

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/18/2010
Sample ID: 245969006|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.096 | 0.096 | 0.0012 | 0.0058 | 10:33:07 | No |
| 2 | 0.085 | 0.085 | 0.0011 | 0.0057 | 10:33:42 | No |
| Mean: | 0.090 | 0.090 | 0.0012 | | | |
| SD : | 0.0078 | 0.0078 | 0.0001 | | | |
| %RSD: | 8.6 | 8.6 | 6.6265 | | | |

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/18/2010
Sample ID: 245969007|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.233 | 0.233 | 0.0026 | 0.0072 | 10:35:06 | No |
| 2 | 0.224 | 0.224 | 0.0026 | 0.0071 | 10:35:41 | No |
| Mean: | 0.229 | 0.229 | 0.0026 | | | |
| SD : | 0.0063 | 0.0063 | 0.0001 | | | |
| %RSD: | 2.8 | 2.8 | 2.4796 | | | |

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 02/18/2010
Sample ID: 245969008|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.029 | 0.029 | 0.0006 | 0.0051 | 10:37:05 | No |
| 2 | 0.022 | 0.022 | 0.0005 | 0.0051 | 10:37:40 | No |
| Mean: | 0.025 | 0.025 | 0.0005 | | | |
| SD : | 0.0048 | 0.0048 | 0.0000 | | | |
| %RSD: | 19.0 | 19.0 | 9.1686 | | | |

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 02/18/2010
Sample ID: 245969009|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.688 | 0.688 | 0.0073 | 0.0118 | 10:39:06 | No |
| 2 | 0.700 | 0.700 | 0.0074 | 0.0119 | 10:39:41 | No |
| Mean: | 0.694 | 0.694 | 0.0073 | | | |
| SD : | 0.0085 | 0.0085 | 0.0001 | | | |
| %RSD: | 1.2 | 1.2 | 1.1773 | | | |

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 02/18/2010
Sample ID: 245969010|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.062 | -0.062 | -0.0003 | 0.0042 | 10:41:07 | No |
| 2 | -0.051 | -0.051 | -0.0002 | 0.0043 | 10:41:42 | No |
| Mean: | -0.056 | -0.056 | -0.0003 | | | |
| SD : | 0.0077 | 0.0077 | 0.0001 | | | |
| %RSD: | 13.7 | 13.7 | 26.6159 | | | |

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 02/18/2010
Sample ID: 245969011|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.250 | 0.250 | 0.0028 | 0.0074 | 10:43:08 | No |
| 2 | 0.249 | 0.249 | 0.0028 | 0.0074 | 10:43:43 | No |
| Mean: | 0.249 | 0.249 | 0.0028 | | | |
| SD : | 0.0002 | 0.0002 | 0.0000 | | | |
| %RSD: | | | | | | |

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 02/18/2010
Sample ID: 245969012|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.113 | 0.113 | 0.0014 | 0.0060 | 10:45:09 | No |
| 2 | 0.118 | 0.118 | 0.0015 | 0.0060 | 10:45:43 | No |
| Mean: | 0.115 | 0.115 | 0.0014 | | | |
| SD : | 0.0036 | 0.0036 | 0.0000 | | | |

%RSD: 3.1 3.1 2.4888

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/18/2010
Sample ID: 245969013|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.245 | 0.245 | 0.0028 | 0.0073 | 10:47:09 | No |
| 2 | 0.224 | 0.224 | 0.0025 | 0.0071 | 10:47:44 | No |
| Mean: | 0.234 | 0.234 | 0.0027 | | | |
| SD : | 0.0147 | 0.0147 | 0.0001 | | | |
| %RSD: | 6.3 | 6.3 | 5.6188 | | | |

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/18/2010
Sample ID: 245969014|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.144 | 0.144 | 0.0017 | 0.0063 | 10:49:12 | No |
| 2 | 0.132 | 0.132 | 0.0016 | 0.0062 | 10:49:47 | No |
| Mean: | 0.138 | 0.138 | 0.0017 | | | |
| SD : | 0.0087 | 0.0087 | 0.0001 | | | |
| %RSD: | 6.3 | 6.3 | 5.2634 | | | |

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 5.163 | 5.163 | 0.0526 | 0.0572 | 10:51:15 | No |
| 2 | 5.285 | 5.285 | 0.0539 | 0.0584 | 10:51:50 | No |
| Mean: | 5.224 | 5.224 | 0.0533 | | | |
| SD : | 0.0865 | 0.0865 | 0.0009 | | | |
| %RSD: | 1.7 | 1.7 | 1.6467 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.077 | -0.077 | -0.0005 | 0.0041 | 10:53:18 | No |
| 2 | -0.083 | -0.083 | -0.0006 | 0.0040 | 10:53:53 | No |
| Mean: | -0.080 | -0.080 | -0.0005 | | | |
| SD : | 0.0044 | 0.0044 | 0.0000 | | | |
| %RSD: | 5.4 | 5.4 | 8.2472 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/18/2010
Sample ID: 245969015|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.223 | 0.223 | 0.0025 | 0.0071 | 10:55:17 | No |
| 2 | 0.204 | 0.204 | 0.0023 | 0.0069 | 10:55:51 | No |
| Mean: | 0.213 | 0.213 | 0.0024 | | | |
| SD : | 0.0132 | 0.0132 | 0.0001 | | | |
| %RSD: | 6.2 | 6.2 | 5.4733 | | | |

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/18/2010
Sample ID: 1202039079|i||951467|MB

%RSD: 1.1 1.1 1.0627

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/18/2010
Sample ID: 1202039087|i|5||SDILT

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.127 | -0.127 | -0.0010 | 0.0035 | 11:08:50 | No |
| 2 | -0.131 | -0.131 | -0.0011 | 0.0035 | 11:09:24 | No |
| Mean: | -0.129 | -0.129 | -0.0010 | | | |
| SD : | 0.0029 | 0.0029 | 0.0000 | | | |
| %RSD: | 2.2 | 2.2 | 2.8265 | | | |

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/18/2010
Sample ID: 246285002|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.103 | 0.103 | 0.0013 | 0.0059 | 11:10:48 | No |
| 2 | 0.090 | 0.090 | 0.0012 | 0.0058 | 11:11:23 | No |
| Mean: | 0.097 | 0.097 | 0.0013 | | | |
| SD : | 0.0086 | 0.0086 | 0.0001 | | | |
| %RSD: | 8.9 | 8.9 | 6.9719 | | | |

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/18/2010
Sample ID: 246285003|i|||

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 0.328 | 0.328 | 0.0036 | 0.0082 | 11:12:47 | No |
| 2 | 0.310 | 0.310 | 0.0034 | 0.0080 | 11:13:23 | No |
| Mean: | 0.319 | 0.319 | 0.0035 | | | |
| SD : | 0.0125 | 0.0125 | 0.0001 | | | |
| %RSD: | 3.9 | 3.9 | 3.6171 | | | |

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | 5.195 | 5.195 | 0.0530 | 0.0575 | 11:14:47 | No |
| 2 | 5.107 | 5.107 | 0.0521 | 0.0566 | 11:15:22 | No |
| Mean: | 5.151 | 5.151 | 0.0525 | | | |
| SD : | 0.0627 | 0.0627 | 0.0006 | | | |
| %RSD: | 1.2 | 1.2 | 1.2114 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

| Repl # | SampleConc µg/L | StndConc µg/L | BlnkCorr Signal | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|
| 1 | -0.105 | -0.105 | -0.0008 | 0.0038 | 11:16:50 | No |
| 2 | -0.107 | -0.107 | -0.0008 | 0.0037 | 11:17:25 | No |
| Mean: | -0.106 | -0.106 | -0.0008 | | | |
| SD : | 0.0020 | 0.0020 | 0.0000 | | | |
| %RSD: | 1.9 | 1.9 | 2.5083 | | | |

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/18/2010
Sample ID: 246285004|i|||

# Miscellaneous

# Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948754

Lab SOP: GL-MA-E-009 REV# 19

| Type | Sample Id | Lot. Id | Spike Amount | Spike Units |
|---|---|---|---|---|
| LCS | 1202032595 | UI062540-I | .505 | g |
| MS | 1202032593 | UI100120-01 | .25 | mL |
| MS | 1202032593 | UI100120-06 | .25 | mL |
| MSD | 1202032594 | UI100120-01 | .25 | mL |
| MSD | 1202032594 | UI100120-06 | .25 | mL |

| Sample Type | Sample ID | Parent Sample ID | Method | Prep Date | Initial Wt. | Final Volume | Prep Factor | Matrix |
|---|---|---|---|---|---|---|---|---|
| MB | 1202032590 | | SW846 3050B | 10-FEB-2010 13:30 | 0.565 g | 50 mL | 88.49558 | SOIL |
| LCS | 1202032595 | | SW846 3050B | 10-FEB-2010 13:30 | 0.505 g | 50 mL | 99.0099 | SOIL |
| SAMPLE | 245969001 | | SW846 3050B | 10-FEB-2010 13:30 | 0.507 g | 50 mL | 98.61933 | SOIL |
| DUP | 1202032591 | 245969001 | SW846 3050B | 10-FEB-2010 13:30 | 0.504 g | 50 mL | 99.20635 | SOIL |
| SDILT | 1202032592 | 245969001 | SW846 3050B | 10-FEB-2010 13:30 | 0.507 g | 50 mL | 98.61933 | SOIL |
| MS | 1202032593 | 245969001 | SW846 3050B | 10-FEB-2010 13:30 | 0.533 g | 50 mL | 93.80863 | SOIL |
| MSD | 1202032594 | 245969001 | SW846 3050B | 10-FEB-2010 13:30 | 0.527 g | 50 mL | 94.87666 | SOIL |
| SAMPLE | 245969002 | | SW846 3050B | 10-FEB-2010 13:30 | 0.514 g | 50 mL | 97.27626 | SOIL |
| SAMPLE | 245969003 | | SW846 3050B | 10-FEB-2010 13:30 | 0.552 g | 50 mL | 90.57971 | SOIL |
| SAMPLE | 245969004 | | SW846 3050B | 10-FEB-2010 13:30 | 0.508 g | 50 mL | 98.4252 | SOIL |
| SAMPLE | 245969005 | | SW846 3050B | 10-FEB-2010 13:30 | 0.517 g | 50 mL | 96.7118 | SOIL |
| SAMPLE | 245969006 | | SW846 3050B | 10-FEB-2010 13:30 | 0.515 g | 50 mL | 97.08738 | SOIL |
| SAMPLE | 245969007 | | SW846 3050B | 10-FEB-2010 13:30 | 0.522 g | 50 mL | 95.78544 | SOIL |
| SAMPLE | 245969008 | | SW846 3050B | 10-FEB-2010 13:30 | 0.557 g | 50 mL | 89.76661 | SOIL |
| SAMPLE | 245969009 | | SW846 3050B | 10-FEB-2010 13:30 | 0.523 g | 50 mL | 95.60229 | SOIL |
| SAMPLE | 245969010 | | SW846 3050B | 10-FEB-2010 13:30 | 0.519 g | 50 mL | 96.33911 | SOIL |
| SAMPLE | 245969011 | | SW846 3050B | 10-FEB-2010 13:30 | 0.541 g | 50 mL | 92.42144 | SOIL |
| SAMPLE | 245969012 | | SW846 3050B | 10-FEB-2010 13:30 | 0.559 g | 50 mL | 89.44544 | SOIL |
| SAMPLE | 245969013 | | SW846 3050B | 10-FEB-2010 13:30 | 0.556 g | 50 mL | 89.92806 | SOIL |
| SAMPLE | 245969014 | | SW846 3050B | 10-FEB-2010 13:30 | 0.525 g | 50 mL | 95.2381 | SOIL |
| SAMPLE | 245969015 | | SW846 3050B | 10-FEB-2010 13:30 | 0.513 g | 50 mL | 97.46589 | SOIL |

| Reagent/Solvent Lot ID | Amount | Description |
|---|---|---|
| 1265209 | 10 mL | HYDROCHLORIC ACID |
| 1264396 | 1.25 mL | Nitric Acid CONC. |

Comments: Gray,moist,sand.

# Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948758

Lab SOP: GL-MA-E-009 REV# 19

| Type | Sample Id | Lot. Id | Spike Amount | Spike Units |
|---|---|---|---|---|
| LCS | 1202032605 | UI062540-MS | .522 | g |
| MS | 1202032603 | UI091015-A | .5 | mL |
| MS | 1202032603 | UI091015-B | .5 | mL |
| MSD | 1202032604 | UI091015-A | .5 | mL |
| MSD | 1202032604 | UI091015-B | .5 | mL |

| Sample Type | Sample ID | Parent Sample ID | Method | Prep Date | Initial Wt. | Final Volume | Prep Factor | Matrix |
|---|---|---|---|---|---|---|---|---|
| MB | 1202032600 | | SW846 3050B | 10-FEB-2010 13:30 | 0.536 g | 50 mL | 93.28358 | SOIL |
| LCS | 1202032605 | | SW846 3050B | 10-FEB-2010 13:30 | 0.522 g | 50 mL | 95.78544 | SOIL |
| SAMPLE | 245969001 | | SW846 3050B | 10-FEB-2010 13:30 | 0.522 g | 50 mL | 95.78544 | SOIL |
| DUP | 1202032601 | 245969001 | SW846 3050B | 10-FEB-2010 13:30 | 0.512 g | 50 mL | 97.65625 | SOIL |
| SDILT | 1202032602 | 245969001 | SW846 3050B | 10-FEB-2010 13:30 | 0.522 g | 50 mL | 95.78544 | SOIL |
| MS | 1202032603 | 245969001 | SW846 3050B | 10-FEB-2010 13:30 | 0.519 g | 50 mL | 96.33911 | SOIL |
| MSD | 1202032604 | 245969001 | SW846 3050B | 10-FEB-2010 13:30 | 0.529 g | 50 mL | 94.51796 | SOIL |
| SAMPLE | 245969002 | | SW846 3050B | 10-FEB-2010 13:30 | 0.518 g | 50 mL | 96.5251 | SOIL |
| SAMPLE | 245969003 | | SW846 3050B | 10-FEB-2010 13:30 | 0.546 g | 50 mL | 91.57509 | SOIL |
| SAMPLE | 245969004 | | SW846 3050B | 10-FEB-2010 13:30 | 0.544 g | 50 mL | 91.91176 | SOIL |
| SAMPLE | 245969005 | | SW846 3050B | 10-FEB-2010 13:30 | 0.511 g | 50 mL | 97.84736 | SOIL |
| SAMPLE | 245969006 | | SW846 3050B | 10-FEB-2010 13:30 | 0.546 g | 50 mL | 91.57509 | SOIL |
| SAMPLE | 245969007 | | SW846 3050B | 10-FEB-2010 13:30 | 0.54 g | 50 mL | 92.59259 | SOIL |
| SAMPLE | 245969008 | | SW846 3050B | 10-FEB-2010 13:30 | 0.511 g | 50 mL | 97.84736 | SOIL |
| SAMPLE | 245969009 | | SW846 3050B | 10-FEB-2010 13:30 | 0.571 g | 50 mL | 87.56567 | SOIL |
| SAMPLE | 245969010 | | SW846 3050B | 10-FEB-2010 13:30 | 0.516 g | 50 mL | 96.89922 | SOIL |
| SAMPLE | 245969011 | | SW846 3050B | 10-FEB-2010 13:30 | 0.532 g | 50 mL | 93.98496 | SOIL |
| SAMPLE | 245969012 | | SW846 3050B | 10-FEB-2010 13:30 | 0.507 g | 50 mL | 98.61933 | SOIL |
| SAMPLE | 245969013 | | SW846 3050B | 10-FEB-2010 13:30 | 0.519 g | 50 mL | 96.33911 | SOIL |
| SAMPLE | 245969014 | | SW846 3050B | 10-FEB-2010 13:30 | 0.55 g | 50 mL | 90.90909 | SOIL |
| SAMPLE | 245969015 | | SW846 3050B | 10-FEB-2010 13:30 | 0.551 g | 50 mL | 90.7441 | SOIL |

| Reagent/Solvent Lot ID | Amount | Description |
|---|---|---|
| 1203655-02 | 1.5 mL | Hydrogen Peroxide 30% |
| 1264396 | 5 mL | Nitric Acid CONC. |

Comments Gray,moist, sand.

# Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 950563

Lab SOP: GL-MA-E-010 REV# 23

| Type | Sample Id | Lot. Id | Spike Amount | Spike Units |
|---|---|---|---|---|
| LCS | 1202037116 | UI031809A | .204 | g |
| MS | 1202037118 | WHG100217-14 | .3 | mL |
| MSD | 1202037120 | WHG100217-14 | .3 | mL |

| Sample Type | Sample ID | Parent Sample ID | Method | Prep Date | Initial Wt. | Final Volume | Prep Factor | Matrix |
|---|---|---|---|---|---|---|---|---|
| MB | 1202037115 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.549 g | 30 mL | 54.64481 | SOIL |
| LCS | 1202037116 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.204 g | 30 mL | 147.05882 | SOIL |
| SAMPLE | 245969001 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.551 g | 30 mL | 54.44646 | SOIL |
| DUP | 1202037117 | 245969001 | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.5 g | 30 mL | 60 | SOIL |
| MS | 1202037118 | 245969001 | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.53 g | 30 mL | 56.60377 | SOIL |
| MSD | 1202037120 | 245969001 | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.578 g | 30 mL | 51.90311 | SOIL |
| SDILT | 1202037119 | 245969001 | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.551 g | 30 mL | 54.44646 | SOIL |
| SAMPLE | 245969002 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.553 g | 30 mL | 54.24955 | SOIL |
| SAMPLE | 245969003 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.543 g | 30 mL | 55.24862 | SOIL |
| SAMPLE | 245969004 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.51 g | 30 mL | 58.82353 | SOIL |
| SAMPLE | 245969005 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.506 g | 30 mL | 59.28854 | SOIL |
| SAMPLE | 245969006 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.589 g | 30 mL | 50.93379 | SOIL |
| SAMPLE | 245969007 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.517 g | 30 mL | 58.02708 | SOIL |
| SAMPLE | 245969008 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.543 g | 30 mL | 55.24862 | SOIL |
| SAMPLE | 245969009 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.548 g | 30 mL | 54.74453 | SOIL |
| SAMPLE | 245969010 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.574 g | 30 mL | 52.26481 | SOIL |
| SAMPLE | 245969011 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.517 g | 30 mL | 58.02708 | SOIL |
| SAMPLE | 245969012 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.591 g | 30 mL | 50.76142 | SOIL |
| SAMPLE | 245969013 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.546 g | 30 mL | 54.94505 | SOIL |
| SAMPLE | 245969014 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.546 g | 30 mL | 54.94505 | SOIL |
| SAMPLE | 245969015 | | SW846 7471A Prep | 17-FEB-2010 17:55 | 0.545 g | 30 mL | 55.04587 | SOIL |

| Reagent/Solvent Lot ID | Amount | Description |
|---|---|---|
| 1264796-A | 1.125 mL | Hydrochloric Acid Conc. |
| 1257474-1 | .375 mL | NITRIC ACID |
| 1264984-C | 7.5 mL | 5% KMnO4 solution |
| 1255532-C | 2 mL | Hg reducing agent |
| WHG100217-07 | 30 uL | Mercury Working Standard 1st Source CAL S 0.2/CRA |
| WHG100217-08 | 75 uL | Mercury Working Standard 1st Source CAL S 0.5 |
| WHG100217-11 | 1.5 mL | Mercury Working 1st Source CAL S 10.0 |
| WHG100217-09 | 300 uL | Mercury Working 1st Source CAL S 2.0 |
| WHG100217-10 | 750 uL | Mercury Working 1st Source CAL S 5.0/CCV |
| WHG100217-12 | 750 uL | Mercury Working 2nd Source S 5.0/ICV |

Comments: Sample 245969001 is rocky dry brown soil.
Digestion Start Date: 17-FEB-10 17:55
Digestion End Date: 17-FEB-10 18:25

# DATA EXCEPTION REPORT

| Mo.Day Yr. | Division: | Quality Criteria: | Type: |
|---|---|---|---|
| 26-FEB-10 | Industrial | Specifications | Process |
| **Instrument Type:** | **Test / Method:** | **Matrix Type:** | **Client Code:** |
| ICP/MS | SW846 3050B/6020 | Solid | LANL |
| **Batch ID:** | **Sample Numbers:** | | |
| 948759 | See Below | | |

**Potentially affected work order(s)(SDG): 245969(10-1512)**

**Application Issues:**

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

| Specification and Requirements Exception Description: | DER Disposition: |
|---|---|
| 1. Failed Recovery for MS/PS:<br>QC 1202032603MS<br>2. Failed RPD for DUP:<br>QC 1202032601DUP<br>3. Failed RPD for MS/MSD, or PS/PSD:<br>QC 1202032604MSD | The matrix spike failed outside the control limits for U due to matrix interference and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.<br><br>The sample and sample duplicate % RPD failed outside the control limits for U due to possible sample homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.<br><br>The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for U due possible matrix interferences and /or sample non-homogeneity. Per GEL's accredited methods and SOPs, a credited action is not required and the data is qualified and reported. |

**Originator's Name:**

Rose Jenkins 26-FEB-10

**Data Validator/Group Leader:**

Samantha Jacobs 28-FEB-10

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 797331
Revision No.:

# DATA EXCEPTION REPORT

| Mo.Day Yr. | Division: | Quality Criteria: | Type: |
|---|---|---|---|
| 01-MAR-10 | Industrial | Specifications | Process |
| **Instrument Type:** | **Test / Method:** | **Matrix Type:** | **Client Code:** |
| ICP | SW846 3050B/6010B | Solid | LANL |
| **Batch ID:** | **Sample Numbers:** | | |
| 948756 | See Below | | |

**Potentially affected work order(s)(SDG): 245969(10-1512)**

**Application Issues:**

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

| Specification and Requirements Exception Description: | DER Disposition: |
|---|---|
| 1. Failed Recovery for MS/PS:<br>QC 1202032593MS<br>2. Failed RPD for DUP:<br>QC 1202032591DUP<br>3. Failed Recovery for LCS/LCSD:<br>QC 1202032595LCS<br>4. Failed Recovery for MSD/PSD:<br>QC 1202032594MSD | 1./4. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for aluminum,lead,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.<br>2. The sample and sample duplicate % RPD failed outside the control limits for chromium and cobalt due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.<br>3. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures. |

**Originator's Name:**
Helen Camello 01-MAR-10

**Data Validator/Group Leader:**
Eric Lawson 01-MAR-10

# Standard Logbook

**Serial ID:** UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
**Name:** MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
**Type:** Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
**Employee:** Bryan Davis **Solvent :** 10% HNO3
**Supplier:** Spex
**Description:** Mercury Source Standard #1 1,000 mg/L
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Mercury | 1000 mg/L | | |

**Serial ID:** UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
**Name:** MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
**Type:** Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
**Employee:** Bryan Davis **Solvent :** 3% HNO3
**Supplier:** Ricca Chemical Company
**Description:** Mercury Source Standard #2 1,000 mg/L
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Mercury | 999.7 mg/L | | |

**Serial ID:** UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
**Name:** METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
**Type:** Source Material **Expires:** 10-OCT-10
**Employee:** Jamie Johnson
**Supplier:** ERA
**Description:** Metals LCS Soil SRM
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 10600 mg/kg | Antimony | 126 mg/kg |
| Arsenic | 225 mg/kg | Barium | 565 mg/kg |
| Beryllium | 162 mg/kg | Boron | 107 mg/kg |
| Cadmium | 69.1 mg/kg | Calcium | 10000 mg/kg |
| Chromium | 124 mg/kg | Cobalt | 115 mg/kg |
| Copper | 66.7 mg/kg | Iron | 17600 mg/kg |
| Lead | 223 mg/kg | Magnesium | 4260 mg/kg |
| Manganese | 368 mg/kg | Mercury | 5.15 mg/kg |
| Molybdenum | 107 mg/kg | Nickel | 172 mg/kg |
| Potassium | 4090 mg/kg | Selenium | 147 mg/kg |
| Silver | 35.2 mg/kg | Sodium | 538 mg/kg |
| Strontium | 117 mg/kg | Thallium | 173 mg/kg |
| Tin | 164 mg/kg | Titanium | 381 mg/kg |
| Vanadium | 93.9 mg/kg | Zinc | 349 mg/kg |

# Standard Logbook

**Serial ID:** UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
**Name:** ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
**Type:** Source Material **Expires:** 31-JAN-12
**Employee:** Bryan Davis
**Supplier:** ERA
**Description:** Metals Soil LCS SRM ICP/Hg
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 10500 mg/kg | Antimony | 173 mg/kg |
| Arsenic | 104 mg/kg | Barium | 198 mg/kg |
| Beryllium | 77.6 mg/kg | Boron | 141 mg/kg |
| Cadmium | 60.7 mg/kg | Calcium | 9870 mg/kg |
| Chromium | 236 mg/kg | Cobalt | 91.2 mg/kg |
| Copper | 174 mg/kg | Iron | 18000 mg/kg |
| Lead | 86 mg/kg | Magnesium | 4000 mg/kg |
| Manganese | 558 mg/kg | Mercury | 8.46 mg/kg |
| Molybdenum | 48.6 mg/kg | Nickel | 134 mg/kg |
| Phosphorous | 736 mg/kg | Potassium | 4300 mg/kg |
| Selenium | 286 mg/kg | Silica | 2591 mg/kg |
| Silicon | 1211 mg/kg | Silver | 30.1 mg/kg |
| Sodium | 1020 mg/kg | Strontium | 227 mg/kg |
| Sulfur | 385 mg/kg | Thallium | 121 mg/kg |
| Tin | 104 mg/kg | Titanium | 462 mg/kg |
| Vanadium | 115 mg/kg | Zinc | 594 mg/kg |

**Serial ID:** UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
**Name:** ICPMS SOIL SRM **Received:** 12-JUN-09
**Type:** Source Material **Expires:** 31-JAN-12
**Employee:** Bryan Davis
**Supplier:** ERA
**Description:** Metals Soil LCS SRM ICPMS
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 10500 mg/kg | Antimony | 67.4 mg/kg |
| Arsenic | 104 mg/kg | Barium | 198 mg/kg |
| Beryllium | 77.6 mg/kg | Boron | 141 mg/kg |
| Cadmium | 60.6 mg/kg | Calcium | 9870 mg/kg |
| Chromium | 236 mg/kg | Cobalt | 91.2 mg/kg |
| Copper | 174 mg/kg | Iron | 18000 mg/kg |
| Lead | 86 mg/kg | Lithium | 10.6 mg/kg |
| Magnesium | 4000 mg/kg | Manganese | 558 mg/kg |
| Mercury | 8.46 mg/kg | Molybdenum | 48.6 mg/kg |
| Nickel | 134 mg/kg | Phosphorous | 755 mg/kg |
| Potassium | 4300 mg/kg | Selenium | 286 mg/kg |
| Silver | 30.1 mg/kg | Sodium | 1020 mg/kg |

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Strontium | 227 mg/kg | Thallium | 121 mg/kg |
| Thorium | 9.84 mg/kg | Tin | 104 mg/kg |
| Titanium | 462 mg/kg | Uranium | 2.13 mg/kg |
| Uranium-235 | .0153 mg/kg | Uranium-238 | 2.11 mg/kg |
| Vanadium | 92.4 mg/kg | Zinc | 594 mg/kg |
| Zirconium | 10.6 mg/kg | | |

**Serial ID:** UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
**Name:** TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
**Type:** Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
**Employee:** Helen Camello **Solvent :** 5%HNO3
**Supplier:** o2si
**Description:** TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 5000 mg/L | Calcium | 5000 mg/L |
| Iron | 2000 mg/L | Magnesium | 5000 mg/L |

**Serial ID:** UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
**Name:** ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
**Type:** Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
**Employee:** Paul Boyd
**Supplier:** O2SI
**Description:** ICPMS Tungsten standard SPIKE - 10mg/L
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Tungsten | 10 mg/L | | |

**Serial ID:** UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
**Name:** ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
**Type:** Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
**Employee:** Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
**Supplier:** 02SI
**Description:** ICPMS CRDL Master Soln #1
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 15 mg/L | Arsenic | 5 mg/L |
| Barium | 2 mg/L | Beryllium | .5 mg/L |
| Boron | 15 mg/L | Cadmium | 1 mg/L |
| Calcium | 100 mg/L | Chromium | 3 mg/L |
| Cobalt | 1 mg/L | Copper | 1 mg/L |

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Iron | 25 mg/L | Lead | 2 mg/L |
| Lithium | 10 mg/L | Magnesium | 15 mg/L |
| Manganese | 5 mg/L | Nickel | 2 mg/L |
| Phosphorous | 50 mg/L | Potassium | 300 mg/L |
| Selenium | 5 mg/L | Sodium | 250 mg/L |
| Strontium | 10 mg/L | Thallium | 1 mg/L |
| Thorium | 1 mg/L | Uranium | .2 mg/L |
| Vanadium | 10 mg/L | Zinc | 10 mg/L |

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**Serial ID:** UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
**Name:** ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
**Type:** Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
**Employee:** Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
**Supplier:** 02SI
**Description:** ICPMS CRDL Soln #2
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 2 mg/L | Molybdenum | .5 mg/L |
| Silver | 1 mg/L | Tin | 2 mg/L |
| Titanium | 10 mg/L | Tungsten | 5 mg/L |
| Zirconium | 2 mg/L | | |

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**Serial ID:** UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
**Name:** TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
**Type:** Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
**Employee:** Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
**Supplier:** 02si
**Description:** TRACE ICP Stock PQL Standard
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 100 mg/L | Antimony | 5 mg/L |
| Arsenic | 15 mg/L | Barium | 2.5 mg/L |
| Beryllium | 2.5 mg/L | Boron | 25 mg/L |
| Cadmium | 2.5 mg/L | Calcium | 100 mg/L |
| Chromium | 2.5 mg/L | Cobalt | 2.5 mg/L |
| Copper | 5 mg/L | Iron | 50 mg/L |
| Lead | 5 mg/L | Magnesium | 150 mg/L |
| Manganese | 5 mg/L | Molybdenum | 5 mg/L |
| Nickel | 2.5 mg/L | Phosphorous | 75 mg/L |
| Potassium | 75 mg/L | Selenium | 15 mg/L |
| Silicon | 50 mg/L | Silver | 2.5 mg/L |
| Sodium | 150 mg/L | Strontium | 2.5 mg/L |
| Sulfur | 50 mg/L | Thallium | 10 mg/L |

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Tin | 5 mg/L | Titanium | 2.5 mg/L |
| Uranium | 25 mg/L | Vanadium | 2.5 mg/L |
| Zinc | 5 mg/L | | |

**Serial ID:** UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
**Name:** TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
**Type:** Source Material **Expires:** 01-MAR-10 **Lot Number :** 1017098
**Employee:** Helen Camello **Solvent :** 1%HNO3
**Supplier:** 02SI
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Sodium | 1000 ug/mL | | |

**Serial ID:** UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
**Name:** SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
**Type:** Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
**Employee:** Helen Camello **Solvent :** 5%HNO3
**Supplier:** SPECTRO PURE
**Description:** SECOND SOURCE STD #1A 5%HNO3
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 1000 mg/L | Arsenic | 100 mg/L |
| Barium | 100 mg/L | Boron | 100 mg/L |
| Cadmium | 100 mg/L | Calcium | 1000 mg/L |
| Chromium | 100 mg/L | Cobalt | 100 mg/L |
| Copper | 100 mg/L | Iron | 1000 mg/L |
| Lead | 100 mg/L | Phosphorous | 500 mg/L |
| Potassium | 500 mg/L | Selenium | 500 mg/L |
| Sodium | 500 mg/L | Strontium | 100 mg/L |

**Serial ID:** UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
**Name:** SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
**Type:** Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
**Employee:** Helen Camello **Solvent :** 5%HNO3,TR.HF
**Supplier:** SPECTRO PURE
**Description:** SECOND SOURCE STD #1B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 100 mg/L | Beryllium | 50 mg/L |
| Magnesium | 1000 mg/L | Manganese | 100 mg/L |

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Molybdenum | 100 mg/L | Nickel | 100 mg/L |
| Silver | 50 mg/L | Sulfur | 500 mg/L |
| Thallium | 100 mg/L | Tin | 100 mg/L |
| Titanium | 100 mg/L | Uranium | 100 mg/L |
| Vanadium | 100 mg/L | Zinc | 100 mg/L |

**Serial ID:** UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
**Name:** SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
**Type:** Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
**Employee:** Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
**Supplier:** o2si
**Description:** Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Silica | 2139 mg/L | Silicon | 1000 mg/L |

**Serial ID:** UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
**Name:** ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
**Type:** Source Material **Expires:** 15-OCT-10
**Employee:** Francena Armstrong
**Supplier:** 02si
**Description:** ICP-MS Spike for soil products.
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 200 mg/L | Arsenic | 8 mg/L |
| Barium | 5 mg/L | Beryllium | 5 mg/L |
| Boron | 10 mg/L | Cadmium | 1 mg/L |
| Calcium | 200 mg/L | Chromium | 5 mg/L |
| Cobalt | 5 mg/L | Copper | 5 mg/L |
| Iron | 200 mg/L | Lead | 20 mg/L |
| Lithium | 5 mg/L | Magnesium | 200 mg/L |
| Manganese | 5 mg/L | Nickel | 5 mg/L |
| Phosphorus, Total as P | 200 mg/L | Potassium | 200 mg/L |
| Selenium | 2 mg/L | Sodium | 200 mg/L |
| Strontium | 5 mg/L | Thallium | 10 mg/L |
| Thorium | 5 mg/L | Uranium | 5 mg/L |
| Uranium-235 | .036 mg/L | Uranium-238 | 4.964 mg/L |
| Vanadium | 5 mg/L | Zinc | 5 mg/L |

# Standard Logbook

**Serial ID:** UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
**Name:** ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
**Type:** Source Material **Expires:** 15-OCT-10
**Employee:** Francena Armstrong
**Supplier:** 02si
**Description:** ICP-MS Spike for Soil Products
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 20 mg/L | Molybdenum | 5 mg/L |
| Silicon | 200 mg/L | Silver | 5 mg/L |
| Tin | 5 mg/L | Zirconium | 5 mg/L |

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**Serial ID:** UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
**Name:** TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
**Type:** Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
**Employee:** Helen Camello **Solvent :** HNO3
**Supplier:** Environmental Express
**Description:** Trace Calibration Std #1A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 2000 mg/L | Arsenic | 200 mg/L |
| Barium | 200 mg/L | Beryllium | 200 mg/L |
| Boron | 200 mg/L | Cadmium | 200 mg/L |
| Calcium | 2000 mg/L | Chromium | 200 mg/L |
| Cobalt | 200 mg/L | Copper | 200 mg/L |
| Iron | 2000 mg/L | Lead | 200 mg/L |
| Magnesium | 2000 mg/L | Manganese | 200 mg/L |
| Nickel | 200 mg/L | Phosphorous | 1000 mg/L |
| Potassium | 2000 mg/L | Selenium | 200 mg/L |
| Sodium | 2000 mg/L | Strontium | 200 mg/L |
| Thallium | 200 mg/L | Uranium | 200 mg/L |
| Vanadium | 200 mg/L | Zinc | 200 mg/L |

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**Serial ID:** UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
**Name:** TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
**Type:** Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
**Employee:** Helen Camello **Solvent :** HNO3
**Supplier:** Environmental Express
**Description:** Trace Calibration Standard #1B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 200 mg/L | Molybdenum | 200 mg/L |
| Silver | 200 mg/L | Sulfur | 400 mg/L |

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Tin | 200 mg/L | Titanium | 200 mg/L |

**Serial ID:** UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
**Name:** SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
**Type:** Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
**Employee:** Helen Camello **Solvent :** H20/tr HF
**Supplier:** ENVIRNMENTAL EXPRESS
**Description:** SILICON 1000mg/L H20/tr HF
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Silica | 2139 mg/L | Silicon | 1000 mg/L |

**Serial ID:** UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
**Supplier:** 02SI
**Description:** ICPMS ICV/CCV SOLN A - 10ppm
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 2020 mg/L | Calcium | 2000 mg/L |
| Iron | 2000 mg/L | Magnesium | 2000 mg/L |
| Phosphorous | 2000 mg/L | Potassium | 2000 mg/L |
| Sodium | 2000 mg/L | | |

**Serial ID:** UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
**Supplier:** 02SI
**Description:** ICPMS ICV/CCV Soln B - 10ppm
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Arsenic | 20 mg/L | Barium | 20 mg/L |
| Beryllium | 20 mg/L | Boron | 40 mg/L |
| Cadmium | 20 mg/L | Chromium | 20 mg/L |
| Cobalt | 20 mg/L | Copper | 20 mg/L |
| Lead | 20 mg/L | Lithium | 20 mg/L |
| Manganese | 20 mg/L | Nickel | 20 mg/L |
| Selenium | 20 mg/L | Strontium | 20 mg/L |
| Thallium | 20 mg/L | Thorium | 20 mg/L |

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Uranium | 20 mg/L | Vanadium | 20 mg/L |
| Zinc | 20 mg/L | | |

**Serial ID:** UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
**Supplier:** 02SI
**Description:** ICPMS ICV/CCV Soln C - 10ppm
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 20 mg/L | Molybdenum | 20 mg/L |
| Silver | 20 mg/L | Tin | 20 mg/L |
| Titanium | 20 mg/L | Tungsten | 20 mg/L |
| Zirconium | 20 mg/L | | |

**Serial ID:** UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
**Supplier:** 02SI
**Description:** ICPMS ICSAB Master B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Arsenic | 2 mg/L | Barium | 2 mg/L |
| Beryllium | 2 mg/L | Boron | 2 mg/L |
| Cadmium | 2 mg/L | Chromium | 2 mg/L |
| Cobalt | 2 mg/L | Copper | 2 mg/L |
| Lead | 2 mg/L | Lithium | 2 mg/L |
| Manganese | 2 mg/L | Nickel | 2 mg/L |
| Selenium | 2 mg/L | Strontium | 2 mg/L |
| Thallium | 2 mg/L | Thorium | 2 mg/L |
| Uranium | 2 mg/L | Vanadium | 2 mg/L |
| Zinc | 2 mg/L | | |

**Serial ID:** UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
**Supplier:** 02SI
**Description:** ICPMS ICSAB Master C
**Comments:** None

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 2 mg/L | Silver | 2 mg/L |
| Tin | 2 mg/L | Tungsten | 2 mg/L |
| Zirconium | 2 mg/L | | |

**Serial ID:** UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
**Name:** METALSPIKE-1 **Received:** 20-JAN-10
**Type:** Source Material **Expires:** 20-JAN-11
**Employee:** Bryan Davis
**Supplier:** OS2I
**Description:** Metals Spike Mix I
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 1000 ug/mL | Arsenic | 100 ug/mL |
| Barium | 100 ug/mL | Beryllium | 100 ug/mL |
| Boron | 100 ug/mL | Cadmium | 100 ug/mL |
| Calcium | 1000 ug/mL | Cobalt | 100 ug/mL |
| Iron | 1000 ug/mL | Lead | 100 ug/mL |
| Magnesium | 1000 ug/mL | Phosphorous | 100 ug/mL |
| Potassium | 1000 ug/mL | Silver | 100 ug/mL |
| Sodium | 1000 ug/mL | Strontium | 100 ug/mL |

**Serial ID:** UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
**Name:** METALSPIKE-2 **Received:** 20-JAN-10
**Type:** Source Material **Expires:** 20-JAN-11
**Employee:** Bryan Davis
**Supplier:** OS2I
**Description:** Metals Spike Mix II
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 100 ug/mL | Chromium | 100 ug/mL |
| Copper | 100 ug/mL | Manganese | 100 ug/mL |
| Molybdenum | 100 ug/mL | Nickel | 100 ug/mL |
| Selenium | 100 ug/mL | Silica | 2141 ug/mL |
| Silicon | 1000 ug/mL | Sulfur | 1000 ug/mL |
| Thallium | 100 ug/mL | Tin | 100 ug/mL |
| Titanium | 100 ug/mL | Uranium | 100 ug/mL |
| Vanadium | 100 ug/mL | Zinc | 100 ug/mL |

# Standard Logbook

**Serial ID:** UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
**Name:** Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
**Type:** Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
**Employee:** Helen Camello **Solvent :** 3% HCl + 1% HNO3
**Supplier:** o2si
**Description:** Trace ICP Interferent Check Standard A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 500000 UG/L | Calcium | 500000 UG/L |
| Iron | 200000 UG/L | Magnesium | 500000 UG/L |

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**Serial ID:** UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
**Name:** ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
**Type:** Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
**Employee:** Helen Camello **Solvent :** +/-0.5%in2%HNO3
**Supplier:** 02SI
**Description:** ICP HIGH RANGE STD SOLUTION A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 10000 ug/L | Arsenic | 10000 ug/L |
| Barium | 15000 ug/L | Beryllium | 3000 ug/L |
| Boron | 5000 ug/L | Cadmium | 10000 ug/L |
| Chromium | 25000 ug/L | Cobalt | 10000 ug/L |
| Copper | 20000 ug/L | Lead | 25000 ug/L |
| Manganese | 10000 ug/L | Molybdenum | 10000 ug/L |
| Nickel | 10000 ug/L | Phosphorous | 15000 ug/L |
| Potassium | 300000 ug/L | Selenium | 10000 ug/L |
| Silica | 107000 ug/L | Silicon | 50000 ug/L |
| Silver | 1000 ug/L | Strontium | 10000 ug/L |
| Sulfur | 50000 ug/L | Thallium | 10000 ug/L |
| Tin | 10000 ug/L | Titanium | 10000 ug/L |
| Vanadium | 10000 ug/L | Zinc | 15000 ug/L |

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**Serial ID:** UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
**Name:** ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
**Type:** Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
**Employee:** Helen Camello **Solvent :** +/-0.5%in2%HNO3
**Supplier:** 02SI
**Description:** ICP HIGH RANGE STD SOLUTION B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 500000 ug/L | Calcium | 500000 ug/L |
| Iron | 500000 ug/L | Magnesium | 500000 ug/L |

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Sodium | 500000 ug/L | Uranium | 15000 ug/L |

**Serial ID:** UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
**Name:** ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
**Type:** Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
**Employee:** Paul Boyd **Solvent :** 2% HNO3
**Supplier:** 02SI
**Description:** ICP-MS ICSA Master A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 1000 mg/L | Calcium | 1000 mg/L |
| Carbon | 2000 mg/L | Chloride | 10000 mg/L |
| Iron | 1000 mg/L | Magnesium | 1000 mg/L |
| Molybdenum | 20 mg/L | Phosphorous | 1000 mg/L |
| Potassium | 1000 mg/L | Sodium | 1000 mg/L |
| Sulfur | 1000 mg/L | Titanium | 20 mg/L |

**Serial ID:** UI100226-40 **Opened:** 26-FEB-10 **Amount :** 500 mL
**Name:** ICP HIGH RANGE STD-A **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
**Type:** Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
**Employee:** Helen Camello **Solvent :** +/-0.5%in2%HNO3
**Supplier:** 02SI
**Description:** ICP HIGH RANGE STD SOLUTION A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 10000 ug/L | Arsenic | 10000 ug/L |
| Barium | 15000 ug/L | Beryllium | 3000 ug/L |
| Boron | 5000 ug/L | Cadmium | 10000 ug/L |
| Chromium | 25000 ug/L | Cobalt | 10000 ug/L |
| Copper | 20000 ug/L | Lead | 25000 ug/L |
| Manganese | 10000 ug/L | Molybdenum | 10000 ug/L |
| Nickel | 10000 ug/L | Phosphorous | 15000 ug/L |
| Potassium | 300000 ug/L | Selenium | 10000 ug/L |
| Silica | 107000 ug/L | Silicon | 50000 ug/L |
| Silver | 1000 ug/L | Strontium | 10000 ug/L |
| Sulfur | 50000 ug/L | Thallium | 10000 ug/L |
| Tin | 10000 ug/L | Titanium | 10000 ug/L |
| Vanadium | 10000 ug/L | Zinc | 15000 ug/L |

# Standard Logbook

**Serial ID:** UI100226-41 **Opened:** 26-FEB-10 **Amount :** 500 mL
**Name:** ICP HIGH RANGE STD B **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
**Type:** Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
**Employee:** Helen Carnello **Solvent :** +/-0.5%in2%HNO3
**Supplier:** 02SI
**Description:** ICP HIGH RANGE STD SOLUTION B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 500000 ug/L | Calcium | 500000 ug/L |
| Iron | 500000 ug/L | Magnesium | 500000 ug/L |
| Sodium | 500000 ug/L | Uranium | 15000 ug/L |

**Serial ID:** UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
**Name:** ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
**Type:** Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
**Employee:** Paul Boyd
**Supplier:** SPEX
**Description:** ICPMS Calibration Standard Solution B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Arsenic | 10 mg/L | Barium | 10 mg/L |
| Beryllium | 10 mg/L | Boron | 20 mg/L |
| Cadmium | 10 mg/L | Chromium | 10 mg/L |
| Cobalt | 10 mg/L | Copper | 10 mg/L |
| Lead | 10 mg/L | Lithium | 10 mg/L |
| Manganese | 10 mg/L | Nickel | 10 mg/L |
| Selenium | 10 mg/L | Silver | 10 mg/L |
| Strontium | 10 mg/L | Thallium | 10 mg/L |
| Thorium | 10 mg/L | Uranium | 10 mg/L |
| Vanadium | 10 mg/L | Zinc | 10 mg/L |

**Serial ID:** UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
**Name:** ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
**Type:** Source Material **Expires:** 28-FEB-10
**Employee:** Paul Boyd
**Supplier:** SPEX
**Description:** ICPMS Calibration Standard Solution A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 1000 mg/L | Calcium | 1000 mg/L |
| Iron | 1000 mg/L | Magnesium | 1000 mg/L |
| Phosphorous | 1000 mg/L | Potassium | 1000 mg/L |
| Sodium | 1000 mg/L | | |

# Standard Logbook

**Serial ID:** UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
**Name:** ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
**Type:** Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
**Employee:** Paul Boyd
**Supplier:** SPEX
**Description:** ICPMS Calibration Standard Solution C
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 10 mg/L | Molybdenum | 10 mg/L |
| Tin | 10 mg/L | Titanium | 10 mg/L |
| Zirconium | 10 mg/L | | |

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**Serial ID:** IHG100217-01 **Opened:** 17-FEB-10 **Instrument Id :** Mercury
**Name:** MHGINTER1 **Received:** 17-FEB-10 **Pipet Id :** Minou1
**Type:** Intermediate **Expires:** 18-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Intermediate 1st Source 200 ug/L
**Comments:** Prepare fresh daily

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UHG1167639-01 | Mercury | 1000 mg/L | .05 mL | 250 mL | 200 ug/L |

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**Serial ID:** IHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Minou1
**Name:** MHGINTER2 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Intermediate **Expires:** 18-FEB-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Intermediate 2nd Source 200 ug/L
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UHG1167641-02 | Mercury | 999.7 mg/L | .05 mL | 250 mL | 200 ug/L |

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**Serial ID:** WHG100217-07 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCALS0.2CRA **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 24-FEB-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Working Standard 1st Source CAL S 0.2/CRA
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100217-01 | Mercury | 200 ug/L | 30 uL | 30 mL | .2 ug/L |

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# Standard Logbook

**Serial ID:** WHG100217-08 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCALS0.5 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 24-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury Working Standard 1st Source CAL S 0.5
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100217-01 | Mercury | 200 ug/L | 75 uL | 30 mL | .5 ug/L |

**Serial ID:** WHG100217-09 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCALS2.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 24-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury Working 1st Source CAL S 2.0
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100217-01 | Mercury | 200 ug/L | 300 uL | 30 mL | 2 ug/L |

**Serial ID:** WHG100217-10 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCALS5.0CCV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 24-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury Working 1st Source CAL S 5.0/CCV
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100217-01 | Mercury | 200 ug/L | 750 uL | 30 mL | 5 ug/L |

**Serial ID:** WHG100217-11 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCALS10.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 24-FEB-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Working 1st Source CAL S 10.0
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100217-01 | Mercury | 200 ug/L | 1.5 mL | 30 mL | 10 ug/L |

# Standard Logbook

**Serial ID:** WHG100217-12 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKS5.0ICV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 24-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury Working 2nd Source S 5.0/ICV
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100217-02 | Mercury | 200 ug/L | 750 uL | 30 mL | 5 ug/L |

**Serial ID:** WHG100217-14 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGSOILMSSPIKE **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 24-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury soil working intermediate standard for MS
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UHG1167639-01 | Mercury | 1000 mg/L | .05 mL | 250 mL | 200 ug/L |

**Serial ID:** WI100224-42 **Opened:** 24-FEB-10 **Balance Id :** 216
**Name:** TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WI100224-44 | Aluminum | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100224-44 | Antimony | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Arsenic | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Barium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Beryllium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Boron | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Cadmium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Calcium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100224-44 | Chromium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Cobalt | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Copper | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Iron | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100224-44 | Lead | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Magnesium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100224-44 | Manganese | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WI100224-44 | Molybdenum | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Nickel | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Phosphorous | 5000 ug/L | 10 mL | 100 mL | 500 ug/L |
| WI100224-44 | Potassium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100224-44 | Selenium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Silica | 10698 ug/L | 10 mL | 100 mL | 1069 ug/L |
| WI100224-44 | Silicon | 5000 ug/L | 10 mL | 100 mL | 500 ug/L |
| WI100224-44 | Silver | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Sodium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100224-44 | Strontium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Sulfur | 2000 ug/L | 10 mL | 100 mL | 200 ug/L |
| WI100224-44 | Thallium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Tin | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Titanium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Uranium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Vanadium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100224-44 | Zinc | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |

**Serial ID:** WI100224-43 **Opened:** 24-FEB-10 **Balance Id :** 216
**Name:** TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090828-42 | Sodium | 1000 ug/mL | 5 mL | 1000 mL | 5000 UG/L |
| UI091015-42 | Silica | 2139 mg/L | 2.5 mL | 1000 mL | 5348.25 UG/L |
| UI091015-42 | Silicon | 1000 mg/L | 2.5 mL | 1000 mL | 2500 UG/L |
| UI091102-40 | Aluminum | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Arsenic | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Barium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Beryllium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Boron | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Cadmium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Calcium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Chromium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Cobalt | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Copper | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Iron | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Lead | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Magnesium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Manganese | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Nickel | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091102-40 | Phosphorous | 1000 mg/L | 2.5 mL | 1000 mL | 2500 UG/L |
| UI091102-40 | Potassium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Selenium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Sodium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Strontium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Thallium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Uranium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Vanadium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Zinc | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Antimony | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Molybdenum | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Silver | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Sulfur | 400 mg/L | 2.5 mL | 1000 mL | 1000 UG/L |
| UI091102-41 | Tin | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Titanium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |

**Serial ID:** WI100224-44 **Opened:** 24-FEB-10 **Balance Id :** 216
**Name:** TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1272839
**Employee:** Helen Camello
**Supplier:** o2si
**Description:** Trace ICP Calibration Standard 1.0ppm
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091015-42 | Silica | 2139 mg/L | 2.5 mL | 500 mL | 10698 ug/L |
| UI091015-42 | Silicon | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI091102-40 | Aluminum | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Arsenic | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Barium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Beryllium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Boron | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Cadmium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Calcium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Chromium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Cobalt | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Copper | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Iron | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Lead | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Magnesium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Manganese | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Nickel | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Phosphorous | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI091102-40 | Potassium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Selenium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091102-40 | Sodium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Strontium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Thallium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Uranium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Vanadium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Zinc | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Antimony | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Molybdenum | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Silver | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Sulfur | 400 mg/L | 2.5 mL | 500 mL | 2000 ug/L |
| UI091102-41 | Tin | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Titanium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |

**Serial ID:** WI100224-45 **Opened:** 24-FEB-10 **Balance Id :** 216
**Name:** TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP S-10 CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090422-40 | Aluminum | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090422-40 | Calcium | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090422-40 | Iron | 2000 mg/L | 5 mL | 500 mL | 20000 UG/L |
| UI090422-40 | Magnesium | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090828-42 | Sodium | 1000 ug/mL | 10 mL | 500 mL | 20000 UG/L |

**Serial ID:** WI100224-46 **Opened:** 24-FEB-10 **Balance Id :** 216
**Name:** ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1272839
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** Initial Calibration Verification ICP Trace Metals
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090925-40 | Aluminum | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Arsenic | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Barium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Boron | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Cadmium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Calcium | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Chromium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Cobalt | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090925-40 | Copper | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Iron | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Lead | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Phosphorous | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Potassium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Selenium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Sodium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Strontium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Antimony | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Beryllium | 50 mg/L | 2.5 mL | 500 mL | 250 ug/L |
| UI090925-41 | Magnesium | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-41 | Manganese | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Molybdenum | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Nickel | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Silver | 50 mg/L | 2.5 mL | 500 mL | 250 ug/L |
| UI090925-41 | Sulfur | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-41 | Thallium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Tin | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Titanium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Uranium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Vanadium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Zinc | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI091102-42 | Silica | 2139 mg/L | 2.5 mL | 500 mL | 10695 ug/L |
| UI091102-42 | Silicon | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |

**Serial ID:** WI100224-47 **Opened:** 24-FEB-10 **Balance Id :** 216
**Name:** PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL &1%HNO3-1272839
**Employee:** Helen Camello
**Supplier:** 02si
**Description:** PQL Working Standard
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-40 | Aluminum | 100 mg/L | 2 mL | 1000 mL | 200 ug/L |
| UI090701-40 | Antimony | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Arsenic | 15 mg/L | 2 mL | 1000 mL | 15 ug/L |
| UI090701-40 | Barium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Beryllium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Boron | 25 mg/L | 2 mL | 1000 mL | 50 ug/L |
| UI090701-40 | Cadmium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Calcium | 100 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Chromium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Cobalt | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Copper | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-40 | Iron | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Lead | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Magnesium | 150 mg/L | 2 mL | 1000 mL | 300 ug/L |
| UI090701-40 | Manganese | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Molybdenum | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Nickel | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Phosphorous | 75 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Potassium | 75 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Selenium | 15 mg/L | 2 mL | 1000 mL | 15 ug/L |
| UI090701-40 | Silicon | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Silver | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Sodium | 150 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Strontium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Sulfur | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Thallium | 10 mg/L | 2 mL | 1000 mL | 20 ug/L |
| UI090701-40 | Tin | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Titanium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Uranium | 25 mg/L | 2 mL | 1000 mL | 50 ug/L |
| UI090701-40 | Vanadium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Zinc | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |

**Serial ID:** WI100301-42 **Opened:** 01-MAR-10 **Balance Id :** 216
**Name:** TRACE ICP 0.1 PPM STD. **Received:** 01-MAR-10 **Pipet Id :** 3581809
**Type:** Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WI100301-44 | Aluminum | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100301-44 | Antimony | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Arsenic | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Barium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Beryllium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Boron | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Cadmium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Calcium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100301-44 | Chromium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Cobalt | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Copper | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Iron | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100301-44 | Lead | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Magnesium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100301-44 | Manganese | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WI100301-44 | Molybdenum | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Nickel | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Phosphorous | 5000 ug/L | 10 mL | 100 mL | 500 ug/L |
| WI100301-44 | Potassium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100301-44 | Selenium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Silica | 10698 ug/L | 10 mL | 100 mL | 1069 ug/L |
| WI100301-44 | Silicon | 5000 ug/L | 10 mL | 100 mL | 500 ug/L |
| WI100301-44 | Silver | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Sodium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100301-44 | Strontium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Sulfur | 2000 ug/L | 10 mL | 100 mL | 200 ug/L |
| WI100301-44 | Thallium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Tin | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Titanium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Uranium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Vanadium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100301-44 | Zinc | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |

**Serial ID:** WI100301-43 **Opened:** 01-MAR-10 **Balance Id :** 216
**Name:** TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090828-42 | Sodium | 1000 ug/mL | 5 mL | 1000 mL | 5000 UG/L |
| UI091015-42 | Silica | 2139 mg/L | 2.5 mL | 1000 mL | 5348.25 UG/L |
| UI091015-42 | Silicon | 1000 mg/L | 2.5 mL | 1000 mL | 2500 UG/L |
| UI091102-40 | Aluminum | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Arsenic | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Barium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Beryllium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Boron | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Cadmium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Calcium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Chromium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Cobalt | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Copper | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Iron | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Lead | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Magnesium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Manganese | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Nickel | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091102-40 | Phosphorous | 1000 mg/L | 2.5 mL | 1000 mL | 2500 UG/L |
| UI091102-40 | Potassium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Selenium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Sodium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Strontium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Thallium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Uranium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Vanadium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Zinc | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Antimony | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Molybdenum | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Silver | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Sulfur | 400 mg/L | 2.5 mL | 1000 mL | 1000 UG/L |
| UI091102-41 | Tin | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Titanium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |

**Serial ID:** WI100301-44 **Opened:** 01-MAR-10 **Balance Id :** 216
**Name:** TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1276974
**Employee:** Helen Camello
**Supplier:** o2si
**Description:** Trace ICP Calibration Standard 1.0ppm
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091015-42 | Silica | 2139 mg/L | 2.5 mL | 500 mL | 10698 ug/L |
| UI091015-42 | Silicon | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI091102-40 | Aluminum | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Arsenic | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Barium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Beryllium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Boron | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Cadmium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Calcium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Chromium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Cobalt | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Copper | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Iron | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Lead | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Magnesium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Manganese | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Nickel | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Phosphorous | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI091102-40 | Potassium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Selenium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091102-40 | Sodium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Strontium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Thallium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Uranium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Vanadium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Zinc | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Antimony | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Molybdenum | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Silver | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Sulfur | 400 mg/L | 2.5 mL | 500 mL | 2000 ug/L |
| UI091102-41 | Tin | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Titanium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |

**Serial ID:** WI100301-45 **Opened:** 01-MAR-10 **Balance Id :** 216
**Name:** TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP S-10 CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090422-40 | Aluminum | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090422-40 | Calcium | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090422-40 | Iron | 2000 mg/L | 5 mL | 500 mL | 20000 UG/L |
| UI090422-40 | Magnesium | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090828-42 | Sodium | 1000 ug/mL | 10 mL | 500 mL | 20000 UG/L |

**Serial ID:** WI100301-46 **Opened:** 01-MAR-10 **Balance Id :** 216
**Name:** ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1276974
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** Initial Calibration Verification ICP Trace Metals
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090925-40 | Aluminum | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Arsenic | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Barium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Boron | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Cadmium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Calcium | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Chromium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Cobalt | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090925-40 | Copper | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Iron | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Lead | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Phosphorous | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Potassium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Selenium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Sodium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Strontium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Antimony | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Beryllium | 50 mg/L | 2.5 mL | 500 mL | 250 ug/L |
| UI090925-41 | Magnesium | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-41 | Manganese | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Molybdenum | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Nickel | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Silver | 50 mg/L | 2.5 mL | 500 mL | 250 ug/L |
| UI090925-41 | Sulfur | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-41 | Thallium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Tin | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Titanium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Uranium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Vanadium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Zinc | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI091102-42 | Silica | 2139 mg/L | 2.5 mL | 500 mL | 10695 ug/L |
| UI091102-42 | Silicon | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |

**Serial ID:** WI100301-47 **Opened:** 01-MAR-10 **Balance Id :** 216
**Name:** PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL &1%HNO3-1276974
**Employee:** Helen Camello
**Supplier:** 02si
**Description:** PQL Working Standard
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-40 | Aluminum | 100 mg/L | 2 mL | 1000 mL | 200 ug/L |
| UI090701-40 | Antimony | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Arsenic | 15 mg/L | 2 mL | 1000 mL | 15 ug/L |
| UI090701-40 | Barium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Beryllium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Boron | 25 mg/L | 2 mL | 1000 mL | 50 ug/L |
| UI090701-40 | Cadmium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Calcium | 100 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Chromium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Cobalt | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Copper | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-40 | Iron | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Lead | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Magnesium | 150 mg/L | 2 mL | 1000 mL | 300 ug/L |
| UI090701-40 | Manganese | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Molybdenum | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Nickel | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Phosphorous | 75 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Potassium | 75 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Selenium | 15 mg/L | 2 mL | 1000 mL | 15 ug/L |
| UI090701-40 | Silicon | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Silver | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Sodium | 150 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Strontium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Sulfur | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Thallium | 10 mg/L | 2 mL | 1000 mL | 20 ug/L |
| UI090701-40 | Tin | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Titanium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Uranium | 25 mg/L | 2 mL | 1000 mL | 50 ug/L |
| UI090701-40 | Vanadium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Zinc | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |

**Serial ID:** WMS100224-04AB **Opened:** 24-FEB-10 **Balance Id :** 40245216

**Name:** ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598

**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 2%$HNO_3$/1%HCl - 1272768

**Employee:** Rose Jenkins

**Supplier:** GEL

**Description:** ICPMS Calibration Standard (10 ppb)

**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100224-04B | Aluminum | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Antimony | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Arsenic | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Barium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Beryllium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Boron | 200 ug/l | 5 mL | 50 mL | 20 ug/l |
| WMS100224-04B | Cadmium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Calcium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Chromium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Cobalt | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Copper | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Iron | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Lead | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Lithium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Magnesium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100224-04B | Manganese | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Molybdenum | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Nickel | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Phosphorous | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Potassium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Selenium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Silver | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Sodium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Strontium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Thallium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Thorium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Tin | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Titanium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Tungsten | 100 ug/L | 5 mL | 50 mL | 10 ug/L |
| WMS100224-04B | Uranium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Vanadium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Zinc | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Zirconium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

**Serial ID:** WMS100224-04B **Opened:** 24-FEB-10 **Amount :** 50 mL
**Name:** ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 40245216
**Type:** Working **Expires:** 25-FEB-10 **Pipet Id :** 1758088
**Employee:** Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (100 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090610-03 | Tungsten | 10 mg/L | .5 mL | 50 mL | 100 ug/L |
| UMS090303-01 | Arsenic | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Barium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Beryllium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Boron | 20 mg/L | .5 | 50 mL | 200 ug/l |
| UMS090303-01 | Cadmium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Chromium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Cobalt | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Copper | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Lead | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Lithium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Manganese | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Nickel | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Selenium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Silver | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Strontium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Thallium | 10 mg/L | .5 | 50 mL | 100 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UMS090303-01 | Thorium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Uranium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Vanadium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Zinc | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-02 | Aluminum | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Calcium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Iron | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Magnesium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Phosphorous | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Potassium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Sodium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-03 | Antimony | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Molybdenum | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Tin | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Titanium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Zirconium | 10 mg/L | .5 | 50 mL | 100 ug/l |

**Serial ID:** WMS100224-05B **Opened:** 24-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICV **Received:** 24-FEB-10 **Pipet Id :** 1758088
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS ICV
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-06 | Aluminum | 2020 mg/L | .125 mL | 50 mL | 5050 ug/L |
| UI091217-06 | Calcium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Iron | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Magnesium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Phosphorous | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Potassium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Sodium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-07 | Arsenic | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Barium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Beryllium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Boron | 40 mg/L | .125 mL | 50 mL | 100 ug/L |
| UI091217-07 | Cadmium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Chromium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Cobalt | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Copper | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lead | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lithium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Manganese | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Nickel | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-07 | Selenium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Strontium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thallium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thorium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Uranium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Vanadium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Zinc | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Antimony | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Molybdenum | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Silver | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tin | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Titanium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tungsten | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Zirconium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

**Serial ID:** WMS100224-06B
**Name:** ICPMS CRDL
**Type:** Working
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS CRDL
**Comments:** None

**Opened:** 24-FEB-10
**Received:** 24-FEB-10
**Expires:** 25-FEB-10
**Verified:** 23-FEB-10

**Balance Id :** 40245216
**Pipet Id :** 3820544
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Aluminum | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Arsenic | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Barium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Beryllium | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-09 | Boron | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Cadmium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Calcium | 100 mg/L | .05 mL | 50 mL | 100 ug/L |
| UI090701-09 | Chromium | 3 mg/L | .05 mL | 50 mL | 3 ug/L |
| UI090701-09 | Cobalt | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Copper | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Iron | 25 mg/L | .05 mL | 50 mL | 25 ug/L |
| UI090701-09 | Lead | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Lithium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Magnesium | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Manganese | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Nickel | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Phosphorous | 50 mg/L | .05 mL | 50 mL | 50 ug/L |
| UI090701-09 | Potassium | 300 mg/L | .05 mL | 50 mL | 300 ug/L |
| UI090701-09 | Selenium | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Sodium | 250 mg/L | .05 mL | 50 mL | 250 ug/L |
| UI090701-09 | Strontium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Thallium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Thorium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Uranium | .2 mg/L | .05 mL | 50 mL | .2 ug/L |
| UI090701-09 | Vanadium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Zinc | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Antimony | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-10 | Molybdenum | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-10 | Silver | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-10 | Tin | 2 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Titanium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Tungsten | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Zirconium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |

**Serial ID:** WMS100224-07B **Opened:** 24-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICSA **Received:** 24-FEB-10 **Lot Number :** 1010773
**Type:** Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
**Employee:** Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
**Supplier:** GEL
**Description:** ICPMS ICSA
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100224-08B **Opened:** 24-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICSAB **Received:** 24-FEB-10 **Pipet Id :** 3541598/1758088
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS ICSAB
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Arsenic | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Barium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Beryllium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Boron | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Cadmium | 2 mg/L | .5 mL | 50 mL | 20.2 ug/L |
| UI091217-12 | Chromium | 2 mg/L | .5 mL | 50 mL | 22.2 ug/L |
| UI091217-12 | Cobalt | 2 mg/L | .5 mL | 50 mL | 20.4 ug/L |
| UI091217-12 | Copper | 2 mg/L | .5 mL | 50 mL | 23.4 ug/L |
| UI091217-12 | Lead | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Lithium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Manganese | 2 mg/L | .5 mL | 50 mL | 22.7 ug/L |
| UI091217-12 | Nickel | 2 mg/L | .5 mL | 50 mL | 22.4 ug/L |
| UI091217-12 | Selenium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Strontium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thallium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thorium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Uranium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Vanadium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Zinc | 2 mg/L | .5 mL | 50 mL | 27 ug/L |
| UI091217-13 | Antimony | 2 mg/L | .5 mL | 50 mL | 20.5 ug/L |
| UI091217-13 | Silver | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tin | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tungsten | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Zirconium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100225-04AB **Opened:** 25-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
**Type:** Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (10 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100225-04B | Aluminum | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100225-04B | Antimony | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100225-04B | Arsenic | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Barium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Beryllium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Boron | 200 ug/l | 5 mL | 50 mL | 20 ug/l |
| WMS100225-04B | Cadmium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Calcium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100225-04B | Chromium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Cobalt | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Copper | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Iron | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100225-04B | Lead | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Lithium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Magnesium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100225-04B | Manganese | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Molybdenum | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Nickel | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Phosphorous | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100225-04B | Potassium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100225-04B | Selenium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Silver | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Sodium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100225-04B | Strontium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Thallium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Thorium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Tin | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Titanium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Tungsten | 100 ug/L | 5 mL | 50 mL | 10 ug/L |
| WMS100225-04B | Uranium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Vanadium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Zinc | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100225-04B | Zirconium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

**Serial ID:** WMS100225-04B **Opened:** 25-FEB-10 **Amount :** 50 mL
**Name:** ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 40245216
**Type:** Working **Expires:** 26-FEB-10 **Pipet Id :** 1758088
**Employee:** Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (100 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090610-03 | Tungsten | 10 mg/L | .5 mL | 50 mL | 100 ug/L |
| UMS090303-01 | Arsenic | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Barium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Beryllium | 10 mg/L | .5 | 50 mL | 100 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UMS090303-01 | Boron | 20 mg/L | .5 | 50 mL | 200 ug/l |
| UMS090303-01 | Cadmium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Chromium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Cobalt | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Copper | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Lead | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Lithium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Manganese | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Nickel | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Selenium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Silver | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Strontium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Thallium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Thorium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Uranium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Vanadium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Zinc | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-02 | Aluminum | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Calcium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Iron | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Magnesium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Phosphorous | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Potassium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Sodium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-03 | Antimony | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Molybdenum | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Tin | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Titanium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Zirconium | 10 mg/L | .5 | 50 mL | 100 ug/l |

**Serial ID:** WMS100225-05B **Opened:** 25-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 1758088
**Type:** Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS ICV
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-06 | Aluminum | 2020 mg/L | .125 mL | 50 mL | 5050 ug/L |
| UI091217-06 | Calcium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Iron | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Magnesium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Phosphorous | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Potassium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-06 | Sodium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-07 | Arsenic | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Barium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Beryllium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Boron | 40 mg/L | .125 mL | 50 mL | 100 ug/L |
| UI091217-07 | Cadmium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Chromium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Cobalt | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Copper | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lead | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lithium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Manganese | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Nickel | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Selenium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Strontium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thallium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thorium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Uranium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Vanadium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Zinc | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Antimony | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Molybdenum | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Silver | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tin | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Titanium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tungsten | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Zirconium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

**Serial ID:** WMS100225-06B **Opened:** 25-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
**Type:** Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Rose Jenkins **Verified:** 23-FEB-10
**Supplier:** GEL
**Description:** ICPMS CRDL
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Aluminum | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Arsenic | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Barium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Beryllium | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-09 | Boron | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Cadmium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Calcium | 100 mg/L | .05 mL | 50 mL | 100 ug/L |
| UI090701-09 | Chromium | 3 mg/L | .05 mL | 50 mL | 3 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Cobalt | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Copper | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Iron | 25 mg/L | .05 mL | 50 mL | 25 ug/L |
| UI090701-09 | Lead | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Lithium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Magnesium | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Manganese | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Nickel | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Phosphorous | 50 mg/L | .05 mL | 50 mL | 50 ug/L |
| UI090701-09 | Potassium | 300 mg/L | .05 mL | 50 mL | 300 ug/L |
| UI090701-09 | Selenium | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Sodium | 250 mg/L | .05 mL | 50 mL | 250 ug/L |
| UI090701-09 | Strontium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Thallium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Thorium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Uranium | .2 mg/L | .05 mL | 50 mL | .2 ug/L |
| UI090701-09 | Vanadium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Zinc | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Antimony | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-10 | Molybdenum | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-10 | Silver | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-10 | Tin | 2 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Titanium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Tungsten | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Zirconium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |

**Serial ID:** WMS100225-07B
**Name:** ICPMS ICSA
**Type:** Working
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS ICSA
**Comments:** None

**Opened:** 25-FEB-10
**Received:** 25-FEB-10
**Expires:** 26-FEB-10

**Balance Id :** 40245216
**Lot Number :** 1010773
**Pipet Id :** 3541598
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100225-08B **Opened:** 25-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 3541598/1758088
**Type:** Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS ICSAB
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Arsenic | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Barium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Beryllium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Boron | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Cadmium | 2 mg/L | .5 mL | 50 mL | 20.2 ug/L |
| UI091217-12 | Chromium | 2 mg/L | .5 mL | 50 mL | 22.2 ug/L |
| UI091217-12 | Cobalt | 2 mg/L | .5 mL | 50 mL | 20.4 ug/L |
| UI091217-12 | Copper | 2 mg/L | .5 mL | 50 mL | 23.4 ug/L |
| UI091217-12 | Lead | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Lithium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Manganese | 2 mg/L | .5 mL | 50 mL | 22.7 ug/L |
| UI091217-12 | Nickel | 2 mg/L | .5 mL | 50 mL | 22.4 ug/L |
| UI091217-12 | Selenium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Strontium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thallium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thorium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Uranium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Vanadium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Zinc | 2 mg/L | .5 mL | 50 mL | 27 ug/L |
| UI091217-13 | Antimony | 2 mg/L | .5 mL | 50 mL | 20.5 ug/L |
| UI091217-13 | Silver | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tin | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tungsten | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Zirconium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100227-04AB **Opened:** 27-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS Cal Standard 10 **Received:** 27-FEB-10 **Pipet Id :** 3541598
**Type:** Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (10 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100227-04B | Aluminum | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100227-04B | Antimony | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Arsenic | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Barium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Beryllium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Boron | 200 ug/l | 5 mL | 50 mL | 20 ug/l |
| WMS100227-04B | Cadmium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Calcium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100227-04B | Chromium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Cobalt | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Copper | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Iron | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100227-04B | Lead | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Lithium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Magnesium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100227-04B | Manganese | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Molybdenum | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Nickel | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Phosphorous | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100227-04B | Potassium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100227-04B | Selenium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Silver | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Sodium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100227-04B | Strontium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Thallium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Thorium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Tin | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Titanium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Tungsten | 100 ug/L | 5 mL | 50 mL | 10 ug/L |
| WMS100227-04B | Uranium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Vanadium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Zinc | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100227-04B | Zirconium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

# Standard Logbook

| | | | | | |
|---|---|---|---|---|---|
| **Serial ID:** | WMS100227-04B | **Opened:** | 27-FEB-10 | **Amount :** | 50 mL |
| **Name:** | ICPMS Cal Standard 100 | **Received:** | 27-FEB-10 | **Balance Id :** | 40245216 |
| **Type:** | Working | **Expires:** | 28-FEB-10 | **Pipet Id :** | 1758088 |
| **Employee:** | Rose Jenkins | | | **Solvent :** | 2%HNO3/1%HCl- 1272768 |
| **Supplier:** | GEL | | | | |

**Description:** ICPMS Calibration Standard (100 ppb)

**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090610-03 | Tungsten | 10 mg/L | .5 mL | 50 mL | 100 ug/L |
| UMS090303-01 | Arsenic | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Barium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Beryllium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Boron | 20 mg/L | .5 | 50 mL | 200 ug/l |
| UMS090303-01 | Cadmium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Chromium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Cobalt | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Copper | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Lead | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Lithium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Manganese | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Nickel | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Selenium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Silver | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Strontium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Thallium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Thorium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Uranium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Vanadium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Zinc | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-02 | Aluminum | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Calcium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Iron | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Magnesium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Phosphorous | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Potassium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Sodium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-03 | Antimony | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Molybdenum | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Tin | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Titanium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Zirconium | 10 mg/L | .5 | 50 mL | 100 ug/l |

# Standard Logbook

**Serial ID:** WMS100227-05B
**Name:** ICPMS ICV
**Type:** Working
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS ICV
**Comments:** None

**Opened:** 27-FEB-10
**Received:** 27-FEB-10
**Expires:** 28-FEB-10

**Balance Id :** 40245216
**Pipet Id :** 1758088
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-06 | Aluminum | 2020 mg/L | .125 mL | 50 mL | 5050 ug/L |
| UI091217-06 | Calcium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Iron | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Magnesium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Phosphorous | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Potassium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Sodium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-07 | Arsenic | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Barium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Beryllium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Boron | 40 mg/L | .125 mL | 50 mL | 100 ug/L |
| UI091217-07 | Cadmium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Chromium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Cobalt | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Copper | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lead | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lithium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Manganese | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Nickel | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Selenium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Strontium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thallium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thorium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Uranium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Vanadium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Zinc | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Antimony | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Molybdenum | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Silver | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tin | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Titanium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tungsten | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Zirconium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

# Standard Logbook

**Serial ID:** WMS100227-06B
**Name:** ICPMS CRDL
**Type:** Working
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS CRDL
**Comments:** None

**Opened:** 27-FEB-10
**Received:** 27-FEB-10
**Expires:** 28-FEB-10
**Verified:** 23-FEB-10

**Balance Id :** 40245216
**Pipet Id :** 3820544
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Aluminum | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Arsenic | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Barium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Beryllium | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-09 | Boron | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Cadmium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Calcium | 100 mg/L | .05 mL | 50 mL | 100 ug/L |
| UI090701-09 | Chromium | 3 mg/L | .05 mL | 50 mL | 3 ug/L |
| UI090701-09 | Cobalt | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Copper | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Iron | 25 mg/L | .05 mL | 50 mL | 25 ug/L |
| UI090701-09 | Lead | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Lithium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Magnesium | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Manganese | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Nickel | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Phosphorous | 50 mg/L | .05 mL | 50 mL | 50 ug/L |
| UI090701-09 | Potassium | 300 mg/L | .05 mL | 50 mL | 300 ug/L |
| UI090701-09 | Selenium | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Sodium | 250 mg/L | .05 mL | 50 mL | 250 ug/L |
| UI090701-09 | Strontium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Thallium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Thorium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Uranium | .2 mg/L | .05 mL | 50 mL | .2 ug/L |
| UI090701-09 | Vanadium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Zinc | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Antimony | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-10 | Molybdenum | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-10 | Silver | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-10 | Tin | 2 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Titanium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Tungsten | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Zirconium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |

# Standard Logbook

**Serial ID:** WMS100227-07B
**Name:** ICPMS ICSA
**Type:** Working
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS ICSA
**Comments:** None

**Opened:** 27-FEB-10
**Received:** 27-FEB-10
**Expires:** 28-FEB-10

**Balance Id :** 40245216
**Lot Number :** 1010773
**Pipet Id :** 3541598
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100227-08B
**Name:** ICPMS ICSAB
**Type:** Working
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS ICSAB
**Comments:** None

**Opened:** 27-FEB-10
**Received:** 27-FEB-10
**Expires:** 28-FEB-10

**Balance Id :** 40245216
**Pipet Id :** 3541598/1758088
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Arsenic | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Barium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Beryllium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Boron | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Cadmium | 2 mg/L | .5 mL | 50 mL | 20.2 ug/L |
| UI091217-12 | Chromium | 2 mg/L | .5 mL | 50 mL | 22.2 ug/L |
| UI091217-12 | Cobalt | 2 mg/L | .5 mL | 50 mL | 20.4 ug/L |
| UI091217-12 | Copper | 2 mg/L | .5 mL | 50 mL | 23.4 ug/L |
| UI091217-12 | Lead | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Lithium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Manganese | 2 mg/L | .5 mL | 50 mL | 22.7 ug/L |
| UI091217-12 | Nickel | 2 mg/L | .5 mL | 50 mL | 22.4 ug/L |
| UI091217-12 | Selenium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Strontium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thallium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thorium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Uranium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Vanadium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Zinc | 2 mg/L | .5 mL | 50 mL | 27 ug/L |
| UI091217-13 | Antimony | 2 mg/L | .5 mL | 50 mL | 20.5 ug/L |
| UI091217-13 | Silver | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tin | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tungsten | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Zirconium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
**Name:** I-HCL **Received:** 02-FEB-10
**Type:** Reagent/Solvent **Expires:** 02-FEB-11
**Employee:** Francena Armstrong
**Supplier:** J.T. BAKER
**Description:** HYDROCHLORIC ACID
**Comments:** None

**Serial ID:** 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
**Name:** I-HNO3 **Received:** 02-APR-09
**Type:** Reagent/Solvent **Expires:** 02-APR-10
**Employee:** Clifford Postell
**Supplier:** BAKER
**Description:** Nitric Acid CONC.
**Comments:** None

**Serial ID:** 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
**Name:** B-KMnO4(VWR)-MER **Received:** 20-JUL-09
**Type:** Reagent/Solvent **Expires:** 20-JUL-10
**Employee:** Tara Griffin **Verified:** 07-AUG-07
**Supplier:** VWR
**Description:** Potassium Permanganate
**Comments:** None

# Standard Logbook

**Serial ID:** 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
**Name:** B-H2O2 **Received:** 15-OCT-09
**Type:** Reagent/Solvent **Expires:** 15-OCT-10
**Employee:** Francena Armstrong
**Supplier:** EM SCIENCE
**Description:** Hydrogen Peroxide 30%
**Comments:** None

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**Serial ID:** 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
**Name:** B-NH2OH.HCl-MER **Received:** 12-NOV-09
**Type:** Reagent/Solvent **Expires:** 12-NOV-10
**Employee:** Tara Griffin
**Supplier:** Fisher Scientific
**Description:** Hydroxlyamine Hydrochloride
**Comments:** None

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**Serial ID:** 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
**Name:** B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
**Type:** Reagent/Solvent **Expires:** 15-JUL-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Hg reducing agent
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| 1228372-A | B-NH2OH.HCl-MER | N/A | 120 g | 1000 mL | N/A |

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**Serial ID:** 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
**Name:** B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
**Type:** Reagent/Solvent **Expires:** 20-JAN-11
**Employee:** Tara Griffin
**Supplier:** Mallinckrodt Chemicals
**Description:** NITRIC ACID
**Comments:** None

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**Serial ID:** 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
**Name:** I-HNO3 **Received:** 02-FEB-10
**Type:** Reagent/Solvent **Expires:** 03-FEB-11
**Employee:** Bryan Davis
**Supplier:** BAKER
**Description:** Nitric Acid CONC.
**Comments:** None

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# Standard Logbook

**Serial ID:** 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
**Name:** B-HCl-MER **Received:** 04-FEB-10
**Type:** Reagent/Solvent **Expires:** 04-FEB-11
**Employee:** Tara Griffin
**Supplier:** Aristar
**Description:** Hydrochloric Acid Conc.
**Comments:** None

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**Serial ID:** 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
**Name:** B-KMnO4-MER **Received:** 04-FEB-10
**Type:** Reagent/Solvent **Expires:** 20-JUL-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** 5% KMnO4 solution
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| 1156689-A | B-KMnO4(VWR)-MER | Crystals | 50 g | 1000 mL | 3% |

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**Serial ID:** 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
**Name:** I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
**Type:** Reagent/Solvent **Expires:** 04-FEB-11
**Employee:** Bryan Davis
**Supplier:** J.T. BAKER
**Description:** HYDROCHLORIC ACID
**Comments:** None

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**Serial ID:** 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
**Name:** B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
**Type:** Reagent/Solvent **Expires:** 01-MAR-10
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** 2%HNO3/1%HCl Solution (Type I Water)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| 100202 | I-HCL | 36.5-38.0 | 90 mL | 9 l | N/A |
| 1100721TCLP | I-HNO3 | 69.0-70.0 | 180 mL | 9 l | N/A |

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**Serial ID:** 1272839 **Opened:** 22-FEB-10 **Amount :** 20 L
**Name:** B-ICP-RINSE SOLN **Received:** 12-FEB-10 **Lot Number :** H04040+G34050
**Type:** Reagent/Solvent **Expires:** 28-FEB-10 **Solvent :** 3%HCL+1%HNO3
**Employee:** Helen Camello
**Supplier:** GEL

# Standard Logbook

**Description:** 3%HCL+1%HNO3 RINSE SOLN.
**Comments:** None

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| | | | | | |
|---|---|---|---|---|---|
| **Serial ID:** | 1276974 | **Opened:** | 01-MAR-10 | **Amount :** | 20 L |
| **Name:** | B-ICP-RINSE SOLN | **Received:** | 25-FEB-10 | **Lot Number :** | H04040+G34050 |
| **Type:** | Reagent/Solvent | **Expires:** | 07-MAR-10 | **Solvent :** | 3%HCL+1%HNO3 |
| **Employee:** | Helen Camello | | | | |
| **Supplier:** | GEL | | | | |

**Description:** 3%HCL+1%HNO3 RINSE SOLN.
**Comments:** None

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# Metals Analysis

# Case Narrative

**Metals Fractional Narrative**
**Los Alamos National Laboratory (LANL)**
**SDG 10-1512-1**

## Sample Analysis

| Sample ID | Client ID |
|---|---|
| 245975001 | RE15-10-8084 |
| 1202032557 | Method Blank (MB) **ICP** |
| 1202032558 | Laboratory Control Sample (LCS) |
| 1202032561 | 246000001(RE15-10-8124L) Serial Dilution (SD) |
| 1202032559 | 246000001(RE15-10-8124D) Sample Duplicate (DUP) |
| 1202032560 | 246000001(RE15-10-8124S) Matrix Spike (MS) |
| 1202032562 | Method Blank (MB) **ICP-MS** |
| 1202032563 | Laboratory Control Sample (LCS) |
| 1202032566 | 246000001(RE15-10-8124L) Serial Dilution (SD) |
| 1202032564 | 246000001(RE15-10-8124D) Sample Duplicate (DUP) |
| 1202032565 | 246000001(RE15-10-8124S) Matrix Spike (MS) |
| 1202033203 | Method Blank (MB) **CVAA** |
| 1202033204 | Laboratory Control Sample (LCS) |
| 1202033207 | 246056001(RE15-10-8233L) Serial Dilution (SD) |
| 1202033205 | 246056001(RE15-10-8233D) Sample Duplicate (DUP) |
| 1202033206 | 246056001(RE15-10-8233S) Matrix Spike (MS) |

The samples in this SDG were analyzed on an "as received" basis.

## Method/Analysis Information

**Analytical Batch:** 948737, 948740 and 949020

| | |
|---|---|
| **Prep Batch :** | 948730, 948739 and 949018 |
| **Standard Operating Procedures:** | GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23 |
| **Analytical Method:** | SW846 3005/6010B, SW846 3005/6020 and SW846 7470A |
| **Prep Method :** | SW846 3005A and SW846 7470A Prep |

**Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

**System Configuration**

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

**Calibration Information**

**Instrument Calibration**
All initial calibration requirements have been met for this sample delivery group (SDG).

**CRDL Requirements**
All CRDL standard(s) met the referenced advisory control limits.

**ICSA/ICSAB Statement**
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

**Continuing Calibration Blank (CCB) Requirements**
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

**Continuing Calibration Verification (CCV) Requirements**
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

## Quality Control (QC) Information

**Method Blank (MB) Statement**
The MBs analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**
The LCS spike recoveries met the acceptance limits.

**Quality Control (QC) Sample Statement**
The following samples were selected as the quality control (QC) samples for this SDG: 246000001 (RE15-10-8124) and 246056001 (RE15-10-8233).

**Matrix Spike (MS) Recovery Statement**
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of thallium, as indicated by the "N" qualifier.

**Duplicate Relative Percent Difference (RPD) Statement**
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

**Serial Dilution % Difference Statement**
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

## Technical Information

**Holding Time Specifications**
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. All samples in this SDG met the specified holding time.

**Sample Dilutions**
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

**Preparation Information**
The samples in this SDG were prepared exactly according to the cited SOP.

**Miscellaneous Information**

**Electronic Packaging 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. 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**
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 797043. A copy is included in the Miscellaneous Data section of this package.

**Additional Comments**
Additional comments were not required for this SDG.

**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:** Kristen Parson **Date:** 3/1/10

# Sample Data Summary

# METALS
## -1-
## INORGANICS ANALYSIS DATA PACKAGE

**SDG No:** 10-1512-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

**SAMPLE ID:** 245975001 **BASIS:** As Received **DATE COLLECTED** 27-JAN-10

**CLIENT ID:** RE15-10-8084 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

**MATRIX:** WATER **%SOLIDS:** 0

| CAS No. | Analyte | Result | Units | Qual | MDL | PQL | CRDL | DF | M* | Analyst | Run Date | Analytical Run | Analytical Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7429-90-5 | Aluminum | 200 | ug/L | U | 68 | 200 | 200 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-36-0 | Antimony | 3 | ug/L | U | 1 | 3 | 3 | 1 | MS | BAJ | 02/25/10 04:45 | 100224-2 | 948740 |
| 7440-38-2 | Arsenic | 30 | ug/L | U | 5 | 30 | 30 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-39-3 | Barium | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-41-7 | Beryllium | 0.50 | ug/L | U | 0.1 | 0.5 | 0.5 | 1 | MS | BAJ | 02/25/10 15:31 | 100225-3 | 948740 |
| 7440-43-9 | Cadmium | 1 | ug/L | U | 0.11 | 1 | 1 | 1 | MS | BAJ | 02/25/10 04:45 | 100224-2 | 948740 |
| 7440-70-2 | Calcium | 200 | ug/L | U | 50 | 200 | 200 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-47-3 | Chromium | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-48-4 | Cobalt | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-50-8 | Copper | 10 | ug/L | U | 3 | 10 | 10 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7439-89-6 | Iron | 100 | ug/L | U | 30 | 100 | 100 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7439-92-1 | Lead | 2 | ug/L | U | 0.5 | 2 | 2 | 1 | MS | BAJ | 02/25/10 15:31 | 100225-3 | 948740 |
| 7439-95-4 | Magnesium | 300 | ug/L | U | 85 | 300 | 300 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7439-96-5 | Manganese | 5 | ug/L | U | 1 | 5 | 5 | 1 | MS | BAJ | 02/25/10 15:31 | 100225-3 | 948740 |
| 7439-97-6 | Mercury | 0.20 | ug/L | U | 0.066 | 0.2 | 0.2 | 1 | AV | JXL1 | 02/05/10 10:03 | 020510W1-6 | 949020 |
| 7440-02-0 | Nickel | 5 | ug/L | U | 1.5 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-09-7 | Potassium | 195 | ug/L | | 50 | 150 | 150 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7782-49-2 | Selenium | 30 | ug/L | U | 5 | 30 | 30 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-22-4 | Silver | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-23-5 | Sodium | 117 | ug/L | J | 100 | 300 | 300 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-28-0 | Thallium | 1 | ug/L | U | 0.3 | 1 | 1 | 1 | MS | BAJ | 02/28/10 14:33 | 100228-5 | 948740 |
| 7440-61-1 | Uranium | 0.20 | ug/L | U | 0.05 | 0.2 | 0.2 | 1 | MS | BAJ | 02/25/10 16:22 | 100225-4 | 948740 |
| 7440-62-2 | Vanadium | 5 | ug/L | U | 1 | 5 | 5 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |
| 7440-66-6 | Zinc | 10 | ug/L | U | 3.3 | 10 | 10 | 1 | P | HSC | 02/11/10 19:59 | 021110B-1 | 948737 |

**Prep Information:**

| Analytical Batch | Prep Batch | Prep Method | Initial wt./vol. | Units | Final wt./vol. | Units | Date | Analyst |
|---|---|---|---|---|---|---|---|---|
| 948737 | 948730 | SW846 3005A | 50 | mL | 50 | mL | 02/10/10 | FGA |
| 948740 | 948739 | SW846 3005A | 50 | mL | 50 | mL | 02/10/10 | FGA |
| 949020 | 949018 | SW846 7470A Prep | 20 | mL | 20 | mL | 02/04/10 | TXB3 |

# Quality Control Summary

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| ICV01 | | | | | | | | | | |
| | Mercury | 4.96 | ug/L | 5 | ug/L | 99.1 | 90.0 – 110.0 | AV | 05–FEB–10 09:17 | 020510W1–6 |
| | Aluminum | 4950 | ug/L | 5000 | ug/L | 99.1 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Arsenic | 450 | ug/L | 500 | ug/L | 89.9 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Barium | 490 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Calcium | 4880 | ug/L | 5000 | ug/L | 97.5 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Chromium | 473 | ug/L | 500 | ug/L | 94.5 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Cobalt | 491 | ug/L | 500 | ug/L | 98.3 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Copper | 491 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Iron | 4990 | ug/L | 5000 | ug/L | 99.8 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Magnesium | 5150 | ug/L | 5000 | ug/L | 103 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Nickel | 485 | ug/L | 500 | ug/L | 97 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Potassium | 2410 | ug/L | 2500 | ug/L | 96.3 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Selenium | 2440 | ug/L | 2500 | ug/L | 97.5 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Silver | 253 | ug/L | 250 | ug/L | 101.2 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Sodium | 2390 | ug/L | 2500 | ug/L | 95.6 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Vanadium | 497 | ug/L | 500 | ug/L | 99.5 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Zinc | 492 | ug/L | 500 | ug/L | 98.5 | 90.0 – 110.0 | P | 11–FEB–10 14:26 | 021110B–1 |
| | Antimony | 51.4 | ug/L | 50 | ug/L | 102.8 | 90.0 – 110.0 | MS | 25–FEB–10 01:03 | 100224–2 |
| | Cadmium | 50.7 | ug/L | 50 | ug/L | 101.4 | 90.0 – 110.0 | MS | 25–FEB–10 01:03 | 100224–2 |
| | Beryllium | 51.3 | ug/L | 50 | ug/L | 102.7 | 90.0 – 110.0 | MS | 25–FEB–10 14:19 | 100225–3 |
| | Lead | 53.3 | ug/L | 50 | ug/L | 106.6 | 90.0 – 110.0 | MS | 25–FEB–10 14:19 | 100225–3 |
| | Manganese | 54.5 | ug/L | 50 | ug/L | 109.1 | 90.0 – 110.0 | MS | 25–FEB–10 14:19 | 100225–3 |
| | Uranium | 52.1 | ug/L | 50 | ug/L | 104.2 | 90.0 – 110.0 | MS | 25–FEB–10 16:01 | 100225–4 |
| | Thallium | 53.2 | ug/L | 50 | ug/L | 106.4 | 90.0 – 110.0 | MS | 28–FEB–10 11:42 | 100228–5 |
| CCV01 | | | | | | | | | | |
| | Mercury | 4.99 | ug/L | 5 | ug/L | 99.9 | 80.0 – 120.0 | AV | 05–FEB–10 09:22 | 020510W1–6 |
| | Aluminum | 4910 | ug/L | 5000 | ug/L | 98.3 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Arsenic | 495 | ug/L | 500 | ug/L | 99 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Barium | 484 | ug/L | 500 | ug/L | 96.8 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Calcium | 4830 | ug/L | 5000 | ug/L | 96.7 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Chromium | 489 | ug/L | 500 | ug/L | 97.8 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Cobalt | 486 | ug/L | 500 | ug/L | 97.2 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Copper | 486 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Iron | 4900 | ug/L | 5000 | ug/L | 98 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Magnesium | 5010 | ug/L | 5000 | ug/L | 100.1 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Nickel | 485 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Potassium | 5000 | ug/L | 5000 | ug/L | 100.1 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Selenium | 486 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Silver | 485 | ug/L | 500 | ug/L | 97 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Sodium | 9810 | ug/L | 10000 | ug/L | 98.1 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Vanadium | 486 | ug/L | 500 | ug/L | 97.3 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Zinc | 485 | ug/L | 500 | ug/L | 96.9 | 90.0 – 110.0 | P | 11–FEB–10 14:49 | 021110B–1 |
| | Antimony | 51.3 | ug/L | 50 | ug/L | 102.7 | 90.0 – 110.0 | MS | 25–FEB–10 01:33 | 100224–2 |
| | Cadmium | 50.8 | ug/L | 50 | ug/L | 101.5 | 90.0 – 110.0 | MS | 25–FEB–10 01:33 | 100224–2 |
| | Beryllium | 53.6 | ug/L | 50 | ug/L | 107.1 | 90.0 – 110.0 | MS | 25–FEB–10 14:32 | 100225–3 |
| | Lead | 54.1 | ug/L | 50 | ug/L | 108.2 | 90.0 – 110.0 | MS | 25–FEB–10 14:32 | 100225–3 |
| | Manganese | 54.4 | ug/L | 50 | ug/L | 108.9 | 90.0 – 110.0 | MS | 25–FEB–10 14:32 | 100225–3 |
| | Uranium | 51.8 | ug/L | 50 | ug/L | 103.5 | 90.0 – 110.0 | MS | 25–FEB–10 16:10 | 100225–4 |
| | Thallium | 54 | ug/L | 50 | ug/L | 108 | 90.0 – 110.0 | MS | 28–FEB–10 11:57 | 100228–5 |
| CCV02 | | | | | | | | | | |
| | Mercury | 4.93 | ug/L | 5 | ug/L | 98.5 | 80.0 – 120.0 | AV | 05–FEB–10 09:45 | 020510W1–6 |
| | Aluminum | 5300 | ug/L | 5000 | ug/L | 106 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |
| | Arsenic | 521 | ug/L | 500 | ug/L | 104.2 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |
| | Barium | 513 | ug/L | 500 | ug/L | 102.6 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |
| | Calcium | 5160 | ug/L | 5000 | ug/L | 103.3 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |
| | Chromium | 513 | ug/L | 500 | ug/L | 102.6 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |
| | Cobalt | 517 | ug/L | 500 | ug/L | 103.5 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |
| | Copper | 513 | ug/L | 500 | ug/L | 102.7 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |
| | Iron | 5220 | ug/L | 5000 | ug/L | 104.4 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |
| | Magnesium | 5300 | ug/L | 5000 | ug/L | 106.1 | 90.0 – 110.0 | P | 11–FEB–10 15:15 | 021110B–1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Nickel | 516 | ug/L | 500 | ug/L | 103.2 | 90.0 – 110.0 | P | 11-FEB-10 15:15 | 021110B-1 |
| | Potassium | 5230 | ug/L | 5000 | ug/L | 104.5 | 90.0 – 110.0 | P | 11-FEB-10 15:15 | 021110B-1 |
| | Selenium | 517 | ug/L | 500 | ug/L | 103.5 | 90.0 – 110.0 | P | 11-FEB-10 15:15 | 021110B-1 |
| | Silver | 517 | ug/L | 500 | ug/L | 103.4 | 90.0 – 110.0 | P | 11-FEB-10 15:15 | 021110B-1 |
| | Sodium | 10500 | ug/L | 10000 | ug/L | 105 | 90.0 – 110.0 | P | 11-FEB-10 15:15 | 021110B-1 |
| | Vanadium | 517 | ug/L | 500 | ug/L | 103.4 | 90.0 – 110.0 | P | 11-FEB-10 15:15 | 021110B-1 |
| | Zinc | 512 | ug/L | 500 | ug/L | 102.3 | 90.0 – 110.0 | P | 11-FEB-10 15:15 | 021110B-1 |
| | Antimony | 54 | ug/L | 50 | ug/L | 108.1 | 90.0 – 110.0 | MS | 25-FEB-10 01:52 | 100224-2 |
| | Cadmium | 51.4 | ug/L | 50 | ug/L | 102.9 | 90.0 – 110.0 | MS | 25-FEB-10 01:52 | 100224-2 |
| | Beryllium | 53 | ug/L | 50 | ug/L | 105.9 | 90.0 – 110.0 | MS | 25-FEB-10 14:56 | 100225-3 |
| | Lead | 53.6 | ug/L | 50 | ug/L | 107.2 | 90.0 – 110.0 | MS | 25-FEB-10 14:56 | 100225-3 |
| | Manganese | 55.1 | ug/L | 50 | ug/L | 110.2 | 90.0 – 110.0 | MS | 25-FEB-10 14:56 | 100225-3 |
| | Uranium | 49.1 | ug/L | 50 | ug/L | 98.2 | 90.0 – 110.0 | MS | 25-FEB-10 16:24 | 100225-4 |
| | Thallium | 53 | ug/L | 50 | ug/L | 105.9 | 90.0 – 110.0 | MS | 28-FEB-10 12:20 | 100228-5 |
| CCV03 | | | | | | | | | | |
| | Mercury | 5.05 | ug/L | 5 | ug/L | 101 | 80.0 – 120.0 | AV | 05-FEB-10 10:08 | 020510W1-6 |
| | Aluminum | 4750 | ug/L | 5000 | ug/L | 94.9 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Arsenic | 466 | ug/L | 500 | ug/L | 93.2 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Barium | 468 | ug/L | 500 | ug/L | 93.6 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Calcium | 4780 | ug/L | 5000 | ug/L | 95.6 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Chromium | 467 | ug/L | 500 | ug/L | 93.4 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Cobalt | 470 | ug/L | 500 | ug/L | 94 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Copper | 466 | ug/L | 500 | ug/L | 93.2 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Iron | 4750 | ug/L | 5000 | ug/L | 95.1 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Magnesium | 4900 | ug/L | 5000 | ug/L | 97.9 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Nickel | 467 | ug/L | 500 | ug/L | 93.5 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Potassium | 4810 | ug/L | 5000 | ug/L | 96.2 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Selenium | 475 | ug/L | 500 | ug/L | 94.9 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Silver | 474 | ug/L | 500 | ug/L | 94.7 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |
| | Sodium | 9790 | ug/L | 10000 | ug/L | 98 | 90.0 – 110.0 | P | 11-FEB-10 15:57 | 021110B-1 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Vanadium | 471 | ug/L | 500 | ug/L | 94.1 | 90.0 – 110.0 | P | 11–FEB–10 15:57 | 021110B–1 |
| | Zinc | 466 | ug/L | 500 | ug/L | 93.2 | 90.0 – 110.0 | P | 11–FEB–10 15:57 | 021110B–1 |
| | Antimony | 51.2 | ug/L | 50 | ug/L | 102.4 | 90.0 – 110.0 | MS | 25–FEB–10 03:06 | 100224–2 |
| | Cadmium | 49.9 | ug/L | 50 | ug/L | 99.9 | 90.0 – 110.0 | MS | 25–FEB–10 03:06 | 100224–2 |
| | Beryllium | 54.2 | ug/L | 50 | ug/L | 108.4 | 90.0 – 110.0 | MS | 25–FEB–10 15:23 | 100225–3 |
| | Lead | 54.4 | ug/L | 50 | ug/L | 108.8 | 90.0 – 110.0 | MS | 25–FEB–10 15:23 | 100225–3 |
| | Manganese | 54.4 | ug/L | 50 | ug/L | 108.8 | 90.0 – 110.0 | MS | 25–FEB–10 15:23 | 100225–3 |
| | Uranium | 50.3 | ug/L | 50 | ug/L | 100.6 | 90.0 – 110.0 | MS | 25–FEB–10 16:36 | 100225–4 |
| | Thallium | 53.7 | ug/L | 50 | ug/L | 107.3 | 90.0 – 110.0 | MS | 28–FEB–10 12:42 | 100228–5 |
| CCV04 | | | | | | | | | | |
| | Mercury | 5.1 | ug/L | 5 | ug/L | 102 | 80.0 – 120.0 | AV | 05–FEB–10 10:32 | 020510W1–6 |
| | Aluminum | 4880 | ug/L | 5000 | ug/L | 97.7 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Arsenic | 462 | ug/L | 500 | ug/L | 92.4 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Barium | 460 | ug/L | 500 | ug/L | 92.1 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Calcium | 4900 | ug/L | 5000 | ug/L | 98.1 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Chromium | 459 | ug/L | 500 | ug/L | 91.9 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Cobalt | 462 | ug/L | 500 | ug/L | 92.3 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Copper | 455 | ug/L | 500 | ug/L | 91.1 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Iron | 4820 | ug/L | 5000 | ug/L | 96.5 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Magnesium | 4990 | ug/L | 5000 | ug/L | 99.9 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Nickel | 461 | ug/L | 500 | ug/L | 92.1 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Potassium | 4800 | ug/L | 5000 | ug/L | 95.9 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Selenium | 461 | ug/L | 500 | ug/L | 92.2 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Silver | 465 | ug/L | 500 | ug/L | 93 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Sodium | 9690 | ug/L | 10000 | ug/L | 96.9 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Vanadium | 462 | ug/L | 500 | ug/L | 92.4 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Zinc | 458 | ug/L | 500 | ug/L | 91.6 | 90.0 – 110.0 | P | 11–FEB–10 16:37 | 021110B–1 |
| | Antimony | 52.1 | ug/L | 50 | ug/L | 104.2 | 90.0 – 110.0 | MS | 25–FEB–10 04:01 | 100224–2 |
| | Cadmium | 50.5 | ug/L | 50 | ug/L | 101 | 90.0 – 110.0 | MS | 25–FEB–10 04:01 | 100224–2 |
| | Beryllium | 51.7 | ug/L | 50 | ug/L | 103.5 | 90.0 – 110.0 | MS | 25–FEB–10 15:50 | 100225–3 |

# METALS
## –2a–
## Initial and Continuing Calibration Verification

**SDG No:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Lead | 52.3 | ug/L | 50 | ug/L | 104.7 | 90.0 – 110.0 | MS | 25–FEB–10 15:50 | 100225–3 |
| | Manganese | 53.6 | ug/L | 50 | ug/L | 107.1 | 90.0 – 110.0 | MS | 25–FEB–10 15:50 | 100225–3 |
| | Thallium | 52.3 | ug/L | 50 | ug/L | 104.7 | 90.0 – 110.0 | MS | 28–FEB–10 13:06 | 100228–5 |
| CCV05 | | | | | | | | | | |
| | Aluminum | 4730 | ug/L | 5000 | ug/L | 94.5 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Arsenic | 489 | ug/L | 500 | ug/L | 97.8 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Barium | 487 | ug/L | 500 | ug/L | 97.4 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Calcium | 4750 | ug/L | 5000 | ug/L | 95 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Chromium | 486 | ug/L | 500 | ug/L | 97.1 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Cobalt | 490 | ug/L | 500 | ug/L | 98 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Copper | 480 | ug/L | 500 | ug/L | 95.9 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Iron | 4780 | ug/L | 5000 | ug/L | 95.5 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Magnesium | 4850 | ug/L | 5000 | ug/L | 97 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Nickel | 490 | ug/L | 500 | ug/L | 98.1 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Potassium | 4750 | ug/L | 5000 | ug/L | 94.9 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Selenium | 489 | ug/L | 500 | ug/L | 97.7 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Silver | 480 | ug/L | 500 | ug/L | 95.9 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Sodium | 9460 | ug/L | 10000 | ug/L | 94.6 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Vanadium | 489 | ug/L | 500 | ug/L | 97.8 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Zinc | 487 | ug/L | 500 | ug/L | 97.3 | 90.0 – 110.0 | P | 11–FEB–10 16:58 | 021110B–1 |
| | Antimony | 52.1 | ug/L | 50 | ug/L | 104.2 | 90.0 – 110.0 | MS | 25–FEB–10 04:57 | 100224–2 |
| | Cadmium | 50.2 | ug/L | 50 | ug/L | 100.4 | 90.0 – 110.0 | MS | 25–FEB–10 04:57 | 100224–2 |
| | Thallium | 53.3 | ug/L | 50 | ug/L | 106.5 | 90.0 – 110.0 | MS | 28–FEB–10 13:29 | 100228–5 |
| CCV06 | | | | | | | | | | |
| | Aluminum | 4740 | ug/L | 5000 | ug/L | 94.8 | 90.0 – 110.0 | P | 11–FEB–10 17:27 | 021110B–1 |
| | Arsenic | 466 | ug/L | 500 | ug/L | 93.3 | 90.0 – 110.0 | P | 11–FEB–10 17:27 | 021110B–1 |
| | Barium | 469 | ug/L | 500 | ug/L | 93.9 | 90.0 – 110.0 | P | 11–FEB–10 17:27 | 021110B–1 |
| | Calcium | 4770 | ug/L | 5000 | ug/L | 95.3 | 90.0 – 110.0 | P | 11–FEB–10 17:27 | 021110B–1 |
| | Chromium | 468 | ug/L | 500 | ug/L | 93.7 | 90.0 – 110.0 | P | 11–FEB–10 17:27 | 021110B–1 |
| | Cobalt | 472 | ug/L | 500 | ug/L | 94.4 | 90.0 – 110.0 | P | 11–FEB–10 17:27 | 021110B–1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Copper | 467 | ug/L | 500 | ug/L | 93.3 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Iron | 4780 | ug/L | 5000 | ug/L | 95.6 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Magnesium | 4870 | ug/L | 5000 | ug/L | 97.4 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Nickel | 471 | ug/L | 500 | ug/L | 94.2 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Potassium | 4740 | ug/L | 5000 | ug/L | 94.7 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Selenium | 476 | ug/L | 500 | ug/L | 95.2 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Silver | 466 | ug/L | 500 | ug/L | 93.3 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Sodium | 9440 | ug/L | 10000 | ug/L | 94.4 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Vanadium | 473 | ug/L | 500 | ug/L | 94.5 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Zinc | 469 | ug/L | 500 | ug/L | 93.9 | 90.0 – 110.0 | P | 11-FEB-10 17:27 | 021110B-1 |
| | Antimony | 50.7 | ug/L | 50 | ug/L | 101.4 | 90.0 – 110.0 | MS | 25-FEB-10 05:34 | 100224-2 |
| | Cadmium | 49.4 | ug/L | 50 | ug/L | 98.7 | 90.0 – 110.0 | MS | 25-FEB-10 05:34 | 100224-2 |
| | Thallium | 53.9 | ug/L | 50 | ug/L | 107.8 | 90.0 – 110.0 | MS | 28-FEB-10 13:51 | 100228-5 |
| CCV07 | | | | | | | | | | |
| | Aluminum | 4800 | ug/L | 5000 | ug/L | 96 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Arsenic | 479 | ug/L | 500 | ug/L | 95.7 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Barium | 484 | ug/L | 500 | ug/L | 96.9 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Calcium | 4810 | ug/L | 5000 | ug/L | 96.2 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Chromium | 483 | ug/L | 500 | ug/L | 96.7 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Cobalt | 486 | ug/L | 500 | ug/L | 97.3 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Copper | 480 | ug/L | 500 | ug/L | 96 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Iron | 4840 | ug/L | 5000 | ug/L | 96.8 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Magnesium | 4900 | ug/L | 5000 | ug/L | 97.9 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Nickel | 486 | ug/L | 500 | ug/L | 97.3 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Potassium | 4790 | ug/L | 5000 | ug/L | 95.7 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Selenium | 488 | ug/L | 500 | ug/L | 97.6 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Silver | 479 | ug/L | 500 | ug/L | 95.8 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Sodium | 9540 | ug/L | 10000 | ug/L | 95.4 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Vanadium | 487 | ug/L | 500 | ug/L | 97.3 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |
| | Zinc | 483 | ug/L | 500 | ug/L | 96.7 | 90.0 – 110.0 | P | 11-FEB-10 18:03 | 021110B-1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Thallium | 52 | ug/L | 50 | ug/L | 104 | 90.0 – 110.0 | MS | 28-FEB-10 14:10 | 100228-5 |
| CCV08 | | | | | | | | | | |
| | Aluminum | 5050 | ug/L | 5000 | ug/L | 101 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Arsenic | 495 | ug/L | 500 | ug/L | 99.1 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Barium | 498 | ug/L | 500 | ug/L | 99.7 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Calcium | 5040 | ug/L | 5000 | ug/L | 100.7 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Chromium | 499 | ug/L | 500 | ug/L | 99.7 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Cobalt | 501 | ug/L | 500 | ug/L | 100.2 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Copper | 497 | ug/L | 500 | ug/L | 99.4 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Iron | 5040 | ug/L | 5000 | ug/L | 100.9 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Magnesium | 5150 | ug/L | 5000 | ug/L | 103.1 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Nickel | 501 | ug/L | 500 | ug/L | 100.3 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Potassium | 5010 | ug/L | 5000 | ug/L | 100.3 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Selenium | 500 | ug/L | 500 | ug/L | 100 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Silver | 495 | ug/L | 500 | ug/L | 99 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Sodium | 10000 | ug/L | 10000 | ug/L | 100.4 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Vanadium | 503 | ug/L | 500 | ug/L | 100.5 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Zinc | 498 | ug/L | 500 | ug/L | 99.6 | 90.0 – 110.0 | P | 11-FEB-10 18:32 | 021110B-1 |
| | Thallium | 51.8 | ug/L | 50 | ug/L | 103.5 | 90.0 – 110.0 | MS | 28-FEB-10 14:39 | 100228-5 |
| CCV09 | | | | | | | | | | |
| | Aluminum | 5060 | ug/L | 5000 | ug/L | 101.2 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Arsenic | 492 | ug/L | 500 | ug/L | 98.4 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Barium | 493 | ug/L | 500 | ug/L | 98.6 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Calcium | 4970 | ug/L | 5000 | ug/L | 99.5 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Chromium | 492 | ug/L | 500 | ug/L | 98.5 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Cobalt | 494 | ug/L | 500 | ug/L | 98.8 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Copper | 492 | ug/L | 500 | ug/L | 98.4 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Iron | 5070 | ug/L | 5000 | ug/L | 101.4 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Magnesium | 5180 | ug/L | 5000 | ug/L | 103.7 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Nickel | 495 | ug/L | 500 | ug/L | 98.9 | 90.0 – 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Potassium | 5020 | ug/L | 5000 | ug/L | 100.3 | 90.0 - 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Selenium | 494 | ug/L | 500 | ug/L | 98.7 | 90.0 - 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Silver | 498 | ug/L | 500 | ug/L | 99.6 | 90.0 - 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Sodium | 10100 | ug/L | 10000 | ug/L | 101 | 90.0 - 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Vanadium | 496 | ug/L | 500 | ug/L | 99.2 | 90.0 - 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Zinc | 490 | ug/L | 500 | ug/L | 98 | 90.0 - 110.0 | P | 11-FEB-10 19:12 | 021110B-1 |
| | Thallium | 52.1 | ug/L | 50 | ug/L | 104.2 | 90.0 - 110.0 | MS | 28-FEB-10 14:58 | 100228-5 |
| CCV10 | | | | | | | | | | |
| | Aluminum | 4880 | ug/L | 5000 | ug/L | 97.7 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Arsenic | 476 | ug/L | 500 | ug/L | 95.3 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Barium | 482 | ug/L | 500 | ug/L | 96.4 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Calcium | 4850 | ug/L | 5000 | ug/L | 97.1 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Chromium | 481 | ug/L | 500 | ug/L | 96.3 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Cobalt | 483 | ug/L | 500 | ug/L | 96.7 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Copper | 483 | ug/L | 500 | ug/L | 96.6 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Iron | 4900 | ug/L | 5000 | ug/L | 98 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Magnesium | 4990 | ug/L | 5000 | ug/L | 99.9 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Nickel | 482 | ug/L | 500 | ug/L | 96.5 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Potassium | 4890 | ug/L | 5000 | ug/L | 97.9 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Selenium | 493 | ug/L | 500 | ug/L | 98.7 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Silver | 490 | ug/L | 500 | ug/L | 98 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Sodium | 9820 | ug/L | 10000 | ug/L | 98.2 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Vanadium | 486 | ug/L | 500 | ug/L | 97.2 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| | Zinc | 480 | ug/L | 500 | ug/L | 96.1 | 90.0 - 110.0 | P | 11-FEB-10 19:41 | 021110B-1 |
| CCV11 | | | | | | | | | | |
| | Aluminum | 4820 | ug/L | 5000 | ug/L | 96.4 | 90.0 - 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Arsenic | 470 | ug/L | 500 | ug/L | 94 | 90.0 - 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Barium | 471 | ug/L | 500 | ug/L | 94.2 | 90.0 - 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Calcium | 4770 | ug/L | 5000 | ug/L | 95.3 | 90.0 - 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Chromium | 471 | ug/L | 500 | ug/L | 94.2 | 90.0 - 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |

# METALS
## -2a-
## Initial and Continuing Calibration Verification

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**Initial Calibration Source:** Solutions Plus

**Continuing Calibration Source:** O2Si

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cobalt | 473 | ug/L | 500 | ug/L | 94.6 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Copper | 472 | ug/L | 500 | ug/L | 94.3 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Iron | 4800 | ug/L | 5000 | ug/L | 96 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Magnesium | 4910 | ug/L | 5000 | ug/L | 98.1 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Nickel | 472 | ug/L | 500 | ug/L | 94.5 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Potassium | 4800 | ug/L | 5000 | ug/L | 96 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Selenium | 480 | ug/L | 500 | ug/L | 96 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Silver | 479 | ug/L | 500 | ug/L | 95.9 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Sodium | 9710 | ug/L | 10000 | ug/L | 97.1 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Vanadium | 475 | ug/L | 500 | ug/L | 94.9 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |
| | Zinc | 470 | ug/L | 500 | ug/L | 93.9 | 90.0 – 110.0 | P | 11-FEB-10 20:06 | 021110B-1 |

# METALS
## -2b-
## CRDL Standard for AA & ICP

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**AA CRDL Standard Source:** SPEX

**ICP CRDL Standard Source** Solutions Plus

**Instrument ID:** HG3,ICPMS5,OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Advisory Limits (%R) | M | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|---|
| CRDL01 | | | | | | | | | | |
| | Mercury | .191 | ug/L | .2 | ug/L | 95.5 | 70.0 – 130.0 | AV | 05-FEB-10 09:20 | 020510W1-6 |
| | Antimony | 3.37 | ug/L | 3 | ug/L | 112.3 | 70.0 – 130.0 | MS | 25-FEB-10 01:15 | 100224-2 |
| | Cadmium | 1.11 | ug/L | 1 | ug/L | 111.1 | 70.0 – 130.0 | MS | 25-FEB-10 01:15 | 100224-2 |
| | Lead | 2.55 | ug/L | 2 | ug/L | 127.6 | 70.0 – 130.0 | MS | 25-FEB-10 14:24 | 100225-3 |
| | Beryllium | .557 | ug/L | .5 | ug/L | 111.4 | 70.0 – 130.0 | MS | 25-FEB-10 14:24 | 100225-3 |
| | Manganese | 6.28 | ug/L | 5 | ug/L | 125.5 | 70.0 – 130.0 | MS | 25-FEB-10 14:24 | 100225-3 |
| | Uranium | .244 | ug/L | .2 | ug/L | 122 | 70.0 – 130.0 | MS | 25-FEB-10 16:05 | 100225-4 |
| | Thallium | 1.27 | ug/L | 1 | ug/L | 126.6 | 70.0 – 130.0 | MS | 28-FEB-10 11:48 | 100228-5 |
| PQL01 | | | | | | | | | | |
| | Aluminum | 201 | ug/L | 200 | ug/L | 100.5 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Iron | 119 | ug/L | 100 | ug/L | 118.9 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Magnesium | 304 | ug/L | 300 | ug/L | 101.5 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Nickel | 4.56 | ug/L | 5 | ug/L | 91.2 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Potassium | 185 | ug/L | 150 | ug/L | 123.1 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Silver | 5.04 | ug/L | 5 | ug/L | 100.7 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Sodium | 294 | ug/L | 300 | ug/L | 98 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Arsenic | 28.6 | ug/L | 30 | ug/L | 95.5 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Barium | 4.75 | ug/L | 5 | ug/L | 95 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Chromium | 4.99 | ug/L | 5 | ug/L | 99.9 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Cobalt | 4.65 | ug/L | 5 | ug/L | 93.1 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Copper | 9.86 | ug/L | 10 | ug/L | 98.6 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Vanadium | 5.04 | ug/L | 5 | ug/L | 100.9 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Zinc | 9.38 | ug/L | 10 | ug/L | 93.8 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Calcium | 200 | ug/L | 200 | ug/L | 100 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |
| | Selenium | 28.7 | ug/L | 30 | ug/L | 95.7 | 70.0 – 130.0 | P | 11-FEB-10 14:33 | 021110B-1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| ICB01 | | | | | | | | | | |
| | Mercury | 0.066 | +/–.2 | U | 0.066 | 0.2 | LIQ | AV | 05–FEB–10 09:18 | 020510W1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Arsenic | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Potassium | 50.0 | +/–150 | U | 50.0 | 150 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Selenium | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Sodium | 100 | +/–300 | U | 100 | 300 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 14:30 | 021110B–1 |
| | Antimony | 1.0 | +/–3 | U | 1.0 | 3.0 | LIQ | MS | 25–FEB–10 01:09 | 100224–2 |
| | Cadmium | 0.11 | +/–1 | U | 0.11 | 1.0 | LIQ | MS | 25–FEB–10 01:09 | 100224–2 |
| | Beryllium | 0.1 | +/–.5 | U | 0.1 | 0.5 | LIQ | MS | 25–FEB–10 14:22 | 100225–3 |
| | Lead | 0.5 | +/–2 | U | 0.5 | 2.0 | LIQ | MS | 25–FEB–10 14:22 | 100225–3 |
| | Manganese | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | MS | 25–FEB–10 14:22 | 100225–3 |
| | Uranium | 0.05 | +/–.2 | U | 0.05 | 0.2 | LIQ | MS | 25–FEB–10 16:03 | 100225–4 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | LIQ | MS | 28–FEB–10 11:45 | 100228–5 |
| CCB01 | | | | | | | | | | |
| | Mercury | 0.066 | +/–.2 | U | 0.066 | 0.2 | LIQ | AV | 05–FEB–10 09:24 | 020510W1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Arsenic | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Chromium | 1.23 | +/–5 | J | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Iron | 39.3 | +/–100 | J | 30.0 | 100 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Potassium | 77.71 | +/–150 | J | 50.0 | 150 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Selenium | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Sodium | 100 | +/–300 | U | 100 | 300 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 14:53 | 021110B–1 |
| | Antimony | 1.0 | +/–3 | U | 1.0 | 3.0 | LIQ | MS | 25–FEB–10 01:40 | 100224–2 |
| | Cadmium | 0.11 | +/–1 | U | 0.11 | 1.0 | LIQ | MS | 25–FEB–10 01:40 | 100224–2 |
| | Beryllium | 0.1 | +/–.5 | U | 0.1 | 0.5 | LIQ | MS | 25–FEB–10 14:34 | 100225–3 |
| | Lead | 0.5 | +/–2 | U | 0.5 | 2.0 | LIQ | MS | 25–FEB–10 14:34 | 100225–3 |
| | Manganese | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | MS | 25–FEB–10 14:34 | 100225–3 |
| | Uranium | 0.05 | +/–.2 | U | 0.05 | 0.2 | LIQ | MS | 25–FEB–10 16:12 | 100225–4 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | LIQ | MS | 28–FEB–10 12:01 | 100228–5 |
| **CCB02** | | | | | | | | | | |
| | Mercury | 0.066 | +/–.2 | U | 0.066 | 0.2 | LIQ | AV | 05–FEB–10 09:47 | 020510W1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Arsenic | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Potassium | 56.33 | +/–150 | J | 50.0 | 150 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004 **Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Selenium | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Sodium | 100 | +/–300 | U | 100 | 300 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 15:19 | 021110B–1 |
| | Antimony | 1.0 | +/–3 | U | 1.0 | 3.0 | LIQ | MS | 25–FEB–10 01:58 | 100224–2 |
| | Cadmium | 0.11 | +/–1 | U | 0.11 | 1.0 | LIQ | MS | 25–FEB–10 01:58 | 100224–2 |
| | Beryllium | 0.1 | +/–.5 | U | 0.1 | 0.5 | LIQ | MS | 25–FEB–10 14:59 | 100225–3 |
| | Lead | 0.5 | +/–2 | U | 0.5 | 2.0 | LIQ | MS | 25–FEB–10 14:59 | 100225–3 |
| | Manganese | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | MS | 25–FEB–10 14:59 | 100225–3 |
| | Uranium | 0.05 | +/–.2 | U | 0.05 | 0.2 | LIQ | MS | 25–FEB–10 16:25 | 100225–4 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | LIQ | MS | 28–FEB–10 12:23 | 100228–5 |
| **CCB03** | | | | | | | | | | |
| | Mercury | 0.066 | +/–.2 | U | 0.066 | 0.2 | LIQ | AV | 05–FEB–10 10:10 | 020510W1–6 |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Arsenic | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Potassium | 50.0 | +/–150 | U | 50.0 | 150 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Selenium | –5.29 | +/–30 | J | 5.0 | 30.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Sodium | 186.28 | +/–300 | J | 100 | 300 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 16:01 | 021110B–1 |
| | Antimony | 1.0 | +/–3 | U | 1.0 | 3.0 | LIQ | MS | 25–FEB–10 03:12 | 100224–2 |

**Metals**
**-3a-**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10-1512-1

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cadmium | 0.11 | +/-1 | U | 0.11 | 1.0 | LIQ | MS | 25-FEB-10 03:12 | 100224-2 |
| | Beryllium | 0.1 | +/-.5 | U | 0.1 | 0.5 | LIQ | MS | 25-FEB-10 15:26 | 100225-3 |
| | Lead | 0.5 | +/-2 | U | 0.5 | 2.0 | LIQ | MS | 25-FEB-10 15:26 | 100225-3 |
| | Manganese | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | MS | 25-FEB-10 15:26 | 100225-3 |
| | Uranium | 0.05 | +/-.2 | U | 0.05 | 0.2 | LIQ | MS | 25-FEB-10 16:37 | 100225-4 |
| | Thallium | 0.3 | +/-1 | U | 0.3 | 1.0 | LIQ | MS | 28-FEB-10 12:45 | 100228-5 |
| CCB04 | Mercury | 0.066 | +/-.2 | U | 0.066 | 0.2 | LIQ | AV | 05-FEB-10 10:34 | 020510W1-6 |
| | Aluminum | 68.0 | +/-200 | U | 68.0 | 200 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Arsenic | 5.0 | +/-30 | U | 5.0 | 30.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Barium | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Calcium | 50.0 | +/-200 | U | 50.0 | 200 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Chromium | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Cobalt | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Copper | 3.0 | +/-10 | U | 3.0 | 10.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Iron | 30.0 | +/-100 | U | 30.0 | 100 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Magnesium | 85.0 | +/-300 | U | 85.0 | 300 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Nickel | 1.5 | +/-5 | U | 1.5 | 5.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Potassium | 50.0 | +/-150 | U | 50.0 | 150 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Selenium | 5.0 | +/-30 | U | 5.0 | 30.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Silver | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Sodium | 121.62 | +/-300 | J | 100 | 300 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Vanadium | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Zinc | 3.3 | +/-10 | U | 3.3 | 10.0 | LIQ | P | 11-FEB-10 16:41 | 021110B-1 |
| | Antimony | 1.0 | +/-3 | U | 1.0 | 3.0 | LIQ | MS | 25-FEB-10 04:07 | 100224-2 |
| | Cadmium | 0.11 | +/-1 | U | 0.11 | 1.0 | LIQ | MS | 25-FEB-10 04:07 | 100224-2 |
| | Beryllium | 0.1 | +/-.5 | U | 0.1 | 0.5 | LIQ | MS | 25-FEB-10 15:52 | 100225-3 |
| | Lead | 0.5 | +/-2 | U | 0.5 | 2.0 | LIQ | MS | 25-FEB-10 15:52 | 100225-3 |
| | Manganese | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | MS | 25-FEB-10 15:52 | 100225-3 |
| | Thallium | 0.3 | +/-1 | U | 0.3 | 1.0 | LIQ | MS | 28-FEB-10 13:09 | 100228-5 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| CCB05 | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Arsenic | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Potassium | 50.0 | +/–150 | U | 50.0 | 150 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Selenium | –6.0 | +/–30 | J | 5.0 | 30.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Sodium | 100 | +/–300 | U | 100 | 300 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 17:02 | 021110B–1 |
| | Antimony | 1.0 | +/–3 | U | 1.0 | 3.0 | LIQ | MS | 25–FEB–10 05:03 | 100224–2 |
| | Cadmium | 0.11 | +/–1 | U | 0.11 | 1.0 | LIQ | MS | 25–FEB–10 05:03 | 100224–2 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | LIQ | MS | 28–FEB–10 13:32 | 100228–5 |
| CCB06 | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Arsenic | –8.04 | +/–30 | J | 5.0 | 30.0 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |
| | Potassium | 50.0 | +/–150 | U | 50.0 | 150 | LIQ | P | 11–FEB–10 17:31 | 021110B–1 |

**Metals**
**-3a-**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10-1512-1

**Contract:** LANL01004 **Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Selenium | 5.0 | +/-30 | U | 5.0 | 30.0 | LIQ | P | 11-FEB-10 17:31 | 021110B-1 |
| | Silver | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 17:31 | 021110B-1 |
| | Sodium | 100 | +/-300 | U | 100 | 300 | LIQ | P | 11-FEB-10 17:31 | 021110B-1 |
| | Vanadium | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 17:31 | 021110B-1 |
| | Zinc | 3.3 | +/-10 | U | 3.3 | 10.0 | LIQ | P | 11-FEB-10 17:31 | 021110B-1 |
| | Antimony | 1.0 | +/-3 | U | 1.0 | 3.0 | LIQ | MS | 25-FEB-10 05:40 | 100224-2 |
| | Cadmium | 0.11 | +/-1 | U | 0.11 | 1.0 | LIQ | MS | 25-FEB-10 05:40 | 100224-2 |
| | Thallium | 0.3 | +/-1 | U | 0.3 | 1.0 | LIQ | MS | 28-FEB-10 13:54 | 100228-5 |
| **CCB07** | | | | | | | | | | |
| | Aluminum | 68.0 | +/-200 | U | 68.0 | 200 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Arsenic | 5.0 | +/-30 | U | 5.0 | 30.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Barium | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Calcium | 50.0 | +/-200 | U | 50.0 | 200 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Chromium | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Cobalt | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Copper | 3.0 | +/-10 | U | 3.0 | 10.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Iron | 30.0 | +/-100 | U | 30.0 | 100 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Magnesium | 85.0 | +/-300 | U | 85.0 | 300 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Nickel | 1.5 | +/-5 | U | 1.5 | 5.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Potassium | 50.0 | +/-150 | U | 50.0 | 150 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Selenium | 5.0 | +/-30 | U | 5.0 | 30.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Silver | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Sodium | 100 | +/-300 | U | 100 | 300 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Vanadium | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Zinc | 3.3 | +/-10 | U | 3.3 | 10.0 | LIQ | P | 11-FEB-10 18:07 | 021110B-1 |
| | Thallium | 0.304 | +/-1 | J | 0.3 | 1.0 | LIQ | MS | 28-FEB-10 14:13 | 100228-5 |
| **CCB08** | | | | | | | | | | |
| | Aluminum | 68.0 | +/-200 | U | 68.0 | 200 | LIQ | P | 11-FEB-10 18:36 | 021110B-1 |
| | Arsenic | 5.0 | +/-30 | U | 5.0 | 30.0 | LIQ | P | 11-FEB-10 18:36 | 021110B-1 |
| | Barium | 1.0 | +/-5 | U | 1.0 | 5.0 | LIQ | P | 11-FEB-10 18:36 | 021110B-1 |
| | Calcium | 50.0 | +/-200 | U | 50.0 | 200 | LIQ | P | 11-FEB-10 18:36 | 021110B-1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Potassium | 50.0 | +/–150 | U | 50.0 | 150 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Selenium | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Sodium | 100 | +/–300 | U | 100 | 300 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 18:36 | 021110B–1 |
| | Thallium | 0.3 | +/–1 | U | 0.3 | 1.0 | LIQ | MS | 28–FEB–10 14:42 | 100228–5 |
| **CCB09** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Arsenic | –6.17 | +/–30 | J | 5.0 | 30.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Potassium | 50.0 | +/–150 | U | 50.0 | 150 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Selenium | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Sodium | 100 | +/–300 | U | 100 | 300 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 19:16 | 021110B–1 |
| | Thallium | 0.778 | +/–1 | J | 0.3 | 1.0 | LIQ | MS | 28–FEB–10 15:01 | 100228–5 |

# Metals
## –3a–
## Initial and Continuing Calibration Blank Summary

**SDG No.:** 10–1512–1

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| **CCB10** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Arsenic | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Potassium | 50.0 | +/–150 | U | 50.0 | 150 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Selenium | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Sodium | 100 | +/–300 | U | 100 | 300 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 19:45 | 021110B–1 |
| **CCB11** | | | | | | | | | | |
| | Aluminum | 68.0 | +/–200 | U | 68.0 | 200 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Arsenic | –6.48 | +/–30 | J | 5.0 | 30.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Barium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Calcium | 50.0 | +/–200 | U | 50.0 | 200 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Chromium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Cobalt | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Copper | 3.0 | +/–10 | U | 3.0 | 10.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Iron | 30.0 | +/–100 | U | 30.0 | 100 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Magnesium | 85.0 | +/–300 | U | 85.0 | 300 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Nickel | 1.5 | +/–5 | U | 1.5 | 5.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Potassium | 50.0 | +/–150 | U | 50.0 | 150 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Selenium | 5.0 | +/–30 | U | 5.0 | 30.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Silver | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Sodium | 100 | +/–300 | U | 100 | 300 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |

**Metals**
**–3a–**
**Initial and Continuing Calibration Blank Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004

**Lab Code: GEL**

| Sample ID | Analyte | Result ug/L | Acceptance | Conc Qual | MDL | RDL | Matrix | M | Analysis Date/Time | Run |
|---|---|---|---|---|---|---|---|---|---|---|
| | Vanadium | 1.0 | +/–5 | U | 1.0 | 5.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |
| | Zinc | 3.3 | +/–10 | U | 3.3 | 10.0 | LIQ | P | 11–FEB–10 20:10 | 021110B–1 |

# METALS
## -3b-
## PREPARATION BLANK SUMMARY

**SDG NO.** 10-1512-1

**Contract:** LANL01004

**Matrix:** WATER

| Sample ID | Analyte | Result | Units | Acceptance Window | Conc Qual | M | MDL | RDL |
|---|---|---|---|---|---|---|---|---|
| 1202032557 | | | | | | | | |
| | Aluminum | 68 | ug/L | +/-200 | U | P | 68 | 200 |
| | Arsenic | 5 | ug/L | +/-30 | U | P | 5 | 30 |
| | Barium | 1 | ug/L | +/-5 | U | P | 1 | 5 |
| | Calcium | 50 | ug/L | +/-200 | U | P | 50 | 200 |
| | Chromium | 1 | ug/L | +/-5 | U | P | 1 | 5 |
| | Cobalt | 1 | ug/L | +/-5 | U | P | 1 | 5 |
| | Copper | 3 | ug/L | +/-10 | U | P | 3 | 10 |
| | Iron | 30 | ug/L | +/-100 | U | P | 30 | 100 |
| | Magnesium | 85 | ug/L | +/-300 | U | P | 85 | 300 |
| | Nickel | 1.5 | ug/L | +/-5 | U | P | 1.5 | 5 |
| | Potassium | 50 | ug/L | +/-150 | U | P | 50 | 150 |
| | Selenium | 5 | ug/L | +/-30 | U | P | 5 | 30 |
| | Silver | 1 | ug/L | +/-5 | U | P | 1 | 5 |
| | Sodium | 100 | ug/L | +/-300 | U | P | 100 | 300 |
| | Vanadium | 1 | ug/L | +/-5 | U | P | 1 | 5 |
| | Zinc | 3.3 | ug/L | +/-10 | U | P | 3.3 | 10 |
| 1202032562 | | | | | | | | |
| | Antimony | 1 | ug/L | +/-3 | U | MS | 1 | 3 |
| | Beryllium | 0.1 | ug/L | +/-0.5 | U | MS | 0.1 | 0.5 |
| | Cadmium | 0.11 | ug/L | +/-1 | U | MS | 0.11 | 1 |
| | Lead | 0.5 | ug/L | +/-2 | U | MS | 0.5 | 2 |
| | Manganese | 1 | ug/L | +/-5 | U | MS | 1 | 5 |
| | Thallium | 0.3 | ug/L | +/-1 | U | MS | 0.3 | 1 |
| | Uranium | 0.05 | ug/L | +/-0.2 | U | MS | 0.05 | 0.2 |
| 1202033203 | | | | | | | | |
| | Mercury | 0.066 | ug/L | +/-0.2 | U | AV | 0.066 | 0.2 |

# METALS
## -4-
## Interference Check Sample

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** OPTIMA1

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Aluminum | 492000 | ug/L | 500000 | ug/L | 98.5 | 80.0 – 120.0 | 11-FEB-10 14:37 | 021110B-1 |
| | Arsenic | -47.9 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Barium | 7.7 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Calcium | 469000 | ug/L | 500000 | ug/L | 93.9 | 80.0 – 120.0 | 11-FEB-10 14:37 | 021110B-1 |
| | Chromium | -0.331 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Cobalt | 1.88 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Copper | -2.75 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Iron | 180000 | ug/L | 200000 | ug/L | 90.2 | 80.0 – 120.0 | 11-FEB-10 14:37 | 021110B-1 |
| | Magnesium | 469000 | ug/L | 500000 | ug/L | 93.8 | 80.0 – 120.0 | 11-FEB-10 14:37 | 021110B-1 |
| | Nickel | -5.64 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Potassium | -12.0 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Selenium | -29.8 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Silver | -8.02 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Sodium | 25.0 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Vanadium | 0.707 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| | Zinc | -9.27 | ug/L | | | | | 11-FEB-10 14:37 | 021110B-1 |
| **ICSAB01** | | | | | | | | | |
| | Aluminum | 493000 | ug/L | 500000 | ug/L | 98.5 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Arsenic | 460 | ug/L | 500 | ug/L | 92 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Barium | 479 | ug/L | 500 | ug/L | 95.8 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Calcium | 467000 | ug/L | 500000 | ug/L | 93.5 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Chromium | 467 | ug/L | 500 | ug/L | 93.3 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Cobalt | 417 | ug/L | 500 | ug/L | 83.3 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Copper | 516 | ug/L | 500 | ug/L | 103 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Iron | 181000 | ug/L | 200000 | ug/L | 90.5 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Magnesium | 472000 | ug/L | 500000 | ug/L | 94.3 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Nickel | 412 | ug/L | 500 | ug/L | 82.4 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Potassium | 4870 | ug/L | 5000 | ug/L | 97.4 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |
| | Selenium | 2240 | ug/L | 2500 | ug/L | 89.5 | 80.0 – 120.0 | 11-FEB-10 14:40 | 021110B-1 |

# METALS
## –4–
## Interference Check Sample

**SDG No:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:**

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| | Silver | 244 | ug/L | 250 | ug/L | 97.7 | 80.0 – 120.0 | 11–FEB–10 14:40 | 021110B–1 |
| | Sodium | 4900 | ug/L | 5000 | ug/L | 98.1 | 80.0 – 120.0 | 11–FEB–10 14:40 | 021110B–1 |
| | Vanadium | 496 | ug/L | 500 | ug/L | 99.1 | 80.0 – 120.0 | 11–FEB–10 14:40 | 021110B–1 |
| | Zinc | 442 | ug/L | 500 | ug/L | 88.4 | 80.0 – 120.0 | 11–FEB–10 14:40 | 021110B–1 |

# METALS
## -4-
## Interference Check Sample

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** ICPMS5

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Antimony | 0.383 | ug/L | | | | | 25-FEB-10 01:21 | 100224-2 |
| | Cadmium | 0.506 | ug/L | | | | | 25-FEB-10 01:21 | 100224-2 |
| **ICSAB01** | | | | | | | | | |
| | Antimony | 21.2 | ug/L | 20 | ug/L | 106 | 80.0 - 120.0 | 25-FEB-10 01:27 | 100224-2 |
| | Cadmium | 19.9 | ug/L | 20.44 | ug/L | 97.4 | 80.0 - 120.0 | 25-FEB-10 01:27 | 100224-2 |

# METALS
## -4-
## Interference Check Sample

**SDG No:** 10-1512-1

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** ICPMS5

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Beryllium | 0.089 | ug/L | | | | | 25-FEB-10 14:27 | 100225-3 |
| | Lead | 0.239 | ug/L | | | | | 25-FEB-10 14:27 | 100225-3 |
| | Manganese | 6.37 | ug/L | | | | | 25-FEB-10 14:27 | 100225-3 |
| **ICSAB01** | | | | | | | | | |
| | Beryllium | 19.8 | ug/L | 20 | ug/L | 98.9 | 80.0 - 120.0 | 25-FEB-10 14:29 | 100225-3 |
| | Lead | 22.0 | ug/L | 20.19 | ug/L | 109 | 80.0 - 120.0 | 25-FEB-10 14:29 | 100225-3 |
| | Manganese | 28.5 | ug/L | 25.8 | ug/L | 110 | 80.0 - 120.0 | 25-FEB-10 14:29 | 100225-3 |

# METALS
## –4–
## Interference Check Sample

**SDG No:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** ICPMS5

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Uranium | –0.001 | ug/L | | | | | 25–FEB–10 16:07 | 100225–4 |
| **ICSAB01** | | | | | | | | | |
| | Uranium | 23.4 | ug/L | 20 | ug/L | 117 | 80.0 – 120.0 | 25–FEB–10 16:08 | 100225–4 |

# METALS
## –4–
## Interference Check Sample

**SDG No:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**ICS:** O2Si

**Instrument:** ICPMS5

| Sample ID | Analyte | Result | Units | True Value | Units | % Recovery | Acceptance Window (%R) | Analysis Date/Time | Run Number |
|---|---|---|---|---|---|---|---|---|---|
| **ICSA01** | | | | | | | | | |
| | Thallium | 0.013 | ug/L | | | | | 28–FEB–10 11:51 | 100228–5 |
| **ICSAB01** | | | | | | | | | |
| | Thallium | 22.7 | ug/L | 20 | ug/L | 114 | 80.0 – 120.0 | 28–FEB–10 11:54 | 100228–5 |

# METALS
## –5a–
### Matrix Spike Summary

**SDG NO.** 10–1512–1 **Client ID** RE15–10–8124S

**Contract:** LANL01004 **Level:** Low

**Matrix:** WATER **% Solids:**

**Sample ID:** 246000001 **Spike ID:** 1202032560

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Copper | ug/L | 75–125 | 490 | | 3 | U | 500 | 97.9 | | P |
| Iron | ug/L | 75–125 | 4890 | | 34.7 | J | 5000 | 97.1 | | P |
| Magnesium | ug/L | 75–125 | 4910 | | 85 | U | 5000 | 97.7 | | P |
| Nickel | ug/L | 75–125 | 489 | | 1.5 | U | 500 | 97.9 | | P |
| Potassium | ug/L | 75–125 | 5000 | | 181 | | 5000 | 96.3 | | P |
| Selenium | ug/L | 75–125 | 470 | | 5 | U | 500 | 94.1 | | P |
| Silver | ug/L | 75–125 | 483 | | 1 | U | 500 | 96.5 | | P |
| Sodium | ug/L | 75–125 | 5010 | | 200 | J | 5000 | 96.3 | | P |
| Vanadium | ug/L | 75–125 | 493 | | 1 | U | 500 | 98.5 | | P |
| Zinc | ug/L | 75–125 | 475 | | 3.3 | U | 500 | 94.6 | | P |
| Aluminum | ug/L | 75–125 | 4880 | | 68 | U | 5000 | 97.2 | | P |
| Arsenic | ug/L | 75–125 | 488 | | 5 | U | 500 | 97.5 | | P |
| Barium | ug/L | 75–125 | 489 | | 1 | U | 500 | 97.7 | | P |
| Calcium | ug/L | 75–125 | 4830 | | 59.5 | J | 5000 | 95.3 | | P |
| Chromium | ug/L | 75–125 | 487 | | 1.31 | J | 500 | 97.2 | | P |
| Cobalt | ug/L | 75–125 | 479 | | 1 | U | 500 | 95.8 | | P |

**METALS**
**–5a–**

**Matrix Spike Summary**

**SDG NO.** 10–1512–1 **Client ID** RE15–10–8124S

**Contract:** LANL01004 **Level:** Low

**Matrix:** WATER **% Solids:**

**Sample ID:** 246000001 **Spike ID:** 1202032565

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | 75–125 | 196 | | 1 | U | 200 | 98 | | MS |
| Beryllium | ug/L | 75–125 | 47.7 | | 0.1 | U | 50 | 95.3 | | MS |
| Cadmium | ug/L | 75–125 | 10.3 | | 0.11 | U | 10 | 102 | | MS |
| Lead | ug/L | 75–125 | 42.2 | | 0.5 | U | 40 | 105 | | MS |
| Manganese | ug/L | 75–125 | 48.9 | | 1 | U | 50 | 96.6 | | MS |
| Thallium | ug/L | 75–125 | 75 | | 0.3 | U | 100 | 74.9 | N | MS |
| Uranium | ug/L | 75–125 | 49.5 | | 0.05 | U | 50 | 98.9 | | MS |

# METALS
## -5a-
## Matrix Spike Summary

**SDG NO.** 10-1512-1 **Client ID** RE15-10-8233S

**Contract:** LANL01004 **Level:** Low

**Matrix:** WATER **% Solids:**

**Sample ID:** 246056001 **Spike ID:** 1202033206

| Analyte | Units | Acceptance Limit | Spiked Result | C | Sample Result | C | Spike Added | % Recovery | Qual | M |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | 75-125 | 1.5 | | 0.066 | U | 2 | 75 | | AV |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** LIQUID **Level:** Low **Client ID:** RE15–10–8124D

**Sample ID:** 246000001 **Duplicate ID:** 1202032559 **Percent Solids for Dup:** N/A

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ug/L | | 68 | U | 68 | U | | | P |
| Arsenic | ug/L | | 5 | U | 5 | U | | | P |
| Barium | ug/L | | 1 | U | 1 | U | | | P |
| Calcium | ug/L | +/–200 | 59.5 | J | 52.6 | J | 12.4 | | P |
| Chromium | ug/L | | 1.31 | J | 1 | U | 200 | | P |
| Cobalt | ug/L | | 1 | U | 1 | U | | | P |
| Copper | ug/L | | 3 | U | 3 | U | | | P |
| Iron | ug/L | | 34.7 | J | 30 | U | 200 | | P |
| Magnesium | ug/L | | 85 | U | 85 | U | | | P |
| Nickel | ug/L | | 1.5 | U | 1.5 | U | | | P |
| Potassium | ug/L | +/–150 | 181 | | 193 | | 6.09 | | P |
| Selenium | ug/L | | 5 | U | 5 | U | | | P |
| Silver | ug/L | | 1 | U | 1 | U | | | P |
| Sodium | ug/L | +/–300 | 200 | J | 180 | J | 10.5 | | P |
| Vanadium | ug/L | | 1 | U | 1 | U | | | P |
| Zinc | ug/L | | 3.3 | U | 3.3 | U | | | P |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** LIQUID **Level:** Low **Client ID:** RE15–10–8124D

**Sample ID:** 246000001 **Duplicate ID:** 1202032564 **Percent Solids for Dup:** N/A

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | | 1 | U | 1 | U | | | MS |
| Beryllium | ug/L | | 0.1 | U | 0.1 | U | | | MS |
| Cadmium | ug/L | | 0.11 | U | 0.11 | U | | | MS |
| Lead | ug/L | | 0.5 | U | 0.5 | U | | | MS |
| Manganese | ug/L | | 1 | U | 1 | U | | | MS |
| Thallium | ug/L | | 0.3 | U | 0.3 | U | | | MS |
| Uranium | ug/L | | 0.05 | U | 0.05 | U | | | MS |

**Metals**
**–6–**
**Duplicate Sample Summary**

**SDG No.:** 10–1512–1

**Contract:** LANL01004 **Lab Code:** GEL

**Matrix:** LIQUID **Level:** Low **Client ID:** RE15–10–8233D

**Sample ID:** 246056001 **Duplicate ID:** 1202033205 **Percent Solids for Dup:** N/A

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD | Qual | M |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | | 0.066 | U | 0.066 | U | | | AV |

**METALS**
**-7-**
**Laboratory Control Sample Summary**

**SDG NO.** 10-1512-1

**Contract:** LANL01004

**Aqueous LCS Source:** OS2I **Solid LCS Source:**

| Sample ID | Analyte | Units | True Value | Result | C | % Recovery | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| 1202032558 | | | | | | | | |
| | Aluminum | ug/L | 5000 | 4910 | | 98.1 | 80-120 | P |
| | Arsenic | ug/L | 500 | 487 | | 97.4 | 80-120 | P |
| | Barium | ug/L | 500 | 486 | | 97.2 | 80-120 | P |
| | Calcium | ug/L | 5000 | 4880 | | 97.6 | 80-120 | P |
| | Chromium | ug/L | 500 | 484 | | 96.7 | 80-120 | P |
| | Cobalt | ug/L | 500 | 475 | | 95.1 | 80-120 | P |
| | Copper | ug/L | 500 | 486 | | 97.1 | 80-120 | P |
| | Iron | ug/L | 5000 | 4930 | | 98.6 | 80-120 | P |
| | Magnesium | ug/L | 5000 | 4960 | | 99.3 | 80-120 | P |
| | Nickel | ug/L | 500 | 487 | | 97.4 | 80-120 | P |
| | Potassium | ug/L | 5000 | 4890 | | 97.9 | 80-120 | P |
| | Selenium | ug/L | 500 | 481 | | 96.3 | 80-120 | P |
| | Silver | ug/L | 500 | 481 | | 96.2 | 80-120 | P |
| | Sodium | ug/L | 5000 | 4940 | | 98.8 | 80-120 | P |
| | Vanadium | ug/L | 500 | 489 | | 97.8 | 80-120 | P |
| | Zinc | ug/L | 500 | 474 | | 94.8 | 80-120 | P |

**METALS**
**-7-**
**Laboratory Control Sample Summary**

**SDG NO.** 10-1512-1

**Contract:** LANL01004

**Aqueous LCS Source:**O2si **Solid LCS Source:**

| Sample ID | Analyte | Units | True Value | Result | C | % Recovery | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| 1202032563 | | | | | | | | |
| | Cadmium | ug/L | 50 | 48.6 | | 97.1 | 80--120 | MS |
| | Lead | ug/L | 50 | 52.8 | | 106 | 80-120 | MS |
| | Manganese | ug/L | 50 | 50.1 | | 100 | 80-120 | MS |
| | Thallium | ug/L | 50 | 52.3 | | 105 | 80-120 | MS |
| | Uranium | ug/L | 50 | 50.6 | | 101 | 80-120 | MS |
| | Antimony | ug/L | 50 | 52.3 | | 105 | 80-120 | MS |
| | Beryllium | ug/L | 50 | 49.6 | | 99.3 | 80-120 | MS |

**METALS**
**–7–**
**Laboratory Control Sample Summary**

**SDG NO.** 10–1512–1

**Contract:** LANL01004

**Aqueous LCS Source:** GEL **Solid LCS Source:**

| Sample ID | Analyte | Units | True Value | Result | C | % Recovery | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| 1202033204 | | | | | | | | |
| | Mercury | ug/L | 2 | 2.01 | | 100 | 80–120 | AV |

# METALS
## -9-
## Serial Dilution Sample Summary

**SDG NO.** 10-1512-1 **Client ID** RE15-10-8124L

**Contract:** LANL01004

**Matrix:** LIQUID **Level:** Low

**Sample ID:** 246000001 **Serial Dilution ID:** 1202032561

| Analyte | Initial Value ug/L | C | Serial Value ug/L | C | % Difference | Qual | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 68 | U | 340 | U | | | | P |
| Arsenic | 5 | U | 25 | U | | | | P |
| Barium | 1 | U | 5 | U | | | | P |
| Calcium | 59.5 | J | 250 | U | 100 | | | P |
| Chromium | 1.31 | J | 5 | U | 100 | | | P |
| Cobalt | 1 | U | 5 | U | | | | P |
| Copper | 3 | U | 15 | U | | | | P |
| Iron | 34.7 | J | 150 | U | 100 | | | P |
| Magnesium | 85 | U | 425 | U | | | | P |
| Nickel | 1.5 | U | 7.5 | U | | | | P |
| Potassium | 181 | | 267 | J | 47.5 | | | P |
| Selenium | 5 | U | 25 | U | | | | P |
| Silver | 1 | U | 5 | U | | | | P |
| Sodium | 200 | J | 500 | U | 100 | | | P |
| Vanadium | 1 | U | 5 | U | | | | P |
| Zinc | 3.3 | U | 16.5 | U | | | | P |

# METALS
## -9-
## Serial Dilution Sample Summary

**SDG NO.** 10-1512-1 **Client ID** RE15-10-8124L

**Contract:** LANL01004

**Matrix:** LIQUID **Level:** Low

**Sample ID:** 246000001 **Serial Dilution ID:** 1202032566

| Analyte | Initial Value ug/L | C | Serial Value ug/L | C | % Difference | Qual | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| Antimony | 1 | U | 5 | U | | | | MS |
| Beryllium | .1 | U | .5 | U | | | | MS |
| Cadmium | .11 | U | .55 | U | | | | MS |
| Lead | .5 | U | 2.5 | U | | | | MS |
| Manganese | 1 | U | 5 | U | | | | MS |
| Thallium | .3 | U | 8.35 | | | | | MS |
| Uranium | .05 | U | .25 | U | | | | MS |

# METALS
## –9–
## Serial Dilution Sample Summary

**SDG NO.** 10–1512–1 **Client ID** RE15–10–8233L

**Contract:** LANL01004

**Matrix:** LIQUID **Level:** Low

**Sample ID:** 246056001 **Serial Dilution ID:** 1202033207

| Analyte | Initial Value ug/L | C | Serial Value ug/L | C | % Difference | Qual | Acceptance Limit | M |
|---|---|---|---|---|---|---|---|---|
| Mercury | .066 | U | .33 | U | | | | AV |

**METALS**
**–13–**
**SAMPLE PREPARATION SUMMARY**

**SDG No:** 10–1512–1 **Method Type:** P

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| **Batch Number** | 948730 | | | | | | |
| 1202032557 | MB for batch 948730 | MB | W | 10–FEB–10 | 50mL | 50mL | |
| 1202032558 | LCS for batch 948730 | LCS | W | 10–FEB–10 | 50mL | 50mL | |
| 1202032560 | RE15–10–8124S | MS | W | 10–FEB–10 | 50mL | 50mL | |
| 1202032559 | RE15–10–8124D | DUP | W | 10–FEB–10 | 50mL | 50mL | |
| 245975001 | RE15–10–8084 | SAMPLE | W | 10–FEB–10 | 50mL | 50mL | |

**METALS**
**–13–**
**SAMPLE PREPARATION SUMMARY**

**SDG No:** 10–1512–1 **Method Type:** MS

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| **Batch Number** | 948739 | | | | | | |
| 1202032562 | MB for batch 948739 | MB | W | 10–FEB–10 | 50mL | 50mL | |
| 1202032563 | LCS for batch 948739 | LCS | W | 10–FEB–10 | 50mL | 50mL | |
| 1202032565 | RE15–10–8124S | MS | W | 10–FEB–10 | 50mL | 50mL | |
| 1202032564 | RE15–10–8124D | DUP | W | 10–FEB–10 | 50mL | 50mL | |
| 245975001 | RE15–10–8084 | SAMPLE | W | 10–FEB–10 | 50mL | 50mL | |

**METALS**
**–13–**
**SAMPLE PREPARATION SUMMARY**

**SDG No:** 10–1512–1 **Method Type:** AV

**Contract:** LANL01004 **Lab Code:** GEL

| Sample ID | Client ID | Sample Type | Matrix | Prep Date | Initial Sample Size | Final Sample Volume | Percent Solids |
|---|---|---|---|---|---|---|---|
| **Batch Number** | 949018 | | | | | | |
| 1202033203 | MB for batch 949018 | MB | W | 04–FEB–10 | 20mL | 20mL | |
| 1202033204 | LCS for batch 949018 | LCS | W | 04–FEB–10 | 20mL | 20mL | |
| 1202033206 | RE15–10–8233S | MS | W | 04–FEB–10 | 20mL | 20mL | |
| 1202033205 | RE15–10–8233D | DUP | W | 04–FEB–10 | 20mL | 20mL | |
| 245975001 | RE15–10–8084 | SAMPLE | W | 04–FEB–10 | 20mL | 20mL | |

**Metals**
**–14–**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** ICPMS5
**Start Date:** 25–FEB–10 **End Date:** 25–FEB–10

**Client Sdg:** 10–1512–1
**Method** MS
**Data File:** 100224–2

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 00:45 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| S10 | 1 | 00:51 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| S100 | 1 | 00:57 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| ICV01 | 1 | 01:03 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| ICB01 | 1 | 01:09 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| CRDL01 | 1 | 01:15 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| ICSA01 | 1 | 01:21 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| ICSAB01 | 1 | 01:27 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| CCV01 | 1 | 01:33 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| CCB01 | 1 | 01:40 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| LR01 | 1 | 01:46 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| CCV02 | 1 | 01:52 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| CCB02 | 1 | 01:58 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 02:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV03 | 1 | 03:06 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| CCB03 | 1 | 03:12 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 03:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 03:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV04 | 1 | 04:01 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| CCB04 | 1 | 04:07 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| 1202032562 | 1 | 04:14 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| 1202032563 | 1 | 04:20 | | X | | | | X | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 04:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| 245975001 | 1 | 04:45 | | X | | | | X | | | | | | | | | | | | | | | | | | |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 1 | 04:51 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV05 | 1 | 04:57 | | X | | | | X | | | | | | | | | | | | | | | | | |
| CCB05 | 1 | 05:03 | | X | | | | X | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 05:09 | | | | | | | | | | | | | | | | | | | | | | | |
| 1202032564 | 1 | 05:15 | | X | | | | X | | | | | | | | | | | | | | | | | |
| 1202032565 | 1 | 05:22 | | X | | | | X | | | | | | | | | | | | | | | | | |
| 1202032566 | 5 | 05:28 | | X | | | | X | | | | | | | | | | | | | | | | | |
| CCV06 | 1 | 05:34 | | X | | | | X | | | | | | | | | | | | | | | | | |
| CCB06 | 1 | 05:40 | | X | | | | X | | | | | | | | | | | | | | | | | |

**Metals**
**–14–**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** ICPMS5
**Start Date:** 25–FEB–10 **End Date:** 25–FEB–10

**Client Sdg:** 10–1512–1
**Method** MS
**Data File:** 100225–3

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 14:12 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| S10 | 1 | 14:14 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| S100 | 1 | 14:17 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ICV01 | 1 | 14:19 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ICB01 | 1 | 14:22 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| CRDL01 | 1 | 14:24 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ICSA01 | 1 | 14:27 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ICSAB01 | 1 | 14:29 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| CCV01 | 1 | 14:32 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| CCB01 | 1 | 14:34 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ZZZZZZ | 1 | 14:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 14:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV02 | 1 | 14:56 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| CCB02 | 1 | 14:59 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ZZZZZZ | 1 | 15:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1202032562 | 1 | 15:13 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| 1202032563 | 1 | 15:15 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ZZZZZZ | 1 | 15:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV03 | 1 | 15:23 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| CCB03 | 1 | 15:26 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ZZZZZZ | 1 | 15:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| 245975001 | 1 | 15:31 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ZZZZZZ | 1 | 15:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1202032564 | 1 | 15:39 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| 1202032565 | 1 | 15:42 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| 1202032566 | 5 | 15:44 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| ZZZZZZ | 5 | 15:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV04 | 1 | 15:50 | | | | | X | | | | | | | X | | X | | | | | | | | | | |
| CCB04 | 1 | 15:52 | | | | | X | | | | | | | X | | X | | | | | | | | | | |

**Metals**
**–14–**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** ICPMS5
**Start Date:** 25–FEB–10 **End Date:** 25–FEB–10

**Client Sdg:** 10–1512–1
**Method** MS
**Data File:** 100225–4

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 15:57 | | | | | | | | | | | | | | | | | | | | | | X | | |
| S10 | 1 | 15:58 | | | | | | | | | | | | | | | | | | | | | | X | | |
| S100 | 1 | 16:00 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICV01 | 1 | 16:01 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICB01 | 1 | 16:03 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CRDL01 | 1 | 16:05 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICSA01 | 1 | 16:07 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ICSAB01 | 1 | 16:08 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV01 | 1 | 16:10 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB01 | 1 | 16:12 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032562 | 1 | 16:13 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032563 | 1 | 16:15 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ZZZZZZ | 1 | 16:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| 245975001 | 1 | 16:22 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV02 | 1 | 16:24 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB02 | 1 | 16:25 | | | | | | | | | | | | | | | | | | | | | | X | | |
| ZZZZZZ | 1 | 16:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1202032564 | 1 | 16:30 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032565 | 1 | 16:32 | | | | | | | | | | | | | | | | | | | | | | X | | |
| 1202032566 | 5 | 16:34 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCV03 | 1 | 16:36 | | | | | | | | | | | | | | | | | | | | | | X | | |
| CCB03 | 1 | 16:37 | | | | | | | | | | | | | | | | | | | | | | X | | |

**Metals**
**–14–**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** ICPMS5
**Start Date:** 28–FEB–10 **End Date:** 28–FEB–10

**Client Sdg:** 10–1512–1
**Method** MS
**Data File:** 100228–5

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 11:32 | | | | | | | | | | | | | | | | | | | | | X | | | |
| S10 | 1 | 11:35 | | | | | | | | | | | | | | | | | | | | | X | | | |
| S100 | 1 | 11:38 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ICV01 | 1 | 11:42 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ICB01 | 1 | 11:45 | | | | | | | | | | | | | | | | | | | | | X | | | |
| CRDL01 | 1 | 11:48 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ICSA01 | 1 | 11:51 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ICSAB01 | 1 | 11:54 | | | | | | | | | | | | | | | | | | | | | X | | | |
| CCV01 | 1 | 11:57 | | | | | | | | | | | | | | | | | | | | | X | | | |
| CCB01 | 1 | 12:01 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ZZZZZZ | 1 | 12:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV02 | 1 | 12:20 | | | | | | | | | | | | | | | | | | | | | X | | | |
| CCB02 | 1 | 12:23 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ZZZZZZ | 1 | 12:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 12:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV03 | 1 | 12:42 | | | | | | | | | | | | | | | | | | | | | X | | | |
| CCB03 | 1 | 12:45 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ZZZZZZ | 1 | 12:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 12:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV04 | 1 | 13:06 | | | | | | | | | | | | | | | | | | | | | X | | | |
| CCB04 | 1 | 13:09 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ZZZZZZ | 1 | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 13:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV05 | 1 | 13:29 | | | | | | | | | | | | | | | | | | | | | X | | | |
| CCB05 | 1 | 13:32 | | | | | | | | | | | | | | | | | | | | | X | | | |
| ZZZZZZ | 1 | 13:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 1 | 13:41 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:45 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 13:48 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV06 | 1 | 13:51 | | | | | | | | | | | | | | | | | | | X | | | | |
| CCB06 | 1 | 13:54 | | | | | | | | | | | | | | | | | | | X | | | | |
| ZZZZZZ | 1 | 13:57 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:01 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:04 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 14:07 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV07 | 1 | 14:10 | | | | | | | | | | | | | | | | | | | X | | | | |
| CCB07 | 1 | 14:13 | | | | | | | | | | | | | | | | | | | X | | | | |
| 1202032562 | 1 | 14:17 | | | | | | | | | | | | | | | | | | | X | | | | |
| 1202032563 | 1 | 14:20 | | | | | | | | | | | | | | | | | | | X | | | | |
| ZZZZZZ | 1 | 14:23 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:26 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 14:30 | | | | | | | | | | | | | | | | | | | | | | | |
| 245975001 | 1 | 14:33 | | | | | | | | | | | | | | | | | | | X | | | | |
| ZZZZZZ | 1 | 14:36 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV08 | 1 | 14:39 | | | | | | | | | | | | | | | | | | | X | | | | |
| CCB08 | 1 | 14:42 | | | | | | | | | | | | | | | | | | | X | | | | |
| ZZZZZZ | 1 | 14:46 | | | | | | | | | | | | | | | | | | | | | | | |
| 1202032564 | 1 | 14:49 | | | | | | | | | | | | | | | | | | | X | | | | |
| 1202032565 | 1 | 14:52 | | | | | | | | | | | | | | | | | | | X | | | | |
| 1202032566 | 5 | 14:55 | | | | | | | | | | | | | | | | | | | X | | | | |
| CCV09 | 1 | 14:58 | | | | | | | | | | | | | | | | | | | X | | | | |
| CCB09 | 1 | 15:01 | | | | | | | | | | | | | | | | | | | X | | | | |

**Metals**
**–14–**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** HG3
**Start Date:** 05–FEB–10 **End Date:** 05–FEB–10

**Client Sdg:** 10–1512–1
**Method** AV
**Data File:** 020510W1–6

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 09:05 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S0.2 | 1 | 09:07 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S0.5 | 1 | 09:09 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S2.0 | 1 | 09:11 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S5.0 | 1 | 09:13 | | | | | | | | | | | | | | | X | | | | | | | | | |
| S10.0 | 1 | 09:15 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ICV01 | 1 | 09:17 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ICB01 | 1 | 09:18 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CRDL01 | 1 | 09:20 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCV01 | 1 | 09:22 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCB01 | 1 | 09:24 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ZZZZZZ | 1 | 09:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 09:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1202033203 | 1 | 09:43 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCV02 | 1 | 09:45 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCB02 | 1 | 09:47 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202033204 | 1 | 09:49 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ZZZZZZ | 1 | 09:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 09:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 10:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| 245975001 | 1 | 10:03 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ZZZZZZ | 1 | 10:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 10:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV03 | 1 | 10:08 | | | | | | | | | | | | | | | X | | | | | | | | | |
| CCB03 | 1 | 10:10 | | | | | | | | | | | | | | | X | | | | | | | | | |
| ZZZZZZ | 1 | 10:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 10:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1202033205 | 1 | 10:16 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202033206 | 1 | 10:18 | | | | | | | | | | | | | | | X | | | | | | | | | |
| 1202033207 | 5 | 10:20 | | | | | | | | | | | | | | | X | | | | | | | | | |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ZZZZZZ | 1 | 10:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 10:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 10:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 10:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 10:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV04 | 1 | 10:32 | | | | | | | | | | | | | | X | | | | | | | | | | |
| CCB04 | 1 | 10:34 | | | | | | | | | | | | | | X | | | | | | | | | | |

**Metals**
**-14-**
**Analysis Run Log**

**Contract:** LANL01004
**Lab Code:** GEL
**Inst Name:** OPTIMA1
**Start Date:** 11-FEB-10 **End Date:** 11-FEB-10

**Client Sdg:** 10-1512-1
**Method** P
**Data File:** 021110B-1

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S0.0 | 1 | 14:10 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| S0.1 | 1 | 14:14 | | | X | X | | | | X | X | X | | | | | | X | X | X | X | | | | X | X |
| S0.5 | 1 | 14:17 | X | | X | X | | | X | X | X | X | | | X | | | X | X | X | X | | | | X | X |
| SCAL | 1 | 14:20 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| S10 | 1 | 14:24 | X | | | | | | X | | | | X | | X | | | | | | | X | | | | |
| ICV01 | 1 | 14:26 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ICB01 | 1 | 14:30 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| PQL01 | 1 | 14:33 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ICSA01 | 1 | 14:37 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ICSAB01 | 1 | 14:40 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| LR01 | 1 | 14:43 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| LR02 | 1 | 14:46 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCV01 | 1 | 14:49 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB01 | 1 | 14:53 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| LR03 | 1 | 15:08 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| LR04 | 1 | 15:12 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCV02 | 1 | 15:15 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB02 | 1 | 15:19 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 15:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 15:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 15:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV03 | 1 | 15:57 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB03 | 1 | 16:01 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 16:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 16:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV04 | 1 | 16:37 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB04 | 1 | 16:41 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CCV05 | 1 | 16:58 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB05 | 1 | 17:02 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 17:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 17:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV06 | 1 | 17:27 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB06 | 1 | 17:31 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 17:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 17:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV07 | 1 | 18:03 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB07 | 1 | 18:07 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 18:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 5 | 18:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV08 | 1 | 18:32 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB08 | 1 | 18:36 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 18:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 18:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV09 | 1 | 19:12 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB09 | 1 | 19:16 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| 1202032557 | 1 | 19:19 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |

**Metals**
**–14–**
**Analysis Run Log**

| Samp No. | D/F | Run Time | Al | Sb | As | Ba | Be | Cd | Ca | Cr | Co | Cu | Fe | Pb | Mg | Mn | Hg | Ni | K | Se | Ag | Na | Tl | U | V | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1202032558 | 1 | 19:23 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 19:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1202032559 | 1 | 19:30 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| 1202032560 | 1 | 19:34 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| 1202032561 | 5 | 19:37 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCV10 | 1 | 19:41 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB10 | 1 | 19:45 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 19:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | 1 | 19:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| 245975001 | 1 | 19:59 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| ZZZZZZ | 1 | 20:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV11 | 1 | 20:06 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |
| CCB11 | 1 | 20:10 | X | | X | X | | | X | X | X | X | X | | X | | | X | X | X | X | X | | | X | X |

# Standards

**METALS**
**-10-**
**Instrument Detection Limits**

**SDG NO.** 10-1512-1

**Contract:** LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

| ICP/MS | Analyte | Wavelength (nm) | MDL ug/L | RDL ug/L |
|---|---|---|---|---|
| LIQUID | Aluminum | | 15.0 | 30 |
| | Antimony | | 1.0 | 3 |
| | Arsenic | | 1.6 | 5 |
| | Barium | | 0.6 | 2 |
| | Beryllium | | 0.1 | .5 |
| | Cadmium | | 0.11 | 1 |
| | Calcium | | 65.0 | 200 |
| | Chromium | | 2.0 | 10 |
| | Cobalt | | 0.1 | 1 |
| | Copper | | 0.33 | 1 |
| | Iron | | 33.0 | 100 |
| | Lead | | 0.5 | 2 |
| | Magnesium | | 5.2 | 15 |
| | Manganese | | 1.0 | 5 |
| | Nickel | | 0.5 | 2 |
| | Potassium | | 80.0 | 300 |
| | Selenium | | 1.0 | 5 |
| | Silver | | 0.2 | 1 |
| | Sodium | | 80.0 | 250 |
| | Thallium | | 0.3 | 1 |
| | Uranium | | 0.05 | .2 |
| | Vanadium | | 3.0 | 10 |
| | Zinc | | 3.0 | 10 |

**METALS**
**-10-**
**Instrument Detection Limits**

**SDG NO.** 10-1512-1

**Contract:** LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

| | Analyte | Wavelength (nm) | MDL ug/L | RDL ug/L |
|---|---|---|---|---|
| MERCURY | | | | |
| LIQUID | Mercury | | 0.066 | .2 |

**METALS**
**–10–**
**Instrument Detection Limits**

**SDG NO.** 10–1512–1

**Contract:** LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

| ICP | Analyte | Wavelength (nm) | MDL ug/L | RDL ug/L |
|---|---|---|---|---|
| LIQUID | Aluminum | 396.153 | 68.0 | 200 |
| | Antimony | 206.836 | 3.0 | 10 |
| | Arsenic | 188.979 | 5.0 | 30 |
| | Barium | 233.527 | 1.0 | 5 |
| | Beryllium | 313.107 | 1.0 | 5 |
| | Cadmium | 226.502 | 1.0 | 5 |
| | Calcium | 317.933 | 50.0 | 200 |
| | Chromium | 267.716 | 1.0 | 5 |
| | Cobalt | 228.616 | 1.0 | 5 |
| | Copper | 324.752 | 3.0 | 10 |
| | Iron | 238.204 | 30.0 | 100 |
| | Lead | 220.353 | 3.3 | 10 |
| | Magnesium | 279.077 | 85.0 | 300 |
| | Manganese | 257.61 | 2.0 | 10 |
| | Nickel | 231.604 | 1.5 | 5 |
| | Potassium | 766.49 | 50.0 | 150 |
| | Selenium | 196.026 | 5.0 | 30 |
| | Silver | 328.068 | 1.0 | 5 |
| | Sodium | 589.592 | 100 | 300 |
| | Thallium | 190.801 | 5.0 | 20 |
| | Uranium | 409.014 | 10.0 | 50 |
| | Vanadium | 292.402 | 1.0 | 5 |
| | Zinc | 213.857 | 3.3 | 10 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Aluminum | Antimony | Arsenic | Barium | Beryllium |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | -0.05500 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | -0.28800 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Selenium | 196.026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | -0.04600 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Boron | Cadmium | Chromium | Cobalt | Copper |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | 0.00000 | 0.00000 | 11.3250 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | -1.59900 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | -21.2250 | 0.00000 |
| Lead | 220.353 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 1.68400 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 1.19100 | 0.00000 |
| Phosphorous | 214.914 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 105.59 |
| Selenium | 196.026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 | 0.00000 | 3.36300 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 | -2.30400 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 1.61100 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Iron | Lead | Magnesium | Manganese | Molybdenum |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 20.5430 |
| Antimony | 206.836 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | -16.3320 |
| Arsenic | 188.979 | -0.05800 | 0.00000 | 0.00000 | 0.00000 | 1.97700 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.13300 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | -0.90500 |
| Copper | 324.752 | -0.13900 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | 0.03800 | -2.87600 | 0.00000 | 0.00000 | 0.00000 |
| Magnesium | 279.077 | 1.07300 | 0.00000 | 0.00000 | 0.00000 | -16.8110 |
| Manganese | 257.61 | -0.13900 | 0.00000 | 0.04000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | -0.03800 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | -0.01300 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | 0.81200 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Selenium | 196.026 | -0.88200 | 0.00000 | 0.28200 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | -0.06300 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | -0.03900 | 0.00000 | 0.00000 | -4.11700 | 0.00000 |
| Tin | 189.927 | -0.09200 | 0.00000 | -0.19600 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.07900 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.13900 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | -0.05300 | 0.00000 | 0.00000 | 0.00000 | -7.71400 |
| Zinc | 213.857 | 0.14460 | 0.00000 | 0.02030 | 0.00000 | 0.00000 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Nickel | Phosphorous | Selenium | Silicon | Silver |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | -0.99900 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Selenium | 196.026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 4.41600 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Sulfur | Thallium | Tin | Titanium | Uranium |
|---|---|---|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Antimony | 206.836 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Barium | 233.527 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 | 0.00000 | 0.38100 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Chromium | 267.716 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 | 0.00000 | 2.08700 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Lead | 220.353 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 1.04000 |
| Magnesium | 279.077 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | 0.00000 | 0.00000 | -14.8110 | 0.00000 | 0.00000 |
| Selenium | 196.026 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Silver | 328.068 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 | 0.00000 | -8.68900 | -1.22400 |
| Tin | 189.927 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | -1.03900 |
| Zinc | 213.857 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

# METALS
## -11-
## Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

| Parmname | Wavelength | Vanadium | Zinc |
|---|---|---|---|
| Aluminum | 396.153 | 0.00000 | 0.00000 |
| Antimony | 206.836 | 0.00000 | 0.00000 |
| Arsenic | 188.979 | 0.00000 | 0.00000 |
| Barium | 233.527 | -1.80500 | 0.00000 |
| Beryllium | 313.107 | 0.00000 | 0.00000 |
| Boron | 249.677 | 0.00000 | 0.00000 |
| Cadmium | 226.502 | 0.00000 | 0.00000 |
| Chromium | 267.716 | -0.63000 | 0.00000 |
| Cobalt | 228.616 | 0.00000 | 0.00000 |
| Copper | 324.752 | 0.00000 | 0.00000 |
| Iron | 238.204 | 0.00000 | 0.00000 |
| Lead | 220.353 | 0.00000 | 0.00000 |
| Magnesium | 279.077 | 0.00000 | 0.00000 |
| Manganese | 257.61 | 0.00000 | 0.00000 |
| Molybdenum | 202.031 | 0.00000 | 0.00000 |
| Nickel | 231.604 | 0.00000 | 0.00000 |
| Phosphorous | 214.914 | 0.00000 | 0.00000 |
| Selenium | 196.026 | 0.00000 | 0.00000 |
| Silicon | 251.611 | 0.00000 | 0.00000 |
| Silver | 328.068 | -6.59800 | 0.00000 |
| Sulfur | 181.975 | 0.00000 | 0.00000 |
| Thallium | 190.801 | 0.00000 | 0.00000 |
| Tin | 189.927 | 0.00000 | 0.00000 |
| Titanium | 334.94 | 0.00000 | 0.00000 |
| Uranium | 409.014 | 0.00000 | 0.00000 |
| Vanadium | 292.402 | 0.00000 | 0.00000 |
| Zinc | 213.857 | 0.00000 | 0.00000 |

**METALS**
**–12–**
**Linear Ranges**

**SDG NO.** 10–1512–1

**Contract:** LANL01004 **Lab Code: GEL**

**Instrument ID** ICPMS5

| Analyte | Integration Time (msec) | LDR | Units | Effective Date |
|---|---|---|---|---|
| Aluminum | 1 | 50000 | ug/L | 01–FEB–10 |
| Antimony | 1000 | 250 | ug/L | 01–FEB–10 |
| Arsenic | 1000 | 1000 | ug/L | 01–FEB–10 |
| Barium | 1000 | 1000 | ug/L | 01–FEB–10 |
| Beryllium | 1000 | 1000 | ug/L | 01–FEB–10 |
| Cadmium | 1000 | 1000 | ug/L | 01–FEB–10 |
| Calcium | 500 | 50000 | ug/L | 01–FEB–10 |
| Chromium | 1000 | 1000 | ug/L | 01–FEB–10 |
| Cobalt | 1000 | 1000 | ug/L | 01–FEB–10 |
| Copper | 1000 | 1000 | ug/L | 01–FEB–10 |
| Iron | 500 | 50000 | ug/L | 01–FEB–10 |
| Lead | 1000 | 5000 | ug/L | 01–FEB–10 |
| Magnesium | 1 | 50000 | ug/L | 01–FEB–10 |
| Manganese | 1000 | 1000 | ug/L | 01–FEB–10 |
| Nickel | 1000 | 1000 | ug/L | 01–FEB–10 |
| Potassium | 1 | 50000 | ug/L | 01–FEB–10 |
| Selenium | 1000 | 500 | ug/L | 01–FEB–10 |
| Silver | 1000 | 250 | ug/L | 01–FEB–10 |
| Sodium | 1 | 50000 | ug/L | 01–FEB–10 |
| Thallium | 1000 | 500 | ug/L | 01–FEB–10 |
| Uranium | 1000 | 5000 | ug/L | 01–FEB–10 |
| Vanadium | 1000 | 100 | ug/L | 01–FEB–10 |
| Zinc | 1000 | 2500 | ug/L | 01–FEB–10 |

**METALS**
**–12–**
**Linear Ranges**

**SDG NO.** 10–1512–1

**Contract:** LANL01004 **Lab Code: GEL**

**Instrument ID** OPTIMA1

| Analyte | Integration Time (sec) | LDR | Units | Effective Date |
|---|---|---|---|---|
| Aluminum | 20 | 500000 | ug/L | 01–FEB–10 |
| Antimony | 20 | 10000 | ug/L | 01–FEB–10 |
| Arsenic | 20 | 10000 | ug/L | 01–FEB–10 |
| Barium | 20 | 15000 | ug/L | 01–FEB–10 |
| Beryllium | 20 | 3000 | ug/L | 01–FEB–10 |
| Cadmium | 20 | 10000 | ug/L | 01–FEB–10 |
| Calcium | 20 | 500000 | ug/L | 01–FEB–10 |
| Chromium | 20 | 25000 | ug/L | 01–FEB–10 |
| Cobalt | 20 | 10000 | ug/L | 01–FEB–10 |
| Copper | 20 | 20000 | ug/L | 01–FEB–10 |
| Iron | 20 | 500000 | ug/L | 01–FEB–10 |
| Lead | 20 | 25000 | ug/L | 01–FEB–10 |
| Magnesium | 20 | 500000 | ug/L | 01–FEB–10 |
| Manganese | 20 | 10000 | ug/L | 01–FEB–10 |
| Nickel | 20 | 10000 | ug/L | 01–FEB–10 |
| Potassium | 20 | 300000 | ug/L | 01–FEB–10 |
| Selenium | 20 | 10000 | ug/L | 01–FEB–10 |
| Silver | 20 | 1000 | ug/L | 01–FEB–10 |
| Sodium | 20 | 500000 | ug/L | 01–FEB–10 |
| Thallium | 20 | 10000 | ug/L | 01–FEB–10 |
| Uranium | 20 | 15000 | ug/L | 01–FEB–10 |
| Vanadium | 20 | 10000 | ug/L | 01–FEB–10 |
| Zinc | 20 | 15000 | ug/L | 01–FEB–10 |

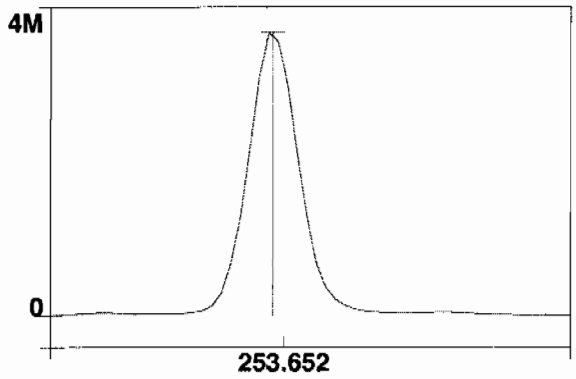
# Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1




Intensity: 3672376.8 cps
Conc:

1

==========

**Analysis Begun**

**Start Time:** 2/11/2010 14:10:46
**Logged In Analyst:** optima
**Spectrometer Model:** Optima 4300 DV, S/N 077N1030502
**Plasma On Time:** 2/8/2010 03:37:33
**Technique:** ICP Continuous
**Autosampler Model:** AS-93plus

**Sample Information File:** C:\pe\optima1\Sample Information\021110.sif
**Batch ID:**
**Results Data Set:** 021110B
**Results Library:** c:\pe\optima1\Results\Results.mdb

==========

**Sequence No.:** 1
**Sample ID:** S0
**Analyst:**
**Initial Sample Wt:**
**Dilution:**
**Autosampler Location:** 8
**Date Collected:** 2/11/2010 14:10:48
**Data Type:** Original
**Initial Sample Vol:**
**Sample Prep Vol:**

---

**Replicate Data: S0**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 54739.4 | 54739.4 | 100 | % | 14:11:23 |
| 1 | Al 396.153Radial† | -13.9 | -13.8 | [0.00] | µg/L | 14:11:23 |
| 1 | Ca 317.933Radial† | 181.9 | 181.3 | [0.00] | µg/L | 14:11:43 |
| 1 | Fe 238.204 Radial† | 15.3 | 15.3 | [0.00] | µg/L | 14:11:43 |
| 1 | K 766.490 Radial† | 133.4 | 133.0 | [0.00] | µg/L | 14:11:23 |
| 1 | Mg 279.077 IEC† | 7.8 | 7.8 | [0.00] | µg/L | 14:11:43 |
| 1 | Na 589.592 Radial† | 544.1 | 542.5 | [0.00] | µg/L | 14:11:23 |
| 1 | Sr 421.552† | 47.1 | 46.9 | [0.00] | µg/L | 14:11:23 |
| 1 | Sc 361.383 | 1911885.3 | 1911885.3 | 100.11 | % | 14:12:45 |
| 1 | Y 371.029 | 1310700.1 | 1310700.1 | 100.06 | % | 14:12:45 |
| 1 | Ag 328.068† | -547.3 | -546.7 | [0.00] | µg/L | 14:12:50 |
| 1 | As 188.979† | 3.5 | 3.5 | [0.00] | µg/L | 14:13:11 |
| 1 | B 249.677† | 353.5 | 353.1 | [0.00] | µg/L | 14:13:11 |
| 1 | Ba 233.527† | -32.2 | -32.2 | [0.00] | µg/L | 14:13:11 |
| 1 | Be 313.107† | -3446.9 | -3443.2 | [0.00] | µg/L | 14:12:50 |
| 1 | Cd 226.502† | -153.7 | -153.5 | [0.00] | µg/L | 14:13:11 |
| 1 | Co 228.616† | -1.3 | -1.3 | [0.00] | µg/L | 14:13:11 |
| 1 | Cr 267.716† | -55.4 | -55.3 | [0.00] | µg/L | 14:12:50 |
| 1 | Cu 324.752† | 2504.0 | 2501.3 | [0.00] | µg/L | 14:12:50 |
| 1 | Mn 257.610† | -239.6 | -239.4 | [0.00] | µg/L | 14:13:11 |
| 1 | Mo 202.031† | -2.8 | -2.8 | [0.00] | µg/L | 14:13:11 |
| 1 | Ni 231.604† | 307.9 | 307.6 | [0.00] | µg/L | 14:13:11 |
| 1 | P 214.914† | 26.2 | 26.2 | [0.00] | µg/L | 14:13:11 |
| 1 | Pb 220.353† | 91.7 | 91.6 | [0.00] | µg/L | 14:13:11 |
| 1 | S 181.975 Axial† | 15.4 | 15.3 | [0.00] | µg/L | 14:13:11 |
| 1 | Sb 206.836† | 28.4 | 28.4 | [0.00] | µg/L | 14:13:11 |
| 1 | Se 196.026† | 16.7 | 16.7 | [0.00] | µg/L | 14:13:11 |
| 1 | SiO2† | 1235.3 | 1234.0 | [0.00] | µg/L | 14:12:50 |
| 1 | Si 251.611† | 309.0 | 308.7 | [0.00] | µg/L | 14:13:11 |
| 1 | Sn 189.927† | -0.7 | -0.7 | [0.00] | µg/L | 14:13:11 |
| 1 | Ti 334.940† | 89.4 | 89.3 | [0.00] | µg/L | 14:12:50 |
| 1 | Tl 190.801† | -23.5 | -23.5 | [0.00] | µg/L | 14:13:11 |
| 1 | U 409.014† | -77.0 | -76.9 | [0.00] | µg/L | 14:12:50 |
| 1 | V 292.402† | -41.9 | -41.9 | [0.00] | µg/L | 14:12:50 |
| 1 | Zn 213.857† | 474.5 | 474.0 | [0.00] | µg/L | 14:13:11 |
| 2 | Sc RADIAL | 54665.4 | 54665.4 | 100 | % | 14:11:49 |
| 2 | Al 396.153Radial† | -1.2 | -1.2 | [0.00] | µg/L | 14:11:49 |
| 2 | Ca 317.933Radial† | 175.4 | 175.1 | [0.00] | µg/L | 14:12:09 |
| 2 | Fe 238.204 Radial† | 14.9 | 14.8 | [0.00] | µg/L | 14:12:09 |
| 2 | K 766.490 Radial† | 144.1 | 143.8 | [0.00] | µg/L | 14:11:49 |
| 2 | Mg 279.077 IEC† | 11.1 | 11.1 | [0.00] | µg/L | 14:12:09 |
| 2 | Na 589.592 Radial† | 552.5 | 551.5 | [0.00] | µg/L | 14:11:49 |
| 2 | Sr 421.552† | 33.2 | 33.1 | [0.00] | µg/L | 14:11:49 |
| 2 | Sc 361.383 | 1909838.0 | 1909838.0 | 100.000 | % | 14:13:17 |
| 2 | Y 371.029 | 1310179.5 | 1310179.5 | 100.02 | % | 14:13:17 |
| 2 | Ag 328.068† | -580.2 | -580.2 | [0.00] | µg/L | 14:13:23 |
| 2 | As 188.979† | -0.5 | -0.5 | [0.00] | µg/L | 14:13:43 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | B 249.677† | 311.8 | 311.8 | [0.00] | µg/L | 14:13:43 |
| 2 | Ba 233.527† | -19.4 | -19.4 | [0.00] | µg/L | 14:13:43 |
| 2 | Be 313.107† | -3440.2 | -3440.2 | [0.00] | µg/L | 14:13:23 |
| 2 | Cd 226.502† | -136.8 | -136.8 | [0.00] | µg/L | 14:13:43 |
| 2 | Co 228.616† | -8.2 | -8.2 | [0.00] | µg/L | 14:13:43 |
| 2 | Cr 267.716† | -44.6 | -44.6 | [0.00] | µg/L | 14:13:23 |
| 2 | Cu 324.752† | 2529.2 | 2529.2 | [0.00] | µg/L | 14:13:23 |
| 2 | Mn 257.610† | -247.4 | -247.4 | [0.00] | µg/L | 14:13:43 |
| 2 | Mo 202.031† | -8.7 | -8.7 | [0.00] | µg/L | 14:13:43 |
| 2 | Ni 231.604† | 295.5 | 295.5 | [0.00] | µg/L | 14:13:43 |
| 2 | P 214.914† | 27.9 | 27.9 | [0.00] | µg/L | 14:13:43 |
| 2 | Pb 220.353† | 98.3 | 98.3 | [0.00] | µg/L | 14:13:43 |
| 2 | S 181.975 Axial† | 16.8 | 16.8 | [0.00] | µg/L | 14:13:43 |
| 2 | Sb 206.836† | 27.6 | 27.6 | [0.00] | µg/L | 14:13:43 |
| 2 | Se 196.026† | 12.1 | 12.1 | [0.00] | µg/L | 14:13:43 |
| 2 | SiO2† | 1235.5 | 1235.5 | [0.00] | µg/L | 14:13:23 |
| 2 | Si 251.611† | 316.0 | 316.0 | [0.00] | µg/L | 14:13:43 |
| 2 | Sn 189.927† | -2.2 | -2.2 | [0.00] | µg/L | 14:13:43 |
| 2 | Ti 334.940† | 132.2 | 132.2 | [0.00] | µg/L | 14:13:23 |
| 2 | Tl 190.801† | -27.5 | -27.5 | [0.00] | µg/L | 14:13:43 |
| 2 | U 409.014† | -52.6 | -52.6 | [0.00] | µg/L | 14:13:23 |
| 2 | V 292.402† | -46.9 | -46.9 | [0.00] | µg/L | 14:13:23 |
| 2 | Zn 213.857† | 476.6 | 476.6 | [0.00] | µg/L | 14:13:43 |
| 3 | Sc RADIAL | 54318.4 | 54318.4 | 99.5 | % | 14:12:15 |
| 3 | Al 396.153Radial† | -15.3 | -15.3 | [0.00] | µg/L | 14:12:15 |
| 3 | Ca 317.933Radial† | 180.2 | 181.0 | [0.00] | µg/L | 14:12:35 |
| 3 | Fe 238.204 Radial† | 13.3 | 13.4 | [0.00] | µg/L | 14:12:35 |
| 3 | K 766.490 Radial† | 107.9 | 108.4 | [0.00] | µg/L | 14:12:15 |
| 3 | Mg 279.077 IEC† | 14.9 | 15.0 | [0.00] | µg/L | 14:12:35 |
| 3 | Na 589.592 Radial† | 529.1 | 531.6 | [0.00] | µg/L | 14:12:15 |
| 3 | Sr 421.552† | 38.4 | 38.6 | [0.00] | µg/L | 14:12:15 |
| 3 | Sc 361.383 | 1907796.9 | 1907796.9 | 99.893 | % | 14:13:49 |
| 3 | Y 371.029 | 1308876.2 | 1308876.2 | 99.920 | % | 14:13:49 |
| 3 | Ag 328.068† | -566.0 | -566.6 | [0.00] | µg/L | 14:13:55 |
| 3 | As 188.979† | 0.4 | 0.4 | [0.00] | µg/L | 14:14:15 |
| 3 | B 249.677† | 329.2 | 329.5 | [0.00] | µg/L | 14:14:15 |
| 3 | Ba 233.527† | -26.4 | -26.4 | [0.00] | µg/L | 14:14:15 |
| 3 | Be 313.107† | -3434.3 | -3437.9 | [0.00] | µg/L | 14:13:55 |
| 3 | Cd 226.502† | -135.9 | -136.0 | [0.00] | µg/L | 14:14:15 |
| 3 | Co 228.616† | -17.0 | -17.0 | [0.00] | µg/L | 14:14:15 |
| 3 | Cr 267.716† | -57.1 | -57.2 | [0.00] | µg/L | 14:13:55 |
| 3 | Cu 324.752† | 2425.2 | 2427.8 | [0.00] | µg/L | 14:13:55 |
| 3 | Mn 257.610† | -245.3 | -245.6 | [0.00] | µg/L | 14:14:15 |
| 3 | Mo 202.031† | -11.1 | -11.1 | [0.00] | µg/L | 14:14:15 |
| 3 | Ni 231.604† | 303.1 | 303.5 | [0.00] | µg/L | 14:14:15 |
| 3 | P 214.914† | 28.8 | 28.8 | [0.00] | µg/L | 14:14:15 |
| 3 | Pb 220.353† | 101.6 | 101.7 | [0.00] | µg/L | 14:14:15 |
| 3 | S 181.975 Axial† | 12.3 | 12.3 | [0.00] | µg/L | 14:14:15 |
| 3 | Sb 206.836† | 24.9 | 25.0 | [0.00] | µg/L | 14:14:15 |
| 3 | Se 196.026† | 18.7 | 18.7 | [0.00] | µg/L | 14:14:15 |
| 3 | SiO2† | 1279.2 | 1280.6 | [0.00] | µg/L | 14:13:55 |
| 3 | Si 251.611† | 313.6 | 313.9 | [0.00] | µg/L | 14:14:15 |
| 3 | Sn 189.927† | 0.3 | 0.3 | [0.00] | µg/L | 14:14:15 |
| 3 | Ti 334.940† | 126.8 | 126.9 | [0.00] | µg/L | 14:13:55 |
| 3 | Tl 190.801† | -21.9 | -21.9 | [0.00] | µg/L | 14:14:15 |
| 3 | U 409.014† | -31.2 | -31.3 | [0.00] | µg/L | 14:13:55 |
| 3 | V 292.402† | -43.8 | -43.9 | [0.00] | µg/L | 14:13:55 |
| 3 | Zn 213.857† | 475.5 | 476.0 | [0.00] | µg/L | 14:14:15 |

**Mean Data: S0**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 1909840.1 | 2044.21 | 0.11% | 100.00 | % |
| Sc RADIAL | 54574.4 | 224.80 | 0.41% | 100 | % |
| Y 371.029 | 1309918.6 | 939.52 | 0.07% | 100.00 | % |
| Ag 328.068† | -564.5 | 16.85 | 2.98% | [0.00] | µg/L |
| Al 396.153Radial† | -10.1 | 7.73 | 76.30% | [0.00] | µg/L |
| As 188.979† | 1.1 | 2.09 | 182.38% | [0.00] | µg/L |
| B 249.677† | 331.5 | 20.73 | 6.25% | [0.00] | µg/L |
| Ba 233.527† | -26.0 | 6.39 | 24.57% | [0.00] | µg/L |

| | | | | | |
|---|---|---|---|---|---|
| Be 313.107† | -3440.4 | 2.66 | 0.08% | [0.00] | µg/L |
| Ca 317.933Radial† | 179.2 | 3.51 | 1.96% | [0.00] | µg/L |
| Cd 226.502† | -142.1 | 9.89 | 6.96% | [0.00] | µg/L |
| Co 228.616† | -8.8 | 7.85 | 88.83% | [0.00] | µg/L |
| Cr 267.716† | -52.4 | 6.82 | 13.02% | [0.00] | µg/L |
| Cu 324.752† | 2486.1 | 52.42 | 2.11% | [0.00] | µg/L |
| Fe 238.204 Radial† | 14.5 | 1.00 | 6.90% | [0.00] | µg/L |
| K 766.490 Radial† | 128.4 | 18.15 | 14.13% | [0.00] | µg/L |
| Mg 279.077 IEC† | 11.3 | 3.62 | 32.14% | [0.00] | µg/L |
| Mn 257.610† | -244.1 | 4.19 | 1.72% | [0.00] | µg/L |
| Mo 202.031† | -7.5 | 4.31 | 57.15% | [0.00] | µg/L |
| Na 589.592 Radial† | 541.9 | 9.97 | 1.84% | [0.00] | µg/L |
| Ni 231.604† | 302.2 | 6.13 | 2.03% | [0.00] | µg/L |
| P 214.914† | 27.6 | 1.32 | 4.77% | [0.00] | µg/L |
| Pb 220.353† | 97.2 | 5.13 | 5.27% | [0.00] | µg/L |
| S 181.975 Axial† | 14.8 | 2.33 | 15.71% | [0.00] | µg/L |
| Sb 206.836† | 27.0 | 1.78 | 6.62% | [0.00] | µg/L |
| Se 196.026† | 15.8 | 3.37 | 21.27% | [0.00] | µg/L |
| SiO2† | 1250.0 | 26.45 | 2.12% | [0.00] | µg/L |
| Si 251.611† | 312.9 | 3.77 | 1.21% | [0.00] | µg/L |
| Sn 189.927† | -0.9 | 1.29 | 148.06% | [0.00] | µg/L |
| Sr 421.552† | 39.6 | 6.94 | 17.54% | [0.00] | µg/L |
| Ti 334.940† | 116.1 | 23.40 | 20.15% | [0.00] | µg/L |
| Tl 190.801† | -24.3 | 2.88 | 11.85% | [0.00] | µg/L |
| U 409.014† | -53.6 | 22.84 | 42.60% | [0.00] | µg/L |
| V 292.402† | -44.2 | 2.52 | 5.69% | [0.00] | µg/L |
| Zn 213.857† | 475.5 | 1.38 | 0.29% | [0.00] | µg/L |

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/11/2010 14:14:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55015.9 | 55015.9 | 101 | % | 14:15:00 |
| 1 | K 766.490 Radial† | 1529.6 | 1388.9 | [1000] | µg/L | 14:15:00 |
| 1 | Sr 421.552† | 9551.7 | 9435.5 | [100] | µg/L | 14:15:00 |
| 1 | Sc 361.383 | 1906987.6 | 1906987.6 | 99.851 | % | 14:15:21 |
| 1 | Y 371.029 | 1308080.3 | 1308080.3 | 99.860 | % | 14:15:21 |
| 1 | Ag 328.068† | 12337.2 | 12920.2 | [100] | µg/L | 14:15:27 |
| 1 | As 188.979† | 60.2 | 59.1 | [100] | µg/L | 14:15:48 |
| 1 | B 249.677† | 2597.7 | 2270.1 | [100] | µg/L | 14:15:27 |
| 1 | Ba 233.527† | 3962.5 | 3994.4 | [100] | µg/L | 14:15:27 |
| 1 | Be 313.107† | 151975.4 | 155643.2 | [100] | µg/L | 14:15:21 |
| 1 | Cd 226.502† | 3678.8 | 3826.5 | [100] | µg/L | 14:15:27 |
| 1 | Co 228.616† | 2095.6 | 2107.6 | [100] | µg/L | 14:15:48 |
| 1 | Cr 267.716† | 4700.6 | 4760.0 | [100] | µg/L | 14:15:27 |
| 1 | Cu 324.752† | 17516.6 | 15056.7 | [100] | µg/L | 14:15:27 |
| 1 | Mn 257.610† | 30035.0 | 30324.0 | [100] | µg/L | 14:15:27 |
| 1 | Mo 202.031† | 993.1 | 1002.1 | [100] | µg/L | 14:15:48 |
| 1 | Ni 231.604† | 2238.0 | 1939.1 | [100] | µg/L | 14:15:27 |
| 1 | P 214.914† | 275.5 | 248.3 | [500] | µg/L | 14:15:48 |
| 1 | Pb 220.353† | 495.9 | 399.5 | [100] | µg/L | 14:15:48 |
| 1 | S 181.975 Axial† | 61.0 | 46.2 | [200] | µg/L | 14:15:48 |
| 1 | Sb 206.836† | 127.3 | 100.5 | [100] | µg/L | 14:15:48 |
| 1 | Se 196.026† | 83.6 | 67.8 | [100] | µg/L | 14:15:48 |
| 1 | SiO2† | 6362.3 | 5121.8 | [1069.5] | µg/L | 14:15:27 |
| 1 | Si 251.611† | 6526.8 | 6223.6 | [500] | µg/L | 14:15:27 |
| 1 | Sn 189.927† | 236.7 | 237.9 | [100] | µg/L | 14:15:48 |
| 1 | Ti 334.940† | 41818.8 | 41765.2 | [100] | µg/L | 14:15:27 |
| 1 | Tl 190.801† | 52.7 | 77.0 | [100] | µg/L | 14:15:48 |
| 1 | U 409.014† | 1125.7 | 1181.0 | [100] | µg/L | 14:15:27 |
| 1 | V 292.402† | 9619.3 | 9677.9 | [100] | µg/L | 14:15:27 |
| 1 | Zn 213.857† | 4700.1 | 4231.6 | [100] | µg/L | 14:15:27 |
| 2 | Sc RADIAL | 55171.2 | 55171.2 | 101 | % | 14:15:05 |
| 2 | K 766.490 Radial† | 1577.1 | 1431.6 | [1000] | µg/L | 14:15:05 |
| 2 | Sr 421.552† | 9725.8 | 9581.1 | [100] | µg/L | 14:15:05 |
| 2 | Sc 361.383 | 1919566.1 | 1919566.1 | 100.51 | % | 14:15:54 |
| 2 | Y 371.029 | 1316225.3 | 1316225.3 | 100.48 | % | 14:15:54 |
| 2 | Ag 328.068† | 12296.8 | 12799.1 | [100] | µg/L | 14:16:00 |
| 2 | As 188.979† | 55.3 | 53.9 | [100] | µg/L | 14:16:20 |
| 2 | B 249.677† | 2620.3 | 2275.6 | [100] | µg/L | 14:16:00 |
| 2 | Ba 233.527† | 3925.8 | 3931.9 | [100] | µg/L | 14:16:00 |
| 2 | Be 313.107† | 153476.8 | 156139.6 | [100] | µg/L | 14:15:54 |
| 2 | Cd 226.502† | 3613.9 | 3737.7 | [100] | µg/L | 14:16:00 |
| 2 | Co 228.616† | 2078.6 | 2076.9 | [100] | µg/L | 14:16:20 |
| 2 | Cr 267.716† | 4668.3 | 4697.0 | [100] | µg/L | 14:16:00 |
| 2 | Cu 324.752† | 17487.1 | 14912.4 | [100] | µg/L | 14:16:00 |
| 2 | Mn 257.610† | 29867.9 | 29960.6 | [100] | µg/L | 14:16:00 |
| 2 | Mo 202.031† | 997.0 | 999.5 | [100] | µg/L | 14:16:20 |
| 2 | Ni 231.604† | 2232.7 | 1919.2 | [100] | µg/L | 14:16:00 |
| 2 | P 214.914† | 277.4 | 248.4 | [500] | µg/L | 14:16:20 |
| 2 | Pb 220.353† | 494.0 | 394.3 | [100] | µg/L | 14:16:20 |
| 2 | S 181.975 Axial† | 66.3 | 51.1 | [200] | µg/L | 14:16:20 |
| 2 | Sb 206.836† | 134.2 | 106.6 | [100] | µg/L | 14:16:20 |
| 2 | Se 196.026† | 81.0 | 64.7 | [100] | µg/L | 14:16:20 |
| 2 | SiO2† | 6316.5 | 5034.4 | [1069.5] | µg/L | 14:16:00 |
| 2 | Si 251.611† | 6524.6 | 6178.6 | [500] | µg/L | 14:16:00 |
| 2 | Sn 189.927† | 229.9 | 229.6 | [100] | µg/L | 14:16:20 |
| 2 | Ti 334.940† | 41713.2 | 41385.8 | [100] | µg/L | 14:16:00 |
| 2 | Tl 190.801† | 46.9 | 70.9 | [100] | µg/L | 14:16:20 |
| 2 | U 409.014† | 1094.4 | 1142.5 | [100] | µg/L | 14:16:00 |
| 2 | V 292.402† | 9634.9 | 9630.3 | [100] | µg/L | 14:16:00 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Zn 213.857† | 4683.2 | 4183.9 | [100] | µg/L | 14:16:00 |
| 3 | Sc RADIAL | 54696.3 | 54696.3 | 100 | % | 14:15:11 |
| 3 | K 766.490 Radial† | 1613.5 | 1481.5 | [1000] | µg/L | 14:15:11 |
| 3 | Sr 421.552† | 9663.0 | 9601.9 | [100] | µg/L | 14:15:11 |
| 3 | Sc 361.383 | 1914175.0 | 1914175.0 | 100.23 | % | 14:16:26 |
| 3 | Y 371.029 | 1314459.8 | 1314459.8 | 100.35 | % | 14:16:26 |
| 3 | Ag 328.068† | 12311.6 | 12848.2 | [100] | µg/L | 14:16:32 |
| 3 | As 188.979† | 52.2 | 51.0 | [100] | µg/L | 14:16:53 |
| 3 | B 249.677† | 2607.8 | 2270.5 | [100] | µg/L | 14:16:32 |
| 3 | Ba 233.527† | 3927.0 | 3944.1 | [100] | µg/L | 14:16:32 |
| 3 | Be 313.107† | 152121.7 | 155217.6 | [100] | µg/L | 14:16:26 |
| 3 | Cd 226.502† | 3649.8 | 3783.7 | [100] | µg/L | 14:16:32 |
| 3 | Co 228.616† | 2092.3 | 2096.4 | [100] | µg/L | 14:16:53 |
| 3 | Cr 267.716† | 4695.0 | 4736.7 | [100] | µg/L | 14:16:32 |
| 3 | Cu 324.752† | 17403.9 | 14878.4 | [100] | µg/L | 14:16:32 |
| 3 | Mn 257.610† | 29812.0 | 29988.6 | [100] | µg/L | 14:16:32 |
| 3 | Mo 202.031† | 994.2 | 999.5 | [100] | µg/L | 14:16:53 |
| 3 | Ni 231.604† | 2238.0 | 1930.8 | [100] | µg/L | 14:16:32 |
| 3 | P 214.914† | 276.9 | 248.7 | [500] | µg/L | 14:16:53 |
| 3 | Pb 220.353† | 496.4 | 398.1 | [100] | µg/L | 14:16:53 |
| 3 | S 181.975 Axial† | 63.6 | 48.7 | [200] | µg/L | 14:16:53 |
| 3 | Sb 206.836† | 131.7 | 104.5 | [100] | µg/L | 14:16:53 |
| 3 | Se 196.026† | 85.1 | 69.1 | [100] | µg/L | 14:16:53 |
| 3 | SiO2† | 6274.4 | 5010.2 | [1069.5] | µg/L | 14:16:32 |
| 3 | Si 251.611† | 6506.8 | 6179.2 | [500] | µg/L | 14:16:32 |
| 3 | Sn 189.927† | 233.2 | 233.5 | [100] | µg/L | 14:16:53 |
| 3 | Ti 334.940† | 41628.8 | 41418.4 | [100] | µg/L | 14:16:32 |
| 3 | Tl 190.801† | 52.0 | 76.1 | [100] | µg/L | 14:16:53 |
| 3 | U 409.014† | 1167.9 | 1218.9 | [100] | µg/L | 14:16:32 |
| 3 | V 292.402† | 9645.5 | 9667.9 | [100] | µg/L | 14:16:32 |
| 3 | Zn 213.857† | 4697.5 | 4211.3 | [100] | µg/L | 14:16:32 |

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**Mean Data: S0.1**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 1913576.2 | 6310.61 | 0.33% | 100.20 | % |
| Sc RADIAL | 54961.1 | 242.12 | 0.44% | 101 | % |
| Y 371.029 | 1312921.8 | 4284.80 | 0.33% | 100.23 | % |
| Ag 328.068† | 12855.8 | 60.90 | 0.47% | [100] | µg/L |
| As 188.979† | 54.7 | 4.13 | 7.55% | [100] | µg/L |
| B 249.677† | 2272.1 | 3.07 | 0.13% | [100] | µg/L |
| Ba 233.527† | 3956.8 | 33.13 | 0.84% | [100] | µg/L |
| Be 313.107† | 155666.8 | 461.42 | 0.30% | [100] | µg/L |
| Cd 226.502† | 3782.6 | 44.38 | 1.17% | [100] | µg/L |
| Co 228.616† | 2093.6 | 15.54 | 0.74% | [100] | µg/L |
| Cr 267.716† | 4731.2 | 31.87 | 0.67% | [100] | µg/L |
| Cu 324.752† | 14949.2 | 94.66 | 0.63% | [100] | µg/L |
| K 766.490 Radial† | 1434.0 | 46.37 | 3.23% | [1000] | µg/L |
| Mn 257.610† | 30091.1 | 202.22 | 0.67% | [100] | µg/L |
| Mo 202.031† | 1000.4 | 1.54 | 0.15% | [100] | µg/L |
| Ni 231.604† | 1929.7 | 10.00 | 0.52% | [100] | µg/L |
| P 214.914† | 248.5 | 0.19 | 0.08% | [500] | µg/L |
| Pb 220.353† | 397.3 | 2.68 | 0.67% | [100] | µg/L |
| S 181.975 Axial† | 48.7 | 2.45 | 5.03% | [200] | µg/L |
| Sb 206.836† | 103.8 | 3.08 | 2.97% | [100] | µg/L |
| Se 196.026† | 67.2 | 2.24 | 3.33% | [100] | µg/L |
| SiO2† | 5055.5 | 58.67 | 1.16% | [1069.5] | µg/L |
| Si 251.611† | 6193.8 | 25.84 | 0.42% | [500] | µg/L |
| Sn 189.927† | 233.7 | 4.16 | 1.78% | [100] | µg/L |
| Sr 421.552† | 9539.5 | 90.63 | 0.95% | [100] | µg/L |
| Ti 334.940† | 41523.1 | 210.28 | 0.51% | [100] | µg/L |
| Tl 190.801† | 74.7 | 3.29 | 4.41% | [100] | µg/L |
| U 409.014† | 1180.8 | 38.20 | 3.23% | [100] | µg/L |
| V 292.402† | 9658.7 | 25.07 | 0.26% | [100] | µg/L |
| Zn 213.857† | 4209.0 | 23.92 | 0.57% | [100] | µg/L |

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/11/2010 14:17:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56431.2 | 56431.2 | 103 | % | 14:17:36 |
| 1 | Al 396.153Radial† | 6754.1 | 6542.0 | [5000] | µg/L | 14:17:36 |
| 1 | Ca 317.933Radial† | 5471.1 | 5111.9 | [5000] | µg/L | 14:17:56 |
| 1 | K 766.490 Radial† | 7121.7 | 6759.0 | [5000] | µg/L | 14:17:36 |
| 1 | Mg 279.077 IEC† | 566.8 | 536.8 | [5000] | µg/L | 14:17:56 |
| 1 | Sr 421.552† | 48100.9 | 46478.6 | [500] | µg/L | 14:17:36 |
| 1 | Sc 361.383 | 1949267.7 | 1949267.7 | 102.06 | % | 14:18:59 |
| 1 | Y 371.029 | 1332062.2 | 1332062.2 | 101.69 | % | 14:18:59 |
| 1 | Ag 328.068† | 62715.3 | 62011.3 | [500] | µg/L | 14:19:05 |
| 1 | As 188.979† | 268.2 | 261.6 | [500] | µg/L | 14:19:26 |
| 1 | B 249.677† | 11715.5 | 11147.1 | [500] | µg/L | 14:19:05 |
| 1 | Ba 233.527† | 19296.1 | 18931.8 | [500] | µg/L | 14:19:05 |
| 1 | Be 313.107† | 765143.4 | 753107.4 | [500] | µg/L | 14:18:59 |
| 1 | Cd 226.502† | 18181.3 | 17955.7 | [500] | µg/L | 14:19:05 |
| 1 | Co 228.616† | 10302.5 | 10103.0 | [500] | µg/L | 14:19:05 |
| 1 | Cr 267.716† | 23080.8 | 22666.4 | [500] | µg/L | 14:19:05 |
| 1 | Cu 324.752† | 74689.8 | 70693.0 | [500] | µg/L | 14:19:05 |
| 1 | Mn 257.610† | 147455.4 | 144716.9 | [500] | µg/L | 14:18:59 |
| 1 | Mo 202.031† | 4948.3 | 4855.8 | [500] | µg/L | 14:19:26 |
| 1 | Ni 231.604† | 9587.6 | 9091.5 | [500] | µg/L | 14:19:05 |
| 1 | P 214.914† | 1227.3 | 1174.8 | [2500] | µg/L | 14:19:26 |
| 1 | Pb 220.353† | 2024.6 | 1886.4 | [500] | µg/L | 14:19:26 |
| 1 | S 181.975 Axial† | 257.2 | 237.2 | [1000] | µg/L | 14:19:26 |
| 1 | Sb 206.836† | 565.6 | 527.2 | [500] | µg/L | 14:19:26 |
| 1 | Se 196.026† | 349.8 | 326.9 | [500] | µg/L | 14:19:26 |
| 1 | SiO2† | 26268.6 | 24487.3 | [5347.5] | µg/L | 14:19:05 |
| 1 | Si 251.611† | 30925.0 | 29986.6 | [2500] | µg/L | 14:19:05 |
| 1 | Sn 189.927† | 1150.8 | 1128.4 | [500] | µg/L | 14:19:26 |
| 1 | Ti 334.940† | 210237.3 | 205868.8 | [500] | µg/L | 14:18:59 |
| 1 | Tl 190.801† | 342.7 | 360.1 | [500] | µg/L | 14:19:26 |
| 1 | U 409.014† | 5574.8 | 5515.7 | [500] | µg/L | 14:19:05 |
| 1 | V 292.402† | 47320.5 | 46407.6 | [500] | µg/L | 14:19:05 |
| 1 | Zn 213.857† | 20885.0 | 19987.0 | [500] | µg/L | 14:19:05 |
| 2 | Sc RADIAL | 56400.3 | 56400.3 | 103 | % | 14:18:02 |
| 2 | Al 396.153Radial† | 6776.8 | 6567.5 | [5000] | µg/L | 14:18:02 |
| 2 | Ca 317.933Radial† | 5446.0 | 5090.5 | [5000] | µg/L | 14:18:22 |
| 2 | K 766.490 Radial† | 7209.5 | 6847.7 | [5000] | µg/L | 14:18:02 |
| 2 | Mg 279.077 IEC† | 558.9 | 529.5 | [5000] | µg/L | 14:18:22 |
| 2 | Sr 421.552† | 48009.1 | 46415.3 | [500] | µg/L | 14:18:02 |
| 2 | Sc 361.383 | 1969776.8 | 1969776.8 | 103.14 | % | 14:19:33 |
| 2 | Y 371.029 | 1347212.9 | 1347212.9 | 102.85 | % | 14:19:33 |
| 2 | Ag 328.068† | 63263.2 | 61902.7 | [500] | µg/L | 14:19:38 |
| 2 | As 188.979† | 264.1 | 254.9 | [500] | µg/L | 14:19:59 |
| 2 | B 249.677† | 11833.7 | 11142.2 | [500] | µg/L | 14:19:38 |
| 2 | Ba 233.527† | 19517.7 | 18949.8 | [500] | µg/L | 14:19:38 |
| 2 | Be 313.107† | 769998.9 | 750009.7 | [500] | µg/L | 14:19:33 |
| 2 | Cd 226.502† | 18459.9 | 18040.3 | [500] | µg/L | 14:19:38 |
| 2 | Co 228.616† | 10435.6 | 10126.9 | [500] | µg/L | 14:19:38 |
| 2 | Cr 267.716† | 23319.3 | 22662.1 | [500] | µg/L | 14:19:38 |
| 2 | Cu 324.752† | 75284.2 | 70507.3 | [500] | µg/L | 14:19:38 |
| 2 | Mn 257.610† | 148076.6 | 143815.0 | [500] | µg/L | 14:19:33 |
| 2 | Mo 202.031† | 4926.4 | 4784.1 | [500] | µg/L | 14:19:59 |
| 2 | Ni 231.604† | 9732.8 | 9134.4 | [500] | µg/L | 14:19:38 |
| 2 | P 214.914† | 1225.6 | 1160.7 | [2500] | µg/L | 14:19:59 |
| 2 | Pb 220.353† | 2028.4 | 1869.5 | [500] | µg/L | 14:19:59 |
| 2 | S 181.975 Axial† | 257.8 | 235.1 | [1000] | µg/L | 14:19:59 |
| 2 | Sb 206.836† | 552.2 | 508.4 | [500] | µg/L | 14:19:59 |
| 2 | Se 196.026† | 361.1 | 334.3 | [500] | µg/L | 14:19:59 |
| 2 | SiO2† | 26477.9 | 24422.2 | [5347.5] | µg/L | 14:19:38 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Si 251.611† | 31253.2 | 29989.4 | [2500] | µg/L | 14:19:38 |
| 2 | Sn 189.927† | 1150.3 | 1116.1 | [500] | µg/L | 14:19:59 |
| 2 | Ti 334.940† | 211105.1 | 204565.4 | [500] | µg/L | 14:19:33 |
| 2 | Tl 190.801† | 338.9 | 352.9 | [500] | µg/L | 14:19:59 |
| 2 | U 409.014† | 5592.5 | 5475.9 | [500] | µg/L | 14:19:38 |
| 2 | V 292.402† | 47778.9 | 46369.3 | [500] | µg/L | 14:19:38 |
| 2 | Zn 213.857† | 21066.0 | 19949.5 | [500] | µg/L | 14:19:38 |
| 3 | Sc RADIAL | 56116.0 | 56116.0 | 103 | % | 14:18:27 |
| 3 | Al 396.153Radial† | 6776.6 | 6600.6 | [5000] | µg/L | 14:18:27 |
| 3 | Ca 317.933Radial† | 5474.8 | 5145.3 | [5000] | µg/L | 14:18:48 |
| 3 | K 766.490 Radial† | 7167.4 | 6842.1 | [5000] | µg/L | 14:18:27 |
| 3 | Mg 279.077 IEC† | 570.0 | 543.0 | [5000] | µg/L | 14:18:48 |
| 3 | Sr 421.552† | 47985.8 | 46628.0 | [500] | µg/L | 14:18:27 |
| 3 | Sc 361.383 | 1956384.8 | 1956384.8 | 102.44 | % | 14:20:06 |
| 3 | Y 371.029 | 1336938.7 | 1336938.7 | 102.06 | % | 14:20:06 |
| 3 | Ag 328.068† | 58992.1 | 58153.2 | [500] | µg/L | 14:20:12 |
| 3 | As 188.979† | 227.0 | 220.5 | [500] | µg/L | 14:20:32 |
| 3 | B 249.677† | 10983.9 | 10391.2 | [500] | µg/L | 14:20:12 |
| 3 | Ba 233.527† | 17692.5 | 17297.6 | [500] | µg/L | 14:20:12 |
| 3 | Be 313.107† | 719301.4 | 705628.8 | [500] | µg/L | 14:20:06 |
| 3 | Cd 226.502† | 16595.4 | 16342.7 | [500] | µg/L | 14:20:12 |
| 3 | Co 228.616† | 9342.2 | 9128.8 | [500] | µg/L | 14:20:12 |
| 3 | Cr 267.716† | 20357.4 | 19925.5 | [500] | µg/L | 14:20:12 |
| 3 | Cu 324.752† | 68152.8 | 64045.2 | [500] | µg/L | 14:20:12 |
| 3 | Mn 257.610† | 138782.6 | 135724.9 | [500] | µg/L | 14:20:06 |
| 3 | Mo 202.031† | 4112.2 | 4021.9 | [500] | µg/L | 14:20:32 |
| 3 | Ni 231.604† | 8700.9 | 8191.7 | [500] | µg/L | 14:20:12 |
| 3 | P 214.914† | 1052.8 | 1000.2 | [2500] | µg/L | 14:20:32 |
| 3 | Pb 220.353† | 1780.7 | 1641.2 | [500] | µg/L | 14:20:32 |
| 3 | S 181.975 Axial† | 220.4 | 200.3 | [1000] | µg/L | 14:20:32 |
| 3 | Sb 206.836† | 483.7 | 445.3 | [500] | µg/L | 14:20:32 |
| 3 | Se 196.026† | 314.2 | 290.9 | [500] | µg/L | 14:20:32 |
| 3 | SiO2† | 24349.5 | 22520.2 | [5347.5] | µg/L | 14:20:12 |
| 3 | Si 251.611† | 28634.1 | 27640.0 | [2500] | µg/L | 14:20:12 |
| 3 | Sn 189.927† | 946.2 | 924.5 | [500] | µg/L | 14:20:32 |
| 3 | Ti 334.940† | 196408.6 | 191619.7 | [500] | µg/L | 14:20:06 |
| 3 | Tl 190.801† | 311.8 | 328.7 | [500] | µg/L | 14:20:32 |
| 3 | U 409.014† | 4970.2 | 4905.6 | [500] | µg/L | 14:20:12 |
| 3 | V 292.402† | 42533.9 | 41566.2 | [500] | µg/L | 14:20:12 |
| 3 | Zn 213.857† | 18957.2 | 18030.7 | [500] | µg/L | 14:20:12 |

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**Mean Data: S0.5**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 1958476.4 | 10413.33 | 0.53% | 102.55 | % |
| Sc RADIAL | 56315.8 | 173.75 | 0.31% | 103 | % |
| Y 371.029 | 1338737.9 | 7733.97 | 0.58% | 102.20 | % |
| Ag 328.068† | 60689.0 | 2196.81 | 3.62% | [500] | µg/L |
| Al 396.153Radial† | 6570.0 | 29.39 | 0.45% | [5000] | µg/L |
| As 188.979† | 245.7 | 22.07 | 8.99% | [500] | µg/L |
| B 249.677† | 10893.5 | 435.04 | 3.99% | [500] | µg/L |
| Ba 233.527† | 18393.1 | 948.76 | 5.16% | [500] | µg/L |
| Be 313.107† | 736248.6 | 26562.75 | 3.61% | [500] | µg/L |
| Ca 317.933Radial† | 5115.9 | 27.60 | 0.54% | [5000] | µg/L |
| Cd 226.502† | 17446.2 | 956.62 | 5.48% | [500] | µg/L |
| Co 228.616† | 9786.2 | 569.47 | 5.82% | [500] | µg/L |
| Cr 267.716† | 21751.3 | 1581.21 | 7.27% | [500] | µg/L |
| Cu 324.752† | 68415.2 | 3785.63 | 5.53% | [500] | µg/L |
| K 766.490 Radial† | 6816.2 | 49.68 | 0.73% | [5000] | µg/L |
| Mg 279.077 IEC† | 536.5 | 6.79 | 1.26% | [5000] | µg/L |
| Mn 257.610† | 141419.0 | 4951.74 | 3.50% | [500] | µg/L |
| Mo 202.031† | 4553.9 | 462.10 | 10.15% | [500] | µg/L |
| Ni 231.604† | 8805.9 | 532.32 | 6.04% | [500] | µg/L |
| P 214.914† | 1111.9 | 97.02 | 8.73% | [2500] | µg/L |
| Pb 220.353† | 1799.0 | 136.97 | 7.61% | [500] | µg/L |
| S 181.975 Axial† | 224.2 | 20.73 | 9.24% | [1000] | µg/L |
| Sb 206.836† | 493.6 | 42.92 | 8.69% | [500] | µg/L |
| Se 196.026† | 317.4 | 23.20 | 7.31% | [500] | µg/L |
| SiO2† | 23809.9 | 1117.40 | 4.69% | [5347.5] | µg/L |
| Si 251.611† | 29205.3 | 1355.64 | 4.64% | [2500] | µg/L |

| | | | | |
|---|---|---|---|---|
| Sn 189.927† | 1056.3 | 114.33 | 10.82% | [500] µg/L |
| Sr 421.552† | 46507.3 | 109.22 | 0.23% | [500] µg/L |
| Ti 334.940† | 200684.6 | 7877.46 | 3.93% | [500] µg/L |
| Tl 190.801† | 347.2 | 16.45 | 4.74% | [500] µg/L |
| U 409.014† | 5299.1 | 341.35 | 6.44% | [500] µg/L |
| V 292.402† | 44781.0 | 2784.22 | 6.22% | [500] µg/L |
| Zn 213.857† | 19322.4 | 1118.82 | 5.79% | [500] µg/L |

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 14:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 54624.1 | 54624.1 | 100 | % | 14:21:14 |
| 1 | Al 396.153Radial† | 13945.5 | 13943.0 | [10000] | µg/L | 14:21:14 |
| 1 | Ca 317.933Radial† | 11091.0 | 10901.8 | [10000] | µg/L | 14:21:34 |
| 1 | Fe 238.204 Radial† | 1237.7 | 1222.1 | [10000] | µg/L | 14:21:34 |
| 1 | K 766.490 Radial† | 14553.2 | 14411.5 | [10000] | µg/L | 14:21:14 |
| 1 | Mg 279.077 IEC† | 1145.5 | 1133.2 | [10000] | µg/L | 14:21:34 |
| 1 | Na 589.592 Radial† | 32001.3 | 31430.3 | [10000] | µg/L | 14:21:14 |
| 1 | Sr 421.552† | 98763.5 | 98634.1 | [1000] | µg/L | 14:21:14 |
| 1 | Sc 361.383 | 1918837.7 | 1918837.7 | 100.47 | % | 14:22:38 |
| 1 | Y 371.029 | 1309873.4 | 1309873.4 | 99.997 | % | 14:22:38 |
| 1 | Ag 328.068† | 129789.4 | 129745.3 | [1000] | µg/L | 14:22:44 |
| 1 | As 188.979† | 545.1 | 541.4 | [1000] | µg/L | 14:23:05 |
| 1 | B 249.677† | 24100.3 | 23655.8 | [1000] | µg/L | 14:22:44 |
| 1 | Ba 233.527† | 40021.0 | 39859.3 | [1000] | µg/L | 14:22:44 |
| 1 | Be 313.107† | 1583359.7 | 1579375.6 | [1000] | µg/L | 14:22:38 |
| 1 | Cd 226.502† | 37676.7 | 37642.1 | [1000] | µg/L | 14:22:44 |
| 1 | Co 228.616† | 21224.5 | 21133.9 | [1000] | µg/L | 14:22:44 |
| 1 | Cr 267.716† | 47864.2 | 47692.2 | [1000] | µg/L | 14:22:44 |
| 1 | Cu 324.752† | 152208.7 | 149008.9 | [1000] | µg/L | 14:22:44 |
| 1 | Mn 257.610† | 300264.6 | 299100.8 | [1000] | µg/L | 14:22:44 |
| 1 | Mo 202.031† | 10059.0 | 10019.4 | [1000] | µg/L | 14:23:05 |
| 1 | Ni 231.604† | 19417.1 | 19023.9 | [1000] | µg/L | 14:22:44 |
| 1 | P 214.914† | 2522.7 | 2483.2 | [5000] | µg/L | 14:23:05 |
| 1 | Pb 220.353† | 4095.0 | 3978.6 | [1000] | µg/L | 14:23:05 |
| 1 | S 181.975 Axial† | 497.7 | 480.5 | [2000] | µg/L | 14:23:05 |
| 1 | Sb 206.836† | 1108.7 | 1076.5 | [1000] | µg/L | 14:23:05 |
| 1 | Se 196.026† | 705.0 | 685.9 | [1000] | µg/L | 14:23:05 |
| 1 | SiO2† | 52879.3 | 51381.3 | [10695] | µg/L | 14:22:44 |
| 1 | Si 251.611† | 63553.1 | 62942.2 | [5000] | µg/L | 14:22:44 |
| 1 | Sn 189.927† | 2343.4 | 2333.3 | [1000] | µg/L | 14:23:05 |
| 1 | Ti 334.940† | 431168.6 | 429030.7 | [1000] | µg/L | 14:22:38 |
| 1 | Tl 190.801† | 726.4 | 747.3 | [1000] | µg/L | 14:23:05 |
| 1 | U 409.014† | 11460.5 | 11460.4 | [1000] | µg/L | 14:22:44 |
| 1 | V 292.402† | 98389.1 | 97972.0 | [1000] | µg/L | 14:22:44 |
| 1 | Zn 213.857† | 42248.3 | 41574.6 | [1000] | µg/L | 14:22:44 |
| 2 | Sc RADIAL | 55757.6 | 55757.6 | 102 | % | 14:21:40 |
| 2 | Al 396.153Radial† | 13857.6 | 13573.7 | [10000] | µg/L | 14:21:40 |
| 2 | Ca 317.933Radial† | 11113.5 | 10698.5 | [10000] | µg/L | 14:22:00 |
| 2 | Fe 238.204 Radial† | 1242.3 | 1201.4 | [10000] | µg/L | 14:22:00 |
| 2 | K 766.490 Radial† | 14434.4 | 13999.7 | [10000] | µg/L | 14:21:40 |
| 2 | Mg 279.077 IEC† | 1155.1 | 1119.3 | [10000] | µg/L | 14:22:00 |
| 2 | Na 589.592 Radial† | 31736.9 | 30521.6 | [10000] | µg/L | 14:21:40 |
| 2 | Sr 421.552† | 98177.9 | 96055.0 | [1000] | µg/L | 14:21:40 |
| 2 | Sc 361.383 | 1912891.8 | 1912891.8 | 100.16 | % | 14:23:11 |
| 2 | Y 371.029 | 1304958.7 | 1304958.7 | 99.621 | % | 14:23:11 |
| 2 | Ag 328.068† | 130617.7 | 130973.8 | [1000] | µg/L | 14:23:17 |
| 2 | As 188.979† | 550.1 | 548.1 | [1000] | µg/L | 14:23:38 |
| 2 | B 249.677† | 24305.4 | 23935.1 | [1000] | µg/L | 14:23:17 |
| 2 | Ba 233.527† | 40326.4 | 40288.1 | [1000] | µg/L | 14:23:17 |
| 2 | Be 313.107† | 1586929.2 | 1587837.9 | [1000] | µg/L | 14:23:11 |
| 2 | Cd 226.502† | 37959.2 | 38040.8 | [1000] | µg/L | 14:23:17 |
| 2 | Co 228.616† | 21379.4 | 21354.1 | [1000] | µg/L | 14:23:17 |
| 2 | Cr 267.716† | 48340.5 | 48315.7 | [1000] | µg/L | 14:23:17 |
| 2 | Cu 324.752† | 153521.9 | 150790.9 | [1000] | µg/L | 14:23:17 |
| 2 | Mn 257.610† | 303225.9 | 302986.3 | [1000] | µg/L | 14:23:17 |
| 2 | Mo 202.031† | 10012.5 | 10004.1 | [1000] | µg/L | 14:23:38 |
| 2 | Ni 231.604† | 19568.5 | 19235.1 | [1000] | µg/L | 14:23:17 |
| 2 | P 214.914† | 2513.0 | 2481.4 | [5000] | µg/L | 14:23:38 |
| 2 | Pb 220.353† | 4075.3 | 3971.6 | [1000] | µg/L | 14:23:38 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 494.3 | 478.7 | [2000] | µg/L | 14:23:38 |
| 2 | Sb 206.836† | 1106.5 | 1077.8 | [1000] | µg/L | 14:23:38 |
| 2 | Se 196.026† | 715.1 | 698.1 | [1000] | µg/L | 14:23:38 |
| 2 | SiO2† | 53340.3 | 52005.2 | [10695] | µg/L | 14:23:17 |
| 2 | Si 251.611† | 64000.9 | 63585.9 | [5000] | µg/L | 14:23:17 |
| 2 | Sn 189.927† | 2345.0 | 2342.2 | [1000] | µg/L | 14:23:38 |
| 2 | Ti 334.940† | 432325.2 | 431519.3 | [1000] | µg/L | 14:23:11 |
| 2 | Tl 190.801† | 726.1 | 749.2 | [1000] | µg/L | 14:23:38 |
| 2 | U 409.014† | 11741.1 | 11776.0 | [1000] | µg/L | 14:23:17 |
| 2 | V 292.402† | 99181.6 | 99067.5 | [1000] | µg/L | 14:23:17 |
| 2 | Zn 213.857† | 42614.4 | 42070.9 | [1000] | µg/L | 14:23:17 |
| 3 | Sc RADIAL | 54875.2 | 54875.2 | 101 | % | 14:22:06 |
| 3 | Al 396.153Radial† | 13886.4 | 13820.4 | [10000] | µg/L | 14:22:06 |
| 3 | Ca 317.933Radial† | 11079.2 | 10839.4 | [10000] | µg/L | 14:22:26 |
| 3 | Fe 238.204 Radial† | 1232.3 | 1211.0 | [10000] | µg/L | 14:22:26 |
| 3 | K 766.490 Radial† | 14321.1 | 14114.2 | [10000] | µg/L | 14:22:06 |
| 3 | Mg 279.077 IEC† | 1147.7 | 1130.1 | [10000] | µg/L | 14:22:26 |
| 3 | Na 589.592 Radial† | 31806.0 | 31089.8 | [10000] | µg/L | 14:22:06 |
| 3 | Sr 421.552† | 97911.9 | 97335.8 | [1000] | µg/L | 14:22:06 |
| 3 | Sc 361.383 | 1943388.7 | 1943388.7 | 101.76 | % | 14:23:44 |
| 3 | Y 371.029 | 1326037.1 | 1326037.1 | 101.23 | % | 14:23:44 |
| 3 | Ag 328.068† | 122308.3 | 120761.4 | [1000] | µg/L | 14:23:50 |
| 3 | As 188.979† | 468.8 | 459.6 | [1000] | µg/L | 14:24:11 |
| 3 | B 249.677† | 22603.8 | 21882.1 | [1000] | µg/L | 14:23:50 |
| 3 | Ba 233.527† | 36855.9 | 36245.6 | [1000] | µg/L | 14:23:50 |
| 3 | Be 313.107† | 1492194.6 | 1469875.4 | [1000] | µg/L | 14:23:44 |
| 3 | Cd 226.502† | 34480.3 | 34027.2 | [1000] | µg/L | 14:23:50 |
| 3 | Co 228.616† | 19338.4 | 19013.4 | [1000] | µg/L | 14:23:50 |
| 3 | Cr 267.716† | 42475.6 | 41794.7 | [1000] | µg/L | 14:23:50 |
| 3 | Cu 324.752† | 139121.1 | 134233.4 | [1000] | µg/L | 14:23:50 |
| 3 | Mn 257.610† | 272803.2 | 268337.9 | [1000] | µg/L | 14:23:50 |
| 3 | Mo 202.031† | 8402.4 | 8264.9 | [1000] | µg/L | 14:24:11 |
| 3 | Ni 231.604† | 17696.7 | 17089.1 | [1000] | µg/L | 14:23:50 |
| 3 | P 214.914† | 2160.3 | 2095.4 | [5000] | µg/L | 14:24:11 |
| 3 | Pb 220.353† | 3557.4 | 3398.8 | [1000] | µg/L | 14:24:11 |
| 3 | S 181.975 Axial† | 437.7 | 415.3 | [2000] | µg/L | 14:24:11 |
| 3 | Sb 206.836† | 957.8 | 914.3 | [1000] | µg/L | 14:24:11 |
| 3 | Se 196.026† | 625.8 | 599.2 | [1000] | µg/L | 14:24:11 |
| 3 | SiO2† | 49204.0 | 47104.6 | [10695] | µg/L | 14:23:50 |
| 3 | Si 251.611† | 59050.8 | 57718.6 | [5000] | µg/L | 14:23:50 |
| 3 | Sn 189.927† | 1920.9 | 1888.6 | [1000] | µg/L | 14:24:11 |
| 3 | Ti 334.940† | 404515.4 | 397416.1 | [1000] | µg/L | 14:23:44 |
| 3 | Tl 190.801† | 655.3 | 668.3 | [1000] | µg/L | 14:24:11 |
| 3 | U 409.014† | 10336.6 | 10211.8 | [1000] | µg/L | 14:23:50 |
| 3 | V 292.402† | 89071.2 | 87577.8 | [1000] | µg/L | 14:23:50 |
| 3 | Zn 213.857† | 38626.6 | 37484.3 | [1000] | µg/L | 14:23:50 |

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**Mean Data: SCAL**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 1925039.4 | 16166.66 | 0.84% | 100.80 | % |
| Sc RADIAL | 55085.6 | 595.31 | 1.08% | 101 | % |
| Y 371.029 | 1313623.1 | 11028.13 | 0.84% | 100.28 | % |
| Ag 328.068† | 127160.2 | 5575.45 | 4.38% | [1000] | µg/L |
| Al 396.153Radial† | 13779.0 | 188.09 | 1.37% | [10000] | µg/L |
| As 188.979† | 516.3 | 49.27 | 9.54% | [1000] | µg/L |
| B 249.677† | 23157.7 | 1113.46 | 4.81% | [1000] | µg/L |
| Ba 233.527† | 38797.7 | 2220.52 | 5.72% | [1000] | µg/L |
| Be 313.107† | 1545696.3 | 65799.01 | 4.26% | [1000] | µg/L |
| Ca 317.933Radial† | 10813.2 | 104.13 | 0.96% | [10000] | µg/L |
| Cd 226.502† | 36570.0 | 2211.18 | 6.05% | [1000] | µg/L |
| Co 228.616† | 20500.4 | 1292.54 | 6.30% | [1000] | µg/L |
| Cr 267.716† | 45934.2 | 3598.42 | 7.83% | [1000] | µg/L |
| Cu 324.752† | 144677.7 | 9088.85 | 6.28% | [1000] | µg/L |
| Fe 238.204 Radial† | 1211.5 | 10.32 | 0.85% | [10000] | µg/L |
| K 766.490 Radial† | 14175.1 | 212.58 | 1.50% | [10000] | µg/L |
| Mg 279.077 IEC† | 1127.5 | 7.31 | 0.65% | [10000] | µg/L |
| Mn 257.610† | 290141.7 | 18982.26 | 6.54% | [1000] | µg/L |
| Mo 202.031† | 9429.5 | 1008.55 | 10.70% | [1000] | µg/L |
| Na 589.592 Radial† | 31013.9 | 459.06 | 1.48% | [10000] | µg/L |

| | | | | | |
|---|---|---|---|---|---|
| Ni 231.604† | 18449.4 | 1182.78 | 6.41% | [1000] | µg/L |
| P 214.914† | 2353.3 | 223.38 | 9.49% | [5000] | µg/L |
| Pb 220.353† | 3783.0 | 332.79 | 8.80% | [1000] | µg/L |
| S 181.975 Axial† | 458.2 | 37.14 | 8.10% | [2000] | µg/L |
| Sb 206.836† | 1022.9 | 94.00 | 9.19% | [1000] | µg/L |
| Se 196.026† | 661.1 | 53.94 | 8.16% | [1000] | µg/L |
| SiO2† | 50163.7 | 2667.59 | 5.32% | [10695] | µg/L |
| Si 251.611† | 61415.6 | 3217.81 | 5.24% | [5000] | µg/L |
| Sn 189.927† | 2188.0 | 259.31 | 11.85% | [1000] | µg/L |
| Sr 421.552† | 97341.6 | 1289.53 | 1.32% | [1000] | µg/L |
| Ti 334.940† | 419322.0 | 19011.87 | 4.53% | [1000] | µg/L |
| Tl 190.801† | 721.6 | 46.19 | 6.40% | [1000] | µg/L |
| U 409.014† | 11149.4 | 827.15 | 7.42% | [1000] | µg/L |
| V 292.402† | 94872.5 | 6341.05 | 6.68% | [1000] | µg/L |
| Zn 213.857† | 40376.6 | 2517.08 | 6.23% | [1000] | µg/L |

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 14:24:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

**Replicate Data: S10**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Analysis Time |
|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55734.1 | 55734.1 | 102 | % | 14:24:53 |
| 1 | Al 396.153Radial† | 68477.1 | 67062.5 | [50000] | µg/L | 14:24:53 |
| 1 | Ca 317.933Radial† | 54301.8 | 52992.8 | [50000] | µg/L | 14:24:53 |
| 1 | Fe 238.204 Radial† | 2420.6 | 2355.7 | [20000] | µg/L | 14:25:13 |
| 1 | Mg 279.077 IEC† | 5505.9 | 5380.1 | [50000] | µg/L | 14:25:13 |
| 1 | Na 589.592 Radial† | 62235.4 | 60398.5 | [20000] | µg/L | 14:24:53 |
| 1 | Sc 361.383 | 1922257.7 | 1922257.7 | 100.65 | % | 14:26:17 |
| 1 | Y 371.029 | 1306511.6 | 1306511.6 | 99.740 | % | 14:26:17 |
| 2 | Sc RADIAL | 55997.4 | 55997.4 | 103 | % | 14:25:19 |
| 2 | Al 396.153Radial† | 68696.2 | 66960.7 | [50000] | µg/L | 14:25:19 |
| 2 | Ca 317.933Radial† | 54670.5 | 53102.1 | [50000] | µg/L | 14:25:19 |
| 2 | Fe 238.204 Radial† | 2419.7 | 2343.7 | [20000] | µg/L | 14:25:39 |
| 2 | Mg 279.077 IEC† | 5512.9 | 5361.5 | [50000] | µg/L | 14:25:39 |
| 2 | Na 589.592 Radial† | 62504.6 | 60374.4 | [20000] | µg/L | 14:25:19 |
| 2 | Sc 361.383 | 1943938.9 | 1943938.9 | 101.79 | % | 14:26:25 |
| 2 | Y 371.029 | 1321297.0 | 1321297.0 | 100.87 | % | 14:26:25 |
| 3 | Sc RADIAL | 56208.4 | 56208.4 | 103 | % | 14:25:45 |
| 3 | Al 396.153Radial† | 69051.1 | 67053.9 | [50000] | µg/L | 14:25:45 |
| 3 | Ca 317.933Radial† | 54933.8 | 53157.7 | [50000] | µg/L | 14:25:45 |
| 3 | Fe 238.204 Radial† | 2417.0 | 2332.2 | [20000] | µg/L | 14:26:05 |
| 3 | Mg 279.077 IEC† | 5516.6 | 5344.9 | [50000] | µg/L | 14:26:05 |
| 3 | Na 589.592 Radial† | 62899.5 | 60529.1 | [20000] | µg/L | 14:25:45 |
| 3 | Sc 361.383 | 1959647.9 | 1959647.9 | 102.61 | % | 14:26:33 |
| 3 | Y 371.029 | 1332766.9 | 1332766.9 | 101.74 | % | 14:26:33 |

**Mean Data: S10**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Sc 361.383 | 1941948.2 | 18774.43 | 0.97% | 101.68 | % |
| Sc RADIAL | 55979.9 | 237.64 | 0.42% | 103 | % |
| Y 371.029 | 1320191.8 | 13162.49 | 1.00% | 100.78 | % |
| Al 396.153Radial† | 67025.7 | 56.44 | 0.08% | [50000] | µg/L |
| Ca 317.933Radial† | 53084.2 | 83.91 | 0.16% | [50000] | µg/L |
| Fe 238.204 Radial† | 2343.9 | 11.76 | 0.50% | [20000] | µg/L |
| Mg 279.077 IEC† | 5362.2 | 17.57 | 0.33% | [50000] | µg/L |
| Na 589.592 Radial† | 60434.0 | 83.23 | 0.14% | [20000] | µg/L |

**Calibration Summary**

| Analyte | Stds. | Equation | Intercept | Slope | Curvature | Corr. Coef. | Reslope |
|---|---|---|---|---|---|---|---|
| Ag 328.068 | 3 | Lin Thru 0 | 0.0 | 126.0 | 0.00000 | 0.999831 | |
| Al 396.153Radial | 3 | Lin Thru 0 | 0.0 | 1.342 | 0.00000 | 0.999984 | |
| As 188.979 | 3 | Lin Thru 0 | 0.0 | 0.5116 | 0.00000 | 0.999791 | |
| B 249.677 | 3 | Lin Thru 0 | 0.0 | 22.88 | 0.00000 | 0.999715 | |
| Ba 233.527 | 3 | Lin Thru 0 | 0.0 | 38.40 | 0.00000 | 0.999779 | |
| Be 313.107 | 3 | Lin Thru 0 | 0.0 | 1531 | 0.00000 | 0.999818 | |
| Ca 317.933Radial | 3 | Lin Thru 0 | 0.0 | 1.062 | 0.00000 | 0.999987 | |
| Cd 226.502 | 3 | Lin Thru 0 | 0.0 | 36.25 | 0.00000 | 0.999822 | |
| Co 228.616 | 3 | Lin Thru 0 | 0.0 | 20.32 | 0.00000 | 0.999831 | |
| Cr 267.716 | 3 | Lin Thru 0 | 0.0 | 45.46 | 0.00000 | 0.999766 | |
| Cu 324.752 | 3 | Lin Thru 0 | 0.0 | 143.2 | 0.00000 | 0.999754 | |
| Fe 238.204 Radia | 2 | Lin Thru 0 | 0.0 | 0.1180 | 0.00000 | 0.999910 | |
| K 766.490 Radial | 3 | Lin Thru 0 | 0.0 | 1.407 | 0.00000 | 0.999880 | |
| Mg 279.077 IEC | 3 | Lin Thru 0 | 0.0 | 0.1075 | 0.00000 | 0.999952 | |
| Mn 257.610 | 3 | Lin Thru 0 | 0.0 | 288.8 | 0.00000 | 0.999942 | |
| Mo 202.031 | 3 | Lin Thru 0 | 0.0 | 9.370 | 0.00000 | 0.999888 | |
| Na 589.592 Radia | 2 | Lin Thru 0 | 0.0 | 3.038 | 0.00000 | 0.999945 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ni 231.604 | 3 | Lin Thru 0 | 0.0 | 18.29 | 0.00000 | 0.999821 |
| P 214.914 | 3 | Lin Thru 0 | 0.0 | 0.4657 | 0.00000 | 0.999737 |
| Pb 220.353 | 3 | Lin Thru 0 | 0.0 | 3.748 | 0.00000 | 0.999792 |
| S 181.975 Axial | 3 | Lin Thru 0 | 0.0 | 0.2282 | 0.00000 | 0.999946 |
| Sb 206.836 | 3 | Lin Thru 0 | 0.0 | 1.016 | 0.00000 | 0.999901 |
| Se 196.026 | 3 | Lin Thru 0 | 0.0 | 0.6559 | 0.00000 | 0.999870 |
| SiO2 | 3 | Lin Thru 0 | 0.0 | 4.643 | 0.00000 | 0.999791 |
| Si 251.611 | 3 | Lin Thru 0 | 0.0 | 12.16 | 0.00000 | 0.999805 |
| Sn 189.927 | 3 | Lin Thru 0 | 0.0 | 2.174 | 0.00000 | 0.999882 |
| Sr 421.552 | 3 | Lin Thru 0 | 0.0 | 96.47 | 0.00000 | 0.999840 |
| Ti 334.940 | 3 | Lin Thru 0 | 0.0 | 415.7 | 0.00000 | 0.999852 |
| Tl 190.801 | 3 | Lin Thru 0 | 0.0 | 0.7164 | 0.00000 | 0.999879 |
| U 409.014 | 3 | Lin Thru 0 | 0.0 | 11.05 | 0.00000 | 0.999783 |
| V 292.402 | 3 | Lin Thru 0 | 0.0 | 93.83 | 0.00000 | 0.999742 |
| Zn 213.857 | 3 | Lin Thru 0 | 0.0 | 40.05 | 0.00000 | 0.999841 |

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 14:26:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

| Rep1# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56175.2 | 56175.2 | 103 | % | | | 14:27:15 |
| 1 | Al 396.153Radial† | 6827.4 | 6643.0 | 4939.9 | µg/L | 4939.9 | ppb | 14:27:35 |
| 1 | Ca 317.933Radial† | 5504.7 | 5168.7 | 4866.7 | µg/L | 4866.7 | ppb | 14:27:35 |
| 1 | Fe 238.204 Radial† | 619.4 | 587.3 | 4988.2 | µg/L | 4988.2 | ppb | 14:27:35 |
| 1 | K 766.490 Radial† | 3573.7 | 3343.4 | 2376.5 | µg/L | 2376.5 | ppb | 14:27:15 |
| 1 | Mg 279.077 IEC† | 579.7 | 551.9 | 5140.1 | µg/L | 5140.1 | ppb | 14:27:35 |
| 1 | Na 589.592 Radial† | 7985.2 | 7215.8 | 2375.5 | µg/L | 2375.5 | ppb | 14:27:15 |
| 1 | Sr 421.552† | 49736.5 | 48279.6 | 500.47 | µg/L | 500.47 | ppb | 14:27:15 |
| 1 | Sc 361.383 | 1963746.6 | 1963746.6 | 102.82 | % | | | 14:28:38 |
| 1 | Y 371.029 | 1343456.9 | 1343456.9 | 102.56 | % | | | 14:28:38 |
| 1 | Ag 328.068† | 32402.4 | 32077.4 | 258.20 | µg/L | 258.20 | ppb | 14:28:44 |
| 1 | As 188.979† | 252.0 | 244.0 | 475.79 | µg/L | 475.79 | ppb | 14:29:05 |
| 1 | B 249.677† | 12299.6 | 11630.5 | 506.47 | µg/L | 506.47 | ppb | 14:28:44 |
| 1 | Ba 233.527† | 19805.3 | 19287.7 | 503.14 | µg/L | 503.14 | ppb | 14:28:44 |
| 1 | Be 313.107† | 400944.5 | 393378.7 | 256.71 | µg/L | 256.71 | ppb | 14:28:38 |
| 1 | Cd 226.502† | 18448.5 | 18084.2 | 498.85 | µg/L | 498.85 | ppb | 14:28:44 |
| 1 | Co 228.616† | 10564.7 | 10283.6 | 505.57 | µg/L | 505.57 | ppb | 14:28:44 |
| 1 | Cr 267.716† | 22885.3 | 22309.5 | 491.04 | µg/L | 491.04 | ppb | 14:28:44 |
| 1 | Cu 324.752† | 76882.1 | 72285.6 | 505.62 | µg/L | 505.62 | ppb | 14:28:44 |
| 1 | Mn 257.610† | 151694.6 | 147774.6 | 512.18 | µg/L | 512.18 | ppb | 14:28:38 |
| 1 | Mo 202.031† | 5332.7 | 5193.9 | 554.49 | µg/L | 554.49 | ppb | 14:29:05 |
| 1 | Ni 231.604† | 9713.9 | 9145.0 | 499.47 | µg/L | 499.47 | ppb | 14:28:44 |
| 1 | P 214.914† | 1269.4 | 1206.9 | 2543.7 | µg/L | 2543.7 | ppb | 14:29:05 |
| 1 | Pb 220.353† | 2051.9 | 1898.4 | 506.85 | µg/L | 506.85 | ppb | 14:29:05 |
| 1 | S 181.975 Axial† | 610.0 | 578.4 | 2534.1 | µg/L | 2534.1 | ppb | 14:29:05 |
| 1 | Sb 206.836† | 565.9 | 523.4 | 518.27 | µg/L | 518.27 | ppb | 14:29:05 |
| 1 | Se 196.026† | 1740.7 | 1677.1 | 2564.5 | µg/L | 2564.5 | ppb | 14:29:05 |
| 1 | SiO2† | 50702.0 | 48060.2 | 10350 | µg/L | 10350 | ppb | 14:28:44 |
| 1 | Si 251.611† | 60656.9 | 58679.0 | 4823.7 | µg/L | 4823.7 | ppb | 14:28:44 |
| 1 | Sn 189.927† | 1247.6 | 1214.2 | 558.50 | µg/L | 558.50 | ppb | 14:29:05 |
| 1 | Ti 334.940† | 209346.8 | 203483.9 | 489.14 | µg/L | 489.14 | ppb | 14:28:38 |
| 1 | Tl 190.801† | 364.1 | 378.4 | 534.06 | µg/L | 534.06 | ppb | 14:29:05 |
| 1 | U 409.014† | 5596.2 | 5496.2 | 496.62 | µg/L | 496.62 | ppb | 14:28:44 |
| 1 | V 292.402† | 48924.8 | 47626.0 | 514.07 | µg/L | 514.07 | ppb | 14:28:44 |
| 1 | Zn 213.857† | 21567.2 | 20499.6 | 508.35 | µg/L | 508.35 | ppb | 14:28:44 |
| 2 | Sc RADIAL | 56033.1 | 56033.1 | 103 | % | | | 14:27:40 |
| 2 | Al 396.153Radial† | 6802.0 | 6635.1 | 4934.1 | µg/L | 4934.1 | ppb | 14:28:01 |
| 2 | Ca 317.933Radial† | 5475.3 | 5153.6 | 4852.4 | µg/L | 4852.4 | ppb | 14:28:01 |
| 2 | Fe 238.204 Radial† | 614.3 | 583.8 | 4958.8 | µg/L | 4958.8 | ppb | 14:28:01 |
| 2 | K 766.490 Radial† | 3641.5 | 3418.3 | 2429.7 | µg/L | 2429.7 | ppb | 14:27:40 |
| 2 | Mg 279.077 IEC† | 579.8 | 553.4 | 5154.4 | µg/L | 5154.4 | ppb | 14:28:01 |
| 2 | Na 589.592 Radial† | 8029.7 | 7278.8 | 2396.2 | µg/L | 2396.2 | ppb | 14:27:40 |
| 2 | Sr 421.552† | 50111.3 | 48767.2 | 505.53 | µg/L | 505.53 | ppb | 14:27:40 |
| 2 | Sc 361.383 | 1959108.8 | 1959108.8 | 102.58 | % | | | 14:29:12 |
| 2 | Y 371.029 | 1337906.1 | 1337906.1 | 102.14 | % | | | 14:29:12 |
| 2 | Ag 328.068† | 32371.7 | 32122.1 | 258.56 | µg/L | 258.56 | ppb | 14:29:17 |
| 2 | As 188.979† | 250.3 | 242.8 | 473.56 | µg/L | 473.56 | ppb | 14:29:38 |
| 2 | B 249.677† | 12349.9 | 11707.8 | 509.86 | µg/L | 509.86 | ppb | 14:29:17 |
| 2 | Ba 233.527† | 19859.1 | 19385.7 | 505.69 | µg/L | 505.69 | ppb | 14:29:17 |
| 2 | Be 313.107† | 397767.3 | 391204.5 | 255.29 | µg/L | 255.29 | ppb | 14:29:12 |
| 2 | Cd 226.502† | 18445.9 | 18124.1 | 499.96 | µg/L | 499.96 | ppb | 14:29:17 |
| 2 | Co 228.616† | 10616.9 | 10358.7 | 509.26 | µg/L | 509.26 | ppb | 14:29:17 |
| 2 | Cr 267.716† | 22880.0 | 22357.0 | 492.09 | µg/L | 492.09 | ppb | 14:29:17 |
| 2 | Cu 324.752† | 76966.8 | 72545.1 | 507.43 | µg/L | 507.43 | ppb | 14:29:17 |
| 2 | Mn 257.610† | 150503.7 | 146962.9 | 509.37 | µg/L | 509.37 | ppb | 14:29:12 |
| 2 | Mo 202.031† | 5249.3 | 5124.9 | 547.12 | µg/L | 547.12 | ppb | 14:29:38 |
| 2 | Ni 231.604† | 9710.9 | 9164.5 | 500.53 | µg/L | 500.53 | ppb | 14:29:17 |
| 2 | P 214.914† | 1234.6 | 1175.9 | 2476.8 | µg/L | 2476.8 | ppb | 14:29:38 |
| 2 | Pb 220.353† | 2014.2 | 1866.4 | 498.27 | µg/L | 498.27 | ppb | 14:29:38 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 603.9 | 573.9 | 2514.5 µg/L | 2514.5 ppb | 14:29:38 |
| 2 | Sb 206.836† | 552.1 | 511.3 | 506.22 µg/L | 506.22 ppb | 14:29:38 |
| 2 | Se 196.026† | 1718.6 | 1659.6 | 2537.7 µg/L | 2537.7 ppb | 14:29:38 |
| 2 | SiO2† | 50804.5 | 48276.9 | 10397 µg/L | 10397 ppb | 14:29:17 |
| 2 | Si 251.611† | 60707.2 | 58867.6 | 4839.2 µg/L | 4839.2 ppb | 14:29:17 |
| 2 | Sn 189.927† | 1227.9 | 1197.9 | 551.01 µg/L | 551.01 ppb | 14:29:38 |
| 2 | Ti 334.940† | 208068.6 | 202719.9 | 487.30 µg/L | 487.30 ppb | 14:29:12 |
| 2 | Tl 190.801† | 356.4 | 371.7 | 524.72 µg/L | 524.72 ppb | 14:29:38 |
| 2 | U 409.014† | 5657.2 | 5568.6 | 503.18 µg/L | 503.18 ppb | 14:29:17 |
| 2 | V 292.402† | 48911.7 | 47725.9 | 515.09 µg/L | 515.09 ppb | 14:29:17 |
| 2 | Zn 213.857† | 21491.7 | 20475.7 | 507.74 µg/L | 507.74 ppb | 14:29:17 |
| 3 | Sc RADIAL | 55710.7 | 55710.7 | 102 % | | 14:28:06 |
| 3 | Al 396.153Radial† | 6837.6 | 6708.3 | 4990.5 µg/L | 4990.5 ppb | 14:28:27 |
| 3 | Ca 317.933Radial† | 5503.3 | 5211.9 | 4907.4 µg/L | 4907.4 ppb | 14:28:27 |
| 3 | Fe 238.204 Radial† | 619.1 | 592.0 | 5027.4 µg/L | 5027.4 ppb | 14:28:27 |
| 3 | K 766.490 Radial† | 3604.3 | 3402.4 | 2418.4 µg/L | 2418.4 ppb | 14:28:06 |
| 3 | Mg 279.077 IEC† | 577.0 | 553.9 | 5157.4 µg/L | 5157.4 ppb | 14:28:27 |
| 3 | Na 589.592 Radial† | 7999.1 | 7294.1 | 2401.2 µg/L | 2401.2 ppb | 14:28:06 |
| 3 | Sr 421.552† | 49756.2 | 48701.8 | 504.85 µg/L | 504.85 ppb | 14:28:06 |
| 3 | Sc 361.383 | 1966591.1 | 1966591.1 | 102.97 % | | 14:29:45 |
| 3 | Y 371.029 | 1344829.1 | 1344829.1 | 102.67 % | | 14:29:45 |
| 3 | Ag 328.068† | 30447.1 | 30133.0 | 242.44 µg/L | 242.44 ppb | 14:29:51 |
| 3 | As 188.979† | 212.1 | 204.8 | 399.46 µg/L | 399.46 ppb | 14:30:11 |
| 3 | B 249.677† | 11543.9 | 10879.3 | 473.52 µg/L | 473.52 ppb | 14:29:51 |
| 3 | Ba 233.527† | 18235.3 | 17735.1 | 462.62 µg/L | 462.62 ppb | 14:29:51 |
| 3 | Be 313.107† | 376544.4 | 369118.7 | 240.88 µg/L | 240.88 ppb | 14:29:45 |
| 3 | Cd 226.502† | 16808.4 | 16465.5 | 454.14 µg/L | 454.14 ppb | 14:29:51 |
| 3 | Co 228.616† | 9616.6 | 9347.9 | 459.50 µg/L | 459.50 ppb | 14:29:51 |
| 3 | Cr 267.716† | 20282.2 | 19749.2 | 434.69 µg/L | 434.69 ppb | 14:29:51 |
| 3 | Cu 324.752† | 70054.3 | 65546.6 | 458.56 µg/L | 458.56 ppb | 14:29:51 |
| 3 | Mn 257.610† | 142833.7 | 138956.0 | 481.65 µg/L | 481.65 ppb | 14:29:45 |
| 3 | Mo 202.031† | 4404.7 | 4285.1 | 457.51 µg/L | 457.51 ppb | 14:30:11 |
| 3 | Ni 231.604† | 8886.0 | 8327.4 | 454.82 µg/L | 454.82 ppb | 14:29:51 |
| 3 | P 214.914† | 1057.7 | 999.5 | 2101.9 µg/L | 2101.9 ppb | 14:30:11 |
| 3 | Pb 220.353† | 1779.9 | 1631.4 | 435.46 µg/L | 435.46 ppb | 14:30:11 |
| 3 | S 181.975 Axial† | 527.5 | 497.5 | 2179.7 µg/L | 2179.7 ppb | 14:30:11 |
| 3 | Sb 206.836† | 492.5 | 451.4 | 446.41 µg/L | 446.41 ppb | 14:30:11 |
| 3 | Se 196.026† | 1501.7 | 1442.5 | 2207.0 µg/L | 2207.0 ppb | 14:30:11 |
| 3 | SiO2† | 47105.5 | 44496.1 | 9582.5 µg/L | 9582.5 ppb | 14:29:51 |
| 3 | Si 251.611† | 56262.5 | 54326.1 | 4465.9 µg/L | 4465.9 ppb | 14:29:51 |
| 3 | Sn 189.927† | 1018.6 | 990.0 | 455.40 µg/L | 455.40 ppb | 14:30:11 |
| 3 | Ti 334.940† | 196112.8 | 190337.3 | 457.51 µg/L | 457.51 ppb | 14:29:45 |
| 3 | Tl 190.801† | 328.3 | 343.2 | 484.58 µg/L | 484.58 ppb | 14:30:11 |
| 3 | U 409.014† | 4922.5 | 4834.1 | 436.66 µg/L | 436.66 ppb | 14:29:51 |
| 3 | V 292.402† | 44109.1 | 42880.5 | 462.56 µg/L | 462.56 ppb | 14:29:51 |
| 3 | Zn 213.857† | 19646.9 | 18604.4 | 461.29 µg/L | 461.29 ppb | 14:29:51 |

**Mean Data: ICV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1963148.8 | 102.79 | % | 0.198 | | | | 0.19% |
| Sc RADIAL | 55973.0 | 103 | % | 0.4 | | | | 0.43% |
| Y 371.029 | 1342064.0 | 102.45 | % | 0.280 | | | | 0.27% |
| Ag 328.068† | 31444.2 | 253.06 | µg/L | 9.205 | 253.06 | ppb | 9.205 | 3.64% |
| QC value within limits for Ag 328.068 Recovery = 101.23% | | | | | | | | |
| Al 396.153Radial† | 6662.1 | 4954.8 | µg/L | 31.04 | 4954.8 | ppb | 31.04 | 0.63% |
| QC value within limits for Al 396.153Radial Recovery = 99.10% | | | | | | | | |
| As 188.979† | 230.5 | 449.61 | µg/L | 43.438 | 449.61 | ppb | 43.438 | 9.66% |
| QC value less than the lower limit for As 188.979 Recovery = 89.92% | | | | | | | | |
| B 249.677† | 11405.9 | 496.62 | µg/L | 20.071 | 496.62 | ppb | 20.071 | 4.04% |
| QC value within limits for B 249.677 Recovery = 99.32% | | | | | | | | |
| Ba 233.527† | 18802.8 | 490.48 | µg/L | 24.164 | 490.48 | ppb | 24.164 | 4.93% |
| QC value within limits for Ba 233.527 Recovery = 98.10% | | | | | | | | |
| Be 313.107† | 384567.3 | 250.96 | µg/L | 8.759 | 250.96 | ppb | 8.759 | 3.49% |
| QC value within limits for Be 313.107 Recovery = 100.38% | | | | | | | | |
| Ca 317.933Radial† | 5178.1 | 4875.5 | µg/L | 28.51 | 4875.5 | ppb | 28.51 | 0.58% |
| QC value within limits for Ca 317.933Radial Recovery = 97.51% | | | | | | | | |
| Cd 226.502† | 17558.0 | 484.32 | µg/L | 26.137 | 484.32 | ppb | 26.137 | 5.40% |
| QC value within limits for Cd 226.502 Recovery = 96.86% | | | | | | | | |
| Co 228.616† | 9996.7 | 491.44 | µg/L | 27.727 | 491.44 | ppb | 27.727 | 5.64% |

```
   QC value within limits for Co 228.616  Recovery = 98.29%
Cr 267.716†            21471.9      472.61 µg/L        32.838      472.61 ppb        32.838   6.95%
   QC value within limits for Cr 267.716  Recovery = 94.52%
Cu 324.752†            70125.8      490.54 µg/L        27.712      490.54 ppb        27.712   5.65%
   QC value within limits for Cu 324.752  Recovery = 98.11%
Fe 238.204 Radial†       587.7     4991.5 µg/L         34.44     4991.5 ppb         34.44   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.83%
K 766.490 Radial†       3388.1     2408.2 µg/L         28.04     2408.2 ppb         28.04   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.33%
Mg 279.077 IEC†          553.1     5150.6 µg/L          9.21     5150.6 ppb          9.21   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.01%
Mn 257.610†           144564.5      501.06 µg/L        16.874      501.06 ppb        16.874   3.37%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†             4868.0      519.70 µg/L        53.991      519.70 ppb        53.991  10.39%
   QC value within limits for Mo 202.031  Recovery = 103.94%
Na 589.592 Radial†      7262.9     2391.0 µg/L         13.66     2391.0 ppb         13.66   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†             8879.0      484.94 µg/L        26.089      484.94 ppb        26.089   5.38%
   QC value within limits for Ni 231.604  Recovery = 96.99%
P 214.914†              1127.4     2374.2 µg/L        238.13     2374.2 ppb        238.13  10.03%
   QC value within limits for P 214.914  Recovery = 94.97%
Pb 220.353†             1798.7      480.19 µg/L        38.976      480.19 ppb        38.976   8.12%
   QC value within limits for Pb 220.353  Recovery = 96.04%
S 181.975 Axial†         549.9     2409.5 µg/L        199.20     2409.5 ppb        199.20   8.27%
   QC value within limits for S 181.975 Axial  Recovery = 96.38%
Sb 206.836†              495.4      490.30 µg/L        38.486      490.30 ppb        38.486   7.85%
   QC value within limits for Sb 206.836  Recovery = 98.06%
Se 196.026†             1593.1     2436.4 µg/L        199.13     2436.4 ppb        199.13   8.17%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†                  46944.4       10110 µg/L         457.2       10110 ppb         457.2   4.52%
   QC value within limits for SiO2  Recovery = 94.53%
Si 251.611†            57290.9     4709.6 µg/L        211.21     4709.6 ppb        211.21   4.48%
   QC value within limits for Si 251.611  Recovery = 94.19%
Sn 189.927†             1134.1      521.64 µg/L        57.487      521.64 ppb        57.487  11.02%
   QC value within limits for Sn 189.927  Recovery = 104.33%
Sr 421.552†            48582.8      503.62 µg/L         2.743      503.62 ppb         2.743   0.54%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           198847.0      477.98 µg/L        17.751      477.98 ppb        17.751   3.71%
   QC value within limits for Ti 334.940  Recovery = 95.60%
Tl 190.801†              364.4      514.45 µg/L        26.290      514.45 ppb        26.290   5.11%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†              5299.6      478.82 µg/L        36.655      478.82 ppb        36.655   7.66%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†             46077.4      497.24 µg/L        30.036      497.24 ppb        30.036   6.04%
   QC value within limits for V 292.402  Recovery = 99.45%
Zn 213.857†            19859.9      492.46 µg/L        26.995      492.46 ppb        26.995   5.48%
   QC value within limits for Zn 213.857  Recovery = 98.49%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 14:30:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55908.8 | 55908.8 | 102 | % | | | 14:30:53 |
| 1 | Al 396.153Radial† | -5.0 | 5.2 | 3.8899 | µg/L | 3.8899 | ppb | 14:30:53 |
| 1 | Ca 317.933Radial† | 192.7 | 9.0 | 8.4299 | µg/L | 8.4299 | ppb | 14:31:14 |
| 1 | Fe 238.204 Radial† | 14.3 | -0.6 | -4.9645 | µg/L | -4.9645 | ppb | 14:31:14 |
| 1 | K 766.490 Radial† | 107.9 | -23.1 | -16.426 | µg/L | -16.426 | ppb | 14:30:53 |
| 1 | Mg 279.077 IEC† | 15.7 | 4.0 | 37.295 | µg/L | 37.295 | ppb | 14:31:14 |
| 1 | Na 589.592 Radial† | 574.2 | 18.7 | 6.1420 | µg/L | 6.1420 | ppb | 14:30:53 |
| 1 | Sr 421.552† | 57.3 | 16.3 | 0.1694 | µg/L | 0.1694 | ppb | 14:30:53 |
| 1 | Sc 361.383 | 1944300.1 | 1944300.1 | 101.80 | % | | | 14:32:16 |
| 1 | Y 371.029 | 1332393.9 | 1332393.9 | 101.72 | % | | | 14:32:16 |
| 1 | Ag 328.068† | -508.2 | 65.3 | 0.5177 | µg/L | 0.5177 | ppb | 14:32:21 |
| 1 | As 188.979† | 2.4 | 1.2 | 2.3247 | µg/L | 2.3247 | ppb | 14:32:42 |
| 1 | B 249.677† | 341.3 | 3.8 | 0.1701 | µg/L | 0.1701 | ppb | 14:32:42 |
| 1 | Ba 233.527† | -14.2 | 12.0 | 0.3135 | µg/L | 0.3135 | ppb | 14:32:42 |
| 1 | Be 313.107† | -3420.4 | 80.6 | 0.0526 | µg/L | 0.0526 | ppb | 14:32:21 |
| 1 | Cd 226.502† | -141.7 | 2.9 | 0.0816 | µg/L | 0.0816 | ppb | 14:32:42 |
| 1 | Co 228.616† | -8.8 | 0.2 | 0.0094 | µg/L | 0.0094 | ppb | 14:32:42 |
| 1 | Cr 267.716† | -52.4 | 0.9 | 0.0196 | µg/L | 0.0196 | ppb | 14:32:21 |
| 1 | Cu 324.752† | 2516.4 | -14.3 | -0.1006 | µg/L | -0.1006 | ppb | 14:32:21 |
| 1 | Mn 257.610† | -222.7 | 25.3 | 0.0856 | µg/L | 0.0856 | ppb | 14:32:42 |
| 1 | Mo 202.031† | -0.2 | 7.3 | 0.7799 | µg/L | 0.7799 | ppb | 14:32:42 |
| 1 | Ni 231.604† | 301.0 | -6.6 | -0.3591 | µg/L | -0.3591 | ppb | 14:32:42 |
| 1 | P 214.914† | 32.4 | 4.2 | 8.9740 | µg/L | 8.9740 | ppb | 14:32:42 |
| 1 | Pb 220.353† | 88.6 | -10.1 | -2.7035 | µg/L | -2.7035 | ppb | 14:32:42 |
| 1 | S 181.975 Axial† | 16.5 | 1.4 | 6.0966 | µg/L | 6.0966 | ppb | 14:32:42 |
| 1 | Sb 206.836† | 22.8 | -4.6 | -4.5144 | µg/L | -4.5144 | ppb | 14:32:42 |
| 1 | Se 196.026† | 21.7 | 5.5 | 8.3158 | µg/L | 8.3158 | ppb | 14:32:42 |
| 1 | SiO2† | 1261.7 | -10.7 | -2.2937 | µg/L | -2.2937 | ppb | 14:32:21 |
| 1 | Si 251.611† | 339.4 | 20.5 | 1.6875 | µg/L | 1.6875 | ppb | 14:32:42 |
| 1 | Sn 189.927† | 1.1 | 2.0 | 0.9031 | µg/L | 0.9031 | ppb | 14:32:42 |
| 1 | Ti 334.940† | 148.3 | 29.6 | 0.0683 | µg/L | 0.0683 | ppb | 14:32:21 |
| 1 | Tl 190.801† | -21.8 | 2.8 | 3.9713 | µg/L | 3.9713 | ppb | 14:32:42 |
| 1 | U 409.014† | -33.0 | 21.2 | 1.9223 | µg/L | 1.9223 | ppb | 14:32:21 |
| 1 | V 292.402† | -53.1 | -7.9 | -0.0767 | µg/L | -0.0767 | ppb | 14:32:21 |
| 1 | Zn 213.857† | 482.8 | -1.3 | -0.0325 | µg/L | -0.0325 | ppb | 14:32:42 |
| 2 | Sc RADIAL | 55881.3 | 55881.3 | 102 | % | | | 14:31:19 |
| 2 | Al 396.153Radial† | -15.6 | -5.1 | -3.7901 | µg/L | -3.7901 | ppb | 14:31:19 |
| 2 | Ca 317.933Radial† | 181.6 | -1.8 | -1.6610 | µg/L | -1.6610 | ppb | 14:31:40 |
| 2 | Fe 238.204 Radial† | 14.4 | -0.5 | -4.0234 | µg/L | -4.0234 | ppb | 14:31:40 |
| 2 | K 766.490 Radial† | 165.7 | 33.4 | 23.714 | µg/L | 23.714 | ppb | 14:31:19 |
| 2 | Mg 279.077 IEC† | 9.4 | -2.1 | -19.910 | µg/L | -19.910 | ppb | 14:31:40 |
| 2 | Na 589.592 Radial† | 521.5 | -32.6 | -10.727 | µg/L | -10.727 | ppb | 14:31:19 |
| 2 | Sr 421.552† | 60.7 | 19.7 | 0.2040 | µg/L | 0.2040 | ppb | 14:31:19 |
| 2 | Sc 361.383 | 1964760.3 | 1964760.3 | 102.88 | % | | | 14:32:48 |
| 2 | Y 371.029 | 1347613.8 | 1347613.8 | 102.88 | % | | | 14:32:48 |
| 2 | Ag 328.068† | -518.5 | 60.5 | 0.4799 | µg/L | 0.4799 | ppb | 14:32:53 |
| 2 | As 188.979† | -1.3 | -2.4 | -4.7694 | µg/L | -4.7694 | ppb | 14:33:14 |
| 2 | B 249.677† | 344.7 | 3.6 | 0.1600 | µg/L | 0.1600 | ppb | 14:33:14 |
| 2 | Ba 233.527† | -16.3 | 10.1 | 0.2637 | µg/L | 0.2637 | ppb | 14:33:14 |
| 2 | Be 313.107† | -3298.7 | 234.0 | 0.1527 | µg/L | 0.1527 | ppb | 14:32:53 |
| 2 | Cd 226.502† | -133.3 | 12.6 | 0.3477 | µg/L | 0.3477 | ppb | 14:33:14 |
| 2 | Co 228.616† | -4.9 | 4.1 | 0.2028 | µg/L | 0.2028 | ppb | 14:33:14 |
| 2 | Cr 267.716† | -12.9 | 39.8 | 0.8752 | µg/L | 0.8752 | ppb | 14:32:53 |
| 2 | Cu 324.752† | 2529.4 | -27.4 | -0.1918 | µg/L | -0.1918 | ppb | 14:32:53 |
| 2 | Mn 257.610† | -202.1 | 47.7 | 0.1654 | µg/L | 0.1654 | ppb | 14:33:14 |
| 2 | Mo 202.031† | 1.2 | 8.7 | 0.9303 | µg/L | 0.9303 | ppb | 14:33:14 |
| 2 | Ni 231.604† | 305.7 | -5.0 | -0.2753 | µg/L | -0.2753 | ppb | 14:33:14 |
| 2 | P 214.914† | 24.2 | -4.1 | -8.8167 | µg/L | -8.8167 | ppb | 14:33:14 |
| 2 | Pb 220.353† | 97.8 | -2.1 | -0.5597 | µg/L | -0.5597 | ppb | 14:33:14 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 15.1 | -0.1 | -0.5770 µg/L | -0.5770 ppb | 14:33:14 |
| 2 | Sb 206.836† | 27.2 | -0.5 | -0.4890 µg/L | -0.4890 ppb | 14:33:14 |
| 2 | Se 196.026† | 14.7 | -1.6 | -2.3575 µg/L | -2.3575 ppb | 14:33:14 |
| 2 | SiO2† | 1242.8 | -41.9 | -9.0338 µg/L | -9.0338 ppb | 14:32:53 |
| 2 | Si 251.611† | 360.2 | 37.3 | 3.0664 µg/L | 3.0664 ppb | 14:33:14 |
| 2 | Sn 189.927† | 0.7 | 1.6 | 0.7280 µg/L | 0.7280 ppb | 14:33:14 |
| 2 | Ti 334.940† | 261.8 | 138.4 | 0.3344 µg/L | 0.3344 ppb | 14:32:53 |
| 2 | Tl 190.801† | -26.1 | -1.1 | -1.5598 µg/L | -1.5598 ppb | 14:33:14 |
| 2 | U 409.014† | -15.1 | 39.0 | 3.5273 µg/L | 3.5273 ppb | 14:32:53 |
| 2 | V 292.402† | -42.6 | 2.8 | 0.0426 µg/L | 0.0426 ppb | 14:32:53 |
| 2 | Zn 213.857† | 491.7 | 2.4 | 0.0627 µg/L | 0.0627 ppb | 14:33:14 |
| 3 | Sc RADIAL | 56329.8 | 56329.8 | 103 % | | 14:31:45 |
| 3 | Al 396.153Radial† | 2.8 | 12.8 | 9.5317 µg/L | 9.5317 ppb | 14:31:45 |
| 3 | Ca 317.933Radial† | 174.0 | -10.6 | -9.9765 µg/L | -9.9765 ppb | 14:32:05 |
| 3 | Fe 238.204 Radial† | 15.1 | 0.1 | 1.1942 µg/L | 1.1942 ppb | 14:32:05 |
| 3 | K 766.490 Radial† | 116.0 | -16.0 | -11.375 µg/L | -11.375 ppb | 14:31:45 |
| 3 | Mg 279.077 IEC† | 9.4 | -2.1 | -19.858 µg/L | -19.858 ppb | 14:32:05 |
| 3 | Na 589.592 Radial† | 536.5 | -22.1 | -7.2800 µg/L | -7.2800 ppb | 14:31:45 |
| 3 | Sr 421.552† | 17.2 | -22.9 | -0.2369 µg/L | -0.2369 ppb | 14:31:45 |
| 3 | Sc 361.383 | 1963041.8 | 1963041.8 | 102.79 % | | 14:33:20 |
| 3 | Y 371.029 | 1346546.9 | 1346546.9 | 102.80 % | | 14:33:20 |
| 3 | Ag 328.068† | -542.7 | 36.6 | 0.2929 µg/L | 0.2929 ppb | 14:33:26 |
| 3 | As 188.979† | 1.8 | 0.6 | 1.1689 µg/L | 1.1689 ppb | 14:33:46 |
| 3 | B 249.677† | 343.0 | 2.2 | 0.0978 µg/L | 0.0978 ppb | 14:33:46 |
| 3 | Ba 233.527† | -18.5 | 8.0 | 0.2082 µg/L | 0.2082 ppb | 14:33:46 |
| 3 | Be 313.107† | -3230.6 | 297.4 | 0.1942 µg/L | 0.1942 ppb | 14:33:26 |
| 3 | Cd 226.502† | -130.1 | 15.5 | 0.4281 µg/L | 0.4281 ppb | 14:33:46 |
| 3 | Co 228.616† | -21.8 | -12.4 | -0.6104 µg/L | -0.6104 ppb | 14:33:46 |
| 3 | Cr 267.716† | -41.2 | 12.3 | 0.2708 µg/L | 0.2708 ppb | 14:33:26 |
| 3 | Cu 324.752† | 2546.0 | -9.1 | -0.0637 µg/L | -0.0637 ppb | 14:33:26 |
| 3 | Mn 257.610† | -170.0 | 78.8 | 0.2737 µg/L | 0.2737 ppb | 14:33:46 |
| 3 | Mo 202.031† | 0.3 | 7.9 | 0.8413 µg/L | 0.8413 ppb | 14:33:46 |
| 3 | Ni 231.604† | 307.9 | -2.6 | -0.1428 µg/L | -0.1428 ppb | 14:33:46 |
| 3 | P 214.914† | 31.7 | 3.2 | 7.0023 µg/L | 7.0023 ppb | 14:33:46 |
| 3 | Pb 220.353† | 97.7 | -2.1 | -0.5651 µg/L | -0.5651 ppb | 14:33:46 |
| 3 | S 181.975 Axial† | 14.0 | -1.2 | -5.1565 µg/L | -5.1565 ppb | 14:33:46 |
| 3 | Sb 206.836† | 18.5 | -9.0 | -8.8540 µg/L | -8.8540 ppb | 14:33:46 |
| 3 | Se 196.026† | 7.7 | -8.4 | -12.762 µg/L | -12.762 ppb | 14:33:46 |
| 3 | SiO2† | 1231.2 | -52.2 | -11.239 µg/L | -11.239 ppb | 14:33:26 |
| 3 | Si 251.611† | 338.7 | 16.6 | 1.3655 µg/L | 1.3655 ppb | 14:33:46 |
| 3 | Sn 189.927† | 2.7 | 3.5 | 1.5931 µg/L | 1.5931 ppb | 14:33:46 |
| 3 | Ti 334.940† | 206.7 | 84.9 | 0.2057 µg/L | 0.2057 ppb | 14:33:26 |
| 3 | Tl 190.801† | -23.5 | 1.4 | 1.9821 µg/L | 1.9821 ppb | 14:33:46 |
| 3 | U 409.014† | -82.4 | -26.6 | -2.4037 µg/L | -2.4037 ppb | 14:33:26 |
| 3 | V 292.402† | -5.0 | 39.3 | 0.4238 µg/L | 0.4238 ppb | 14:33:26 |
| 3 | Zn 213.857† | 490.6 | 1.7 | 0.0448 µg/L | 0.0448 ppb | 14:33:46 |

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**Mean Data: ICB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1957367.4 | 102.49 | % | 0.594 | | | | 0.58% |
| Sc RADIAL | 56040.0 | 103 | % | 0.5 | | | | 0.45% |
| Y 371.029 | 1342184.9 | 102.46 | % | 0.649 | | | | 0.63% |
| Ag 328.068† | 54.1 | 0.4302 | µg/L | 0.12036 | 0.4302 | ppb | 0.12036 | 27.98% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 4.3 | 3.2105 | µg/L | 6.68686 | 3.2105 | ppb | 6.68686 | 208.28% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -0.2 | -0.4253 | µg/L | 3.80624 | -0.4253 | ppb | 3.80624 | 895.04% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 3.2 | 0.1426 | µg/L | 0.03915 | 0.1426 | ppb | 0.03915 | 27.45% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 10.0 | 0.2618 | µg/L | 0.05266 | 0.2618 | ppb | 0.05266 | 20.11% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 204.0 | 0.1331 | µg/L | 0.07275 | 0.1331 | ppb | 0.07275 | 54.64% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -1.1 | -1.0692 | µg/L | 9.21745 | -1.0692 | ppb | 9.21745 | 862.10% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 10.4 | 0.2858 | µg/L | 0.18136 | 0.2858 | ppb | 0.18136 | 63.46% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -2.7 | -0.1327 | µg/L | 0.42483 | -0.1327 | ppb | 0.42483 | 320.06% |

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.7      0.3886 µg/L       0.43975      0.3886 ppb        0.43975 113.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -16.9     -0.1187 µg/L       0.06593     -0.1187 ppb        0.06593  55.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -2.5979 µg/L       3.31761     -2.5979 ppb        3.31761 127.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -1.9     -1.3625 µg/L      21.86298     -1.3625 ppb       21.86298 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.1     -0.8244 µg/L      33.01203     -0.8244 ppb       33.01203 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.6      0.1749 µg/L       0.09441      0.1749 ppb        0.09441  53.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.0      0.8505 µg/L       0.07561      0.8505 ppb        0.07561   8.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -12.0     -3.9548 µg/L       8.91231     -3.9548 ppb        8.91231 225.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.7     -0.2590 µg/L       0.10906     -0.2590 ppb        0.10906  42.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.1      2.3865 µg/L       9.75229      2.3865 ppb        9.75229 408.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.8     -1.2761 µg/L       1.23617     -1.2761 ppb        1.23617  96.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.1210 µg/L       5.65896      0.1210 ppb        5.65896 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.7     -4.6191 µg/L       4.18349     -4.6191 ppb        4.18349  90.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.5     -2.2678 µg/L      10.53912     -2.2678 ppb       10.53912 464.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -34.9     -7.5220 µg/L       4.66014     -7.5220 ppb        4.66014  61.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                24.8      2.0398 µg/L       0.90350      2.0398 ppb        0.90350  44.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.3      1.0747 µg/L       0.45737      1.0747 ppb        0.45737  42.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 4.4      0.0455 µg/L       0.24518      0.0455 ppb        0.24518 539.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.3      0.2028 µg/L       0.13307      0.2028 ppb        0.13307  65.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.4645 µg/L       2.80164      1.4645 ppb        2.80164 191.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 11.2      1.0153 µg/L       3.06778      1.0153 ppb        3.06778 302.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 11.4      0.1299 µg/L       0.26143      0.1299 ppb        0.26143 201.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 0.9      0.0250 µg/L       0.05061      0.0250 ppb        0.05061 202.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/11/2010 14:33:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 54747.4 | 54747.4 | 100 | % | | | 14:34:28 |
| 1 | Al 396.153Radial† | 273.1 | 282.4 | 210.27 | µg/L | 210.27 | ppb | 14:34:28 |
| 1 | Ca 317.933Radial† | 397.1 | 216.7 | 204.01 | µg/L | 204.01 | ppb | 14:34:49 |
| 1 | Fe 238.204 Radial† | 30.8 | 16.2 | 137.25 | µg/L | 137.25 | ppb | 14:34:49 |
| 1 | K 766.490 Radial† | 363.7 | 234.1 | 166.40 | µg/L | 166.40 | ppb | 14:34:28 |
| 1 | Mg 279.077 IEC† | 45.5 | 34.1 | 317.43 | µg/L | 317.43 | ppb | 14:34:49 |
| 1 | Na 589.592 Radial† | 1424.0 | 877.6 | 288.92 | µg/L | 288.92 | ppb | 14:34:28 |
| 1 | Sr 421.552† | 486.3 | 445.2 | 4.6152 | µg/L | 4.6152 | ppb | 14:34:28 |
| 1 | Sc 361.383 | 1940350.4 | 1940350.4 | 101.60 | % | | | 14:35:51 |
| 1 | Y 371.029 | 1331501.6 | 1331501.6 | 101.65 | % | | | 14:35:51 |
| 1 | Ag 328.068† | 65.6 | 629.1 | 5.0332 | µg/L | 5.0332 | ppb | 14:35:56 |
| 1 | As 188.979† | 15.0 | 13.6 | 26.557 | µg/L | 26.557 | ppb | 14:36:17 |
| 1 | B 249.677† | 1481.9 | 1127.1 | 49.194 | µg/L | 49.194 | ppb | 14:35:56 |
| 1 | Ba 233.527† | 167.0 | 190.4 | 4.9664 | µg/L | 4.9664 | ppb | 14:36:17 |
| 1 | Be 313.107† | 4123.9 | 7499.6 | 4.8957 | µg/L | 4.8957 | ppb | 14:35:56 |
| 1 | Cd 226.502† | 43.2 | 184.7 | 5.0837 | µg/L | 5.0837 | ppb | 14:36:17 |
| 1 | Co 228.616† | 90.6 | 98.0 | 4.8213 | µg/L | 4.8213 | ppb | 14:36:17 |
| 1 | Cr 267.716† | 181.4 | 230.9 | 5.0824 | µg/L | 5.0824 | ppb | 14:36:17 |
| 1 | Cu 324.752† | 4005.0 | 1456.0 | 10.189 | µg/L | 10.189 | ppb | 14:35:56 |
| 1 | Mn 257.610† | 2747.7 | 2948.6 | 10.216 | µg/L | 10.216 | ppb | 14:35:56 |
| 1 | Mo 202.031† | 89.7 | 95.8 | 10.232 | µg/L | 10.232 | ppb | 14:36:17 |
| 1 | Ni 231.604† | 390.7 | 82.4 | 4.5019 | µg/L | 4.5019 | ppb | 14:36:17 |
| 1 | P 214.914† | 110.5 | 81.1 | 173.12 | µg/L | 173.12 | ppb | 14:36:17 |
| 1 | Pb 220.353† | 141.4 | 42.0 | 11.169 | µg/L | 11.169 | ppb | 14:36:17 |
| 1 | S 181.975 Axial† | 37.1 | 21.7 | 95.029 | µg/L | 95.029 | ppb | 14:36:17 |
| 1 | Sb 206.836† | 32.7 | 5.2 | 5.2344 | µg/L | 5.2344 | ppb | 14:36:17 |
| 1 | Se 196.026† | 25.6 | 9.4 | 14.367 | µg/L | 14.367 | ppb | 14:36:17 |
| 1 | SiO2† | 2267.0 | 981.4 | 211.34 | µg/L | 211.34 | ppb | 14:35:56 |
| 1 | Si 251.611† | 1501.7 | 1165.2 | 95.786 | µg/L | 95.786 | ppb | 14:36:17 |
| 1 | Sn 189.927† | 16.7 | 17.3 | 7.9752 | µg/L | 7.9752 | ppb | 14:36:17 |
| 1 | Ti 334.940† | 2212.8 | 2061.9 | 4.9379 | µg/L | 4.9379 | ppb | 14:35:56 |
| 1 | Tl 190.801† | -5.1 | 19.2 | 27.011 | µg/L | 27.011 | ppb | 14:36:17 |
| 1 | U 409.014† | 558.4 | 603.3 | 54.587 | µg/L | 54.587 | ppb | 14:35:56 |
| 1 | V 292.402† | 425.6 | 463.2 | 5.0996 | µg/L | 5.0996 | ppb | 14:35:56 |
| 1 | Zn 213.857† | 892.7 | 403.1 | 10.006 | µg/L | 10.006 | ppb | 14:36:17 |
| 2 | Sc RADIAL | 54832.7 | 54832.7 | 100 | % | | | 14:34:54 |
| 2 | Al 396.153Radial† | 256.5 | 265.4 | 197.60 | µg/L | 197.60 | ppb | 14:34:54 |
| 2 | Ca 317.933Radial† | 389.1 | 208.2 | 196.00 | µg/L | 196.00 | ppb | 14:35:15 |
| 2 | Fe 238.204 Radial† | 27.3 | 12.7 | 107.86 | µg/L | 107.86 | ppb | 14:35:15 |
| 2 | K 766.490 Radial† | 367.8 | 237.7 | 168.93 | µg/L | 168.93 | ppb | 14:34:54 |
| 2 | Mg 279.077 IEC† | 46.2 | 34.7 | 322.64 | µg/L | 322.64 | ppb | 14:35:15 |
| 2 | Na 589.592 Radial† | 1434.3 | 885.7 | 291.57 | µg/L | 291.57 | ppb | 14:34:54 |
| 2 | Sr 421.552† | 510.9 | 468.9 | 4.8611 | µg/L | 4.8611 | ppb | 14:34:54 |
| 2 | Sc 361.383 | 1945380.3 | 1945380.3 | 101.86 | % | | | 14:36:23 |
| 2 | Y 371.029 | 1334631.9 | 1334631.9 | 101.89 | % | | | 14:36:23 |
| 2 | Ag 328.068† | 83.1 | 646.1 | 5.1667 | µg/L | 5.1667 | ppb | 14:36:29 |
| 2 | As 188.979† | 13.7 | 12.3 | 23.962 | µg/L | 23.962 | ppb | 14:36:49 |
| 2 | B 249.677† | 1439.6 | 1081.8 | 47.230 | µg/L | 47.230 | ppb | 14:36:29 |
| 2 | Ba 233.527† | 163.8 | 186.8 | 4.8734 | µg/L | 4.8734 | ppb | 14:36:49 |
| 2 | Be 313.107† | 4161.3 | 7525.8 | 4.9129 | µg/L | 4.9129 | ppb | 14:36:29 |
| 2 | Cd 226.502† | 40.3 | 181.7 | 5.0056 | µg/L | 5.0056 | ppb | 14:36:49 |
| 2 | Co 228.616† | 95.9 | 103.0 | 5.0691 | µg/L | 5.0691 | ppb | 14:36:49 |
| 2 | Cr 267.716† | 184.6 | 233.6 | 5.1411 | µg/L | 5.1411 | ppb | 14:36:49 |
| 2 | Cu 324.752† | 3976.5 | 1417.8 | 9.9186 | µg/L | 9.9186 | ppb | 14:36:29 |
| 2 | Mn 257.610† | 2754.8 | 2948.6 | 10.212 | µg/L | 10.212 | ppb | 14:36:29 |
| 2 | Mo 202.031† | 93.7 | 99.6 | 10.631 | µg/L | 10.631 | ppb | 14:36:49 |
| 2 | Ni 231.604† | 392.3 | 82.9 | 4.5279 | µg/L | 4.5279 | ppb | 14:36:49 |
| 2 | P 214.914† | 107.2 | 77.6 | 165.67 | µg/L | 165.67 | ppb | 14:36:49 |
| 2 | Pb 220.353† | 143.7 | 43.9 | 11.669 | µg/L | 11.669 | ppb | 14:36:49 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 37.9 | 22.4 | 98.282 µg/L | 98.282 ppb | 14:36:49 |
| 2 | Sb 206.836† | 37.0 | 9.4 | 9.3125 µg/L | 9.3125 ppb | 14:36:49 |
| 2 | Se 196.026† | 40.5 | 23.9 | 36.431 µg/L | 36.431 ppb | 14:36:49 |
| 2 | SiO2† | 2237.3 | 946.4 | 203.81 µg/L | 203.81 ppb | 14:36:29 |
| 2 | Si 251.611† | 1509.6 | 1169.2 | 96.111 µg/L | 96.111 ppb | 14:36:49 |
| 2 | Sn 189.927† | 28.9 | 29.3 | 13.482 µg/L | 13.482 ppb | 14:36:49 |
| 2 | Ti 334.940† | 2191.1 | 2034.9 | 4.8725 µg/L | 4.8725 ppb | 14:36:29 |
| 2 | Tl 190.801† | -12.7 | 11.8 | 16.671 µg/L | 16.671 ppb | 14:36:49 |
| 2 | U 409.014† | 565.8 | 609.0 | 55.113 µg/L | 55.113 ppb | 14:36:29 |
| 2 | V 292.402† | 429.8 | 466.2 | 5.1319 µg/L | 5.1319 ppb | 14:36:29 |
| 2 | Zn 213.857† | 888.5 | 396.7 | 9.8472 µg/L | 9.8472 ppb | 14:36:49 |
| 3 | Sc RADIAL | 54719.3 | 54719.3 | 100 % | | 14:35:20 |
| 3 | Al 396.153Radial† | 252.3 | 261.8 | 194.95 µg/L | 194.95 ppb | 14:35:20 |
| 3 | Ca 317.933Radial† | 392.4 | 212.2 | 199.82 µg/L | 199.82 ppb | 14:35:41 |
| 3 | Fe 238.204 Radial† | 27.7 | 13.1 | 111.51 µg/L | 111.51 ppb | 14:35:41 |
| 3 | K 766.490 Radial† | 437.0 | 307.5 | 218.53 µg/L | 218.53 ppb | 14:35:20 |
| 3 | Mg 279.077 IEC† | 40.7 | 29.3 | 272.95 µg/L | 272.95 ppb | 14:35:41 |
| 3 | Na 589.592 Radial† | 1460.8 | 915.0 | 301.22 µg/L | 301.22 ppb | 14:35:20 |
| 3 | Sr 421.552† | 523.6 | 482.7 | 5.0036 µg/L | 5.0036 ppb | 14:35:20 |
| 3 | Sc 361.383 | 1939953.9 | 1939953.9 | 101.58 % | | 14:36:55 |
| 3 | Y 371.029 | 1330294.0 | 1330294.0 | 101.56 % | | 14:36:55 |
| 3 | Ag 328.068† | 50.3 | 614.0 | 4.9107 µg/L | 4.9107 ppb | 14:37:01 |
| 3 | As 188.979† | 19.6 | 18.1 | 35.385 µg/L | 35.385 ppb | 14:37:21 |
| 3 | B 249.677† | 1372.3 | 1019.5 | 44.505 µg/L | 44.505 ppb | 14:37:01 |
| 3 | Ba 233.527† | 145.4 | 169.2 | 4.4133 µg/L | 4.4133 ppb | 14:37:21 |
| 3 | Be 313.107† | 3478.0 | 6864.4 | 4.4811 µg/L | 4.4811 ppb | 14:37:01 |
| 3 | Cd 226.502† | 11.9 | 153.8 | 4.2359 µg/L | 4.2359 ppb | 14:37:21 |
| 3 | Co 228.616† | 75.0 | 82.7 | 4.0666 µg/L | 4.0666 ppb | 14:37:21 |
| 3 | Cr 267.716† | 166.3 | 216.1 | 4.7559 µg/L | 4.7559 ppb | 14:37:21 |
| 3 | Cu 324.752† | 3902.1 | 1355.5 | 9.4837 µg/L | 9.4837 ppb | 14:37:01 |
| 3 | Mn 257.610† | 2548.1 | 2752.7 | 9.5360 µg/L | 9.5360 ppb | 14:37:01 |
| 3 | Mo 202.031† | 79.0 | 85.3 | 9.1080 µg/L | 9.1080 ppb | 14:37:21 |
| 3 | Ni 231.604† | 393.4 | 85.1 | 4.6522 µg/L | 4.6522 ppb | 14:37:21 |
| 3 | P 214.914† | 100.3 | 71.1 | 151.77 µg/L | 151.77 ppb | 14:37:21 |
| 3 | Pb 220.353† | 126.2 | 27.0 | 7.1738 µg/L | 7.1738 ppb | 14:37:21 |
| 3 | S 181.975 Axial† | 34.7 | 19.3 | 84.720 µg/L | 84.720 ppb | 14:37:21 |
| 3 | Sb 206.836† | 29.4 | 2.0 | 2.0741 µg/L | 2.0741 ppb | 14:37:21 |
| 3 | Se 196.026† | 39.6 | 23.1 | 35.285 µg/L | 35.285 ppb | 14:37:21 |
| 3 | SiO2† | 2171.3 | 887.6 | 191.15 µg/L | 191.15 ppb | 14:37:01 |
| 3 | Si 251.611† | 1361.3 | 1027.3 | 84.447 µg/L | 84.447 ppb | 14:37:21 |
| 3 | Sn 189.927† | 21.9 | 22.4 | 10.338 µg/L | 10.338 ppb | 14:37:21 |
| 3 | Ti 334.940† | 2058.9 | 1910.8 | 4.5779 µg/L | 4.5779 ppb | 14:37:01 |
| 3 | Tl 190.801† | -4.2 | 20.2 | 28.271 µg/L | 28.271 ppb | 14:37:21 |
| 3 | U 409.014† | 515.1 | 560.7 | 50.740 µg/L | 50.740 ppb | 14:37:01 |
| 3 | V 292.402† | 407.9 | 445.8 | 4.8980 µg/L | 4.8980 ppb | 14:37:01 |
| 3 | Zn 213.857† | 822.6 | 334.3 | 8.2901 µg/L | 8.2901 ppb | 14:37:21 |

**Mean Data: PQL**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1941894.9 | 101.68 | % | 0.158 | | | | 0.16% |
| Sc RADIAL | 54766.5 | 100 | % | 0.1 | | | | 0.11% |
| Y 371.029 | 1332142.5 | 101.70 | % | 0.171 | | | | 0.17% |
| Ag 328.068† | 629.8 | 5.0369 | µg/L | 0.12806 | 5.0369 | ppb | 0.12806 | 2.54% |
| QC value within limits for Ag 328.068 Recovery = 100.74% | | | | | | | | |
| Al 396.153Radial† | 269.9 | 200.94 | µg/L | 8.187 | 200.94 | ppb | 8.187 | 4.07% |
| QC value within limits for Al 396.153Radial Recovery = 100.47% | | | | | | | | |
| As 188.979† | 14.7 | 28.634 | µg/L | 5.9881 | 28.634 | ppb | 5.9881 | 20.91% |
| QC value within limits for As 188.979 Recovery = 95.45% | | | | | | | | |
| B 249.677† | 1076.2 | 46.976 | µg/L | 2.3545 | 46.976 | ppb | 2.3545 | 5.01% |
| QC value within limits for B 249.677 Recovery = 93.95% | | | | | | | | |
| Ba 233.527† | 182.1 | 4.7510 | µg/L | 0.29615 | 4.7510 | ppb | 0.29615 | 6.23% |
| QC value within limits for Ba 233.527 Recovery = 95.02% | | | | | | | | |
| Be 313.107† | 7296.6 | 4.7633 | µg/L | 0.24448 | 4.7633 | ppb | 0.24448 | 5.13% |
| QC value within limits for Be 313.107 Recovery = 95.27% | | | | | | | | |
| Ca 317.933Radial† | 212.4 | 199.94 | µg/L | 4.009 | 199.94 | ppb | 4.009 | 2.00% |
| QC value within limits for Ca 317.933Radial Recovery = 99.97% | | | | | | | | |
| Cd 226.502† | 173.4 | 4.7751 | µg/L | 0.46856 | 4.7751 | ppb | 0.46856 | 9.81% |
| QC value within limits for Cd 226.502 Recovery = 95.50% | | | | | | | | |
| Co 228.616† | 94.6 | 4.6523 | µg/L | 0.52218 | 4.6523 | ppb | 0.52218 | 11.22% |

```
   QC value within limits for Co 228.616  Recovery = 93.05%
Cr 267.716†              226.9      4.9931 µg/L       0.20751      4.9931 ppb        0.20751   4.16%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†             1409.7      9.8638 µg/L       0.35593      9.8638 ppb        0.35593   3.61%
   QC value within limits for Cu 324.752  Recovery = 98.64%
Fe 238.204 Radial†        14.0      118.87 µg/L        16.021      118.87 ppb         16.021  13.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 118.87%
K 766.490 Radial†        259.7      184.62 µg/L        29.396      184.62 ppb         29.396  15.92%
   QC value within limits for K 766.490 Radial  Recovery = 123.08%
Mg 279.077 IEC†           32.7      304.34 µg/L        27.307      304.34 ppb         27.307   8.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†             2883.3      9.9880 µg/L       0.39151      9.9880 ppb        0.39151   3.92%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†               93.6      9.9904 µg/L       0.78979      9.9904 ppb        0.78979   7.91%
   QC value within limits for Mo 202.031  Recovery = 99.90%
Na 589.592 Radial†       892.8      293.90 µg/L         6.477      293.90 ppb          6.477   2.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.97%
Ni 231.604†               83.5      4.5606 µg/L       0.08032      4.5606 ppb        0.08032   1.76%
   QC value within limits for Ni 231.604  Recovery = 91.21%
P 214.914†                76.6      163.52 µg/L        10.837      163.52 ppb         10.837   6.63%
   QC value within limits for P 214.914  Recovery = 109.01%
Pb 220.353†               37.6      10.004 µg/L        2.4639      10.004 ppb         2.4639  24.63%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†          21.2      92.677 µg/L        7.0801      92.677 ppb         7.0801   7.64%
   QC value within limits for S 181.975 Axial  Recovery = 92.68%
Sb 206.836†                5.5      5.5403 µg/L       3.62890      5.5403 ppb        3.62890  65.50%
   QC value less than the lower limit for Sb 206.836  Recovery = 55.40%
Se 196.026†               18.8      28.694 µg/L       12.4212      28.694 ppb        12.4212  43.29%
   QC value within limits for Se 196.026  Recovery = 95.65%
SiO2†                    938.5      202.10 µg/L        10.205      202.10 ppb         10.205   5.05%
   QC value within limits for SiO2  Recovery = 94.88%
Si 251.611†             1120.6      92.115 µg/L        6.6423      92.115 ppb         6.6423   7.21%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†               23.0      10.598 µg/L        2.7624      10.598 ppb         2.7624  26.06%
   QC value within limits for Sn 189.927  Recovery = 105.98%
Sr 421.552†              465.6      4.8266 µg/L       0.19650      4.8266 ppb        0.19650   4.07%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†             2002.5      4.7961 µg/L       0.19174      4.7961 ppb        0.19174   4.00%
   QC value within limits for Ti 334.940  Recovery = 95.92%
Tl 190.801†               17.1      23.984 µg/L        6.3650      23.984 ppb         6.3650  26.54%
   QC value within limits for Tl 190.801  Recovery = 119.92%
U 409.014†               591.0      53.480 µg/L        2.3877      53.480 ppb         2.3877   4.46%
   QC value within limits for U 409.014  Recovery = 106.96%
V 292.402†               458.4      5.0431 µg/L       0.12672      5.0431 ppb        0.12672   2.51%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†              378.0      9.3810 µg/L       0.94809      9.3810 ppb        0.94809  10.11%
   QC value within limits for Zn 213.857  Recovery = 93.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/11/2010 14:37:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 54929.8 | 54929.8 | 101 | % | | | 14:38:12 |
| 1 | Al 396.153Radial† | 662864.4 | 658585.8 | 490860 | µg/L | 490860 | ppb | 14:38:07 |
| 1 | Ca 317.933Radial† | 501017.0 | 497596.3 | 468520 | µg/L | 468520 | ppb | 14:38:07 |
| 1 | Fe 238.204 Radial† | 21302.2 | 21149.9 | 179260 | µg/L | 179260 | ppb | 14:38:12 |
| 1 | K 766.490 Radial† | 133.6 | 4.3 | 3.0615 | µg/L | 3.0615 | ppb | 14:38:12 |
| 1 | Mg 279.077 IEC† | 50419.1 | 50081.6 | 465880 | µg/L | 465880 | ppb | 14:38:12 |
| 1 | Na 589.592 Radial† | 588.4 | 42.7 | 14.053 | µg/L | 14.053 | ppb | 14:38:12 |
| 1 | Sr 421.552† | 369.2 | 327.3 | 3.3927 | µg/L | 3.3927 | ppb | 14:38:12 |
| 1 | Sc 361.383 | 1857257.4 | 1857257.4 | 97.247 | % | | | 14:38:45 |
| 1 | Y 371.029 | 1267408.3 | 1267408.3 | 96.755 | % | | | 14:38:45 |
| 1 | Ag 328.068† | -2882.1 | -2399.2 | -7.8752 | µg/L | -7.8752 | ppb | 14:38:51 |
| 1 | As 188.979† | -10.9 | -12.4 | -38.129 | µg/L | -38.129 | ppb | 14:39:11 |
| 1 | B 249.677† | 826.3 | 518.2 | -70.891 | µg/L | -70.891 | ppb | 14:38:51 |
| 1 | Ba 233.527† | 265.1 | 298.7 | 7.7406 | µg/L | 7.7406 | ppb | 14:39:11 |
| 1 | Be 313.107† | -4111.4 | -787.4 | -0.5240 | µg/L | -0.5240 | ppb | 14:38:51 |
| 1 | Cd 226.502† | 352.3 | 504.4 | -6.3482 | µg/L | -6.3482 | ppb | 14:39:11 |
| 1 | Co 228.616† | 33.3 | 43.1 | 2.0584 | µg/L | 2.0584 | ppb | 14:39:11 |
| 1 | Cr 267.716† | -59.0 | -8.3 | -0.1945 | µg/L | -0.1945 | ppb | 14:39:11 |
| 1 | Cu 324.752† | -1400.3 | -3926.0 | -2.5072 | µg/L | -2.5072 | ppb | 14:38:51 |
| 1 | Mn 257.610† | 37.6 | 282.8 | 6.1777 | µg/L | 6.1777 | ppb | 14:38:51 |
| 1 | Mo 202.031† | -107.0 | -102.5 | -4.1257 | µg/L | -4.1257 | ppb | 14:39:11 |
| 1 | Ni 231.604† | 157.1 | -140.7 | -5.3633 | µg/L | -5.3633 | ppb | 14:39:11 |
| 1 | P 214.914† | 101.4 | 76.6 | 162.80 | µg/L | 162.80 | ppb | 14:39:11 |
| 1 | Pb 220.353† | 54.2 | -41.5 | 9.1341 | µg/L | 9.1341 | ppb | 14:39:11 |
| 1 | S 181.975 Axial† | 32.3 | 18.4 | 80.756 | µg/L | 80.756 | ppb | 14:39:11 |
| 1 | Sb 206.836† | 58.1 | 32.8 | -8.6501 | µg/L | -8.6501 | ppb | 14:39:11 |
| 1 | Se 196.026† | 34.1 | 19.3 | -25.969 | µg/L | -25.969 | ppb | 14:39:11 |
| 1 | SiO2† | 1033.7 | -187.0 | -40.276 | µg/L | -40.276 | ppb | 14:39:11 |
| 1 | Si 251.611† | 428.1 | 127.4 | 10.470 | µg/L | 10.470 | ppb | 14:39:11 |
| 1 | Sn 189.927† | -61.0 | -61.9 | 5.0665 | µg/L | 5.0665 | ppb | 14:39:11 |
| 1 | Ti 334.940† | 10534.2 | 10716.3 | -3.5463 | µg/L | -3.5463 | ppb | 14:38:51 |
| 1 | Tl 190.801† | -30.9 | -7.5 | 8.6675 | µg/L | 8.6675 | ppb | 14:39:11 |
| 1 | U 409.014† | -29.2 | 23.6 | -51.357 | µg/L | -51.357 | ppb | 14:38:51 |
| 1 | V 292.402† | -1857.1 | -1865.5 | 1.1351 | µg/L | 1.1351 | ppb | 14:38:51 |
| 1 | Zn 213.857† | 1452.2 | 1017.8 | -9.4487 | µg/L | -9.4487 | ppb | 14:39:11 |
| 2 | Sc RADIAL | 55009.9 | 55009.9 | 101 | % | | | 14:38:23 |
| 2 | Al 396.153Radial† | 661057.1 | 655833.6 | 488810 | µg/L | 488810 | ppb | 14:38:18 |
| 2 | Ca 317.933Radial† | 498837.3 | 494708.8 | 465800 | µg/L | 465800 | ppb | 14:38:18 |
| 2 | Fe 238.204 Radial† | 21470.3 | 21285.8 | 180410 | µg/L | 180410 | ppb | 14:38:23 |
| 2 | K 766.490 Radial† | 106.0 | -23.2 | -16.506 | µg/L | -16.506 | ppb | 14:38:23 |
| 2 | Mg 279.077 IEC† | 50738.3 | 50325.3 | 468150 | µg/L | 468150 | ppb | 14:38:23 |
| 2 | Na 589.592 Radial† | 648.0 | 101.0 | 33.250 | µg/L | 33.250 | ppb | 14:38:23 |
| 2 | Sr 421.552† | 361.1 | 318.7 | 3.3032 | µg/L | 3.3032 | ppb | 14:38:23 |
| 2 | Sc 361.383 | 1846098.6 | 1846098.6 | 96.662 | % | | | 14:39:17 |
| 2 | Y 371.029 | 1260367.6 | 1260367.6 | 96.217 | % | | | 14:39:17 |
| 2 | Ag 328.068† | -2932.2 | -2468.9 | -8.3594 | µg/L | -8.3594 | ppb | 14:39:23 |
| 2 | As 188.979† | -14.6 | -16.3 | -45.537 | µg/L | -45.537 | ppb | 14:39:43 |
| 2 | B 249.677† | 858.5 | 556.6 | -69.813 | µg/L | -69.813 | ppb | 14:39:23 |
| 2 | Ba 233.527† | 262.3 | 297.4 | 7.7059 | µg/L | 7.7059 | ppb | 14:39:43 |
| 2 | Be 313.107† | -4105.1 | -806.4 | -0.5367 | µg/L | -0.5367 | ppb | 14:39:23 |
| 2 | Cd 226.502† | 337.6 | 491.4 | -6.8376 | µg/L | -6.8376 | ppb | 14:39:43 |
| 2 | Co 228.616† | 17.7 | 27.1 | 1.2707 | µg/L | 1.2707 | ppb | 14:39:43 |
| 2 | Cr 267.716† | -53.0 | -2.4 | -0.0661 | µg/L | -0.0661 | ppb | 14:39:43 |
| 2 | Cu 324.752† | -1461.5 | -3998.0 | -2.8500 | µg/L | -2.8500 | ppb | 14:39:23 |
| 2 | Mn 257.610† | 43.7 | 289.4 | 6.2629 | µg/L | 6.2629 | ppb | 14:39:23 |
| 2 | Mo 202.031† | -104.0 | -100.0 | -3.8203 | µg/L | -3.8203 | ppb | 14:39:43 |
| 2 | Ni 231.604† | 142.4 | -154.9 | -6.1246 | µg/L | -6.1246 | ppb | 14:39:43 |
| 2 | P 214.914† | 112.7 | 89.0 | 187.84 | µg/L | 187.84 | ppb | 14:39:43 |
| 2 | Pb 220.353† | 58.0 | -37.2 | 10.116 | µg/L | 10.116 | ppb | 14:39:43 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 36.2 | 22.6 | 98.941 | µg/L | 98.941 ppb | 14:39:43 |
| 2 | Sb 206.836† | 53.9 | 28.8 | -12.353 | µg/L | -12.353 ppb | 14:39:43 |
| 2 | Se 196.026† | 26.7 | 11.8 | -35.549 | µg/L | -35.549 ppb | 14:39:43 |
| 2 | SiO2† | 1052.3 | -161.4 | -34.761 | µg/L | -34.761 ppb | 14:39:43 |
| 2 | Si 251.611† | 458.0 | 160.9 | 13.230 | µg/L | 13.230 ppb | 14:39:43 |
| 2 | Sn 189.927† | -63.6 | -65.0 | 3.8069 | µg/L | 3.8069 ppb | 14:39:43 |
| 2 | Ti 334.940† | 10748.6 | 11003.6 | -3.0781 | µg/L | -3.0781 ppb | 14:39:23 |
| 2 | Tl 190.801† | -35.3 | -12.3 | 2.2973 | µg/L | 2.2973 ppb | 14:39:43 |
| 2 | U 409.014† | -80.2 | -29.4 | -56.150 | µg/L | -56.150 ppb | 14:39:23 |
| 2 | V 292.402† | -1894.8 | -1916.0 | 0.7299 | µg/L | 0.7299 ppb | 14:39:23 |
| 2 | Zn 213.857† | 1462.8 | 1037.8 | -9.1272 | µg/L | -9.1272 ppb | 14:39:43 |
| 3 | Sc RADIAL | 54631.5 | 54631.5 | 100 | % | | 14:38:35 |
| 3 | Al 396.153Radial† | 667869.4 | 667182.1 | 497270 | µg/L | 497270 ppb | 14:38:29 |
| 3 | Ca 317.933Radial† | 503599.4 | 502894.4 | 473510 | µg/L | 473510 ppb | 14:38:29 |
| 3 | Fe 238.204 Radial† | 21467.0 | 21430.1 | 181630 | µg/L | 181630 ppb | 14:38:35 |
| 3 | K 766.490 Radial† | 96.7 | -31.8 | -22.617 | µg/L | -22.617 ppb | 14:38:35 |
| 3 | Mg 279.077 IEC† | 50895.3 | 50830.8 | 472850 | µg/L | 472850 ppb | 14:38:35 |
| 3 | Na 589.592 Radial† | 627.0 | 84.4 | 27.800 | µg/L | 27.800 ppb | 14:38:35 |
| 3 | Sr 421.552† | 372.9 | 333.0 | 3.4514 | µg/L | 3.4514 ppb | 14:38:35 |
| 3 | Sc 361.383 | 1825493.4 | 1825493.4 | 95.584 | % | | 14:39:49 |
| 3 | Y 371.029 | 1244094.0 | 1244094.0 | 94.975 | % | | 14:39:49 |
| 3 | Ag 328.068† | -2843.3 | -2410.2 | -7.8207 | µg/L | -7.8207 ppb | 14:39:55 |
| 3 | As 188.979† | -21.3 | -23.4 | -59.893 | µg/L | -59.893 ppb | 14:40:16 |
| 3 | B 249.677† | 774.3 | 478.6 | -73.863 | µg/L | -73.863 ppb | 14:39:55 |
| 3 | Ba 233.527† | 257.2 | 295.1 | 7.6465 | µg/L | 7.6465 ppb | 14:40:16 |
| 3 | Be 313.107† | -4046.5 | -793.0 | -0.5281 | µg/L | -0.5281 ppb | 14:39:55 |
| 3 | Cd 226.502† | 377.7 | 537.3 | -5.7094 | µg/L | -5.7094 ppb | 14:40:16 |
| 3 | Co 228.616† | 37.6 | 48.2 | 2.3043 | µg/L | 2.3043 ppb | 14:40:16 |
| 3 | Cr 267.716† | -81.4 | -32.7 | -0.7334 | µg/L | -0.7334 ppb | 14:40:16 |
| 3 | Cu 324.752† | -1475.8 | -4030.1 | -2.9042 | µg/L | -2.9042 ppb | 14:39:55 |
| 3 | Mn 257.610† | 50.9 | 297.4 | 6.2652 | µg/L | 6.2652 ppb | 14:39:55 |
| 3 | Mo 202.031† | -108.7 | -106.2 | -4.4310 | µg/L | -4.4310 ppb | 14:40:16 |
| 3 | Ni 231.604† | 152.6 | -142.5 | -5.4329 | µg/L | -5.4329 ppb | 14:40:16 |
| 3 | P 214.914† | 105.4 | 82.6 | 175.78 | µg/L | 175.78 ppb | 14:40:16 |
| 3 | Pb 220.353† | 72.0 | -21.8 | 14.642 | µg/L | 14.642 ppb | 14:40:16 |
| 3 | S 181.975 Axial† | 29.0 | 15.5 | 67.783 | µg/L | 67.783 ppb | 14:40:16 |
| 3 | Sb 206.836† | 45.6 | 20.7 | -20.949 | µg/L | -20.949 ppb | 14:40:16 |
| 3 | Se 196.026† | 33.1 | 18.8 | -27.759 | µg/L | -27.759 ppb | 14:40:16 |
| 3 | SiO2† | 1033.4 | -168.9 | -36.378 | µg/L | -36.378 ppb | 14:40:16 |
| 3 | Si 251.611† | 441.5 | 149.0 | 12.252 | µg/L | 12.252 ppb | 14:40:16 |
| 3 | Sn 189.927† | -53.7 | -55.3 | 8.6518 | µg/L | 8.6518 ppb | 14:40:16 |
| 3 | Ti 334.940† | 10848.2 | 11233.3 | -2.7738 | µg/L | -2.7738 ppb | 14:39:55 |
| 3 | Tl 190.801† | -26.7 | -3.6 | 14.470 | µg/L | 14.470 ppb | 14:40:16 |
| 3 | U 409.014† | -83.2 | -33.5 | -57.162 | µg/L | -57.162 ppb | 14:39:55 |
| 3 | V 292.402† | -1928.3 | -1973.2 | 0.2572 | µg/L | 0.2572 ppb | 14:39:55 |
| 3 | Zn 213.857† | 1454.4 | 1046.1 | -9.2482 | µg/L | -9.2482 ppb | 14:40:16 |

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**Mean Data: ICSA**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1842949.8 | 96.498 | % | 0.8438 | | | | 0.87% |
| Sc RADIAL | 54857.1 | 101 | % | 0.4 | | | | 0.36% |
| Y 371.029 | 1257290.0 | 95.982 | % | 0.9129 | | | | 0.95% |
| Ag 328.068† | -2426.1 | -8.0184 | µg/L | 0.29656 | -8.0184 | ppb | 0.29656 | 3.70% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 660533.8 | 492320 | µg/L | 4412.2 | 492320 | ppb | 4412.2 | 0.90% |
| QC value within limits for Al 396.153Radial Recovery = 98.46% | | | | | | | | |
| As 188.979† | -17.4 | -47.853 | µg/L | 11.0657 | -47.853 | ppb | 11.0657 | 23.12% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 517.8 | -71.522 | µg/L | 2.0977 | -71.522 | ppb | 2.0977 | 2.93% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 297.0 | 7.6977 | µg/L | 0.04758 | 7.6977 | ppb | 0.04758 | 0.62% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | -795.6 | -0.5296 | µg/L | 0.00649 | -0.5296 | ppb | 0.00649 | 1.23% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 498399.8 | 469270 | µg/L | 3908.9 | 469270 | ppb | 3908.9 | 0.83% |
| QC value within limits for Ca 317.933Radial Recovery = 93.85% | | | | | | | | |
| Cd 226.502† | 511.0 | -6.2984 | µg/L | 0.56575 | -6.2984 | ppb | 0.56575 | 8.98% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | 39.5 | 1.8778 | µg/L | 0.53996 | 1.8778 | ppb | 0.53996 | 28.75% |

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -14.5     -0.3313 µg/L      0.35406     -0.3313 ppb      0.35406 106.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†          -3984.7     -2.7538 µg/L      0.21524     -2.7538 ppb      0.21524   7.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   21288.6      180430 µg/L       1187.5      180430 ppb       1187.5   0.66%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.22%
K 766.490 Radial†       -16.9     -12.020 µg/L      13.4139     -12.020 ppb     13.4139 111.59%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      50412.6      468960 µg/L       3555.4      468960 ppb       3555.4   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.79%
Mn 257.610†            289.9      6.2353 µg/L      0.04986      6.2353 ppb      0.04986   0.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†           -102.9     -4.1257 µg/L      0.30534     -4.1257 ppb      0.30534   7.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     76.0      25.034 µg/L       9.8929      25.034 ppb       9.8929  39.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†           -146.0     -5.6403 µg/L      0.42090     -5.6403 ppb      0.42090   7.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†             82.7      175.47 µg/L       12.518      175.47 ppb       12.518   7.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -33.5      11.297 µg/L       2.9376      11.297 ppb       2.9376  26.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†       18.8      82.493 µg/L      15.6511      82.493 ppb      15.6511  18.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†            27.4     -13.984 µg/L       6.3094     -13.984 ppb       6.3094  45.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            16.6     -29.759 µg/L       5.0935     -29.759 ppb       5.0935  17.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                 -172.5     -37.139 µg/L       2.8350     -37.139 ppb       2.8350   7.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            145.8      11.984 µg/L       1.3994      11.984 ppb       1.3994  11.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -60.7      5.8417 µg/L      2.51374      5.8417 ppb      2.51374  43.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            326.3      3.3825 µg/L      0.07464      3.3825 ppb      0.07464   2.21%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          10984.4     -3.1328 µg/L      0.38914     -3.1328 ppb      0.38914  12.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -7.8      8.4783 µg/L      6.08871      8.4783 ppb      6.08871  71.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -13.1     -54.890 µg/L       3.1009     -54.890 ppb       3.1009   5.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            -1918.2      0.7074 µg/L      0.43934      0.7074 ppb      0.43934  62.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1033.9     -9.2747 µg/L      0.16235     -9.2747 ppb      0.16235   1.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/11/2010 14:40:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 54743.7 | 54743.7 | 100 | % | | | 14:41:04 |
| 1 | Al 396.153Radial† | 662601.8 | 660562.7 | 492330 | µg/L | 492330 | ppb | 14:40:59 |
| 1 | Ca 317.933Radial† | 498259.5 | 496539.4 | 467520 | µg/L | 467520 | ppb | 14:40:59 |
| 1 | Fe 238.204 Radial† | 21341.6 | 21261.1 | 180210 | µg/L | 180210 | ppb | 14:41:04 |
| 1 | K 766.490 Radial† | 6958.5 | 6808.5 | 4839.5 | µg/L | 4839.5 | ppb | 14:41:04 |
| 1 | Mg 279.077 IEC† | 50755.9 | 50587.7 | 470600 | µg/L | 470600 | ppb | 14:41:04 |
| 1 | Na 589.592 Radial† | 15455.3 | 14865.6 | 4893.8 | µg/L | 4893.8 | ppb | 14:41:04 |
| 1 | Sr 421.552† | 46875.8 | 46691.2 | 484.01 | µg/L | 484.01 | ppb | 14:41:04 |
| 1 | Sc 361.383 | 1846856.3 | 1846856.3 | 96.702 | % | | | 14:41:38 |
| 1 | Y 371.029 | 1258300.6 | 1258300.6 | 96.059 | % | | | 14:41:38 |
| 1 | Ag 328.068† | 27332.2 | 28828.8 | 243.20 | µg/L | 243.20 | ppb | 14:41:44 |
| 1 | As 188.979† | 237.2 | 244.2 | 462.48 | µg/L | 462.48 | ppb | 14:42:04 |
| 1 | B 249.677† | 11716.6 | 11784.7 | 421.73 | µg/L | 421.73 | ppb | 14:41:44 |
| 1 | Ba 233.527† | 17712.8 | 18342.8 | 478.47 | µg/L | 478.47 | ppb | 14:41:44 |
| 1 | Be 313.107† | 339671.1 | 354695.4 | 231.45 | µg/L | 231.45 | ppb | 14:41:38 |
| 1 | Cd 226.502† | 15868.9 | 16552.3 | 436.70 | µg/L | 436.70 | ppb | 14:41:44 |
| 1 | Co 228.616† | 8171.6 | 8459.1 | 415.69 | µg/L | 415.69 | ppb | 14:42:04 |
| 1 | Cr 267.716† | 20395.5 | 21143.4 | 465.37 | µg/L | 465.37 | ppb | 14:41:44 |
| 1 | Cu 324.752† | 70107.6 | 70012.4 | 514.10 | µg/L | 514.10 | ppb | 14:41:44 |
| 1 | Mn 257.610† | 126842.6 | 131412.5 | 460.20 | µg/L | 460.20 | ppb | 14:41:44 |
| 1 | Mo 202.031† | 4309.3 | 4463.8 | 483.23 | µg/L | 483.23 | ppb | 14:42:04 |
| 1 | Ni 231.604† | 7535.7 | 7490.5 | 411.39 | µg/L | 411.39 | ppb | 14:42:04 |
| 1 | P 214.914† | 1206.8 | 1220.3 | 2570.8 | µg/L | 2570.8 | ppb | 14:42:04 |
| 1 | Pb 220.353† | 1703.5 | 1664.4 | 464.39 | µg/L | 464.39 | ppb | 14:42:04 |
| 1 | S 181.975 Axial† | 587.6 | 592.8 | 2597.2 | µg/L | 2597.2 | ppb | 14:42:04 |
| 1 | Sb 206.836† | 550.1 | 541.9 | 495.21 | µg/L | 495.21 | ppb | 14:42:04 |
| 1 | Se 196.026† | 1471.2 | 1505.6 | 2238.6 | µg/L | 2238.6 | ppb | 14:42:04 |
| 1 | SiO2† | 47866.2 | 48248.6 | 10391 | µg/L | 10391 | ppb | 14:41:44 |
| 1 | Si 251.611† | 57854.9 | 59515.0 | 4892.4 | µg/L | 4892.4 | ppb | 14:41:44 |
| 1 | Sn 189.927† | 962.7 | 996.5 | 492.28 | µg/L | 492.28 | ppb | 14:42:04 |
| 1 | Ti 334.940† | 201101.7 | 207843.8 | 470.24 | µg/L | 470.24 | ppb | 14:41:44 |
| 1 | Tl 190.801† | 278.9 | 312.7 | 461.24 | µg/L | 461.24 | ppb | 14:42:04 |
| 1 | U 409.014† | 5055.9 | 5282.0 | 424.65 | µg/L | 424.65 | ppb | 14:41:44 |
| 1 | V 292.402† | 42477.1 | 43969.9 | 495.05 | µg/L | 495.05 | ppb | 14:41:44 |
| 1 | Zn 213.857† | 19021.9 | 19195.0 | 441.47 | µg/L | 441.47 | ppb | 14:41:44 |
| 2 | Sc RADIAL | 55060.7 | 55060.7 | 101 | % | | | 14:41:16 |
| 2 | Al 396.153Radial† | 664887.8 | 659025.8 | 491180 | µg/L | 491180 | ppb | 14:41:10 |
| 2 | Ca 317.933Radial† | 499367.7 | 494778.3 | 465860 | µg/L | 465860 | ppb | 14:41:10 |
| 2 | Fe 238.204 Radial† | 21754.5 | 21547.8 | 182640 | µg/L | 182640 | ppb | 14:41:16 |
| 2 | K 766.490 Radial† | 7103.8 | 6912.7 | 4913.5 | µg/L | 4913.5 | ppb | 14:41:16 |
| 2 | Mg 279.077 IEC† | 51410.3 | 50945.0 | 473920 | µg/L | 473920 | ppb | 14:41:16 |
| 2 | Na 589.592 Radial† | 15635.7 | 14955.7 | 4923.5 | µg/L | 4923.5 | ppb | 14:41:16 |
| 2 | Sr 421.552† | 47418.4 | 46960.1 | 486.80 | µg/L | 486.80 | ppb | 14:41:16 |
| 2 | Sc 361.383 | 1837075.1 | 1837075.1 | 96.190 | % | | | 14:42:10 |
| 2 | Y 371.029 | 1253427.6 | 1253427.6 | 95.687 | % | | | 14:42:10 |
| 2 | Ag 328.068† | 27052.1 | 28688.2 | 242.21 | µg/L | 242.21 | ppb | 14:42:16 |
| 2 | As 188.979† | 226.7 | 234.5 | 443.77 | µg/L | 443.77 | ppb | 14:42:37 |
| 2 | B 249.677† | 11617.2 | 11745.8 | 418.76 | µg/L | 418.76 | ppb | 14:42:16 |
| 2 | Ba 233.527† | 17456.8 | 18174.2 | 474.07 | µg/L | 474.07 | ppb | 14:42:16 |
| 2 | Be 313.107† | 337736.8 | 354554.8 | 231.36 | µg/L | 231.36 | ppb | 14:42:10 |
| 2 | Cd 226.502† | 15582.5 | 16341.8 | 430.62 | µg/L | 430.62 | ppb | 14:42:16 |
| 2 | Co 228.616† | 8172.6 | 8505.1 | 417.96 | µg/L | 417.96 | ppb | 14:42:37 |
| 2 | Cr 267.716† | 20089.6 | 20937.7 | 460.84 | µg/L | 460.84 | ppb | 14:42:16 |
| 2 | Cu 324.752† | 69141.0 | 69393.5 | 510.12 | µg/L | 510.12 | ppb | 14:42:16 |
| 2 | Mn 257.610† | 124994.1 | 130189.1 | 456.15 | µg/L | 456.15 | ppb | 14:42:16 |
| 2 | Mo 202.031† | 4295.8 | 4473.5 | 484.36 | µg/L | 484.36 | ppb | 14:42:37 |
| 2 | Ni 231.604† | 7541.0 | 7537.5 | 413.99 | µg/L | 413.99 | ppb | 14:42:37 |
| 2 | P 214.914† | 1237.1 | 1258.5 | 2651.1 | µg/L | 2651.1 | ppb | 14:42:37 |
| 2 | Pb 220.353† | 1701.2 | 1671.4 | 466.10 | µg/L | 466.10 | ppb | 14:42:37 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 598.3 | 607.2 | 2660.4 µg/L | 2660.4 ppb | 14:42:37 |
| 2 | Sb 206.836† | 550.2 | 545.1 | 498.59 µg/L | 498.59 ppb | 14:42:37 |
| 2 | Se 196.026† | 1466.3 | 1508.6 | 2247.3 µg/L | 2247.3 ppb | 14:42:37 |
| 2 | SiO2† | 47231.2 | 47852.0 | 10305 µg/L | 10305 ppb | 14:42:16 |
| 2 | Si 251.611† | 57079.6 | 59027.6 | 4852.4 µg/L | 4852.4 ppb | 14:42:16 |
| 2 | Sn 189.927† | 972.7 | 1012.1 | 499.64 µg/L | 499.64 ppb | 14:42:37 |
| 2 | Ti 334.940† | 198343.7 | 206083.8 | 465.72 µg/L | 465.72 ppb | 14:42:16 |
| 2 | Tl 190.801† | 259.5 | 294.1 | 435.56 µg/L | 435.56 ppb | 14:42:37 |
| 2 | U 409.014† | 4974.7 | 5225.3 | 419.28 µg/L | 419.28 ppb | 14:42:16 |
| 2 | V 292.402† | 41844.6 | 43546.2 | 490.82 µg/L | 490.82 ppb | 14:42:16 |
| 2 | Zn 213.857† | 18719.4 | 18985.3 | 435.92 µg/L | 435.92 ppb | 14:42:16 |
| 3 | Sc RADIAL | 54836.5 | 54836.5 | 100 % | | 14:41:27 |
| 3 | Al 396.153Radial† | 666707.4 | 663530.3 | 494540 µg/L | 494540 ppb | 14:41:21 |
| 3 | Ca 317.933Radial† | 500342.9 | 497771.9 | 468680 µg/L | 468680 ppb | 14:41:21 |
| 3 | Fe 238.204 Radial† | 21386.7 | 21269.9 | 180290 µg/L | 180290 ppb | 14:41:27 |
| 3 | K 766.490 Radial† | 6994.6 | 6832.8 | 4856.7 µg/L | 4856.7 ppb | 14:41:27 |
| 3 | Mg 279.077 IEC† | 50805.9 | 50551.7 | 470260 µg/L | 470260 ppb | 14:41:27 |
| 3 | Na 589.592 Radial† | 15470.0 | 14854.1 | 4890.0 µg/L | 4890.0 ppb | 14:41:27 |
| 3 | Sr 421.552† | 46844.7 | 46581.2 | 482.87 µg/L | 482.87 ppb | 14:41:27 |
| 3 | Sc 361.383 | 1833431.9 | 1833431.9 | 95.999 % | | 14:42:43 |
| 3 | Y 371.029 | 1252123.0 | 1252123.0 | 95.588 % | | 14:42:43 |
| 3 | Ag 328.068† | 27588.4 | 29302.7 | 247.00 µg/L | 247.00 ppb | 14:42:49 |
| 3 | As 188.979† | 241.1 | 250.0 | 473.71 µg/L | 473.71 ppb | 14:43:09 |
| 3 | B 249.677† | 11855.2 | 12017.8 | 431.89 µg/L | 431.89 ppb | 14:42:49 |
| 3 | Ba 233.527† | 17813.9 | 18582.3 | 484.71 µg/L | 484.71 ppb | 14:42:49 |
| 3 | Be 313.107† | 338767.0 | 356325.5 | 232.51 µg/L | 232.51 ppb | 14:42:43 |
| 3 | Cd 226.502† | 15965.4 | 16772.9 | 442.77 µg/L | 442.77 ppb | 14:42:49 |
| 3 | Co 228.616† | 8119.3 | 8466.6 | 416.04 µg/L | 416.04 ppb | 14:43:09 |
| 3 | Cr 267.716† | 20600.1 | 21511.0 | 473.46 µg/L | 473.46 ppb | 14:42:49 |
| 3 | Cu 324.752† | 70720.9 | 71182.1 | 522.28 µg/L | 522.28 ppb | 14:42:49 |
| 3 | Mn 257.610† | 127685.2 | 133250.6 | 466.59 µg/L | 466.59 ppb | 14:42:49 |
| 3 | Mo 202.031† | 4277.4 | 4463.2 | 483.17 µg/L | 483.17 ppb | 14:43:09 |
| 3 | Ni 231.604† | 7478.0 | 7487.4 | 411.22 µg/L | 411.22 ppb | 14:43:09 |
| 3 | P 214.914† | 1197.0 | 1219.3 | 2568.4 µg/L | 2568.4 ppb | 14:43:09 |
| 3 | Pb 220.353† | 1703.7 | 1677.5 | 467.96 µg/L | 467.96 ppb | 14:43:09 |
| 3 | S 181.975 Axial† | 585.7 | 595.2 | 2608.0 µg/L | 2608.0 ppb | 14:43:09 |
| 3 | Sb 206.836† | 542.2 | 537.9 | 491.06 µg/L | 491.06 ppb | 14:43:09 |
| 3 | Se 196.026† | 1453.1 | 1497.9 | 2227.0 µg/L | 2227.0 ppb | 14:43:09 |
| 3 | SiO2† | 48266.6 | 49028.1 | 10558 µg/L | 10558 ppb | 14:42:49 |
| 3 | Si 251.611† | 58341.2 | 60459.7 | 4970.1 µg/L | 4970.1 ppb | 14:42:49 |
| 3 | Sn 189.927† | 964.4 | 1005.4 | 496.36 µg/L | 496.36 ppb | 14:43:09 |
| 3 | Ti 334.940† | 202865.6 | 211203.9 | 478.37 µg/L | 478.37 ppb | 14:42:49 |
| 3 | Tl 190.801† | 278.4 | 314.2 | 463.55 µg/L | 463.55 ppb | 14:43:09 |
| 3 | U 409.014† | 5159.4 | 5428.1 | 437.79 µg/L | 437.79 ppb | 14:42:49 |
| 3 | V 292.402† | 42697.4 | 44521.1 | 500.97 µg/L | 500.97 ppb | 14:42:49 |
| 3 | Zn 213.857† | 19157.2 | 19480.1 | 448.59 µg/L | 448.59 ppb | 14:42:49 |

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**Mean Data: ICSAB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1839121.1 | 96.297 | % | 0.3635 | | | | 0.38% |
| Sc RADIAL | 54880.3 | 101 | % | 0.3 | | | | 0.30% |
| Y 371.029 | 1254617.1 | 95.778 | % | 0.2486 | | | | 0.26% |
| Ag 328.068† | 28939.9 | 244.14 | µg/L | 2.532 | 244.14 | ppb | 2.532 | 1.04% |
| QC value within limits for Ag 328.068 Recovery = 97.66% | | | | | | | | |
| Al 396.153Radial† | 661039.6 | 492680 | µg/L | 1706.7 | 492680 | ppb | 1706.7 | 0.35% |
| QC value within limits for Al 396.153Radial Recovery = 98.54% | | | | | | | | |
| As 188.979† | 242.9 | 459.99 | µg/L | 15.123 | 459.99 | ppb | 15.123 | 3.29% |
| QC value within limits for As 188.979 Recovery = 92.00% | | | | | | | | |
| B 249.677† | 11849.4 | 424.12 | µg/L | 6.887 | 424.12 | ppb | 6.887 | 1.62% |
| QC value within limits for B 249.677 Recovery = 84.82% | | | | | | | | |
| Ba 233.527† | 18366.5 | 479.08 | µg/L | 5.348 | 479.08 | ppb | 5.348 | 1.12% |
| QC value within limits for Ba 233.527 Recovery = 95.82% | | | | | | | | |
| Be 313.107† | 355191.9 | 231.77 | µg/L | 0.640 | 231.77 | ppb | 0.640 | 0.28% |
| QC value within limits for Be 313.107 Recovery = 92.71% | | | | | | | | |
| Ca 317.933Radial† | 496363.2 | 467360 | µg/L | 1416.6 | 467360 | ppb | 1416.6 | 0.30% |
| QC value within limits for Ca 317.933Radial Recovery = 93.47% | | | | | | | | |
| Cd 226.502† | 16555.7 | 436.70 | µg/L | 6.077 | 436.70 | ppb | 6.077 | 1.39% |
| QC value within limits for Cd 226.502 Recovery = 87.34% | | | | | | | | |
| Co 228.616† | 8476.9 | 416.56 | µg/L | 1.225 | 416.56 | ppb | 1.225 | 0.29% |

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   QC value within limits for Co 228.616  Recovery = 83.31%
Cr 267.716†            21197.4      466.55 µg/L        6.392      466.55 ppb        6.392   1.37%
   QC value within limits for Cr 267.716  Recovery = 93.31%
Cu 324.752†            70196.0      515.50 µg/L        6.202      515.50 ppb        6.202   1.20%
   QC value within limits for Cu 324.752  Recovery = 103.10%
Fe 238.204 Radial†     21359.6      181050 µg/L       1382.0      181050 ppb       1382.0   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.52%
K 766.490 Radial†       6851.3      4869.9 µg/L        38.72      4869.9 ppb        38.72   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 97.40%
Mg 279.077 IEC†        50694.8      471600 µg/L       2021.9      471600 ppb       2021.9   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.32%
Mn 257.610†           131617.4      460.98 µg/L        5.261      460.98 ppb        5.261   1.14%
   QC value within limits for Mn 257.610  Recovery = 92.20%
Mo 202.031†             4466.8      483.58 µg/L        0.671      483.58 ppb        0.671   0.14%
   QC value within limits for Mo 202.031  Recovery = 96.72%
Na 589.592 Radial†     14891.8      4902.4 µg/L        18.32      4902.4 ppb        18.32   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.05%
Ni 231.604†             7505.2      412.20 µg/L        1.552      412.20 ppb        1.552   0.38%
   QC value within limits for Ni 231.604  Recovery = 82.44%
P 214.914†              1232.7      2596.7 µg/L        47.05      2596.7 ppb        47.05   1.81%
   QC value within limits for P 214.914  Recovery = 103.87%
Pb 220.353†             1671.1      466.15 µg/L        1.785      466.15 ppb        1.785   0.38%
   QC value within limits for Pb 220.353  Recovery = 93.23%
S 181.975 Axial†         598.4      2621.9 µg/L        33.79      2621.9 ppb        33.79   1.29%
   QC value within limits for S 181.975 Axial  Recovery = 104.87%
Sb 206.836†              541.6      494.95 µg/L        3.768      494.95 ppb        3.768   0.76%
   QC value within limits for Sb 206.836  Recovery = 98.99%
Se 196.026†             1504.0      2237.7 µg/L        10.19      2237.7 ppb        10.19   0.46%
   QC value within limits for Se 196.026  Recovery = 89.51%
SiO2†                  48376.2       10418 µg/L        128.9       10418 ppb        128.9   1.24%
   QC value within limits for SiO2  Recovery = 97.41%
Si 251.611†            59667.4      4905.0 µg/L        59.86      4905.0 ppb        59.86   1.22%
   QC value within limits for Si 251.611  Recovery = 98.10%
Sn 189.927†             1004.7      496.10 µg/L        3.686      496.10 ppb        3.686   0.74%
   QC value within limits for Sn 189.927  Recovery = 99.22%
Sr 421.552†            46744.2      484.56 µg/L        2.020      484.56 ppb        2.020   0.42%
   QC value within limits for Sr 421.552  Recovery = 96.91%
Ti 334.940†           208377.1      471.44 µg/L        6.410      471.44 ppb        6.410   1.36%
   QC value within limits for Ti 334.940  Recovery = 94.29%
Tl 190.801†              307.0      453.45 µg/L       15.538      453.45 ppb       15.538   3.43%
   QC value within limits for Tl 190.801  Recovery = 90.69%
U 409.014†              5311.8      427.24 µg/L        9.525      427.24 ppb        9.525   2.23%
   QC value within limits for U 409.014  Recovery = 85.45%
V 292.402†             44012.4      495.61 µg/L        5.099      495.61 ppb        5.099   1.03%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            19220.1      441.99 µg/L        6.349      441.99 ppb        6.349   1.44%
   QC value within limits for Zn 213.857  Recovery = 88.40%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/11/2010 14:43:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 54698.7 | 54698.7 | 100 | % | | | 14:43:59 |
| 1 | Al 396.153Radial† | 649050.7 | 647585.6 | 482670 | µg/L | 482670 | ppb | 14:43:54 |
| 1 | Ca 317.933Radial† | 489494.3 | 488202.6 | 459670 | µg/L | 459670 | ppb | 14:43:54 |
| 1 | Fe 238.204 Radial† | 51606.4 | 51474.6 | 436280 | µg/L | 436280 | ppb | 14:43:59 |
| 1 | K 766.490 Radial† | 59.9 | -68.6 | -48.776 | µg/L | -48.776 | ppb | 14:43:59 |
| 1 | Mg 279.077 IEC† | 49787.3 | 49662.9 | 461710 | µg/L | 461710 | ppb | 14:43:59 |
| 1 | Na 589.592 Radial† | 1412387.5 | 1408635.5 | 463730 | µg/L | 463730 | ppb | 14:43:54 |
| 1 | Sr 421.552† | 535.1 | 494.4 | 5.1247 | µg/L | 5.1247 | ppb | 14:43:59 |
| 1 | Sc 361.383 | 1832827.1 | 1832827.1 | 95.968 | % | | | 14:44:34 |
| 1 | Y 371.029 | 1243371.2 | 1243371.2 | 94.920 | % | | | 14:44:34 |
| 1 | Ag 328.068† | -5331.8 | -4991.3 | -12.516 | µg/L | -12.516 | ppb | 14:44:40 |
| 1 | As 188.979† | -25.3 | -27.5 | -52.401 | µg/L | -52.401 | ppb | 14:45:01 |
| 1 | B 249.677† | 1493.7 | 1225.0 | -174.11 | µg/L | -174.11 | ppb | 14:44:40 |
| 1 | Ba 233.527† | 574.9 | 625.1 | 16.169 | µg/L | 16.169 | ppb | 14:45:01 |
| 1 | Be 313.107† | -11067.4 | -8092.0 | -5.2972 | µg/L | -5.2972 | ppb | 14:44:40 |
| 1 | Cd 226.502† | 1038.3 | 1224.0 | -15.542 | µg/L | -15.542 | ppb | 14:44:40 |
| 1 | Co 228.616† | 189.5 | 206.3 | 10.066 | µg/L | 10.066 | ppb | 14:45:01 |
| 1 | Cr 267.716† | 137.7 | 195.9 | 4.2704 | µg/L | 4.2704 | ppb | 14:45:01 |
| 1 | Cu 324.752† | -8795.2 | -11650.9 | -20.741 | µg/L | -20.741 | ppb | 14:44:40 |
| 1 | Mn 257.610† | -7006.5 | -7056.8 | 15.101 | µg/L | 15.101 | ppb | 14:44:34 |
| 1 | Mo 202.031† | -203.3 | -204.2 | -5.2185 | µg/L | -5.2185 | ppb | 14:45:01 |
| 1 | Ni 231.604† | 92.3 | -206.0 | -5.6060 | µg/L | -5.6060 | ppb | 14:45:01 |
| 1 | P 214.914† | 278.7 | 262.7 | 357.28 | µg/L | 357.28 | ppb | 14:45:01 |
| 1 | Pb 220.353† | 191.0 | 101.8 | 23.594 | µg/L | 23.594 | ppb | 14:45:01 |
| 1 | S 181.975 Axial† | 34.6 | 21.2 | 93.001 | µg/L | 93.001 | ppb | 14:45:01 |
| 1 | Sb 206.836† | 60.3 | 35.8 | -5.1147 | µg/L | -5.1147 | ppb | 14:45:01 |
| 1 | Se 196.026† | -124.6 | -145.7 | 431.09 | µg/L | 431.09 | ppb | 14:45:01 |
| 1 | SiO2† | 971.9 | -237.3 | -51.105 | µg/L | -51.105 | ppb | 14:45:01 |
| 1 | Si 251.611† | -251.2 | -574.6 | -47.235 | µg/L | -47.235 | ppb | 14:45:01 |
| 1 | Sn 189.927† | -32.5 | -33.0 | -9.5042 | µg/L | -9.5042 | ppb | 14:45:01 |
| 1 | Ti 334.940† | 13370.7 | 13816.4 | 4.0770 | µg/L | 4.0770 | ppb | 14:44:40 |
| 1 | Tl 190.801† | -49.5 | -27.3 | 33.449 | µg/L | 33.449 | ppb | 14:45:01 |
| 1 | U 409.014† | 138681.8 | 144562.6 | 13000 | µg/L | 13000 | ppb | 14:44:40 |
| 1 | V 292.402† | -5434.6 | -5618.7 | 4.9101 | µg/L | 4.9101 | ppb | 14:44:40 |
| 1 | Zn 213.857† | 2732.6 | 2371.8 | 12.479 | µg/L | 12.479 | ppb | 14:45:01 |
| 2 | Sc RADIAL | 54113.0 | 54113.0 | 99.2 | % | | | 14:44:11 |
| 2 | Al 396.153Radial† | 645987.5 | 651505.9 | 485590 | µg/L | 485590 | ppb | 14:44:06 |
| 2 | Ca 317.933Radial† | 485663.6 | 489625.6 | 461010 | µg/L | 461010 | ppb | 14:44:06 |
| 2 | Fe 238.204 Radial† | 51235.5 | 51657.9 | 437830 | µg/L | 437830 | ppb | 14:44:11 |
| 2 | K 766.490 Radial† | 83.9 | -43.8 | -31.167 | µg/L | -31.167 | ppb | 14:44:11 |
| 2 | Mg 279.077 IEC† | 49624.6 | 50036.5 | 465180 | µg/L | 465180 | ppb | 14:44:11 |
| 2 | Na 589.592 Radial† | 1405673.5 | 1417117.7 | 466520 | µg/L | 466520 | ppb | 14:44:06 |
| 2 | Sr 421.552† | 505.9 | 470.7 | 4.8794 | µg/L | 4.8794 | ppb | 14:44:11 |
| 2 | Sc 361.383 | 1837825.9 | 1837825.9 | 96.229 | % | | | 14:45:07 |
| 2 | Y 371.029 | 1247268.6 | 1247268.6 | 95.217 | % | | | 14:45:07 |
| 2 | Ag 328.068† | -5248.4 | -4889.5 | -11.624 | µg/L | -11.624 | ppb | 14:45:13 |
| 2 | As 188.979† | -21.7 | -23.6 | -44.761 | µg/L | -44.761 | ppb | 14:45:33 |
| 2 | B 249.677† | 1467.3 | 1193.4 | -176.30 | µg/L | -176.30 | ppb | 14:45:13 |
| 2 | Ba 233.527† | 558.0 | 605.8 | 15.663 | µg/L | 15.663 | ppb | 14:45:33 |
| 2 | Be 313.107† | -10966.6 | -7955.9 | -5.2083 | µg/L | -5.2083 | ppb | 14:45:13 |
| 2 | Cd 226.502† | 1019.9 | 1202.0 | -16.327 | µg/L | -16.327 | ppb | 14:45:13 |
| 2 | Co 228.616† | 178.5 | 194.3 | 9.4767 | µg/L | 9.4767 | ppb | 14:45:33 |
| 2 | Cr 267.716† | 83.6 | 139.3 | 3.0246 | µg/L | 3.0246 | ppb | 14:45:33 |
| 2 | Cu 324.752† | -8717.3 | -11545.0 | -19.786 | µg/L | -19.786 | ppb | 14:45:13 |
| 2 | Mn 257.610† | -6988.4 | -7018.1 | 15.303 | µg/L | 15.303 | ppb | 14:45:07 |
| 2 | Mo 202.031† | -191.4 | -191.4 | -3.7840 | µg/L | -3.7840 | ppb | 14:45:33 |
| 2 | Ni 231.604† | 81.9 | -217.1 | -6.1913 | µg/L | -6.1913 | ppb | 14:45:33 |
| 2 | P 214.914† | 298.0 | 282.1 | 398.14 | µg/L | 398.14 | ppb | 14:45:33 |
| 2 | Pb 220.353† | 188.3 | 98.5 | 22.919 | µg/L | 22.919 | ppb | 14:45:33 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 34.5 | 21.1 | 92.318 µg/L | 92.318 ppb | 14:45:33 |
| 2 | Sb 206.836† | 49.5 | 24.4 | -16.430 µg/L | -16.430 ppb | 14:45:33 |
| 2 | Se 196.026† | -135.7 | -156.8 | 414.89 µg/L | 414.89 ppb | 14:45:33 |
| 2 | SiO2† | 995.7 | -215.3 | -46.357 µg/L | -46.357 ppb | 14:45:33 |
| 2 | Si 251.611† | -242.1 | -564.4 | -46.400 µg/L | -46.400 ppb | 14:45:33 |
| 2 | Sn 189.927† | -48.8 | -49.9 | -17.017 µg/L | -17.017 ppb | 14:45:33 |
| 2 | Ti 334.940† | 13350.9 | 13757.9 | 3.6830 µg/L | 3.6830 ppb | 14:45:13 |
| 2 | Tl 190.801† | -50.6 | -28.2 | 32.395 µg/L | 32.395 ppb | 14:45:33 |
| 2 | U 409.014† | 138028.8 | 143491.0 | 12902 µg/L | 12902 ppb | 14:45:13 |
| 2 | V 292.402† | -5635.2 | -5811.8 | 2.9425 µg/L | 2.9425 ppb | 14:45:13 |
| 2 | Zn 213.857† | 2709.5 | 2340.1 | 11.417 µg/L | 11.417 ppb | 14:45:33 |
| 3 | Sc RADIAL | 54398.5 | 54398.5 | 99.7 % | | 14:44:23 |
| 3 | Al 396.153Radial† | 647423.4 | 649527.5 | 484110 µg/L | 484110 ppb | 14:44:18 |
| 3 | Ca 317.933Radial† | 488211.3 | 489611.2 | 461000 µg/L | 461000 ppb | 14:44:18 |
| 3 | Fe 238.204 Radial† | 51015.9 | 51166.4 | 433670 µg/L | 433670 ppb | 14:44:23 |
| 3 | K 766.490 Radial† | 138.6 | 10.6 | 7.5591 µg/L | 7.5591 ppb | 14:44:23 |
| 3 | Mg 279.077 IEC† | 49363.7 | 49512.1 | 460310 µg/L | 460310 ppb | 14:44:23 |
| 3 | Na 589.592 Radial† | 1412371.3 | 1416397.4 | 466280 µg/L | 466280 ppb | 14:44:18 |
| 3 | Sr 421.552† | 507.2 | 469.3 | 4.8646 µg/L | 4.8646 ppb | 14:44:23 |
| 3 | Sc 361.383 | 1837461.1 | 1837461.1 | 96.210 % | | 14:45:40 |
| 3 | Y 371.029 | 1245635.1 | 1245635.1 | 95.093 % | | 14:45:40 |
| 3 | Ag 328.068† | -5107.3 | -4744.0 | -10.729 µg/L | -10.729 ppb | 14:45:45 |
| 3 | As 188.979† | -16.7 | -18.5 | -34.960 µg/L | -34.960 ppb | 14:46:06 |
| 3 | B 249.677† | 1484.3 | 1211.3 | -173.35 µg/L | -173.35 ppb | 14:45:45 |
| 3 | Ba 233.527† | 553.8 | 601.6 | 15.554 µg/L | 15.554 ppb | 14:46:06 |
| 3 | Be 313.107† | -10842.7 | -7829.4 | -5.1258 µg/L | -5.1258 ppb | 14:45:45 |
| 3 | Cd 226.502† | 1000.6 | 1182.1 | -16.404 µg/L | -16.404 ppb | 14:45:45 |
| 3 | Co 228.616† | 166.8 | 182.2 | 8.8812 µg/L | 8.8812 ppb | 14:46:06 |
| 3 | Cr 267.716† | 114.6 | 171.5 | 3.7340 µg/L | 3.7340 ppb | 14:46:06 |
| 3 | Cu 324.752† | -8778.8 | -11610.6 | -20.823 µg/L | -20.823 ppb | 14:45:45 |
| 3 | Mn 257.610† | -6849.7 | -6875.4 | 15.438 µg/L | 15.438 ppb | 14:45:40 |
| 3 | Mo 202.031† | -180.2 | -179.7 | -2.7014 µg/L | -2.7014 ppb | 14:46:06 |
| 3 | Ni 231.604† | 78.6 | -220.5 | -6.4261 µg/L | -6.4261 ppb | 14:46:06 |
| 3 | P 214.914† | 292.5 | 276.4 | 389.07 µg/L | 389.07 ppb | 14:46:06 |
| 3 | Pb 220.353† | 166.9 | 76.3 | 17.067 µg/L | 17.067 ppb | 14:46:06 |
| 3 | S 181.975 Axial† | 27.8 | 14.1 | 61.607 µg/L | 61.607 ppb | 14:46:06 |
| 3 | Sb 206.836† | 44.0 | 18.8 | -21.940 µg/L | -21.940 ppb | 14:46:06 |
| 3 | Se 196.026† | -130.2 | -151.2 | 416.38 µg/L | 416.38 ppb | 14:46:06 |
| 3 | SiO2† | 1012.2 | -197.9 | -42.626 µg/L | -42.626 ppb | 14:46:06 |
| 3 | Si 251.611† | -265.6 | -588.9 | -48.410 µg/L | -48.410 ppb | 14:46:06 |
| 3 | Sn 189.927† | -42.0 | -42.7 | -13.864 µg/L | -13.864 ppb | 14:46:06 |
| 3 | Ti 334.940† | 13514.7 | 13930.9 | 4.4846 µg/L | 4.4846 ppb | 14:45:45 |
| 3 | Tl 190.801† | -39.7 | -17.0 | 47.407 µg/L | 47.407 ppb | 14:46:06 |
| 3 | U 409.014† | 138148.6 | 143644.0 | 12917 µg/L | 12917 ppb | 14:45:45 |
| 3 | V 292.402† | -5603.1 | -5779.6 | 2.8210 µg/L | 2.8210 ppb | 14:45:45 |
| 3 | Zn 213.857† | 2726.7 | 2358.5 | 12.353 µg/L | 12.353 ppb | 14:46:06 |

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**Mean Data: LR1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1836038.0 | 96.136 | % | 0.1459 | | | | 0.15% |
| Sc RADIAL | 54403.4 | 99.7 | % | 0.54 | | | | 0.54% |
| Y 371.029 | 1245425.0 | 95.077 | % | 0.1494 | | | | 0.16% |
| Ag 328.068† | -4875.0 | -11.623 | µg/L | 0.8935 | -11.623 | ppb | 0.8935 | 7.69% |
| Al 396.153Radial† | 649539.7 | 484120 | µg/L | 1461.0 | 484120 | ppb | 1461.0 | 0.30% |
| QC value within limits for Al 396.153Radial Recovery = 96.82% | | | | | | | | |
| As 188.979† | -23.2 | -44.041 | µg/L | 8.7426 | -44.041 | ppb | 8.7426 | 19.85% |
| B 249.677† | 1209.9 | -174.59 | µg/L | 1.536 | -174.59 | ppb | 1.536 | 0.88% |
| Ba 233.527† | 610.9 | 15.795 | µg/L | 0.3282 | 15.795 | ppb | 0.3282 | 2.08% |
| Be 313.107† | -7959.1 | -5.2104 | µg/L | 0.08573 | -5.2104 | ppb | 0.08573 | 1.65% |
| Ca 317.933Radial† | 489146.5 | 460560 | µg/L | 769.6 | 460560 | ppb | 769.6 | 0.17% |
| QC value within limits for Ca 317.933Radial Recovery = 92.11% | | | | | | | | |
| Cd 226.502† | 1202.7 | -16.091 | µg/L | 0.4769 | -16.091 | ppb | 0.4769 | 2.96% |
| Co 228.616† | 194.3 | 9.4746 | µg/L | 0.59237 | 9.4746 | ppb | 0.59237 | 6.25% |
| Cr 267.716† | 168.9 | 3.6764 | µg/L | 0.62486 | 3.6764 | ppb | 0.62486 | 17.00% |
| Cu 324.752† | -11602.2 | -20.450 | µg/L | 0.5769 | -20.450 | ppb | 0.5769 | 2.82% |
| Fe 238.204 Radial† | 51433.0 | 435930 | µg/L | 2105.0 | 435930 | ppb | 2105.0 | 0.48% |
| QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.19% | | | | | | | | |
| K 766.490 Radial† | -33.9 | -24.128 | µg/L | 28.8197 | -24.128 | ppb | 28.8197 | 119.44% |
| Mg 279.077 IEC† | 49737.1 | 462400 | µg/L | 2510.3 | 462400 | ppb | 2510.3 | 0.54% |

QC value within limits for Mg 279.077 IEC Recovery = 92.48%

| | | | | | | |
|---|---|---|---|---|---|---|
| Mn 257.610† | -6983.5 | 15.281 µg/L | 0.1695 | 15.281 ppb | 0.1695 | 1.11% |
| Mo 202.031† | -191.8 | -3.9013 µg/L | 1.26264 | -3.9013 ppb | 1.26264 | 32.36% |
| Na 589.592 Radial† | 1414050.2 | 465510 µg/L | 1548.3 | 465510 ppb | 1548.3 | 0.33% |

QC value within limits for Na 589.592 Radial Recovery = 93.10%

| | | | | | | |
|---|---|---|---|---|---|---|
| Ni 231.604† | -214.5 | -6.0745 µg/L | 0.42234 | -6.0745 ppb | 0.42234 | 6.95% |
| P 214.914† | 273.7 | 381.50 µg/L | 21.461 | 381.50 ppb | 21.461 | 5.63% |
| Pb 220.353† | 92.2 | 21.194 µg/L | 3.5893 | 21.194 ppb | 3.5893 | 16.94% |
| S 181.975 Axial† | 18.8 | 82.309 µg/L | 17.9317 | 82.309 ppb | 17.9317 | 21.79% |
| Sb 206.836† | 26.4 | -14.495 µg/L | 8.5779 | -14.495 ppb | 8.5779 | 59.18% |
| Se 196.026† | -151.2 | 420.79 µg/L | 8.956 | 420.79 ppb | 8.956 | 2.13% |
| SiO2† | -216.8 | -46.696 µg/L | 4.2500 | -46.696 ppb | 4.2500 | 9.10% |
| Si 251.611† | -576.0 | -47.348 µg/L | 1.0098 | -47.348 ppb | 1.0098 | 2.13% |
| Sn 189.927† | -41.9 | -13.462 µg/L | 3.7726 | -13.462 ppb | 3.7726 | 28.02% |
| Sr 421.552† | 478.1 | 4.9562 µg/L | 0.14608 | 4.9562 ppb | 0.14608 | 2.95% |
| Ti 334.940† | 13835.1 | 4.0815 µg/L | 0.40078 | 4.0815 ppb | 0.40078 | 9.82% |
| Tl 190.801† | -24.2 | 37.750 µg/L | 8.3798 | 37.750 ppb | 8.3798 | 22.20% |
| U 409.014† | 143899.2 | 12939 µg/L | 52.5 | 12939 ppb | 52.5 | 0.41% |

QC value less than the lower limit for U 409.014 Recovery = 86.26%

| | | | | | | |
|---|---|---|---|---|---|---|
| V 292.402† | -5736.7 | 3.5579 µg/L | 1.17264 | 3.5579 ppb | 1.17264 | 32.96% |
| Zn 213.857† | 2356.8 | 12.083 µg/L | 0.5800 | 12.083 ppb | 0.5800 | 4.80% |

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/11/2010 14:46:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55399.0 | 55399.0 | 102 | % | | | 14:46:58 |
| 1 | Al 396.153Radial† | 399.7 | 403.8 | 92.521 | µg/L | 92.521 | ppb | 14:46:58 |
| 1 | Ca 317.933Radial† | 334.1 | 149.9 | 141.18 | µg/L | 141.18 | ppb | 14:47:18 |
| 1 | Fe 238.204 Radial† | 7.1 | -7.5 | 138.28 | µg/L | 138.28 | ppb | 14:47:18 |
| 1 | K 766.490 Radial† | 420398.0 | 414012.0 | 294280 | µg/L | 294280 | ppb | 14:46:52 |
| 1 | Mg 279.077 IEC† | 6.8 | -4.5 | 128.44 | µg/L | 128.44 | ppb | 14:47:18 |
| 1 | Na 589.592 Radial† | 1342.1 | 780.2 | 256.86 | µg/L | 256.86 | ppb | 14:46:58 |
| 1 | Sr 421.552† | 951196.0 | 936997.9 | 9713.1 | µg/L | 9713.1 | ppb | 14:46:52 |
| 1 | Sc 361.383 | 1973675.2 | 1973675.2 | 103.34 | % | | | 14:48:49 |
| 1 | Y 371.029 | 1341693.6 | 1341693.6 | 102.43 | % | | | 14:48:49 |
| 1 | Ag 328.068† | -7295.5 | -6495.0 | 14.834 | µg/L | 14.834 | ppb | 14:48:55 |
| 1 | As 188.979† | 5210.7 | 5041.0 | 9833.2 | µg/L | 9833.2 | ppb | 14:48:55 |
| 1 | B 249.677† | 116645.4 | 112541.3 | 4957.2 | µg/L | 4957.2 | ppb | 14:48:49 |
| 1 | Ba 233.527† | 564583.2 | 546348.7 | 14244 | µg/L | 14244 | ppb | 14:48:49 |
| 1 | Be 313.107† | 4590165.2 | 4445144.6 | 2899.1 | µg/L | 2899.1 | ppb | 14:48:39 |
| 1 | Cd 226.502† | 360765.0 | 349238.8 | 9644.6 | µg/L | 9644.6 | ppb | 14:48:49 |
| 1 | Co 228.616† | 199452.7 | 193010.6 | 9487.0 | µg/L | 9487.0 | ppb | 14:48:49 |
| 1 | Cr 267.716† | 1141741.3 | 1104866.0 | 24309 | µg/L | 24309 | ppb | 14:48:49 |
| 1 | Cu 324.752† | 2993464.1 | 2894159.5 | 20216 | µg/L | 20216 | ppb | 14:48:49 |
| 1 | Mn 257.610† | 2858381.7 | 2766176.3 | 9578.9 | µg/L | 9578.9 | ppb | 14:48:49 |
| 1 | Mo 202.031† | 98264.3 | 95093.6 | 10148 | µg/L | 10148 | ppb | 14:48:49 |
| 1 | Ni 231.604† | 183070.7 | 176847.4 | 9657.8 | µg/L | 9657.8 | ppb | 14:48:49 |
| 1 | P 214.914† | 7469.6 | 7200.4 | 13482 | µg/L | 13482 | ppb | 14:48:55 |
| 1 | Pb 220.353† | 97644.4 | 94389.0 | 25180 | µg/L | 25180 | ppb | 14:48:49 |
| 1 | S 181.975 Axial† | 12516.5 | 12096.9 | 53001 | µg/L | 53001 | ppb | 14:48:55 |
| 1 | Sb 206.836† | 11239.2 | 10848.7 | 10569 | µg/L | 10569 | ppb | 14:48:55 |
| 1 | Se 196.026† | 6584.9 | 6356.1 | 9690.0 | µg/L | 9690.0 | ppb | 14:48:55 |
| 1 | SiO2† | 476520.0 | 459857.7 | 99033 | µg/L | 99033 | ppb | 14:48:49 |
| 1 | Si 251.611† | 580361.7 | 561278.0 | 46140 | µg/L | 46140 | ppb | 14:48:49 |
| 1 | Sn 189.927† | 23760.5 | 22992.8 | 10575 | µg/L | 10575 | ppb | 14:48:55 |
| 1 | Ti 334.940† | 4290484.1 | 4151599.7 | 9986.4 | µg/L | 9986.4 | ppb | 14:48:39 |
| 1 | Tl 190.801† | 7036.0 | 6832.7 | 9632.0 | µg/L | 9632.0 | ppb | 14:48:55 |
| 1 | U 409.014† | 835.4 | 862.0 | 78.046 | µg/L | 78.046 | ppb | 14:48:49 |
| 1 | V 292.402† | 975452.7 | 943947.6 | 10194 | µg/L | 10194 | ppb | 14:48:49 |
| 1 | Zn 213.857† | 598917.9 | 579071.4 | 14385 | µg/L | 14385 | ppb | 14:48:49 |
| 2 | Sc RADIAL | 55030.3 | 55030.3 | 101 | % | | | 14:47:30 |
| 2 | Al 396.153Radial† | 384.6 | 391.5 | 90.444 | µg/L | 90.444 | ppb | 14:47:30 |
| 2 | Ca 317.933Radial† | 398.0 | 215.6 | 202.97 | µg/L | 202.97 | ppb | 14:47:50 |
| 2 | Fe 238.204 Radial† | 10.5 | -4.0 | 160.36 | µg/L | 160.36 | ppb | 14:47:50 |
| 2 | K 766.490 Radial† | 423060.2 | 419427.1 | 298130 | µg/L | 298130 | ppb | 14:47:24 |
| 2 | Mg 279.077 IEC† | 11.3 | -0.0 | 164.54 | µg/L | 164.54 | ppb | 14:47:50 |
| 2 | Na 589.592 Radial† | 1212.5 | 660.6 | 217.48 | µg/L | 217.48 | ppb | 14:47:30 |
| 2 | Sr 421.552† | 957912.4 | 949937.4 | 9847.2 | µg/L | 9847.2 | ppb | 14:47:24 |
| 2 | Sc 361.383 | 1973904.3 | 1973904.3 | 103.35 | % | | | 14:49:14 |
| 2 | Y 371.029 | 1342735.7 | 1342735.7 | 102.51 | % | | | 14:49:14 |
| 2 | Ag 328.068† | -6836.3 | -6049.9 | 16.075 | µg/L | 16.075 | ppb | 14:49:19 |
| 2 | As 188.979† | 5005.3 | 4841.7 | 9444.3 | µg/L | 9444.3 | ppb | 14:49:19 |
| 2 | B 249.677† | 114403.0 | 110358.5 | 4860.1 | µg/L | 4860.1 | ppb | 14:49:14 |
| 2 | Ba 233.527† | 548071.4 | 530309.5 | 13826 | µg/L | 13826 | ppb | 14:49:14 |
| 2 | Be 313.107† | 4469193.3 | 4327583.5 | 2822.5 | µg/L | 2822.5 | ppb | 14:49:04 |
| 2 | Cd 226.502† | 349367.5 | 338170.7 | 9338.9 | µg/L | 9338.9 | ppb | 14:49:14 |
| 2 | Co 228.616† | 192536.9 | 186296.8 | 9156.8 | µg/L | 9156.8 | ppb | 14:49:14 |
| 2 | Cr 267.716† | 1093055.4 | 1057632.1 | 23270 | µg/L | 23270 | ppb | 14:49:14 |
| 2 | Cu 324.752† | 2898656.7 | 2802093.0 | 19573 | µg/L | 19573 | ppb | 14:49:14 |
| 2 | Mn 257.610† | 2761508.2 | 2672125.9 | 9253.2 | µg/L | 9253.2 | ppb | 14:49:14 |
| 2 | Mo 202.031† | 94921.3 | 91848.1 | 9802.1 | µg/L | 9802.1 | ppb | 14:49:14 |
| 2 | Ni 231.604† | 176871.2 | 170828.6 | 9329.1 | µg/L | 9329.1 | ppb | 14:49:14 |
| 2 | P 214.914† | 7023.8 | 6768.2 | 12612 | µg/L | 12612 | ppb | 14:49:19 |
| 2 | Pb 220.353† | 95131.3 | 91946.6 | 24529 | µg/L | 24529 | ppb | 14:49:14 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 12036.4 | 11630.9 | 50959 µg/L | 50959 ppb | | 14:49:19 |
| 2 | Sb 206.836† | 10693.6 | 10319.6 | 10054 µg/L | 10054 ppb | | 14:49:19 |
| 2 | Se 196.026† | 6359.9 | 6137.7 | 9357.1 µg/L | 9357.1 ppb | | 14:49:19 |
| 2 | SiO2† | 465181.8 | 448834.1 | 96659 µg/L | 96659 ppb | | 14:49:14 |
| 2 | Si 251.611† | 566752.0 | 548044.9 | 45052 µg/L | 45052 ppb | | 14:49:14 |
| 2 | Sn 189.927† | 22166.4 | 21447.8 | 9864.4 µg/L | 9864.4 ppb | | 14:49:19 |
| 2 | Ti 334.940† | 4180020.8 | 4044239.7 | 9728.1 µg/L | 9728.1 ppb | | 14:49:04 |
| 2 | Tl 190.801† | 6890.0 | 6690.7 | 9431.4 µg/L | 9431.4 ppb | | 14:49:19 |
| 2 | U 409.014† | 947.2 | 970.1 | 87.818 µg/L | 87.818 ppb | | 14:49:14 |
| 2 | V 292.402† | 941864.4 | 911339.9 | 9841.7 µg/L | 9841.7 ppb | | 14:49:14 |
| 2 | Zn 213.857† | 579745.6 | 560454.1 | 13922 µg/L | 13922 ppb | | 14:49:14 |
| 3 | Sc RADIAL | 56038.9 | 56038.9 | 103 % | | | 14:48:02 |
| 3 | Al 396.153Radial† | 479.5 | 477.1 | 179.56 µg/L | 179.56 ppb | | 14:48:02 |
| 3 | Ca 317.933Radial† | 383.6 | 194.4 | 183.07 µg/L | 183.07 ppb | | 14:48:22 |
| 3 | Fe 238.204 Radial† | 9.4 | -5.4 | 124.22 µg/L | 124.22 ppb | | 14:48:22 |
| 3 | K 766.490 Radial† | 428756.3 | 417423.2 | 296700 µg/L | 296700 ppb | | 14:47:56 |
| 3 | Mg 279.077 IEC† | 6.3 | -5.2 | 95.926 µg/L | 95.926 ppb | | 14:48:22 |
| 3 | Na 589.592 Radial† | 1260.6 | 685.8 | 225.77 µg/L | 225.77 ppb | | 14:48:02 |
| 3 | Sr 421.552† | 974533.2 | 949026.3 | 9837.8 µg/L | 9837.8 ppb | | 14:47:56 |
| 3 | Sc 361.383 | 1967182.2 | 1967182.2 | 103.00 % | | | 14:49:39 |
| 3 | Y 371.029 | 1337106.2 | 1337106.2 | 102.08 % | | | 14:49:39 |
| 3 | Ag 328.068† | -5873.5 | -5137.8 | 14.957 µg/L | 14.957 ppb | | 14:49:44 |
| 3 | As 188.979† | 4335.2 | 4207.7 | 8207.5 µg/L | 8207.5 ppb | | 14:49:44 |
| 3 | B 249.677† | 103256.6 | 99915.3 | 4398.2 µg/L | 4398.2 ppb | | 14:49:39 |
| 3 | Ba 233.527† | 483121.0 | 469064.3 | 12229 µg/L | 12229 ppb | | 14:49:39 |
| 3 | Be 313.107† | 4064814.3 | 3949767.9 | 2576.0 µg/L | 2576.0 ppb | | 14:49:28 |
| 3 | Cd 226.502† | 306350.7 | 297562.9 | 8217.4 µg/L | 8217.4 ppb | | 14:49:39 |
| 3 | Co 228.616† | 167417.3 | 162546.1 | 7988.6 µg/L | 7988.6 ppb | | 14:49:39 |
| 3 | Cr 267.716† | 928569.1 | 901554.3 | 19836 µg/L | 19836 ppb | | 14:49:39 |
| 3 | Cu 324.752† | 2527919.1 | 2451745.7 | 17126 µg/L | 17126 ppb | | 14:49:39 |
| 3 | Mn 257.610† | 2402081.4 | 2332306.4 | 8076.5 µg/L | 8076.5 ppb | | 14:49:39 |
| 3 | Mo 202.031† | 82713.5 | 80310.0 | 8570.8 µg/L | 8570.8 ppb | | 14:49:39 |
| 3 | Ni 231.604† | 153785.8 | 149000.9 | 8137.1 µg/L | 8137.1 ppb | | 14:49:39 |
| 3 | P 214.914† | 6020.9 | 5817.7 | 10807 µg/L | 10807 ppb | | 14:49:44 |
| 3 | Pb 220.353† | 84806.2 | 82236.9 | 21938 µg/L | 21938 ppb | | 14:49:39 |
| 3 | S 181.975 Axial† | 10412.0 | 10093.6 | 44224 µg/L | 44224 ppb | | 14:49:44 |
| 3 | Sb 206.836† | 9221.8 | 8926.1 | 8701.4 µg/L | 8701.4 ppb | | 14:49:44 |
| 3 | Se 196.026† | 5513.0 | 5336.4 | 8135.5 µg/L | 8135.5 ppb | | 14:49:44 |
| 3 | SiO2† | 415353.7 | 401996.4 | 86572 µg/L | 86572 ppb | | 14:49:39 |
| 3 | Si 251.611† | 505959.6 | 490898.3 | 40354 µg/L | 40354 ppb | | 14:49:39 |
| 3 | Sn 189.927† | 18682.4 | 18138.7 | 8342.5 µg/L | 8342.5 ppb | | 14:49:44 |
| 3 | Ti 334.940† | 3801346.2 | 3690423.2 | 8877.0 µg/L | 8877.0 ppb | | 14:49:28 |
| 3 | Tl 190.801† | 6155.2 | 6000.1 | 8459.0 µg/L | 8459.0 ppb | | 14:49:44 |
| 3 | U 409.014† | 834.8 | 864.1 | 78.225 µg/L | 78.225 ppb | | 14:49:39 |
| 3 | V 292.402† | 816284.9 | 792534.9 | 8558.2 µg/L | 8558.2 ppb | | 14:49:39 |
| 3 | Zn 213.857† | 507712.5 | 492437.5 | 12233 µg/L | 12233 ppb | | 14:49:39 |

**Mean Data: LR2**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1971587.2 | 103.23 | % | 0.200 | | | | 0.19% |
| Sc RADIAL | 55489.4 | 102 | % | 0.9 | | | | 0.92% |
| Y 371.029 | 1340511.8 | 102.34 | % | 0.229 | | | | 0.22% |
| Ag 328.068† | -5894.2 | 15.288 | µg/L | 0.6836 | 15.288 | ppb | 0.6836 | 4.47% |
| Al 396.153Radial† | 424.2 | 120.84 | µg/L | 50.861 | 120.84 | ppb | 50.861 | 42.09% |
| As 188.979† | 4696.8 | 9161.7 | µg/L | 848.90 | 9161.7 | ppb | 848.90 | 9.27% |
| QC value within limits for As 188.979 Recovery = 91.62% | | | | | | | | |
| B 249.677† | 107605.0 | 4738.5 | µg/L | 298.66 | 4738.5 | ppb | 298.66 | 6.30% |
| QC value within limits for B 249.677 Recovery = 94.77% | | | | | | | | |
| Ba 233.527† | 515240.8 | 13433 | µg/L | 1063.5 | 13433 | ppb | 1063.5 | 7.92% |
| QC value less than the lower limit for Ba 233.527 Recovery = 89.55% | | | | | | | | |
| Be 313.107† | 4240832.0 | 2765.9 | µg/L | 168.81 | 2765.9 | ppb | 168.81 | 6.10% |
| QC value within limits for Be 313.107 Recovery = 92.20% | | | | | | | | |
| Ca 317.933Radial† | 186.6 | 175.74 | µg/L | 31.540 | 175.74 | ppb | 31.540 | 17.95% |
| Cd 226.502† | 328324.1 | 9067.0 | µg/L | 751.45 | 9067.0 | ppb | 751.45 | 8.29% |
| QC value within limits for Cd 226.502 Recovery = 90.67% | | | | | | | | |
| Co 228.616† | 180617.8 | 8877.5 | µg/L | 787.27 | 8877.5 | ppb | 787.27 | 8.87% |
| QC value less than the lower limit for Co 228.616 Recovery = 88.77% | | | | | | | | |
| Cr 267.716† | 1021350.8 | 22472 | µg/L | 2340.9 | 22472 | ppb | 2340.9 | 10.42% |
| QC value less than the lower limit for Cr 267.716 Recovery = 89.89% | | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Cu 324.752† | 2715999.4 | 18972 µg/L | 1630.6 | 18972 ppb | 1630.6 | 8.59% |
| QC value within limits for Cu 324.752 Recovery = 94.86% | | | | | | |
| Fe 238.204 Radial† | -5.6 | 140.95 µg/L | 18.221 | 140.95 ppb | 18.221 | 12.93% |
| K 766.490 Radial† | 416954.1 | 296370 µg/L | 1946.1 | 296370 ppb | 1946.1 | 0.66% |
| QC value within limits for K 766.490 Radial Recovery = 98.79% | | | | | | |
| Mg 279.077 IEC† | -3.2 | 129.64 µg/L | 34.323 | 129.64 ppb | 34.323 | 26.48% |
| Mn 257.610† | 2590202.9 | 8969.5 µg/L | 790.37 | 8969.5 ppb | 790.37 | 8.81% |
| QC value less than the lower limit for Mn 257.610 Recovery = 89.70% | | | | | | |
| Mo 202.031† | 89083.9 | 9507.1 µg/L | 829.20 | 9507.1 ppb | 829.20 | 8.72% |
| QC value within limits for Mo 202.031 Recovery = 95.07% | | | | | | |
| Na 589.592 Radial† | 708.9 | 233.37 µg/L | 20.762 | 233.37 ppb | 20.762 | 8.90% |
| Ni 231.604† | 165559.0 | 9041.3 µg/L | 800.17 | 9041.3 ppb | 800.17 | 8.85% |
| QC value within limits for Ni 231.604 Recovery = 90.41% | | | | | | |
| P 214.914† | 6595.5 | 12300 µg/L | 1364.7 | 12300 ppb | 1364.7 | 11.09% |
| QC value less than the lower limit for P 214.914 Recovery = 82.00% | | | | | | |
| Pb 220.353† | 89524.2 | 23882 µg/L | 1714.8 | 23882 ppb | 1714.8 | 7.18% |
| QC value within limits for Pb 220.353 Recovery = 95.53% | | | | | | |
| S 181.975 Axial† | 11273.8 | 49394 µg/L | 4592.8 | 49394 ppb | 4592.8 | 9.30% |
| QC value within limits for S 181.975 Axial Recovery = 98.79% | | | | | | |
| Sb 206.836† | 10031.5 | 9774.9 µg/L | 964.64 | 9774.9 ppb | 964.64 | 9.87% |
| QC value within limits for Sb 206.836 Recovery = 97.75% | | | | | | |
| Se 196.026† | 5943.4 | 9060.9 µg/L | 818.48 | 9060.9 ppb | 818.48 | 9.03% |
| QC value within limits for Se 196.026 Recovery = 90.61% | | | | | | |
| SiO2† | 436896.1 | 94088 µg/L | 6616.3 | 94088 ppb | 6616.3 | 7.03% |
| QC value less than the lower limit for SiO2 Recovery = 87.93% | | | | | | |
| Si 251.611† | 533407.1 | 43849 µg/L | 3074.8 | 43849 ppb | 3074.8 | 7.01% |
| QC value less than the lower limit for Si 251.611 Recovery = 87.70% | | | | | | |
| Sn 189.927† | 20859.8 | 9594.0 µg/L | 1140.59 | 9594.0 ppb | 1140.59 | 11.89% |
| QC value within limits for Sn 189.927 Recovery = 95.94% | | | | | | |
| Sr 421.552† | 945320.6 | 9799.4 µg/L | 74.86 | 9799.4 ppb | 74.86 | 0.76% |
| QC value within limits for Sr 421.552 Recovery = 97.99% | | | | | | |
| Ti 334.940† | 3962087.5 | 9530.5 µg/L | 580.46 | 9530.5 ppb | 580.46 | 6.09% |
| QC value within limits for Ti 334.940 Recovery = 95.30% | | | | | | |
| Tl 190.801† | 6507.8 | 9174.1 µg/L | 627.37 | 9174.1 ppb | 627.37 | 6.84% |
| QC value within limits for Tl 190.801 Recovery = 91.74% | | | | | | |
| U 409.014† | 898.7 | 81.363 µg/L | 5.5909 | 81.363 ppb | 5.5909 | 6.87% |
| V 292.402† | 882607.5 | 9531.4 µg/L | 861.08 | 9531.4 ppb | 861.08 | 9.03% |
| QC value within limits for V 292.402 Recovery = 95.31% | | | | | | |
| Zn 213.857† | 543987.7 | 13513 µg/L | 1132.6 | 13513 ppb | 1132.6 | 8.38% |
| QC value within limits for Zn 213.857 Recovery = 90.09% | | | | | | |

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 14:49:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56804.1 | 56804.1 | 104 | % | | | 14:50:31 |
| 1 | Al 396.153Radial† | 6842.1 | 6583.7 | 4896.3 | µg/L | 4896.3 | ppb | 14:50:31 |
| 1 | Ca 317.933Radial† | 5575.3 | 5177.3 | 4874.7 | µg/L | 4874.7 | ppb | 14:50:52 |
| 1 | Fe 238.204 Radial† | 620.0 | 581.2 | 4936.5 | µg/L | 4936.5 | ppb | 14:50:52 |
| 1 | K 766.490 Radial† | 7520.1 | 7096.5 | 5044.1 | µg/L | 5044.1 | ppb | 14:50:31 |
| 1 | Mg 279.077 IEC† | 574.4 | 540.6 | 5034.2 | µg/L | 5034.2 | ppb | 14:50:52 |
| 1 | Na 589.592 Radial† | 31573.0 | 29791.8 | 9807.5 | µg/L | 9807.5 | ppb | 14:50:31 |
| 1 | Sr 421.552† | 48614.5 | 46666.6 | 483.75 | µg/L | 483.75 | ppb | 14:50:31 |
| 1 | Sc 361.383 | 1985086.2 | 1985086.2 | 103.94 | % | | | 14:51:55 |
| 1 | Y 371.029 | 1355705.3 | 1355705.3 | 103.50 | % | | | 14:51:55 |
| 1 | Ag 328.068† | 63419.1 | 61579.6 | 492.20 | µg/L | 492.20 | ppb | 14:52:00 |
| 1 | As 188.979† | 283.1 | 271.2 | 529.04 | µg/L | 529.04 | ppb | 14:52:21 |
| 1 | B 249.677† | 12082.8 | 11293.3 | 491.77 | µg/L | 491.77 | ppb | 14:52:00 |
| 1 | Ba 233.527† | 19621.7 | 18904.0 | 493.12 | µg/L | 493.12 | ppb | 14:52:00 |
| 1 | Be 313.107† | 773609.6 | 747725.8 | 488.12 | µg/L | 488.12 | ppb | 14:51:55 |
| 1 | Cd 226.502† | 18494.8 | 17935.8 | 494.76 | µg/L | 494.76 | ppb | 14:52:00 |
| 1 | Co 228.616† | 10503.4 | 10114.1 | 497.19 | µg/L | 497.19 | ppb | 14:52:00 |
| 1 | Cr 267.716† | 23548.0 | 22707.7 | 499.79 | µg/L | 499.79 | ppb | 14:52:00 |
| 1 | Cu 324.752† | 76174.0 | 70800.5 | 495.24 | µg/L | 495.24 | ppb | 14:52:00 |
| 1 | Mn 257.610† | 149145.1 | 143735.7 | 498.19 | µg/L | 498.19 | ppb | 14:51:55 |
| 1 | Mo 202.031† | 5080.3 | 4895.3 | 522.62 | µg/L | 522.62 | ppb | 14:52:21 |
| 1 | Ni 231.604† | 9759.2 | 9087.1 | 496.31 | µg/L | 496.31 | ppb | 14:52:00 |
| 1 | P 214.914† | 1255.3 | 1180.1 | 2486.8 | µg/L | 2486.8 | ppb | 14:52:21 |
| 1 | Pb 220.353† | 2124.3 | 1946.6 | 519.63 | µg/L | 519.63 | ppb | 14:52:21 |
| 1 | S 181.975 Axial† | 258.7 | 234.1 | 1025.7 | µg/L | 1025.7 | ppb | 14:52:21 |
| 1 | Sb 206.836† | 589.1 | 539.9 | 533.84 | µg/L | 533.84 | ppb | 14:52:21 |
| 1 | Se 196.026† | 360.1 | 330.7 | 511.73 | µg/L | 511.73 | ppb | 14:52:21 |
| 1 | SiO2† | 26768.3 | 24503.7 | 5277.0 | µg/L | 5277.0 | ppb | 14:52:00 |
| 1 | Si 251.611† | 31600.0 | 30089.3 | 2473.5 | µg/L | 2473.5 | ppb | 14:52:00 |
| 1 | Sn 189.927† | 1182.0 | 1138.1 | 523.47 | µg/L | 523.47 | ppb | 14:52:21 |
| 1 | Ti 334.940† | 213092.8 | 204899.2 | 492.55 | µg/L | 492.55 | ppb | 14:51:55 |
| 1 | Tl 190.801† | 347.4 | 358.5 | 506.37 | µg/L | 506.37 | ppb | 14:52:21 |
| 1 | U 409.014† | 5696.3 | 5534.0 | 500.04 | µg/L | 500.04 | ppb | 14:52:00 |
| 1 | V 292.402† | 48064.4 | 46286.7 | 499.57 | µg/L | 499.57 | ppb | 14:52:00 |
| 1 | Zn 213.857† | 21219.3 | 19939.4 | 494.39 | µg/L | 494.39 | ppb | 14:52:00 |
| 2 | Sc RADIAL | 56818.7 | 56818.7 | 104 | % | | | 14:50:57 |
| 2 | Al 396.153Radial† | 6864.1 | 6603.1 | 4910.8 | µg/L | 4910.8 | ppb | 14:50:57 |
| 2 | Ca 317.933Radial† | 5535.1 | 5137.3 | 4837.1 | µg/L | 4837.1 | ppb | 14:51:17 |
| 2 | Fe 238.204 Radial† | 615.6 | 576.8 | 4899.1 | µg/L | 4899.1 | ppb | 14:51:17 |
| 2 | K 766.490 Radial† | 7426.8 | 7005.0 | 4979.1 | µg/L | 4979.1 | ppb | 14:50:57 |
| 2 | Mg 279.077 IEC† | 575.7 | 541.7 | 5044.4 | µg/L | 5044.4 | ppb | 14:51:17 |
| 2 | Na 589.592 Radial† | 31604.5 | 29814.2 | 9814.9 | µg/L | 9814.9 | ppb | 14:50:57 |
| 2 | Sr 421.552† | 48545.6 | 46588.5 | 482.94 | µg/L | 482.94 | ppb | 14:50:57 |
| 2 | Sc 361.383 | 1982851.3 | 1982851.3 | 103.82 | % | | | 14:52:28 |
| 2 | Y 371.029 | 1354649.3 | 1354649.3 | 103.41 | % | | | 14:52:28 |
| 2 | Ag 328.068† | 64081.0 | 62286.0 | 497.83 | µg/L | 497.83 | ppb | 14:52:34 |
| 2 | As 188.979† | 276.6 | 265.3 | 517.47 | µg/L | 517.47 | ppb | 14:52:54 |
| 2 | B 249.677† | 12111.5 | 11334.1 | 493.59 | µg/L | 493.59 | ppb | 14:52:34 |
| 2 | Ba 233.527† | 19855.9 | 19150.8 | 499.56 | µg/L | 499.56 | ppb | 14:52:34 |
| 2 | Be 313.107† | 767601.6 | 742777.9 | 484.89 | µg/L | 484.89 | ppb | 14:52:28 |
| 2 | Cd 226.502† | 18724.1 | 18176.8 | 501.42 | µg/L | 501.42 | ppb | 14:52:34 |
| 2 | Co 228.616† | 10623.9 | 10241.5 | 503.47 | µg/L | 503.47 | ppb | 14:52:34 |
| 2 | Cr 267.716† | 23965.4 | 23135.3 | 509.20 | µg/L | 509.20 | ppb | 14:52:34 |
| 2 | Cu 324.752† | 76944.2 | 71624.9 | 501.00 | µg/L | 501.00 | ppb | 14:52:34 |
| 2 | Mn 257.610† | 147951.6 | 142747.9 | 494.77 | µg/L | 494.77 | ppb | 14:52:28 |
| 2 | Mo 202.031† | 5059.8 | 4881.0 | 521.09 | µg/L | 521.09 | ppb | 14:52:54 |
| 2 | Ni 231.604† | 9897.9 | 9231.3 | 504.18 | µg/L | 504.18 | ppb | 14:52:34 |
| 2 | P 214.914† | 1254.5 | 1180.6 | 2487.4 | µg/L | 2487.4 | ppb | 14:52:54 |
| 2 | Pb 220.353† | 2113.7 | 1938.7 | 517.51 | µg/L | 517.51 | ppb | 14:52:54 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 253.9 | 229.7 | 1006.6 | µg/L | 1006.6 ppb | 14:52:54 |
| 2 | Sb 206.836† | 570.0 | 522.0 | 516.18 | µg/L | 516.18 ppb | 14:52:54 |
| 2 | Se 196.026† | 357.5 | 328.5 | 508.28 | µg/L | 508.28 ppb | 14:52:54 |
| 2 | SiO2† | 27016.3 | 24771.5 | 5334.7 | µg/L | 5334.7 ppb | 14:52:34 |
| 2 | Si 251.611† | 31927.7 | 30439.2 | 2502.3 | µg/L | 2502.3 ppb | 14:52:34 |
| 2 | Sn 189.927† | 1183.2 | 1140.5 | 524.61 | µg/L | 524.61 ppb | 14:52:54 |
| 2 | Ti 334.940† | 211586.4 | 203679.4 | 489.61 | µg/L | 489.61 ppb | 14:52:28 |
| 2 | Tl 190.801† | 345.3 | 356.8 | 503.93 | µg/L | 503.93 ppb | 14:52:54 |
| 2 | U 409.014† | 5694.5 | 5538.4 | 500.46 | µg/L | 500.46 ppb | 14:52:34 |
| 2 | V 292.402† | 48494.6 | 46753.2 | 504.55 | µg/L | 504.55 ppb | 14:52:34 |
| 2 | Zn 213.857† | 21488.9 | 20222.1 | 501.41 | µg/L | 501.41 ppb | 14:52:34 |
| 3 | Sc RADIAL | 57349.9 | 57349.9 | 105 | % | | 14:51:23 |
| 3 | Al 396.153Radial† | 6954.4 | 6628.0 | 4931.1 | µg/L | 4931.1 ppb | 14:51:23 |
| 3 | Ca 317.933Radial† | 5532.3 | 5085.5 | 4788.3 | µg/L | 4788.3 ppb | 14:51:43 |
| 3 | Fe 238.204 Radial† | 617.1 | 572.8 | 4864.4 | µg/L | 4864.4 ppb | 14:51:43 |
| 3 | K 766.490 Radial† | 7512.2 | 7020.2 | 4989.9 | µg/L | 4989.9 ppb | 14:51:23 |
| 3 | Mg 279.077 IEC† | 569.2 | 530.4 | 4937.8 | µg/L | 4937.8 ppb | 14:51:43 |
| 3 | Na 589.592 Radial† | 31885.8 | 29800.8 | 9810.5 | µg/L | 9810.5 ppb | 14:51:23 |
| 3 | Sr 421.552† | 49101.8 | 46686.0 | 483.95 | µg/L | 483.95 ppb | 14:51:23 |
| 3 | Sc 361.383 | 1990626.4 | 1990626.4 | 104.23 | % | | 14:53:01 |
| 3 | Y 371.029 | 1359542.7 | 1359542.7 | 103.79 | % | | 14:53:01 |
| 3 | Ag 328.068† | 60113.1 | 58238.1 | 465.39 | µg/L | 465.39 ppb | 14:53:07 |
| 3 | As 188.979† | 235.3 | 224.6 | 438.16 | µg/L | 438.16 ppb | 14:53:28 |
| 3 | B 249.677† | 11347.7 | 10555.7 | 459.50 | µg/L | 459.50 ppb | 14:53:07 |
| 3 | Ba 233.527† | 18299.9 | 17583.2 | 458.65 | µg/L | 458.65 ppb | 14:53:07 |
| 3 | Be 313.107† | 726470.7 | 700428.5 | 457.24 | µg/L | 457.24 ppb | 14:53:01 |
| 3 | Cd 226.502† | 17137.6 | 16584.2 | 457.44 | µg/L | 457.44 ppb | 14:53:07 |
| 3 | Co 228.616† | 9675.2 | 9291.3 | 456.68 | µg/L | 456.68 ppb | 14:53:07 |
| 3 | Cr 267.716† | 21632.8 | 20807.2 | 457.96 | µg/L | 457.96 ppb | 14:53:07 |
| 3 | Cu 324.752† | 71181.3 | 65806.4 | 460.35 | µg/L | 460.35 ppb | 14:53:07 |
| 3 | Mn 257.610† | 140886.2 | 135412.6 | 469.36 | µg/L | 469.36 ppb | 14:53:01 |
| 3 | Mo 202.031† | 4241.7 | 4077.1 | 435.30 | µg/L | 435.30 ppb | 14:53:28 |
| 3 | Ni 231.604† | 9011.2 | 8343.3 | 455.69 | µg/L | 455.69 ppb | 14:53:07 |
| 3 | P 214.914† | 1075.3 | 1004.1 | 2111.2 | µg/L | 2111.2 ppb | 14:53:28 |
| 3 | Pb 220.353† | 1866.0 | 1693.1 | 451.84 | µg/L | 451.84 ppb | 14:53:28 |
| 3 | S 181.975 Axial† | 232.5 | 208.2 | 912.40 | µg/L | 912.40 ppb | 14:53:28 |
| 3 | Sb 206.836† | 504.7 | 457.3 | 451.62 | µg/L | 451.62 ppb | 14:53:28 |
| 3 | Se 196.026† | 310.0 | 281.6 | 436.86 | µg/L | 436.86 ppb | 14:53:28 |
| 3 | SiO2† | 25184.9 | 22912.8 | 4934.4 | µg/L | 4934.4 ppb | 14:53:07 |
| 3 | Si 251.611† | 29623.3 | 28108.2 | 2310.6 | µg/L | 2310.6 ppb | 14:53:07 |
| 3 | Sn 189.927† | 974.4 | 935.7 | 430.40 | µg/L | 430.40 ppb | 14:53:28 |
| 3 | Ti 334.940† | 200395.3 | 192146.5 | 461.88 | µg/L | 461.88 ppb | 14:53:01 |
| 3 | Tl 190.801† | 314.8 | 326.3 | 461.00 | µg/L | 461.00 ppb | 14:53:28 |
| 3 | U 409.014† | 5084.0 | 4931.3 | 445.50 | µg/L | 445.50 ppb | 14:53:07 |
| 3 | V 292.402† | 43900.0 | 42162.6 | 454.79 | µg/L | 454.79 ppb | 14:53:07 |
| 3 | Zn 213.857† | 19753.8 | 18476.6 | 458.11 | µg/L | 458.11 ppb | 14:53:07 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1986188.0 | 104.00 | % | 0.210 | | | | 0.20% |
| Sc RADIAL | 56990.9 | 104 | % | 0.6 | | | | 0.55% |
| Y 371.029 | 1356632.4 | 103.57 | % | 0.197 | | | | 0.19% |
| Ag 328.068† | 60701.2 | 485.14 | µg/L | 17.336 | 485.14 | ppb | 17.336 | 3.57% |
| QC value within limits for Ag 328.068 Recovery = 97.03% | | | | | | | | |
| Al 396.153Radial† | 6604.9 | 4912.7 | µg/L | 17.49 | 4912.7 | ppb | 17.49 | 0.36% |
| QC value within limits for Al 396.153Radial Recovery = 98.25% | | | | | | | | |
| As 188.979† | 253.7 | 494.89 | µg/L | 49.467 | 494.89 | ppb | 49.467 | 10.00% |
| QC value within limits for As 188.979 Recovery = 98.98% | | | | | | | | |
| B 249.677† | 11061.0 | 481.62 | µg/L | 19.175 | 481.62 | ppb | 19.175 | 3.98% |
| QC value within limits for B 249.677 Recovery = 96.32% | | | | | | | | |
| Ba 233.527† | 18546.0 | 483.78 | µg/L | 21.996 | 483.78 | ppb | 21.996 | 4.55% |
| QC value within limits for Ba 233.527 Recovery = 96.76% | | | | | | | | |
| Be 313.107† | 730310.7 | 476.75 | µg/L | 16.971 | 476.75 | ppb | 16.971 | 3.56% |
| QC value within limits for Be 313.107 Recovery = 95.35% | | | | | | | | |
| Ca 317.933Radial† | 5133.4 | 4833.4 | µg/L | 43.35 | 4833.4 | ppb | 43.35 | 0.90% |
| QC value within limits for Ca 317.933Radial Recovery = 96.67% | | | | | | | | |
| Cd 226.502† | 17565.6 | 484.54 | µg/L | 23.706 | 484.54 | ppb | 23.706 | 4.89% |
| QC value within limits for Cd 226.502 Recovery = 96.91% | | | | | | | | |
| Co 228.616† | 9882.3 | 485.78 | µg/L | 25.392 | 485.78 | ppb | 25.392 | 5.23% |

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   QC value within limits for Co 228.616  Recovery = 97.16%
Cr 267.716†            22216.8      488.98 µg/L        27.276      488.98 ppb         27.276   5.58%
   QC value within limits for Cr 267.716  Recovery = 97.80%
Cu 324.752†            69410.6      485.53 µg/L        21.996      485.53 ppb         21.996   4.53%
   QC value within limits for Cu 324.752  Recovery = 97.11%
Fe 238.204 Radial†       576.9      4900.0 µg/L         36.10      4900.0 ppb          36.10   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.00%
K 766.490 Radial†       7040.6      5004.4 µg/L         34.84      5004.4 ppb          34.84   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 100.09%
Mg 279.077 IEC†          537.5      5005.5 µg/L         58.81      5005.5 ppb          58.81   1.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.11%
Mn 257.610†           140632.1      487.44 µg/L        15.748      487.44 ppb         15.748   3.23%
   QC value within limits for Mn 257.610  Recovery = 97.49%
Mo 202.031†             4617.8      493.00 µg/L        49.981      493.00 ppb         49.981  10.14%
   QC value within limits for Mo 202.031  Recovery = 98.60%
Na 589.592 Radial†     29802.3      9811.0 µg/L          3.72      9811.0 ppb           3.72   0.04%
   QC value within limits for Na 589.592 Radial  Recovery = 98.11%
Ni 231.604†             8887.2      485.39 µg/L        26.026      485.39 ppb         26.026   5.36%
   QC value within limits for Ni 231.604  Recovery = 97.08%
P 214.914†              1121.6      2361.8 µg/L       217.03      2361.8 ppb         217.03   9.19%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1859.5      496.33 µg/L        38.539      496.33 ppb         38.539   7.76%
   QC value within limits for Pb 220.353  Recovery = 99.27%
S 181.975 Axial†         224.0      981.57 µg/L        60.664      981.57 ppb         60.664   6.18%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†              506.4      500.55 µg/L        43.281      500.55 ppb         43.281   8.65%
   QC value within limits for Sb 206.836  Recovery = 100.11%
Se 196.026†              313.6      485.62 µg/L        42.263      485.62 ppb         42.263   8.70%
   QC value within limits for Se 196.026  Recovery = 97.12%
SiO2†                  24062.6      5182.0 µg/L       216.38      5182.0 ppb         216.38   4.18%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†            29545.6      2428.8 µg/L       103.33      2428.8 ppb         103.33   4.25%
   QC value within limits for Si 251.611  Recovery = 97.15%
Sn 189.927†             1071.4      492.83 µg/L        54.065      492.83 ppb         54.065  10.97%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†            46647.0      483.55 µg/L         0.535      483.55 ppb          0.535   0.11%
   QC value within limits for Sr 421.552  Recovery = 96.71%
Ti 334.940†           200241.7      481.35 µg/L        16.923      481.35 ppb         16.923   3.52%
   QC value within limits for Ti 334.940  Recovery = 96.27%
Tl 190.801†              347.2      490.43 µg/L        25.519      490.43 ppb         25.519   5.20%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†              5334.6      482.00 µg/L        31.611      482.00 ppb         31.611   6.56%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             45067.5      486.30 µg/L        27.408      486.30 ppb         27.408   5.64%
   QC value within limits for V 292.402  Recovery = 97.26%
Zn 213.857†            19546.0      484.64 µg/L        23.239      484.64 ppb         23.239   4.80%
   QC value within limits for Zn 213.857  Recovery = 96.93%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 14:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56199.9 | 56199.9 | 103 | % | | | 14:54:10 |
| 1 | Al 396.153Radial† | 38.0 | 47.1 | 35.072 | µg/L | 35.072 | ppb | 14:54:10 |
| 1 | Ca 317.933Radial† | 231.4 | 45.6 | 42.930 | µg/L | 42.930 | ppb | 14:54:31 |
| 1 | Fe 238.204 Radial† | 23.4 | 8.2 | 69.822 | µg/L | 69.822 | ppb | 14:54:31 |
| 1 | K 766.490 Radial† | 243.5 | 108.1 | 76.828 | µg/L | 76.828 | ppb | 14:54:10 |
| 1 | Mg 279.077 IEC† | 18.5 | 6.7 | 62.643 | µg/L | 62.643 | ppb | 14:54:31 |
| 1 | Na 589.592 Radial† | 743.1 | 179.7 | 59.159 | µg/L | 59.159 | ppb | 14:54:10 |
| 1 | Sr 421.552† | 105.8 | 63.2 | 0.6552 | µg/L | 0.6552 | ppb | 14:54:10 |
| 1 | Sc 361.383 | 1982476.6 | 1982476.6 | 103.80 | % | | | 14:55:33 |
| 1 | Y 371.029 | 1357413.1 | 1357413.1 | 103.63 | % | | | 14:55:33 |
| 1 | Ag 328.068† | -522.2 | 61.5 | 0.4946 | µg/L | 0.4946 | ppb | 14:55:38 |
| 1 | As 188.979† | 1.8 | 0.6 | 1.0901 | µg/L | 1.0901 | ppb | 14:55:59 |
| 1 | B 249.677† | 408.1 | 61.7 | 2.6625 | µg/L | 2.6625 | ppb | 14:55:59 |
| 1 | Ba 233.527† | 2.5 | 28.5 | 0.7415 | µg/L | 0.7415 | ppb | 14:55:59 |
| 1 | Be 313.107† | -3213.4 | 344.8 | 0.2250 | µg/L | 0.2250 | ppb | 14:55:38 |
| 1 | Cd 226.502† | -134.6 | 12.5 | 0.3368 | µg/L | 0.3368 | ppb | 14:55:59 |
| 1 | Co 228.616† | -7.7 | 1.4 | 0.0712 | µg/L | 0.0712 | ppb | 14:55:59 |
| 1 | Cr 267.716† | 4.1 | 56.4 | 1.2401 | µg/L | 1.2401 | ppb | 14:55:59 |
| 1 | Cu 324.752† | 2752.9 | 165.9 | 1.1688 | µg/L | 1.1688 | ppb | 14:55:38 |
| 1 | Mn 257.610† | -137.5 | 111.6 | 0.3934 | µg/L | 0.3934 | ppb | 14:55:59 |
| 1 | Mo 202.031† | 2.7 | 10.2 | 1.0859 | µg/L | 1.0859 | ppb | 14:55:59 |
| 1 | Ni 231.604† | 309.2 | -4.3 | -0.2339 | µg/L | -0.2339 | ppb | 14:55:59 |
| 1 | P 214.914† | 25.1 | -3.5 | -7.5860 | µg/L | -7.5860 | ppb | 14:55:59 |
| 1 | Pb 220.353† | 124.3 | 22.6 | 6.0147 | µg/L | 6.0147 | ppb | 14:55:59 |
| 1 | S 181.975 Axial† | 16.6 | 1.2 | 5.2644 | µg/L | 5.2644 | ppb | 14:55:59 |
| 1 | Sb 206.836† | 32.4 | 4.3 | 4.2069 | µg/L | 4.2069 | ppb | 14:55:59 |
| 1 | Se 196.026† | 17.5 | 1.0 | 1.6734 | µg/L | 1.6734 | ppb | 14:55:59 |
| 1 | SiO2† | 1299.2 | 1.6 | 0.3503 | µg/L | 0.3503 | ppb | 14:55:38 |
| 1 | Si 251.611† | 379.1 | 52.3 | 4.3027 | µg/L | 4.3027 | ppb | 14:55:59 |
| 1 | Sn 189.927† | 7.8 | 8.4 | 3.8780 | µg/L | 3.8780 | ppb | 14:55:59 |
| 1 | Ti 334.940† | 271.8 | 145.7 | 0.3462 | µg/L | 0.3462 | ppb | 14:55:38 |
| 1 | Tl 190.801† | -19.8 | 5.2 | 7.2432 | µg/L | 7.2432 | ppb | 14:55:59 |
| 1 | U 409.014† | -9.7 | 44.3 | 3.9980 | µg/L | 3.9980 | ppb | 14:55:38 |
| 1 | V 292.402† | -10.8 | 33.8 | 0.3839 | µg/L | 0.3839 | ppb | 14:55:38 |
| 1 | Zn 213.857† | 539.3 | 44.0 | 1.0899 | µg/L | 1.0899 | ppb | 14:55:59 |
| 2 | Sc RADIAL | 56663.5 | 56663.5 | 104 | % | | | 14:54:36 |
| 2 | Al 396.153Radial† | 53.4 | 61.6 | 45.892 | µg/L | 45.892 | ppb | 14:54:36 |
| 2 | Ca 317.933Radial† | 224.0 | 36.6 | 34.458 | µg/L | 34.458 | ppb | 14:54:57 |
| 2 | Fe 238.204 Radial† | 18.3 | 3.1 | 26.399 | µg/L | 26.399 | ppb | 14:54:57 |
| 2 | K 766.490 Radial† | 257.1 | 119.2 | 84.727 | µg/L | 84.727 | ppb | 14:54:36 |
| 2 | Mg 279.077 IEC† | 17.6 | 5.7 | 53.162 | µg/L | 53.162 | ppb | 14:54:57 |
| 2 | Na 589.592 Radial† | 788.5 | 217.6 | 71.620 | µg/L | 71.620 | ppb | 14:54:36 |
| 2 | Sr 421.552† | 88.8 | 46.0 | 0.4764 | µg/L | 0.4764 | ppb | 14:54:36 |
| 2 | Sc 361.383 | 1976808.7 | 1976808.7 | 103.51 | % | | | 14:56:05 |
| 2 | Y 371.029 | 1355511.3 | 1355511.3 | 103.48 | % | | | 14:56:05 |
| 2 | Ag 328.068† | -510.0 | 71.8 | 0.5752 | µg/L | 0.5752 | ppb | 14:56:10 |
| 2 | As 188.979† | 1.2 | 0.0 | 0.0279 | µg/L | 0.0279 | ppb | 14:56:31 |
| 2 | B 249.677† | 396.3 | 51.4 | 2.2364 | µg/L | 2.2364 | ppb | 14:56:31 |
| 2 | Ba 233.527† | 2.6 | 28.5 | 0.7438 | µg/L | 0.7438 | ppb | 14:56:31 |
| 2 | Be 313.107† | -3268.6 | 282.6 | 0.1844 | µg/L | 0.1844 | ppb | 14:56:10 |
| 2 | Cd 226.502† | -122.2 | 24.1 | 0.6618 | µg/L | 0.6618 | ppb | 14:56:31 |
| 2 | Co 228.616† | -10.0 | -0.8 | -0.0395 | µg/L | -0.0395 | ppb | 14:56:31 |
| 2 | Cr 267.716† | 5.1 | 57.3 | 1.2611 | µg/L | 1.2611 | ppb | 14:56:31 |
| 2 | Cu 324.752† | 2702.2 | 124.6 | 0.8738 | µg/L | 0.8738 | ppb | 14:56:10 |
| 2 | Mn 257.610† | -107.9 | 139.8 | 0.4856 | µg/L | 0.4856 | ppb | 14:56:31 |
| 2 | Mo 202.031† | -1.1 | 6.4 | 0.6888 | µg/L | 0.6888 | ppb | 14:56:31 |
| 2 | Ni 231.604† | 302.7 | -9.7 | -0.5298 | µg/L | -0.5298 | ppb | 14:56:31 |
| 2 | P 214.914† | 20.2 | -8.1 | -17.441 | µg/L | -17.441 | ppb | 14:56:31 |
| 2 | Pb 220.353† | 118.9 | 17.7 | 4.7183 | µg/L | 4.7183 | ppb | 14:56:31 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 14.4 | -0.9 | -4.1582 µg/L | -4.1582 ppb | | 14:56:31 |
| 2 | Sb 206.836† | 28.3 | 0.4 | 0.3915 µg/L | 0.3915 ppb | | 14:56:31 |
| 2 | Se 196.026† | 9.3 | -6.9 | -10.429 µg/L | -10.429 ppb | | 14:56:31 |
| 2 | SiO2† | 1222.9 | -68.6 | -14.765 µg/L | -14.765 ppb | | 14:56:10 |
| 2 | Si 251.611† | 359.0 | 34.0 | 2.7936 µg/L | 2.7936 ppb | | 14:56:31 |
| 2 | Sn 189.927† | 7.1 | 7.7 | 3.5568 µg/L | 3.5568 ppb | | 14:56:31 |
| 2 | Ti 334.940† | 232.6 | 108.6 | 0.2576 µg/L | 0.2576 ppb | | 14:56:10 |
| 2 | Tl 190.801† | -24.5 | 0.6 | 0.8244 µg/L | 0.8244 ppb | | 14:56:31 |
| 2 | U 409.014† | -107.5 | -50.2 | -4.5523 µg/L | -4.5523 ppb | | 14:56:10 |
| 2 | V 292.402† | 15.1 | 58.8 | 0.6333 µg/L | 0.6333 ppb | | 14:56:10 |
| 2 | Zn 213.857† | 534.3 | 40.7 | 1.0126 µg/L | 1.0126 ppb | | 14:56:31 |
| 3 | Sc RADIAL | 56320.6 | 56320.6 | 103 % | | | 14:55:02 |
| 3 | Al 396.153Radial† | 8.5 | 18.4 | 13.663 µg/L | 13.663 ppb | | 14:55:02 |
| 3 | Ca 317.933Radial† | 216.9 | 31.1 | 29.241 µg/L | 29.241 ppb | | 14:55:23 |
| 3 | Fe 238.204 Radial† | 17.6 | 2.6 | 21.668 µg/L | 21.668 ppb | | 14:55:23 |
| 3 | K 766.490 Radial† | 236.5 | 100.7 | 71.584 µg/L | 71.584 ppb | | 14:55:02 |
| 3 | Mg 279.077 IEC† | 12.2 | 0.5 | 5.0859 µg/L | 5.0859 ppb | | 14:55:23 |
| 3 | Na 589.592 Radial† | 760.7 | 195.3 | 64.287 µg/L | 64.287 ppb | | 14:55:02 |
| 3 | Sr 421.552† | 71.7 | 29.9 | 0.3097 µg/L | 0.3097 ppb | | 14:55:02 |
| 3 | Sc 361.383 | 1993913.4 | 1993913.4 | 104.40 % | | | 14:56:37 |
| 3 | Y 371.029 | 1367504.2 | 1367504.2 | 104.40 % | | | 14:56:37 |
| 3 | Ag 328.068† | -498.3 | 87.2 | 0.6944 µg/L | 0.6944 ppb | | 14:56:43 |
| 3 | As 188.979† | 0.4 | -0.8 | -1.5138 µg/L | -1.5138 ppb | | 14:57:03 |
| 3 | B 249.677† | 385.9 | 38.1 | 1.6564 µg/L | 1.6564 ppb | | 14:57:03 |
| 3 | Ba 233.527† | 1.2 | 27.2 | 0.7082 µg/L | 0.7082 ppb | | 14:57:03 |
| 3 | Be 313.107† | -3126.9 | 445.4 | 0.2907 µg/L | 0.2907 ppb | | 14:56:43 |
| 3 | Cd 226.502† | -117.4 | 29.7 | 0.8162 µg/L | 0.8162 ppb | | 14:57:03 |
| 3 | Co 228.616† | -8.6 | 0.6 | 0.0304 µg/L | 0.0304 ppb | | 14:57:03 |
| 3 | Cr 267.716† | 2.0 | 54.3 | 1.1938 µg/L | 1.1938 ppb | | 14:57:03 |
| 3 | Cu 324.752† | 2701.6 | 101.6 | 0.7126 µg/L | 0.7126 ppb | | 14:56:43 |
| 3 | Mn 257.610† | -86.5 | 161.3 | 0.5611 µg/L | 0.5611 ppb | | 14:57:03 |
| 3 | Mo 202.031† | 5.2 | 12.5 | 1.3355 µg/L | 1.3355 ppb | | 14:57:03 |
| 3 | Ni 231.604† | 315.6 | 0.1 | 0.0043 µg/L | 0.0043 ppb | | 14:57:03 |
| 3 | P 214.914† | 33.2 | 4.1 | 8.8077 µg/L | 8.8077 ppb | | 14:57:03 |
| 3 | Pb 220.353† | 109.3 | 7.5 | 2.0114 µg/L | 2.0114 ppb | | 14:57:03 |
| 3 | S 181.975 Axial† | 10.6 | -4.7 | -20.521 µg/L | -20.521 ppb | | 14:57:03 |
| 3 | Sb 206.836† | 25.8 | -2.2 | -2.1813 µg/L | -2.1813 ppb | | 14:57:03 |
| 3 | Se 196.026† | 17.8 | 1.2 | 1.8776 µg/L | 1.8776 ppb | | 14:57:03 |
| 3 | SiO2† | 1292.2 | -12.3 | -2.6550 µg/L | -2.6550 ppb | | 14:56:43 |
| 3 | Si 251.611† | 371.3 | 42.8 | 3.5163 µg/L | 3.5163 ppb | | 14:57:03 |
| 3 | Sn 189.927† | -2.0 | -1.0 | -0.4777 µg/L | -0.4777 ppb | | 14:57:03 |
| 3 | Ti 334.940† | 313.8 | 184.5 | 0.4438 µg/L | 0.4438 ppb | | 14:56:43 |
| 3 | Tl 190.801† | -24.1 | 1.2 | 1.6892 µg/L | 1.6892 ppb | | 14:57:03 |
| 3 | U 409.014† | -22.6 | 31.9 | 2.8863 µg/L | 2.8863 ppb | | 14:56:43 |
| 3 | V 292.402† | -34.6 | 11.0 | 0.1363 µg/L | 0.1363 ppb | | 14:56:43 |
| 3 | Zn 213.857† | 532.5 | 34.5 | 0.8590 µg/L | 0.8590 ppb | | 14:57:03 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1984399.6 | 103.90 | % | 0.456 | | | | 0.44% |
| Sc RADIAL | 56394.7 | 103 | % | 0.4 | | | | 0.43% |
| Y 371.029 | 1360142.9 | 103.83 | % | 0.492 | | | | 0.47% |
| Ag 328.068† | 73.5 | 0.5881 | µg/L | 0.10050 | 0.5881 | ppb | 0.10050 | 17.09% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 42.3 | 31.542 | µg/L | 16.4016 | 31.542 | ppb | 16.4016 | 52.00% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -0.1 | -0.1319 | µg/L | 1.30928 | -0.1319 | ppb | 1.30928 | 992.68% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 50.4 | 2.1851 | µg/L | 0.50501 | 2.1851 | ppb | 0.50501 | 23.11% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 28.1 | 0.7312 | µg/L | 0.01993 | 0.7312 | ppb | 0.01993 | 2.73% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 357.6 | 0.2334 | µg/L | 0.05362 | 0.2334 | ppb | 0.05362 | 22.97% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 37.7 | 35.543 | µg/L | 6.9088 | 35.543 | ppb | 6.9088 | 19.44% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 22.1 | 0.6049 | µg/L | 0.24471 | 0.6049 | ppb | 0.24471 | 40.45% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | 0.4 | 0.0207 | µg/L | 0.05597 | 0.0207 | ppb | 0.05597 | 270.39% |

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              56.0      1.2317 µg/L       0.03444      1.2317 ppb        0.03444   2.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             130.7      0.9184 µg/L       0.23134      0.9184 ppb        0.23134  25.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.6      39.296 µg/L       26.5417      39.296 ppb        26.5417  67.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       109.3      77.713 µg/L        6.6157      77.713 ppb         6.6157   8.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.3      40.297 µg/L       30.8602      40.297 ppb        30.8602  76.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             137.6      0.4800 µg/L       0.08402      0.4800 ppb        0.08402  17.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.7      1.0367 µg/L       0.32615      1.0367 ppb        0.32615  31.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      197.5      65.022 µg/L        6.2628      65.022 ppb         6.2628   9.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.6     -0.2531 µg/L       0.26755     -0.2531 ppb        0.26755 105.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.5     -5.4063 µg/L      13.25932     -5.4063 ppb       13.25932 245.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.9      4.2482 µg/L       2.04263      4.2482 ppb        2.04263  48.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -6.4715 µg/L      13.04721     -6.4715 ppb       13.04721 201.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.8      0.8057 µg/L       3.21418      0.8057 ppb        3.21418 398.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.5     -2.2926 µg/L       7.04698     -2.2926 ppb        7.04698 307.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -26.4     -5.6898 µg/L       8.00142     -5.6898 ppb        8.00142 140.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              43.0      3.5375 µg/L       0.75475      3.5375 ppb        0.75475  21.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.0      2.3190 µg/L       2.42737      2.3190 ppb        2.42737 104.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              46.3      0.4804 µg/L       0.17278      0.4804 ppb        0.17278  35.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             146.3      0.3492 µg/L       0.09310      0.3492 ppb        0.09310  26.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      3.2523 µg/L       3.48319      3.2523 ppb        3.48319 107.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                8.7      0.7773 µg/L       4.64898      0.7773 ppb        4.64898 598.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.6      0.3845 µg/L       0.24848      0.3845 ppb        0.24848  64.62%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              39.7      0.9871 µg/L       0.11756      0.9871 ppb        0.11756  11.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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**Analysis Begun**

**Start Time:** 2/11/2010 15:08:34
**Plasma On Time:** 2/8/2010 03:37:33
**Logged In Analyst:** optima
**Technique:** ICP Continuous
**Spectrometer Model:** Optima 4300 DV, S/N 077N1030502**Autosampler Model:** AS-93plus

**Sample Information File:** C:\pe\optima1\Sample Information\021110.sif
**Batch ID:**
**Results Data Set:** 021110B
**Results Library:** c:\pe\optima1\Results\Results.mdb

==========

**Method Loaded**
**Method Name:** Gen Eng fast_new Si
**Method Last Saved:** 2/11/2010 13:51:13
**IEC File:** 011510.iec
**MSF File:**
**Method Description:**

| Analyte | Calibration Equation | Processing | View | Internal Standard | IEC |
|---|---|---|---|---|---|
| Ag 328.068 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Al 396.153Radial | Lin Thru 0 | Peak Area | Radial | Sc RADIAL | Yes |
| As 188.979 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| B 249.677 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Ba 233.527 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Be 313.107 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Ca 317.933Radial | Lin Thru 0 | Peak Area | Radial | Sc RADIAL | No |
| Cd 226.502 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Co 228.616 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Cr 267.716 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Cu 324.752 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Fe 238.204 Radial | Lin Thru 0 | Peak Area | Radial | Sc RADIAL | Yes |
| K 766.490 Radial | Lin Thru 0 | Peak Area | Radial | Sc RADIAL | No |
| Mg 279.077 IEC | Lin Thru 0 | Peak Area | Radial | Sc RADIAL | Yes |
| Mn 257.610 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Mo 202.031 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Na 589.592 Radial | Lin Thru 0 | Peak Area | Radial | Sc RADIAL | No |
| Ni 231.604 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| P 214.914 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Pb 220.353 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| S 181.975 Axial | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | No |
| Sb 206.836 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sc 361.383 | Lin Thru 0 | Peak Area | Axial | n/a | n/a |
| Sc RADIAL | Lin, Calc Int | Peak Area | Radial | n/a | n/a |
| Se 196.026 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| SiO2 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | No |
| Si 251.611 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | No |
| Sn 189.927 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Sr 421.552 | Lin Thru 0 | Peak Area | Radial | Sc RADIAL | No |
| Ti 334.940 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Tl 190.801 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| U 409.014 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| V 292.402 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |
| Y 371.029 | Lin, Calc Int | Peak Area | Axial | n/a | n/a |
| Zn 213.857 | Lin Thru 0 | Peak Area | Axial | Sc 361.383 | Yes |

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**Sequence No.:** 1
**Autosampler Location:** 113
**Sample ID:** LR1
**Date Collected:** 2/11/2010 15:08:34
**Analyst:** HSC
**Data Type:** Original
**Initial Sample Wt:**
**Initial Sample Vol:**
**Dilution:**
**Sample Prep Vol:**

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**Replicate Data: LR1**

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55775.1 | 55775.1 | 102 | % | | | 15:09:19 |
| 1 | Al 396.153Radial† | -12.5 | -2.1 | -1.5477 | µg/L | -1.5477 | ppb | 15:09:19 |
| 1 | Ca 317.933Radial† | 109.7 | -71.8 | -67.596 | µg/L | -67.596 | ppb | 15:09:39 |
| 1 | Fe 238.204 Radial† | 12.5 | -2.2 | -18.859 | µg/L | -18.859 | ppb | 15:09:39 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | K 766.490 Radial† | 153.1 | 21.4 | 15.223 µg/L | 15.223 ppb | 15:09:19 |
| 1 | Mg 279.077 IEC† | 21.3 | 9.6 | 89.132 µg/L | 89.132 ppb | 15:09:39 |
| 1 | Na 589.592 Radial† | 561.6 | 7.7 | 2.5239 µg/L | 2.5239 ppb | 15:09:19 |
| 1 | Sr 421.552† | 60.6 | 19.8 | 0.2050 µg/L | 0.2050 ppb | 15:09:19 |
| 1 | Sc 361.383 | 1979575.8 | 1979575.8 | 103.65 % | | 15:10:41 |
| 1 | Y 371.029 | 1359463.7 | 1359463.7 | 103.78 % | | 15:10:41 |
| 1 | Ag 328.068† | -475.7 | 105.6 | 0.7790 µg/L | 0.7790 ppb | 15:10:47 |
| 1 | As 188.979† | 3.5 | 2.2 | 4.2811 µg/L | 4.2811 ppb | 15:11:08 |
| 1 | B 249.677† | 236.6 | -103.2 | -4.4890 µg/L | -4.4890 ppb | 15:10:47 |
| 1 | Ba 233.527† | -43.0 | -15.5 | -0.4185 µg/L | -0.4185 ppb | 15:11:08 |
| 1 | Be 313.107† | -9167.3 | -5403.9 | -3.5311 µg/L | -3.5311 ppb | 15:10:47 |
| 1 | Cd 226.502† | -304.4 | -151.6 | -4.1785 µg/L | -4.1785 ppb | 15:11:08 |
| 1 | Co 228.616† | 19.8 | 27.9 | 1.3617 µg/L | 1.3617 ppb | 15:11:08 |
| 1 | Cr 267.716† | 233.0 | 277.1 | 6.0903 µg/L | 6.0903 ppb | 15:10:47 |
| 1 | Cu 324.752† | 1310.7 | -1221.6 | -8.5355 µg/L | -8.5355 ppb | 15:10:47 |
| 1 | Mn 257.610† | 14.0 | 257.6 | 0.8861 µg/L | 0.8861 ppb | 15:10:47 |
| 1 | Mo 202.031† | -13.4 | -5.4 | -0.5763 µg/L | -0.5763 ppb | 15:11:08 |
| 1 | Ni 231.604† | 324.2 | 10.6 | 0.5789 µg/L | 0.5789 ppb | 15:11:08 |
| 1 | P 214.914† | 39.4 | 10.4 | 23.307 µg/L | 23.307 ppb | 15:11:08 |
| 1 | Pb 220.353† | 132.9 | 31.0 | -2.3589 µg/L | -2.3589 ppb | 15:11:08 |
| 1 | S 181.975 Axial† | 17.0 | 1.6 | 6.9914 µg/L | 6.9914 ppb | 15:11:08 |
| 1 | Sb 206.836† | 24.0 | -3.8 | -3.8211 µg/L | -3.8211 ppb | 15:11:08 |
| 1 | Se 196.026† | 11.2 | -5.0 | -7.7508 µg/L | -7.7508 ppb | 15:11:08 |
| 1 | SiO2† | 1260.6 | -33.8 | -7.2860 µg/L | -7.2860 ppb | 15:10:47 |
| 1 | Si 251.611† | 175.4 | -143.6 | -11.809 µg/L | -11.809 ppb | 15:11:08 |
| 1 | Sn 189.927† | 6.2 | 6.9 | 3.1737 µg/L | 3.1737 ppb | 15:11:08 |
| 1 | Ti 334.940† | 2413.3 | 2212.1 | 5.3130 µg/L | 5.3130 ppb | 15:10:47 |
| 1 | Tl 190.801† | -31.2 | -5.9 | 4.3972 µg/L | 4.3972 ppb | 15:11:08 |
| 1 | U 409.014† | 117155.1 | 113081.6 | 10238 µg/L | 10238 ppb | 15:10:41 |
| 1 | V 292.402† | -897.2 | -821.4 | 1.8907 µg/L | 1.8907 ppb | 15:10:47 |
| 1 | Zn 213.857† | 499.8 | 6.6 | 0.1728 µg/L | 0.1728 ppb | 15:11:08 |
| 2 | Sc RADIAL | 55251.0 | 55251.0 | 101 % | | 15:09:44 |
| 2 | Al 396.153Radial† | -27.7 | -17.2 | -12.820 µg/L | -12.820 ppb | 15:09:44 |
| 2 | Ca 317.933Radial† | 107.7 | -72.8 | -68.561 µg/L | -68.561 ppb | 15:10:05 |
| 2 | Fe 238.204 Radial† | 14.6 | -0.1 | -0.7560 µg/L | -0.7560 ppb | 15:10:05 |
| 2 | K 766.490 Radial† | 163.9 | 33.5 | 23.798 µg/L | 23.798 ppb | 15:09:44 |
| 2 | Mg 279.077 IEC† | 21.5 | 10.0 | 92.921 µg/L | 92.921 ppb | 15:10:05 |
| 2 | Na 589.592 Radial† | 549.7 | 1.1 | 0.3683 µg/L | 0.3683 ppb | 15:09:44 |
| 2 | Sr 421.552† | 65.4 | 25.1 | 0.2600 µg/L | 0.2600 ppb | 15:09:44 |
| 2 | Sc 361.383 | 1991488.7 | 1991488.7 | 104.28 % | | 15:11:14 |
| 2 | Y 371.029 | 1367480.0 | 1367480.0 | 104.39 % | | 15:11:14 |
| 2 | Ag 328.068† | -460.8 | 122.6 | 0.9153 µg/L | 0.9153 ppb | 15:11:20 |
| 2 | As 188.979† | 3.4 | 2.1 | 4.1976 µg/L | 4.1976 ppb | 15:11:40 |
| 2 | B 249.677† | 245.3 | -96.3 | -4.1987 µg/L | -4.1987 ppb | 15:11:20 |
| 2 | Ba 233.527† | -30.4 | -3.2 | -0.0984 µg/L | -0.0984 ppb | 15:11:40 |
| 2 | Be 313.107† | -9053.1 | -5241.5 | -3.4251 µg/L | -3.4251 ppb | 15:11:20 |
| 2 | Cd 226.502† | -307.5 | -152.7 | -4.2119 µg/L | -4.2119 ppb | 15:11:40 |
| 2 | Co 228.616† | 2.2 | 10.9 | 0.5250 µg/L | 0.5250 ppb | 15:11:40 |
| 2 | Cr 267.716† | 184.1 | 229.0 | 5.0309 µg/L | 5.0309 ppb | 15:11:20 |
| 2 | Cu 324.752† | 1378.2 | -1164.4 | -8.1337 µg/L | -8.1337 ppb | 15:11:20 |
| 2 | Mn 257.610† | 56.5 | 298.3 | 1.0291 µg/L | 1.0291 ppb | 15:11:20 |
| 2 | Mo 202.031† | -9.4 | -1.5 | -0.1584 µg/L | -0.1584 ppb | 15:11:40 |
| 2 | Ni 231.604† | 337.2 | 21.2 | 1.1562 µg/L | 1.1562 ppb | 15:11:40 |
| 2 | P 214.914† | 47.1 | 17.5 | 38.462 µg/L | 38.462 ppb | 15:11:40 |
| 2 | Pb 220.353† | 140.3 | 37.4 | -0.6060 µg/L | -0.6060 ppb | 15:11:40 |
| 2 | S 181.975 Axial† | 16.6 | 1.1 | 4.9128 µg/L | 4.9128 ppb | 15:11:40 |
| 2 | Sb 206.836† | 18.1 | -9.6 | -9.5490 µg/L | -9.5490 ppb | 15:11:40 |
| 2 | Se 196.026† | 12.7 | -3.7 | -5.6705 µg/L | -5.6705 ppb | 15:11:40 |
| 2 | SiO2† | 1277.1 | -25.3 | -5.4423 µg/L | -5.4423 ppb | 15:11:20 |
| 2 | Si 251.611† | 186.7 | -133.8 | -10.999 µg/L | -10.999 ppb | 15:11:40 |
| 2 | Sn 189.927† | 5.7 | 6.3 | 2.9120 µg/L | 2.9120 ppb | 15:11:40 |
| 2 | Ti 334.940† | 2507.4 | 2288.5 | 5.4964 µg/L | 5.4964 ppb | 15:11:20 |
| 2 | Tl 190.801† | -28.7 | -3.2 | 8.0207 µg/L | 8.0207 ppb | 15:11:40 |
| 2 | U 409.014† | 117240.7 | 112487.6 | 10184 µg/L | 10184 ppb | 15:11:14 |
| 2 | V 292.402† | -895.5 | -814.6 | 1.9102 µg/L | 1.9102 ppb | 15:11:20 |
| 2 | Zn 213.857† | 510.6 | 14.1 | 0.3551 µg/L | 0.3551 ppb | 15:11:40 |
| 3 | Sc RADIAL | 56112.5 | 56112.5 | 103 % | | 15:10:10 |
| 3 | Al 396.153Radial† | -19.4 | -8.8 | -6.5548 µg/L | -6.5548 ppb | 15:10:10 |
| 3 | Ca 317.933Radial† | 114.8 | -67.5 | -63.545 µg/L | -63.545 ppb | 15:10:31 |
| 3 | Fe 238.204 Radial† | 16.7 | 1.7 | 14.838 µg/L | 14.838 ppb | 15:10:31 |
| 3 | K 766.490 Radial† | 156.5 | 23.8 | 16.907 µg/L | 16.907 ppb | 15:10:10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | Mg 279.077 IEC† | 18.3 | 6.5 | 60.273 | µg/L | 60.273 ppb | 15:10:31 |
| 3 | Na 589.592 Radial† | 544.2 | -12.6 | -4.1463 | µg/L | -4.1463 ppb | 15:10:10 |
| 3 | Sr 421.552† | 60.1 | 18.9 | 0.1962 | µg/L | 0.1962 ppb | 15:10:10 |
| 3 | Sc 361.383 | 1998454.5 | 1998454.5 | 104.64 | % | | 15:11:47 |
| 3 | Y 371.029 | 1371253.2 | 1371253.2 | 104.68 | % | | 15:11:47 |
| 3 | Ag 328.068† | -504.4 | 82.5 | 0.6071 | µg/L | 0.6071 ppb | 15:11:53 |
| 3 | As 188.979† | 2.1 | 0.9 | 1.6782 | µg/L | 1.6782 ppb | 15:12:13 |
| 3 | B 249.677† | 284.2 | -59.9 | -2.6163 | µg/L | -2.6163 ppb | 15:11:53 |
| 3 | Ba 233.527† | -15.1 | 11.6 | 0.2883 | µg/L | 0.2883 ppb | 15:12:13 |
| 3 | Be 313.107† | -8272.3 | -4465.0 | -2.9180 | µg/L | -2.9180 ppb | 15:11:53 |
| 3 | Cd 226.502† | -264.9 | -111.0 | -3.0636 | µg/L | -3.0636 ppb | 15:12:13 |
| 3 | Co 228.616† | 14.5 | 22.7 | 1.1081 | µg/L | 1.1081 ppb | 15:12:13 |
| 3 | Cr 267.716† | 231.8 | 273.9 | 6.0206 | µg/L | 6.0206 ppb | 15:11:53 |
| 3 | Cu 324.752† | 1499.3 | -1053.3 | -7.3552 | µg/L | -7.3552 ppb | 15:11:53 |
| 3 | Mn 257.610† | 138.5 | 376.5 | 1.3032 | µg/L | 1.3032 ppb | 15:11:53 |
| 3 | Mo 202.031† | -2.6 | 5.1 | 0.5398 | µg/L | 0.5398 ppb | 15:12:13 |
| 3 | Ni 231.604† | 337.9 | 20.7 | 1.1315 | µg/L | 1.1315 ppb | 15:12:13 |
| 3 | P 214.914† | 49.3 | 19.5 | 42.611 | µg/L | 42.611 ppb | 15:12:13 |
| 3 | Pb 220.353† | 138.7 | 35.4 | -0.5823 | µg/L | -0.5823 ppb | 15:12:13 |
| 3 | S 181.975 Axial† | 15.8 | 0.3 | 1.1838 | µg/L | 1.1838 ppb | 15:12:13 |
| 3 | Sb 206.836† | 21.8 | -6.1 | -6.0924 | µg/L | -6.0924 ppb | 15:12:13 |
| 3 | Se 196.026† | 12.8 | -3.6 | -5.5591 | µg/L | -5.5591 ppb | 15:12:13 |
| 3 | SiO2† | 1308.9 | 0.8 | 0.1805 | µg/L | 0.1805 ppb | 15:11:53 |
| 3 | Si 251.611† | 268.0 | -56.8 | -4.6690 | µg/L | -4.6690 ppb | 15:12:13 |
| 3 | Sn 189.927† | 4.1 | 4.8 | 2.1976 | µg/L | 2.1976 ppb | 15:12:13 |
| 3 | Ti 334.940† | 2521.6 | 2293.7 | 5.5115 | µg/L | 5.5115 ppb | 15:11:53 |
| 3 | Tl 190.801† | -25.5 | -0.1 | 11.785 | µg/L | 11.785 ppb | 15:12:13 |
| 3 | U 409.014† | 111497.5 | 106607.2 | 9651.9 | µg/L | 9651.9 ppb | 15:11:47 |
| 3 | V 292.402† | -762.7 | -684.7 | 2.7514 | µg/L | 2.7514 ppb | 15:11:53 |
| 3 | Zn 213.857† | 523.6 | 24.8 | 0.6223 | µg/L | 0.6223 ppb | 15:12:13 |

**Mean Data: LR1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1989839.7 | 104.19 | % | 0.500 | | | | 0.48% |
| Sc RADIAL | 55712.9 | 102 | % | 0.8 | | | | 0.78% |
| Y 371.029 | 1366065.6 | 104.29 | % | 0.460 | | | | 0.44% |
| Ag 328.068† | 103.5 | 0.7671 | µg/L | 0.15443 | 0.7671 | ppb | 0.15443 | 20.13% |
| Al 396.153Radial† | -9.4 | -6.9743 | µg/L | 5.64801 | -6.9743 | ppb | 5.64801 | 80.98% |
| As 188.979† | 1.7 | 3.3856 | µg/L | 1.47930 | 3.3856 | ppb | 1.47930 | 43.69% |
| B 249.677† | -86.4 | -3.7680 | µg/L | 1.00792 | -3.7680 | ppb | 1.00792 | 26.75% |
| Ba 233.527† | -2.4 | -0.0762 | µg/L | 0.35392 | -0.0762 | ppb | 0.35392 | 464.36% |
| Be 313.107† | -5036.8 | -3.2914 | µg/L | 0.32768 | -3.2914 | ppb | 0.32768 | 9.96% |
| Ca 317.933Radial† | -70.7 | -66.567 | µg/L | 2.6618 | -66.567 | ppb | 2.6618 | 4.00% |
| Cd 226.502† | -138.4 | -3.8180 | µg/L | 0.65352 | -3.8180 | ppb | 0.65352 | 17.12% |
| Co 228.616† | 20.5 | 0.9983 | µg/L | 0.42901 | 0.9983 | ppb | 0.42901 | 42.97% |
| Cr 267.716† | 260.0 | 5.7139 | µg/L | 0.59254 | 5.7139 | ppb | 0.59254 | 10.37% |
| Cu 324.752† | -1146.4 | -8.0081 | µg/L | 0.60007 | -8.0081 | ppb | 0.60007 | 7.49% |
| Fe 238.204 Radial† | -0.2 | -1.5922 | µg/L | 16.86410 | -1.5922 | ppb | 16.86410 | >999.9% |
| K 766.490 Radial† | 26.2 | 18.643 | µg/L | 4.5435 | 18.643 | ppb | 4.5435 | 24.37% |
| Mg 279.077 IEC† | 8.7 | 80.775 | µg/L | 17.8566 | 80.775 | ppb | 17.8566 | 22.11% |
| Mn 257.610† | 310.8 | 1.0728 | µg/L | 0.21196 | 1.0728 | ppb | 0.21196 | 19.76% |
| Mo 202.031† | -0.6 | -0.0649 | µg/L | 0.56388 | -0.0649 | ppb | 0.56388 | 868.32% |
| Na 589.592 Radial† | -1.3 | -0.4181 | µg/L | 3.40391 | -0.4181 | ppb | 3.40391 | 814.20% |
| Ni 231.604† | 17.5 | 0.9555 | µg/L | 0.32641 | 0.9555 | ppb | 0.32641 | 34.16% |
| P 214.914† | 15.8 | 34.793 | µg/L | 10.1611 | 34.793 | ppb | 10.1611 | 29.20% |
| Pb 220.353† | 34.6 | -1.1824 | µg/L | 1.01895 | -1.1824 | ppb | 1.01895 | 86.18% |
| S 181.975 Axial† | 1.0 | 4.3627 | µg/L | 2.94264 | 4.3627 | ppb | 2.94264 | 67.45% |
| Sb 206.836† | -6.5 | -6.4875 | µg/L | 2.88435 | -6.4875 | ppb | 2.88435 | 44.46% |
| Se 196.026† | -4.1 | -6.3268 | µg/L | 1.23447 | -6.3268 | ppb | 1.23447 | 19.51% |
| SiO2† | -19.4 | -4.1826 | µg/L | 3.88938 | -4.1826 | ppb | 3.88938 | 92.99% |
| Si 251.611† | -111.4 | -9.1588 | µg/L | 3.90936 | -9.1588 | ppb | 3.90936 | 42.68% |
| Sn 189.927† | 6.0 | 2.7611 | µg/L | 0.50522 | 2.7611 | ppb | 0.50522 | 18.30% |
| Sr 421.552† | 21.3 | 0.2204 | µg/L | 0.03458 | 0.2204 | ppb | 0.03458 | 15.69% |
| Ti 334.940† | 2264.8 | 5.4403 | µg/L | 0.11049 | 5.4403 | ppb | 0.11049 | 2.03% |
| Tl 190.801† | -3.0 | 8.0675 | µg/L | 3.69388 | 8.0675 | ppb | 3.69388 | 45.79% |
| U 409.014† | 110725.5 | 10025 | µg/L | 324.0 | 10025 | ppb | 324.0 | 3.23% |
| V 292.402† | -773.6 | 2.1841 | µg/L | 0.49139 | 2.1841 | ppb | 0.49139 | 22.50% |
| Zn 213.857† | 15.2 | 0.3834 | µg/L | 0.22607 | 0.3834 | ppb | 0.22607 | 58.97% |

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 2/11/2010 15:12:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 53713.3 | 53713.3 | 98.4 | % | | | 15:12:55 |
| 1 | Al 396.153Radial† | -16.2 | -6.3 | -4.7161 | µg/L | -4.7161 | ppb | 15:12:55 |
| 1 | Ca 317.933Radial† | 188.0 | 11.9 | 11.198 | µg/L | 11.198 | ppb | 15:13:15 |
| 1 | Fe 238.204 Radial† | 4.2 | -10.3 | 23.498 | µg/L | 23.498 | ppb | 15:13:15 |
| 1 | K 766.490 Radial† | 165.7 | 39.9 | 28.393 | µg/L | 28.393 | ppb | 15:12:55 |
| 1 | Mg 279.077 IEC† | 10.1 | -1.1 | -9.7514 | µg/L | -9.7514 | ppb | 15:13:15 |
| 1 | Na 589.592 Radial† | 614.8 | 82.8 | 27.252 | µg/L | 27.252 | ppb | 15:12:55 |
| 1 | Sr 421.552† | 64.3 | 25.8 | 0.2675 | µg/L | 0.2675 | ppb | 15:12:55 |
| 1 | Sc 361.383 | 1941418.8 | 1941418.8 | 101.65 | % | | | 15:14:18 |
| 1 | Y 371.029 | 1323859.1 | 1323859.1 | 101.06 | % | | | 15:14:18 |
| 1 | Ag 328.068† | -525.2 | 47.9 | 0.3781 | µg/L | 0.3781 | ppb | 15:14:24 |
| 1 | As 188.979† | -3.1 | -4.2 | -8.1869 | µg/L | -8.1869 | ppb | 15:14:45 |
| 1 | B 249.677† | 750.9 | 407.3 | 17.845 | µg/L | 17.845 | ppb | 15:14:24 |
| 1 | Ba 233.527† | -16.3 | 10.0 | 0.2610 | µg/L | 0.2610 | ppb | 15:14:45 |
| 1 | Be 313.107† | -3458.2 | 38.5 | 0.0250 | µg/L | 0.0250 | ppb | 15:14:24 |
| 1 | Cd 226.502† | -114.7 | 29.2 | 0.8189 | µg/L | 0.8189 | ppb | 15:14:45 |
| 1 | Co 228.616† | 107569.3 | 105828.5 | 5208.2 | µg/L | 5208.2 | ppb | 15:14:24 |
| 1 | Cr 267.716† | -25.9 | 26.9 | 0.5925 | µg/L | 0.5925 | ppb | 15:14:45 |
| 1 | Cu 324.752† | 1814.1 | -701.5 | -4.9124 | µg/L | -4.9124 | ppb | 15:14:24 |
| 1 | Mn 257.610† | -161.2 | 85.5 | 0.2849 | µg/L | 0.2849 | ppb | 15:14:45 |
| 1 | Mo 202.031† | -1.5 | 6.0 | 0.6418 | µg/L | 0.6418 | ppb | 15:14:45 |
| 1 | Ni 231.604† | 346.8 | 39.0 | -4.0742 | µg/L | -4.0742 | ppb | 15:14:45 |
| 1 | P 214.914† | 5345.7 | 5231.1 | 11233 | µg/L | 11233 | ppb | 15:14:24 |
| 1 | Pb 220.353† | 111.4 | 12.4 | 3.3090 | µg/L | 3.3090 | ppb | 15:14:45 |
| 1 | S 181.975 Axial† | 16.5 | 1.4 | 5.9830 | µg/L | 5.9830 | ppb | 15:14:45 |
| 1 | Sb 206.836† | 21.7 | -5.6 | -5.5036 | µg/L | -5.5036 | ppb | 15:14:45 |
| 1 | Se 196.026† | 12.6 | -3.4 | -5.4894 | µg/L | -5.4894 | ppb | 15:14:45 |
| 1 | SiO2† | 400045.4 | 392288.3 | 84482 | µg/L | 84482 | ppb | 15:14:18 |
| 1 | Si 251.611† | 483396.1 | 475220.4 | 39066 | µg/L | 39066 | ppb | 15:14:18 |
| 1 | Sn 189.927† | 3.3 | 4.1 | 1.8920 | µg/L | 1.8920 | ppb | 15:14:45 |
| 1 | Ti 334.940† | 305.9 | 184.8 | 0.4456 | µg/L | 0.4456 | ppb | 15:14:24 |
| 1 | Tl 190.801† | -3.7 | 20.7 | 11.360 | µg/L | 11.360 | ppb | 15:14:45 |
| 1 | U 409.014† | 25.3 | 78.5 | 7.1194 | µg/L | 7.1194 | ppb | 15:14:24 |
| 1 | V 292.402† | 5.9 | 50.0 | 0.5361 | µg/L | 0.5361 | ppb | 15:14:24 |
| 1 | Zn 213.857† | 522.6 | 38.6 | 0.9665 | µg/L | 0.9665 | ppb | 15:14:45 |
| 2 | Sc RADIAL | 54832.8 | 54832.8 | 100 | % | | | 15:13:21 |
| 2 | Al 396.153Radial† | 1.7 | 11.8 | 8.7929 | µg/L | 8.7929 | ppb | 15:13:21 |
| 2 | Ca 317.933Radial† | 190.7 | 10.6 | 10.005 | µg/L | 10.005 | ppb | 15:13:42 |
| 2 | Fe 238.204 Radial† | 3.0 | -11.5 | 14.135 | µg/L | 14.135 | ppb | 15:13:42 |
| 2 | K 766.490 Radial† | 204.4 | 75.0 | 53.328 | µg/L | 53.328 | ppb | 15:13:21 |
| 2 | Mg 279.077 IEC† | 11.2 | -0.1 | -0.6600 | µg/L | -0.6600 | ppb | 15:13:42 |
| 2 | Na 589.592 Radial† | 630.7 | 85.9 | 28.272 | µg/L | 28.272 | ppb | 15:13:21 |
| 2 | Sr 421.552† | 34.5 | -5.2 | -0.0538 | µg/L | -0.0538 | ppb | 15:13:21 |
| 2 | Sc 361.383 | 1946646.9 | 1946646.9 | 101.93 | % | | | 15:14:51 |
| 2 | Y 371.029 | 1327034.0 | 1327034.0 | 101.31 | % | | | 15:14:51 |
| 2 | Ag 328.068† | -584.6 | -9.0 | -0.0733 | µg/L | -0.0733 | ppb | 15:14:57 |
| 2 | As 188.979† | -0.2 | -1.3 | -2.6409 | µg/L | -2.6409 | ppb | 15:15:17 |
| 2 | B 249.677† | 783.8 | 437.5 | 19.174 | µg/L | 19.174 | ppb | 15:14:57 |
| 2 | Ba 233.527† | -20.0 | 6.4 | 0.1666 | µg/L | 0.1666 | ppb | 15:15:17 |
| 2 | Be 313.107† | -3481.4 | 24.9 | 0.0161 | µg/L | 0.0161 | ppb | 15:14:57 |
| 2 | Cd 226.502† | -101.1 | 42.9 | 1.1972 | µg/L | 1.1972 | ppb | 15:15:17 |
| 2 | Co 228.616† | 108800.7 | 106752.3 | 5253.6 | µg/L | 5253.6 | ppb | 15:14:57 |
| 2 | Cr 267.716† | -17.5 | 35.2 | 0.7745 | µg/L | 0.7745 | ppb | 15:15:17 |
| 2 | Cu 324.752† | 1718.5 | -800.1 | -5.6024 | µg/L | -5.6024 | ppb | 15:14:57 |
| 2 | Mn 257.610† | -163.9 | 83.3 | 0.2757 | µg/L | 0.2757 | ppb | 15:15:17 |
| 2 | Mo 202.031† | -3.8 | 3.8 | 0.4036 | µg/L | 0.4036 | ppb | 15:15:17 |
| 2 | Ni 231.604† | 346.9 | 38.2 | -4.1724 | µg/L | -4.1724 | ppb | 15:15:17 |
| 2 | P 214.914† | 5358.7 | 5229.8 | 11230 | µg/L | 11230 | ppb | 15:14:57 |
| 2 | Pb 220.353† | 113.9 | 14.6 | 3.8918 | µg/L | 3.8918 | ppb | 15:15:17 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 13.2 | -1.8 | -7.9889 | µg/L | -7.9889 ppb | 15:15:17 |
| 2 | Sb 206.836† | 30.6 | 3.1 | 3.0533 | µg/L | 3.0533 ppb | 15:15:17 |
| 2 | Se 196.026† | 12.9 | -3.2 | -5.1244 | µg/L | -5.1244 ppb | 15:15:17 |
| 2 | SiO2† | 401576.7 | 392733.7 | 84577 | µg/L | 84577 ppb | 15:14:51 |
| 2 | Si 251.611† | 485309.6 | 475820.6 | 39115 | µg/L | 39115 ppb | 15:14:51 |
| 2 | Sn 189.927† | 3.1 | 3.9 | 1.7899 | µg/L | 1.7899 ppb | 15:15:17 |
| 2 | Ti 334.940† | 323.3 | 201.1 | 0.4839 | µg/L | 0.4839 ppb | 15:14:57 |
| 2 | Tl 190.801† | -4.0 | 20.4 | 10.781 | µg/L | 10.781 ppb | 15:15:17 |
| 2 | U 409.014† | 85.0 | 137.0 | 12.417 | µg/L | 12.417 ppb | 15:14:57 |
| 2 | V 292.402† | 14.9 | 58.8 | 0.6334 | µg/L | 0.6334 ppb | 15:14:57 |
| 2 | Zn 213.857† | 510.4 | 25.2 | 0.6333 | µg/L | 0.6333 ppb | 15:15:17 |
| 3 | Sc RADIAL | 54620.7 | 54620.7 | 100 | % | | 15:13:47 |
| 3 | Al 396.153Radial† | 15.7 | 25.8 | 19.227 | µg/L | 19.227 ppb | 15:13:47 |
| 3 | Ca 317.933Radial† | 200.8 | 21.5 | 20.218 | µg/L | 20.218 ppb | 15:14:07 |
| 3 | Fe 238.204 Radial† | 4.8 | -9.7 | 21.721 | µg/L | 21.721 ppb | 15:14:07 |
| 3 | K 766.490 Radial† | 161.9 | 33.3 | 23.669 | µg/L | 23.669 ppb | 15:13:47 |
| 3 | Mg 279.077 IEC† | 10.5 | -0.8 | -6.9228 | µg/L | -6.9228 ppb | 15:14:07 |
| 3 | Na 589.592 Radial† | 616.0 | 73.6 | 24.220 | µg/L | 24.220 ppb | 15:13:47 |
| 3 | Sr 421.552† | 73.7 | 34.1 | 0.3532 | µg/L | 0.3532 ppb | 15:13:47 |
| 3 | Sc 361.383 | 1935972.8 | 1935972.8 | 101.37 | % | | 15:15:24 |
| 3 | Y 371.029 | 1321116.1 | 1321116.1 | 100.85 | % | | 15:15:24 |
| 3 | Ag 328.068† | -522.4 | 49.2 | 0.3871 | µg/L | 0.3871 ppb | 15:15:29 |
| 3 | As 188.979† | -0.6 | -1.7 | -3.3886 | µg/L | -3.3886 ppb | 15:15:50 |
| 3 | B 249.677† | 727.0 | 385.8 | 16.903 | µg/L | 16.903 ppb | 15:15:29 |
| 3 | Ba 233.527† | -11.4 | 14.8 | 0.3862 | µg/L | 0.3862 ppb | 15:15:50 |
| 3 | Be 313.107† | -3553.1 | -64.7 | -0.0425 | µg/L | -0.0425 ppb | 15:15:29 |
| 3 | Cd 226.502† | -114.3 | 29.4 | 0.8217 | µg/L | 0.8217 ppb | 15:15:50 |
| 3 | Co 228.616† | 100765.6 | 99414.3 | 4892.5 | µg/L | 4892.5 ppb | 15:15:29 |
| 3 | Cr 267.716† | -15.7 | 36.9 | 0.8110 | µg/L | 0.8110 ppb | 15:15:50 |
| 3 | Cu 324.752† | 1744.4 | -765.3 | -5.3569 | µg/L | -5.3569 ppb | 15:15:29 |
| 3 | Mn 257.610† | -168.6 | 77.8 | 0.2588 | µg/L | 0.2588 ppb | 15:15:50 |
| 3 | Mo 202.031† | 0.8 | 8.3 | 0.8836 | µg/L | 0.8836 ppb | 15:15:50 |
| 3 | Ni 231.604† | 347.2 | 40.4 | -3.6217 | µg/L | -3.6217 ppb | 15:15:50 |
| 3 | P 214.914† | 4995.9 | 4900.9 | 10524 | µg/L | 10524 ppb | 15:15:29 |
| 3 | Pb 220.353† | 111.9 | 13.2 | 3.5300 | µg/L | 3.5300 ppb | 15:15:50 |
| 3 | S 181.975 Axial† | 14.6 | -0.4 | -1.9121 | µg/L | -1.9121 ppb | 15:15:50 |
| 3 | Sb 206.836† | 26.4 | -0.9 | -0.9265 | µg/L | -0.9265 ppb | 15:15:50 |
| 3 | Se 196.026† | 6.2 | -9.7 | -15.059 | µg/L | -15.059 ppb | 15:15:50 |
| 3 | SiO2† | 389837.5 | 383325.3 | 82551 | µg/L | 82551 ppb | 15:15:24 |
| 3 | Si 251.611† | 470845.5 | 464176.9 | 38158 | µg/L | 38158 ppb | 15:15:24 |
| 3 | Sn 189.927† | 2.7 | 3.6 | 1.6476 | µg/L | 1.6476 ppb | 15:15:50 |
| 3 | Ti 334.940† | 325.3 | 204.8 | 0.4935 | µg/L | 0.4935 ppb | 15:15:29 |
| 3 | Tl 190.801† | -3.6 | 20.7 | 12.467 | µg/L | 12.467 ppb | 15:15:50 |
| 3 | U 409.014† | 27.1 | 80.3 | 7.2810 | µg/L | 7.2810 ppb | 15:15:29 |
| 3 | V 292.402† | -16.9 | 27.5 | 0.3000 | µg/L | 0.3000 ppb | 15:15:29 |
| 3 | Zn 213.857† | 508.1 | 25.7 | 0.6443 | µg/L | 0.6443 ppb | 15:15:50 |

**Mean Data: LR2**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1941346.1 | 101.65 | % | 0.279 | | | | 0.27% |
| Sc RADIAL | 54388.9 | 99.7 | % | 1.09 | | | | 1.09% |
| Y 371.029 | 1324003.1 | 101.08 | % | 0.226 | | | | 0.22% |
| Ag 328.068† | 29.4 | 0.2306 | µg/L | 0.26325 | 0.2306 | ppb | 0.26325 | 114.16% |
| Al 396.153Radial† | 10.4 | 7.7681 | µg/L | 12.00458 | 7.7681 | ppb | 12.00458 | 154.54% |
| As 188.979† | -2.4 | -4.7388 | µg/L | 3.00947 | -4.7388 | ppb | 3.00947 | 63.51% |
| B 249.677† | 410.2 | 17.974 | µg/L | 1.1410 | 17.974 | ppb | 1.1410 | 6.35% |
| Ba 233.527† | 10.4 | 0.2713 | µg/L | 0.11018 | 0.2713 | ppb | 0.11018 | 40.61% |
| Be 313.107† | -0.4 | -0.0005 | µg/L | 0.03663 | -0.0005 | ppb | 0.03663 | >999.9% |
| Ca 317.933Radial† | 14.7 | 13.807 | µg/L | 5.5841 | 13.807 | ppb | 5.5841 | 40.44% |
| Cd 226.502† | 33.8 | 0.9459 | µg/L | 0.21761 | 0.9459 | ppb | 0.21761 | 23.01% |
| Co 228.616† | 103998.4 | 5118.1 | µg/L | 196.69 | 5118.1 | ppb | 196.69 | 3.84% |
| Cr 267.716† | 33.0 | 0.7260 | µg/L | 0.11700 | 0.7260 | ppb | 0.11700 | 16.12% |
| Cu 324.752† | -755.6 | -5.2906 | µg/L | 0.34975 | -5.2906 | ppb | 0.34975 | 6.61% |
| Fe 238.204 Radial† | -10.5 | 19.785 | µg/L | 4.9725 | 19.785 | ppb | 4.9725 | 25.13% |
| K 766.490 Radial† | 49.4 | 35.130 | µg/L | 15.9357 | 35.130 | ppb | 15.9357 | 45.36% |
| Mg 279.077 IEC† | -0.6 | -5.7780 | µg/L | 4.65251 | -5.7780 | ppb | 4.65251 | 80.52% |
| Mn 257.610† | 82.2 | 0.2731 | µg/L | 0.01325 | 0.2731 | ppb | 0.01325 | 4.85% |
| Mo 202.031† | 6.1 | 0.6430 | µg/L | 0.24004 | 0.6430 | ppb | 0.24004 | 37.33% |
| Na 589.592 Radial† | 80.7 | 26.581 | µg/L | 2.1079 | 26.581 | ppb | 2.1079 | 7.93% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ni 231.604† | 39.2 | -3.9561 | µg/L | 0.29375 | -3.9561 | ppb | 0.29375 | 7.43% |
| P 214.914† | 5120.6 | 10995 | µg/L | 408.6 | 10995 | ppb | 408.6 | 3.72% |
| Pb 220.353† | 13.4 | 3.5769 | µg/L | 0.29424 | 3.5769 | ppb | 0.29424 | 8.23% |
| S 181.975 Axial† | -0.3 | -1.3060 | µg/L | 7.00565 | -1.3060 | ppb | 7.00565 | 536.41% |
| Sb 206.836† | -1.1 | -1.1256 | µg/L | 4.28189 | -1.1256 | ppb | 4.28189 | 380.41% |
| Se 196.026† | -5.5 | -8.5576 | µg/L | 5.63334 | -8.5576 | ppb | 5.63334 | 65.83% |
| SiO2† | 389449.1 | 83870 | µg/L | 1143.1 | 83870 | ppb | 1143.1 | 1.36% |
| Si 251.611† | 471739.3 | 38779 | µg/L | 538.9 | 38779 | ppb | 538.9 | 1.39% |
| Sn 189.927† | 3.8 | 1.7765 | µg/L | 0.12277 | 1.7765 | ppb | 0.12277 | 6.91% |
| Sr 421.552† | 18.2 | 0.1890 | µg/L | 0.21456 | 0.1890 | ppb | 0.21456 | 113.55% |
| Ti 334.940† | 196.9 | 0.4743 | µg/L | 0.02534 | 0.4743 | ppb | 0.02534 | 5.34% |
| Tl 190.801† | 20.6 | 11.536 | µg/L | 0.8566 | 11.536 | ppb | 0.8566 | 7.43% |
| U 409.014† | 98.6 | 8.9390 | µg/L | 3.01276 | 8.9390 | ppb | 3.01276 | 33.70% |
| V 292.402† | 45.5 | 0.4899 | µg/L | 0.17143 | 0.4899 | ppb | 0.17143 | 35.00% |
| Zn 213.857† | 29.8 | 0.7480 | µg/L | 0.18929 | 0.7480 | ppb | 0.18929 | 25.31% |

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 54231.5 | 54231.5 | 99.4 | % | | | 15:16:36 |
| 1 | Al 396.153Radial† | 7106.2 | 7161.2 | 5326.1 | µg/L | 5326.1 | ppb | 15:16:36 |
| 1 | Ca 317.933Radial† | 5688.9 | 5545.7 | 5221.6 | µg/L | 5221.6 | ppb | 15:16:56 |
| 1 | Fe 238.204 Radial† | 634.7 | 624.2 | 5302.1 | µg/L | 5302.1 | ppb | 15:16:56 |
| 1 | K 766.490 Radial† | 7456.0 | 7374.7 | 5241.9 | µg/L | 5241.9 | ppb | 15:16:36 |
| 1 | Mg 279.077 IEC† | 577.6 | 570.0 | 5308.0 | µg/L | 5308.0 | ppb | 15:16:56 |
| 1 | Na 589.592 Radial† | 32401.3 | 32064.3 | 10556 | µg/L | 10556 | ppb | 15:16:36 |
| 1 | Sr 421.552† | 50354.2 | 50633.0 | 524.87 | µg/L | 524.87 | ppb | 15:16:36 |
| 1 | Sc 361.383 | 1899310.9 | 1899310.9 | 99.449 | % | | | 15:17:59 |
| 1 | Y 371.029 | 1297484.4 | 1297484.4 | 99.051 | % | | | 15:17:59 |
| 1 | Ag 328.068† | 65095.3 | 66020.7 | 527.69 | µg/L | 527.69 | ppb | 15:18:05 |
| 1 | As 188.979† | 283.8 | 284.2 | 554.43 | µg/L | 554.43 | ppb | 15:18:26 |
| 1 | B 249.677† | 12153.8 | 11889.7 | 517.70 | µg/L | 517.70 | ppb | 15:18:05 |
| 1 | Ba 233.527† | 20078.6 | 20215.9 | 527.34 | µg/L | 527.34 | ppb | 15:18:05 |
| 1 | Be 313.107† | 797857.7 | 805721.3 | 525.98 | µg/L | 525.98 | ppb | 15:17:59 |
| 1 | Cd 226.502† | 18953.5 | 19200.7 | 529.65 | µg/L | 529.65 | ppb | 15:18:05 |
| 1 | Co 228.616† | 10779.9 | 10848.5 | 533.28 | µg/L | 533.28 | ppb | 15:18:05 |
| 1 | Cr 267.716† | 24091.2 | 24277.1 | 534.33 | µg/L | 534.33 | ppb | 15:18:05 |
| 1 | Cu 324.752† | 77848.6 | 75794.1 | 530.18 | µg/L | 530.18 | ppb | 15:18:05 |
| 1 | Mn 257.610† | 153606.0 | 154701.7 | 536.20 | µg/L | 536.20 | ppb | 15:17:59 |
| 1 | Mo 202.031† | 5175.2 | 5211.4 | 556.37 | µg/L | 556.37 | ppb | 15:18:26 |
| 1 | Ni 231.604† | 10008.1 | 9761.4 | 533.14 | µg/L | 533.14 | ppb | 15:18:05 |
| 1 | P 214.914† | 1295.2 | 1274.7 | 2686.7 | µg/L | 2686.7 | ppb | 15:18:26 |
| 1 | Pb 220.353† | 2124.5 | 2039.1 | 544.31 | µg/L | 544.31 | ppb | 15:18:26 |
| 1 | S 181.975 Axial† | 260.7 | 247.3 | 1083.6 | µg/L | 1083.6 | ppb | 15:18:26 |
| 1 | Sb 206.836† | 587.4 | 563.7 | 557.41 | µg/L | 557.41 | ppb | 15:18:26 |
| 1 | Se 196.026† | 370.9 | 357.1 | 552.71 | µg/L | 552.71 | ppb | 15:18:26 |
| 1 | SiO2† | 27461.3 | 26363.5 | 5677.5 | µg/L | 5677.5 | ppb | 15:18:05 |
| 1 | Si 251.611† | 32393.9 | 32260.7 | 2652.0 | µg/L | 2652.0 | ppb | 15:18:05 |
| 1 | Sn 189.927† | 1213.6 | 1221.2 | 561.69 | µg/L | 561.69 | ppb | 15:18:26 |
| 1 | Ti 334.940† | 219433.8 | 220534.1 | 530.14 | µg/L | 530.14 | ppb | 15:17:59 |
| 1 | Tl 190.801† | 358.1 | 384.4 | 542.92 | µg/L | 542.92 | ppb | 15:18:26 |
| 1 | U 409.014† | 5858.6 | 5944.7 | 537.16 | µg/L | 537.16 | ppb | 15:18:05 |
| 1 | V 292.402† | 49239.4 | 49556.6 | 534.84 | µg/L | 534.84 | ppb | 15:18:05 |
| 1 | Zn 213.857† | 21646.0 | 21290.4 | 527.88 | µg/L | 527.88 | ppb | 15:18:05 |
| 2 | Sc RADIAL | 54850.6 | 54850.6 | 101 | % | | | 15:17:02 |
| 2 | Al 396.153Radial† | 7137.6 | 7111.8 | 5289.4 | µg/L | 5289.4 | ppb | 15:17:02 |
| 2 | Ca 317.933Radial† | 5661.7 | 5454.1 | 5135.3 | µg/L | 5135.3 | ppb | 15:17:22 |
| 2 | Fe 238.204 Radial† | 627.5 | 609.8 | 5179.7 | µg/L | 5179.7 | ppb | 15:17:22 |
| 2 | K 766.490 Radial† | 7509.6 | 7343.3 | 5219.6 | µg/L | 5219.6 | ppb | 15:17:02 |
| 2 | Mg 279.077 IEC† | 583.7 | 569.5 | 5303.7 | µg/L | 5303.7 | ppb | 15:17:22 |
| 2 | Na 589.592 Radial† | 32499.9 | 31794.4 | 10467 | µg/L | 10467 | ppb | 15:17:02 |
| 2 | Sr 421.552† | 50507.4 | 50213.6 | 520.52 | µg/L | 520.52 | ppb | 15:17:02 |
| 2 | Sc 361.383 | 1912998.8 | 1912998.8 | 100.17 | % | | | 15:18:33 |
| 2 | Y 371.029 | 1306161.3 | 1306161.3 | 99.713 | % | | | 15:18:33 |
| 2 | Ag 328.068† | 65237.5 | 65694.3 | 525.07 | µg/L | 525.07 | ppb | 15:18:38 |
| 2 | As 188.979† | 280.6 | 279.0 | 544.24 | µg/L | 544.24 | ppb | 15:18:59 |
| 2 | B 249.677† | 12200.8 | 11849.2 | 515.98 | µg/L | 515.98 | ppb | 15:18:38 |
| 2 | Ba 233.527† | 20133.5 | 20126.3 | 525.01 | µg/L | 525.01 | ppb | 15:18:38 |
| 2 | Be 313.107† | 793302.5 | 795433.1 | 519.26 | µg/L | 519.26 | ppb | 15:18:33 |
| 2 | Cd 226.502† | 18921.4 | 19032.3 | 525.02 | µg/L | 525.02 | ppb | 15:18:38 |
| 2 | Co 228.616† | 10784.1 | 10775.1 | 529.68 | µg/L | 529.68 | ppb | 15:18:38 |
| 2 | Cr 267.716† | 24047.5 | 24060.2 | 529.56 | µg/L | 529.56 | ppb | 15:18:38 |
| 2 | Cu 324.752† | 77783.7 | 75169.2 | 525.79 | µg/L | 525.79 | ppb | 15:18:38 |
| 2 | Mn 257.610† | 152510.0 | 152502.3 | 528.57 | µg/L | 528.57 | ppb | 15:18:33 |
| 2 | Mo 202.031† | 5149.2 | 5148.2 | 549.62 | µg/L | 549.62 | ppb | 15:18:59 |
| 2 | Ni 231.604† | 10009.6 | 9690.9 | 529.28 | µg/L | 529.28 | ppb | 15:18:38 |
| 2 | P 214.914† | 1298.8 | 1269.0 | 2674.9 | µg/L | 2674.9 | ppb | 15:18:59 |
| 2 | Pb 220.353† | 2130.1 | 2029.4 | 541.73 | µg/L | 541.73 | ppb | 15:18:59 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 263.5 | 248.2 | 1087.5 | µg/L | 1087.5 ppb | 15:18:59 |
| 2 | Sb 206.836† | 579.7 | 551.8 | 545.70 | µg/L | 545.70 ppb | 15:18:59 |
| 2 | Se 196.026† | 360.4 | 343.9 | 532.32 | µg/L | 532.32 ppb | 15:18:59 |
| 2 | SiO2† | 27531.6 | 26236.1 | 5650.1 | µg/L | 5650.1 ppb | 15:18:38 |
| 2 | Si 251.611† | 32505.0 | 32138.5 | 2641.9 | µg/L | 2641.9 ppb | 15:18:38 |
| 2 | Sn 189.927† | 1205.3 | 1204.2 | 553.89 | µg/L | 553.89 ppb | 15:18:59 |
| 2 | Ti 334.940† | 218053.7 | 217577.6 | 523.03 | µg/L | 523.03 ppb | 15:18:33 |
| 2 | Tl 190.801† | 351.0 | 374.7 | 529.24 | µg/L | 529.24 ppb | 15:18:59 |
| 2 | U 409.014† | 5767.6 | 5811.7 | 525.14 | µg/L | 525.14 ppb | 15:18:38 |
| 2 | V 292.402† | 49305.2 | 49268.0 | 531.68 | µg/L | 531.68 ppb | 15:18:38 |
| 2 | Zn 213.857† | 21685.0 | 21173.7 | 524.99 | µg/L | 524.99 ppb | 15:18:38 |
| 3 | Sc RADIAL | 55041.7 | 55041.7 | 101 | % | | 15:17:27 |
| 3 | Al 396.153Radial† | 7150.5 | 7100.0 | 5282.4 | µg/L | 5282.4 ppb | 15:17:27 |
| 3 | Ca 317.933Radial† | 5679.0 | 5451.7 | 5133.1 | µg/L | 5133.1 ppb | 15:17:48 |
| 3 | Fe 238.204 Radial† | 630.1 | 610.3 | 5182.9 | µg/L | 5182.9 ppb | 15:17:48 |
| 3 | K 766.490 Radial† | 7530.7 | 7338.3 | 5216.0 | µg/L | 5216.0 ppb | 15:17:27 |
| 3 | Mg 279.077 IEC† | 585.8 | 569.6 | 5302.7 | µg/L | 5302.7 ppb | 15:17:48 |
| 3 | Na 589.592 Radial† | 32646.4 | 31827.3 | 10478 | µg/L | 10478 ppb | 15:17:27 |
| 3 | Sr 421.552† | 50673.8 | 50204.0 | 520.42 | µg/L | 520.42 ppb | 15:17:27 |
| 3 | Sc 361.383 | 1908268.1 | 1908268.1 | 99.918 | % | | 15:19:06 |
| 3 | Y 371.029 | 1302480.0 | 1302480.0 | 99.432 | % | | 15:19:06 |
| 3 | Ag 328.068† | 61722.8 | 62338.2 | 498.13 | µg/L | 498.13 ppb | 15:19:11 |
| 3 | As 188.979† | 239.2 | 238.3 | 464.88 | µg/L | 464.88 ppb | 15:19:32 |
| 3 | B 249.677† | 11534.0 | 11212.0 | 488.05 | µg/L | 488.05 ppb | 15:19:11 |
| 3 | Ba 233.527† | 18616.9 | 18658.3 | 486.70 | µg/L | 486.70 ppb | 15:19:11 |
| 3 | Be 313.107† | 758183.0 | 762248.0 | 497.60 | µg/L | 497.60 ppb | 15:19:06 |
| 3 | Cd 226.502† | 17482.4 | 17638.9 | 486.53 | µg/L | 486.53 ppb | 15:19:11 |
| 3 | Co 228.616† | 9936.5 | 9953.5 | 489.22 | µg/L | 489.22 ppb | 15:19:11 |
| 3 | Cr 267.716† | 21502.9 | 21573.0 | 474.82 | µg/L | 474.82 ppb | 15:19:11 |
| 3 | Cu 324.752† | 71603.1 | 69176.0 | 483.93 | µg/L | 483.93 ppb | 15:19:11 |
| 3 | Mn 257.610† | 146044.9 | 146409.3 | 507.47 | µg/L | 507.47 ppb | 15:19:06 |
| 3 | Mo 202.031† | 4268.9 | 4280.0 | 456.96 | µg/L | 456.96 ppb | 15:19:32 |
| 3 | Ni 231.604† | 9195.7 | 8901.1 | 486.15 | µg/L | 486.15 ppb | 15:19:11 |
| 3 | P 214.914† | 1105.2 | 1078.5 | 2268.7 | µg/L | 2268.7 ppb | 15:19:32 |
| 3 | Pb 220.353† | 1828.3 | 1732.6 | 462.41 | µg/L | 462.41 ppb | 15:19:32 |
| 3 | S 181.975 Axial† | 232.1 | 217.5 | 952.80 | µg/L | 952.80 ppb | 15:19:32 |
| 3 | Sb 206.836† | 493.7 | 467.1 | 461.46 | µg/L | 461.46 ppb | 15:19:32 |
| 3 | Se 196.026† | 316.9 | 301.3 | 467.33 | µg/L | 467.33 ppb | 15:19:32 |
| 3 | SiO2† | 25842.8 | 24614.0 | 5300.8 | µg/L | 5300.8 ppb | 15:19:11 |
| 3 | Si 251.611† | 30435.2 | 30147.4 | 2478.3 | µg/L | 2478.3 ppb | 15:19:11 |
| 3 | Sn 189.927† | 977.2 | 978.9 | 450.28 | µg/L | 450.28 ppb | 15:19:32 |
| 3 | Ti 334.940† | 207237.8 | 207292.4 | 498.29 | µg/L | 498.29 ppb | 15:19:06 |
| 3 | Tl 190.801† | 318.0 | 342.6 | 484.22 | µg/L | 484.22 ppb | 15:19:32 |
| 3 | U 409.014† | 5210.6 | 5268.5 | 475.96 | µg/L | 475.96 ppb | 15:19:11 |
| 3 | V 292.402† | 44791.7 | 44872.9 | 483.94 | µg/L | 483.94 ppb | 15:19:11 |
| 3 | Zn 213.857† | 19890.6 | 19431.5 | 481.75 | µg/L | 481.75 ppb | 15:19:11 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1906859.3 | 99.844 | % | 0.3640 | | | | 0.36% |
| Sc RADIAL | 54707.9 | 100 | % | 0.8 | | | | 0.77% |
| Y 371.029 | 1302041.9 | 99.399 | % | 0.3325 | | | | 0.33% |
| Ag 328.068† | 64684.4 | 516.97 | µg/L | 16.362 | 516.97 | ppb | 16.362 | 3.16% |
| QC value within limits for Ag 328.068 Recovery = 103.39% | | | | | | | | |
| Al 396.153Radial† | 7124.3 | 5299.3 | µg/L | 23.43 | 5299.3 | ppb | 23.43 | 0.44% |
| QC value within limits for Al 396.153Radial Recovery = 105.99% | | | | | | | | |
| As 188.979† | 267.2 | 521.18 | µg/L | 49.028 | 521.18 | ppb | 49.028 | 9.41% |
| QC value within limits for As 188.979 Recovery = 104.24% | | | | | | | | |
| B 249.677† | 11650.3 | 507.24 | µg/L | 16.645 | 507.24 | ppb | 16.645 | 3.28% |
| QC value within limits for B 249.677 Recovery = 101.45% | | | | | | | | |
| Ba 233.527† | 19666.8 | 513.02 | µg/L | 22.823 | 513.02 | ppb | 22.823 | 4.45% |
| QC value within limits for Ba 233.527 Recovery = 102.60% | | | | | | | | |
| Be 313.107† | 787800.8 | 514.28 | µg/L | 14.831 | 514.28 | ppb | 14.831 | 2.88% |
| QC value within limits for Be 313.107 Recovery = 102.86% | | | | | | | | |
| Ca 317.933Radial† | 5483.8 | 5163.4 | µg/L | 50.50 | 5163.4 | ppb | 50.50 | 0.98% |
| QC value within limits for Ca 317.933Radial Recovery = 103.27% | | | | | | | | |
| Cd 226.502† | 18623.9 | 513.73 | µg/L | 23.671 | 513.73 | ppb | 23.671 | 4.61% |
| QC value within limits for Cd 226.502 Recovery = 102.75% | | | | | | | | |
| Co 228.616† | 10525.7 | 517.39 | µg/L | 24.470 | 517.39 | ppb | 24.470 | 4.73% |

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   QC value within limits for Co 228.616  Recovery = 103.48%
Cr 267.716†            23303.5      512.91 µg/L        33.067      512.91 ppb        33.067   6.45%
   QC value within limits for Cr 267.716  Recovery = 102.58%
Cu 324.752†            73379.7      513.30 µg/L        25.529      513.30 ppb        25.529   4.97%
   QC value within limits for Cu 324.752  Recovery = 102.66%
Fe 238.204 Radial†       614.8      5221.6 µg/L         69.73      5221.6 ppb         69.73   1.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.43%
K 766.490 Radial†       7352.1      5225.8 µg/L         14.03      5225.8 ppb         14.03   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 104.52%
Mg 279.077 IEC†          569.7      5304.8 µg/L          2.78      5304.8 ppb          2.78   0.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.10%
Mn 257.610†           151204.4      524.08 µg/L        14.882      524.08 ppb        14.882   2.84%
   QC value within limits for Mn 257.610  Recovery = 104.82%
Mo 202.031†             4879.9      520.98 µg/L        55.549      520.98 ppb        55.549  10.66%
   QC value within limits for Mo 202.031  Recovery = 104.20%
Na 589.592 Radial†     31895.3       10500 µg/L          48.5       10500 ppb          48.5   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 105.00%
Ni 231.604†             9451.1      516.19 µg/L        26.085      516.19 ppb        26.085   5.05%
   QC value within limits for Ni 231.604  Recovery = 103.24%
P 214.914†              1207.4      2543.4 µg/L        237.97      2543.4 ppb        237.97   9.36%
   QC value within limits for P 214.914  Recovery = 101.74%
Pb 220.353†             1933.7      516.15 µg/L        46.558      516.15 ppb        46.558   9.02%
   QC value within limits for Pb 220.353  Recovery = 103.23%
S 181.975 Axial†         237.7      1041.3 µg/L         76.67      1041.3 ppb         76.67   7.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.13%
Sb 206.836†              527.5      521.52 µg/L        52.346      521.52 ppb        52.346  10.04%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              334.1      517.45 µg/L        44.586      517.45 ppb        44.586   8.62%
   QC value within limits for Se 196.026  Recovery = 103.49%
SiO2†                  25737.9      5542.8 µg/L        210.05      5542.8 ppb        210.05   3.79%
   QC value within limits for SiO2  Recovery = 103.65%
Si 251.611†            31515.5      2590.7 µg/L         97.53      2590.7 ppb         97.53   3.76%
   QC value within limits for Si 251.611  Recovery = 103.63%
Sn 189.927†             1134.8      521.95 µg/L        62.194      521.95 ppb        62.194  11.92%
   QC value within limits for Sn 189.927  Recovery = 104.39%
Sr 421.552†            50350.2      521.94 µg/L         2.539      521.94 ppb         2.539   0.49%
   QC value within limits for Sr 421.552  Recovery = 104.39%
Ti 334.940†           215134.7      517.15 µg/L        16.720      517.15 ppb        16.720   3.23%
   QC value within limits for Ti 334.940  Recovery = 103.43%
Tl 190.801†              367.2      518.79 µg/L        30.715      518.79 ppb        30.715   5.92%
   QC value within limits for Tl 190.801  Recovery = 103.76%
U 409.014†              5675.0      512.76 µg/L        32.426      512.76 ppb        32.426   6.32%
   QC value within limits for U 409.014  Recovery = 102.55%
V 292.402†             47899.1      516.82 µg/L        28.516      516.82 ppb        28.516   5.52%
   QC value within limits for V 292.402  Recovery = 103.36%
Zn 213.857†            20631.8      511.54 µg/L        25.841      511.54 ppb        25.841   5.05%
   QC value within limits for Zn 213.857  Recovery = 102.31%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:19:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 53966.4 | 53966.4 | 98.9 | % | | | 15:20:14 |
| 1 | Al 396.153Radial† | -26.0 | -16.1 | -12.005 | µg/L | -12.005 | ppb | 15:20:14 |
| 1 | Ca 317.933Radial† | 184.6 | 7.5 | 7.0536 | µg/L | 7.0536 | ppb | 15:20:34 |
| 1 | Fe 238.204 Radial† | 14.2 | -0.1 | -0.8468 | µg/L | -0.8468 | ppb | 15:20:34 |
| 1 | K 766.490 Radial† | 181.9 | 55.5 | 39.479 | µg/L | 39.479 | ppb | 15:20:14 |
| 1 | Mg 279.077 IEC† | 12.1 | 1.0 | 9.1967 | µg/L | 9.1967 | ppb | 15:20:34 |
| 1 | Na 589.592 Radial† | 657.2 | 122.7 | 40.408 | µg/L | 40.408 | ppb | 15:20:14 |
| 1 | Sr 421.552† | 65.1 | 26.3 | 0.2722 | µg/L | 0.2722 | ppb | 15:20:14 |
| 1 | Sc 361.383 | 1911106.6 | 1911106.6 | 100.07 | % | | | 15:21:36 |
| 1 | Y 371.029 | 1309549.6 | 1309549.6 | 99.972 | % | | | 15:21:36 |
| 1 | Ag 328.068† | -559.4 | 5.5 | 0.0442 | µg/L | 0.0442 | ppb | 15:21:42 |
| 1 | As 188.979† | -3.0 | -4.1 | -8.0395 | µg/L | -8.0395 | ppb | 15:22:02 |
| 1 | B 249.677† | 346.9 | 15.2 | 0.6669 | µg/L | 0.6669 | ppb | 15:22:02 |
| 1 | Ba 233.527† | -26.7 | -0.7 | -0.0185 | µg/L | -0.0185 | ppb | 15:22:02 |
| 1 | Be 313.107† | -3454.2 | -11.4 | -0.0075 | µg/L | -0.0075 | ppb | 15:21:42 |
| 1 | Cd 226.502† | -139.0 | 3.2 | 0.0893 | µg/L | 0.0893 | ppb | 15:22:02 |
| 1 | Co 228.616† | -9.2 | -0.3 | -0.0170 | µg/L | -0.0170 | ppb | 15:22:02 |
| 1 | Cr 267.716† | -37.5 | 14.9 | 0.3282 | µg/L | 0.3282 | ppb | 15:21:42 |
| 1 | Cu 324.752† | 2557.0 | 69.2 | 0.4835 | µg/L | 0.4835 | ppb | 15:21:42 |
| 1 | Mn 257.610† | -212.1 | 32.2 | 0.1110 | µg/L | 0.1110 | ppb | 15:22:02 |
| 1 | Mo 202.031† | -8.5 | -0.9 | -0.1000 | µg/L | -0.1000 | ppb | 15:22:02 |
| 1 | Ni 231.604† | 310.7 | 8.3 | 0.4558 | µg/L | 0.4558 | ppb | 15:22:02 |
| 1 | P 214.914† | 28.4 | 0.8 | 1.6386 | µg/L | 1.6386 | ppb | 15:22:02 |
| 1 | Pb 220.353† | 104.0 | 6.7 | 1.8057 | µg/L | 1.8057 | ppb | 15:22:02 |
| 1 | S 181.975 Axial† | 16.5 | 1.7 | 7.4394 | µg/L | 7.4394 | ppb | 15:22:02 |
| 1 | Sb 206.836† | 29.0 | 2.0 | 1.9993 | µg/L | 1.9993 | ppb | 15:22:02 |
| 1 | Se 196.026† | 21.9 | 6.0 | 9.1749 | µg/L | 9.1749 | ppb | 15:22:02 |
| 1 | SiO2† | 1293.6 | 42.7 | 9.2028 | µg/L | 9.2028 | ppb | 15:21:42 |
| 1 | Si 251.611† | 353.1 | 40.0 | 3.2887 | µg/L | 3.2887 | ppb | 15:22:02 |
| 1 | Sn 189.927† | 4.9 | 5.8 | 2.6719 | µg/L | 2.6719 | ppb | 15:22:02 |
| 1 | Ti 334.940† | 159.7 | 43.4 | 0.1039 | µg/L | 0.1039 | ppb | 15:21:42 |
| 1 | Tl 190.801† | -23.8 | 0.5 | 0.6768 | µg/L | 0.6768 | ppb | 15:22:02 |
| 1 | U 409.014† | -184.4 | -130.7 | -11.830 | µg/L | -11.830 | ppb | 15:21:42 |
| 1 | V 292.402† | -35.9 | 8.3 | 0.0760 | µg/L | 0.0760 | ppb | 15:21:42 |
| 1 | Zn 213.857† | 494.3 | 18.4 | 0.4572 | µg/L | 0.4572 | ppb | 15:22:02 |
| 2 | Sc RADIAL | 54869.8 | 54869.8 | 101 | % | | | 15:20:40 |
| 2 | Al 396.153Radial† | 13.7 | 23.8 | 17.738 | µg/L | 17.738 | ppb | 15:20:40 |
| 2 | Ca 317.933Radial† | 187.7 | 7.5 | 7.0950 | µg/L | 7.0950 | ppb | 15:21:00 |
| 2 | Fe 238.204 Radial† | 15.7 | 1.1 | 9.3064 | µg/L | 9.3064 | ppb | 15:21:00 |
| 2 | K 766.490 Radial† | 257.4 | 127.6 | 90.719 | µg/L | 90.719 | ppb | 15:20:40 |
| 2 | Mg 279.077 IEC† | 16.3 | 4.9 | 45.809 | µg/L | 45.809 | ppb | 15:21:00 |
| 2 | Na 589.592 Radial† | 606.0 | 60.8 | 20.024 | µg/L | 20.024 | ppb | 15:20:40 |
| 2 | Sr 421.552† | 22.5 | -17.2 | -0.1781 | µg/L | -0.1781 | ppb | 15:20:40 |
| 2 | Sc 361.383 | 1897412.4 | 1897412.4 | 99.349 | % | | | 15:22:08 |
| 2 | Y 371.029 | 1298760.9 | 1298760.9 | 99.148 | % | | | 15:22:08 |
| 2 | Ag 328.068† | -542.2 | 18.8 | 0.1523 | µg/L | 0.1523 | ppb | 15:22:14 |
| 2 | As 188.979† | -3.1 | -4.3 | -8.3435 | µg/L | -8.3435 | ppb | 15:22:34 |
| 2 | B 249.677† | 336.8 | 7.5 | 0.3241 | µg/L | 0.3241 | ppb | 15:22:34 |
| 2 | Ba 233.527† | -16.5 | 9.4 | 0.2467 | µg/L | 0.2467 | ppb | 15:22:34 |
| 2 | Be 313.107† | -3415.0 | 3.0 | 0.0019 | µg/L | 0.0019 | ppb | 15:22:14 |
| 2 | Cd 226.502† | -128.8 | 12.5 | 0.3432 | µg/L | 0.3432 | ppb | 15:22:34 |
| 2 | Co 228.616† | -5.7 | 3.1 | 0.1511 | µg/L | 0.1511 | ppb | 15:22:34 |
| 2 | Cr 267.716† | -15.6 | 36.7 | 0.8074 | µg/L | 0.8074 | ppb | 15:22:14 |
| 2 | Cu 324.752† | 2549.9 | 80.5 | 0.5637 | µg/L | 0.5637 | ppb | 15:22:14 |
| 2 | Mn 257.610† | -177.5 | 65.4 | 0.2260 | µg/L | 0.2260 | ppb | 15:22:34 |
| 2 | Mo 202.031† | -7.3 | 0.2 | 0.0178 | µg/L | 0.0178 | ppb | 15:22:34 |
| 2 | Ni 231.604† | 306.5 | 6.3 | 0.3468 | µg/L | 0.3468 | ppb | 15:22:34 |
| 2 | P 214.914† | 31.7 | 4.3 | 9.0650 | µg/L | 9.0650 | ppb | 15:22:34 |
| 2 | Pb 220.353† | 106.2 | 9.7 | 2.5827 | µg/L | 2.5827 | ppb | 15:22:34 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 17.2 | 2.5 | 10.929 µg/L | 10.929 ppb | 15:22:34 |
| 2 | Sb 206.836† | 25.7 | -1.1 | -1.0721 µg/L | -1.0721 ppb | 15:22:34 |
| 2 | Se 196.026† | 18.6 | 2.9 | 4.4089 µg/L | 4.4089 ppb | 15:22:34 |
| 2 | SiO2† | 1247.0 | 5.2 | 1.1103 µg/L | 1.1103 ppb | 15:22:14 |
| 2 | Si 251.611† | 359.1 | 48.5 | 3.9904 µg/L | 3.9904 ppb | 15:22:34 |
| 2 | Sn 189.927† | -1.6 | -0.8 | -0.3440 µg/L | -0.3440 ppb | 15:22:34 |
| 2 | Ti 334.940† | 171.3 | 56.3 | 0.1319 µg/L | 0.1319 ppb | 15:22:14 |
| 2 | Tl 190.801† | -21.8 | 2.3 | 3.2311 µg/L | 3.2311 ppb | 15:22:34 |
| 2 | U 409.014† | -98.3 | -45.3 | -4.1055 µg/L | -4.1055 ppb | 15:22:14 |
| 2 | V 292.402† | -5.8 | 38.4 | 0.4080 µg/L | 0.4080 ppb | 15:22:14 |
| 2 | Zn 213.857† | 499.6 | 27.3 | 0.6761 µg/L | 0.6761 ppb | 15:22:34 |
| 3 | Sc RADIAL | 54385.0 | 54385.0 | 99.7 % | | 15:21:06 |
| 3 | Al 396.153Radial† | -13.7 | -3.6 | -2.7248 µg/L | -2.7248 ppb | 15:21:06 |
| 3 | Ca 317.933Radial† | 185.2 | 6.7 | 6.3429 µg/L | 6.3429 ppb | 15:21:26 |
| 3 | Fe 238.204 Radial† | 16.3 | 1.8 | 15.415 µg/L | 15.415 ppb | 15:21:26 |
| 3 | K 766.490 Radial† | 182.4 | 54.6 | 38.797 µg/L | 38.797 ppb | 15:21:06 |
| 3 | Mg 279.077 IEC† | 9.2 | -2.0 | -18.753 µg/L | -18.753 ppb | 15:21:26 |
| 3 | Na 589.592 Radial† | 592.4 | 52.6 | 17.324 µg/L | 17.324 ppb | 15:21:06 |
| 3 | Sr 421.552† | -3.5 | -43.1 | -0.4464 µg/L | -0.4464 ppb | 15:21:06 |
| 3 | Sc 361.383 | 1884488.6 | 1884488.6 | 98.673 % | | 15:22:40 |
| 3 | Y 371.029 | 1291927.9 | 1291927.9 | 98.627 % | | 15:22:40 |
| 3 | Ag 328.068† | -522.7 | 34.8 | 0.2806 µg/L | 0.2806 ppb | 15:22:46 |
| 3 | As 188.979† | 2.4 | 1.3 | 2.4649 µg/L | 2.4649 ppb | 15:23:06 |
| 3 | B 249.677† | 335.7 | 8.8 | 0.3768 µg/L | 0.3768 ppb | 15:23:06 |
| 3 | Ba 233.527† | -11.8 | 14.1 | 0.3676 µg/L | 0.3676 ppb | 15:23:06 |
| 3 | Be 313.107† | -3127.8 | 270.6 | 0.1766 µg/L | 0.1766 ppb | 15:22:46 |
| 3 | Cd 226.502† | -124.4 | 16.0 | 0.4414 µg/L | 0.4414 ppb | 15:23:06 |
| 3 | Co 228.616† | 7.6 | 16.5 | 0.8149 µg/L | 0.8149 ppb | 15:23:06 |
| 3 | Cr 267.716† | -23.5 | 28.6 | 0.6295 µg/L | 0.6295 ppb | 15:22:46 |
| 3 | Cu 324.752† | 2622.5 | 171.7 | 1.2017 µg/L | 1.2017 ppb | 15:22:46 |
| 3 | Mn 257.610† | -142.0 | 100.2 | 0.3497 µg/L | 0.3497 ppb | 15:23:06 |
| 3 | Mo 202.031† | 3.2 | 10.8 | 1.1512 µg/L | 1.1512 ppb | 15:23:06 |
| 3 | Ni 231.604† | 306.2 | 8.2 | 0.4462 µg/L | 0.4462 ppb | 15:23:06 |
| 3 | P 214.914† | 29.6 | 2.4 | 5.0144 µg/L | 5.0144 ppb | 15:23:06 |
| 3 | Pb 220.353† | 103.4 | 7.6 | 2.0339 µg/L | 2.0339 ppb | 15:23:06 |
| 3 | S 181.975 Axial† | 18.5 | 3.9 | 17.268 µg/L | 17.268 ppb | 15:23:06 |
| 3 | Sb 206.836† | 29.4 | 2.8 | 2.8126 µg/L | 2.8126 ppb | 15:23:06 |
| 3 | Se 196.026† | 10.8 | -4.9 | -7.3717 µg/L | -7.3717 ppb | 15:23:06 |
| 3 | SiO2† | 1294.7 | 62.1 | 13.372 µg/L | 13.372 ppb | 15:22:46 |
| 3 | Si 251.611† | 373.7 | 65.9 | 5.4177 µg/L | 5.4177 ppb | 15:23:06 |
| 3 | Sn 189.927† | 0.7 | 1.6 | 0.7177 µg/L | 0.7177 ppb | 15:23:06 |
| 3 | Ti 334.940† | 234.9 | 122.0 | 0.2950 µg/L | 0.2950 ppb | 15:22:46 |
| 3 | Tl 190.801† | -24.9 | -0.9 | -1.2684 µg/L | -1.2684 ppb | 15:23:06 |
| 3 | U 409.014† | -88.3 | -35.9 | -3.2543 µg/L | -3.2543 ppb | 15:22:46 |
| 3 | V 292.402† | 2.7 | 46.9 | 0.5091 µg/L | 0.5091 ppb | 15:22:46 |
| 3 | Zn 213.857† | 512.3 | 43.6 | 1.0859 µg/L | 1.0859 ppb | 15:23:06 |

**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1897669.2 | 99.363 | % | 0.6970 | | | | 0.70% |
| Sc RADIAL | 54407.1 | 99.7 | % | 0.83 | | | | 0.83% |
| Y 371.029 | 1300079.5 | 99.249 | % | 0.6782 | | | | 0.68% |
| Ag 328.068† | 19.7 | 0.1590 | µg/L | 0.11838 | 0.1590 | ppb | 0.11838 | 74.44% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 1.4 | 1.0028 | µg/L | 15.21758 | 1.0028 | ppb | 15.21758 | >999.9% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -2.4 | -4.6394 | µg/L | 6.15437 | -4.6394 | ppb | 6.15437 | 132.66% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | 10.5 | 0.4560 | µg/L | 0.18460 | 0.4560 | ppb | 0.18460 | 40.49% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 7.6 | 0.1986 | µg/L | 0.19747 | 0.1986 | ppb | 0.19747 | 99.44% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 87.4 | 0.0570 | µg/L | 0.10368 | 0.0570 | ppb | 0.10368 | 181.85% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 7.3 | 6.8305 | µg/L | 0.42277 | 6.8305 | ppb | 0.42277 | 6.19% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 10.6 | 0.2913 | µg/L | 0.18170 | 0.2913 | ppb | 0.18170 | 62.37% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | 6.4 | 0.3163 | µg/L | 0.43987 | 0.3163 | ppb | 0.43987 | 139.05% |

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              26.7      0.5884 µg/L       0.24227      0.5884 ppb        0.24227  41.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             107.2      0.7496 µg/L       0.39354      0.7496 ppb        0.39354  52.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.9      7.9581 µg/L       8.21418      7.9581 ppb        8.21418 103.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        79.3      56.332 µg/L       29.7823      56.332 ppb        29.7823  52.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.3      12.084 µg/L       32.3776      12.084 ppb        32.3776 267.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              65.9      0.2289 µg/L       0.11938      0.2289 ppb        0.11938  52.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.3      0.3563 µg/L       0.69086      0.3563 ppb        0.69086 193.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       78.7      25.918 µg/L       12.6205      25.918 ppb        12.6205  48.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.6      0.4162 µg/L       0.06037      0.4162 ppb        0.06037  14.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      5.2393 µg/L       3.71831      5.2393 ppb        3.71831  70.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.0      2.1408 µg/L       0.39934      2.1408 ppb        0.39934  18.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.7      11.879 µg/L        4.9829      11.879 ppb         4.9829  41.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.3      1.2466 µg/L       2.04884      1.2466 ppb        2.04884 164.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.4      2.0707 µg/L       8.51747      2.0707 ppb        8.51747 411.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    36.7      7.8950 µg/L       6.23447      7.8950 ppb        6.23447  78.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              51.5      4.2323 µg/L       1.08494      4.2323 ppb        1.08494  25.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.2      1.0152 µg/L       1.52977      1.0152 ppb        1.52977 150.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -11.3     -0.1174 µg/L       0.36313     -0.1174 ppb        0.36313 309.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              73.9      0.1769 µg/L       0.10323      0.1769 ppb        0.10323  58.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.8799 µg/L       2.25661      0.8799 ppb        2.25661 256.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -70.6     -6.3965 µg/L       4.72449     -6.3965 ppb        4.72449  73.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               31.2      0.3310 µg/L       0.22659      0.3310 ppb        0.22659  68.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              29.8      0.7397 µg/L       0.31916      0.7397 ppb        0.31916  43.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:57:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 57410.8 | 57410.8 | 105 | % | | | 15:58:05 |
| 1 | Al 396.153Radial† | 6675.8 | 6356.1 | 4727.0 | µg/L | 4727.0 | ppb | 15:58:25 |
| 1 | Ca 317.933Radial† | 5505.2 | 5054.0 | 4758.7 | µg/L | 4758.7 | ppb | 15:58:25 |
| 1 | Fe 238.204 Radial† | 598.7 | 554.6 | 4711.3 | µg/L | 4711.3 | ppb | 15:58:25 |
| 1 | K 766.490 Radial† | 7251.0 | 6764.3 | 4808.0 | µg/L | 4808.0 | ppb | 15:58:05 |
| 1 | Mg 279.077 IEC† | 563.5 | 524.3 | 4883.2 | µg/L | 4883.2 | ppb | 15:58:25 |
| 1 | Na 589.592 Radial† | 31835.2 | 29720.5 | 9784.1 | µg/L | 9784.1 | ppb | 15:58:05 |
| 1 | Sr 421.552† | 47847.7 | 45444.2 | 471.08 | µg/L | 471.08 | ppb | 15:58:05 |
| 1 | Sc 361.383 | 1983693.6 | 1983693.6 | 103.87 | % | | | 15:59:29 |
| 1 | Y 371.029 | 1353410.2 | 1353410.2 | 103.32 | % | | | 15:59:29 |
| 1 | Ag 328.068† | 62797.6 | 61024.1 | 487.72 | µg/L | 487.72 | ppb | 15:59:34 |
| 1 | As 188.979† | 269.1 | 257.9 | 503.15 | µg/L | 503.15 | ppb | 15:59:55 |
| 1 | B 249.677† | 11717.3 | 10949.6 | 476.85 | µg/L | 476.85 | ppb | 15:59:34 |
| 1 | Ba 233.527† | 19343.1 | 18649.0 | 486.47 | µg/L | 486.47 | ppb | 15:59:34 |
| 1 | Be 313.107† | 754921.5 | 730256.0 | 476.72 | µg/L | 476.72 | ppb | 15:59:29 |
| 1 | Cd 226.502† | 18224.6 | 17688.2 | 487.95 | µg/L | 487.95 | ppb | 15:59:34 |
| 1 | Co 228.616† | 10367.0 | 9989.9 | 491.09 | µg/L | 491.09 | ppb | 15:59:34 |
| 1 | Cr 267.716† | 23052.3 | 22246.4 | 489.64 | µg/L | 489.64 | ppb | 15:59:34 |
| 1 | Cu 324.752† | 74680.1 | 69413.7 | 485.52 | µg/L | 485.52 | ppb | 15:59:34 |
| 1 | Mn 257.610† | 145483.3 | 140311.0 | 486.31 | µg/L | 486.31 | ppb | 15:59:29 |
| 1 | Mo 202.031† | 4926.8 | 4750.9 | 507.20 | µg/L | 507.20 | ppb | 15:59:55 |
| 1 | Ni 231.604† | 9598.3 | 8938.8 | 488.20 | µg/L | 488.20 | ppb | 15:59:34 |
| 1 | P 214.914† | 1237.2 | 1163.5 | 2452.0 | µg/L | 2452.0 | ppb | 15:59:55 |
| 1 | Pb 220.353† | 2038.1 | 1865.0 | 497.83 | µg/L | 497.83 | ppb | 15:59:55 |
| 1 | S 181.975 Axial† | 250.1 | 226.0 | 990.17 | µg/L | 990.17 | ppb | 15:59:55 |
| 1 | Sb 206.836† | 555.0 | 507.4 | 501.78 | µg/L | 501.78 | ppb | 15:59:55 |
| 1 | Se 196.026† | 350.7 | 321.8 | 497.82 | µg/L | 497.82 | ppb | 15:59:55 |
| 1 | SiO2† | 26261.5 | 24033.7 | 5175.8 | µg/L | 5175.8 | ppb | 15:59:34 |
| 1 | Si 251.611† | 31015.9 | 29548.3 | 2429.0 | µg/L | 2429.0 | ppb | 15:59:34 |
| 1 | Sn 189.927† | 1145.1 | 1103.3 | 507.48 | µg/L | 507.48 | ppb | 15:59:55 |
| 1 | Ti 334.940† | 207638.9 | 199792.4 | 480.28 | µg/L | 480.28 | ppb | 15:59:29 |
| 1 | Tl 190.801† | 339.0 | 350.7 | 495.21 | µg/L | 495.21 | ppb | 15:59:55 |
| 1 | U 409.014† | 5639.1 | 5482.7 | 495.44 | µg/L | 495.44 | ppb | 15:59:34 |
| 1 | V 292.402† | 47231.1 | 45516.9 | 491.19 | µg/L | 491.19 | ppb | 15:59:34 |
| 1 | Zn 213.857† | 20861.0 | 19608.8 | 486.21 | µg/L | 486.21 | ppb | 15:59:34 |
| 2 | Sc RADIAL | 56826.1 | 56826.1 | 104 | % | | | 15:58:31 |
| 2 | Al 396.153Radial† | 6645.2 | 6392.0 | 4754.0 | µg/L | 4754.0 | ppb | 15:58:51 |
| 2 | Ca 317.933Radial† | 5486.3 | 5089.8 | 4792.3 | µg/L | 4792.3 | ppb | 15:58:51 |
| 2 | Fe 238.204 Radial† | 599.8 | 561.5 | 4769.4 | µg/L | 4769.4 | ppb | 15:58:51 |
| 2 | K 766.490 Radial† | 7153.6 | 6741.7 | 4791.9 | µg/L | 4791.9 | ppb | 15:58:31 |
| 2 | Mg 279.077 IEC† | 560.2 | 526.7 | 4905.2 | µg/L | 4905.2 | ppb | 15:58:51 |
| 2 | Na 589.592 Radial† | 31532.3 | 29741.0 | 9790.8 | µg/L | 9790.8 | ppb | 15:58:31 |
| 2 | Sr 421.552† | 47455.8 | 45535.8 | 472.03 | µg/L | 472.03 | ppb | 15:58:31 |
| 2 | Sc 361.383 | 1995410.5 | 1995410.5 | 104.48 | % | | | 16:00:02 |
| 2 | Y 371.029 | 1361782.3 | 1361782.3 | 103.96 | % | | | 16:00:02 |
| 2 | Ag 328.068† | 62246.7 | 60141.9 | 480.68 | µg/L | 480.68 | ppb | 16:00:08 |
| 2 | As 188.979† | 257.7 | 245.5 | 478.82 | µg/L | 478.82 | ppb | 16:00:28 |
| 2 | B 249.677† | 11628.5 | 10798.3 | 470.20 | µg/L | 470.20 | ppb | 16:00:08 |
| 2 | Ba 233.527† | 19125.6 | 18331.5 | 478.19 | µg/L | 478.19 | ppb | 16:00:08 |
| 2 | Be 313.107† | 755807.0 | 726835.7 | 474.48 | µg/L | 474.48 | ppb | 16:00:02 |
| 2 | Cd 226.502† | 17996.1 | 17366.5 | 479.06 | µg/L | 479.06 | ppb | 16:00:08 |
| 2 | Co 228.616† | 10237.6 | 9807.4 | 482.11 | µg/L | 482.11 | ppb | 16:00:08 |
| 2 | Cr 267.716† | 22930.0 | 21999.0 | 484.19 | µg/L | 484.19 | ppb | 16:00:08 |
| 2 | Cu 324.752† | 74042.3 | 68381.0 | 478.32 | µg/L | 478.32 | ppb | 16:00:08 |
| 2 | Mn 257.610† | 145292.8 | 139306.3 | 482.84 | µg/L | 482.84 | ppb | 16:00:02 |
| 2 | Mo 202.031† | 4851.2 | 4650.7 | 496.51 | µg/L | 496.51 | ppb | 16:00:28 |
| 2 | Ni 231.604† | 9492.2 | 8782.9 | 479.69 | µg/L | 479.69 | ppb | 16:00:08 |
| 2 | P 214.914† | 1221.3 | 1141.3 | 2405.0 | µg/L | 2405.0 | ppb | 16:00:28 |
| 2 | Pb 220.353† | 1997.7 | 1814.9 | 484.45 | µg/L | 484.45 | ppb | 16:00:28 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 253.2 | 227.5 | 996.93 µg/L | 996.93 ppb | 16:00:28 |
| 2 | Sb 206.836† | 551.9 | 501.3 | 495.60 µg/L | 495.60 ppb | 16:00:28 |
| 2 | Se 196.026† | 351.2 | 320.3 | 495.61 µg/L | 495.61 ppb | 16:00:28 |
| 2 | SiO2† | 26072.1 | 23704.0 | 5104.8 µg/L | 5104.8 ppb | 16:00:08 |
| 2 | Si 251.611† | 30669.0 | 29040.9 | 2387.3 µg/L | 2387.3 ppb | 16:00:08 |
| 2 | Sn 189.927† | 1132.5 | 1084.8 | 498.96 µg/L | 498.96 ppb | 16:00:28 |
| 2 | Ti 334.940† | 207816.1 | 198788.1 | 477.86 µg/L | 477.86 ppb | 16:00:02 |
| 2 | Tl 190.801† | 338.3 | 348.1 | 491.58 µg/L | 491.58 ppb | 16:00:28 |
| 2 | U 409.014† | 5511.6 | 5328.9 | 481.50 µg/L | 481.50 ppb | 16:00:08 |
| 2 | V 292.402† | 46887.0 | 44920.6 | 484.74 µg/L | 484.74 ppb | 16:00:08 |
| 2 | Zn 213.857† | 20639.1 | 19278.4 | 478.01 µg/L | 478.01 ppb | 16:00:08 |
| 3 | Sc RADIAL | 56910.2 | 56910.2 | 104 % | | 15:58:57 |
| 3 | Al 396.153Radial† | 6656.6 | 6393.5 | 4756.8 µg/L | 4756.8 ppb | 15:59:17 |
| 3 | Ca 317.933Radial† | 5495.6 | 5090.9 | 4793.4 µg/L | 4793.4 ppb | 15:59:17 |
| 3 | Fe 238.204 Radial† | 602.2 | 563.0 | 4781.1 µg/L | 4781.1 ppb | 15:59:17 |
| 3 | K 766.490 Radial† | 7220.2 | 6795.5 | 4830.2 µg/L | 4830.2 ppb | 15:58:57 |
| 3 | Mg 279.077 IEC† | 560.3 | 526.1 | 4897.6 µg/L | 4897.6 ppb | 15:59:17 |
| 3 | Na 589.592 Radial† | 31637.3 | 29796.9 | 9809.2 µg/L | 9809.2 ppb | 15:58:57 |
| 3 | Sr 421.552† | 47653.8 | 45658.4 | 473.30 µg/L | 473.30 ppb | 15:58:57 |
| 3 | Sc 361.383 | 1998435.1 | 1998435.1 | 104.64 % | | 16:00:35 |
| 3 | Y 371.029 | 1364968.8 | 1364968.8 | 104.20 % | | 16:00:35 |
| 3 | Ag 328.068† | 58612.3 | 56578.4 | 452.09 µg/L | 452.09 ppb | 16:00:41 |
| 3 | As 188.979† | 224.3 | 213.2 | 415.95 µg/L | 415.95 ppb | 16:01:01 |
| 3 | B 249.677† | 10895.6 | 10081.1 | 438.76 µg/L | 438.76 ppb | 16:00:41 |
| 3 | Ba 233.527† | 17588.9 | 16835.1 | 439.14 µg/L | 439.14 ppb | 16:00:41 |
| 3 | Be 313.107† | 714187.6 | 685966.5 | 447.80 µg/L | 447.80 ppb | 16:00:35 |
| 3 | Cd 226.502† | 16474.5 | 15886.3 | 438.17 µg/L | 438.17 ppb | 16:00:41 |
| 3 | Co 228.616† | 9303.8 | 8900.2 | 437.44 µg/L | 437.44 ppb | 16:00:41 |
| 3 | Cr 267.716† | 20256.0 | 19410.4 | 427.22 µg/L | 427.22 ppb | 16:00:41 |
| 3 | Cu 324.752† | 67621.8 | 62137.9 | 434.71 µg/L | 434.71 ppb | 16:00:41 |
| 3 | Mn 257.610† | 137721.9 | 131860.5 | 457.05 µg/L | 457.05 ppb | 16:00:35 |
| 3 | Mo 202.031† | 4037.0 | 3865.6 | 412.72 µg/L | 412.72 ppb | 16:01:01 |
| 3 | Ni 231.604† | 8629.5 | 7944.8 | 433.92 µg/L | 433.92 ppb | 16:00:41 |
| 3 | P 214.914† | 1036.7 | 963.1 | 2025.7 µg/L | 2025.7 ppb | 16:01:01 |
| 3 | Pb 220.353† | 1739.6 | 1565.3 | 417.74 µg/L | 417.74 ppb | 16:01:01 |
| 3 | S 181.975 Axial† | 221.7 | 197.0 | 863.32 µg/L | 863.32 ppb | 16:01:01 |
| 3 | Sb 206.836† | 474.2 | 426.2 | 421.04 µg/L | 421.04 ppb | 16:01:01 |
| 3 | Se 196.026† | 306.7 | 277.3 | 430.08 µg/L | 430.08 ppb | 16:01:01 |
| 3 | SiO2† | 24196.5 | 21873.8 | 4710.6 µg/L | 4710.6 ppb | 16:00:41 |
| 3 | Si 251.611† | 28513.0 | 26936.1 | 2214.3 µg/L | 2214.3 ppb | 16:00:41 |
| 3 | Sn 189.927† | 924.9 | 884.8 | 406.97 µg/L | 406.97 ppb | 16:01:01 |
| 3 | Ti 334.940† | 195303.4 | 186529.0 | 448.37 µg/L | 448.37 ppb | 16:00:35 |
| 3 | Tl 190.801† | 301.0 | 311.9 | 440.85 µg/L | 440.85 ppb | 16:01:01 |
| 3 | U 409.014† | 4905.4 | 4741.6 | 428.33 µg/L | 428.33 ppb | 16:00:41 |
| 3 | V 292.402† | 42233.7 | 40405.6 | 435.79 µg/L | 435.79 ppb | 16:00:41 |
| 3 | Zn 213.857† | 18819.8 | 17509.9 | 434.12 µg/L | 434.12 ppb | 16:00:41 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1992513.1 | 104.33 | % | 0.408 | | | | 0.39% |
| Sc RADIAL | 57049.0 | 105 | % | 0.6 | | | | 0.55% |
| Y 371.029 | 1360053.7 | 103.83 | % | 0.456 | | | | 0.44% |
| Ag 328.068† | 59248.1 | 473.50 | µg/L | 18.871 | 473.50 | ppb | 18.871 | 3.99% |
| QC value within limits for Ag 328.068 Recovery = 94.70% | | | | | | | | |
| Al 396.153Radial† | 6380.5 | 4745.9 | µg/L | 16.44 | 4745.9 | ppb | 16.44 | 0.35% |
| QC value within limits for Al 396.153Radial Recovery = 94.92% | | | | | | | | |
| As 188.979† | 238.9 | 465.97 | µg/L | 44.997 | 465.97 | ppb | 44.997 | 9.66% |
| QC value within limits for As 188.979 Recovery = 93.19% | | | | | | | | |
| B 249.677† | 10609.7 | 461.94 | µg/L | 20.345 | 461.94 | ppb | 20.345 | 4.40% |
| QC value within limits for B 249.677 Recovery = 92.39% | | | | | | | | |
| Ba 233.527† | 17938.5 | 467.93 | µg/L | 25.276 | 467.93 | ppb | 25.276 | 5.40% |
| QC value within limits for Ba 233.527 Recovery = 93.59% | | | | | | | | |
| Be 313.107† | 714352.7 | 466.33 | µg/L | 16.086 | 466.33 | ppb | 16.086 | 3.45% |
| QC value within limits for Be 313.107 Recovery = 93.27% | | | | | | | | |
| Ca 317.933Radial† | 5078.2 | 4781.5 | µg/L | 19.75 | 4781.5 | ppb | 19.75 | 0.41% |
| QC value within limits for Ca 317.933Radial Recovery = 95.63% | | | | | | | | |
| Cd 226.502† | 16980.3 | 468.39 | µg/L | 26.545 | 468.39 | ppb | 26.545 | 5.67% |
| QC value within limits for Cd 226.502 Recovery = 93.68% | | | | | | | | |
| Co 228.616† | 9565.8 | 470.21 | µg/L | 28.733 | 470.21 | ppb | 28.733 | 6.11% |

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   QC value within limits for Co 228.616  Recovery = 94.04%
Cr 267.716†            21218.6      467.02 µg/L        34.571      467.02 ppb        34.571   7.40%
   QC value within limits for Cr 267.716  Recovery = 93.40%
Cu 324.752†            66644.2      466.19 µg/L        27.494      466.19 ppb        27.494   5.90%
   QC value within limits for Cu 324.752  Recovery = 93.24%
Fe 238.204 Radial†       559.7      4753.9 µg/L         37.39      4753.9 ppb         37.39   0.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.08%
K 766.490 Radial†       6767.2      4810.1 µg/L         19.19      4810.1 ppb         19.19   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 96.20%
Mg 279.077 IEC†          525.7      4895.3 µg/L         11.18      4895.3 ppb         11.18   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           137159.3      475.40 µg/L        15.982      475.40 ppb        15.982   3.36%
   QC value within limits for Mn 257.610  Recovery = 95.08%
Mo 202.031†             4422.4      472.14 µg/L        51.737      472.14 ppb        51.737  10.96%
   QC value within limits for Mo 202.031  Recovery = 94.43%
Na 589.592 Radial†     29752.8      9794.7 µg/L         13.02      9794.7 ppb         13.02   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 97.95%
Ni 231.604†             8555.5      467.27 µg/L        29.194      467.27 ppb        29.194   6.25%
   QC value within limits for Ni 231.604  Recovery = 93.45%
P 214.914†              1089.3      2294.2 µg/L        233.77      2294.2 ppb        233.77  10.19%
   QC value within limits for P 214.914  Recovery = 91.77%
Pb 220.353†             1748.4      466.67 µg/L        42.900      466.67 ppb        42.900   9.19%
   QC value within limits for Pb 220.353  Recovery = 93.33%
S 181.975 Axial†         216.9      950.14 µg/L        75.264      950.14 ppb        75.264   7.92%
   QC value within limits for S 181.975 Axial  Recovery = 95.01%
Sb 206.836†              478.3      472.81 µg/L        44.937      472.81 ppb        44.937   9.50%
   QC value within limits for Sb 206.836  Recovery = 94.56%
Se 196.026†              306.5      474.50 µg/L        38.486      474.50 ppb        38.486   8.11%
   QC value within limits for Se 196.026  Recovery = 94.90%
SiO2†                   23203.8      4997.1 µg/L        250.58      4997.1 ppb        250.58   5.01%
   QC value within limits for SiO2  Recovery = 93.45%
Si 251.611†             28508.4      2343.5 µg/L        113.86      2343.5 ppb        113.86   4.86%
   QC value within limits for Si 251.611  Recovery = 93.74%
Sn 189.927†             1024.3      471.14 µg/L        55.734      471.14 ppb        55.734  11.83%
   QC value within limits for Sn 189.927  Recovery = 94.23%
Sr 421.552†            45546.1      472.14 µg/L         1.114      472.14 ppb         1.114   0.24%
   QC value within limits for Sr 421.552  Recovery = 94.43%
Ti 334.940†           195036.5      468.84 µg/L        17.764      468.84 ppb        17.764   3.79%
   QC value within limits for Ti 334.940  Recovery = 93.77%
Tl 190.801†              336.9      475.88 µg/L        30.390      475.88 ppb        30.390   6.39%
   QC value within limits for Tl 190.801  Recovery = 95.18%
U 409.014†              5184.4      468.43 µg/L        35.417      468.43 ppb        35.417   7.56%
   QC value within limits for U 409.014  Recovery = 93.69%
V 292.402†             43614.3      470.57 µg/L        30.297      470.57 ppb        30.297   6.44%
   QC value within limits for V 292.402  Recovery = 94.11%
Zn 213.857†            18799.0      466.11 µg/L        28.010      466.11 ppb        28.010   6.01%
   QC value within limits for Zn 213.857  Recovery = 93.22%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:01:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55658.0 | 55658.0 | 102 | % | | | 16:01:44 |
| 1 | Al 396.153Radial† | -23.0 | -12.4 | -9.2620 | µg/L | -9.2620 | ppb | 16:01:44 |
| 1 | Ca 317.933Radial† | 208.0 | 24.8 | 23.363 | µg/L | 23.363 | ppb | 16:02:05 |
| 1 | Fe 238.204 Radial† | 15.4 | 0.6 | 5.4204 | µg/L | 5.4204 | ppb | 16:02:05 |
| 1 | K 766.490 Radial† | 204.3 | 71.9 | 51.110 | µg/L | 51.110 | ppb | 16:01:44 |
| 1 | Mg 279.077 IEC† | 10.5 | -1.0 | -9.0434 | µg/L | -9.0434 | ppb | 16:02:05 |
| 1 | Na 589.592 Radial† | 1039.6 | 477.5 | 157.20 | µg/L | 157.20 | ppb | 16:01:44 |
| 1 | Sr 421.552† | 56.9 | 16.2 | 0.1684 | µg/L | 0.1684 | ppb | 16:01:44 |
| 1 | Sc 361.383 | 1982189.6 | 1982189.6 | 103.79 | % | | | 16:03:07 |
| 1 | Y 371.029 | 1359337.0 | 1359337.0 | 103.77 | % | | | 16:03:07 |
| 1 | Ag 328.068† | -578.1 | 7.5 | 0.0622 | µg/L | 0.0622 | ppb | 16:03:12 |
| 1 | As 188.979† | -1.3 | -2.4 | -4.6084 | µg/L | -4.6084 | ppb | 16:03:33 |
| 1 | B 249.677† | 325.8 | -17.5 | -0.7693 | µg/L | -0.7693 | ppb | 16:03:33 |
| 1 | Ba 233.527† | -23.3 | 3.6 | 0.0946 | µg/L | 0.0946 | ppb | 16:03:33 |
| 1 | Be 313.107† | -3422.1 | 143.2 | 0.0935 | µg/L | 0.0935 | ppb | 16:03:12 |
| 1 | Cd 226.502† | -146.3 | 1.2 | 0.0321 | µg/L | 0.0321 | ppb | 16:03:33 |
| 1 | Co 228.616† | -12.7 | -3.4 | -0.1679 | µg/L | -0.1679 | ppb | 16:03:33 |
| 1 | Cr 267.716† | -41.9 | 12.0 | 0.2649 | µg/L | 0.2649 | ppb | 16:03:33 |
| 1 | Cu 324.752† | 2411.8 | -162.3 | -1.1332 | µg/L | -1.1332 | ppb | 16:03:12 |
| 1 | Mn 257.610† | -218.3 | 33.8 | 0.1180 | µg/L | 0.1180 | ppb | 16:03:33 |
| 1 | Mo 202.031† | -10.7 | -2.7 | -0.2926 | µg/L | -0.2926 | ppb | 16:03:33 |
| 1 | Ni 231.604† | 299.4 | -13.7 | -0.7472 | µg/L | -0.7472 | ppb | 16:03:33 |
| 1 | P 214.914† | 42.9 | 13.7 | 29.528 | µg/L | 29.528 | ppb | 16:03:33 |
| 1 | Pb 220.353† | 92.5 | -8.1 | -2.1696 | µg/L | -2.1696 | ppb | 16:03:33 |
| 1 | S 181.975 Axial† | 17.6 | 2.1 | 9.2574 | µg/L | 9.2574 | ppb | 16:03:33 |
| 1 | Sb 206.836† | 23.2 | -4.6 | -4.4961 | µg/L | -4.4961 | ppb | 16:03:33 |
| 1 | Se 196.026† | 12.0 | -4.3 | -6.4748 | µg/L | -6.4748 | ppb | 16:03:33 |
| 1 | SiO2† | 1238.2 | -57.1 | -12.288 | µg/L | -12.288 | ppb | 16:03:12 |
| 1 | Si 251.611† | 320.8 | -3.8 | -0.3112 | µg/L | -0.3112 | ppb | 16:03:33 |
| 1 | Sn 189.927† | 0.5 | 1.4 | 0.6395 | µg/L | 0.6395 | ppb | 16:03:33 |
| 1 | Ti 334.940† | 134.1 | 13.1 | 0.0325 | µg/L | 0.0325 | ppb | 16:03:12 |
| 1 | Tl 190.801† | -24.9 | 0.3 | 0.4630 | µg/L | 0.4630 | ppb | 16:03:33 |
| 1 | U 409.014† | -12.1 | 41.9 | 3.7948 | µg/L | 3.7948 | ppb | 16:03:12 |
| 1 | V 292.402† | -10.2 | 34.4 | 0.3695 | µg/L | 0.3695 | ppb | 16:03:12 |
| 1 | Zn 213.857† | 479.7 | -13.4 | -0.3280 | µg/L | -0.3280 | ppb | 16:03:33 |
| 2 | Sc RADIAL | 55313.8 | 55313.8 | 101 | % | | | 16:02:10 |
| 2 | Al 396.153Radial† | -3.9 | 6.3 | 4.7164 | µg/L | 4.7164 | ppb | 16:02:10 |
| 2 | Ca 317.933Radial† | 201.6 | 19.8 | 18.599 | µg/L | 18.599 | ppb | 16:02:30 |
| 2 | Fe 238.204 Radial† | 15.1 | 0.4 | 3.5581 | µg/L | 3.5581 | ppb | 16:02:30 |
| 2 | K 766.490 Radial† | 165.7 | 35.0 | 24.913 | µg/L | 24.913 | ppb | 16:02:10 |
| 2 | Mg 279.077 IEC† | 9.2 | -2.2 | -20.801 | µg/L | -20.801 | ppb | 16:02:30 |
| 2 | Na 589.592 Radial† | 1009.9 | 454.5 | 149.64 | µg/L | 149.64 | ppb | 16:02:10 |
| 2 | Sr 421.552† | 43.0 | 2.9 | 0.0298 | µg/L | 0.0298 | ppb | 16:02:10 |
| 2 | Sc 361.383 | 2000056.5 | 2000056.5 | 104.72 | % | | | 16:03:39 |
| 2 | Y 371.029 | 1371413.4 | 1371413.4 | 104.69 | % | | | 16:03:39 |
| 2 | Ag 328.068† | -539.4 | 49.5 | 0.3929 | µg/L | 0.3929 | ppb | 16:03:44 |
| 2 | As 188.979† | 2.0 | 0.8 | 1.5259 | µg/L | 1.5259 | ppb | 16:04:05 |
| 2 | B 249.677† | 333.1 | -13.4 | -0.5861 | µg/L | -0.5861 | ppb | 16:04:05 |
| 2 | Ba 233.527† | -19.7 | 7.2 | 0.1863 | µg/L | 0.1863 | ppb | 16:04:05 |
| 2 | Be 313.107† | -3284.4 | 304.2 | 0.1986 | µg/L | 0.1986 | ppb | 16:03:44 |
| 2 | Cd 226.502† | -141.7 | 6.9 | 0.1883 | µg/L | 0.1883 | ppb | 16:04:05 |
| 2 | Co 228.616† | -14.8 | -5.3 | -0.2603 | µg/L | -0.2603 | ppb | 16:04:05 |
| 2 | Cr 267.716† | -34.1 | 19.8 | 0.4350 | µg/L | 0.4350 | ppb | 16:04:05 |
| 2 | Cu 324.752† | 2452.1 | -144.6 | -1.0097 | µg/L | -1.0097 | ppb | 16:03:44 |
| 2 | Mn 257.610† | -201.5 | 51.7 | 0.1804 | µg/L | 0.1804 | ppb | 16:04:05 |
| 2 | Mo 202.031† | -5.9 | 1.9 | 0.2060 | µg/L | 0.2060 | ppb | 16:04:05 |
| 2 | Ni 231.604† | 302.4 | -13.4 | -0.7317 | µg/L | -0.7317 | ppb | 16:04:05 |
| 2 | P 214.914† | 22.4 | -6.2 | -13.288 | µg/L | -13.288 | ppb | 16:04:05 |
| 2 | Pb 220.353† | 100.3 | -1.4 | -0.3652 | µg/L | -0.3652 | ppb | 16:04:05 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 18.4 | 2.7 | 12.047 µg/L | 12.047 ppb | | 16:04:05 |
| 2 | Sb 206.836† | 25.7 | -2.4 | -2.3521 µg/L | -2.3521 ppb | | 16:04:05 |
| 2 | Se 196.026† | 11.2 | -5.1 | -7.8216 µg/L | -7.8216 ppb | | 16:04:05 |
| 2 | SiO2† | 1221.5 | -83.6 | -18.000 µg/L | -18.000 ppb | | 16:03:44 |
| 2 | Si 251.611† | 319.3 | -8.0 | -0.6538 µg/L | -0.6538 ppb | | 16:04:05 |
| 2 | Sn 189.927† | 1.8 | 2.6 | 1.1983 µg/L | 1.1983 ppb | | 16:04:05 |
| 2 | Ti 334.940† | 170.3 | 46.5 | 0.1138 µg/L | 0.1138 ppb | | 16:03:44 |
| 2 | Tl 190.801† | -24.1 | 1.2 | 1.7367 µg/L | 1.7367 ppb | | 16:04:05 |
| 2 | U 409.014† | -68.4 | -11.7 | -1.0610 µg/L | -1.0610 ppb | | 16:03:44 |
| 2 | V 292.402† | -47.0 | -0.7 | -0.0056 µg/L | -0.0056 ppb | | 16:03:44 |
| 2 | Zn 213.857† | 481.8 | -15.5 | -0.3808 µg/L | -0.3808 ppb | | 16:04:05 |
| 3 | Sc RADIAL | 56238.4 | 56238.4 | 103 % | | | 16:02:36 |
| 3 | Al 396.153Radial† | -4.5 | 5.7 | 4.2549 µg/L | 4.2549 ppb | | 16:02:36 |
| 3 | Ca 317.933Radial† | 217.1 | 31.6 | 29.725 µg/L | 29.725 ppb | | 16:02:56 |
| 3 | Fe 238.204 Radial† | 15.6 | 0.7 | 5.5166 µg/L | 5.5166 ppb | | 16:02:56 |
| 3 | K 766.490 Radial† | 152.3 | 19.4 | 13.755 µg/L | 13.755 ppb | | 16:02:36 |
| 3 | Mg 279.077 IEC† | 9.8 | -1.7 | -16.008 µg/L | -16.008 ppb | | 16:02:56 |
| 3 | Na 589.592 Radial† | 1347.3 | 765.5 | 252.01 µg/L | 252.01 ppb | | 16:02:36 |
| 3 | Sr 421.552† | 41.3 | 0.5 | 0.0055 µg/L | 0.0055 ppb | | 16:02:36 |
| 3 | Sc 361.383 | 1997138.2 | 1997138.2 | 104.57 % | | | 16:04:11 |
| 3 | Y 371.029 | 1369234.6 | 1369234.6 | 104.53 % | | | 16:04:11 |
| 3 | Ag 328.068† | -498.6 | 87.7 | 0.6980 µg/L | 0.6980 ppb | | 16:04:16 |
| 3 | As 188.979† | 2.9 | 1.6 | 3.1103 µg/L | 3.1103 ppb | | 16:04:37 |
| 3 | B 249.677† | 327.9 | -17.9 | -0.7818 µg/L | -0.7818 ppb | | 16:04:37 |
| 3 | Ba 233.527† | -15.6 | 11.1 | 0.2887 µg/L | 0.2887 ppb | | 16:04:37 |
| 3 | Be 313.107† | -3097.4 | 478.5 | 0.3124 µg/L | 0.3124 ppb | | 16:04:16 |
| 3 | Cd 226.502† | -131.7 | 16.2 | 0.4453 µg/L | 0.4453 ppb | | 16:04:37 |
| 3 | Co 228.616† | -2.6 | 6.4 | 0.3136 µg/L | 0.3136 ppb | | 16:04:37 |
| 3 | Cr 267.716† | -14.7 | 38.4 | 0.8440 µg/L | 0.8440 ppb | | 16:04:37 |
| 3 | Cu 324.752† | 2433.5 | -159.0 | -1.1099 µg/L | -1.1099 ppb | | 16:04:16 |
| 3 | Mn 257.610† | -172.9 | 78.8 | 0.2743 µg/L | 0.2743 ppb | | 16:04:37 |
| 3 | Mo 202.031† | -1.7 | 5.9 | 0.6314 µg/L | 0.6314 ppb | | 16:04:37 |
| 3 | Ni 231.604† | 302.9 | -12.6 | -0.6873 µg/L | -0.6873 ppb | | 16:04:37 |
| 3 | P 214.914† | 28.9 | 0.0 | 0.1351 µg/L | 0.1351 ppb | | 16:04:37 |
| 3 | Pb 220.353† | 98.8 | -2.7 | -0.7118 µg/L | -0.7118 ppb | | 16:04:37 |
| 3 | S 181.975 Axial† | 19.3 | 3.6 | 15.780 µg/L | 15.780 ppb | | 16:04:37 |
| 3 | Sb 206.836† | 32.5 | 4.1 | 4.0170 µg/L | 4.0170 ppb | | 16:04:37 |
| 3 | Se 196.026† | 15.5 | -1.0 | -1.5777 µg/L | -1.5777 ppb | | 16:04:37 |
| 3 | SiO2† | 1280.0 | -25.9 | -5.5874 µg/L | -5.5874 ppb | | 16:04:16 |
| 3 | Si 251.611† | 323.6 | -3.4 | -0.2805 µg/L | -0.2805 ppb | | 16:04:37 |
| 3 | Sn 189.927† | 1.4 | 2.2 | 1.0236 µg/L | 1.0236 ppb | | 16:04:37 |
| 3 | Ti 334.940† | 204.8 | 79.7 | 0.1935 µg/L | 0.1935 ppb | | 16:04:16 |
| 3 | Tl 190.801† | -25.7 | -0.3 | -0.3909 µg/L | -0.3909 ppb | | 16:04:37 |
| 3 | U 409.014† | -62.9 | -6.5 | -0.5917 µg/L | -0.5917 ppb | | 16:04:16 |
| 3 | V 292.402† | -21.9 | 23.3 | 0.2547 µg/L | 0.2547 ppb | | 16:04:16 |
| 3 | Zn 213.857† | 484.0 | -12.7 | -0.3127 µg/L | -0.3127 ppb | | 16:04:37 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1993128.1 | 104.36 | % | 0.502 | | | | 0.48% |
| Sc RADIAL | 55736.7 | 102 | % | 0.9 | | | | 0.84% |
| Y 371.029 | 1366661.7 | 104.33 | % | 0.491 | | | | 0.47% |
| Ag 328.068† | 48.2 | 0.3844 | µg/L | 0.31802 | 0.3844 | ppb | 0.31802 | 82.74% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -0.1 | -0.0969 | µg/L | 7.94054 | -0.0969 | ppb | 7.94054 | >999.9% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | 0.0 | 0.0093 | µg/L | 4.07671 | 0.0093 | ppb | 4.07671 | >999.9% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -16.3 | -0.7124 | µg/L | 0.10959 | -0.7124 | ppb | 0.10959 | 15.38% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 7.3 | 0.1899 | µg/L | 0.09711 | 0.1899 | ppb | 0.09711 | 51.15% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 308.6 | 0.2015 | µg/L | 0.10946 | 0.2015 | ppb | 0.10946 | 54.32% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 25.4 | 23.896 | µg/L | 5.5823 | 23.896 | ppb | 5.5823 | 23.36% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 8.1 | 0.2219 | µg/L | 0.20862 | 0.2219 | ppb | 0.20862 | 94.02% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -0.8 | -0.0382 | µg/L | 0.30817 | -0.0382 | ppb | 0.30817 | 806.94% |

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              23.4      0.5146 µg/L       0.29767      0.5146 ppb        0.29767  57.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -155.3     -1.0843 µg/L       0.06563     -1.0843 ppb        0.06563   6.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.6      4.8317 µg/L       1.10403      4.8317 ppb        1.10403  22.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.1      29.926 µg/L       19.1758      29.926 ppb        19.1758  64.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -15.284 µg/L        5.9121     -15.284 ppb         5.9121  38.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.8      0.1909 µg/L       0.07866      0.1909 ppb        0.07866  41.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.7      0.1816 µg/L       0.46249      0.1816 ppb        0.46249 254.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       565.9      186.28 µg/L        57.047      186.28 ppb         57.047  30.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -13.2     -0.7220 µg/L       0.03109     -0.7220 ppb        0.03109   4.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      5.4583 µg/L      21.89861      5.4583 ppb       21.89861 401.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.1     -1.0822 µg/L       0.95750     -1.0822 ppb        0.95750  88.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.8      12.362 µg/L        3.2727      12.362 ppb         3.2727  26.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.0     -0.9437 µg/L       4.42784     -0.9437 ppb        4.42784 469.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5     -5.2914 µg/L       3.28586     -5.2914 ppb        3.28586  62.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -55.5     -11.958 µg/L        6.2126     -11.958 ppb         6.2126  51.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -5.1     -0.4151 µg/L       0.20723     -0.4151 ppb        0.20723  49.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.1      0.9538 µg/L       0.28585      0.9538 ppb        0.28585  29.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.6      0.0679 µg/L       0.08784      0.0679 ppb        0.08784 129.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              46.4      0.1133 µg/L       0.08046      0.1133 ppb        0.08046  71.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.6030 µg/L       1.07067      0.6030 ppb        1.07067 177.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                7.9      0.7140 µg/L       2.67833      0.7140 ppb        2.67833 375.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               19.0      0.2062 µg/L       0.19224      0.2062 ppb        0.19224  93.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -13.9     -0.3405 µg/L       0.03570     -0.3405 ppb        0.03570  10.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 16:37:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 57270.5 | 57270.5 | 105 | % | | | 16:38:25 |
| 1 | Al 396.153Radial† | 6958.1 | 6640.6 | 4939.3 | µg/L | 4939.3 | ppb | 16:38:25 |
| 1 | Ca 317.933Radial† | 5712.0 | 5263.9 | 4956.3 | µg/L | 4956.3 | ppb | 16:38:46 |
| 1 | Fe 238.204 Radial† | 619.2 | 575.5 | 4888.0 | µg/L | 4888.0 | ppb | 16:38:46 |
| 1 | K 766.490 Radial† | 7274.3 | 6803.4 | 4835.8 | µg/L | 4835.8 | ppb | 16:38:25 |
| 1 | Mg 279.077 IEC† | 580.4 | 541.8 | 5044.9 | µg/L | 5044.9 | ppb | 16:38:46 |
| 1 | Na 589.592 Radial† | 31721.9 | 29686.7 | 9772.9 | µg/L | 9772.9 | ppb | 16:38:25 |
| 1 | Sr 421.552† | 48411.5 | 46092.9 | 477.81 | µg/L | 477.81 | ppb | 16:38:25 |
| 1 | Sc 361.383 | 2050041.7 | 2050041.7 | 107.34 | % | | | 16:39:49 |
| 1 | Y 371.029 | 1400914.7 | 1400914.7 | 106.95 | % | | | 16:39:49 |
| 1 | Ag 328.068† | 63102.9 | 59351.9 | 474.38 | µg/L | 474.38 | ppb | 16:39:55 |
| 1 | As 188.979† | 273.7 | 253.8 | 495.14 | µg/L | 495.14 | ppb | 16:40:15 |
| 1 | B 249.677† | 11802.0 | 10663.4 | 464.23 | µg/L | 464.23 | ppb | 16:39:55 |
| 1 | Ba 233.527† | 19451.3 | 18147.1 | 473.37 | µg/L | 473.37 | ppb | 16:39:55 |
| 1 | Be 313.107† | 769937.6 | 720722.3 | 470.49 | µg/L | 470.49 | ppb | 16:39:49 |
| 1 | Cd 226.502† | 18413.9 | 17296.7 | 477.11 | µg/L | 477.11 | ppb | 16:39:55 |
| 1 | Co 228.616† | 10377.6 | 9676.7 | 475.69 | µg/L | 475.69 | ppb | 16:39:55 |
| 1 | Cr 267.716† | 23222.4 | 21686.6 | 477.32 | µg/L | 477.32 | ppb | 16:39:55 |
| 1 | Cu 324.752† | 74708.1 | 67112.7 | 469.48 | µg/L | 469.48 | ppb | 16:39:55 |
| 1 | Mn 257.610† | 148224.3 | 138331.4 | 479.47 | µg/L | 479.47 | ppb | 16:39:49 |
| 1 | Mo 202.031† | 4976.6 | 4643.8 | 495.78 | µg/L | 495.78 | ppb | 16:40:15 |
| 1 | Ni 231.604† | 9664.7 | 8701.5 | 475.25 | µg/L | 475.25 | ppb | 16:39:55 |
| 1 | P 214.914† | 1251.0 | 1137.8 | 2398.4 | µg/L | 2398.4 | ppb | 16:40:15 |
| 1 | Pb 220.353† | 2064.6 | 1826.2 | 487.49 | µg/L | 487.49 | ppb | 16:40:15 |
| 1 | S 181.975 Axial† | 253.0 | 220.8 | 967.55 | µg/L | 967.55 | ppb | 16:40:15 |
| 1 | Sb 206.836† | 561.9 | 496.5 | 490.97 | µg/L | 490.97 | ppb | 16:40:15 |
| 1 | Se 196.026† | 348.6 | 308.9 | 478.47 | µg/L | 478.47 | ppb | 16:40:15 |
| 1 | SiO2† | 26407.2 | 23351.2 | 5028.8 | µg/L | 5028.8 | ppb | 16:39:55 |
| 1 | Si 251.611† | 31109.3 | 28668.8 | 2356.7 | µg/L | 2356.7 | ppb | 16:39:55 |
| 1 | Sn 189.927† | 1168.8 | 1089.7 | 501.23 | µg/L | 501.23 | ppb | 16:40:15 |
| 1 | Ti 334.940† | 210704.4 | 196178.3 | 471.57 | µg/L | 471.57 | ppb | 16:39:49 |
| 1 | Tl 190.801† | 345.6 | 346.3 | 489.05 | µg/L | 489.05 | ppb | 16:40:15 |
| 1 | U 409.014† | 5635.8 | 5304.0 | 479.22 | µg/L | 479.22 | ppb | 16:39:55 |
| 1 | V 292.402† | 47452.9 | 44251.8 | 477.60 | µg/L | 477.60 | ppb | 16:39:55 |
| 1 | Zn 213.857† | 20929.0 | 19022.1 | 471.63 | µg/L | 471.63 | ppb | 16:39:55 |
| 2 | Sc RADIAL | 57824.5 | 57824.5 | 106 | % | | | 16:38:51 |
| 2 | Al 396.153Radial† | 6951.6 | 6571.0 | 4887.5 | µg/L | 4887.5 | ppb | 16:38:51 |
| 2 | Ca 317.933Radial† | 5692.9 | 5193.8 | 4890.3 | µg/L | 4890.3 | ppb | 16:39:12 |
| 2 | Fe 238.204 Radial† | 614.8 | 565.7 | 4804.8 | µg/L | 4804.8 | ppb | 16:39:12 |
| 2 | K 766.490 Radial† | 7297.3 | 6758.7 | 4804.0 | µg/L | 4804.0 | ppb | 16:38:51 |
| 2 | Mg 279.077 IEC† | 578.6 | 534.8 | 4980.5 | µg/L | 4980.5 | ppb | 16:39:12 |
| 2 | Na 589.592 Radial† | 31791.5 | 29462.7 | 9699.2 | µg/L | 9699.2 | ppb | 16:38:51 |
| 2 | Sr 421.552† | 48548.0 | 45779.7 | 474.56 | µg/L | 474.56 | ppb | 16:38:51 |
| 2 | Sc 361.383 | 2050967.6 | 2050967.6 | 107.39 | % | | | 16:40:22 |
| 2 | Y 371.029 | 1401478.7 | 1401478.7 | 106.99 | % | | | 16:40:22 |
| 2 | Ag 328.068† | 63066.7 | 59291.5 | 473.89 | µg/L | 473.89 | ppb | 16:40:28 |
| 2 | As 188.979† | 260.8 | 241.7 | 471.43 | µg/L | 471.43 | ppb | 16:40:49 |
| 2 | B 249.677† | 11773.8 | 10632.2 | 462.91 | µg/L | 462.91 | ppb | 16:40:28 |
| 2 | Ba 233.527† | 19468.8 | 18155.2 | 473.58 | µg/L | 473.58 | ppb | 16:40:28 |
| 2 | Be 313.107† | 769423.9 | 719920.1 | 469.97 | µg/L | 469.97 | ppb | 16:40:22 |
| 2 | Cd 226.502† | 18369.5 | 17247.6 | 475.77 | µg/L | 475.77 | ppb | 16:40:28 |
| 2 | Co 228.616† | 10387.8 | 9681.8 | 475.93 | µg/L | 475.93 | ppb | 16:40:28 |
| 2 | Cr 267.716† | 23230.7 | 21684.6 | 477.27 | µg/L | 477.27 | ppb | 16:40:28 |
| 2 | Cu 324.752† | 74607.6 | 66987.7 | 468.59 | µg/L | 468.59 | ppb | 16:40:28 |
| 2 | Mn 257.610† | 147653.6 | 137737.6 | 477.41 | µg/L | 477.41 | ppb | 16:40:22 |
| 2 | Mo 202.031† | 4936.1 | 4604.0 | 491.53 | µg/L | 491.53 | ppb | 16:40:49 |
| 2 | Ni 231.604† | 9650.2 | 8684.0 | 474.29 | µg/L | 474.29 | ppb | 16:40:28 |
| 2 | P 214.914† | 1239.1 | 1126.2 | 2373.7 | µg/L | 2373.7 | ppb | 16:40:49 |
| 2 | Pb 220.353† | 2036.6 | 1799.3 | 480.30 | µg/L | 480.30 | ppb | 16:40:49 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 251.7 | 219.6 | 962.01 µg/L | 962.01 ppb | 16:40:49 |
| 2 | Sb 206.836† | 560.6 | 495.1 | 489.53 µg/L | 489.53 ppb | 16:40:49 |
| 2 | Se 196.026† | 352.8 | 312.7 | 484.04 µg/L | 484.04 ppb | 16:40:49 |
| 2 | SiO2† | 26423.9 | 23355.6 | 5029.8 µg/L | 5029.8 ppb | 16:40:28 |
| 2 | Si 251.611† | 31116.7 | 28662.7 | 2356.2 µg/L | 2356.2 ppb | 16:40:28 |
| 2 | Sn 189.927† | 1158.0 | 1079.2 | 496.40 µg/L | 496.40 ppb | 16:40:49 |
| 2 | Ti 334.940† | 210552.3 | 195948.0 | 471.02 µg/L | 471.02 ppb | 16:40:22 |
| 2 | Tl 190.801† | 346.0 | 346.5 | 489.25 µg/L | 489.25 ppb | 16:40:49 |
| 2 | U 409.014† | 5584.5 | 5253.8 | 474.70 µg/L | 474.70 ppb | 16:40:28 |
| 2 | V 292.402† | 47503.1 | 44278.6 | 477.84 µg/L | 477.84 ppb | 16:40:28 |
| 2 | Zn 213.857† | 20951.2 | 19034.0 | 471.94 µg/L | 471.94 ppb | 16:40:28 |
| 3 | Sc RADIAL | 57919.3 | 57919.3 | 106 % | | 16:39:17 |
| 3 | Al 396.153Radial† | 6873.3 | 6486.5 | 4826.1 µg/L | 4826.1 ppb | 16:39:17 |
| 3 | Ca 317.933Radial† | 5675.3 | 5168.4 | 4866.3 µg/L | 4866.3 ppb | 16:39:38 |
| 3 | Fe 238.204 Radial† | 612.6 | 562.7 | 4778.5 µg/L | 4778.5 ppb | 16:39:38 |
| 3 | K 766.490 Radial† | 7223.5 | 6677.9 | 4746.6 µg/L | 4746.6 ppb | 16:39:17 |
| 3 | Mg 279.077 IEC† | 577.0 | 532.4 | 4956.6 µg/L | 4956.6 ppb | 16:39:38 |
| 3 | Na 589.592 Radial† | 31537.3 | 29174.1 | 9604.2 µg/L | 9604.2 ppb | 16:39:17 |
| 3 | Sr 421.552† | 47945.0 | 45136.6 | 467.89 µg/L | 467.89 ppb | 16:39:17 |
| 3 | Sc 361.383 | 2047169.0 | 2047169.0 | 107.19 % | | 16:40:56 |
| 3 | Y 371.029 | 1398213.9 | 1398213.9 | 106.74 % | | 16:40:56 |
| 3 | Ag 328.068† | 59282.1 | 55869.9 | 446.44 µg/L | 446.44 ppb | 16:41:01 |
| 3 | As 188.979† | 231.4 | 214.7 | 418.91 µg/L | 418.91 ppb | 16:41:22 |
| 3 | B 249.677† | 11101.6 | 10025.4 | 436.32 µg/L | 436.32 ppb | 16:41:01 |
| 3 | Ba 233.527† | 17825.1 | 16655.3 | 434.45 µg/L | 434.45 ppb | 16:41:01 |
| 3 | Be 313.107† | 720453.0 | 675563.8 | 441.01 µg/L | 441.01 ppb | 16:40:56 |
| 3 | Cd 226.502† | 16836.0 | 15848.7 | 437.13 µg/L | 437.13 ppb | 16:41:01 |
| 3 | Co 228.616† | 9439.7 | 8815.3 | 433.29 µg/L | 433.29 ppb | 16:41:01 |
| 3 | Cr 267.716† | 20551.5 | 19225.2 | 423.15 µg/L | 423.15 ppb | 16:41:01 |
| 3 | Cu 324.752† | 68186.1 | 61125.9 | 427.64 µg/L | 427.64 ppb | 16:41:01 |
| 3 | Mn 257.610† | 138984.9 | 129905.6 | 450.28 µg/L | 450.28 ppb | 16:40:56 |
| 3 | Mo 202.031† | 4143.4 | 3873.0 | 413.51 µg/L | 413.51 ppb | 16:41:22 |
| 3 | Ni 231.604† | 8808.1 | 7915.1 | 432.30 µg/L | 432.30 ppb | 16:41:01 |
| 3 | P 214.914† | 1067.2 | 968.0 | 2036.9 µg/L | 2036.9 ppb | 16:41:22 |
| 3 | Pb 220.353† | 1797.4 | 1579.7 | 421.60 µg/L | 421.60 ppb | 16:41:22 |
| 3 | S 181.975 Axial† | 226.2 | 196.2 | 859.46 µg/L | 859.46 ppb | 16:41:22 |
| 3 | Sb 206.836† | 485.7 | 426.1 | 420.98 µg/L | 420.98 ppb | 16:41:22 |
| 3 | Se 196.026† | 307.9 | 271.4 | 421.09 µg/L | 421.09 ppb | 16:41:22 |
| 3 | SiO2† | 24533.6 | 21637.8 | 4659.8 µg/L | 4659.8 ppb | 16:41:01 |
| 3 | Si 251.611† | 28891.7 | 26640.7 | 2190.0 µg/L | 2190.0 ppb | 16:41:01 |
| 3 | Sn 189.927† | 954.7 | 891.5 | 410.08 µg/L | 410.08 ppb | 16:41:22 |
| 3 | Ti 334.940† | 196335.7 | 183048.9 | 440.00 µg/L | 440.00 ppb | 16:40:56 |
| 3 | Tl 190.801† | 308.7 | 312.2 | 441.18 µg/L | 441.18 ppb | 16:41:22 |
| 3 | U 409.014† | 5011.7 | 4729.1 | 427.20 µg/L | 427.20 ppb | 16:41:01 |
| 3 | V 292.402† | 42781.7 | 39956.1 | 430.99 µg/L | 430.99 ppb | 16:41:01 |
| 3 | Zn 213.857† | 19123.4 | 17365.0 | 430.51 µg/L | 430.51 ppb | 16:41:01 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 2049392.8 | 107.31 | % | 0.104 | | | | 0.10% |
| Sc RADIAL | 57671.4 | 106 | % | 0.6 | | | | 0.61% |
| Y 371.029 | 1400202.5 | 106.89 | % | 0.133 | | | | 0.12% |
| Ag 328.068† | 58171.1 | 464.90 | µg/L | 15.993 | 464.90 | ppb | 15.993 | 3.44% |
| QC value within limits for Ag 328.068 Recovery = 92.98% | | | | | | | | |
| Al 396.153Radial† | 6566.1 | 4884.3 | µg/L | 56.67 | 4884.3 | ppb | 56.67 | 1.16% |
| QC value within limits for Al 396.153Radial Recovery = 97.69% | | | | | | | | |
| As 188.979† | 236.7 | 461.83 | µg/L | 39.012 | 461.83 | ppb | 39.012 | 8.45% |
| QC value within limits for As 188.979 Recovery = 92.37% | | | | | | | | |
| B 249.677† | 10440.3 | 454.49 | µg/L | 15.747 | 454.49 | ppb | 15.747 | 3.46% |
| QC value within limits for B 249.677 Recovery = 90.90% | | | | | | | | |
| Ba 233.527† | 17652.5 | 460.47 | µg/L | 22.535 | 460.47 | ppb | 22.535 | 4.89% |
| QC value within limits for Ba 233.527 Recovery = 92.09% | | | | | | | | |
| Be 313.107† | 705402.1 | 460.49 | µg/L | 16.871 | 460.49 | ppb | 16.871 | 3.66% |
| QC value within limits for Be 313.107 Recovery = 92.10% | | | | | | | | |
| Ca 317.933Radial† | 5208.7 | 4904.3 | µg/L | 46.59 | 4904.3 | ppb | 46.59 | 0.95% |
| QC value within limits for Ca 317.933Radial Recovery = 98.09% | | | | | | | | |
| Cd 226.502† | 16797.7 | 463.34 | µg/L | 22.703 | 463.34 | ppb | 22.703 | 4.90% |
| QC value within limits for Cd 226.502 Recovery = 92.67% | | | | | | | | |
| Co 228.616† | 9391.3 | 461.63 | µg/L | 24.552 | 461.63 | ppb | 24.552 | 5.32% |

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   QC value within limits for Co 228.616  Recovery = 92.33%
Cr 267.716†            20865.4      459.24 µg/L        31.262      459.24 ppb        31.262   6.81%
   QC value within limits for Cr 267.716  Recovery = 91.85%
Cu 324.752†            65075.5      455.24 µg/L        23.902      455.24 ppb        23.902   5.25%
   QC value within limits for Cu 324.752  Recovery = 91.05%
Fe 238.204 Radial†       568.0      4823.8 µg/L        57.17       4823.8 ppb         57.17   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.48%
K 766.490 Radial†       6746.7      4795.5 µg/L        45.22       4795.5 ppb         45.22   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 95.91%
Mg 279.077 IEC†          536.3      4994.0 µg/L        45.66       4994.0 ppb         45.66   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           135324.9      469.05 µg/L        16.289      469.05 ppb        16.289   3.47%
   QC value within limits for Mn 257.610  Recovery = 93.81%
Mo 202.031†             4373.6      466.94 µg/L        46.322      466.94 ppb        46.322   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.39%
Na 589.592 Radial†     29441.2      9692.1 µg/L        84.60       9692.1 ppb         84.60   0.87%
   QC value within limits for Na 589.592 Radial  Recovery = 96.92%
Ni 231.604†             8433.5      460.62 µg/L        24.525      460.62 ppb        24.525   5.32%
   QC value within limits for Ni 231.604  Recovery = 92.12%
P 214.914†              1077.3      2269.6 µg/L       201.96       2269.6 ppb       201.96   8.90%
   QC value within limits for P 214.914  Recovery = 90.79%
Pb 220.353†             1735.0      463.13 µg/L        36.146      463.13 ppb        36.146   7.80%
   QC value within limits for Pb 220.353  Recovery = 92.63%
S 181.975 Axial†         212.2      929.67 µg/L        60.871      929.67 ppb        60.871   6.55%
   QC value within limits for S 181.975 Axial  Recovery = 92.97%
Sb 206.836†              472.6      467.16 µg/L        39.999      467.16 ppb        39.999   8.56%
   QC value within limits for Sb 206.836  Recovery = 93.43%
Se 196.026†              297.7      461.20 µg/L        34.847      461.20 ppb        34.847   7.56%
   QC value within limits for Se 196.026  Recovery = 92.24%
SiO2†                  22781.6      4906.1 µg/L       213.31       4906.1 ppb       213.31   4.35%
   QC value within limits for SiO2  Recovery = 91.75%
Si 251.611†            27990.8      2301.0 µg/L        96.11       2301.0 ppb        96.11   4.18%
   QC value within limits for Si 251.611  Recovery = 92.04%
Sn 189.927†             1020.1      469.24 µg/L        51.288      469.24 ppb        51.288  10.93%
   QC value within limits for Sn 189.927  Recovery = 93.85%
Sr 421.552†            45669.7      473.42 µg/L         5.054      473.42 ppb         5.054   1.07%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           191725.1      460.86 µg/L        18.074      460.86 ppb        18.074   3.92%
   QC value within limits for Ti 334.940  Recovery = 92.17%
Tl 190.801†              335.0      473.16 µg/L        27.695      473.16 ppb        27.695   5.85%
   QC value within limits for Tl 190.801  Recovery = 94.63%
U 409.014†              5095.6      460.37 µg/L        28.818      460.37 ppb        28.818   6.26%
   QC value within limits for U 409.014  Recovery = 92.07%
V 292.402†             42828.8      462.14 µg/L        26.978      462.14 ppb        26.978   5.84%
   QC value within limits for V 292.402  Recovery = 92.43%
Zn 213.857†            18473.7      458.03 µg/L        23.826      458.03 ppb        23.826   5.20%
   QC value within limits for Zn 213.857  Recovery = 91.61%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 58584.5 | 58584.5 | 107 | % | | | 16:42:04 |
| 1 | Al 396.153Radial† | 51.2 | 57.8 | 43.068 | µg/L | 43.068 | ppb | 16:42:04 |
| 1 | Ca 317.933Radial† | 241.7 | 46.0 | 43.344 | µg/L | 43.344 | ppb | 16:42:24 |
| 1 | Fe 238.204 Radial† | 14.5 | -1.0 | -8.1938 | µg/L | -8.1938 | ppb | 16:42:24 |
| 1 | K 766.490 Radial† | 158.2 | 19.0 | 13.495 | µg/L | 13.495 | ppb | 16:42:04 |
| 1 | Mg 279.077 IEC† | 19.4 | 6.8 | 63.641 | µg/L | 63.641 | ppb | 16:42:24 |
| 1 | Na 589.592 Radial† | 1003.5 | 392.9 | 129.35 | µg/L | 129.35 | ppb | 16:42:04 |
| 1 | Sr 421.552† | 45.5 | 2.9 | 0.0298 | µg/L | 0.0298 | ppb | 16:42:04 |
| 1 | Sc 361.383 | 2059865.1 | 2059865.1 | 107.86 | % | | | 16:43:26 |
| 1 | Y 371.029 | 1412010.5 | 1412010.5 | 107.79 | % | | | 16:43:26 |
| 1 | Ag 328.068† | -580.2 | 26.6 | 0.2127 | µg/L | 0.2127 | ppb | 16:43:32 |
| 1 | As 188.979† | -2.2 | -3.1 | -6.1457 | µg/L | -6.1457 | ppb | 16:43:52 |
| 1 | B 249.677† | 314.7 | -39.7 | -1.7298 | µg/L | -1.7298 | ppb | 16:43:52 |
| 1 | Ba 233.527† | -34.6 | -6.1 | -0.1574 | µg/L | -0.1574 | ppb | 16:43:52 |
| 1 | Be 313.107† | -3476.5 | 217.1 | 0.1418 | µg/L | 0.1418 | ppb | 16:43:32 |
| 1 | Cd 226.502† | -142.5 | 10.0 | 0.2771 | µg/L | 0.2771 | ppb | 16:43:52 |
| 1 | Co 228.616† | -11.6 | -1.9 | -0.0950 | µg/L | -0.0950 | ppb | 16:43:52 |
| 1 | Cr 267.716† | -40.1 | 15.2 | 0.3343 | µg/L | 0.3343 | ppb | 16:43:32 |
| 1 | Cu 324.752† | 2513.6 | -155.6 | -1.0878 | µg/L | -1.0878 | ppb | 16:43:32 |
| 1 | Mn 257.610† | -238.3 | 23.1 | 0.0765 | µg/L | 0.0765 | ppb | 16:43:52 |
| 1 | Mo 202.031† | -4.7 | 3.2 | 0.3434 | µg/L | 0.3434 | ppb | 16:43:52 |
| 1 | Ni 231.604† | 310.9 | -14.0 | -0.7640 | µg/L | -0.7640 | ppb | 16:43:52 |
| 1 | P 214.914† | 32.2 | 2.3 | 4.9663 | µg/L | 4.9663 | ppb | 16:43:52 |
| 1 | Pb 220.353† | 102.0 | -2.6 | -0.7002 | µg/L | -0.7002 | ppb | 16:43:52 |
| 1 | S 181.975 Axial† | 19.3 | 3.1 | 13.368 | µg/L | 13.368 | ppb | 16:43:52 |
| 1 | Sb 206.836† | 23.2 | -5.4 | -5.3618 | µg/L | -5.3618 | ppb | 16:43:52 |
| 1 | Se 196.026† | 20.8 | 3.4 | 5.1089 | µg/L | 5.1089 | ppb | 16:43:52 |
| 1 | SiO2† | 1256.8 | -84.7 | -18.250 | µg/L | -18.250 | ppb | 16:43:32 |
| 1 | Si 251.611† | 299.6 | -35.1 | -2.8840 | µg/L | -2.8840 | ppb | 16:43:52 |
| 1 | Sn 189.927† | -1.9 | -0.9 | -0.4213 | µg/L | -0.4213 | ppb | 16:43:52 |
| 1 | Ti 334.940† | 103.7 | -20.0 | -0.0524 | µg/L | -0.0524 | ppb | 16:43:32 |
| 1 | Tl 190.801† | -18.7 | 7.0 | 9.7650 | µg/L | 9.7650 | ppb | 16:43:52 |
| 1 | U 409.014† | 8.9 | 61.9 | 5.6031 | µg/L | 5.6031 | ppb | 16:43:32 |
| 1 | V 292.402† | -13.8 | 31.5 | 0.3435 | µg/L | 0.3435 | ppb | 16:43:32 |
| 1 | Zn 213.857† | 488.8 | -22.3 | -0.5552 | µg/L | -0.5552 | ppb | 16:43:52 |
| 2 | Sc RADIAL | 57826.0 | 57826.0 | 106 | % | | | 16:42:30 |
| 2 | Al 396.153Radial† | 36.0 | 44.1 | 32.860 | µg/L | 32.860 | ppb | 16:42:30 |
| 2 | Ca 317.933Radial† | 243.6 | 50.8 | 47.787 | µg/L | 47.787 | ppb | 16:42:50 |
| 2 | Fe 238.204 Radial† | 18.8 | 3.3 | 27.831 | µg/L | 27.831 | ppb | 16:42:50 |
| 2 | K 766.490 Radial† | 189.0 | 49.9 | 35.479 | µg/L | 35.479 | ppb | 16:42:30 |
| 2 | Mg 279.077 IEC† | 19.0 | 6.7 | 61.954 | µg/L | 61.954 | ppb | 16:42:50 |
| 2 | Na 589.592 Radial† | 991.6 | 394.0 | 129.71 | µg/L | 129.71 | ppb | 16:42:30 |
| 2 | Sr 421.552† | 62.3 | 19.3 | 0.1997 | µg/L | 0.1997 | ppb | 16:42:30 |
| 2 | Sc 361.383 | 2019733.9 | 2019733.9 | 105.75 | % | | | 16:43:58 |
| 2 | Y 371.029 | 1384706.2 | 1384706.2 | 105.71 | % | | | 16:43:58 |
| 2 | Ag 328.068† | -558.4 | 36.5 | 0.2916 | µg/L | 0.2916 | ppb | 16:44:04 |
| 2 | As 188.979† | -1.6 | -2.7 | -5.2610 | µg/L | -5.2610 | ppb | 16:44:24 |
| 2 | B 249.677† | 316.8 | -31.9 | -1.4069 | µg/L | -1.4069 | ppb | 16:44:24 |
| 2 | Ba 233.527† | -28.3 | -0.8 | -0.0199 | µg/L | -0.0199 | ppb | 16:44:24 |
| 2 | Be 313.107† | -3437.1 | 190.3 | 0.1243 | µg/L | 0.1243 | ppb | 16:44:04 |
| 2 | Cd 226.502† | -144.6 | 5.4 | 0.1447 | µg/L | 0.1447 | ppb | 16:44:24 |
| 2 | Co 228.616† | -10.6 | -1.2 | -0.0595 | µg/L | -0.0595 | ppb | 16:44:24 |
| 2 | Cr 267.716† | -44.1 | 10.7 | 0.2350 | µg/L | 0.2350 | ppb | 16:44:04 |
| 2 | Cu 324.752† | 2441.7 | -177.3 | -1.2343 | µg/L | -1.2343 | ppb | 16:44:04 |
| 2 | Mn 257.610† | -221.2 | 34.9 | 0.1222 | µg/L | 0.1222 | ppb | 16:44:24 |
| 2 | Mo 202.031† | -2.8 | 4.9 | 0.5203 | µg/L | 0.5203 | ppb | 16:44:24 |
| 2 | Ni 231.604† | 305.8 | -13.1 | -0.7134 | µg/L | -0.7134 | ppb | 16:44:24 |
| 2 | P 214.914† | 32.5 | 3.1 | 6.8494 | µg/L | 6.8494 | ppb | 16:44:24 |
| 2 | Pb 220.353† | 110.5 | 7.3 | 1.9444 | µg/L | 1.9444 | ppb | 16:44:24 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 18.0 | 2.2 | 9.5789 | µg/L | 9.5789 ppb | 16:44:24 |
| 2 | Sb 206.836† | 26.9 | -1.5 | -1.5033 | µg/L | -1.5033 ppb | 16:44:24 |
| 2 | Se 196.026† | 9.1 | -7.3 | -11.082 | µg/L | -11.082 ppb | 16:44:24 |
| 2 | SiO2† | 1234.9 | -82.3 | -17.728 | µg/L | -17.728 ppb | 16:44:04 |
| 2 | Si 251.611† | 315.8 | -14.3 | -1.1723 | µg/L | -1.1723 ppb | 16:44:24 |
| 2 | Sn 189.927† | -0.9 | 0.0 | 0.0122 | µg/L | 0.0122 ppb | 16:44:24 |
| 2 | Ti 334.940† | 107.0 | -14.9 | -0.0400 | µg/L | -0.0400 ppb | 16:44:04 |
| 2 | Tl 190.801† | -22.2 | 3.3 | 4.6398 | µg/L | 4.6398 ppb | 16:44:24 |
| 2 | U 409.014† | 11.6 | 64.6 | 5.8396 | µg/L | 5.8396 ppb | 16:44:04 |
| 2 | V 292.402† | -47.1 | -0.3 | 0.0106 | µg/L | 0.0106 ppb | 16:44:04 |
| 2 | Zn 213.857† | 485.9 | -16.1 | -0.4022 | µg/L | -0.4022 ppb | 16:44:24 |
| 3 | Sc RADIAL | 58203.8 | 58203.8 | 107 | % | | 16:42:56 |
| 3 | Al 396.153Radial† | 16.5 | 25.6 | 19.057 | µg/L | 19.057 ppb | 16:42:56 |
| 3 | Ca 317.933Radial† | 234.3 | 40.6 | 38.198 | µg/L | 38.198 ppb | 16:43:16 |
| 3 | Fe 238.204 Radial† | 16.0 | 0.5 | 4.0830 | µg/L | 4.0830 ppb | 16:43:16 |
| 3 | K 766.490 Radial† | 180.9 | 41.2 | 29.300 | µg/L | 29.300 ppb | 16:42:56 |
| 3 | Mg 279.077 IEC† | 18.0 | 5.6 | 52.283 | µg/L | 52.283 ppb | 16:43:16 |
| 3 | Na 589.592 Radial† | 920.7 | 321.4 | 105.80 | µg/L | 105.80 ppb | 16:42:56 |
| 3 | Sr 421.552† | 52.3 | 9.5 | 0.0985 | µg/L | 0.0985 ppb | 16:42:56 |
| 3 | Sc 361.383 | 1997484.6 | 1997484.6 | 104.59 | % | | 16:44:31 |
| 3 | Y 371.029 | 1369124.4 | 1369124.4 | 104.52 | % | | 16:44:31 |
| 3 | Ag 328.068† | -544.9 | 43.6 | 0.3481 | µg/L | 0.3481 ppb | 16:44:36 |
| 3 | As 188.979† | 3.1 | 1.8 | 3.4746 | µg/L | 3.4746 ppb | 16:44:57 |
| 3 | B 249.677† | 317.2 | -28.2 | -1.2336 | µg/L | -1.2336 ppb | 16:44:57 |
| 3 | Ba 233.527† | -26.0 | 1.1 | 0.0301 | µg/L | 0.0301 ppb | 16:44:57 |
| 3 | Be 313.107† | -3380.0 | 208.8 | 0.1363 | µg/L | 0.1363 ppb | 16:44:36 |
| 3 | Cd 226.502† | -138.7 | 9.5 | 0.2617 | µg/L | 0.2617 ppb | 16:44:57 |
| 3 | Co 228.616† | -17.3 | -7.7 | -0.3772 | µg/L | -0.3772 ppb | 16:44:57 |
| 3 | Cr 267.716† | -57.1 | -2.2 | -0.0487 | µg/L | -0.0487 ppb | 16:44:36 |
| 3 | Cu 324.752† | 2481.2 | -113.8 | -0.7943 | µg/L | -0.7943 ppb | 16:44:36 |
| 3 | Mn 257.610† | -222.0 | 31.9 | 0.1088 | µg/L | 0.1088 ppb | 16:44:57 |
| 3 | Mo 202.031† | -5.2 | 2.6 | 0.2766 | µg/L | 0.2766 ppb | 16:44:57 |
| 3 | Ni 231.604† | 300.3 | -15.1 | -0.8254 | µg/L | -0.8254 ppb | 16:44:57 |
| 3 | P 214.914† | 30.5 | 1.5 | 3.4004 | µg/L | 3.4004 ppb | 16:44:57 |
| 3 | Pb 220.353† | 108.4 | 6.5 | 1.7342 | µg/L | 1.7342 ppb | 16:44:57 |
| 3 | S 181.975 Axial† | 15.4 | -0.1 | -0.3301 | µg/L | -0.3301 ppb | 16:44:57 |
| 3 | Sb 206.836† | 27.4 | -0.8 | -0.7588 | µg/L | -0.7588 ppb | 16:44:57 |
| 3 | Se 196.026† | 19.0 | 2.4 | 3.5402 | µg/L | 3.5402 ppb | 16:44:57 |
| 3 | SiO2† | 1246.0 | -58.7 | -12.639 | µg/L | -12.639 ppb | 16:44:36 |
| 3 | Si 251.611† | 309.0 | -17.4 | -1.4306 | µg/L | -1.4306 ppb | 16:44:57 |
| 3 | Sn 189.927† | -0.1 | 0.8 | 0.3816 | µg/L | 0.3816 ppb | 16:44:57 |
| 3 | Ti 334.940† | 122.3 | 0.8 | -0.0015 | µg/L | -0.0015 ppb | 16:44:36 |
| 3 | Tl 190.801† | -19.4 | 5.7 | 7.9510 | µg/L | 7.9510 ppb | 16:44:57 |
| 3 | U 409.014† | -119.0 | -60.2 | -5.4508 | µg/L | -5.4508 ppb | 16:44:36 |
| 3 | V 292.402† | -13.3 | 31.5 | 0.3324 | µg/L | 0.3324 ppb | 16:44:36 |
| 3 | Zn 213.857† | 491.8 | -5.3 | -0.1315 | µg/L | -0.1315 ppb | 16:44:57 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 2025694.5 | 106.07 | % | 1.655 | | | | 1.56% |
| Sc RADIAL | 58204.8 | 107 | % | 0.7 | | | | 0.65% |
| Y 371.029 | 1388613.7 | 106.01 | % | 1.657 | | | | 1.56% |
| Ag 328.068† | 35.6 | 0.2841 | µg/L | 0.06799 | 0.2841 | ppb | 0.06799 | 23.93% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 42.5 | 31.661 | µg/L | 12.0501 | 31.661 | ppb | 12.0501 | 38.06% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.4 | -2.6440 | µg/L | 5.31733 | -2.6440 | ppb | 5.31733 | 201.11% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -33.2 | -1.4568 | µg/L | 0.25185 | -1.4568 | ppb | 0.25185 | 17.29% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | -1.9 | -0.0491 | µg/L | 0.09709 | -0.0491 | ppb | 0.09709 | 197.73% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 205.4 | 0.1341 | µg/L | 0.00896 | 0.1341 | ppb | 0.00896 | 6.68% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 45.8 | 43.110 | µg/L | 4.7990 | 43.110 | ppb | 4.7990 | 11.13% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 8.3 | 0.2278 | µg/L | 0.07242 | 0.2278 | ppb | 0.07242 | 31.78% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -3.6 | -0.1772 | µg/L | 0.17409 | -0.1772 | ppb | 0.17409 | 98.23% |

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.9      0.1735 µg/L       0.19876      0.1735 ppb        0.19876 114.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -148.9     -1.0388 µg/L       0.22407     -1.0388 ppb        0.22407  21.57%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.9      7.9067 µg/L      18.31420      7.9067 ppb       18.31420 231.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         36.7      26.091 µg/L       11.3376      26.091 ppb        11.3376  43.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.4      59.293 µg/L        6.1293      59.293 ppb         6.1293  10.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.0      0.1025 µg/L       0.02350      0.1025 ppb        0.02350  22.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.6      0.3801 µg/L       0.12595      0.3801 ppb        0.12595  33.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       369.4      121.62 µg/L        13.704      121.62 ppb         13.704  11.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.0     -0.7676 µg/L       0.05609     -0.7676 ppb        0.05609   7.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.3      5.0720 µg/L       1.72695      5.0720 ppb        1.72695  34.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.7      0.9928 µg/L       1.46997      0.9928 ppb        1.46997 148.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.7      7.5391 µg/L       7.07334      7.5391 ppb        7.07334  93.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.6     -2.5413 µg/L       2.47086     -2.5413 ppb        2.47086  97.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.5     -0.8111 µg/L       8.92964     -0.8111 ppb        8.92964 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -75.3     -16.206 µg/L        3.0998     -16.206 ppb         3.0998  19.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -22.2     -1.8290 µg/L       0.92279     -1.8290 ppb        0.92279  50.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.0     -0.0092 µg/L       0.40185     -0.0092 ppb        0.40185 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.5      0.1093 µg/L       0.08548      0.1093 ppb        0.08548  78.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -11.4     -0.0313 µg/L       0.02652     -0.0313 ppb        0.02652  84.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.3      7.4520 µg/L       2.59879      7.4520 ppb        2.59879  34.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                22.1      1.9973 µg/L       6.45136      1.9973 ppb        6.45136 323.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.9      0.2288 µg/L       0.18906      0.2288 ppb        0.18906  82.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.6     -0.3630 µg/L       0.21454     -0.3630 ppb        0.21454  59.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/11/2010 16:58:42
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502
Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 2/11/2010 16:58:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 58304.7 | 58304.7 | 107 | % | | | 16:59:20 |
| 1 | Al 396.153Radial† | 6786.5 | 6362.5 | 4732.0 | µg/L | 4732.0 | ppb | 16:59:20 |
| 1 | Ca 317.933Radial† | 5536.9 | 5003.5 | 4711.1 | µg/L | 4711.1 | ppb | 16:59:40 |
| 1 | Fe 238.204 Radial† | 610.2 | 556.6 | 4728.2 | µg/L | 4728.2 | ppb | 16:59:40 |
| 1 | K 766.490 Radial† | 7283.7 | 6689.2 | 4754.7 | µg/L | 4754.7 | ppb | 16:59:20 |
| 1 | Mg 279.077 IEC† | 569.3 | 521.6 | 4857.3 | µg/L | 4857.3 | ppb | 16:59:40 |
| 1 | Na 589.592 Radial† | 31197.2 | 28659.4 | 9434.8 | µg/L | 9434.8 | ppb | 16:59:20 |
| 1 | Sr 421.552† | 48428.4 | 45290.4 | 469.49 | µg/L | 469.49 | ppb | 16:59:20 |
| 1 | Sc 361.383 | 2048192.0 | 2048192.0 | 107.24 | % | | | 17:00:43 |
| 1 | Y 371.029 | 1396873.4 | 1396873.4 | 106.64 | % | | | 17:00:43 |
| 1 | Ag 328.068† | 62792.0 | 59115.0 | 472.54 | µg/L | 472.54 | ppb | 17:00:49 |
| 1 | As 188.979† | 276.2 | 256.4 | 500.17 | µg/L | 500.17 | ppb | 17:01:09 |
| 1 | B 249.677† | 11976.6 | 10836.1 | 471.87 | µg/L | 471.87 | ppb | 17:00:49 |
| 1 | Ba 233.527† | 19779.6 | 18469.6 | 481.79 | µg/L | 481.79 | ppb | 17:00:49 |
| 1 | Be 313.107† | 782023.1 | 732639.2 | 478.28 | µg/L | 478.28 | ppb | 17:00:43 |
| 1 | Cd 226.502† | 18757.9 | 17632.9 | 486.42 | µg/L | 486.42 | ppb | 17:00:49 |
| 1 | Co 228.616† | 10618.7 | 9910.3 | 487.18 | µg/L | 487.18 | ppb | 17:00:49 |
| 1 | Cr 267.716† | 23605.9 | 22063.7 | 485.62 | µg/L | 485.62 | ppb | 17:00:49 |
| 1 | Cu 324.752† | 75656.1 | 68059.5 | 476.07 | µg/L | 476.07 | ppb | 17:00:49 |
| 1 | Mn 257.610† | 150274.2 | 140367.5 | 486.51 | µg/L | 486.51 | ppb | 17:00:43 |
| 1 | Mo 202.031† | 4970.8 | 4642.6 | 495.64 | µg/L | 495.64 | ppb | 17:01:09 |
| 1 | Ni 231.604† | 9869.6 | 8900.8 | 486.13 | µg/L | 486.13 | ppb | 17:00:49 |
| 1 | P 214.914† | 1275.8 | 1162.0 | 2449.8 | µg/L | 2449.8 | ppb | 17:01:09 |
| 1 | Pb 220.353† | 2092.9 | 1854.3 | 494.97 | µg/L | 494.97 | ppb | 17:01:09 |
| 1 | S 181.975 Axial† | 258.0 | 225.7 | 989.09 | µg/L | 989.09 | ppb | 17:01:09 |
| 1 | Sb 206.836† | 558.6 | 493.9 | 488.34 | µg/L | 488.34 | ppb | 17:01:09 |
| 1 | Se 196.026† | 360.2 | 320.1 | 495.20 | µg/L | 495.20 | ppb | 17:01:09 |
| 1 | SiO2† | 26598.5 | 23551.8 | 5072.0 | µg/L | 5072.0 | ppb | 17:00:49 |
| 1 | Si 251.611† | 31394.2 | 28960.7 | 2380.7 | µg/L | 2380.7 | ppb | 17:00:49 |
| 1 | Sn 189.927† | 1171.7 | 1093.4 | 502.93 | µg/L | 502.93 | ppb | 17:01:09 |
| 1 | Ti 334.940† | 209687.5 | 195407.3 | 469.73 | µg/L | 469.73 | ppb | 17:00:43 |
| 1 | Tl 190.801† | 351.0 | 351.5 | 496.34 | µg/L | 496.34 | ppb | 17:01:09 |
| 1 | U 409.014† | 5705.8 | 5374.0 | 485.60 | µg/L | 485.60 | ppb | 17:00:49 |
| 1 | V 292.402† | 48262.6 | 45046.7 | 486.08 | µg/L | 486.08 | ppb | 17:00:49 |
| 1 | Zn 213.857† | 21405.2 | 19483.8 | 483.11 | µg/L | 483.11 | ppb | 17:00:49 |
| 2 | Sc RADIAL | 57809.4 | 57809.4 | 106 | % | | | 16:59:45 |
| 2 | Al 396.153Radial† | 6713.1 | 6347.6 | 4720.4 | µg/L | 4720.4 | ppb | 16:59:45 |
| 2 | Ca 317.933Radial† | 5573.2 | 5082.2 | 4785.2 | µg/L | 4785.2 | ppb | 17:00:06 |
| 2 | Fe 238.204 Radial† | 613.9 | 565.0 | 4800.0 | µg/L | 4800.0 | ppb | 17:00:06 |
| 2 | K 766.490 Radial† | 7246.0 | 6712.1 | 4770.9 | µg/L | 4770.9 | ppb | 16:59:45 |
| 2 | Mg 279.077 IEC† | 566.2 | 523.3 | 4873.4 | µg/L | 4873.4 | ppb | 17:00:06 |
| 2 | Na 589.592 Radial† | 31072.8 | 28792.1 | 9478.5 | µg/L | 9478.5 | ppb | 16:59:45 |
| 2 | Sr 421.552† | 48008.7 | 45282.6 | 469.41 | µg/L | 469.41 | ppb | 16:59:45 |
| 2 | Sc 361.383 | 1951160.7 | 1951160.7 | 102.16 | % | | | 17:01:16 |
| 2 | Y 371.029 | 1331856.8 | 1331856.8 | 101.67 | % | | | 17:01:16 |
| 2 | Ag 328.068† | 64120.5 | 63327.2 | 506.22 | µg/L | 506.22 | ppb | 17:01:22 |
| 2 | As 188.979† | 277.7 | 270.7 | 528.08 | µg/L | 528.08 | ppb | 17:01:43 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | B 249.677† | 12297.9 | 11706.0 | 509.91 µg/L | 509.91 ppb | 17:01:22 |
| 2 | Ba 233.527† | 20306.8 | 19902.8 | 519.17 µg/L | 519.17 ppb | 17:01:22 |
| 2 | Be 313.107† | 802212.2 | 788663.9 | 514.85 µg/L | 514.85 ppb | 17:01:16 |
| 2 | Cd 226.502† | 19256.8 | 18991.1 | 523.92 µg/L | 523.92 ppb | 17:01:22 |
| 2 | Co 228.616† | 10882.2 | 10660.6 | 524.05 µg/L | 524.05 ppb | 17:01:22 |
| 2 | Cr 267.716† | 24198.0 | 23738.0 | 522.47 µg/L | 522.47 ppb | 17:01:22 |
| 2 | Cu 324.752† | 77364.3 | 73239.8 | 512.26 µg/L | 512.26 ppb | 17:01:22 |
| 2 | Mn 257.610† | 154462.4 | 151435.4 | 524.84 µg/L | 524.84 ppb | 17:01:16 |
| 2 | Mo 202.031† | 4974.0 | 4876.2 | 520.57 µg/L | 520.57 ppb | 17:01:43 |
| 2 | Ni 231.604† | 10143.4 | 9626.4 | 525.76 µg/L | 525.76 ppb | 17:01:22 |
| 2 | P 214.914† | 1278.9 | 1224.2 | 2579.9 µg/L | 2579.9 ppb | 17:01:43 |
| 2 | Pb 220.353† | 2103.7 | 1962.0 | 523.68 µg/L | 523.68 ppb | 17:01:43 |
| 2 | S 181.975 Axial† | 261.1 | 240.7 | 1054.7 µg/L | 1054.7 ppb | 17:01:43 |
| 2 | Sb 206.836† | 565.0 | 526.1 | 520.02 µg/L | 520.02 ppb | 17:01:43 |
| 2 | Se 196.026† | 363.5 | 340.0 | 525.72 µg/L | 525.72 ppb | 17:01:43 |
| 2 | SiO2† | 27321.6 | 25493.0 | 5490.1 µg/L | 5490.1 ppb | 17:01:22 |
| 2 | Si 251.611† | 32162.6 | 31168.6 | 2562.2 µg/L | 2562.2 ppb | 17:01:22 |
| 2 | Sn 189.927† | 1172.7 | 1148.8 | 528.40 µg/L | 528.40 ppb | 17:01:43 |
| 2 | Ti 334.940† | 216025.0 | 211334.0 | 508.04 µg/L | 508.04 ppb | 17:01:16 |
| 2 | Tl 190.801† | 350.8 | 367.7 | 519.30 µg/L | 519.30 ppb | 17:01:43 |
| 2 | U 409.014† | 5846.6 | 5776.4 | 522.02 µg/L | 522.02 ppb | 17:01:22 |
| 2 | V 292.402† | 49557.7 | 48552.4 | 523.76 µg/L | 523.76 ppb | 17:01:22 |
| 2 | Zn 213.857† | 21845.1 | 20906.9 | 518.41 µg/L | 518.41 ppb | 17:01:22 |
| 3 | Sc RADIAL | 58043.7 | 58043.7 | 106 % | | 17:00:11 |
| 3 | Al 396.153Radial† | 6748.6 | 6355.4 | 4728.2 µg/L | 4728.2 ppb | 17:00:11 |
| 3 | Ca 317.933Radial† | 5566.3 | 5054.5 | 4759.1 µg/L | 4759.1 ppb | 17:00:32 |
| 3 | Fe 238.204 Radial† | 616.6 | 565.2 | 4800.6 µg/L | 4800.6 ppb | 17:00:32 |
| 3 | K 766.490 Radial† | 7187.1 | 6629.1 | 4711.9 µg/L | 4711.9 ppb | 17:00:11 |
| 3 | Mg 279.077 IEC† | 562.5 | 517.6 | 4819.1 µg/L | 4819.1 ppb | 17:00:32 |
| 3 | Na 589.592 Radial† | 31179.2 | 28773.8 | 9472.4 µg/L | 9472.4 ppb | 17:00:11 |
| 3 | Sr 421.552† | 48277.8 | 45352.7 | 470.13 µg/L | 470.13 ppb | 17:00:11 |
| 3 | Sc 361.383 | 2003631.8 | 2003631.8 | 104.91 % | | 17:01:50 |
| 3 | Y 371.029 | 1367447.8 | 1367447.8 | 104.39 % | | 17:01:50 |
| 3 | Ag 328.068† | 59826.0 | 57590.0 | 460.26 µg/L | 460.26 ppb | 17:01:56 |
| 3 | As 188.979† | 236.7 | 224.5 | 438.03 µg/L | 438.03 ppb | 17:02:16 |
| 3 | B 249.677† | 11388.2 | 10523.6 | 458.12 µg/L | 458.12 ppb | 17:01:56 |
| 3 | Ba 233.527† | 18491.5 | 17651.9 | 460.45 µg/L | 460.45 ppb | 17:01:56 |
| 3 | Be 313.107† | 746381.1 | 714882.8 | 466.69 µg/L | 466.69 ppb | 17:01:50 |
| 3 | Cd 226.502† | 17452.2 | 16777.4 | 462.78 µg/L | 462.78 ppb | 17:01:56 |
| 3 | Co 228.616† | 9792.8 | 9343.2 | 459.24 µg/L | 459.24 ppb | 17:01:56 |
| 3 | Cr 267.716† | 21341.5 | 20394.9 | 448.89 µg/L | 448.89 ppb | 17:01:56 |
| 3 | Cu 324.752† | 70171.6 | 64400.7 | 450.52 µg/L | 450.52 ppb | 17:01:56 |
| 3 | Mn 257.610† | 143677.7 | 137196.1 | 475.54 µg/L | 475.54 ppb | 17:01:50 |
| 3 | Mo 202.031† | 4142.0 | 3955.7 | 422.34 µg/L | 422.34 ppb | 17:02:16 |
| 3 | Ni 231.604† | 9135.9 | 8406.0 | 459.11 µg/L | 459.11 ppb | 17:01:56 |
| 3 | P 214.914† | 1088.5 | 1009.9 | 2124.6 µg/L | 2124.6 ppb | 17:02:16 |
| 3 | Pb 220.353† | 1832.8 | 1649.8 | 440.26 µg/L | 440.26 ppb | 17:02:16 |
| 3 | S 181.975 Axial† | 227.5 | 202.0 | 885.22 µg/L | 885.22 ppb | 17:02:16 |
| 3 | Sb 206.836† | 480.8 | 431.3 | 425.93 µg/L | 425.93 ppb | 17:02:16 |
| 3 | Se 196.026† | 317.8 | 287.1 | 445.21 µg/L | 445.21 ppb | 17:02:16 |
| 3 | SiO2† | 25159.1 | 22731.4 | 4895.3 µg/L | 4895.3 ppb | 17:01:56 |
| 3 | Si 251.611† | 29597.8 | 27899.4 | 2293.5 µg/L | 2293.5 ppb | 17:01:56 |
| 3 | Sn 189.927† | 953.9 | 910.2 | 418.64 µg/L | 418.64 ppb | 17:02:16 |
| 3 | Ti 334.940† | 199390.2 | 189940.4 | 456.58 µg/L | 456.58 ppb | 17:01:50 |
| 3 | Tl 190.801† | 316.4 | 325.9 | 460.38 µg/L | 460.38 ppb | 17:02:16 |
| 3 | U 409.014† | 5187.8 | 4998.6 | 451.60 µg/L | 451.60 ppb | 17:01:56 |
| 3 | V 292.402† | 44415.7 | 42380.8 | 456.99 µg/L | 456.99 ppb | 17:01:56 |
| 3 | Zn 213.857† | 19887.4 | 18480.9 | 458.23 µg/L | 458.23 ppb | 17:01:56 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 2000994.9 | 104.77 | % | 2.543 | | | | 2.43% |
| Sc RADIAL | 58052.6 | 106 | % | 0.5 | | | | 0.43% |
| Y 371.029 | 1365392.6 | 104.23 | % | 2.485 | | | | 2.38% |
| Ag 328.068† | 60010.7 | 479.67 | µg/L | 23.794 | 479.67 | ppb | 23.794 | 4.96% |
| QC value within limits for Ag 328.068 Recovery = 95.93% | | | | | | | | |
| Al 396.153Radial† | 6355.1 | 4726.8 | µg/L | 5.90 | 4726.8 | ppb | 5.90 | 0.12% |
| QC value within limits for Al 396.153Radial Recovery = 94.54% | | | | | | | | |
| As 188.979† | 250.5 | 488.76 | µg/L | 46.092 | 488.76 | ppb | 46.092 | 9.43% |

```
   QC value within limits for As 188.979  Recovery = 97.75%
B 249.677†            11021.9      479.97 µg/L        26.827      479.97 ppb        26.827   5.59%
   QC value within limits for B 249.677  Recovery = 95.99%
Ba 233.527†           18674.8      487.13 µg/L        29.727      487.13 ppb        29.727   6.10%
   QC value within limits for Ba 233.527  Recovery = 97.43%
Be 313.107†          745395.3      486.60 µg/L        25.138      486.60 ppb        25.138   5.17%
   QC value within limits for Be 313.107  Recovery = 97.32%
Ca 317.933Radial†      5046.7      4751.8 µg/L         37.61      4751.8 ppb         37.61   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 95.04%
Cd 226.502†           17800.5      491.04 µg/L        30.831      491.04 ppb        30.831   6.28%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            9971.4      490.16 µg/L        32.508      490.16 ppb        32.508   6.63%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†           22065.5      485.66 µg/L        36.788      485.66 ppb        36.788   7.57%
   QC value within limits for Cr 267.716  Recovery = 97.13%
Cu 324.752†           68566.7      479.62 µg/L        31.024      479.62 ppb        31.024   6.47%
   QC value within limits for Cu 324.752  Recovery = 95.92%
Fe 238.204 Radial†      562.3      4776.3 µg/L         41.61      4776.3 ppb         41.61   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.53%
K 766.490 Radial†      6676.8      4745.8 µg/L         30.47      4745.8 ppb         30.47   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 94.92%
Mg 279.077 IEC†         520.8      4849.9 µg/L         27.89      4849.9 ppb         27.89   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.00%
Mn 257.610†          142999.7      495.63 µg/L        25.888      495.63 ppb        25.888   5.22%
   QC value within limits for Mn 257.610  Recovery = 99.13%
Mo 202.031†            4491.5      479.52 µg/L        51.064      479.52 ppb        51.064  10.65%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†    28741.7      9461.9 µg/L         23.68      9461.9 ppb         23.68   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 94.62%
Ni 231.604†            8977.7      490.33 µg/L        33.521      490.33 ppb        33.521   6.84%
   QC value within limits for Ni 231.604  Recovery = 98.07%
P 214.914†             1132.0      2384.7 µg/L        234.53      2384.7 ppb        234.53   9.83%
   QC value within limits for P 214.914  Recovery = 95.39%
Pb 220.353†            1822.0      486.30 µg/L        42.376      486.30 ppb        42.376   8.71%
   QC value within limits for Pb 220.353  Recovery = 97.26%
S 181.975 Axial†        222.8      976.34 µg/L        85.462      976.34 ppb        85.462   8.75%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†             483.8      478.10 µg/L        47.873      478.10 ppb        47.873  10.01%
   QC value within limits for Sb 206.836  Recovery = 95.62%
Se 196.026†             315.7      488.71 µg/L        40.646      488.71 ppb        40.646   8.32%
   QC value within limits for Se 196.026  Recovery = 97.74%
SiO2†                 23925.4      5152.5 µg/L        305.42      5152.5 ppb        305.42   5.93%
   QC value within limits for SiO2  Recovery = 96.35%
Si 251.611†           29342.9      2412.1 µg/L        137.10      2412.1 ppb        137.10   5.68%
   QC value within limits for Si 251.611  Recovery = 96.49%
Sn 189.927†            1050.8      483.32 µg/L        57.445      483.32 ppb        57.445  11.89%
   QC value within limits for Sn 189.927  Recovery = 96.66%
Sr 421.552†           45308.6      469.68 µg/L         0.398      469.68 ppb         0.398   0.08%
   QC value within limits for Sr 421.552  Recovery = 93.94%
Ti 334.940†          198893.9      478.12 µg/L        26.734      478.12 ppb        26.734   5.59%
   QC value within limits for Ti 334.940  Recovery = 95.62%
Tl 190.801†             348.4      492.01 µg/L        29.696      492.01 ppb        29.696   6.04%
   QC value within limits for Tl 190.801  Recovery = 98.40%
U 409.014†             5383.0      486.40 µg/L        35.218      486.40 ppb        35.218   7.24%
   QC value within limits for U 409.014  Recovery = 97.28%
V 292.402†            45326.6      488.94 µg/L        33.478      488.94 ppb        33.478   6.85%
   QC value within limits for V 292.402  Recovery = 97.79%
Zn 213.857†           19623.9      486.59 µg/L        30.241      486.59 ppb        30.241   6.21%
   QC value within limits for Zn 213.857  Recovery = 97.32%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:02:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56368.9 | 56368.9 | 103 | % | | | 17:03:01 |
| 1 | Al 396.153Radial† | -30.7 | -19.6 | -14.585 | µg/L | -14.585 | ppb | 17:03:01 |
| 1 | Ca 317.933Radial† | 198.1 | 12.6 | 11.864 | µg/L | 11.864 | ppb | 17:03:21 |
| 1 | Fe 238.204 Radial† | 17.2 | 2.2 | 18.515 | µg/L | 18.515 | ppb | 17:03:21 |
| 1 | K 766.490 Radial† | 209.8 | 74.8 | 53.133 | µg/L | 53.133 | ppb | 17:03:01 |
| 1 | Mg 279.077 IEC† | 16.1 | 4.3 | 39.936 | µg/L | 39.936 | ppb | 17:03:21 |
| 1 | Na 589.592 Radial† | 774.1 | 207.6 | 68.329 | µg/L | 68.329 | ppb | 17:03:01 |
| 1 | Sr 421.552† | 33.0 | -7.6 | -0.0789 | µg/L | -0.0789 | ppb | 17:03:01 |
| 1 | Sc 361.383 | 2029236.5 | 2029236.5 | 106.25 | % | | | 17:04:24 |
| 1 | Y 371.029 | 1388942.8 | 1388942.8 | 106.03 | % | | | 17:04:24 |
| 1 | Ag 328.068† | -592.1 | 7.2 | 0.0607 | µg/L | 0.0607 | ppb | 17:04:29 |
| 1 | As 188.979† | -0.6 | -1.7 | -3.3695 | µg/L | -3.3695 | ppb | 17:04:50 |
| 1 | B 249.677† | 324.7 | -25.9 | -1.1417 | µg/L | -1.1417 | ppb | 17:04:50 |
| 1 | Ba 233.527† | -22.4 | 4.9 | 0.1278 | µg/L | 0.1278 | ppb | 17:04:50 |
| 1 | Be 313.107† | -3566.1 | 84.2 | 0.0549 | µg/L | 0.0549 | ppb | 17:04:29 |
| 1 | Cd 226.502† | -151.8 | -0.8 | -0.0243 | µg/L | -0.0243 | ppb | 17:04:50 |
| 1 | Co 228.616† | -13.1 | -3.5 | -0.1727 | µg/L | -0.1727 | ppb | 17:04:50 |
| 1 | Cr 267.716† | -46.3 | 8.8 | 0.1931 | µg/L | 0.1931 | ppb | 17:04:50 |
| 1 | Cu 324.752† | 2496.7 | -136.3 | -0.9495 | µg/L | -0.9495 | ppb | 17:04:29 |
| 1 | Mn 257.610† | -248.9 | 9.9 | 0.0351 | µg/L | 0.0351 | ppb | 17:04:50 |
| 1 | Mo 202.031† | -5.8 | 2.1 | 0.2273 | µg/L | 0.2273 | ppb | 17:04:50 |
| 1 | Ni 231.604† | 303.7 | -16.3 | -0.8932 | µg/L | -0.8932 | ppb | 17:04:50 |
| 1 | P 214.914† | 32.7 | 3.2 | 6.8843 | µg/L | 6.8843 | ppb | 17:04:50 |
| 1 | Pb 220.353† | 96.4 | -6.5 | -1.7203 | µg/L | -1.7203 | ppb | 17:04:50 |
| 1 | S 181.975 Axial† | 20.6 | 4.6 | 20.049 | µg/L | 20.049 | ppb | 17:04:50 |
| 1 | Sb 206.836† | 26.8 | -1.7 | -1.7124 | µg/L | -1.7124 | ppb | 17:04:50 |
| 1 | Se 196.026† | 16.1 | -0.6 | -0.9715 | µg/L | -0.9715 | ppb | 17:04:50 |
| 1 | SiO2† | 1235.6 | -87.2 | -18.769 | µg/L | -18.769 | ppb | 17:04:29 |
| 1 | Si 251.611† | 286.6 | -43.1 | -3.5447 | µg/L | -3.5447 | ppb | 17:04:50 |
| 1 | Sn 189.927† | -4.0 | -2.9 | -1.3291 | µg/L | -1.3291 | ppb | 17:04:50 |
| 1 | Ti 334.940† | 152.5 | 27.4 | 0.0631 | µg/L | 0.0631 | ppb | 17:04:29 |
| 1 | Tl 190.801† | -22.1 | 3.5 | 4.9105 | µg/L | 4.9105 | ppb | 17:04:50 |
| 1 | U 409.014† | -71.0 | -13.2 | -1.1992 | µg/L | -1.1992 | ppb | 17:04:29 |
| 1 | V 292.402† | -14.4 | 30.7 | 0.3301 | µg/L | 0.3301 | ppb | 17:04:29 |
| 1 | Zn 213.857† | 481.1 | -22.7 | -0.5654 | µg/L | -0.5654 | ppb | 17:04:50 |
| 2 | Sc RADIAL | 56481.9 | 56481.9 | 103 | % | | | 17:03:27 |
| 2 | Al 396.153Radial† | 9.3 | 19.1 | 14.233 | µg/L | 14.233 | ppb | 17:03:27 |
| 2 | Ca 317.933Radial† | 192.6 | 6.9 | 6.5217 | µg/L | 6.5217 | ppb | 17:03:47 |
| 2 | Fe 238.204 Radial† | 14.6 | -0.3 | -2.9604 | µg/L | -2.9604 | ppb | 17:03:47 |
| 2 | K 766.490 Radial† | 162.5 | 28.6 | 20.329 | µg/L | 20.329 | ppb | 17:03:27 |
| 2 | Mg 279.077 IEC† | 13.0 | 1.3 | 11.979 | µg/L | 11.979 | ppb | 17:03:47 |
| 2 | Na 589.592 Radial† | 797.1 | 228.3 | 75.169 | µg/L | 75.169 | ppb | 17:03:27 |
| 2 | Sr 421.552† | 46.5 | 5.4 | 0.0561 | µg/L | 0.0561 | ppb | 17:03:27 |
| 2 | Sc 361.383 | 2012770.6 | 2012770.6 | 105.39 | % | | | 17:04:56 |
| 2 | Y 371.029 | 1377597.1 | 1377597.1 | 105.17 | % | | | 17:04:56 |
| 2 | Ag 328.068† | -578.5 | 15.6 | 0.1231 | µg/L | 0.1231 | ppb | 17:05:01 |
| 2 | As 188.979† | 2.2 | 1.0 | 1.9088 | µg/L | 1.9088 | ppb | 17:05:22 |
| 2 | B 249.677† | 310.5 | -36.9 | -1.6105 | µg/L | -1.6105 | ppb | 17:05:22 |
| 2 | Ba 233.527† | -26.6 | 0.8 | 0.0202 | µg/L | 0.0202 | ppb | 17:05:22 |
| 2 | Be 313.107† | -3607.4 | 17.5 | 0.0114 | µg/L | 0.0114 | ppb | 17:05:01 |
| 2 | Cd 226.502† | -140.3 | 9.0 | 0.2482 | µg/L | 0.2482 | ppb | 17:05:22 |
| 2 | Co 228.616† | -20.8 | -10.9 | -0.5380 | µg/L | -0.5380 | ppb | 17:05:22 |
| 2 | Cr 267.716† | -50.1 | 4.9 | 0.1067 | µg/L | 0.1067 | ppb | 17:05:22 |
| 2 | Cu 324.752† | 2459.5 | -152.4 | -1.0650 | µg/L | -1.0650 | ppb | 17:05:01 |
| 2 | Mn 257.610† | -250.9 | 6.1 | 0.0201 | µg/L | 0.0201 | ppb | 17:05:22 |
| 2 | Mo 202.031† | -3.2 | 4.5 | 0.4823 | µg/L | 0.4823 | ppb | 17:05:22 |
| 2 | Ni 231.604† | 300.2 | -17.4 | -0.9488 | µg/L | -0.9488 | ppb | 17:05:22 |
| 2 | P 214.914† | 25.9 | -3.0 | -6.3600 | µg/L | -6.3600 | ppb | 17:05:22 |
| 2 | Pb 220.353† | 99.5 | -2.8 | -0.7298 | µg/L | -0.7298 | ppb | 17:05:22 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 20.2 | 4.3 | 19.053 µg/L | 19.053 ppb | | 17:05:22 |
| 2 | Sb 206.836† | 24.6 | -3.6 | -3.5810 µg/L | -3.5810 ppb | | 17:05:22 |
| 2 | Se 196.026† | 10.7 | -5.7 | -8.7427 µg/L | -8.7427 ppb | | 17:05:22 |
| 2 | SiO2† | 1253.5 | -60.7 | -13.065 µg/L | -13.065 ppb | | 17:05:01 |
| 2 | Si 251.611† | 291.0 | -36.8 | -3.0237 µg/L | -3.0237 ppb | | 17:05:22 |
| 2 | Sn 189.927† | -0.9 | -0.0 | -0.0009 µg/L | -0.0009 ppb | | 17:05:22 |
| 2 | Ti 334.940† | 142.1 | 18.7 | 0.0441 µg/L | 0.0441 ppb | | 17:05:01 |
| 2 | Tl 190.801† | -21.2 | 4.2 | 5.8568 µg/L | 5.8568 ppb | | 17:05:22 |
| 2 | U 409.014† | -66.1 | -9.1 | -0.8270 µg/L | -0.8270 ppb | | 17:05:01 |
| 2 | V 292.402† | -52.0 | -5.1 | -0.0519 µg/L | -0.0519 ppb | | 17:05:01 |
| 2 | Zn 213.857† | 477.8 | -22.2 | -0.5493 µg/L | -0.5493 ppb | | 17:05:22 |
| 3 | Sc RADIAL | 56062.3 | 56062.3 | 103 % | | | 17:03:53 |
| 3 | Al 396.153Radial† | -13.3 | -2.8 | -2.1100 µg/L | -2.1100 ppb | | 17:03:53 |
| 3 | Ca 317.933Radial† | 193.5 | 9.2 | 8.6834 µg/L | 8.6834 ppb | | 17:04:13 |
| 3 | Fe 238.204 Radial† | 13.9 | -1.0 | -8.5236 µg/L | -8.5236 ppb | | 17:04:13 |
| 3 | K 766.490 Radial† | 145.6 | 13.3 | 9.4734 µg/L | 9.4734 ppb | | 17:03:53 |
| 3 | Mg 279.077 IEC† | 12.4 | 0.8 | 7.7063 µg/L | 7.7063 ppb | | 17:04:13 |
| 3 | Na 589.592 Radial† | 762.5 | 200.4 | 65.960 µg/L | 65.960 ppb | | 17:03:53 |
| 3 | Sr 421.552† | 41.6 | 1.0 | 0.0099 µg/L | 0.0099 ppb | | 17:03:53 |
| 3 | Sc 361.383 | 1996457.8 | 1996457.8 | 104.54 % | | | 17:05:28 |
| 3 | Y 371.029 | 1367454.7 | 1367454.7 | 104.39 % | | | 17:05:28 |
| 3 | Ag 328.068† | -552.2 | 36.3 | 0.2878 µg/L | 0.2878 ppb | | 17:05:33 |
| 3 | As 188.979† | -1.4 | -2.4 | -4.7806 µg/L | -4.7806 ppb | | 17:05:54 |
| 3 | B 249.677† | 316.6 | -28.6 | -1.2466 µg/L | -1.2466 ppb | | 17:05:54 |
| 3 | Ba 233.527† | -26.5 | 0.6 | 0.0163 µg/L | 0.0163 ppb | | 17:05:54 |
| 3 | Be 313.107† | -3498.2 | 94.1 | 0.0615 µg/L | 0.0615 ppb | | 17:05:33 |
| 3 | Cd 226.502† | -139.5 | 8.7 | 0.2407 µg/L | 0.2407 ppb | | 17:05:54 |
| 3 | Co 228.616† | -2.0 | 6.9 | 0.3417 µg/L | 0.3417 ppb | | 17:05:54 |
| 3 | Cr 267.716† | -37.2 | 16.7 | 0.3684 µg/L | 0.3684 ppb | | 17:05:54 |
| 3 | Cu 324.752† | 2465.1 | -128.0 | -0.8950 µg/L | -0.8950 ppb | | 17:05:33 |
| 3 | Mn 257.610† | -235.5 | 18.8 | 0.0637 µg/L | 0.0637 ppb | | 17:05:54 |
| 3 | Mo 202.031† | 0.7 | 8.2 | 0.8795 µg/L | 0.8795 ppb | | 17:05:54 |
| 3 | Ni 231.604† | 298.8 | -16.4 | -0.8963 µg/L | -0.8963 ppb | | 17:05:54 |
| 3 | P 214.914† | 31.0 | 2.0 | 4.4888 µg/L | 4.4888 ppb | | 17:05:54 |
| 3 | Pb 220.353† | 112.9 | 10.8 | 2.8917 µg/L | 2.8917 ppb | | 17:05:54 |
| 3 | S 181.975 Axial† | 16.6 | 1.1 | 4.7192 µg/L | 4.7192 ppb | | 17:05:54 |
| 3 | Sb 206.836† | 24.2 | -3.9 | -3.7807 µg/L | -3.7807 ppb | | 17:05:54 |
| 3 | Se 196.026† | 10.9 | -5.4 | -8.2970 µg/L | -8.2970 ppb | | 17:05:54 |
| 3 | SiO2† | 1240.9 | -63.0 | -13.561 µg/L | -13.561 ppb | | 17:05:33 |
| 3 | Si 251.611† | 299.0 | -26.9 | -2.2074 µg/L | -2.2074 ppb | | 17:05:54 |
| 3 | Sn 189.927† | 0.3 | 1.1 | 0.5288 µg/L | 0.5288 ppb | | 17:05:54 |
| 3 | Ti 334.940† | 59.1 | -59.6 | -0.1438 µg/L | -0.1438 ppb | | 17:05:33 |
| 3 | Tl 190.801† | -24.5 | 0.9 | 1.2389 µg/L | 1.2389 ppb | | 17:05:54 |
| 3 | U 409.014† | -14.3 | 40.0 | 3.6190 µg/L | 3.6190 ppb | | 17:05:33 |
| 3 | V 292.402† | -38.2 | 7.6 | 0.0916 µg/L | 0.0916 ppb | | 17:05:33 |
| 3 | Zn 213.857† | 475.0 | -21.1 | -0.5227 µg/L | -0.5227 ppb | | 17:05:54 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 2012821.6 | 105.39 | % | 0.858 | | | | 0.81% |
| Sc RADIAL | 56304.4 | 103 | % | 0.4 | | | | 0.39% |
| Y 371.029 | 1377998.2 | 105.20 | % | 0.821 | | | | 0.78% |
| Ag 328.068† | 19.7 | 0.1572 | µg/L | 0.11730 | 0.1572 | ppb | 0.11730 | 74.62% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -1.1 | -0.8207 | µg/L | 14.45235 | -0.8207 | ppb | 14.45235 | >999.9% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.1 | -2.0804 | µg/L | 3.52609 | -2.0804 | ppb | 3.52609 | 169.49% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -30.5 | -1.3329 | µg/L | 0.24603 | -1.3329 | ppb | 0.24603 | 18.46% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 2.1 | 0.0547 | µg/L | 0.06331 | 0.0547 | ppb | 0.06331 | 115.64% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 65.3 | 0.0426 | µg/L | 0.02720 | 0.0426 | ppb | 0.02720 | 63.83% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 9.6 | 9.0232 | µg/L | 2.68752 | 9.0232 | ppb | 2.68752 | 29.78% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 5.7 | 0.1549 | µg/L | 0.15521 | 0.1549 | ppb | 0.15521 | 100.22% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -2.5 | -0.1230 | µg/L | 0.44196 | -0.1230 | ppb | 0.44196 | 359.31% |

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.1      0.2228 µg/L       0.13336      0.2228 ppb        0.13336  59.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -138.9     -0.9698 µg/L       0.08678     -0.9698 ppb        0.08678   8.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      2.3437 µg/L      14.27846      2.3437 ppb       14.27846 609.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        38.9      27.645 µg/L       22.7308      27.645 ppb        22.7308  82.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1      19.874 µg/L       17.5054      19.874 ppb        17.5054  88.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.6      0.0396 µg/L       0.02217      0.0396 ppb        0.02217  55.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.0      0.5297 µg/L       0.32865      0.5297 ppb        0.32865  62.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      212.1      69.819 µg/L        4.7822      69.819 ppb         4.7822   6.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -16.7     -0.9128 µg/L       0.03120     -0.9128 ppb        0.03120   3.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.7      1.6710 µg/L       7.05748      1.6710 ppb        7.05748 422.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.1472 µg/L       2.42781      0.1472 ppb        2.42781 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.3      14.607 µg/L        8.5775      14.607 ppb         8.5775  58.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.1     -3.0247 µg/L       1.14085     -3.0247 ppb        1.14085  37.72%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9     -6.0037 µg/L       4.36372     -6.0037 ppb        4.36372  72.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -70.3     -15.131 µg/L        3.1599     -15.131 ppb         3.1599  20.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -35.6     -2.9252 µg/L       0.67407     -2.9252 ppb        0.67407  23.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.2671 µg/L       0.95712     -0.2671 ppb        0.95712 358.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -0.4     -0.0043 µg/L       0.06861     -0.0043 ppb        0.06861 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -4.5     -0.0122 µg/L       0.11438     -0.0122 ppb        0.11438 935.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      4.0021 µg/L       2.43930      4.0021 ppb        2.43930  60.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                5.9      0.5309 µg/L       2.68081      0.5309 ppb        2.68081 504.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               11.1      0.1233 µg/L       0.19295      0.1233 ppb        0.19295 156.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.0     -0.5458 µg/L       0.02154     -0.5458 ppb        0.02154   3.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 17:27:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 59035.7 | 59035.7 | 108 | % | | | 17:28:20 |
| 1 | Al 396.153Radial† | 6783.5 | 6281.0 | 4671.2 | µg/L | 4671.2 | ppb | 17:28:41 |
| 1 | Ca 317.933Radial† | 5601.2 | 4998.8 | 4706.7 | µg/L | 4706.7 | ppb | 17:28:41 |
| 1 | Fe 238.204 Radial† | 616.0 | 555.0 | 4714.2 | µg/L | 4714.2 | ppb | 17:28:41 |
| 1 | K 766.490 Radial† | 7145.2 | 6476.8 | 4603.7 | µg/L | 4603.7 | ppb | 17:28:20 |
| 1 | Mg 279.077 IEC† | 569.6 | 515.2 | 4798.3 | µg/L | 4798.3 | ppb | 17:28:41 |
| 1 | Na 589.592 Radial† | 30872.0 | 27997.1 | 9216.7 | µg/L | 9216.7 | ppb | 17:28:20 |
| 1 | Sr 421.552† | 47604.8 | 43967.8 | 455.78 | µg/L | 455.78 | ppb | 17:28:20 |
| 1 | Sc 361.383 | 2041194.6 | 2041194.6 | 106.88 | % | | | 17:29:44 |
| 1 | Y 371.029 | 1394791.7 | 1394791.7 | 106.48 | % | | | 17:29:44 |
| 1 | Ag 328.068† | 63072.7 | 59578.4 | 476.23 | µg/L | 476.23 | ppb | 17:29:50 |
| 1 | As 188.979† | 267.6 | 249.3 | 486.27 | µg/L | 486.27 | ppb | 17:30:10 |
| 1 | B 249.677† | 11989.2 | 10886.2 | 474.07 | µg/L | 474.07 | ppb | 17:29:50 |
| 1 | Ba 233.527† | 19747.0 | 18502.3 | 482.64 | µg/L | 482.64 | ppb | 17:29:50 |
| 1 | Be 313.107† | 767703.3 | 721740.7 | 471.16 | µg/L | 471.16 | ppb | 17:29:44 |
| 1 | Cd 226.502† | 18704.8 | 17643.2 | 486.70 | µg/L | 486.70 | ppb | 17:29:50 |
| 1 | Co 228.616† | 10605.3 | 9931.7 | 488.25 | µg/L | 488.25 | ppb | 17:29:50 |
| 1 | Cr 267.716† | 23632.0 | 22163.6 | 487.82 | µg/L | 487.82 | ppb | 17:29:50 |
| 1 | Cu 324.752† | 76228.6 | 68837.1 | 481.50 | µg/L | 481.50 | ppb | 17:29:50 |
| 1 | Mn 257.610† | 148178.1 | 138886.7 | 481.38 | µg/L | 481.38 | ppb | 17:29:44 |
| 1 | Mo 202.031† | 4955.0 | 4643.6 | 495.75 | µg/L | 495.75 | ppb | 17:30:10 |
| 1 | Ni 231.604† | 9868.1 | 8930.9 | 487.78 | µg/L | 487.78 | ppb | 17:29:50 |
| 1 | P 214.914† | 1270.5 | 1161.1 | 2447.3 | µg/L | 2447.3 | ppb | 17:30:10 |
| 1 | Pb 220.353† | 2082.6 | 1851.4 | 494.18 | µg/L | 494.18 | ppb | 17:30:10 |
| 1 | S 181.975 Axial† | 249.9 | 219.0 | 959.68 | µg/L | 959.68 | ppb | 17:30:10 |
| 1 | Sb 206.836† | 563.4 | 500.2 | 494.49 | µg/L | 494.49 | ppb | 17:30:10 |
| 1 | Se 196.026† | 362.5 | 323.3 | 500.24 | µg/L | 500.24 | ppb | 17:30:10 |
| 1 | SiO2† | 26645.9 | 23681.2 | 5099.9 | µg/L | 5099.9 | ppb | 17:29:50 |
| 1 | Si 251.611† | 31439.9 | 29103.8 | 2392.5 | µg/L | 2392.5 | ppb | 17:29:50 |
| 1 | Sn 189.927† | 1158.8 | 1085.1 | 499.11 | µg/L | 499.11 | ppb | 17:30:10 |
| 1 | Ti 334.940† | 206788.8 | 193365.5 | 464.82 | µg/L | 464.82 | ppb | 17:29:44 |
| 1 | Tl 190.801† | 353.5 | 355.1 | 501.20 | µg/L | 501.20 | ppb | 17:30:10 |
| 1 | U 409.014† | 5796.1 | 5476.7 | 494.90 | µg/L | 494.90 | ppb | 17:29:50 |
| 1 | V 292.402† | 48354.5 | 45287.0 | 488.65 | µg/L | 488.65 | ppb | 17:29:50 |
| 1 | Zn 213.857† | 21383.2 | 19531.6 | 484.30 | µg/L | 484.30 | ppb | 17:29:50 |
| 2 | Sc RADIAL | 57479.6 | 57479.6 | 105 | % | | | 17:28:46 |
| 2 | Al 396.153Radial† | 6775.5 | 6443.2 | 4792.2 | µg/L | 4792.2 | ppb | 17:29:07 |
| 2 | Ca 317.933Radial† | 5568.2 | 5107.6 | 4809.2 | µg/L | 4809.2 | ppb | 17:29:07 |
| 2 | Fe 238.204 Radial† | 613.4 | 567.9 | 4823.2 | µg/L | 4823.2 | ppb | 17:29:07 |
| 2 | K 766.490 Radial† | 7368.3 | 6867.5 | 4881.4 | µg/L | 4881.4 | ppb | 17:28:46 |
| 2 | Mg 279.077 IEC† | 569.1 | 529.1 | 4927.1 | µg/L | 4927.1 | ppb | 17:29:07 |
| 2 | Na 589.592 Radial† | 31686.3 | 29543.0 | 9725.6 | µg/L | 9725.6 | ppb | 17:28:46 |
| 2 | Sr 421.552† | 49060.1 | 46540.9 | 482.45 | µg/L | 482.45 | ppb | 17:28:46 |
| 2 | Sc 361.383 | 2046028.0 | 2046028.0 | 107.13 | % | | | 17:30:18 |
| 2 | Y 371.029 | 1397859.6 | 1397859.6 | 106.71 | % | | | 17:30:18 |
| 2 | Ag 328.068† | 62181.8 | 58607.4 | 468.48 | µg/L | 468.48 | ppb | 17:30:23 |
| 2 | As 188.979† | 270.5 | 251.3 | 490.33 | µg/L | 490.33 | ppb | 17:30:44 |
| 2 | B 249.677† | 11883.0 | 10760.6 | 468.51 | µg/L | 468.51 | ppb | 17:30:23 |
| 2 | Ba 233.527† | 19447.6 | 18179.1 | 474.21 | µg/L | 474.21 | ppb | 17:30:23 |
| 2 | Be 313.107† | 766991.4 | 719379.3 | 469.62 | µg/L | 469.62 | ppb | 17:30:18 |
| 2 | Cd 226.502† | 18417.3 | 17333.6 | 478.14 | µg/L | 478.14 | ppb | 17:30:23 |
| 2 | Co 228.616† | 10411.2 | 9727.0 | 478.18 | µg/L | 478.18 | ppb | 17:30:23 |
| 2 | Cr 267.716† | 23232.1 | 21738.1 | 478.45 | µg/L | 478.45 | ppb | 17:30:23 |
| 2 | Cu 324.752† | 75095.1 | 67610.5 | 472.94 | µg/L | 472.94 | ppb | 17:30:23 |
| 2 | Mn 257.610† | 147694.9 | 138108.1 | 478.69 | µg/L | 478.69 | ppb | 17:30:18 |
| 2 | Mo 202.031† | 4924.2 | 4604.0 | 491.52 | µg/L | 491.52 | ppb | 17:30:44 |
| 2 | Ni 231.604† | 9689.5 | 8742.4 | 477.48 | µg/L | 477.48 | ppb | 17:30:23 |
| 2 | P 214.914† | 1255.9 | 1144.7 | 2412.6 | µg/L | 2412.6 | ppb | 17:30:44 |
| 2 | Pb 220.353† | 2059.1 | 1824.8 | 487.10 | µg/L | 487.10 | ppb | 17:30:44 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 252.0 | 220.4 | 965.86 µg/L | 965.86 ppb | 17:30:44 |
| 2 | Sb 206.836† | 552.5 | 488.7 | 483.25 µg/L | 483.25 ppb | 17:30:44 |
| 2 | Se 196.026† | 360.1 | 320.3 | 495.71 µg/L | 495.71 ppb | 17:30:44 |
| 2 | SiO2† | 26270.0 | 23271.4 | 5011.6 µg/L | 5011.6 ppb | 17:30:23 |
| 2 | Si 251.611† | 31001.1 | 28624.7 | 2353.1 µg/L | 2353.1 ppb | 17:30:23 |
| 2 | Sn 189.927† | 1147.6 | 1072.1 | 493.14 µg/L | 493.14 ppb | 17:30:44 |
| 2 | Ti 334.940† | 206329.6 | 192479.8 | 462.68 µg/L | 462.68 ppb | 17:30:18 |
| 2 | Tl 190.801† | 343.3 | 344.8 | 486.80 µg/L | 486.80 ppb | 17:30:44 |
| 2 | U 409.014† | 5690.4 | 5365.3 | 484.79 µg/L | 484.79 ppb | 17:30:23 |
| 2 | V 292.402† | 47623.9 | 44498.2 | 480.19 µg/L | 480.19 ppb | 17:30:23 |
| 2 | Zn 213.857† | 21043.3 | 19167.1 | 475.24 µg/L | 475.24 ppb | 17:30:23 |
| 3 | Sc RADIAL | 58545.2 | 58545.2 | 107 % | | 17:29:12 |
| 3 | Al 396.153Radial† | 6838.5 | 6384.8 | 4750.3 µg/L | 4750.3 ppb | 17:29:33 |
| 3 | Ca 317.933Radial† | 5643.2 | 5081.3 | 4784.4 µg/L | 4784.4 ppb | 17:29:33 |
| 3 | Fe 238.204 Radial† | 621.5 | 564.8 | 4796.6 µg/L | 4796.6 ppb | 17:29:33 |
| 3 | K 766.490 Radial† | 7265.1 | 6643.9 | 4722.5 µg/L | 4722.5 ppb | 17:29:12 |
| 3 | Mg 279.077 IEC† | 574.9 | 524.6 | 4884.3 µg/L | 4884.3 ppb | 17:29:33 |
| 3 | Na 589.592 Radial† | 31113.3 | 28461.2 | 9369.5 µg/L | 9369.5 ppb | 17:29:12 |
| 3 | Sr 421.552† | 48089.7 | 44788.5 | 464.29 µg/L | 464.29 ppb | 17:29:12 |
| 3 | Sc 361.383 | 2017377.3 | 2017377.3 | 105.63 % | | 17:30:51 |
| 3 | Y 371.029 | 1378304.1 | 1378304.1 | 105.22 % | | 17:30:51 |
| 3 | Ag 328.068† | 59471.1 | 56865.5 | 454.46 µg/L | 454.46 ppb | 17:30:57 |
| 3 | As 188.979† | 229.9 | 216.5 | 422.47 µg/L | 422.47 ppb | 17:31:17 |
| 3 | B 249.677† | 11339.4 | 10403.4 | 452.85 µg/L | 452.85 ppb | 17:30:57 |
| 3 | Ba 233.527† | 18247.7 | 17301.0 | 451.29 µg/L | 451.29 ppb | 17:30:57 |
| 3 | Be 313.107† | 738207.7 | 702297.7 | 458.47 µg/L | 458.47 ppb | 17:30:51 |
| 3 | Cd 226.502† | 17185.8 | 16411.8 | 452.68 µg/L | 452.68 ppb | 17:30:57 |
| 3 | Co 228.616† | 9649.4 | 9143.9 | 449.43 µg/L | 449.43 ppb | 17:30:57 |
| 3 | Cr 267.716† | 20989.9 | 19923.4 | 438.52 µg/L | 438.52 ppb | 17:30:57 |
| 3 | Cu 324.752† | 69862.4 | 63652.3 | 445.29 µg/L | 445.29 ppb | 17:30:57 |
| 3 | Mn 257.610† | 142669.2 | 135308.3 | 469.00 µg/L | 469.00 ppb | 17:30:51 |
| 3 | Mo 202.031† | 4082.7 | 3872.6 | 413.47 µg/L | 413.47 ppb | 17:31:17 |
| 3 | Ni 231.604† | 8980.8 | 8199.9 | 447.86 µg/L | 447.86 ppb | 17:30:57 |
| 3 | P 214.914† | 1067.7 | 983.2 | 2067.7 µg/L | 2067.7 ppb | 17:31:17 |
| 3 | Pb 220.353† | 1798.7 | 1605.6 | 428.46 µg/L | 428.46 ppb | 17:31:17 |
| 3 | S 181.975 Axial† | 223.6 | 196.9 | 862.47 µg/L | 862.47 ppb | 17:31:17 |
| 3 | Sb 206.836† | 480.2 | 427.6 | 422.29 µg/L | 422.29 ppb | 17:31:17 |
| 3 | Se 196.026† | 311.3 | 278.8 | 432.49 µg/L | 432.49 ppb | 17:31:17 |
| 3 | SiO2† | 24862.0 | 22286.7 | 4799.6 µg/L | 4799.6 ppb | 17:30:57 |
| 3 | Si 251.611† | 29262.2 | 27389.5 | 2251.6 µg/L | 2251.6 ppb | 17:30:57 |
| 3 | Sn 189.927† | 942.0 | 892.7 | 410.61 µg/L | 410.61 ppb | 17:31:17 |
| 3 | Ti 334.940† | 197920.3 | 187254.0 | 450.12 µg/L | 450.12 ppb | 17:30:51 |
| 3 | Tl 190.801† | 315.4 | 322.9 | 456.18 µg/L | 456.18 ppb | 17:31:17 |
| 3 | U 409.014† | 5127.6 | 4907.9 | 443.39 µg/L | 443.39 ppb | 17:30:57 |
| 3 | V 292.402† | 43917.4 | 41620.5 | 448.79 µg/L | 448.79 ppb | 17:30:57 |
| 3 | Zn 213.857† | 19595.2 | 18075.2 | 448.15 µg/L | 448.15 ppb | 17:30:57 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 2034866.6 | 106.55 | % | 0.803 | | | | 0.75% |
| Sc RADIAL | 58353.5 | 107 | % | 1.5 | | | | 1.36% |
| Y 371.029 | 1390318.5 | 106.14 | % | 0.803 | | | | 0.76% |
| Ag 328.068† | 58350.4 | 466.39 | µg/L | 11.039 | 466.39 | ppb | 11.039 | 2.37% |
| QC value within limits for Ag 328.068 Recovery = 93.28% | | | | | | | | |
| Al 396.153Radial† | 6369.7 | 4737.9 | µg/L | 61.46 | 4737.9 | ppb | 61.46 | 1.30% |
| QC value within limits for Al 396.153Radial Recovery = 94.76% | | | | | | | | |
| As 188.979† | 239.1 | 466.36 | µg/L | 38.059 | 466.36 | ppb | 38.059 | 8.16% |
| QC value within limits for As 188.979 Recovery = 93.27% | | | | | | | | |
| B 249.677† | 10683.4 | 465.15 | µg/L | 11.003 | 465.15 | ppb | 11.003 | 2.37% |
| QC value within limits for B 249.677 Recovery = 93.03% | | | | | | | | |
| Ba 233.527† | 17994.1 | 469.38 | µg/L | 16.223 | 469.38 | ppb | 16.223 | 3.46% |
| QC value within limits for Ba 233.527 Recovery = 93.88% | | | | | | | | |
| Be 313.107† | 714472.6 | 466.42 | µg/L | 6.926 | 466.42 | ppb | 6.926 | 1.48% |
| QC value within limits for Be 313.107 Recovery = 93.28% | | | | | | | | |
| Ca 317.933Radial† | 5062.6 | 4766.7 | µg/L | 53.48 | 4766.7 | ppb | 53.48 | 1.12% |
| QC value within limits for Ca 317.933Radial Recovery = 95.33% | | | | | | | | |
| Cd 226.502† | 17129.5 | 472.51 | µg/L | 17.696 | 472.51 | ppb | 17.696 | 3.75% |
| QC value within limits for Cd 226.502 Recovery = 94.50% | | | | | | | | |
| Co 228.616† | 9600.9 | 471.95 | µg/L | 20.142 | 471.95 | ppb | 20.142 | 4.27% |

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   QC value within limits for Co 228.616  Recovery = 94.39%
Cr 267.716†            21275.0      468.26 µg/L        26.182      468.26 ppb        26.182   5.59%
   QC value within limits for Cr 267.716  Recovery = 93.65%
Cu 324.752†            66699.9      466.58 µg/L        18.924      466.58 ppb        18.924   4.06%
   QC value within limits for Cu 324.752  Recovery = 93.32%
Fe 238.204 Radial†       562.6      4778.0 µg/L         56.85      4778.0 ppb         56.85   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.56%
K 766.490 Radial†       6662.7      4735.8 µg/L        139.33      4735.8 ppb        139.33   2.94%
   QC value within limits for K 766.490 Radial  Recovery = 94.72%
Mg 279.077 IEC†          523.0      4869.9 µg/L         65.60      4869.9 ppb         65.60   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†           137434.4      476.36 µg/L         6.514      476.36 ppb         6.514   1.37%
   QC value within limits for Mn 257.610  Recovery = 95.27%
Mo 202.031†             4373.4      466.91 µg/L        46.335      466.91 ppb        46.335   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.38%
Na 589.592 Radial†     28667.1      9437.3 µg/L        261.13      9437.3 ppb        261.13   2.77%
   QC value within limits for Na 589.592 Radial  Recovery = 94.37%
Ni 231.604†             8624.4      471.04 µg/L        20.725      471.04 ppb        20.725   4.40%
   QC value within limits for Ni 231.604  Recovery = 94.21%
P 214.914†              1096.3      2309.2 µg/L        209.89      2309.2 ppb        209.89   9.09%
   QC value within limits for P 214.914  Recovery = 92.37%
Pb 220.353†             1760.6      469.91 µg/L        36.070      469.91 ppb        36.070   7.68%
   QC value within limits for Pb 220.353  Recovery = 93.98%
S 181.975 Axial†         212.1      929.34 µg/L        57.991      929.34 ppb        57.991   6.24%
   QC value within limits for S 181.975 Axial  Recovery = 92.93%
Sb 206.836†              472.2      466.68 µg/L        38.846      466.68 ppb        38.846   8.32%
   QC value within limits for Sb 206.836  Recovery = 93.34%
Se 196.026†              307.5      476.15 µg/L        37.872      476.15 ppb        37.872   7.95%
   QC value within limits for Se 196.026  Recovery = 95.23%
SiO2†                  23079.8      4970.4 µg/L        154.36      4970.4 ppb        154.36   3.11%
   QC value within limits for SiO2  Recovery = 92.95%
Si 251.611†            28372.7      2332.4 µg/L         72.71      2332.4 ppb         72.71   3.12%
   QC value within limits for Si 251.611  Recovery = 93.30%
Sn 189.927†             1016.6      467.62 µg/L        49.463      467.62 ppb        49.463  10.58%
   QC value within limits for Sn 189.927  Recovery = 93.52%
Sr 421.552†            45099.0      467.50 µg/L        13.625      467.50 ppb        13.625   2.91%
   QC value within limits for Sr 421.552  Recovery = 93.50%
Ti 334.940†           191033.1      459.21 µg/L         7.946      459.21 ppb         7.946   1.73%
   QC value within limits for Ti 334.940  Recovery = 91.84%
Tl 190.801†              340.9      481.40 µg/L        22.992      481.40 ppb        22.992   4.78%
   QC value within limits for Tl 190.801  Recovery = 96.28%
U 409.014†              5250.0      474.36 µg/L        27.295      474.36 ppb        27.295   5.75%
   QC value within limits for U 409.014  Recovery = 94.87%
V 292.402†             43801.9      472.54 µg/L        21.006      472.54 ppb        21.006   4.45%
   QC value within limits for V 292.402  Recovery = 94.51%
Zn 213.857†            18924.6      469.23 µg/L        18.806      469.23 ppb        18.806   4.01%
   QC value within limits for Zn 213.857  Recovery = 93.85%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:31:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 57249.4 | 57249.4 | 105 | % | | | 17:32:01 |
| 1 | Al 396.153Radial† | -19.1 | -8.1 | -6.0314 | µg/L | -6.0314 | ppb | 17:32:01 |
| 1 | Ca 317.933Radial† | 186.6 | -1.3 | -1.1941 | µg/L | -1.1941 | ppb | 17:32:21 |
| 1 | Fe 238.204 Radial† | 16.2 | 0.9 | 8.0275 | µg/L | 8.0275 | ppb | 17:32:21 |
| 1 | K 766.490 Radial† | 205.8 | 67.8 | 48.166 | µg/L | 48.166 | ppb | 17:32:01 |
| 1 | Mg 279.077 IEC† | 11.8 | -0.0 | -0.3578 | µg/L | -0.3578 | ppb | 17:32:21 |
| 1 | Na 589.592 Radial† | 713.1 | 137.9 | 45.390 | µg/L | 45.390 | ppb | 17:32:01 |
| 1 | Sr 421.552† | 47.1 | 5.3 | 0.0553 | µg/L | 0.0553 | ppb | 17:32:01 |
| 1 | Sc 361.383 | 2021263.0 | 2021263.0 | 105.83 | % | | | 17:33:23 |
| 1 | Y 371.029 | 1385458.4 | 1385458.4 | 105.77 | % | | | 17:33:23 |
| 1 | Ag 328.068† | -548.3 | 46.5 | 0.3696 | µg/L | 0.3696 | ppb | 17:33:29 |
| 1 | As 188.979† | -3.1 | -4.1 | -8.0437 | µg/L | -8.0437 | ppb | 17:33:50 |
| 1 | B 249.677† | 328.8 | -20.8 | -0.9109 | µg/L | -0.9109 | ppb | 17:33:50 |
| 1 | Ba 233.527† | -23.9 | 3.4 | 0.0895 | µg/L | 0.0895 | ppb | 17:33:50 |
| 1 | Be 313.107† | -3534.2 | 101.1 | 0.0660 | µg/L | 0.0660 | ppb | 17:33:29 |
| 1 | Cd 226.502† | -135.6 | 14.0 | 0.3833 | µg/L | 0.3833 | ppb | 17:33:50 |
| 1 | Co 228.616† | -7.8 | 1.5 | 0.0715 | µg/L | 0.0715 | ppb | 17:33:50 |
| 1 | Cr 267.716† | -39.7 | 14.9 | 0.3275 | µg/L | 0.3275 | ppb | 17:33:29 |
| 1 | Cu 324.752† | 2441.6 | -179.0 | -1.2495 | µg/L | -1.2495 | ppb | 17:33:29 |
| 1 | Mn 257.610† | -227.7 | 28.9 | 0.1013 | µg/L | 0.1013 | ppb | 17:33:50 |
| 1 | Mo 202.031† | -11.3 | -3.1 | -0.3352 | µg/L | -0.3352 | ppb | 17:33:50 |
| 1 | Ni 231.604† | 297.1 | -21.4 | -1.1721 | µg/L | -1.1721 | ppb | 17:33:50 |
| 1 | P 214.914† | 29.1 | -0.1 | -0.1206 | µg/L | -0.1206 | ppb | 17:33:50 |
| 1 | Pb 220.353† | 93.1 | -9.2 | -2.4716 | µg/L | -2.4716 | ppb | 17:33:50 |
| 1 | S 181.975 Axial† | 17.0 | 1.2 | 5.2600 | µg/L | 5.2600 | ppb | 17:33:50 |
| 1 | Sb 206.836† | 21.2 | -7.0 | -6.8579 | µg/L | -6.8579 | ppb | 17:33:50 |
| 1 | Se 196.026† | 17.1 | 0.4 | 0.5587 | µg/L | 0.5587 | ppb | 17:33:50 |
| 1 | SiO2† | 1257.7 | -61.7 | -13.286 | µg/L | -13.286 | ppb | 17:33:29 |
| 1 | Si 251.611† | 315.2 | -15.0 | -1.2350 | µg/L | -1.2350 | ppb | 17:33:50 |
| 1 | Sn 189.927† | -0.7 | 0.2 | 0.0875 | µg/L | 0.0875 | ppb | 17:33:50 |
| 1 | Ti 334.940† | 99.4 | -22.2 | -0.0533 | µg/L | -0.0533 | ppb | 17:33:29 |
| 1 | Tl 190.801† | -25.0 | 0.6 | 0.8769 | µg/L | 0.8769 | ppb | 17:33:50 |
| 1 | U 409.014† | -2.8 | 50.9 | 4.6107 | µg/L | 4.6107 | ppb | 17:33:29 |
| 1 | V 292.402† | -42.3 | 4.3 | 0.0496 | µg/L | 0.0496 | ppb | 17:33:29 |
| 1 | Zn 213.857† | 478.9 | -23.0 | -0.5682 | µg/L | -0.5682 | ppb | 17:33:50 |
| 2 | Sc RADIAL | 57058.0 | 57058.0 | 105 | % | | | 17:32:27 |
| 2 | Al 396.153Radial† | -2.2 | 8.1 | 5.9887 | µg/L | 5.9887 | ppb | 17:32:27 |
| 2 | Ca 317.933Radial† | 185.4 | -1.8 | -1.6973 | µg/L | -1.6973 | ppb | 17:32:47 |
| 2 | Fe 238.204 Radial† | 16.9 | 1.6 | 13.808 | µg/L | 13.808 | ppb | 17:32:47 |
| 2 | K 766.490 Radial† | 159.2 | 23.8 | 16.947 | µg/L | 16.947 | ppb | 17:32:27 |
| 2 | Mg 279.077 IEC† | 16.4 | 4.4 | 41.355 | µg/L | 41.355 | ppb | 17:32:47 |
| 2 | Na 589.592 Radial† | 724.2 | 150.8 | 49.634 | µg/L | 49.634 | ppb | 17:32:27 |
| 2 | Sr 421.552† | -4.4 | -43.8 | -0.4540 | µg/L | -0.4540 | ppb | 17:32:27 |
| 2 | Sc 361.383 | 2001081.9 | 2001081.9 | 104.78 | % | | | 17:33:56 |
| 2 | Y 371.029 | 1372125.9 | 1372125.9 | 104.75 | % | | | 17:33:56 |
| 2 | Ag 328.068† | -553.2 | 36.5 | 0.2946 | µg/L | 0.2946 | ppb | 17:34:01 |
| 2 | As 188.979† | -0.6 | -1.7 | -3.3761 | µg/L | -3.3761 | ppb | 17:34:22 |
| 2 | B 249.677† | 320.5 | -25.5 | -1.1231 | µg/L | -1.1231 | ppb | 17:34:22 |
| 2 | Ba 233.527† | -11.0 | 15.5 | 0.4048 | µg/L | 0.4048 | ppb | 17:34:22 |
| 2 | Be 313.107† | -3526.3 | 74.9 | 0.0489 | µg/L | 0.0489 | ppb | 17:34:01 |
| 2 | Cd 226.502† | -133.8 | 14.4 | 0.3950 | µg/L | 0.3950 | ppb | 17:34:22 |
| 2 | Co 228.616† | -11.0 | -1.6 | -0.0801 | µg/L | -0.0801 | ppb | 17:34:22 |
| 2 | Cr 267.716† | -44.3 | 10.1 | 0.2231 | µg/L | 0.2231 | ppb | 17:34:01 |
| 2 | Cu 324.752† | 2455.1 | -143.0 | -0.9967 | µg/L | -0.9967 | ppb | 17:34:01 |
| 2 | Mn 257.610† | -230.3 | 24.3 | 0.0842 | µg/L | 0.0842 | ppb | 17:34:22 |
| 2 | Mo 202.031† | -2.3 | 5.3 | 0.5710 | µg/L | 0.5710 | ppb | 17:34:22 |
| 2 | Ni 231.604† | 304.4 | -11.7 | -0.6402 | µg/L | -0.6402 | ppb | 17:34:22 |
| 2 | P 214.914† | 29.3 | 0.4 | 0.8548 | µg/L | 0.8548 | ppb | 17:34:22 |
| 2 | Pb 220.353† | 101.4 | -0.5 | -0.1165 | µg/L | -0.1165 | ppb | 17:34:22 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 19.4 | 3.7 | 16.024 µg/L | 16.024 ppb | 17:34:22 |
| 2 | Sb 206.836† | 27.6 | -0.6 | -0.5726 µg/L | -0.5726 ppb | 17:34:22 |
| 2 | Se 196.026† | 16.9 | 0.3 | 0.5139 µg/L | 0.5139 ppb | 17:34:22 |
| 2 | SiO2† | 1231.1 | -75.1 | -16.163 µg/L | -16.163 ppb | 17:34:01 |
| 2 | Si 251.611† | 308.3 | -18.6 | -1.5330 µg/L | -1.5330 ppb | 17:34:22 |
| 2 | Sn 189.927† | -2.5 | -1.5 | -0.6783 µg/L | -0.6783 ppb | 17:34:22 |
| 2 | Ti 334.940† | 155.7 | 32.5 | 0.0749 µg/L | 0.0749 ppb | 17:34:01 |
| 2 | Tl 190.801† | -24.6 | 0.8 | 1.0677 µg/L | 1.0677 ppb | 17:34:22 |
| 2 | U 409.014† | -70.7 | -13.8 | -1.2553 µg/L | -1.2553 ppb | 17:34:01 |
| 2 | V 292.402† | 13.1 | 56.7 | 0.6099 µg/L | 0.6099 ppb | 17:34:01 |
| 2 | Zn 213.857† | 482.3 | -15.3 | -0.3800 µg/L | -0.3800 ppb | 17:34:22 |
| 3 | Sc RADIAL | 57391.7 | 57391.7 | 105 % | | 17:32:53 |
| 3 | Al 396.153Radial† | -24.1 | -12.7 | -9.5161 µg/L | -9.5161 ppb | 17:32:53 |
| 3 | Ca 317.933Radial† | 189.2 | 0.7 | 0.6854 µg/L | 0.6854 ppb | 17:33:13 |
| 3 | Fe 238.204 Radial† | 14.2 | -1.0 | -8.3318 µg/L | -8.3318 ppb | 17:33:13 |
| 3 | K 766.490 Radial† | 170.0 | 33.2 | 23.601 µg/L | 23.601 ppb | 17:32:53 |
| 3 | Mg 279.077 IEC† | 13.6 | 1.6 | 15.113 µg/L | 15.113 ppb | 17:33:13 |
| 3 | Na 589.592 Radial† | 706.7 | 130.1 | 42.833 µg/L | 42.833 ppb | 17:32:53 |
| 3 | Sr 421.552† | 21.4 | -19.2 | -0.1993 µg/L | -0.1993 ppb | 17:32:53 |
| 3 | Sc 361.383 | 2035877.5 | 2035877.5 | 106.60 % | | 17:34:28 |
| 3 | Y 371.029 | 1396783.1 | 1396783.1 | 106.63 % | | 17:34:28 |
| 3 | Ag 328.068† | -558.0 | 41.1 | 0.3273 µg/L | 0.3273 ppb | 17:34:33 |
| 3 | As 188.979† | -5.7 | -6.5 | -12.714 µg/L | -12.714 ppb | 17:34:54 |
| 3 | B 249.677† | 310.2 | -40.5 | -1.7628 µg/L | -1.7628 ppb | 17:34:54 |
| 3 | Ba 233.527† | -23.8 | 3.7 | 0.0975 µg/L | 0.0975 ppb | 17:34:54 |
| 3 | Be 313.107† | -3295.5 | 348.9 | 0.2278 µg/L | 0.2278 ppb | 17:34:33 |
| 3 | Cd 226.502† | -134.4 | 16.1 | 0.4439 µg/L | 0.4439 ppb | 17:34:54 |
| 3 | Co 228.616† | -16.8 | -6.9 | -0.3385 µg/L | -0.3385 ppb | 17:34:54 |
| 3 | Cr 267.716† | -31.9 | 22.4 | 0.4933 µg/L | 0.4933 ppb | 17:34:33 |
| 3 | Cu 324.752† | 2431.1 | -205.5 | -1.4364 µg/L | -1.4364 ppb | 17:34:33 |
| 3 | Mn 257.610† | -224.1 | 33.9 | 0.1156 µg/L | 0.1156 ppb | 17:34:54 |
| 3 | Mo 202.031† | 2.2 | 9.6 | 1.0266 µg/L | 1.0266 ppb | 17:34:54 |
| 3 | Ni 231.604† | 311.7 | -9.8 | -0.5337 µg/L | -0.5337 ppb | 17:34:54 |
| 3 | P 214.914† | 26.4 | -2.8 | -5.9346 µg/L | -5.9346 ppb | 17:34:54 |
| 3 | Pb 220.353† | 98.3 | -5.0 | -1.3370 µg/L | -1.3370 ppb | 17:34:54 |
| 3 | S 181.975 Axial† | 14.7 | -1.0 | -4.4979 µg/L | -4.4979 ppb | 17:34:54 |
| 3 | Sb 206.836† | 25.7 | -2.9 | -2.8125 µg/L | -2.8125 ppb | 17:34:54 |
| 3 | Se 196.026† | 12.1 | -4.5 | -6.8217 µg/L | -6.8217 ppb | 17:34:54 |
| 3 | SiO2† | 1207.8 | -117.0 | -25.202 µg/L | -25.202 ppb | 17:34:33 |
| 3 | Si 251.611† | 320.7 | -12.0 | -0.9854 µg/L | -0.9854 ppb | 17:34:54 |
| 3 | Sn 189.927† | 3.6 | 4.2 | 1.9540 µg/L | 1.9540 ppb | 17:34:54 |
| 3 | Ti 334.940† | 152.2 | 26.6 | 0.0629 µg/L | 0.0629 ppb | 17:34:33 |
| 3 | Tl 190.801† | -31.1 | -4.8 | -6.7573 µg/L | -6.7573 ppb | 17:34:54 |
| 3 | U 409.014† | 18.4 | 70.9 | 6.4223 µg/L | 6.4223 ppb | 17:34:33 |
| 3 | V 292.402† | -21.9 | 23.7 | 0.2672 µg/L | 0.2672 ppb | 17:34:33 |
| 3 | Zn 213.857† | 481.8 | -23.6 | -0.5847 µg/L | -0.5847 ppb | 17:34:54 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 2019407.5 | 105.74 | % | 0.915 | | | | 0.87% |
| Sc RADIAL | 57233.0 | 105 | % | 0.3 | | | | 0.29% |
| Y 371.029 | 1384789.1 | 105.72 | % | 0.942 | | | | 0.89% |
| Ag 328.068† | 41.4 | 0.3305 | µg/L | 0.03757 | 0.3305 | ppb | 0.03757 | 11.37% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -4.3 | -3.1863 | µg/L | 8.13450 | -3.1863 | ppb | 8.13450 | 255.30% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -4.1 | -8.0447 | µg/L | 4.66908 | -8.0447 | ppb | 4.66908 | 58.04% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -28.9 | -1.2656 | µg/L | 0.44348 | -1.2656 | ppb | 0.44348 | 35.04% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 7.6 | 0.1973 | µg/L | 0.17977 | 0.1973 | ppb | 0.17977 | 91.14% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 175.0 | 0.1143 | µg/L | 0.09874 | 0.1143 | ppb | 0.09874 | 86.42% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -0.8 | -0.7353 | µg/L | 1.25585 | -0.7353 | ppb | 1.25585 | 170.79% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 14.8 | 0.4074 | µg/L | 0.03216 | 0.4074 | ppb | 0.03216 | 7.89% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -2.4 | -0.1157 | µg/L | 0.20732 | -0.1157 | ppb | 0.20732 | 179.23% |

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.8      0.3480 µg/L       0.13629      0.3480 ppb        0.13629  39.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -175.8     -1.2276 µg/L       0.22068     -1.2276 ppb        0.22068  17.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      4.5012 µg/L      11.48343      4.5012 ppb       11.48343 255.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          41.6      29.571 µg/L       16.4438      29.571 ppb        16.4438  55.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.0      18.703 µg/L       21.0870      18.703 ppb        21.0870 112.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                29.0      0.1004 µg/L       0.01570      0.1004 ppb        0.01570  15.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.9      0.4208 µg/L       0.69318      0.4208 ppb        0.69318 164.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        139.6      45.952 µg/L        3.4354      45.952 ppb         3.4354   7.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.3     -0.7820 µg/L       0.34199     -0.7820 ppb        0.34199  43.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.9     -1.7335 µg/L       3.67082     -1.7335 ppb        3.67082 211.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.9     -1.3084 µg/L       1.17784     -1.3084 ppb        1.17784  90.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      5.5955 µg/L      10.26528      5.5955 ppb       10.26528 183.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.5     -3.4143 µg/L       3.18555     -3.4143 ppb        3.18555  93.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -1.9164 µg/L       4.24816     -1.9164 ppb        4.24816 221.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -84.6     -18.217 µg/L        6.2180     -18.217 ppb         6.2180  34.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -15.2     -1.2511 µg/L       0.27411     -1.2511 ppb        0.27411  21.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.0      0.4544 µg/L       1.35398      0.4544 ppb        1.35398 297.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -19.2     -0.1993 µg/L       0.25463     -0.1993 ppb        0.25463 127.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.3      0.0282 µg/L       0.07081      0.0282 ppb        0.07081 251.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.6042 µg/L       4.46370     -1.6042 ppb        4.46370 278.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 36.0      3.2592 µg/L       4.01326      3.2592 ppb        4.01326 123.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.2      0.3089 µg/L       0.28245      0.3089 ppb        0.28245  91.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.6     -0.5110 µg/L       0.11370     -0.5110 ppb        0.11370  22.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:03:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 57726.1 | 57726.1 | 106 | % | | | 18:04:22 |
| 1 | Al 396.153Radial† | 6766.7 | 6407.4 | 4765.2 | µg/L | 4765.2 | ppb | 18:04:22 |
| 1 | Ca 317.933Radial† | 5597.5 | 5112.8 | 4814.0 | µg/L | 4814.0 | ppb | 18:04:43 |
| 1 | Fe 238.204 Radial† | 618.0 | 569.7 | 4839.6 | µg/L | 4839.6 | ppb | 18:04:43 |
| 1 | K 766.490 Radial† | 7228.2 | 6705.1 | 4766.0 | µg/L | 4766.0 | ppb | 18:04:22 |
| 1 | Mg 279.077 IEC† | 567.3 | 525.0 | 4889.6 | µg/L | 4889.6 | ppb | 18:04:43 |
| 1 | Na 589.592 Radial† | 31079.1 | 28840.4 | 9494.4 | µg/L | 9494.4 | ppb | 18:04:22 |
| 1 | Sr 421.552† | 47930.5 | 45274.1 | 469.32 | µg/L | 469.32 | ppb | 18:04:22 |
| 1 | Sc 361.383 | 1995865.2 | 1995865.2 | 104.50 | % | | | 18:05:46 |
| 1 | Y 371.029 | 1362757.5 | 1362757.5 | 104.03 | % | | | 18:05:46 |
| 1 | Ag 328.068† | 63483.9 | 61312.1 | 490.10 | µg/L | 490.10 | ppb | 18:05:52 |
| 1 | As 188.979† | 273.1 | 260.2 | 507.53 | µg/L | 507.53 | ppb | 18:06:12 |
| 1 | B 249.677† | 12082.3 | 11230.0 | 489.06 | µg/L | 489.06 | ppb | 18:05:52 |
| 1 | Ba 233.527† | 19988.9 | 19153.3 | 499.62 | µg/L | 499.62 | ppb | 18:05:52 |
| 1 | Be 313.107† | 781981.3 | 751717.1 | 490.73 | µg/L | 490.73 | ppb | 18:05:46 |
| 1 | Cd 226.502† | 18909.7 | 18236.8 | 503.08 | µg/L | 503.08 | ppb | 18:05:52 |
| 1 | Co 228.616† | 10693.9 | 10241.8 | 503.48 | µg/L | 503.48 | ppb | 18:05:52 |
| 1 | Cr 267.716† | 23838.7 | 22863.6 | 503.22 | µg/L | 503.22 | ppb | 18:05:52 |
| 1 | Cu 324.752† | 76544.4 | 70759.2 | 494.94 | µg/L | 494.94 | ppb | 18:05:52 |
| 1 | Mn 257.610† | 150825.0 | 144568.3 | 501.07 | µg/L | 501.07 | ppb | 18:05:46 |
| 1 | Mo 202.031† | 4977.2 | 4770.3 | 509.27 | µg/L | 509.27 | ppb | 18:06:12 |
| 1 | Ni 231.604† | 9935.5 | 9205.0 | 502.75 | µg/L | 502.75 | ppb | 18:05:52 |
| 1 | P 214.914† | 1265.8 | 1183.6 | 2494.1 | µg/L | 2494.1 | ppb | 18:06:12 |
| 1 | Pb 220.353† | 2092.9 | 1905.5 | 508.60 | µg/L | 508.60 | ppb | 18:06:12 |
| 1 | S 181.975 Axial† | 254.0 | 228.2 | 999.80 | µg/L | 999.80 | ppb | 18:06:12 |
| 1 | Sb 206.836† | 555.5 | 504.6 | 498.91 | µg/L | 498.91 | ppb | 18:06:12 |
| 1 | Se 196.026† | 366.1 | 334.5 | 517.42 | µg/L | 517.42 | ppb | 18:06:12 |
| 1 | SiO2† | 26867.3 | 24459.3 | 5267.4 | µg/L | 5267.4 | ppb | 18:05:52 |
| 1 | Si 251.611† | 31625.0 | 29949.0 | 2462.0 | µg/L | 2462.0 | ppb | 18:05:52 |
| 1 | Sn 189.927† | 1151.3 | 1102.5 | 507.11 | µg/L | 507.11 | ppb | 18:06:12 |
| 1 | Ti 334.940† | 210462.3 | 201274.9 | 483.84 | µg/L | 483.84 | ppb | 18:05:46 |
| 1 | Tl 190.801† | 351.8 | 360.9 | 509.62 | µg/L | 509.62 | ppb | 18:06:12 |
| 1 | U 409.014† | 5780.2 | 5584.7 | 504.65 | µg/L | 504.65 | ppb | 18:05:52 |
| 1 | V 292.402† | 48773.6 | 46715.6 | 504.04 | µg/L | 504.04 | ppb | 18:05:52 |
| 1 | Zn 213.857† | 21610.6 | 20203.6 | 500.98 | µg/L | 500.98 | ppb | 18:05:52 |
| 2 | Sc RADIAL | 58137.3 | 58137.3 | 107 | % | | | 18:04:48 |
| 2 | Al 396.153Radial† | 6794.0 | 6387.8 | 4750.7 | µg/L | 4750.7 | ppb | 18:04:48 |
| 2 | Ca 317.933Radial† | 5592.3 | 5070.5 | 4774.2 | µg/L | 4774.2 | ppb | 18:05:09 |
| 2 | Fe 238.204 Radial† | 618.1 | 565.7 | 4805.7 | µg/L | 4805.7 | ppb | 18:05:09 |
| 2 | K 766.490 Radial† | 7287.3 | 6712.3 | 4771.1 | µg/L | 4771.1 | ppb | 18:04:48 |
| 2 | Mg 279.077 IEC† | 568.2 | 522.1 | 4862.2 | µg/L | 4862.2 | ppb | 18:05:09 |
| 2 | Na 589.592 Radial† | 31238.6 | 28782.3 | 9475.2 | µg/L | 9475.2 | ppb | 18:04:48 |
| 2 | Sr 421.552† | 48291.3 | 45292.3 | 469.51 | µg/L | 469.51 | ppb | 18:04:48 |
| 2 | Sc 361.383 | 2007163.9 | 2007163.9 | 105.10 | % | | | 18:06:19 |
| 2 | Y 371.029 | 1370434.0 | 1370434.0 | 104.62 | % | | | 18:06:19 |
| 2 | Ag 328.068† | 63627.6 | 61107.0 | 488.46 | µg/L | 488.46 | ppb | 18:06:25 |
| 2 | As 188.979† | 273.7 | 259.2 | 505.75 | µg/L | 505.75 | ppb | 18:06:46 |
| 2 | B 249.677† | 12114.9 | 11196.0 | 487.59 | µg/L | 487.59 | ppb | 18:06:25 |
| 2 | Ba 233.527† | 19979.9 | 19037.1 | 496.59 | µg/L | 496.59 | ppb | 18:06:25 |
| 2 | Be 313.107† | 784264.0 | 749676.9 | 489.40 | µg/L | 489.40 | ppb | 18:06:19 |
| 2 | Cd 226.502† | 18871.7 | 18098.7 | 499.27 | µg/L | 499.27 | ppb | 18:06:25 |
| 2 | Co 228.616† | 10694.5 | 10184.8 | 500.67 | µg/L | 500.67 | ppb | 18:06:25 |
| 2 | Cr 267.716† | 23892.4 | 22786.3 | 501.52 | µg/L | 501.52 | ppb | 18:06:25 |
| 2 | Cu 324.752† | 76884.7 | 70670.6 | 494.32 | µg/L | 494.32 | ppb | 18:06:25 |
| 2 | Mn 257.610† | 151108.1 | 144025.3 | 499.18 | µg/L | 499.18 | ppb | 18:06:19 |
| 2 | Mo 202.031† | 4921.9 | 4690.8 | 500.79 | µg/L | 500.79 | ppb | 18:06:46 |
| 2 | Ni 231.604† | 9959.3 | 9174.2 | 501.07 | µg/L | 501.07 | ppb | 18:06:25 |
| 2 | P 214.914† | 1267.5 | 1178.4 | 2483.0 | µg/L | 2483.0 | ppb | 18:06:46 |
| 2 | Pb 220.353† | 2074.4 | 1876.6 | 500.89 | µg/L | 500.89 | ppb | 18:06:46 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 247.1 | 220.3 | 965.20 µg/L | 965.20 ppb | 18:06:46 |
| 2 | Sb 206.836† | 553.1 | 499.3 | 493.56 µg/L | 493.56 ppb | 18:06:46 |
| 2 | Se 196.026† | 362.2 | 328.8 | 508.76 µg/L | 508.76 ppb | 18:06:46 |
| 2 | SiO2† | 26954.0 | 24397.1 | 5254.0 µg/L | 5254.0 ppb | 18:06:25 |
| 2 | Si 251.611† | 31693.0 | 29843.4 | 2453.3 µg/L | 2453.3 ppb | 18:06:25 |
| 2 | Sn 189.927† | 1148.2 | 1093.4 | 502.92 µg/L | 502.92 ppb | 18:06:46 |
| 2 | Ti 334.940† | 211069.7 | 200719.2 | 482.51 µg/L | 482.51 ppb | 18:06:19 |
| 2 | Tl 190.801† | 350.2 | 357.5 | 504.86 µg/L | 504.86 ppb | 18:06:46 |
| 2 | U 409.014† | 5713.5 | 5490.1 | 496.10 µg/L | 496.10 ppb | 18:06:25 |
| 2 | V 292.402† | 48839.6 | 46515.7 | 501.83 µg/L | 501.83 ppb | 18:06:25 |
| 2 | Zn 213.857† | 21586.8 | 20064.5 | 497.52 µg/L | 497.52 ppb | 18:06:25 |
| 3 | Sc RADIAL | 57420.7 | 57420.7 | 105 % | | 18:05:14 |
| 3 | Al 396.153Radial† | 6887.1 | 6555.8 | 4877.6 µg/L | 4877.6 ppb | 18:05:14 |
| 3 | Ca 317.933Radial† | 5594.0 | 5137.6 | 4837.4 µg/L | 4837.4 ppb | 18:05:34 |
| 3 | Fe 238.204 Radial† | 619.5 | 574.3 | 4877.2 µg/L | 4877.2 ppb | 18:05:34 |
| 3 | K 766.490 Radial† | 7272.3 | 6783.4 | 4821.6 µg/L | 4821.6 ppb | 18:05:14 |
| 3 | Mg 279.077 IEC† | 569.6 | 530.1 | 4935.2 µg/L | 4935.2 ppb | 18:05:34 |
| 3 | Na 589.592 Radial† | 31447.7 | 29346.9 | 9661.1 µg/L | 9661.1 ppb | 18:05:14 |
| 3 | Sr 421.552† | 48895.8 | 46432.5 | 481.33 µg/L | 481.33 ppb | 18:05:14 |
| 3 | Sc 361.383 | 2010251.9 | 2010251.9 | 105.26 % | | 18:06:53 |
| 3 | Y 371.029 | 1371909.0 | 1371909.0 | 104.73 % | | 18:06:53 |
| 3 | Ag 328.068† | 59865.9 | 57440.1 | 459.05 µg/L | 459.05 ppb | 18:06:58 |
| 3 | As 188.979† | 229.2 | 216.7 | 422.67 µg/L | 422.67 ppb | 18:07:19 |
| 3 | B 249.677† | 11370.0 | 10470.6 | 455.76 µg/L | 455.76 ppb | 18:06:58 |
| 3 | Ba 233.527† | 18395.6 | 17502.7 | 456.55 µg/L | 456.55 ppb | 18:06:58 |
| 3 | Be 313.107† | 741644.3 | 708039.7 | 462.22 µg/L | 462.22 ppb | 18:06:53 |
| 3 | Cd 226.502† | 17275.3 | 16554.5 | 456.62 µg/L | 456.62 ppb | 18:06:58 |
| 3 | Co 228.616† | 9741.1 | 9263.3 | 455.31 µg/L | 455.31 ppb | 18:06:58 |
| 3 | Cr 267.716† | 21256.7 | 20247.3 | 445.64 µg/L | 445.64 ppb | 18:06:58 |
| 3 | Cu 324.752† | 70381.9 | 64380.2 | 450.39 µg/L | 450.39 ppb | 18:06:58 |
| 3 | Mn 257.610† | 143060.5 | 136158.7 | 471.95 µg/L | 471.95 ppb | 18:06:53 |
| 3 | Mo 202.031† | 4127.0 | 3928.4 | 419.43 µg/L | 419.43 ppb | 18:07:19 |
| 3 | Ni 231.604† | 9089.8 | 8333.5 | 455.16 µg/L | 455.16 ppb | 18:06:58 |
| 3 | P 214.914† | 1084.0 | 1002.2 | 2108.1 µg/L | 2108.1 ppb | 18:07:19 |
| 3 | Pb 220.353† | 1818.2 | 1630.2 | 435.03 µg/L | 435.03 ppb | 18:07:19 |
| 3 | S 181.975 Axial† | 224.4 | 198.4 | 869.26 µg/L | 869.26 ppb | 18:07:19 |
| 3 | Sb 206.836† | 480.4 | 429.5 | 424.14 µg/L | 424.14 ppb | 18:07:19 |
| 3 | Se 196.026† | 313.7 | 282.2 | 437.85 µg/L | 437.85 ppb | 18:07:19 |
| 3 | SiO2† | 25019.5 | 22519.8 | 4849.8 µg/L | 4849.8 ppb | 18:06:58 |
| 3 | Si 251.611† | 29405.8 | 27624.1 | 2270.8 µg/L | 2270.8 ppb | 18:06:58 |
| 3 | Sn 189.927† | 955.0 | 908.2 | 417.73 µg/L | 417.73 ppb | 18:07:19 |
| 3 | Ti 334.940† | 198942.9 | 188889.6 | 454.05 µg/L | 454.05 ppb | 18:06:53 |
| 3 | Tl 190.801† | 316.9 | 325.4 | 459.73 µg/L | 459.73 ppb | 18:07:19 |
| 3 | U 409.014† | 5179.0 | 4973.9 | 449.35 µg/L | 449.35 ppb | 18:06:58 |
| 3 | V 292.402† | 44254.0 | 42087.7 | 453.84 µg/L | 453.84 ppb | 18:06:58 |
| 3 | Zn 213.857† | 19673.0 | 18214.8 | 451.59 µg/L | 451.59 ppb | 18:06:58 |

**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 2004427.0 | 104.95 | % | 0.397 | | | | 0.38% |
| Sc RADIAL | 57761.4 | 106 | % | 0.7 | | | | 0.62% |
| Y 371.029 | 1368366.8 | 104.46 | % | 0.375 | | | | 0.36% |
| Ag 328.068† | 59953.1 | 479.20 | µg/L | 17.470 | 479.20 | ppb | 17.470 | 3.65% |
| QC value within limits for Ag 328.068 Recovery = 95.84% | | | | | | | | |
| Al 396.153Radial† | 6450.3 | 4797.9 | µg/L | 69.48 | 4797.9 | ppb | 69.48 | 1.45% |
| QC value within limits for Al 396.153Radial Recovery = 95.96% | | | | | | | | |
| As 188.979† | 245.3 | 478.65 | µg/L | 48.486 | 478.65 | ppb | 48.486 | 10.13% |
| QC value within limits for As 188.979 Recovery = 95.73% | | | | | | | | |
| B 249.677† | 10965.6 | 477.47 | µg/L | 18.814 | 477.47 | ppb | 18.814 | 3.94% |
| QC value within limits for B 249.677 Recovery = 95.49% | | | | | | | | |
| Ba 233.527† | 18564.4 | 484.26 | µg/L | 24.039 | 484.26 | ppb | 24.039 | 4.96% |
| QC value within limits for Ba 233.527 Recovery = 96.85% | | | | | | | | |
| Be 313.107† | 736477.9 | 480.78 | µg/L | 16.091 | 480.78 | ppb | 16.091 | 3.35% |
| QC value within limits for Be 313.107 Recovery = 96.16% | | | | | | | | |
| Ca 317.933Radial† | 5106.9 | 4808.5 | µg/L | 31.95 | 4808.5 | ppb | 31.95 | 0.66% |
| QC value within limits for Ca 317.933Radial Recovery = 96.17% | | | | | | | | |
| Cd 226.502† | 17630.0 | 486.32 | µg/L | 25.796 | 486.32 | ppb | 25.796 | 5.30% |
| QC value within limits for Cd 226.502 Recovery = 97.26% | | | | | | | | |
| Co 228.616† | 9896.7 | 486.49 | µg/L | 27.038 | 486.49 | ppb | 27.038 | 5.56% |

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   QC value within limits for Co 228.616  Recovery = 97.30%
Cr 267.716†            21965.7      483.46 µg/L        32.763      483.46 ppb        32.763   6.78%
   QC value within limits for Cr 267.716  Recovery = 96.69%
Cu 324.752†            68603.3      479.88 µg/L        25.545      479.88 ppb        25.545   5.32%
   QC value within limits for Cu 324.752  Recovery = 95.98%
Fe 238.204 Radial†       569.9      4840.8 µg/L         35.77      4840.8 ppb         35.77   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.82%
K 766.490 Radial†       6733.6      4786.2 µg/L         30.77      4786.2 ppb         30.77   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 95.72%
Mg 279.077 IEC†          525.8      4895.7 µg/L         36.85      4895.7 ppb         36.85   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           141584.1      490.73 µg/L        16.295      490.73 ppb        16.295   3.32%
   QC value within limits for Mn 257.610  Recovery = 98.15%
Mo 202.031†             4463.2      476.50 µg/L        49.601      476.50 ppb        49.601  10.41%
   QC value within limits for Mo 202.031  Recovery = 95.30%
Na 589.592 Radial†     28989.9      9543.6 µg/L        102.24      9543.6 ppb        102.24   1.07%
   QC value within limits for Na 589.592 Radial  Recovery = 95.44%
Ni 231.604†             8904.3      486.32 µg/L        27.004      486.32 ppb        27.004   5.55%
   QC value within limits for Ni 231.604  Recovery = 97.26%
P 214.914†              1121.4      2361.7 µg/L        219.74      2361.7 ppb        219.74   9.30%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1804.1      481.51 µg/L        40.435      481.51 ppb        40.435   8.40%
   QC value within limits for Pb 220.353  Recovery = 96.30%
S 181.975 Axial†         215.6      944.76 µg/L        67.630      944.76 ppb        67.630   7.16%
   QC value within limits for S 181.975 Axial  Recovery = 94.48%
Sb 206.836†              477.8      472.20 µg/L        41.713      472.20 ppb        41.713   8.83%
   QC value within limits for Sb 206.836  Recovery = 94.44%
Se 196.026†              315.2      488.01 µg/L        43.651      488.01 ppb        43.651   8.94%
   QC value within limits for Se 196.026  Recovery = 97.60%
SiO2†                  23792.0      5123.7 µg/L        237.37      5123.7 ppb        237.37   4.63%
   QC value within limits for SiO2  Recovery = 95.82%
Si 251.611†            29138.9      2395.4 µg/L        107.92      2395.4 ppb        107.92   4.51%
   QC value within limits for Si 251.611  Recovery = 95.81%
Sn 189.927†             1034.7      475.92 µg/L        50.437      475.92 ppb        50.437  10.60%
   QC value within limits for Sn 189.927  Recovery = 95.18%
Sr 421.552†            45666.3      473.38 µg/L         6.879      473.38 ppb         6.879   1.45%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           196961.2      473.47 µg/L        16.830      473.47 ppb        16.830   3.55%
   QC value within limits for Ti 334.940  Recovery = 94.69%
Tl 190.801†              348.0      491.40 µg/L        27.532      491.40 ppb        27.532   5.60%
   QC value within limits for Tl 190.801  Recovery = 98.28%
U 409.014†              5349.6      483.37 µg/L        29.770      483.37 ppb        29.770   6.16%
   QC value within limits for U 409.014  Recovery = 96.67%
V 292.402†             45106.3      486.57 µg/L        28.365      486.57 ppb        28.365   5.83%
   QC value within limits for V 292.402  Recovery = 97.31%
Zn 213.857†            19494.3      483.36 µg/L        27.567      483.36 ppb        27.567   5.70%
   QC value within limits for Zn 213.857  Recovery = 96.67%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:07:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56532.0 | 56532.0 | 104 | % | | | 18:08:03 |
| 1 | Al 396.153Radial† | -15.4 | -4.8 | -3.5570 | µg/L | -3.5570 | ppb | 18:08:03 |
| 1 | Ca 317.933Radial† | 184.3 | -1.2 | -1.1516 | µg/L | -1.1516 | ppb | 18:08:24 |
| 1 | Fe 238.204 Radial† | 15.7 | 0.7 | 5.7821 | µg/L | 5.7821 | ppb | 18:08:24 |
| 1 | K 766.490 Radial† | 164.9 | 30.8 | 21.873 | µg/L | 21.873 | ppb | 18:08:03 |
| 1 | Mg 279.077 IEC† | 16.1 | 4.2 | 39.497 | µg/L | 39.497 | ppb | 18:08:24 |
| 1 | Na 589.592 Radial† | 629.4 | 65.8 | 21.647 | µg/L | 21.647 | ppb | 18:08:03 |
| 1 | Sr 421.552† | 25.1 | -15.3 | -0.1589 | µg/L | -0.1589 | ppb | 18:08:03 |
| 1 | Sc 361.383 | 1970116.9 | 1970116.9 | 103.16 | % | | | 18:09:26 |
| 1 | Y 371.029 | 1351478.3 | 1351478.3 | 103.17 | % | | | 18:09:26 |
| 1 | Ag 328.068† | -586.1 | -3.7 | -0.0267 | µg/L | -0.0267 | ppb | 18:09:32 |
| 1 | As 188.979† | 0.4 | -0.7 | -1.4081 | µg/L | -1.4081 | ppb | 18:09:52 |
| 1 | B 249.677† | 319.9 | -21.4 | -0.9375 | µg/L | -0.9375 | ppb | 18:09:52 |
| 1 | Ba 233.527† | -23.6 | 3.1 | 0.0818 | µg/L | 0.0818 | ppb | 18:09:52 |
| 1 | Be 313.107† | -3504.0 | 43.7 | 0.0286 | µg/L | 0.0286 | ppb | 18:09:32 |
| 1 | Cd 226.502† | -151.5 | -4.7 | -0.1322 | µg/L | -0.1322 | ppb | 18:09:52 |
| 1 | Co 228.616† | -11.0 | -1.8 | -0.0886 | µg/L | -0.0886 | ppb | 18:09:52 |
| 1 | Cr 267.716† | -63.6 | -9.3 | -0.2036 | µg/L | -0.2036 | ppb | 18:09:32 |
| 1 | Cu 324.752† | 2393.3 | -166.0 | -1.1590 | µg/L | -1.1590 | ppb | 18:09:32 |
| 1 | Mn 257.610† | -254.5 | -2.6 | -0.0100 | µg/L | -0.0100 | ppb | 18:09:52 |
| 1 | Mo 202.031† | -8.7 | -0.9 | -0.0948 | µg/L | -0.0948 | ppb | 18:09:52 |
| 1 | Ni 231.604† | 290.0 | -21.0 | -1.1506 | µg/L | -1.1506 | ppb | 18:09:52 |
| 1 | P 214.914† | 32.8 | 4.2 | 9.1562 | µg/L | 9.1562 | ppb | 18:09:52 |
| 1 | Pb 220.353† | 95.7 | -4.4 | -1.1812 | µg/L | -1.1812 | ppb | 18:09:52 |
| 1 | S 181.975 Axial† | 14.0 | -1.2 | -5.3162 | µg/L | -5.3162 | ppb | 18:09:52 |
| 1 | Sb 206.836† | 31.3 | 3.4 | 3.3775 | µg/L | 3.3775 | ppb | 18:09:52 |
| 1 | Se 196.026† | 11.2 | -4.9 | -7.5535 | µg/L | -7.5535 | ppb | 18:09:52 |
| 1 | SiO2† | 1234.7 | -53.1 | -11.434 | µg/L | -11.434 | ppb | 18:09:32 |
| 1 | Si 251.611† | 295.0 | -26.9 | -2.2136 | µg/L | -2.2136 | ppb | 18:09:52 |
| 1 | Sn 189.927† | 1.4 | 2.3 | 1.0452 | µg/L | 1.0452 | ppb | 18:09:52 |
| 1 | Ti 334.940† | 70.3 | -48.0 | -0.1186 | µg/L | -0.1186 | ppb | 18:09:32 |
| 1 | Tl 190.801† | -29.3 | -4.1 | -5.6836 | µg/L | -5.6836 | ppb | 18:09:52 |
| 1 | U 409.014† | -64.3 | -8.7 | -0.7862 | µg/L | -0.7862 | ppb | 18:09:32 |
| 1 | V 292.402† | -16.1 | 28.6 | 0.3039 | µg/L | 0.3039 | ppb | 18:09:32 |
| 1 | Zn 213.857† | 475.3 | -14.8 | -0.3645 | µg/L | -0.3645 | ppb | 18:09:52 |
| 2 | Sc RADIAL | 55658.7 | 55658.7 | 102 | % | | | 18:08:29 |
| 2 | Al 396.153Radial† | 8.4 | 18.4 | 13.722 | µg/L | 13.722 | ppb | 18:08:29 |
| 2 | Ca 317.933Radial† | 182.4 | -0.3 | -0.2942 | µg/L | -0.2942 | ppb | 18:08:50 |
| 2 | Fe 238.204 Radial† | 17.1 | 2.3 | 19.276 | µg/L | 19.276 | ppb | 18:08:50 |
| 2 | K 766.490 Radial† | 186.5 | 54.5 | 38.722 | µg/L | 38.722 | ppb | 18:08:29 |
| 2 | Mg 279.077 IEC† | 15.0 | 3.4 | 31.500 | µg/L | 31.500 | ppb | 18:08:50 |
| 2 | Na 589.592 Radial† | 680.0 | 124.9 | 41.106 | µg/L | 41.106 | ppb | 18:08:29 |
| 2 | Sr 421.552† | 30.6 | -9.6 | -0.0993 | µg/L | -0.0993 | ppb | 18:08:29 |
| 2 | Sc 361.383 | 2007038.7 | 2007038.7 | 105.09 | % | | | 18:09:58 |
| 2 | Y 371.029 | 1377314.4 | 1377314.4 | 105.15 | % | | | 18:09:58 |
| 2 | Ag 328.068† | -493.3 | 95.1 | 0.7576 | µg/L | 0.7576 | ppb | 18:10:04 |
| 2 | As 188.979† | -1.7 | -2.7 | -5.3378 | µg/L | -5.3378 | ppb | 18:10:25 |
| 2 | B 249.677† | 329.1 | -18.3 | -0.8077 | µg/L | -0.8077 | ppb | 18:10:25 |
| 2 | Ba 233.527† | -25.2 | 2.0 | 0.0533 | µg/L | 0.0533 | ppb | 18:10:25 |
| 2 | Be 313.107† | -3351.2 | 251.6 | 0.1643 | µg/L | 0.1643 | ppb | 18:10:04 |
| 2 | Cd 226.502† | -144.2 | 4.9 | 0.1335 | µg/L | 0.1335 | ppb | 18:10:25 |
| 2 | Co 228.616† | -14.3 | -4.7 | -0.2334 | µg/L | -0.2334 | ppb | 18:10:25 |
| 2 | Cr 267.716† | -47.8 | 6.9 | 0.1524 | µg/L | 0.1524 | ppb | 18:10:04 |
| 2 | Cu 324.752† | 2466.3 | -139.3 | -0.9702 | µg/L | -0.9702 | ppb | 18:10:04 |
| 2 | Mn 257.610† | -245.5 | 10.5 | 0.0378 | µg/L | 0.0378 | ppb | 18:10:25 |
| 2 | Mo 202.031† | -7.5 | 0.4 | 0.0445 | µg/L | 0.0445 | ppb | 18:10:25 |
| 2 | Ni 231.604† | 299.7 | -17.0 | -0.9313 | µg/L | -0.9313 | ppb | 18:10:25 |
| 2 | P 214.914† | 31.3 | 2.2 | 4.7306 | µg/L | 4.7306 | ppb | 18:10:25 |
| 2 | Pb 220.353† | 108.5 | 6.1 | 1.6290 | µg/L | 1.6290 | ppb | 18:10:25 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 16.7 | 1.1 | 4.8755 µg/L | 4.8755 ppb | 18:10:25 |
| 2 | Sb 206.836† | 20.8 | -7.2 | -7.0445 µg/L | -7.0445 ppb | 18:10:25 |
| 2 | Se 196.026† | 16.5 | -0.1 | -0.1477 µg/L | -0.1477 ppb | 18:10:25 |
| 2 | SiO2† | 1217.3 | -91.6 | -19.736 µg/L | -19.736 ppb | 18:10:04 |
| 2 | Si 251.611† | 298.1 | -29.3 | -2.4046 µg/L | -2.4046 ppb | 18:10:25 |
| 2 | Sn 189.927† | 0.2 | 1.0 | 0.4758 µg/L | 0.4758 ppb | 18:10:25 |
| 2 | Ti 334.940† | 145.5 | 22.4 | 0.0513 µg/L | 0.0513 ppb | 18:10:04 |
| 2 | Tl 190.801† | -26.0 | -0.5 | -0.6548 µg/L | -0.6548 ppb | 18:10:25 |
| 2 | U 409.014† | -106.1 | -47.3 | -4.2862 µg/L | -4.2862 ppb | 18:10:04 |
| 2 | V 292.402† | -24.2 | 21.2 | 0.2243 µg/L | 0.2243 ppb | 18:10:04 |
| 2 | Zn 213.857† | 472.5 | -25.9 | -0.6440 µg/L | -0.6440 ppb | 18:10:25 |
| 3 | Sc RADIAL | 55952.9 | 55952.9 | 103 % | | 18:08:56 |
| 3 | Al 396.153Radial† | -23.9 | -13.2 | -9.8258 µg/L | -9.8258 ppb | 18:08:56 |
| 3 | Ca 317.933Radial† | 192.5 | 8.6 | 8.1332 µg/L | 8.1332 ppb | 18:09:16 |
| 3 | Fe 238.204 Radial† | 17.2 | 2.3 | 19.451 µg/L | 19.451 ppb | 18:09:16 |
| 3 | K 766.490 Radial† | 199.1 | 65.8 | 46.778 µg/L | 46.778 ppb | 18:08:56 |
| 3 | Mg 279.077 IEC† | 13.0 | 1.4 | 13.321 µg/L | 13.321 ppb | 18:09:16 |
| 3 | Na 589.592 Radial† | 622.9 | 65.7 | 21.628 µg/L | 21.628 ppb | 18:08:56 |
| 3 | Sr 421.552† | 22.5 | -17.6 | -0.1825 µg/L | -0.1825 ppb | 18:08:56 |
| 3 | Sc 361.383 | 1969215.9 | 1969215.9 | 103.11 % | | 18:10:31 |
| 3 | Y 371.029 | 1350905.5 | 1350905.5 | 103.13 % | | 18:10:31 |
| 3 | Ag 328.068† | -575.5 | 6.4 | 0.0513 µg/L | 0.0513 ppb | 18:10:36 |
| 3 | As 188.979† | -0.8 | -1.9 | -3.6705 µg/L | -3.6705 ppb | 18:10:57 |
| 3 | B 249.677† | 315.0 | -25.9 | -1.1434 µg/L | -1.1434 ppb | 18:10:57 |
| 3 | Ba 233.527† | -24.5 | 2.2 | 0.0583 µg/L | 0.0583 ppb | 18:10:57 |
| 3 | Be 313.107† | -3286.5 | 253.0 | 0.1652 µg/L | 0.1652 ppb | 18:10:36 |
| 3 | Cd 226.502† | -133.6 | 12.5 | 0.3430 µg/L | 0.3430 ppb | 18:10:57 |
| 3 | Co 228.616† | -14.1 | -4.9 | -0.2403 µg/L | -0.2403 ppb | 18:10:57 |
| 3 | Cr 267.716† | -66.1 | -11.7 | -0.2584 µg/L | -0.2584 ppb | 18:10:36 |
| 3 | Cu 324.752† | 2477.5 | -83.3 | -0.5792 µg/L | -0.5792 ppb | 18:10:36 |
| 3 | Mn 257.610† | -225.9 | 25.1 | 0.0888 µg/L | 0.0888 ppb | 18:10:57 |
| 3 | Mo 202.031† | -9.8 | -2.0 | -0.2112 µg/L | -0.2112 ppb | 18:10:57 |
| 3 | Ni 231.604† | 298.6 | -12.6 | -0.6902 µg/L | -0.6902 ppb | 18:10:57 |
| 3 | P 214.914† | 27.1 | -1.4 | -2.9216 µg/L | -2.9216 ppb | 18:10:57 |
| 3 | Pb 220.353† | 95.5 | -4.6 | -1.2298 µg/L | -1.2298 ppb | 18:10:57 |
| 3 | S 181.975 Axial† | 18.9 | 3.5 | 15.355 µg/L | 15.355 ppb | 18:10:57 |
| 3 | Sb 206.836† | 19.3 | -8.3 | -8.1417 µg/L | -8.1417 ppb | 18:10:57 |
| 3 | Se 196.026† | 11.7 | -4.5 | -6.8172 µg/L | -6.8172 ppb | 18:10:57 |
| 3 | SiO2† | 1221.9 | -65.0 | -13.993 µg/L | -13.993 ppb | 18:10:36 |
| 3 | Si 251.611† | 305.8 | -16.3 | -1.3398 µg/L | -1.3398 ppb | 18:10:57 |
| 3 | Sn 189.927† | -1.0 | -0.1 | -0.0571 µg/L | -0.0571 ppb | 18:10:57 |
| 3 | Ti 334.940† | 185.2 | 63.5 | 0.1517 µg/L | 0.1517 ppb | 18:10:36 |
| 3 | Tl 190.801† | -28.1 | -3.0 | -4.1975 µg/L | -4.1975 ppb | 18:10:57 |
| 3 | U 409.014† | -9.8 | 44.1 | 3.9892 µg/L | 3.9892 ppb | 18:10:36 |
| 3 | V 292.402† | -52.5 | -6.8 | -0.0677 µg/L | -0.0677 ppb | 18:10:36 |
| 3 | Zn 213.857† | 470.6 | -19.2 | -0.4765 µg/L | -0.4765 ppb | 18:10:57 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1982123.8 | 103.78 | % | 1.130 | | | | 1.09% |
| Sc RADIAL | 56047.9 | 103 | % | 0.8 | | | | 0.79% |
| Y 371.029 | 1359899.4 | 103.82 | % | 1.152 | | | | 1.11% |
| Ag 328.068† | 32.6 | 0.2608 | µg/L | 0.43206 | 0.2608 | ppb | 0.43206 | 165.69% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 0.1 | 0.1130 | µg/L | 12.19532 | 0.1130 | ppb | 12.19532 | >999.9% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.8 | -3.4721 | µg/L | 1.97235 | -3.4721 | ppb | 1.97235 | 56.80% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -21.9 | -0.9628 | µg/L | 0.16927 | -0.9628 | ppb | 0.16927 | 17.58% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 2.5 | 0.0645 | µg/L | 0.01519 | 0.0645 | ppb | 0.01519 | 23.57% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 182.7 | 0.1193 | µg/L | 0.07861 | 0.1193 | ppb | 0.07861 | 65.88% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 2.4 | 2.2291 | µg/L | 5.13097 | 2.2291 | ppb | 5.13097 | 230.18% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 4.3 | 0.1147 | µg/L | 0.23817 | 0.1147 | ppb | 0.23817 | 207.57% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -3.8 | -0.1875 | µg/L | 0.08565 | -0.1875 | ppb | 0.08565 | 45.69% |

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -4.7     -0.1032 µg/L       0.22302     -0.1032 ppb        0.22302 216.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -129.5     -0.9028 µg/L       0.29572     -0.9028 ppb        0.29572  32.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      14.837 µg/L        7.8419      14.837 ppb         7.8419  52.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        50.4      35.791 µg/L       12.7089      35.791 ppb        12.7089  35.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.0      28.106 µg/L       13.4141      28.106 ppb        13.4141  47.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.0       0.0389 µg/L       0.04940       0.0389 ppb        0.04940 127.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.8      -0.0872 µg/L       0.12800      -0.0872 ppb        0.12800 146.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       85.4      28.127 µg/L       11.2402      28.127 ppb        11.2402  39.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -16.9      -0.9240 µg/L       0.23026      -0.9240 ppb        0.23026  24.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7       3.6551 µg/L       6.11031       3.6551 ppb        6.11031 167.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.0      -0.2607 µg/L       1.63670      -0.2607 ppb        1.63670 627.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.1       4.9715 µg/L      10.33607       4.9715 ppb       10.33607 207.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.0      -3.9362 µg/L       6.35757      -3.9362 ppb        6.35757 161.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.2      -4.8394 µg/L       4.07986      -4.8394 ppb        4.07986  84.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -69.9     -15.054 µg/L        4.2514     -15.054 ppb         4.2514  28.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -24.2      -1.9860 µg/L       0.56769      -1.9860 ppb        0.56769  28.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.1       0.4880 µg/L       0.55125       0.4880 ppb        0.55125 112.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.2      -0.1469 µg/L       0.04288      -0.1469 ppb        0.04288  29.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              12.6       0.0281 µg/L       0.13664       0.0281 ppb        0.13664 485.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.5      -3.5120 µg/L       2.58356      -3.5120 ppb        2.58356  73.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -4.0      -0.3611 µg/L       4.15405      -0.3611 ppb        4.15405 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               14.4       0.1535 µg/L       0.19568       0.1535 ppb        0.19568 127.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -20.0      -0.4950 µg/L       0.14064      -0.4950 ppb        0.14064  28.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:32:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55441.9 | 55441.9 | 102 | % | | | 18:33:25 |
| 1 | Al 396.153Radial† | 6917.9 | 6819.8 | 5072.2 | µg/L | 5072.2 | ppb | 18:33:25 |
| 1 | Ca 317.933Radial† | 5691.9 | 5423.7 | 5106.8 | µg/L | 5106.8 | ppb | 18:33:45 |
| 1 | Fe 238.204 Radial† | 625.4 | 601.1 | 5105.5 | µg/L | 5105.5 | ppb | 18:33:45 |
| 1 | K 766.490 Radial† | 7360.4 | 7116.9 | 5058.6 | µg/L | 5058.6 | ppb | 18:33:25 |
| 1 | Mg 279.077 IEC† | 579.1 | 558.7 | 5203.2 | µg/L | 5203.2 | ppb | 18:33:45 |
| 1 | Na 589.592 Radial† | 31674.9 | 30637.4 | 10086 | µg/L | 10086 | ppb | 18:33:25 |
| 1 | Sr 421.552† | 48916.5 | 48111.6 | 498.73 | µg/L | 498.73 | ppb | 18:33:25 |
| 1 | Sc 361.383 | 1949198.7 | 1949198.7 | 102.06 | % | | | 18:34:49 |
| 1 | Y 371.029 | 1332613.7 | 1332613.7 | 101.73 | % | | | 18:34:49 |
| 1 | Ag 328.068† | 63737.9 | 63015.4 | 503.72 | µg/L | 503.72 | ppb | 18:34:54 |
| 1 | As 188.979† | 273.4 | 266.7 | 520.31 | µg/L | 520.31 | ppb | 18:35:15 |
| 1 | B 249.677† | 12085.6 | 11510.1 | 501.18 | µg/L | 501.18 | ppb | 18:34:54 |
| 1 | Ba 233.527† | 19929.9 | 19553.5 | 510.07 | µg/L | 510.07 | ppb | 18:34:54 |
| 1 | Be 313.107† | 791453.2 | 778912.4 | 508.48 | µg/L | 508.48 | ppb | 18:34:49 |
| 1 | Cd 226.502† | 18764.5 | 18527.7 | 511.09 | µg/L | 511.09 | ppb | 18:34:54 |
| 1 | Co 228.616† | 10683.8 | 10476.9 | 515.03 | µg/L | 515.03 | ppb | 18:34:54 |
| 1 | Cr 267.716† | 23886.3 | 23456.4 | 516.27 | µg/L | 516.27 | ppb | 18:34:54 |
| 1 | Cu 324.752† | 77115.4 | 73072.1 | 511.13 | µg/L | 511.13 | ppb | 18:34:54 |
| 1 | Mn 257.610† | 152507.4 | 149672.0 | 518.76 | µg/L | 518.76 | ppb | 18:34:49 |
| 1 | Mo 202.031† | 5014.5 | 4920.8 | 525.34 | µg/L | 525.34 | ppb | 18:35:15 |
| 1 | Ni 231.604† | 9902.4 | 9400.2 | 513.41 | µg/L | 513.41 | ppb | 18:34:54 |
| 1 | P 214.914† | 1289.3 | 1235.7 | 2604.5 | µg/L | 2604.5 | ppb | 18:35:15 |
| 1 | Pb 220.353† | 2098.8 | 1959.2 | 522.95 | µg/L | 522.95 | ppb | 18:35:15 |
| 1 | S 181.975 Axial† | 252.9 | 233.0 | 1020.8 | µg/L | 1020.8 | ppb | 18:35:15 |
| 1 | Sb 206.836† | 562.5 | 524.2 | 518.28 | µg/L | 518.28 | ppb | 18:35:15 |
| 1 | Se 196.026† | 361.5 | 338.4 | 523.78 | µg/L | 523.78 | ppb | 18:35:15 |
| 1 | SiO2† | 26807.5 | 25016.2 | 5387.4 | µg/L | 5387.4 | ppb | 18:34:54 |
| 1 | Si 251.611† | 31683.4 | 30730.8 | 2526.2 | µg/L | 2526.2 | ppb | 18:34:54 |
| 1 | Sn 189.927† | 1171.2 | 1148.4 | 528.25 | µg/L | 528.25 | ppb | 18:35:15 |
| 1 | Ti 334.940† | 213415.9 | 208990.5 | 502.38 | µg/L | 502.38 | ppb | 18:34:49 |
| 1 | Tl 190.801† | 344.1 | 361.4 | 510.53 | µg/L | 510.53 | ppb | 18:35:15 |
| 1 | U 409.014† | 5808.1 | 5744.4 | 519.06 | µg/L | 519.06 | ppb | 18:34:54 |
| 1 | V 292.402† | 48900.4 | 47957.2 | 517.47 | µg/L | 517.47 | ppb | 18:34:54 |
| 1 | Zn 213.857† | 21532.1 | 20621.7 | 511.32 | µg/L | 511.32 | ppb | 18:34:54 |
| 2 | Sc RADIAL | 56230.3 | 56230.3 | 103 | % | | | 18:33:51 |
| 2 | Al 396.153Radial† | 6941.0 | 6746.8 | 5018.0 | µg/L | 5018.0 | ppb | 18:33:51 |
| 2 | Ca 317.933Radial† | 5664.7 | 5318.7 | 5007.9 | µg/L | 5007.9 | ppb | 18:34:11 |
| 2 | Fe 238.204 Radial† | 623.7 | 590.8 | 5018.6 | µg/L | 5018.6 | ppb | 18:34:11 |
| 2 | K 766.490 Radial† | 7345.4 | 7000.7 | 4976.0 | µg/L | 4976.0 | ppb | 18:33:51 |
| 2 | Mg 279.077 IEC† | 581.5 | 553.1 | 5150.5 | µg/L | 5150.5 | ppb | 18:34:11 |
| 2 | Na 589.592 Radial† | 31761.7 | 30284.4 | 9969.7 | µg/L | 9969.7 | ppb | 18:33:51 |
| 2 | Sr 421.552† | 49439.7 | 47944.2 | 497.00 | µg/L | 497.00 | ppb | 18:33:51 |
| 2 | Sc 361.383 | 1968654.4 | 1968654.4 | 103.08 | % | | | 18:35:22 |
| 2 | Y 371.029 | 1345275.7 | 1345275.7 | 102.70 | % | | | 18:35:22 |
| 2 | Ag 328.068† | 64265.9 | 62910.5 | 502.88 | µg/L | 502.88 | ppb | 18:35:28 |
| 2 | As 188.979† | 279.7 | 270.2 | 527.15 | µg/L | 527.15 | ppb | 18:35:48 |
| 2 | B 249.677† | 12199.0 | 11503.1 | 500.92 | µg/L | 500.92 | ppb | 18:35:28 |
| 2 | Ba 233.527† | 20118.0 | 19543.0 | 509.79 | µg/L | 509.79 | ppb | 18:35:28 |
| 2 | Be 313.107† | 797156.7 | 776781.8 | 507.09 | µg/L | 507.09 | ppb | 18:35:22 |
| 2 | Cd 226.502† | 19012.6 | 18586.7 | 512.73 | µg/L | 512.73 | ppb | 18:35:28 |
| 2 | Co 228.616† | 10795.4 | 10481.7 | 515.26 | µg/L | 515.26 | ppb | 18:35:28 |
| 2 | Cr 267.716† | 24075.5 | 23408.6 | 515.22 | µg/L | 515.22 | ppb | 18:35:28 |
| 2 | Cu 324.752† | 77661.1 | 72854.9 | 509.61 | µg/L | 509.61 | ppb | 18:35:28 |
| 2 | Mn 257.610† | 153284.1 | 148948.8 | 516.25 | µg/L | 516.25 | ppb | 18:35:22 |
| 2 | Mo 202.031† | 4982.7 | 4841.3 | 516.86 | µg/L | 516.86 | ppb | 18:35:48 |
| 2 | Ni 231.604† | 10038.8 | 9436.7 | 515.40 | µg/L | 515.40 | ppb | 18:35:28 |
| 2 | P 214.914† | 1275.2 | 1209.5 | 2548.3 | µg/L | 2548.3 | ppb | 18:35:48 |
| 2 | Pb 220.353† | 2089.9 | 1930.2 | 515.20 | µg/L | 515.20 | ppb | 18:35:48 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 253.9 | 231.5 | 1014.3 µg/L | 1014.3 ppb | 18:35:48 |
| 2 | Sb 206.836† | 566.6 | 522.7 | 516.68 µg/L | 516.68 ppb | 18:35:48 |
| 2 | Se 196.026† | 362.7 | 336.1 | 520.05 µg/L | 520.05 ppb | 18:35:48 |
| 2 | SiO2† | 27183.9 | 25121.8 | 5410.1 µg/L | 5410.1 ppb | 18:35:28 |
| 2 | Si 251.611† | 31985.4 | 30716.9 | 2525.1 µg/L | 2525.1 ppb | 18:35:28 |
| 2 | Sn 189.927† | 1162.1 | 1128.3 | 518.97 µg/L | 518.97 ppb | 18:35:48 |
| 2 | Ti 334.940† | 214911.2 | 208374.5 | 500.90 µg/L | 500.90 ppb | 18:35:22 |
| 2 | Tl 190.801† | 347.2 | 361.1 | 510.11 µg/L | 510.11 ppb | 18:35:48 |
| 2 | U 409.014† | 5833.8 | 5713.1 | 516.25 µg/L | 516.25 ppb | 18:35:28 |
| 2 | V 292.402† | 49382.2 | 47951.1 | 517.33 µg/L | 517.33 ppb | 18:35:28 |
| 2 | Zn 213.857† | 21765.8 | 20640.0 | 511.77 µg/L | 511.77 ppb | 18:35:28 |
| 3 | Sc RADIAL | 56202.6 | 56202.6 | 103 % | | 18:34:17 |
| 3 | Al 396.153Radial† | 7002.2 | 6809.5 | 5066.3 µg/L | 5066.3 ppb | 18:34:17 |
| 3 | Ca 317.933Radial† | 5645.9 | 5303.2 | 4993.3 µg/L | 4993.3 ppb | 18:34:37 |
| 3 | Fe 238.204 Radial† | 622.2 | 589.7 | 5007.8 µg/L | 5007.8 ppb | 18:34:37 |
| 3 | K 766.490 Radial† | 7390.9 | 7048.4 | 5010.0 µg/L | 5010.0 ppb | 18:34:17 |
| 3 | Mg 279.077 IEC† | 576.6 | 548.6 | 5107.8 µg/L | 5107.8 ppb | 18:34:37 |
| 3 | Na 589.592 Radial† | 31993.1 | 30524.4 | 10049 µg/L | 10049 ppb | 18:34:17 |
| 3 | Sr 421.552† | 49671.5 | 48193.0 | 499.58 µg/L | 499.58 ppb | 18:34:17 |
| 3 | Sc 361.383 | 1949854.5 | 1949854.5 | 102.10 % | | 18:35:55 |
| 3 | Y 371.029 | 1332440.6 | 1332440.6 | 101.72 % | | 18:35:55 |
| 3 | Ag 328.068† | 60532.1 | 59854.4 | 478.35 µg/L | 478.35 ppb | 18:36:01 |
| 3 | As 188.979† | 230.7 | 224.8 | 438.55 µg/L | 438.55 ppb | 18:36:21 |
| 3 | B 249.677† | 11478.3 | 10911.2 | 474.98 µg/L | 474.98 ppb | 18:36:01 |
| 3 | Ba 233.527† | 18573.8 | 18218.6 | 475.23 µg/L | 475.23 ppb | 18:36:01 |
| 3 | Be 313.107† | 747182.5 | 735289.5 | 480.01 µg/L | 480.01 ppb | 18:35:55 |
| 3 | Cd 226.502† | 17437.8 | 17222.1 | 475.04 µg/L | 475.04 ppb | 18:36:01 |
| 3 | Co 228.616† | 9818.6 | 9625.9 | 473.13 µg/L | 473.13 ppb | 18:36:01 |
| 3 | Cr 267.716† | 21497.4 | 21108.6 | 464.60 µg/L | 464.60 ppb | 18:36:01 |
| 3 | Cu 324.752† | 71198.9 | 67251.7 | 470.46 µg/L | 470.46 ppb | 18:36:01 |
| 3 | Mn 257.610† | 144456.6 | 141736.2 | 491.27 µg/L | 491.27 ppb | 18:35:55 |
| 3 | Mo 202.031† | 4165.5 | 4087.6 | 436.42 µg/L | 436.42 ppb | 18:36:21 |
| 3 | Ni 231.604† | 9187.6 | 8696.9 | 475.00 µg/L | 475.00 ppb | 18:36:01 |
| 3 | P 214.914† | 1084.2 | 1034.3 | 2175.1 µg/L | 2175.1 ppb | 18:36:21 |
| 3 | Pb 220.353† | 1818.3 | 1683.8 | 449.34 µg/L | 449.34 ppb | 18:36:21 |
| 3 | S 181.975 Axial† | 223.4 | 204.0 | 893.71 µg/L | 893.71 ppb | 18:36:21 |
| 3 | Sb 206.836† | 482.5 | 445.7 | 440.11 µg/L | 440.11 ppb | 18:36:21 |
| 3 | Se 196.026† | 316.7 | 294.4 | 456.49 µg/L | 456.49 ppb | 18:36:21 |
| 3 | SiO2† | 25304.0 | 23534.7 | 5068.3 µg/L | 5068.3 ppb | 18:36:01 |
| 3 | Si 251.611† | 29685.2 | 28763.1 | 2364.5 µg/L | 2364.5 ppb | 18:36:01 |
| 3 | Sn 189.927† | 961.6 | 942.7 | 433.62 µg/L | 433.62 ppb | 18:36:21 |
| 3 | Ti 334.940† | 200490.3 | 196259.8 | 471.76 µg/L | 471.76 ppb | 18:35:55 |
| 3 | Tl 190.801† | 316.1 | 333.9 | 471.83 µg/L | 471.83 ppb | 18:36:21 |
| 3 | U 409.014† | 5179.3 | 5126.6 | 463.15 µg/L | 463.15 ppb | 18:36:01 |
| 3 | V 292.402† | 44764.1 | 43889.7 | 473.25 µg/L | 473.25 ppb | 18:36:01 |
| 3 | Zn 213.857† | 19900.8 | 19016.9 | 471.49 µg/L | 471.49 ppb | 18:36:01 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1955902.5 | 102.41 | % | 0.578 | | | | 0.56% |
| Sc RADIAL | 55958.3 | 103 | % | 0.8 | | | | 0.80% |
| Y 371.029 | 1336776.6 | 102.05 | % | 0.562 | | | | 0.55% |
| Ag 328.068† | 61926.8 | 494.98 | µg/L | 14.414 | 494.98 | ppb | 14.414 | 2.91% |
| QC value within limits for Ag 328.068 Recovery = 99.00% | | | | | | | | |
| Al 396.153Radial† | 6792.0 | 5052.2 | µg/L | 29.77 | 5052.2 | ppb | 29.77 | 0.59% |
| QC value within limits for Al 396.153Radial Recovery = 101.04% | | | | | | | | |
| As 188.979† | 253.9 | 495.34 | µg/L | 49.299 | 495.34 | ppb | 49.299 | 9.95% |
| QC value within limits for As 188.979 Recovery = 99.07% | | | | | | | | |
| B 249.677† | 11308.1 | 492.36 | µg/L | 15.053 | 492.36 | ppb | 15.053 | 3.06% |
| QC value within limits for B 249.677 Recovery = 98.47% | | | | | | | | |
| Ba 233.527† | 19105.0 | 498.36 | µg/L | 20.034 | 498.36 | ppb | 20.034 | 4.02% |
| QC value within limits for Ba 233.527 Recovery = 99.67% | | | | | | | | |
| Be 313.107† | 763661.2 | 498.53 | µg/L | 16.055 | 498.53 | ppb | 16.055 | 3.22% |
| QC value within limits for Be 313.107 Recovery = 99.71% | | | | | | | | |
| Ca 317.933Radial† | 5348.5 | 5036.0 | µg/L | 61.72 | 5036.0 | ppb | 61.72 | 1.23% |
| QC value within limits for Ca 317.933Radial Recovery = 100.72% | | | | | | | | |
| Cd 226.502† | 18112.2 | 499.62 | µg/L | 21.301 | 499.62 | ppb | 21.301 | 4.26% |
| QC value within limits for Cd 226.502 Recovery = 99.92% | | | | | | | | |
| Co 228.616† | 10194.8 | 501.14 | µg/L | 24.256 | 501.14 | ppb | 24.256 | 4.84% |

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   QC value within limits for Co 228.616  Recovery = 100.23%
Cr 267.716†          22657.9      498.70 µg/L       29.533      498.70 ppb        29.533   5.92%
   QC value within limits for Cr 267.716  Recovery = 99.74%
Cu 324.752†          71059.6      497.07 µg/L       23.052      497.07 ppb        23.052   4.64%
   QC value within limits for Cu 324.752  Recovery = 99.41%
Fe 238.204 Radial†     593.9      5044.0 µg/L        53.59      5044.0 ppb         53.59   1.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.88%
K 766.490 Radial†     7055.3      5014.9 µg/L        41.51      5014.9 ppb         41.51   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 100.30%
Mg 279.077 IEC†        553.5      5153.8 µg/L        47.82      5153.8 ppb         47.82   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.08%
Mn 257.610†         146785.7      508.76 µg/L       15.198      508.76 ppb        15.198   2.99%
   QC value within limits for Mn 257.610  Recovery = 101.75%
Mo 202.031†          4616.6      492.88 µg/L       49.074      492.88 ppb        49.074   9.96%
   QC value within limits for Mo 202.031  Recovery = 98.58%
Na 589.592 Radial†    30482.1       10035 µg/L        59.3       10035 ppb          59.3   0.59%
   QC value within limits for Na 589.592 Radial  Recovery = 100.35%
Ni 231.604†           9177.9      501.27 µg/L       22.771      501.27 ppb        22.771   4.54%
   QC value within limits for Ni 231.604  Recovery = 100.25%
P 214.914†            1159.8      2442.6 µg/L       233.37      2442.6 ppb        233.37   9.55%
   QC value within limits for P 214.914  Recovery = 97.71%
Pb 220.353†           1857.7      495.83 µg/L       40.446      495.83 ppb        40.446   8.16%
   QC value within limits for Pb 220.353  Recovery = 99.17%
S 181.975 Axial†       222.8      976.27 µg/L       71.572      976.27 ppb        71.572   7.33%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†            497.5      491.69 µg/L       44.681      491.69 ppb        44.681   9.09%
   QC value within limits for Sb 206.836  Recovery = 98.34%
Se 196.026†            322.9      500.11 µg/L       37.818      500.11 ppb        37.818   7.56%
   QC value within limits for Se 196.026  Recovery = 100.02%
SiO2†                24557.5      5288.6 µg/L       191.11      5288.6 ppb        191.11   3.61%
   QC value within limits for SiO2  Recovery = 98.90%
Si 251.611†          30070.3      2471.9 µg/L        93.06      2471.9 ppb         93.06   3.76%
   QC value within limits for Si 251.611  Recovery = 98.88%
Sn 189.927†           1073.1      493.61 µg/L       52.162      493.61 ppb        52.162  10.57%
   QC value within limits for Sn 189.927  Recovery = 98.72%
Sr 421.552†          48082.9      498.44 µg/L        1.315      498.44 ppb         1.315   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.69%
Ti 334.940†         204541.6      491.68 µg/L       17.266      491.68 ppb        17.266   3.51%
   QC value within limits for Ti 334.940  Recovery = 98.34%
Tl 190.801†            352.2      497.49 µg/L       22.222      497.49 ppb        22.222   4.47%
   QC value within limits for Tl 190.801  Recovery = 99.50%
U 409.014†            5528.1      499.49 µg/L       31.500      499.49 ppb        31.500   6.31%
   QC value within limits for U 409.014  Recovery = 99.90%
V 292.402†           46599.3      502.68 µg/L       25.490      502.68 ppb        25.490   5.07%
   QC value within limits for V 292.402  Recovery = 100.54%
Zn 213.857†          20092.9      498.19 µg/L       23.129      498.19 ppb        23.129   4.64%
   QC value within limits for Zn 213.857  Recovery = 99.64%
All analyte(s) passed QC.
```

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:36:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56577.3 | 56577.3 | 104 | % | | | 18:37:06 |
| 1 | Al 396.153Radial† | -31.7 | -20.5 | -15.254 | µg/L | -15.254 | ppb | 18:37:06 |
| 1 | Ca 317.933Radial† | 178.1 | -7.3 | -6.9019 | µg/L | -6.9019 | ppb | 18:37:27 |
| 1 | Fe 238.204 Radial† | 15.3 | 0.2 | 1.9399 | µg/L | 1.9399 | ppb | 18:37:27 |
| 1 | K 766.490 Radial† | 151.5 | 17.7 | 12.611 | µg/L | 12.611 | ppb | 18:37:06 |
| 1 | Mg 279.077 IEC† | 8.3 | -3.3 | -30.287 | µg/L | -30.287 | ppb | 18:37:27 |
| 1 | Na 589.592 Radial† | 633.9 | 69.6 | 22.897 | µg/L | 22.897 | ppb | 18:37:06 |
| 1 | Sr 421.552† | 44.5 | 3.3 | 0.0346 | µg/L | 0.0346 | ppb | 18:37:06 |
| 1 | Sc 361.383 | 1997175.6 | 1997175.6 | 104.57 | % | | | 18:38:28 |
| 1 | Y 371.029 | 1371834.1 | 1371834.1 | 104.73 | % | | | 18:38:28 |
| 1 | Ag 328.068† | -518.3 | 68.9 | 0.5460 | µg/L | 0.5460 | ppb | 18:38:34 |
| 1 | As 188.979† | -0.7 | -1.8 | -3.4701 | µg/L | -3.4701 | ppb | 18:38:54 |
| 1 | B 249.677† | 333.0 | -13.0 | -0.5696 | µg/L | -0.5696 | ppb | 18:38:54 |
| 1 | Ba 233.527† | -20.3 | 6.6 | 0.1716 | µg/L | 0.1716 | ppb | 18:38:54 |
| 1 | Be 313.107† | -3492.3 | 100.9 | 0.0658 | µg/L | 0.0658 | ppb | 18:38:34 |
| 1 | Cd 226.502† | -135.3 | 12.8 | 0.3518 | µg/L | 0.3518 | ppb | 18:38:54 |
| 1 | Co 228.616† | -16.0 | -6.4 | -0.3169 | µg/L | -0.3169 | ppb | 18:38:54 |
| 1 | Cr 267.716† | -59.9 | -4.9 | -0.1071 | µg/L | -0.1071 | ppb | 18:38:34 |
| 1 | Cu 324.752† | 2440.0 | -152.8 | -1.0669 | µg/L | -1.0669 | ppb | 18:38:34 |
| 1 | Mn 257.610† | -253.9 | 1.3 | 0.0061 | µg/L | 0.0061 | ppb | 18:38:54 |
| 1 | Mo 202.031† | -12.2 | -4.2 | -0.4445 | µg/L | -0.4445 | ppb | 18:38:54 |
| 1 | Ni 231.604† | 302.8 | -12.6 | -0.6910 | µg/L | -0.6910 | ppb | 18:38:54 |
| 1 | P 214.914† | 25.9 | -2.9 | -6.0063 | µg/L | -6.0063 | ppb | 18:38:54 |
| 1 | Pb 220.353† | 96.6 | -4.8 | -1.2749 | µg/L | -1.2749 | ppb | 18:38:54 |
| 1 | S 181.975 Axial† | 16.8 | 1.3 | 5.5555 | µg/L | 5.5555 | ppb | 18:38:54 |
| 1 | Sb 206.836† | 26.1 | -2.0 | -1.9561 | µg/L | -1.9561 | ppb | 18:38:54 |
| 1 | Se 196.026† | 17.3 | 0.7 | 1.1140 | µg/L | 1.1140 | ppb | 18:38:54 |
| 1 | SiO2† | 1249.6 | -55.1 | -11.856 | µg/L | -11.856 | ppb | 18:38:34 |
| 1 | Si 251.611† | 302.7 | -23.4 | -1.9253 | µg/L | -1.9253 | ppb | 18:38:54 |
| 1 | Sn 189.927† | 1.0 | 1.9 | 0.8554 | µg/L | 0.8554 | ppb | 18:38:54 |
| 1 | Ti 334.940† | 152.6 | 29.8 | 0.0741 | µg/L | 0.0741 | ppb | 18:38:34 |
| 1 | Tl 190.801† | -22.3 | 3.0 | 4.1717 | µg/L | 4.1717 | ppb | 18:38:54 |
| 1 | U 409.014† | -116.8 | -58.1 | -5.2596 | µg/L | -5.2596 | ppb | 18:38:34 |
| 1 | V 292.402† | -54.7 | -8.1 | -0.0953 | µg/L | -0.0953 | ppb | 18:38:34 |
| 1 | Zn 213.857† | 472.6 | -23.6 | -0.5840 | µg/L | -0.5840 | ppb | 18:38:54 |
| 2 | Sc RADIAL | 55383.9 | 55383.9 | 101 | % | | | 18:37:32 |
| 2 | Al 396.153Radial† | -17.3 | -7.0 | -5.1964 | µg/L | -5.1964 | ppb | 18:37:32 |
| 2 | Ca 317.933Radial† | 188.8 | 6.9 | 6.4546 | µg/L | 6.4546 | ppb | 18:37:52 |
| 2 | Fe 238.204 Radial† | 14.1 | -0.6 | -4.8767 | µg/L | -4.8767 | ppb | 18:37:52 |
| 2 | K 766.490 Radial† | 126.5 | -3.8 | -2.6779 | µg/L | -2.6779 | ppb | 18:37:32 |
| 2 | Mg 279.077 IEC† | 12.6 | 1.1 | 10.292 | µg/L | 10.292 | ppb | 18:37:52 |
| 2 | Na 589.592 Radial† | 623.8 | 72.8 | 23.955 | µg/L | 23.955 | ppb | 18:37:32 |
| 2 | Sr 421.552† | 31.5 | -8.5 | -0.0883 | µg/L | -0.0883 | ppb | 18:37:32 |
| 2 | Sc 361.383 | 2013350.1 | 2013350.1 | 105.42 | % | | | 18:39:00 |
| 2 | Y 371.029 | 1381993.5 | 1381993.5 | 105.50 | % | | | 18:39:00 |
| 2 | Ag 328.068† | -537.9 | 54.3 | 0.4351 | µg/L | 0.4351 | ppb | 18:39:06 |
| 2 | As 188.979† | 2.2 | 1.0 | 1.8812 | µg/L | 1.8812 | ppb | 18:39:26 |
| 2 | B 249.677† | 318.3 | -29.5 | -1.2874 | µg/L | -1.2874 | ppb | 18:39:26 |
| 2 | Ba 233.527† | -25.9 | 1.4 | 0.0380 | µg/L | 0.0380 | ppb | 18:39:26 |
| 2 | Be 313.107† | -3437.1 | 180.0 | 0.1176 | µg/L | 0.1176 | ppb | 18:39:06 |
| 2 | Cd 226.502† | -146.1 | 3.5 | 0.0976 | µg/L | 0.0976 | ppb | 18:39:26 |
| 2 | Co 228.616† | -6.0 | 3.1 | 0.1553 | µg/L | 0.1553 | ppb | 18:39:26 |
| 2 | Cr 267.716† | -56.6 | -1.3 | -0.0276 | µg/L | -0.0276 | ppb | 18:39:06 |
| 2 | Cu 324.752† | 2488.4 | -125.7 | -0.8785 | µg/L | -0.8785 | ppb | 18:39:06 |
| 2 | Mn 257.610† | -244.3 | 12.4 | 0.0419 | µg/L | 0.0419 | ppb | 18:39:26 |
| 2 | Mo 202.031† | -1.5 | 6.1 | 0.6511 | µg/L | 0.6511 | ppb | 18:39:26 |
| 2 | Ni 231.604† | 301.7 | -16.0 | -0.8752 | µg/L | -0.8752 | ppb | 18:39:26 |
| 2 | P 214.914† | 26.3 | -2.6 | -5.5596 | µg/L | -5.5596 | ppb | 18:39:26 |
| 2 | Pb 220.353† | 100.7 | -1.7 | -0.4405 | µg/L | -0.4405 | ppb | 18:39:26 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 19.5 | 3.7 | 16.100 | µg/L | 16.100 ppb | 18:39:26 |
| 2 | Sb 206.836† | 25.7 | -2.6 | -2.5687 | µg/L | -2.5687 ppb | 18:39:26 |
| 2 | Se 196.026† | 18.4 | 1.6 | 2.4087 | µg/L | 2.4087 ppb | 18:39:26 |
| 2 | SiO2† | 1290.6 | -25.8 | -5.5589 | µg/L | -5.5589 ppb | 18:39:06 |
| 2 | Si 251.611† | 298.6 | -29.7 | -2.4388 | µg/L | -2.4388 ppb | 18:39:26 |
| 2 | Sn 189.927† | 1.6 | 2.4 | 1.0965 | µg/L | 1.0965 ppb | 18:39:26 |
| 2 | Ti 334.940† | 143.9 | 20.4 | 0.0483 | µg/L | 0.0483 ppb | 18:39:06 |
| 2 | Tl 190.801† | -19.4 | 5.9 | 8.2322 | µg/L | 8.2322 ppb | 18:39:26 |
| 2 | U 409.014† | -143.2 | -82.3 | -7.4471 | µg/L | -7.4471 ppb | 18:39:06 |
| 2 | V 292.402† | 19.9 | 63.0 | 0.6686 | µg/L | 0.6686 ppb | 18:39:06 |
| 2 | Zn 213.857† | 478.6 | -21.5 | -0.5326 | µg/L | -0.5326 ppb | 18:39:26 |
| 3 | Sc RADIAL | 56905.3 | 56905.3 | 104 | % | | 18:37:58 |
| 3 | Al 396.153Radial† | -1.7 | 8.5 | 6.3212 | µg/L | 6.3212 ppb | 18:37:58 |
| 3 | Ca 317.933Radial† | 181.4 | -5.2 | -4.9145 | µg/L | -4.9145 ppb | 18:38:18 |
| 3 | Fe 238.204 Radial† | 13.2 | -1.8 | -15.607 | µg/L | -15.607 ppb | 18:38:18 |
| 3 | K 766.490 Radial† | 186.8 | 50.7 | 36.048 | µg/L | 36.048 ppb | 18:37:58 |
| 3 | Mg 279.077 IEC† | 11.5 | -0.3 | -2.5813 | µg/L | -2.5813 ppb | 18:38:18 |
| 3 | Na 589.592 Radial† | 645.3 | 77.0 | 25.346 | µg/L | 25.346 ppb | 18:37:58 |
| 3 | Sr 421.552† | 17.2 | -23.1 | -0.2393 | µg/L | -0.2393 ppb | 18:37:58 |
| 3 | Sc 361.383 | 1996384.7 | 1996384.7 | 104.53 | % | | 18:39:32 |
| 3 | Y 371.029 | 1369220.3 | 1369220.3 | 104.53 | % | | 18:39:32 |
| 3 | Ag 328.068† | -541.0 | 47.0 | 0.3741 | µg/L | 0.3741 ppb | 18:39:38 |
| 3 | As 188.979† | -1.0 | -2.1 | -4.0939 | µg/L | -4.0939 ppb | 18:39:59 |
| 3 | B 249.677† | 333.0 | -12.9 | -0.5555 | µg/L | -0.5555 ppb | 18:39:59 |
| 3 | Ba 233.527† | -17.3 | 9.5 | 0.2478 | µg/L | 0.2478 ppb | 18:39:59 |
| 3 | Be 313.107† | -3308.4 | 275.5 | 0.1799 | µg/L | 0.1799 ppb | 18:39:38 |
| 3 | Cd 226.502† | -144.0 | 4.4 | 0.1228 | µg/L | 0.1228 ppb | 18:39:59 |
| 3 | Co 228.616† | -11.0 | -1.7 | -0.0836 | µg/L | -0.0836 ppb | 18:39:59 |
| 3 | Cr 267.716† | -55.8 | -1.0 | -0.0220 | µg/L | -0.0220 ppb | 18:39:38 |
| 3 | Cu 324.752† | 2440.9 | -151.0 | -1.0572 | µg/L | -1.0572 ppb | 18:39:38 |
| 3 | Mn 257.610† | -222.1 | 31.7 | 0.1077 | µg/L | 0.1077 ppb | 18:39:59 |
| 3 | Mo 202.031† | -3.2 | 4.5 | 0.4771 | µg/L | 0.4771 ppb | 18:39:59 |
| 3 | Ni 231.604† | 303.2 | -12.1 | -0.6637 | µg/L | -0.6637 ppb | 18:39:59 |
| 3 | P 214.914† | 30.5 | 1.6 | 3.5034 | µg/L | 3.5034 ppb | 18:39:59 |
| 3 | Pb 220.353† | 89.5 | -11.6 | -3.0790 | µg/L | -3.0790 ppb | 18:39:59 |
| 3 | S 181.975 Axial† | 17.8 | 2.2 | 9.6185 | µg/L | 9.6185 ppb | 18:39:59 |
| 3 | Sb 206.836† | 27.7 | -0.5 | -0.4700 | µg/L | -0.4700 ppb | 18:39:59 |
| 3 | Se 196.026† | 15.0 | -1.5 | -2.2806 | µg/L | -2.2806 ppb | 18:39:59 |
| 3 | SiO2† | 1247.6 | -56.5 | -12.175 | µg/L | -12.175 ppb | 18:39:38 |
| 3 | Si 251.611† | 300.0 | -25.8 | -2.1244 | µg/L | -2.1244 ppb | 18:39:59 |
| 3 | Sn 189.927† | 3.2 | 3.9 | 1.8070 | µg/L | 1.8070 ppb | 18:39:59 |
| 3 | Ti 334.940† | 156.9 | 34.0 | 0.0818 | µg/L | 0.0818 ppb | 18:39:38 |
| 3 | Tl 190.801† | -23.6 | 1.7 | 2.3286 | µg/L | 2.3286 ppb | 18:39:59 |
| 3 | U 409.014† | -48.9 | 6.8 | 0.6203 | µg/L | 0.6203 ppb | 18:39:38 |
| 3 | V 292.402† | -14.3 | 30.6 | 0.3283 | µg/L | 0.3283 ppb | 18:39:38 |
| 3 | Zn 213.857† | 478.7 | -17.6 | -0.4352 | µg/L | -0.4352 ppb | 18:39:59 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 2002303.4 | 104.84 | % | 0.501 | | | | 0.48% |
| Sc RADIAL | 56288.9 | 103 | % | 1.5 | | | | 1.42% |
| Y 371.029 | 1374349.3 | 104.92 | % | 0.515 | | | | 0.49% |
| Ag 328.068† | 56.7 | 0.4517 | µg/L | 0.08717 | 0.4517 | ppb | 0.08717 | 19.30% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -6.3 | -4.7097 | µg/L | 10.79578 | -4.7097 | ppb | 10.79578 | 229.22% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -1.0 | -1.8943 | µg/L | 3.28450 | -1.8943 | ppb | 3.28450 | 173.39% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -18.5 | -0.8042 | µg/L | 0.41854 | -0.8042 | ppb | 0.41854 | 52.05% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 5.8 | 0.1525 | µg/L | 0.10621 | 0.1525 | ppb | 0.10621 | 69.66% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 185.5 | 0.1211 | µg/L | 0.05710 | 0.1211 | ppb | 0.05710 | 47.16% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -1.9 | -1.7872 | µg/L | 7.20651 | -1.7872 | ppb | 7.20651 | 403.22% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 6.9 | 0.1907 | µg/L | 0.14008 | 0.1907 | ppb | 0.14008 | 73.44% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -1.7 | -0.0817 | µg/L | 0.23614 | -0.0817 | ppb | 0.23614 | 288.95% |

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.4     -0.0522 µg/L      0.04756     -0.0522 ppb       0.04756  91.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -143.2     -1.0009 µg/L      0.10608     -1.0009 ppb       0.10608  10.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -6.1811 µg/L      8.84567     -6.1811 ppb       8.84567 143.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        21.6      15.327 µg/L     19.5055      15.327 ppb      19.5055 127.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.8     -7.5253 µg/L    20.73608     -7.5253 ppb     20.73608 275.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.1      0.0519 µg/L     0.05154      0.0519 ppb      0.05154  99.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.1      0.2279 µg/L     0.58875      0.2279 ppb      0.58875 258.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       73.1      24.066 µg/L      1.2283      24.066 ppb       1.2283   5.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -13.6     -0.7433 µg/L     0.11501     -0.7433 ppb      0.11501  15.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.3     -2.6875 µg/L     5.36613     -2.6875 ppb      5.36613 199.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.0     -1.5981 µg/L     1.34866     -1.5981 ppb      1.34866  84.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.4      10.425 µg/L      5.3180      10.425 ppb       5.3180  51.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.7     -1.6649 µg/L     1.07918     -1.6649 ppb      1.07918  64.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3      0.4141 µg/L     2.42173      0.4141 ppb      2.42173 584.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -45.8     -9.8634 µg/L     3.73124     -9.8634 ppb      3.73124  37.83%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -26.3     -2.1628 µg/L     0.25893     -2.1628 ppb      0.25893  11.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.7      1.2530 µg/L     0.49474      1.2530 ppb      0.49474  39.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -9.4     -0.0977 µg/L     0.13720     -0.0977 ppb      0.13720 140.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              28.1      0.0681 µg/L     0.01753      0.0681 ppb      0.01753  25.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.5      4.9108 µg/L     3.02042      4.9108 ppb      3.02042  61.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -44.5     -4.0288 µg/L     4.17218     -4.0288 ppb      4.17218 103.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               28.5      0.3005 µg/L     0.38270      0.3005 ppb      0.38270 127.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -20.9     -0.5173 µg/L     0.07558     -0.5173 ppb      0.07558  14.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55671.1 | 55671.1 | 102 | % | | | 19:13:03 |
| 1 | Al 396.153Radial† | 7032.4 | 6904.0 | 5134.7 | µg/L | 5134.7 | ppb | 19:13:03 |
| 1 | Ca 317.933Radial† | 5628.4 | 5338.4 | 5026.4 | µg/L | 5026.4 | ppb | 19:13:23 |
| 1 | Fe 238.204 Radial† | 628.5 | 601.6 | 5110.3 | µg/L | 5110.3 | ppb | 19:13:23 |
| 1 | K 766.490 Radial† | 7390.7 | 7116.7 | 5058.5 | µg/L | 5058.5 | ppb | 19:13:03 |
| 1 | Mg 279.077 IEC† | 581.4 | 558.7 | 5202.9 | µg/L | 5202.9 | ppb | 19:13:23 |
| 1 | Na 589.592 Radial† | 32145.4 | 30970.2 | 10196 | µg/L | 10196 | ppb | 19:13:03 |
| 1 | Sr 421.552† | 49522.9 | 48507.7 | 502.84 | µg/L | 502.84 | ppb | 19:13:03 |
| 1 | Sc 361.383 | 1951144.3 | 1951144.3 | 102.16 | % | | | 19:14:27 |
| 1 | Y 371.029 | 1335064.4 | 1335064.4 | 101.92 | % | | | 19:14:27 |
| 1 | Ag 328.068† | 64845.5 | 64037.3 | 511.83 | µg/L | 511.83 | ppb | 19:14:32 |
| 1 | As 188.979† | 275.5 | 268.5 | 523.78 | µg/L | 523.78 | ppb | 19:14:53 |
| 1 | B 249.677† | 12049.2 | 11462.7 | 499.11 | µg/L | 499.11 | ppb | 19:14:32 |
| 1 | Ba 233.527† | 20008.0 | 19610.4 | 511.55 | µg/L | 511.55 | ppb | 19:14:32 |
| 1 | Be 313.107† | 795598.6 | 782196.8 | 510.62 | µg/L | 510.62 | ppb | 19:14:27 |
| 1 | Cd 226.502† | 18839.6 | 18582.9 | 512.61 | µg/L | 512.61 | ppb | 19:14:32 |
| 1 | Co 228.616† | 10676.1 | 10458.9 | 514.13 | µg/L | 514.13 | ppb | 19:14:32 |
| 1 | Cr 267.716† | 23927.2 | 23473.1 | 516.64 | µg/L | 516.64 | ppb | 19:14:32 |
| 1 | Cu 324.752† | 77230.7 | 73109.7 | 511.40 | µg/L | 511.40 | ppb | 19:14:32 |
| 1 | Mn 257.610† | 153022.2 | 150027.0 | 519.99 | µg/L | 519.99 | ppb | 19:14:27 |
| 1 | Mo 202.031† | 5147.6 | 5046.1 | 538.72 | µg/L | 538.72 | ppb | 19:14:53 |
| 1 | Ni 231.604† | 9909.1 | 9397.1 | 513.24 | µg/L | 513.24 | ppb | 19:14:32 |
| 1 | P 214.914† | 1284.0 | 1229.2 | 2590.7 | µg/L | 2590.7 | ppb | 19:14:53 |
| 1 | Pb 220.353† | 2100.1 | 1958.5 | 522.80 | µg/L | 522.80 | ppb | 19:14:53 |
| 1 | S 181.975 Axial† | 260.7 | 240.4 | 1053.2 | µg/L | 1053.2 | ppb | 19:14:53 |
| 1 | Sb 206.836† | 579.1 | 539.9 | 533.92 | µg/L | 533.92 | ppb | 19:14:53 |
| 1 | Se 196.026† | 368.4 | 344.8 | 533.59 | µg/L | 533.59 | ppb | 19:14:53 |
| 1 | SiO2† | 27092.9 | 25269.3 | 5441.9 | µg/L | 5441.9 | ppb | 19:14:32 |
| 1 | Si 251.611† | 31889.8 | 30901.8 | 2540.3 | µg/L | 2540.3 | ppb | 19:14:32 |
| 1 | Sn 189.927† | 1200.9 | 1176.4 | 541.09 | µg/L | 541.09 | ppb | 19:14:53 |
| 1 | Ti 334.940† | 218380.7 | 213641.7 | 513.57 | µg/L | 513.57 | ppb | 19:14:27 |
| 1 | Tl 190.801† | 350.6 | 367.5 | 519.14 | µg/L | 519.14 | ppb | 19:14:53 |
| 1 | U 409.014† | 5814.6 | 5745.1 | 519.13 | µg/L | 519.13 | ppb | 19:14:32 |
| 1 | V 292.402† | 48982.0 | 47989.3 | 517.92 | µg/L | 517.92 | ppb | 19:14:32 |
| 1 | Zn 213.857† | 21483.0 | 20552.7 | 509.59 | µg/L | 509.59 | ppb | 19:14:32 |
| 2 | Sc RADIAL | 56100.7 | 56100.7 | 103 | % | | | 19:13:29 |
| 2 | Al 396.153Radial† | 6945.6 | 6766.8 | 5032.6 | µg/L | 5032.6 | ppb | 19:13:29 |
| 2 | Ca 317.933Radial† | 5631.2 | 5298.9 | 4989.2 | µg/L | 4989.2 | ppb | 19:13:49 |
| 2 | Fe 238.204 Radial† | 627.7 | 596.1 | 5063.7 | µg/L | 5063.7 | ppb | 19:13:49 |
| 2 | K 766.490 Radial† | 7341.2 | 7013.0 | 4984.8 | µg/L | 4984.8 | ppb | 19:13:29 |
| 2 | Mg 279.077 IEC† | 586.0 | 558.8 | 5203.5 | µg/L | 5203.5 | ppb | 19:13:49 |
| 2 | Na 589.592 Radial† | 31976.7 | 30564.8 | 10062 | µg/L | 10062 | ppb | 19:13:29 |
| 2 | Sr 421.552† | 49170.9 | 47793.6 | 495.44 | µg/L | 495.44 | ppb | 19:13:29 |
| 2 | Sc 361.383 | 1954250.3 | 1954250.3 | 102.33 | % | | | 19:15:00 |
| 2 | Y 371.029 | 1335611.5 | 1335611.5 | 101.96 | % | | | 19:15:00 |
| 2 | Ag 328.068† | 65212.5 | 64295.1 | 513.88 | µg/L | 513.88 | ppb | 19:15:06 |
| 2 | As 188.979† | 274.4 | 267.0 | 520.94 | µg/L | 520.94 | ppb | 19:15:26 |
| 2 | B 249.677† | 12164.5 | 11556.6 | 503.24 | µg/L | 503.24 | ppb | 19:15:06 |
| 2 | Ba 233.527† | 20057.8 | 19628.0 | 512.01 | µg/L | 512.01 | ppb | 19:15:06 |
| 2 | Be 313.107† | 786582.3 | 772147.7 | 504.06 | µg/L | 504.06 | ppb | 19:15:00 |
| 2 | Cd 226.502† | 18912.0 | 18624.4 | 513.76 | µg/L | 513.76 | ppb | 19:15:06 |
| 2 | Co 228.616† | 10732.8 | 10497.7 | 516.05 | µg/L | 516.05 | ppb | 19:15:06 |
| 2 | Cr 267.716† | 24011.5 | 23518.2 | 517.63 | µg/L | 517.63 | ppb | 19:15:06 |
| 2 | Cu 324.752† | 77632.9 | 73382.6 | 513.30 | µg/L | 513.30 | ppb | 19:15:06 |
| 2 | Mn 257.610† | 151747.3 | 148542.9 | 514.85 | µg/L | 514.85 | ppb | 19:15:00 |
| 2 | Mo 202.031† | 5096.3 | 4988.0 | 532.52 | µg/L | 532.52 | ppb | 19:15:26 |
| 2 | Ni 231.604† | 9986.9 | 9457.7 | 516.55 | µg/L | 516.55 | ppb | 19:15:06 |
| 2 | P 214.914† | 1269.9 | 1213.4 | 2556.6 | µg/L | 2556.6 | ppb | 19:15:26 |
| 2 | Pb 220.353† | 2103.2 | 1958.2 | 522.70 | µg/L | 522.70 | ppb | 19:15:26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 261.6 | 240.8 | 1055.1 µg/L | 1055.1 ppb | 19:15:26 |
| 2 | Sb 206.836† | 583.1 | 542.9 | 536.77 µg/L | 536.77 ppb | 19:15:26 |
| 2 | Se 196.026† | 358.4 | 334.4 | 517.63 µg/L | 517.63 ppb | 19:15:26 |
| 2 | SiO2† | 27219.9 | 25351.3 | 5459.5 µg/L | 5459.5 ppb | 19:15:06 |
| 2 | Si 251.611† | 32020.8 | 30980.3 | 2546.7 µg/L | 2546.7 ppb | 19:15:06 |
| 2 | Sn 189.927† | 1194.0 | 1167.7 | 537.13 µg/L | 537.13 ppb | 19:15:26 |
| 2 | Ti 334.940† | 216182.4 | 211153.6 | 507.58 µg/L | 507.58 ppb | 19:15:00 |
| 2 | Tl 190.801† | 351.8 | 368.1 | 519.85 µg/L | 519.85 ppb | 19:15:26 |
| 2 | U 409.014† | 5813.7 | 5735.2 | 518.24 µg/L | 518.24 ppb | 19:15:06 |
| 2 | V 292.402† | 49127.5 | 48055.3 | 518.57 µg/L | 518.57 ppb | 19:15:06 |
| 2 | Zn 213.857† | 21549.0 | 20583.8 | 510.35 µg/L | 510.35 ppb | 19:15:06 |
| 3 | Sc RADIAL | 56646.4 | 56646.4 | 104 % | | 19:13:55 |
| 3 | Al 396.153Radial† | 6990.5 | 6744.9 | 5018.4 µg/L | 5018.4 ppb | 19:13:55 |
| 3 | Ca 317.933Radial† | 5597.5 | 5213.6 | 4908.9 µg/L | 4908.9 ppb | 19:14:15 |
| 3 | Fe 238.204 Radial† | 629.8 | 592.2 | 5029.2 µg/L | 5029.2 ppb | 19:14:15 |
| 3 | K 766.490 Radial† | 7441.3 | 7040.7 | 5004.5 µg/L | 5004.5 ppb | 19:13:55 |
| 3 | Mg 279.077 IEC† | 585.3 | 552.6 | 5144.3 µg/L | 5144.3 ppb | 19:14:15 |
| 3 | Na 589.592 Radial† | 32200.7 | 30481.0 | 10034 µg/L | 10034 ppb | 19:13:55 |
| 3 | Sr 421.552† | 49653.3 | 47797.6 | 495.48 µg/L | 495.48 ppb | 19:13:55 |
| 3 | Sc 361.383 | 1989206.7 | 1989206.7 | 104.16 % | | 19:15:33 |
| 3 | Y 371.029 | 1360871.5 | 1360871.5 | 103.89 % | | 19:15:33 |
| 3 | Ag 328.068† | 60452.0 | 58604.6 | 468.29 µg/L | 468.29 ppb | 19:15:39 |
| 3 | As 188.979† | 231.4 | 221.0 | 431.16 µg/L | 431.16 ppb | 19:15:59 |
| 3 | B 249.677† | 11200.8 | 10422.4 | 453.57 µg/L | 453.57 ppb | 19:15:39 |
| 3 | Ba 233.527† | 18155.6 | 17457.3 | 455.37 µg/L | 455.37 ppb | 19:15:39 |
| 3 | Be 313.107† | 746723.2 | 720370.4 | 470.26 µg/L | 470.26 ppb | 19:15:33 |
| 3 | Cd 226.502† | 17034.9 | 16497.4 | 455.02 µg/L | 455.02 ppb | 19:15:39 |
| 3 | Co 228.616† | 9575.0 | 9201.8 | 452.26 µg/L | 452.26 ppb | 19:15:39 |
| 3 | Cr 267.716† | 20898.9 | 20117.4 | 442.78 µg/L | 442.78 ppb | 19:15:39 |
| 3 | Cu 324.752† | 69759.8 | 64490.4 | 451.18 µg/L | 451.18 ppb | 19:15:39 |
| 3 | Mn 257.610† | 144303.8 | 138790.3 | 481.07 µg/L | 481.07 ppb | 19:15:33 |
| 3 | Mo 202.031† | 4187.5 | 4027.9 | 430.06 µg/L | 430.06 ppb | 19:15:59 |
| 3 | Ni 231.604† | 8969.1 | 8309.0 | 453.82 µg/L | 453.82 ppb | 19:15:39 |
| 3 | P 214.914† | 1074.2 | 1003.7 | 2111.2 µg/L | 2111.2 ppb | 19:15:59 |
| 3 | Pb 220.353† | 1799.2 | 1630.2 | 435.08 µg/L | 435.08 ppb | 19:15:59 |
| 3 | S 181.975 Axial† | 224.9 | 201.1 | 880.92 µg/L | 880.92 ppb | 19:15:59 |
| 3 | Sb 206.836† | 494.9 | 448.2 | 442.71 µg/L | 442.71 ppb | 19:15:59 |
| 3 | Se 196.026† | 304.8 | 276.8 | 429.75 µg/L | 429.75 ppb | 19:15:59 |
| 3 | SiO2† | 24880.7 | 22637.9 | 4875.2 µg/L | 4875.2 ppb | 19:15:39 |
| 3 | Si 251.611† | 29305.2 | 27823.1 | 2287.2 µg/L | 2287.2 ppb | 19:15:39 |
| 3 | Sn 189.927† | 959.0 | 921.6 | 423.93 µg/L | 423.93 ppb | 19:15:59 |
| 3 | Ti 334.940† | 203896.7 | 195645.3 | 470.28 µg/L | 470.28 ppb | 19:15:33 |
| 3 | Tl 190.801† | 305.5 | 317.6 | 449.03 µg/L | 449.03 ppb | 19:15:59 |
| 3 | U 409.014† | 5068.3 | 4919.7 | 444.42 µg/L | 444.42 ppb | 19:15:39 |
| 3 | V 292.402† | 43582.6 | 41887.9 | 451.80 µg/L | 451.80 ppb | 19:15:39 |
| 3 | Zn 213.857† | 19376.0 | 18127.3 | 449.39 µg/L | 449.39 ppb | 19:15:39 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1964867.1 | 102.88 | % | 1.107 | | | | 1.08% |
| Sc RADIAL | 56139.4 | 103 | % | 0.9 | | | | 0.87% |
| Y 371.029 | 1343849.1 | 102.59 | % | 1.126 | | | | 1.10% |
| Ag 328.068† | 62312.3 | 498.00 | µg/L | 25.750 | 498.00 | ppb | 25.750 | 5.17% |
| QC value within limits for Ag 328.068 Recovery = 99.60% | | | | | | | | |
| Al 396.153Radial† | 6805.2 | 5061.9 | µg/L | 63.45 | 5061.9 | ppb | 63.45 | 1.25% |
| QC value within limits for Al 396.153Radial Recovery = 101.24% | | | | | | | | |
| As 188.979† | 252.2 | 491.96 | µg/L | 52.673 | 491.96 | ppb | 52.673 | 10.71% |
| QC value within limits for As 188.979 Recovery = 98.39% | | | | | | | | |
| B 249.677† | 11147.2 | 485.30 | µg/L | 27.561 | 485.30 | ppb | 27.561 | 5.68% |
| QC value within limits for B 249.677 Recovery = 97.06% | | | | | | | | |
| Ba 233.527† | 18898.6 | 492.97 | µg/L | 32.570 | 492.97 | ppb | 32.570 | 6.61% |
| QC value within limits for Ba 233.527 Recovery = 98.59% | | | | | | | | |
| Be 313.107† | 758238.3 | 494.98 | µg/L | 21.658 | 494.98 | ppb | 21.658 | 4.38% |
| QC value within limits for Be 313.107 Recovery = 99.00% | | | | | | | | |
| Ca 317.933Radial† | 5283.6 | 4974.8 | µg/L | 60.06 | 4974.8 | ppb | 60.06 | 1.21% |
| QC value within limits for Ca 317.933Radial Recovery = 99.50% | | | | | | | | |
| Cd 226.502† | 17901.6 | 493.80 | µg/L | 33.585 | 493.80 | ppb | 33.585 | 6.80% |
| QC value within limits for Cd 226.502 Recovery = 98.76% | | | | | | | | |
| Co 228.616† | 10052.8 | 494.14 | µg/L | 36.289 | 494.14 | ppb | 36.289 | 7.34% |

QC value within limits for Co 228.616 Recovery = 98.83%

| | | | | | | |
|---|---|---|---|---|---|---|
| Cr 267.716† | 22369.6 | 492.35 µg/L | 42.929 | 492.35 ppb | 42.929 | 8.72% |

QC value within limits for Cr 267.716 Recovery = 98.47%

| | | | | | | |
|---|---|---|---|---|---|---|
| Cu 324.752† | 70327.6 | 491.96 µg/L | 35.329 | 491.96 ppb | 35.329 | 7.18% |

QC value within limits for Cu 324.752 Recovery = 98.39%

| | | | | | | |
|---|---|---|---|---|---|---|
| Fe 238.204 Radial† | 596.7 | 5067.7 µg/L | 40.70 | 5067.7 ppb | 40.70 | 0.80% |

QC value within limits for Fe 238.204 Radial Recovery = 101.35%

| | | | | | | |
|---|---|---|---|---|---|---|
| K 766.490 Radial† | 7056.8 | 5015.9 µg/L | 38.15 | 5015.9 ppb | 38.15 | 0.76% |

QC value within limits for K 766.490 Radial Recovery = 100.32%

| | | | | | | |
|---|---|---|---|---|---|---|
| Mg 279.077 IEC† | 556.7 | 5183.6 µg/L | 33.98 | 5183.6 ppb | 33.98 | 0.66% |

QC value within limits for Mg 279.077 IEC Recovery = 103.67%

| | | | | | | |
|---|---|---|---|---|---|---|
| Mn 257.610† | 145786.8 | 505.31 µg/L | 21.142 | 505.31 ppb | 21.142 | 4.18% |

QC value within limits for Mn 257.610 Recovery = 101.06%

| | | | | | | |
|---|---|---|---|---|---|---|
| Mo 202.031† | 4687.4 | 500.43 µg/L | 61.026 | 500.43 ppb | 61.026 | 12.19% |

QC value within limits for Mo 202.031 Recovery = 100.09%

| | | | | | | |
|---|---|---|---|---|---|---|
| Na 589.592 Radial† | 30672.0 | 10097 µg/L | 86.1 | 10097 ppb | 86.1 | 0.85% |

QC value within limits for Na 589.592 Radial Recovery = 100.97%

| | | | | | | |
|---|---|---|---|---|---|---|
| Ni 231.604† | 9054.6 | 494.54 µg/L | 35.300 | 494.54 ppb | 35.300 | 7.14% |

QC value within limits for Ni 231.604 Recovery = 98.91%

| | | | | | | |
|---|---|---|---|---|---|---|
| P 214.914† | 1148.8 | 2419.5 µg/L | 267.56 | 2419.5 ppb | 267.56 | 11.06% |

QC value within limits for P 214.914 Recovery = 96.78%

| | | | | | | |
|---|---|---|---|---|---|---|
| Pb 220.353† | 1849.0 | 493.53 µg/L | 50.614 | 493.53 ppb | 50.614 | 10.26% |

QC value within limits for Pb 220.353 Recovery = 98.71%

| | | | | | | |
|---|---|---|---|---|---|---|
| S 181.975 Axial† | 227.4 | 996.40 µg/L | 100.008 | 996.40 ppb | 100.008 | 10.04% |

QC value within limits for S 181.975 Axial Recovery = 99.64%

| | | | | | | |
|---|---|---|---|---|---|---|
| Sb 206.836† | 510.3 | 504.47 µg/L | 53.501 | 504.47 ppb | 53.501 | 10.61% |

QC value within limits for Sb 206.836 Recovery = 100.89%

| | | | | | | |
|---|---|---|---|---|---|---|
| Se 196.026† | 318.7 | 493.66 µg/L | 55.921 | 493.66 ppb | 55.921 | 11.33% |

QC value within limits for Se 196.026 Recovery = 98.73%

| | | | | | | |
|---|---|---|---|---|---|---|
| SiO2† | 24419.5 | 5258.9 µg/L | 332.39 | 5258.9 ppb | 332.39 | 6.32% |

QC value within limits for SiO2 Recovery = 98.34%

| | | | | | | |
|---|---|---|---|---|---|---|
| Si 251.611† | 29901.8 | 2458.1 µg/L | 148.02 | 2458.1 ppb | 148.02 | 6.02% |

QC value within limits for Si 251.611 Recovery = 98.32%

| | | | | | | |
|---|---|---|---|---|---|---|
| Sn 189.927† | 1088.6 | 500.71 µg/L | 66.525 | 500.71 ppb | 66.525 | 13.29% |

QC value within limits for Sn 189.927 Recovery = 100.14%

| | | | | | | |
|---|---|---|---|---|---|---|
| Sr 421.552† | 48033.0 | 497.92 µg/L | 4.262 | 497.92 ppb | 4.262 | 0.86% |

QC value within limits for Sr 421.552 Recovery = 99.58%

| | | | | | | |
|---|---|---|---|---|---|---|
| Ti 334.940† | 206813.5 | 497.14 µg/L | 23.455 | 497.14 ppb | 23.455 | 4.72% |

QC value within limits for Ti 334.940 Recovery = 99.43%

| | | | | | | |
|---|---|---|---|---|---|---|
| Tl 190.801† | 351.1 | 496.01 µg/L | 40.687 | 496.01 ppb | 40.687 | 8.20% |

QC value within limits for Tl 190.801 Recovery = 99.20%

| | | | | | | |
|---|---|---|---|---|---|---|
| U 409.014† | 5466.7 | 493.93 µg/L | 42.881 | 493.93 ppb | 42.881 | 8.68% |

QC value within limits for U 409.014 Recovery = 98.79%

| | | | | | | |
|---|---|---|---|---|---|---|
| V 292.402† | 45977.5 | 496.10 µg/L | 38.364 | 496.10 ppb | 38.364 | 7.73% |

QC value within limits for V 292.402 Recovery = 99.22%

| | | | | | | |
|---|---|---|---|---|---|---|
| Zn 213.857† | 19754.6 | 489.78 µg/L | 34.976 | 489.78 ppb | 34.976 | 7.14% |

QC value within limits for Zn 213.857 Recovery = 97.96%

All analyte(s) passed QC.

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55600.7 | 55600.7 | 102 | % | | | 19:16:41 |
| 1 | Al 396.153Radial† | -4.5 | 5.7 | 4.2256 | µg/L | 4.2256 | ppb | 19:16:41 |
| 1 | Ca 317.933Radial† | 176.7 | -5.7 | -5.4036 | µg/L | -5.4036 | ppb | 19:17:01 |
| 1 | Fe 238.204 Radial† | 16.9 | 2.1 | 17.440 | µg/L | 17.440 | ppb | 19:17:01 |
| 1 | K 766.490 Radial† | 120.8 | -9.9 | -7.0161 | µg/L | -7.0161 | ppb | 19:16:41 |
| 1 | Mg 279.077 IEC† | 10.9 | -0.6 | -5.3345 | µg/L | -5.3345 | ppb | 19:17:01 |
| 1 | Na 589.592 Radial† | 652.7 | 98.7 | 32.500 | µg/L | 32.500 | ppb | 19:16:41 |
| 1 | Sr 421.552† | 22.7 | -17.3 | -0.1790 | µg/L | -0.1790 | ppb | 19:16:41 |
| 1 | Sc 361.383 | 1934829.6 | 1934829.6 | 101.31 | % | | | 19:18:03 |
| 1 | Y 371.029 | 1327190.7 | 1327190.7 | 101.32 | % | | | 19:18:03 |
| 1 | Ag 328.068† | -516.6 | 54.6 | 0.4388 | µg/L | 0.4388 | ppb | 19:18:09 |
| 1 | As 188.979† | 1.2 | 0.0 | 0.0845 | µg/L | 0.0845 | ppb | 19:18:29 |
| 1 | B 249.677† | 321.4 | -14.2 | -0.6284 | µg/L | -0.6284 | ppb | 19:18:29 |
| 1 | Ba 233.527† | -23.7 | 2.6 | 0.0683 | µg/L | 0.0683 | ppb | 19:18:29 |
| 1 | Be 313.107† | -3408.1 | 76.3 | 0.0498 | µg/L | 0.0498 | ppb | 19:18:09 |
| 1 | Cd 226.502† | -144.3 | -0.3 | -0.0100 | µg/L | -0.0100 | ppb | 19:18:29 |
| 1 | Co 228.616† | -6.0 | 2.9 | 0.1456 | µg/L | 0.1456 | ppb | 19:18:29 |
| 1 | Cr 267.716† | -15.9 | 36.7 | 0.8069 | µg/L | 0.8069 | ppb | 19:18:09 |
| 1 | Cu 324.752† | 2442.5 | -75.1 | -0.5222 | µg/L | -0.5222 | ppb | 19:18:09 |
| 1 | Mn 257.610† | -225.9 | 21.1 | 0.0756 | µg/L | 0.0756 | ppb | 19:18:29 |
| 1 | Mo 202.031† | -2.6 | 4.9 | 0.5275 | µg/L | 0.5275 | ppb | 19:18:29 |
| 1 | Ni 231.604† | 310.8 | 4.6 | 0.2529 | µg/L | 0.2529 | ppb | 19:18:29 |
| 1 | P 214.914† | 22.3 | -5.6 | -12.052 | µg/L | -12.052 | ppb | 19:18:29 |
| 1 | Pb 220.353† | 97.2 | -1.3 | -0.3391 | µg/L | -0.3391 | ppb | 19:18:29 |
| 1 | S 181.975 Axial† | 15.8 | 0.7 | 3.2436 | µg/L | 3.2436 | ppb | 19:18:29 |
| 1 | Sb 206.836† | 30.1 | 2.8 | 2.7305 | µg/L | 2.7305 | ppb | 19:18:29 |
| 1 | Se 196.026† | 14.9 | -1.1 | -1.6720 | µg/L | -1.6720 | ppb | 19:18:29 |
| 1 | SiO2† | 1241.8 | -24.3 | -5.2260 | µg/L | -5.2260 | ppb | 19:18:09 |
| 1 | Si 251.611† | 314.2 | -2.7 | -0.2249 | µg/L | -0.2249 | ppb | 19:18:29 |
| 1 | Sn 189.927† | 3.0 | 3.9 | 1.7687 | µg/L | 1.7687 | ppb | 19:18:29 |
| 1 | Ti 334.940† | 129.2 | 11.4 | 0.0278 | µg/L | 0.0278 | ppb | 19:18:09 |
| 1 | Tl 190.801† | -22.4 | 2.2 | 3.0821 | µg/L | 3.0821 | ppb | 19:18:29 |
| 1 | U 409.014† | -44.2 | 10.0 | 0.9045 | µg/L | 0.9045 | ppb | 19:18:09 |
| 1 | V 292.402† | 22.3 | 66.2 | 0.7146 | µg/L | 0.7146 | ppb | 19:18:09 |
| 1 | Zn 213.857† | 480.2 | -1.5 | -0.0391 | µg/L | -0.0391 | ppb | 19:18:29 |
| 2 | Sc RADIAL | 55841.1 | 55841.1 | 102 | % | | | 19:17:07 |
| 2 | Al 396.153Radial† | -0.2 | 10.0 | 7.4245 | µg/L | 7.4245 | ppb | 19:17:07 |
| 2 | Ca 317.933Radial† | 185.5 | 2.1 | 1.9861 | µg/L | 1.9861 | ppb | 19:17:27 |
| 2 | Fe 238.204 Radial† | 13.8 | -1.1 | -8.9579 | µg/L | -8.9579 | ppb | 19:17:27 |
| 2 | K 766.490 Radial† | 118.8 | -12.3 | -8.7251 | µg/L | -8.7251 | ppb | 19:17:07 |
| 2 | Mg 279.077 IEC† | 12.4 | 0.9 | 8.1129 | µg/L | 8.1129 | ppb | 19:17:27 |
| 2 | Na 589.592 Radial† | 684.6 | 127.2 | 41.869 | µg/L | 41.869 | ppb | 19:17:07 |
| 2 | Sr 421.552† | 48.5 | 7.8 | 0.0810 | µg/L | 0.0810 | ppb | 19:17:07 |
| 2 | Sc 361.383 | 1955516.9 | 1955516.9 | 102.39 | % | | | 19:18:35 |
| 2 | Y 371.029 | 1342161.2 | 1342161.2 | 102.46 | % | | | 19:18:35 |
| 2 | Ag 328.068† | -513.3 | 63.2 | 0.5022 | µg/L | 0.5022 | ppb | 19:18:41 |
| 2 | As 188.979† | -5.0 | -6.0 | -11.703 | µg/L | -11.703 | ppb | 19:19:01 |
| 2 | B 249.677† | 317.0 | -21.8 | -0.9495 | µg/L | -0.9495 | ppb | 19:19:01 |
| 2 | Ba 233.527† | -19.8 | 6.7 | 0.1743 | µg/L | 0.1743 | ppb | 19:19:01 |
| 2 | Be 313.107† | -3409.1 | 110.9 | 0.0724 | µg/L | 0.0724 | ppb | 19:18:41 |
| 2 | Cd 226.502† | -125.7 | 19.4 | 0.5362 | µg/L | 0.5362 | ppb | 19:19:01 |
| 2 | Co 228.616† | -4.9 | 4.1 | 0.1998 | µg/L | 0.1998 | ppb | 19:19:01 |
| 2 | Cr 267.716† | -35.7 | 17.5 | 0.3848 | µg/L | 0.3848 | ppb | 19:18:41 |
| 2 | Cu 324.752† | 2432.5 | -110.5 | -0.7728 | µg/L | -0.7728 | ppb | 19:18:41 |
| 2 | Mn 257.610† | -217.1 | 32.1 | 0.1097 | µg/L | 0.1097 | ppb | 19:19:01 |
| 2 | Mo 202.031† | -0.2 | 7.4 | 0.7857 | µg/L | 0.7857 | ppb | 19:19:01 |
| 2 | Ni 231.604† | 307.3 | -2.1 | -0.1144 | µg/L | -0.1144 | ppb | 19:19:01 |
| 2 | P 214.914† | 26.8 | -1.4 | -2.9443 | µg/L | -2.9443 | ppb | 19:19:01 |
| 2 | Pb 220.353† | 98.0 | -1.5 | -0.3841 | µg/L | -0.3841 | ppb | 19:19:01 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 16.0 | 0.8 | 3.5945 µg/L | 3.5945 ppb | 19:19:01 |
| 2 | Sb 206.836† | 19.9 | -7.6 | -7.4359 µg/L | -7.4359 ppb | 19:19:01 |
| 2 | Se 196.026† | 24.3 | 7.9 | 11.982 µg/L | 11.982 ppb | 19:19:01 |
| 2 | SiO2† | 1252.6 | -26.7 | -5.7496 µg/L | -5.7496 ppb | 19:18:41 |
| 2 | Si 251.611† | 335.5 | 14.8 | 1.2146 µg/L | 1.2146 ppb | 19:19:01 |
| 2 | Sn 189.927† | 0.8 | 1.7 | 0.7658 µg/L | 0.7658 ppb | 19:19:01 |
| 2 | Ti 334.940† | 159.2 | 39.3 | 0.0940 µg/L | 0.0940 ppb | 19:18:41 |
| 2 | Tl 190.801† | -19.6 | 5.1 | 7.1712 µg/L | 7.1712 ppb | 19:19:01 |
| 2 | U 409.014† | -39.3 | 15.2 | 1.3764 µg/L | 1.3764 ppb | 19:18:41 |
| 2 | V 292.402† | -32.1 | 12.8 | 0.1441 µg/L | 0.1441 ppb | 19:18:41 |
| 2 | Zn 213.857† | 480.1 | -6.6 | -0.1635 µg/L | -0.1635 ppb | 19:19:01 |
| 3 | Sc RADIAL | 54991.0 | 54991.0 | 101 % | | 19:17:32 |
| 3 | Al 396.153Radial† | -25.8 | -15.4 | -11.501 µg/L | -11.501 ppb | 19:17:32 |
| 3 | Ca 317.933Radial† | 179.1 | -1.4 | -1.2826 µg/L | -1.2826 ppb | 19:17:53 |
| 3 | Fe 238.204 Radial† | 16.1 | 1.5 | 12.918 µg/L | 12.918 ppb | 19:17:53 |
| 3 | K 766.490 Radial† | 157.4 | 27.8 | 19.781 µg/L | 19.781 ppb | 19:17:32 |
| 3 | Mg 279.077 IEC† | 9.1 | -2.2 | -20.551 µg/L | -20.551 ppb | 19:17:53 |
| 3 | Na 589.592 Radial† | 624.4 | 77.8 | 25.618 µg/L | 25.618 ppb | 19:17:32 |
| 3 | Sr 421.552† | 39.8 | -0.1 | -0.0009 µg/L | -0.0009 ppb | 19:17:32 |
| 3 | Sc 361.383 | 1967438.1 | 1967438.1 | 103.02 % | | 19:19:07 |
| 3 | Y 371.029 | 1348776.4 | 1348776.4 | 102.97 % | | 19:19:07 |
| 3 | Ag 328.068† | -543.2 | 37.2 | 0.2976 µg/L | 0.2976 ppb | 19:19:13 |
| 3 | As 188.979† | -2.4 | -3.5 | -6.8853 µg/L | -6.8853 ppb | 19:19:33 |
| 3 | B 249.677† | 305.4 | -35.0 | -1.5334 µg/L | -1.5334 ppb | 19:19:33 |
| 3 | Ba 233.527† | -26.9 | -0.1 | -0.0009 µg/L | -0.0009 ppb | 19:19:33 |
| 3 | Be 313.107† | -3287.9 | 248.8 | 0.1624 µg/L | 0.1624 ppb | 19:19:13 |
| 3 | Cd 226.502† | -133.1 | 12.9 | 0.3539 µg/L | 0.3539 ppb | 19:19:33 |
| 3 | Co 228.616† | -14.2 | -5.0 | -0.2450 µg/L | -0.2450 ppb | 19:19:33 |
| 3 | Cr 267.716† | -20.7 | 32.3 | 0.7108 µg/L | 0.7108 ppb | 19:19:13 |
| 3 | Cu 324.752† | 2481.8 | -76.9 | -0.5355 µg/L | -0.5355 ppb | 19:19:13 |
| 3 | Mn 257.610† | -209.8 | 40.5 | 0.1427 µg/L | 0.1427 ppb | 19:19:33 |
| 3 | Mo 202.031† | -10.0 | -2.2 | -0.2320 µg/L | -0.2320 ppb | 19:19:33 |
| 3 | Ni 231.604† | 301.2 | -9.8 | -0.5340 µg/L | -0.5340 ppb | 19:19:33 |
| 3 | P 214.914† | 26.0 | -2.4 | -5.0576 µg/L | -5.0576 ppb | 19:19:33 |
| 3 | Pb 220.353† | 96.7 | -3.3 | -0.8887 µg/L | -0.8887 ppb | 19:19:33 |
| 3 | S 181.975 Axial† | 14.9 | -0.4 | -1.5487 µg/L | -1.5487 ppb | 19:19:33 |
| 3 | Sb 206.836† | 32.3 | 4.4 | 4.3137 µg/L | 4.3137 ppb | 19:19:33 |
| 3 | Se 196.026† | 14.2 | -2.1 | -3.1442 µg/L | -3.1442 ppb | 19:19:33 |
| 3 | SiO2† | 1256.2 | -30.6 | -6.5854 µg/L | -6.5854 ppb | 19:19:13 |
| 3 | Si 251.611† | 309.4 | -12.5 | -1.0288 µg/L | -1.0288 ppb | 19:19:33 |
| 3 | Sn 189.927† | -1.0 | -0.1 | -0.0403 µg/L | -0.0403 ppb | 19:19:33 |
| 3 | Ti 334.940† | 153.9 | 33.3 | 0.0816 µg/L | 0.0816 ppb | 19:19:13 |
| 3 | Tl 190.801† | -21.2 | 3.7 | 5.1463 µg/L | 5.1463 ppb | 19:19:33 |
| 3 | U 409.014† | -6.3 | 47.5 | 4.3005 µg/L | 4.3005 ppb | 19:19:13 |
| 3 | V 292.402† | -20.0 | 24.8 | 0.2699 µg/L | 0.2699 ppb | 19:19:13 |
| 3 | Zn 213.857† | 479.8 | -9.8 | -0.2409 µg/L | -0.2409 ppb | 19:19:33 |

---

**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1952594.9 | 102.24 | % | 0.864 | | | | 0.84% |
| Sc RADIAL | 55477.6 | 102 | % | 0.8 | | | | 0.79% |
| Y 371.029 | 1339376.1 | 102.25 | % | 0.844 | | | | 0.83% |
| Ag 328.068† | 51.7 | 0.4129 | µg/L | 0.10471 | 0.4129 | ppb | 0.10471 | 25.36% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 0.1 | 0.0498 | µg/L | 10.13010 | 0.0498 | ppb | 10.13010 | >999.9% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -3.2 | -6.1678 | µg/L | 5.92624 | -6.1678 | ppb | 5.92624 | 96.08% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -23.7 | -1.0371 | µg/L | 0.45878 | -1.0371 | ppb | 0.45878 | 44.24% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 3.1 | 0.0805 | µg/L | 0.08826 | 0.0805 | ppb | 0.08826 | 109.58% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 145.3 | 0.0949 | µg/L | 0.05957 | 0.0949 | ppb | 0.05957 | 62.77% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | -1.7 | -1.5667 | µg/L | 3.70306 | -1.5667 | ppb | 3.70306 | 236.36% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 10.7 | 0.2934 | µg/L | 0.27809 | 0.2934 | ppb | 0.27809 | 94.78% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | 0.7 | 0.0335 | µg/L | 0.24267 | 0.0335 | ppb | 0.24267 | 724.80% |

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.8      0.6341 µg/L       0.22120      0.6341 ppb        0.22120  34.88%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -87.5     -0.6102 µg/L       0.14102     -0.6102 ppb        0.14102  23.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      7.1335 µg/L      14.11778      7.1335 ppb       14.11778 197.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           1.9      1.3465 µg/L      15.98731      1.3465 ppb       15.98731 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -5.9243 µg/L      14.34120     -5.9243 ppb       14.34120 242.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                31.2      0.1094 µg/L       0.03354      0.1094 ppb        0.03354  30.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.3604 µg/L       0.52901      0.3604 ppb        0.52901 146.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.2      33.329 µg/L        8.1571      33.329 ppb         8.1571  24.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.4     -0.1318 µg/L       0.39372     -0.1318 ppb        0.39372 298.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.1     -6.6846 µg/L       4.76680     -6.6846 ppb        4.76680  71.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.0     -0.5373 µg/L       0.30511     -0.5373 ppb        0.30511  56.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      1.7632 µg/L       2.87351      1.7632 ppb        2.87351 162.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.1306 µg/L       6.37594     -0.1306 ppb        6.37594 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.6      2.3884 µg/L       8.34041      2.3884 ppb        8.34041 349.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -27.2     -5.8537 µg/L       0.68563     -5.8537 ppb        0.68563  11.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                -0.2     -0.0130 µg/L       1.13664     -0.0130 ppb        1.13664 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.8314 µg/L       0.90630      0.8314 ppb        0.90630 109.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -3.2     -0.0330 µg/L       0.13293     -0.0330 ppb        0.13293 403.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.0      0.0678 µg/L       0.03518      0.0678 ppb        0.03518  51.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.7      5.1332 µg/L       2.04457      5.1332 ppb        2.04457  39.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.2      2.1938 µg/L       1.83966      2.1938 ppb        1.83966  83.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 34.6      0.3762 µg/L       0.29972      0.3762 ppb        0.29972  79.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -6.0     -0.1478 µg/L       0.10182     -0.1478 ppb        0.10182  68.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: 1202032557|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 2/11/2010 19:19:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032557|948737|1

| Rep1# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56162.6 | 56162.6 | 103 | % | | | 19:20:21 |
| 1 | Al 396.153Radial† | -0.9 | 9.2 | 6.8694 | µg/L | 6.8694 | ppb | 19:20:21 |
| 1 | Ca 317.933Radial† | 193.4 | 8.8 | 8.2949 | µg/L | 8.2949 | ppb | 19:20:41 |
| 1 | Fe 238.204 Radial† | 17.5 | 2.5 | 21.049 | µg/L | 21.049 | ppb | 19:20:41 |
| 1 | K 766.490 Radial† | 140.5 | 8.2 | 5.7964 | µg/L | 5.7964 | ppb | 19:20:21 |
| 1 | Mg 279.077 IEC† | 14.7 | 3.0 | 27.583 | µg/L | 27.583 | ppb | 19:20:41 |
| 1 | Na 589.592 Radial† | 619.9 | 60.5 | 19.922 | µg/L | 19.922 | ppb | 19:20:21 |
| 1 | Sr 421.552† | 24.9 | -15.4 | -0.1597 | µg/L | -0.1597 | ppb | 19:20:21 |
| 1 | Sc 361.383 | 1969009.3 | 1969009.3 | 103.10 | % | | | 19:21:43 |
| 1 | Y 371.029 | 1347307.8 | 1347307.8 | 102.85 | % | | | 19:21:43 |
| 1 | Ag 328.068† | -572.7 | 9.0 | 0.0759 | µg/L | 0.0759 | ppb | 19:21:49 |
| 1 | As 188.979† | 4.3 | 3.1 | 5.9676 | µg/L | 5.9676 | ppb | 19:22:09 |
| 1 | B 249.677† | 319.3 | -21.8 | -0.9629 | µg/L | -0.9629 | ppb | 19:22:09 |
| 1 | Ba 233.527† | -16.2 | 10.3 | 0.2702 | µg/L | 0.2702 | ppb | 19:22:09 |
| 1 | Be 313.107† | -3531.0 | 15.6 | 0.0101 | µg/L | 0.0101 | ppb | 19:21:49 |
| 1 | Cd 226.502† | -147.1 | -0.5 | -0.0161 | µg/L | -0.0161 | ppb | 19:22:09 |
| 1 | Co 228.616† | -17.1 | -7.8 | -0.3825 | µg/L | -0.3825 | ppb | 19:22:09 |
| 1 | Cr 267.716† | -24.9 | 28.2 | 0.6201 | µg/L | 0.6201 | ppb | 19:22:09 |
| 1 | Cu 324.752† | 2344.0 | -212.5 | -1.4815 | µg/L | -1.4815 | ppb | 19:21:49 |
| 1 | Mn 257.610† | -173.7 | 75.6 | 0.2635 | µg/L | 0.2635 | ppb | 19:22:09 |
| 1 | Mo 202.031† | -7.4 | 0.3 | 0.0356 | µg/L | 0.0356 | ppb | 19:22:09 |
| 1 | Ni 231.604† | 312.9 | 1.3 | 0.0735 | µg/L | 0.0735 | ppb | 19:22:09 |
| 1 | P 214.914† | 30.5 | 2.0 | 4.4454 | µg/L | 4.4454 | ppb | 19:22:09 |
| 1 | Pb 220.353† | 103.9 | 3.6 | 0.9614 | µg/L | 0.9614 | ppb | 19:22:09 |
| 1 | S 181.975 Axial† | 17.6 | 2.3 | 9.8847 | µg/L | 9.8847 | ppb | 19:22:09 |
| 1 | Sb 206.836† | 28.0 | 0.2 | 0.2152 | µg/L | 0.2152 | ppb | 19:22:09 |
| 1 | Se 196.026† | 17.5 | 1.2 | 1.8091 | µg/L | 1.8091 | ppb | 19:22:09 |
| 1 | SiO2† | 1345.3 | 54.8 | 11.812 | µg/L | 11.812 | ppb | 19:21:49 |
| 1 | Si 251.611† | 418.6 | 93.2 | 7.6584 | µg/L | 7.6584 | ppb | 19:22:09 |
| 1 | Sn 189.927† | -0.5 | 0.4 | 0.1929 | µg/L | 0.1929 | ppb | 19:22:09 |
| 1 | Ti 334.940† | 191.4 | 69.5 | 0.1652 | µg/L | 0.1652 | ppb | 19:21:49 |
| 1 | Tl 190.801† | -19.7 | 5.2 | 7.2052 | µg/L | 7.2052 | ppb | 19:22:09 |
| 1 | U 409.014† | -22.0 | 32.3 | 2.9184 | µg/L | 2.9184 | ppb | 19:21:49 |
| 1 | V 292.402† | -1.5 | 42.8 | 0.4631 | µg/L | 0.4631 | ppb | 19:21:49 |
| 1 | Zn 213.857† | 523.7 | 32.4 | 0.8081 | µg/L | 0.8081 | ppb | 19:22:09 |
| 2 | Sc RADIAL | 57033.0 | 57033.0 | 105 | % | | | 19:20:47 |
| 2 | Al 396.153Radial† | -29.2 | -17.8 | -13.303 | µg/L | -13.303 | ppb | 19:20:47 |
| 2 | Ca 317.933Radial† | 198.1 | 10.4 | 9.7767 | µg/L | 9.7767 | ppb | 19:21:07 |
| 2 | Fe 238.204 Radial† | 15.7 | 0.5 | 4.2922 | µg/L | 4.2922 | ppb | 19:21:07 |
| 2 | K 766.490 Radial† | 163.1 | 27.6 | 19.636 | µg/L | 19.636 | ppb | 19:20:47 |
| 2 | Mg 279.077 IEC† | 8.2 | -3.5 | -32.175 | µg/L | -32.175 | ppb | 19:21:07 |
| 2 | Na 589.592 Radial† | 627.1 | 58.2 | 19.145 | µg/L | 19.145 | ppb | 19:20:47 |
| 2 | Sr 421.552† | 15.7 | -24.5 | -0.2542 | µg/L | -0.2542 | ppb | 19:20:47 |
| 2 | Sc 361.383 | 1951926.6 | 1951926.6 | 102.20 | % | | | 19:22:15 |
| 2 | Y 371.029 | 1336400.0 | 1336400.0 | 102.02 | % | | | 19:22:15 |
| 2 | Ag 328.068† | -524.4 | 51.4 | 0.4117 | µg/L | 0.4117 | ppb | 19:22:21 |
| 2 | As 188.979† | -1.8 | -2.9 | -5.6797 | µg/L | -5.6797 | ppb | 19:22:41 |
| 2 | B 249.677† | 313.0 | -25.2 | -1.1037 | µg/L | -1.1037 | ppb | 19:22:41 |
| 2 | Ba 233.527† | -15.7 | 10.7 | 0.2791 | µg/L | 0.2791 | ppb | 19:22:41 |
| 2 | Be 313.107† | -3486.1 | 29.5 | 0.0193 | µg/L | 0.0193 | ppb | 19:22:21 |
| 2 | Cd 226.502† | -132.0 | 13.0 | 0.3577 | µg/L | 0.3577 | ppb | 19:22:41 |
| 2 | Co 228.616† | -14.0 | -4.8 | -0.2372 | µg/L | -0.2372 | ppb | 19:22:41 |
| 2 | Cr 267.716† | -26.4 | 26.5 | 0.5835 | µg/L | 0.5835 | ppb | 19:22:41 |
| 2 | Cu 324.752† | 2384.5 | -153.0 | -1.0685 | µg/L | -1.0685 | ppb | 19:22:21 |
| 2 | Mn 257.610† | -179.0 | 69.0 | 0.2407 | µg/L | 0.2407 | ppb | 19:22:41 |
| 2 | Mo 202.031† | -5.7 | 1.9 | 0.2054 | µg/L | 0.2054 | ppb | 19:22:41 |
| 2 | Ni 231.604† | 320.7 | 11.6 | 0.6340 | µg/L | 0.6340 | ppb | 19:22:41 |
| 2 | P 214.914† | 24.8 | -3.3 | -7.0323 | µg/L | -7.0323 | ppb | 19:22:41 |
| 2 | Pb 220.353† | 91.9 | -7.2 | -1.9278 | µg/L | -1.9278 | ppb | 19:22:41 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 19.7 | 4.5 | 19.528 µg/L | 19.528 ppb | 19:22:41 |
| 2 | Sb 206.836† | 24.0 | -3.5 | -3.4566 µg/L | -3.4566 ppb | 19:22:41 |
| 2 | Se 196.026† | 13.6 | -2.5 | -3.7596 µg/L | -3.7596 ppb | 19:22:41 |
| 2 | SiO2† | 1333.2 | 54.4 | 11.718 µg/L | 11.718 ppb | 19:22:21 |
| 2 | Si 251.611† | 413.0 | 91.2 | 7.4996 µg/L | 7.4996 ppb | 19:22:41 |
| 2 | Sn 189.927† | 0.9 | 1.7 | 0.7999 µg/L | 0.7999 ppb | 19:22:41 |
| 2 | Ti 334.940† | 113.7 | -4.8 | -0.0089 µg/L | -0.0089 ppb | 19:22:21 |
| 2 | Tl 190.801† | -24.7 | 0.1 | 0.1231 µg/L | 0.1231 ppb | 19:22:41 |
| 2 | U 409.014† | -59.8 | -4.9 | -0.4425 µg/L | -0.4425 ppb | 19:22:21 |
| 2 | V 292.402† | 4.4 | 48.6 | 0.5204 µg/L | 0.5204 ppb | 19:22:21 |
| 2 | Zn 213.857† | 510.3 | 23.7 | 0.5934 µg/L | 0.5934 ppb | 19:22:41 |
| 3 | Sc RADIAL | 55968.5 | 55968.5 | 103 % | | 19:21:13 |
| 3 | Al 396.153Radial† | -7.1 | 3.2 | 2.3751 µg/L | 2.3751 ppb | 19:21:13 |
| 3 | Ca 317.933Radial† | 199.5 | 15.4 | 14.455 µg/L | 14.455 ppb | 19:21:33 |
| 3 | Fe 238.204 Radial† | 15.7 | 0.8 | 6.8156 µg/L | 6.8156 ppb | 19:21:33 |
| 3 | K 766.490 Radial† | 147.8 | 15.7 | 11.190 µg/L | 11.190 ppb | 19:21:13 |
| 3 | Mg 279.077 IEC† | 15.9 | 4.2 | 39.435 µg/L | 39.435 ppb | 19:21:33 |
| 3 | Na 589.592 Radial† | 631.7 | 74.1 | 24.401 µg/L | 24.401 ppb | 19:21:13 |
| 3 | Sr 421.552† | 49.4 | 8.6 | 0.0895 µg/L | 0.0895 ppb | 19:21:13 |
| 3 | Sc 361.383 | 1933204.1 | 1933204.1 | 101.22 % | | 19:22:47 |
| 3 | Y 371.029 | 1323935.5 | 1323935.5 | 101.07 % | | 19:22:47 |
| 3 | Ag 328.068† | -593.9 | -22.2 | -0.1725 µg/L | -0.1725 ppb | 19:22:53 |
| 3 | As 188.979† | 2.3 | 1.1 | 2.1309 µg/L | 2.1309 ppb | 19:23:13 |
| 3 | B 249.677† | 321.0 | -14.3 | -0.6295 µg/L | -0.6295 ppb | 19:23:13 |
| 3 | Ba 233.527† | -21.8 | 4.5 | 0.1184 µg/L | 0.1184 ppb | 19:23:13 |
| 3 | Be 313.107† | -3438.4 | 43.6 | 0.0285 µg/L | 0.0285 ppb | 19:22:53 |
| 3 | Cd 226.502† | -140.8 | 3.0 | 0.0822 µg/L | 0.0822 ppb | 19:23:13 |
| 3 | Co 228.616† | -13.8 | -4.8 | -0.2340 µg/L | -0.2340 ppb | 19:23:13 |
| 3 | Cr 267.716† | -34.4 | 18.4 | 0.4049 µg/L | 0.4049 ppb | 19:23:13 |
| 3 | Cu 324.752† | 2432.8 | -82.7 | -0.5764 µg/L | -0.5764 ppb | 19:22:53 |
| 3 | Mn 257.610† | -182.3 | 64.0 | 0.2209 µg/L | 0.2209 ppb | 19:23:13 |
| 3 | Mo 202.031† | -4.6 | 3.0 | 0.3226 µg/L | 0.3226 ppb | 19:23:13 |
| 3 | Ni 231.604† | 307.3 | 1.4 | 0.0745 µg/L | 0.0745 ppb | 19:23:13 |
| 3 | P 214.914† | 29.5 | 1.5 | 3.2678 µg/L | 3.2678 ppb | 19:23:13 |
| 3 | Pb 220.353† | 88.5 | -9.8 | -2.6006 µg/L | -2.6006 ppb | 19:23:13 |
| 3 | S 181.975 Axial† | 15.9 | 0.9 | 3.7746 µg/L | 3.7746 ppb | 19:23:13 |
| 3 | Sb 206.836† | 23.1 | -4.2 | -4.0869 µg/L | -4.0869 ppb | 19:23:13 |
| 3 | Se 196.026† | 8.2 | -7.7 | -11.834 µg/L | -11.834 ppb | 19:23:13 |
| 3 | SiO2† | 1331.0 | 64.9 | 13.967 µg/L | 13.967 ppb | 19:22:53 |
| 3 | Si 251.611† | 405.4 | 87.6 | 7.2021 µg/L | 7.2021 ppb | 19:23:13 |
| 3 | Sn 189.927† | -4.0 | -3.1 | -1.4085 µg/L | -1.4085 ppb | 19:23:13 |
| 3 | Ti 334.940† | 115.8 | -1.7 | -0.0070 µg/L | -0.0070 ppb | 19:22:53 |
| 3 | Tl 190.801† | -23.4 | 1.2 | 1.6907 µg/L | 1.6907 ppb | 19:23:13 |
| 3 | U 409.014† | -46.8 | 7.4 | 0.6668 µg/L | 0.6668 ppb | 19:22:53 |
| 3 | V 292.402† | -2.1 | 42.2 | 0.4542 µg/L | 0.4542 ppb | 19:22:53 |
| 3 | Zn 213.857† | 517.2 | 35.4 | 0.8820 µg/L | 0.8820 ppb | 19:23:13 |

**Mean Data: 1202032557|948737|1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1951380.0 | 102.18 | % | 0.938 | | | | 0.92% |
| Sc RADIAL | 56388.0 | 103 | % | 1.0 | | | | 1.01% |
| Y 371.029 | 1335881.1 | 101.98 | % | 0.893 | | | | 0.88% |
| Ag 328.068† | 12.8 | 0.1050 | µg/L | 0.29320 | 0.1050 | ppb | 0.29320 | 279.21% |
| Al 396.153Radial† | -1.8 | -1.3527 | µg/L | 10.59010 | -1.3527 | ppb | 10.59010 | 782.87% |
| As 188.979† | 0.4 | 0.8062 | µg/L | 5.93558 | 0.8062 | ppb | 5.93558 | 736.20% |
| B 249.677† | -20.5 | -0.8987 | µg/L | 0.24350 | -0.8987 | ppb | 0.24350 | 27.09% |
| Ba 233.527† | 8.5 | 0.2226 | µg/L | 0.09033 | 0.2226 | ppb | 0.09033 | 40.59% |
| Be 313.107† | 29.6 | 0.0193 | µg/L | 0.00919 | 0.0193 | ppb | 0.00919 | 47.63% |
| Ca 317.933Radial† | 11.5 | 10.842 | µg/L | 3.2155 | 10.842 | ppb | 3.2155 | 29.66% |
| Cd 226.502† | 5.2 | 0.1413 | µg/L | 0.19380 | 0.1413 | ppb | 0.19380 | 137.20% |
| Co 228.616† | -5.8 | -0.2846 | µg/L | 0.08480 | -0.2846 | ppb | 0.08480 | 29.80% |
| Cr 267.716† | 24.4 | 0.5362 | µg/L | 0.11516 | 0.5362 | ppb | 0.11516 | 21.48% |
| Cu 324.752† | -149.4 | -1.0421 | µg/L | 0.45311 | -1.0421 | ppb | 0.45311 | 43.48% |
| Fe 238.204 Radial† | 1.3 | 10.719 | µg/L | 9.0344 | 10.719 | ppb | 9.0344 | 84.29% |
| K 766.490 Radial† | 17.2 | 12.207 | µg/L | 6.9755 | 12.207 | ppb | 6.9755 | 57.14% |
| Mg 279.077 IEC† | 1.2 | 11.614 | µg/L | 38.3828 | 11.614 | ppb | 38.3828 | 330.48% |
| Mn 257.610† | 69.5 | 0.2417 | µg/L | 0.02130 | 0.2417 | ppb | 0.02130 | 8.81% |
| Mo 202.031† | 1.8 | 0.1879 | µg/L | 0.14430 | 0.1879 | ppb | 0.14430 | 76.81% |
| Na 589.592 Radial† | 64.3 | 21.156 | µg/L | 2.8374 | 21.156 | ppb | 2.8374 | 13.41% |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ni 231.604† | 4.8 | 0.2607 µg/L | 0.32337 | 0.2607 ppb | 0.32337 | 124.06% |
| P 214.914† | 0.1 | 0.2270 µg/L | 6.31420 | 0.2270 ppb | 6.31420 | >999.9% |
| Pb 220.353† | -4.5 | -1.1890 µg/L | 1.89244 | -1.1890 ppb | 1.89244 | 159.16% |
| S 181.975 Axial† | 2.5 | 11.063 µg/L | 7.9427 | 11.063 ppb | 7.9427 | 71.80% |
| Sb 206.836† | -2.5 | -2.4428 µg/L | 2.32335 | -2.4428 ppb | 2.32335 | 95.11% |
| Se 196.026† | -3.0 | -4.5949 µg/L | 6.85979 | -4.5949 ppb | 6.85979 | 149.29% |
| SiO2† | 58.0 | 12.499 µg/L | 1.2722 | 12.499 ppb | 1.2722 | 10.18% |
| Si 251.611† | 90.7 | 7.4534 µg/L | 0.23165 | 7.4534 ppb | 0.23165 | 3.11% |
| Sn 189.927† | -0.3 | -0.1385 µg/L | 1.14090 | -0.1385 ppb | 1.14090 | 823.53% |
| Sr 421.552† | -10.4 | -0.1081 µg/L | 0.17752 | -0.1081 ppb | 0.17752 | 164.18% |
| Ti 334.940† | 21.0 | 0.0497 µg/L | 0.09997 | 0.0497 ppb | 0.09997 | 200.99% |
| Tl 190.801† | 2.2 | 3.0063 µg/L | 3.71983 | 3.0063 ppb | 3.71983 | 123.73% |
| U 409.014† | 11.6 | 1.0476 µg/L | 1.71251 | 1.0476 ppb | 1.71251 | 163.48% |
| V 292.402† | 44.5 | 0.4792 µg/L | 0.03595 | 0.4792 ppb | 0.03595 | 7.50% |
| Zn 213.857† | 30.5 | 0.7612 µg/L | 0.14993 | 0.7612 ppb | 0.14993 | 19.70% |

Sequence No.: 41
Sample ID: 1202032558|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 2/11/2010 19:23:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032558|948737|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55855.2 | 55855.2 | 102 | % | | | 19:23:56 |
| 1 | Al 396.153Radial† | 6859.1 | 6711.9 | 4992.3 | µg/L | 4992.3 | ppb | 19:24:17 |
| 1 | Ca 317.933Radial† | 5588.0 | 5280.7 | 4972.1 | µg/L | 4972.1 | ppb | 19:24:17 |
| 1 | Fe 238.204 Radial† | 622.5 | 593.7 | 5042.2 | µg/L | 5042.2 | ppb | 19:24:17 |
| 1 | K 766.490 Radial† | 7222.5 | 6928.5 | 4924.7 | µg/L | 4924.7 | ppb | 19:23:56 |
| 1 | Mg 279.077 IEC† | 568.8 | 544.5 | 5070.0 | µg/L | 5070.0 | ppb | 19:24:17 |
| 1 | Na 589.592 Radial† | 16067.2 | 15156.9 | 4989.7 | µg/L | 4989.7 | ppb | 19:23:56 |
| 1 | Sr 421.552† | 48385.5 | 47236.4 | 489.66 | µg/L | 489.66 | ppb | 19:23:56 |
| 1 | Sc 361.383 | 1989589.0 | 1989589.0 | 104.18 | % | | | 19:25:20 |
| 1 | Y 371.029 | 1358828.2 | 1358828.2 | 103.73 | % | | | 19:25:20 |
| 1 | Ag 328.068† | 62403.6 | 60466.8 | 483.35 | µg/L | 483.35 | ppb | 19:25:26 |
| 1 | As 188.979† | 266.7 | 254.9 | 497.19 | µg/L | 497.19 | ppb | 19:25:46 |
| 1 | B 249.677† | 11770.1 | 10966.8 | 477.43 | µg/L | 477.43 | ppb | 19:25:26 |
| 1 | Ba 233.527† | 19609.2 | 18849.2 | 491.69 | µg/L | 491.69 | ppb | 19:25:26 |
| 1 | Be 313.107† | 765769.4 | 738515.5 | 482.11 | µg/L | 482.11 | ppb | 19:25:20 |
| 1 | Cd 226.502† | 18133.6 | 17548.9 | 484.07 | µg/L | 484.07 | ppb | 19:25:26 |
| 1 | Co 228.616† | 10204.7 | 9804.5 | 481.95 | µg/L | 481.95 | ppb | 19:25:26 |
| 1 | Cr 267.716† | 23258.1 | 22378.3 | 492.54 | µg/L | 492.54 | ppb | 19:25:26 |
| 1 | Cu 324.752† | 75730.0 | 70208.4 | 491.12 | µg/L | 491.12 | ppb | 19:25:26 |
| 1 | Mn 257.610† | 147968.6 | 142281.7 | 493.17 | µg/L | 493.17 | ppb | 19:25:20 |
| 1 | Mo 202.031† | 4884.5 | 4696.3 | 501.38 | µg/L | 501.38 | ppb | 19:25:46 |
| 1 | Ni 231.604† | 9732.2 | 9040.0 | 493.75 | µg/L | 493.75 | ppb | 19:25:26 |
| 1 | P 214.914† | 274.6 | 235.9 | 460.07 | µg/L | 460.07 | ppb | 19:25:46 |
| 1 | Pb 220.353† | 2040.6 | 1861.6 | 496.90 | µg/L | 496.90 | ppb | 19:25:46 |
| 1 | S 181.975 Axial† | 1213.5 | 1150.0 | 5038.6 | µg/L | 5038.6 | ppb | 19:25:46 |
| 1 | Sb 206.836† | 565.3 | 515.7 | 509.80 | µg/L | 509.80 | ppb | 19:25:46 |
| 1 | Se 196.026† | 348.9 | 319.1 | 494.37 | µg/L | 494.37 | ppb | 19:25:46 |
| 1 | SiO2† | 50535.9 | 47260.3 | 10178 | µg/L | 10178 | ppb | 19:25:26 |
| 1 | Si 251.611† | 60336.9 | 57605.6 | 4735.5 | µg/L | 4735.5 | ppb | 19:25:26 |
| 1 | Sn 189.927† | 1211.5 | 1163.8 | 535.30 | µg/L | 535.30 | ppb | 19:25:46 |
| 1 | Ti 334.940† | 209639.9 | 201120.8 | 483.46 | µg/L | 483.46 | ppb | 19:25:20 |
| 1 | Tl 190.801† | 344.0 | 354.5 | 500.64 | µg/L | 500.64 | ppb | 19:25:46 |
| 1 | U 409.014† | 5812.7 | 5633.3 | 509.02 | µg/L | 509.02 | ppb | 19:25:26 |
| 1 | V 292.402† | 47804.6 | 45932.7 | 495.64 | µg/L | 495.64 | ppb | 19:25:26 |
| 1 | Zn 213.857† | 20684.3 | 19379.7 | 480.43 | µg/L | 480.43 | ppb | 19:25:26 |
| 2 | Sc RADIAL | 56621.3 | 56621.3 | 104 | % | | | 19:24:22 |
| 2 | Al 396.153Radial† | 6761.1 | 6526.9 | 4854.4 | µg/L | 4854.4 | ppb | 19:24:42 |
| 2 | Ca 317.933Radial† | 5510.9 | 5132.5 | 4832.6 | µg/L | 4832.6 | ppb | 19:24:42 |
| 2 | Fe 238.204 Radial† | 611.2 | 574.6 | 4880.2 | µg/L | 4880.2 | ppb | 19:24:42 |
| 2 | K 766.490 Radial† | 7318.8 | 6925.8 | 4922.8 | µg/L | 4922.8 | ppb | 19:24:22 |
| 2 | Mg 279.077 IEC† | 555.6 | 524.2 | 4881.7 | µg/L | 4881.7 | ppb | 19:24:42 |
| 2 | Na 589.592 Radial† | 16134.1 | 15009.0 | 4941.0 | µg/L | 4941.0 | ppb | 19:24:22 |
| 2 | Sr 421.552† | 48688.4 | 46888.7 | 486.06 | µg/L | 486.06 | ppb | 19:24:22 |
| 2 | Sc 361.383 | 1981021.9 | 1981021.9 | 103.73 | % | | | 19:25:53 |
| 2 | Y 371.029 | 1354467.5 | 1354467.5 | 103.40 | % | | | 19:25:53 |
| 2 | Ag 328.068† | 62083.9 | 60417.6 | 482.95 | µg/L | 482.95 | ppb | 19:25:59 |
| 2 | As 188.979† | 268.8 | 258.0 | 503.27 | µg/L | 503.27 | ppb | 19:26:19 |
| 2 | B 249.677† | 11697.0 | 10945.2 | 476.57 | µg/L | 476.57 | ppb | 19:25:59 |
| 2 | Ba 233.527† | 19543.5 | 18867.3 | 492.16 | µg/L | 492.16 | ppb | 19:25:59 |
| 2 | Be 313.107† | 766542.7 | 742439.8 | 484.67 | µg/L | 484.67 | ppb | 19:25:53 |
| 2 | Cd 226.502† | 18043.5 | 17537.3 | 483.77 | µg/L | 483.77 | ppb | 19:25:59 |
| 2 | Co 228.616† | 10157.9 | 9801.8 | 481.81 | µg/L | 481.81 | ppb | 19:25:59 |
| 2 | Cr 267.716† | 23124.1 | 22345.6 | 491.82 | µg/L | 491.82 | ppb | 19:25:59 |
| 2 | Cu 324.752† | 75467.1 | 70269.3 | 491.53 | µg/L | 491.53 | ppb | 19:25:59 |
| 2 | Mn 257.610† | 148155.6 | 143076.2 | 495.91 | µg/L | 495.91 | ppb | 19:25:53 |
| 2 | Mo 202.031† | 4832.3 | 4666.2 | 498.17 | µg/L | 498.17 | ppb | 19:26:19 |
| 2 | Ni 231.604† | 9667.7 | 9018.1 | 492.55 | µg/L | 492.55 | ppb | 19:25:59 |
| 2 | P 214.914† | 272.2 | 234.8 | 457.67 | µg/L | 457.67 | ppb | 19:26:19 |
| 2 | Pb 220.353† | 2044.7 | 1874.1 | 500.20 | µg/L | 500.20 | ppb | 19:26:19 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 1199.8 | 1141.9 | 5003.1 µg/L | 5003.1 ppb | 19:26:19 |
| 2 | Sb 206.836† | 565.3 | 518.0 | 512.02 µg/L | 512.02 ppb | 19:26:19 |
| 2 | Se 196.026† | 343.0 | 314.9 | 487.68 µg/L | 487.68 ppb | 19:26:19 |
| 2 | SiO2† | 50279.9 | 47223.2 | 10170 µg/L | 10170 ppb | 19:25:59 |
| 2 | Si 251.611† | 60047.4 | 57576.9 | 4733.1 µg/L | 4733.1 ppb | 19:25:59 |
| 2 | Sn 189.927† | 1201.8 | 1159.5 | 533.31 µg/L | 533.31 ppb | 19:26:19 |
| 2 | Ti 334.940† | 209553.6 | 201907.8 | 485.37 µg/L | 485.37 ppb | 19:25:53 |
| 2 | Tl 190.801† | 347.4 | 359.2 | 507.29 µg/L | 507.29 ppb | 19:26:19 |
| 2 | U 409.014† | 5749.9 | 5596.9 | 505.75 µg/L | 505.75 ppb | 19:25:59 |
| 2 | V 292.402† | 47601.0 | 45934.8 | 495.61 µg/L | 495.61 ppb | 19:25:59 |
| 2 | Zn 213.857† | 20543.3 | 19329.6 | 479.20 µg/L | 479.20 ppb | 19:25:59 |
| 3 | Sc RADIAL | 56667.3 | 56667.3 | 104 % | | 19:24:48 |
| 3 | Al 396.153Radial† | 6785.5 | 6545.0 | 4869.0 µg/L | 4869.0 ppb | 19:25:08 |
| 3 | Ca 317.933Radial† | 5519.1 | 5136.1 | 4836.0 µg/L | 4836.0 ppb | 19:25:08 |
| 3 | Fe 238.204 Radial† | 610.2 | 573.1 | 4867.6 µg/L | 4867.6 ppb | 19:25:08 |
| 3 | K 766.490 Radial† | 7189.7 | 6795.7 | 4830.4 µg/L | 4830.4 ppb | 19:24:48 |
| 3 | Mg 279.077 IEC† | 562.6 | 530.6 | 4940.1 µg/L | 4940.1 ppb | 19:25:08 |
| 3 | Na 589.592 Radial† | 15967.1 | 14835.5 | 4883.9 µg/L | 4883.9 ppb | 19:24:48 |
| 3 | Sr 421.552† | 48078.7 | 46263.5 | 479.58 µg/L | 479.58 ppb | 19:24:48 |
| 3 | Sc 361.383 | 1962516.7 | 1962516.7 | 102.76 % | | 19:26:26 |
| 3 | Y 371.029 | 1343125.0 | 1343125.0 | 102.53 % | | 19:26:26 |
| 3 | Ag 328.068† | 60804.7 | 59737.2 | 477.42 µg/L | 477.42 ppb | 19:26:32 |
| 3 | As 188.979† | 243.9 | 236.2 | 460.84 µg/L | 460.84 ppb | 19:26:53 |
| 3 | B 249.677† | 11399.3 | 10761.9 | 468.53 µg/L | 468.53 ppb | 19:26:32 |
| 3 | Ba 233.527† | 18655.7 | 18181.0 | 474.25 µg/L | 474.25 ppb | 19:26:32 |
| 3 | Be 313.107† | 740791.3 | 724347.9 | 472.86 µg/L | 472.86 ppb | 19:26:26 |
| 3 | Cd 226.502† | 17306.9 | 16984.5 | 468.50 µg/L | 468.50 ppb | 19:26:32 |
| 3 | Co 228.616† | 9664.7 | 9414.2 | 462.72 µg/L | 462.72 ppb | 19:26:32 |
| 3 | Cr 267.716† | 21731.9 | 21201.0 | 466.63 µg/L | 466.63 ppb | 19:26:32 |
| 3 | Cu 324.752† | 72256.6 | 67831.0 | 474.49 µg/L | 474.49 ppb | 19:26:32 |
| 3 | Mn 257.610† | 143350.8 | 139747.2 | 484.37 µg/L | 484.37 ppb | 19:26:26 |
| 3 | Mo 202.031† | 4322.8 | 4214.3 | 449.94 µg/L | 449.94 ppb | 19:26:53 |
| 3 | Ni 231.604† | 9237.2 | 8687.0 | 474.47 µg/L | 474.47 ppb | 19:26:32 |
| 3 | P 214.914† | 257.0 | 222.5 | 432.24 µg/L | 432.24 ppb | 19:26:53 |
| 3 | Pb 220.353† | 1875.5 | 1728.0 | 461.14 µg/L | 461.14 ppb | 19:26:53 |
| 3 | S 181.975 Axial† | 1113.0 | 1068.4 | 4680.8 µg/L | 4680.8 ppb | 19:26:53 |
| 3 | Sb 206.836† | 514.5 | 473.7 | 467.94 µg/L | 467.94 ppb | 19:26:53 |
| 3 | Se 196.026† | 322.8 | 298.3 | 462.30 µg/L | 462.30 ppb | 19:26:53 |
| 3 | SiO2† | 48695.4 | 46138.3 | 9936.1 µg/L | 9936.1 ppb | 19:26:32 |
| 3 | Si 251.611† | 58040.6 | 56169.8 | 4617.4 µg/L | 4617.4 ppb | 19:26:32 |
| 3 | Sn 189.927† | 1062.2 | 1034.6 | 475.87 µg/L | 475.87 ppb | 19:26:53 |
| 3 | Ti 334.940† | 202050.2 | 196510.8 | 472.38 µg/L | 472.38 ppb | 19:26:26 |
| 3 | Tl 190.801† | 308.7 | 324.7 | 458.96 µg/L | 458.96 ppb | 19:26:53 |
| 3 | U 409.014† | 5501.6 | 5407.5 | 488.61 µg/L | 488.61 ppb | 19:26:32 |
| 3 | V 292.402† | 45248.4 | 44078.0 | 475.38 µg/L | 475.38 ppb | 19:26:32 |
| 3 | Zn 213.857† | 19651.1 | 18648.0 | 462.29 µg/L | 462.29 ppb | 19:26:32 |

**Mean Data: 1202032558|948737|1**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1977709.2 | 103.55 | % | 0.725 | | | | 0.70% |
| Sc RADIAL | 56381.3 | 103 | % | 0.8 | | | | 0.81% |
| Y 371.029 | 1352140.2 | 103.22 | % | 0.619 | | | | 0.60% |
| Ag 328.068† | 60207.2 | 481.24 | µg/L | 3.315 | 481.24 | ppb | 3.315 | 0.69% |
| Al 396.153Radial† | 6594.6 | 4905.2 | µg/L | 75.76 | 4905.2 | ppb | 75.76 | 1.54% |
| As 188.979† | 249.7 | 487.10 | µg/L | 22.947 | 487.10 | ppb | 22.947 | 4.71% |
| B 249.677† | 10891.3 | 474.18 | µg/L | 4.912 | 474.18 | ppb | 4.912 | 1.04% |
| Ba 233.527† | 18632.5 | 486.03 | µg/L | 10.205 | 486.03 | ppb | 10.205 | 2.10% |
| Be 313.107† | 735101.0 | 479.88 | µg/L | 6.212 | 479.88 | ppb | 6.212 | 1.29% |
| Ca 317.933Radial† | 5183.1 | 4880.2 | µg/L | 79.59 | 4880.2 | ppb | 79.59 | 1.63% |
| Cd 226.502† | 17356.9 | 478.78 | µg/L | 8.903 | 478.78 | ppb | 8.903 | 1.86% |
| Co 228.616† | 9673.5 | 475.49 | µg/L | 11.063 | 475.49 | ppb | 11.063 | 2.33% |
| Cr 267.716† | 21975.0 | 483.67 | µg/L | 14.755 | 483.67 | ppb | 14.755 | 3.05% |
| Cu 324.752† | 69436.2 | 485.71 | µg/L | 9.720 | 485.71 | ppb | 9.720 | 2.00% |
| Fe 238.204 Radial† | 580.5 | 4930.0 | µg/L | 97.39 | 4930.0 | ppb | 97.39 | 1.98% |
| K 766.490 Radial† | 6883.3 | 4892.6 | µg/L | 53.94 | 4892.6 | ppb | 53.94 | 1.10% |
| Mg 279.077 IEC† | 533.1 | 4963.9 | µg/L | 96.41 | 4963.9 | ppb | 96.41 | 1.94% |
| Mn 257.610† | 141701.7 | 491.15 | µg/L | 6.025 | 491.15 | ppb | 6.025 | 1.23% |
| Mo 202.031† | 4525.6 | 483.16 | µg/L | 28.817 | 483.16 | ppb | 28.817 | 5.96% |
| Na 589.592 Radial† | 15000.5 | 4938.2 | µg/L | 52.96 | 4938.2 | ppb | 52.96 | 1.07% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ni 231.604† | 8915.0 | 486.93 | µg/L | 10.800 | 486.93 | ppb | 10.800 | 2.22% |
| P 214.914† | 231.1 | 450.00 | µg/L | 15.419 | 450.00 | ppb | 15.419 | 3.43% |
| Pb 220.353† | 1821.2 | 486.08 | µg/L | 21.661 | 486.08 | ppb | 21.661 | 4.46% |
| S 181.975 Axial† | 1120.1 | 4907.5 | µg/L | 197.13 | 4907.5 | ppb | 197.13 | 4.02% |
| Sb 206.836† | 502.5 | 496.59 | µg/L | 24.834 | 496.59 | ppb | 24.834 | 5.00% |
| Se 196.026† | 310.8 | 481.45 | µg/L | 16.915 | 481.45 | ppb | 16.915 | 3.51% |
| SiO2† | 46873.9 | 10095 | µg/L | 137.3 | 10095 | ppb | 137.3 | 1.36% |
| Si 251.611† | 57117.4 | 4695.3 | µg/L | 67.47 | 4695.3 | ppb | 67.47 | 1.44% |
| Sn 189.927† | 1119.3 | 514.83 | µg/L | 33.750 | 514.83 | ppb | 33.750 | 6.56% |
| Sr 421.552† | 46796.2 | 485.10 | µg/L | 5.111 | 485.10 | ppb | 5.111 | 1.05% |
| Ti 334.940† | 199846.5 | 480.40 | µg/L | 7.013 | 480.40 | ppb | 7.013 | 1.46% |
| Tl 190.801† | 346.1 | 488.96 | µg/L | 26.193 | 488.96 | ppb | 26.193 | 5.36% |
| U 409.014† | 5545.9 | 501.13 | µg/L | 10.961 | 501.13 | ppb | 10.961 | 2.19% |
| V 292.402† | 45315.2 | 488.88 | µg/L | 11.691 | 488.88 | ppb | 11.691 | 2.39% |
| Zn 213.857† | 19119.1 | 473.97 | µg/L | 10.138 | 473.97 | ppb | 10.138 | 2.14% |

Sequence No.: 43
Sample ID: 1202032559|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 333
Date Collected: 2/11/2010 19:30:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032559|948737|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Calib. Conc. | Calib. Units | Sample Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55369.8 | 55369.8 | 101 | % | | | 19:31:10 |
| 1 | Al 396.153Radial† | 27.3 | 37.1 | 27.641 | µg/L | 27.641 | ppb | 19:31:10 |
| 1 | Ca 317.933Radial† | 243.4 | 60.7 | 57.167 | µg/L | 57.167 | ppb | 19:31:30 |
| 1 | Fe 238.204 Radial† | 16.5 | 1.8 | 15.034 | µg/L | 15.034 | ppb | 19:31:30 |
| 1 | K 766.490 Radial† | 376.1 | 242.3 | 172.24 | µg/L | 172.24 | ppb | 19:31:10 |
| 1 | Mg 279.077 IEC† | 13.4 | 1.9 | 17.989 | µg/L | 17.989 | ppb | 19:31:30 |
| 1 | Na 589.592 Radial† | 1118.3 | 560.4 | 184.47 | µg/L | 184.47 | ppb | 19:31:10 |
| 1 | Sr 421.552† | 80.8 | 40.1 | 0.4152 | µg/L | 0.4152 | ppb | 19:31:10 |
| 1 | Sc 361.383 | 1957288.3 | 1957288.3 | 102.48 | % | | | 19:32:32 |
| 1 | Y 371.029 | 1341003.8 | 1341003.8 | 102.37 | % | | | 19:32:32 |
| 1 | Ag 328.068† | -492.7 | 83.8 | 0.6666 | µg/L | 0.6666 | ppb | 19:32:37 |
| 1 | As 188.979† | -0.9 | -2.0 | -4.0031 | µg/L | -4.0031 | ppb | 19:32:58 |
| 1 | B 249.677† | 719.9 | 371.0 | 16.207 | µg/L | 16.207 | ppb | 19:32:37 |
| 1 | Ba 233.527† | -10.5 | 15.7 | 0.4102 | µg/L | 0.4102 | ppb | 19:32:58 |
| 1 | Be 313.107† | -3539.8 | -13.5 | -0.0090 | µg/L | -0.0090 | ppb | 19:32:37 |
| 1 | Cd 226.502† | -150.2 | -4.4 | -0.1235 | µg/L | -0.1235 | ppb | 19:32:58 |
| 1 | Co 228.616† | -12.4 | -3.3 | -0.1634 | µg/L | -0.1634 | ppb | 19:32:58 |
| 1 | Cr 267.716† | -22.0 | 30.9 | 0.6806 | µg/L | 0.6806 | ppb | 19:32:58 |
| 1 | Cu 324.752† | 2532.9 | -14.6 | -0.0998 | µg/L | -0.0998 | ppb | 19:32:37 |
| 1 | Mn 257.610† | -105.5 | 141.2 | 0.4903 | µg/L | 0.4903 | ppb | 19:32:58 |
| 1 | Mo 202.031† | -9.0 | -1.2 | -0.1312 | µg/L | -0.1312 | ppb | 19:32:58 |
| 1 | Ni 231.604† | 309.3 | -0.4 | -0.0191 | µg/L | -0.0191 | ppb | 19:32:58 |
| 1 | P 214.914† | 35.6 | 7.1 | 15.341 | µg/L | 15.341 | ppb | 19:32:58 |
| 1 | Pb 220.353† | 89.9 | -9.5 | -2.5338 | µg/L | -2.5338 | ppb | 19:32:58 |
| 1 | S 181.975 Axial† | 30.4 | 14.9 | 65.128 | µg/L | 65.128 | ppb | 19:32:58 |
| 1 | Sb 206.836† | 22.5 | -5.0 | -4.9601 | µg/L | -4.9601 | ppb | 19:32:58 |
| 1 | Se 196.026† | 14.9 | -1.3 | -1.9004 | µg/L | -1.9004 | ppb | 19:32:58 |
| 1 | SiO2† | 14720.0 | 13113.1 | 2824.0 | µg/L | 2824.0 | ppb | 19:32:37 |
| 1 | Si 251.611† | 16745.8 | 16026.9 | 1317.5 | µg/L | 1317.5 | ppb | 19:32:37 |
| 1 | Sn 189.927† | 4.4 | 5.2 | 2.3867 | µg/L | 2.3867 | ppb | 19:32:58 |
| 1 | Ti 334.940† | 342.8 | 218.3 | 0.5247 | µg/L | 0.5247 | ppb | 19:32:37 |
| 1 | Tl 190.801† | -18.4 | 6.4 | 8.8912 | µg/L | 8.8912 | ppb | 19:32:58 |
| 1 | U 409.014† | -31.7 | 22.7 | 2.0510 | µg/L | 2.0510 | ppb | 19:32:37 |
| 1 | V 292.402† | -35.4 | 9.7 | 0.1073 | µg/L | 0.1073 | ppb | 19:32:37 |
| 1 | Zn 213.857† | 550.1 | 61.2 | 1.5266 | µg/L | 1.5266 | ppb | 19:32:58 |
| 2 | Sc RADIAL | 56232.0 | 56232.0 | 103 | % | | | 19:31:36 |
| 2 | Al 396.153Radial† | 20.5 | 30.0 | 22.366 | µg/L | 22.366 | ppb | 19:31:36 |
| 2 | Ca 317.933Radial† | 234.1 | 48.1 | 45.285 | µg/L | 45.285 | ppb | 19:31:56 |
| 2 | Fe 238.204 Radial† | 18.9 | 3.9 | 32.938 | µg/L | 32.938 | ppb | 19:31:56 |
| 2 | K 766.490 Radial† | 401.7 | 261.4 | 185.83 | µg/L | 185.83 | ppb | 19:31:36 |
| 2 | Mg 279.077 IEC† | 11.2 | -0.4 | -3.5186 | µg/L | -3.5186 | ppb | 19:31:56 |
| 2 | Na 589.592 Radial† | 1117.4 | 542.6 | 178.63 | µg/L | 178.63 | ppb | 19:31:36 |
| 2 | Sr 421.552† | 60.4 | 19.0 | 0.1974 | µg/L | 0.1974 | ppb | 19:31:36 |
| 2 | Sc 361.383 | 1985418.5 | 1985418.5 | 103.96 | % | | | 19:33:04 |
| 2 | Y 371.029 | 1359374.4 | 1359374.4 | 103.78 | % | | | 19:33:04 |
| 2 | Ag 328.068† | -475.1 | 107.5 | 0.8590 | µg/L | 0.8590 | ppb | 19:33:09 |
| 2 | As 188.979† | -4.1 | -5.1 | -9.9165 | µg/L | -9.9165 | ppb | 19:33:30 |
| 2 | B 249.677† | 718.8 | 360.0 | 15.716 | µg/L | 15.716 | ppb | 19:33:09 |
| 2 | Ba 233.527† | -18.1 | 8.6 | 0.2255 | µg/L | 0.2255 | ppb | 19:33:30 |
| 2 | Be 313.107† | -3406.7 | 163.4 | 0.1065 | µg/L | 0.1065 | ppb | 19:33:09 |
| 2 | Cd 226.502† | -148.4 | -0.7 | -0.0227 | µg/L | -0.0227 | ppb | 19:33:30 |
| 2 | Co 228.616† | -10.8 | -1.5 | -0.0755 | µg/L | -0.0755 | ppb | 19:33:30 |
| 2 | Cr 267.716† | -16.3 | 36.7 | 0.8072 | µg/L | 0.8072 | ppb | 19:33:30 |
| 2 | Cu 324.752† | 2453.0 | -126.5 | -0.8788 | µg/L | -0.8788 | ppb | 19:33:09 |
| 2 | Mn 257.610† | -109.7 | 138.6 | 0.4845 | µg/L | 0.4845 | ppb | 19:33:30 |
| 2 | Mo 202.031† | -6.5 | 1.3 | 0.1397 | µg/L | 0.1397 | ppb | 19:33:30 |
| 2 | Ni 231.604† | 303.1 | -10.6 | -0.5795 | µg/L | -0.5795 | ppb | 19:33:30 |
| 2 | P 214.914† | 27.9 | -0.8 | -1.7271 | µg/L | -1.7271 | ppb | 19:33:30 |
| 2 | Pb 220.353† | 100.2 | -0.8 | -0.2107 | µg/L | -0.2107 | ppb | 19:33:30 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 24.6 | 8.8 | 38.629 | µg/L | 38.629 ppb | 19:33:30 |
| 2 | Sb 206.836† | 25.5 | -2.4 | -2.3573 | µg/L | -2.3573 ppb | 19:33:30 |
| 2 | Se 196.026† | 13.5 | -2.9 | -4.3357 | µg/L | -4.3357 ppb | 19:33:30 |
| 2 | SiO2† | 14565.5 | 12761.0 | 2748.2 | µg/L | 2748.2 ppb | 19:33:09 |
| 2 | Si 251.611† | 16534.1 | 15591.9 | 1281.7 | µg/L | 1281.7 ppb | 19:33:09 |
| 2 | Sn 189.927† | -3.4 | -2.4 | -1.0908 | µg/L | -1.0908 ppb | 19:33:30 |
| 2 | Ti 334.940† | 415.8 | 283.9 | 0.6838 | µg/L | 0.6838 ppb | 19:33:09 |
| 2 | Tl 190.801† | -24.3 | 0.9 | 1.3234 | µg/L | 1.3234 ppb | 19:33:30 |
| 2 | U 409.014† | -74.6 | -18.1 | -1.6482 | µg/L | -1.6482 ppb | 19:33:09 |
| 2 | V 292.402† | 9.6 | 53.5 | 0.5749 | µg/L | 0.5749 ppb | 19:33:09 |
| 2 | Zn 213.857† | 541.1 | 45.0 | 1.1253 | µg/L | 1.1253 ppb | 19:33:30 |
| 3 | Sc RADIAL | 56023.2 | 56023.2 | 103 | % | | 19:32:01 |
| 3 | Al 396.153Radial† | 23.5 | 33.0 | 24.583 | µg/L | 24.583 ppb | 19:32:01 |
| 3 | Ca 317.933Radial† | 244.2 | 58.7 | 55.281 | µg/L | 55.281 ppb | 19:32:22 |
| 3 | Fe 238.204 Radial† | 14.9 | -0.0 | -0.0783 | µg/L | -0.0783 ppb | 19:32:22 |
| 3 | K 766.490 Radial† | 448.8 | 308.8 | 219.46 | µg/L | 219.46 ppb | 19:32:01 |
| 3 | Mg 279.077 IEC† | 9.0 | -2.5 | -23.358 | µg/L | -23.358 ppb | 19:32:22 |
| 3 | Na 589.592 Radial† | 1105.2 | 534.7 | 176.03 | µg/L | 176.03 ppb | 19:32:01 |
| 3 | Sr 421.552† | 62.1 | 20.9 | 0.2170 | µg/L | 0.2170 ppb | 19:32:01 |
| 3 | Sc 361.383 | 1953368.2 | 1953368.2 | 102.28 | % | | 19:33:36 |
| 3 | Y 371.029 | 1335404.5 | 1335404.5 | 101.95 | % | | 19:33:36 |
| 3 | Ag 328.068† | -556.7 | 20.3 | 0.1596 | µg/L | 0.1596 ppb | 19:33:41 |
| 3 | As 188.979† | 0.2 | -0.9 | -1.8467 | µg/L | -1.8467 ppb | 19:34:02 |
| 3 | B 249.677† | 701.7 | 354.6 | 15.499 | µg/L | 15.499 ppb | 19:33:41 |
| 3 | Ba 233.527† | -16.3 | 10.1 | 0.2614 | µg/L | 0.2614 ppb | 19:34:02 |
| 3 | Be 313.107† | -3559.8 | -40.0 | -0.0263 | µg/L | -0.0263 ppb | 19:33:41 |
| 3 | Cd 226.502† | -146.9 | -1.5 | -0.0404 | µg/L | -0.0404 ppb | 19:34:02 |
| 3 | Co 228.616† | -11.4 | -2.3 | -0.1134 | µg/L | -0.1134 ppb | 19:34:02 |
| 3 | Cr 267.716† | -18.4 | 34.4 | 0.7558 | µg/L | 0.7558 ppb | 19:34:02 |
| 3 | Cu 324.752† | 2463.5 | -77.5 | -0.5416 | µg/L | -0.5416 ppb | 19:33:41 |
| 3 | Mn 257.610† | -124.1 | 122.8 | 0.4261 | µg/L | 0.4261 ppb | 19:34:02 |
| 3 | Mo 202.031† | -6.9 | 0.8 | 0.0892 | µg/L | 0.0892 ppb | 19:34:02 |
| 3 | Ni 231.604† | 309.7 | 0.6 | 0.0333 | µg/L | 0.0333 ppb | 19:34:02 |
| 3 | P 214.914† | 32.7 | 4.3 | 9.3269 | µg/L | 9.3269 ppb | 19:34:02 |
| 3 | Pb 220.353† | 89.9 | -9.3 | -2.4747 | µg/L | -2.4747 ppb | 19:34:02 |
| 3 | S 181.975 Axial† | 20.7 | 5.5 | 23.923 | µg/L | 23.923 ppb | 19:34:02 |
| 3 | Sb 206.836† | 18.4 | -9.0 | -8.8834 | µg/L | -8.8834 ppb | 19:34:02 |
| 3 | Se 196.026† | 8.1 | -8.0 | -12.127 | µg/L | -12.127 ppb | 19:34:02 |
| 3 | SiO2† | 14525.8 | 12952.1 | 2789.3 | µg/L | 2789.3 ppb | 19:33:41 |
| 3 | Si 251.611† | 16428.3 | 15749.4 | 1294.7 | µg/L | 1294.7 ppb | 19:33:41 |
| 3 | Sn 189.927† | -0.7 | 0.2 | 0.1014 | µg/L | 0.1014 ppb | 19:34:02 |
| 3 | Ti 334.940† | 337.4 | 213.7 | 0.5169 | µg/L | 0.5169 ppb | 19:33:41 |
| 3 | Tl 190.801† | -27.2 | -2.3 | -3.2110 | µg/L | -3.2110 ppb | 19:34:02 |
| 3 | U 409.014† | -73.9 | -18.6 | -1.6874 | µg/L | -1.6874 ppb | 19:33:41 |
| 3 | V 292.402† | -61.9 | -16.4 | -0.1736 | µg/L | -0.1736 ppb | 19:33:41 |
| 3 | Zn 213.857† | 546.4 | 58.6 | 1.4662 | µg/L | 1.4662 ppb | 19:34:02 |

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**Mean Data: 1202032559|948737|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1965358.3 | 102.91 | % | 0.915 | | | | 0.89% |
| Sc RADIAL | 55875.0 | 102 | % | 0.8 | | | | 0.81% |
| Y 371.029 | 1345260.9 | 102.70 | % | 0.957 | | | | 0.93% |
| Ag 328.068† | 70.5 | 0.5618 | µg/L | 0.36128 | 0.5618 | ppb | 0.36128 | 64.31% |
| Al 396.153Radial† | 33.4 | 24.863 | µg/L | 2.6486 | 24.863 | ppb | 2.6486 | 10.65% |
| As 188.979† | -2.7 | -5.2554 | µg/L | 4.17812 | -5.2554 | ppb | 4.17812 | 79.50% |
| B 249.677† | 361.9 | 15.807 | µg/L | 0.3629 | 15.807 | ppb | 0.3629 | 2.30% |
| Ba 233.527† | 11.5 | 0.2990 | µg/L | 0.09794 | 0.2990 | ppb | 0.09794 | 32.75% |
| Be 313.107† | 36.6 | 0.0237 | µg/L | 0.07220 | 0.0237 | ppb | 0.07220 | 304.72% |
| Ca 317.933Radial† | 55.8 | 52.578 | µg/L | 6.3860 | 52.578 | ppb | 6.3860 | 12.15% |
| Cd 226.502† | -2.2 | -0.0622 | µg/L | 0.05384 | -0.0622 | ppb | 0.05384 | 86.58% |
| Co 228.616† | -2.4 | -0.1174 | µg/L | 0.04408 | -0.1174 | ppb | 0.04408 | 37.55% |
| Cr 267.716† | 34.0 | 0.7479 | µg/L | 0.06369 | 0.7479 | ppb | 0.06369 | 8.52% |
| Cu 324.752† | -72.9 | -0.5067 | µg/L | 0.39067 | -0.5067 | ppb | 0.39067 | 77.10% |
| Fe 238.204 Radial† | 1.9 | 15.964 | µg/L | 16.5276 | 15.964 | ppb | 16.5276 | 103.53% |
| K 766.490 Radial† | 270.8 | 192.51 | µg/L | 24.311 | 192.51 | ppb | 24.311 | 12.63% |
| Mg 279.077 IEC† | -0.3 | -2.9625 | µg/L | 20.67888 | -2.9625 | ppb | 20.67888 | 698.02% |
| Mn 257.610† | 134.2 | 0.4670 | µg/L | 0.03550 | 0.4670 | ppb | 0.03550 | 7.60% |
| Mo 202.031† | 0.3 | 0.0326 | µg/L | 0.14408 | 0.0326 | ppb | 0.14408 | 442.34% |
| Na 589.592 Radial† | 545.9 | 179.71 | µg/L | 4.323 | 179.71 | ppb | 4.323 | 2.41% |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ni 231.604† | -3.5 | -0.1884 µg/L | 0.33968 | -0.1884 ppb | 0.33968 | 180.30% |
| P 214.914† | 3.5 | 7.6469 µg/L | 8.65706 | 7.6469 ppb | 8.65706 | 113.21% |
| Pb 220.353† | -6.5 | -1.7397 µg/L | 1.32454 | -1.7397 ppb | 1.32454 | 76.13% |
| S 181.975 Axial† | 9.7 | 42.560 µg/L | 20.8819 | 42.560 ppb | 20.8819 | 49.07% |
| Sb 206.836† | -5.5 | -5.4003 µg/L | 3.28526 | -5.4003 ppb | 3.28526 | 60.84% |
| Se 196.026† | -4.0 | -6.1210 µg/L | 5.34190 | -6.1210 ppb | 5.34190 | 87.27% |
| SiO2† | 12942.1 | 2787.1 µg/L | 37.96 | 2787.1 ppb | 37.96 | 1.36% |
| Si 251.611† | 15789.4 | 1298.0 µg/L | 18.11 | 1298.0 ppb | 18.11 | 1.40% |
| Sn 189.927† | 1.0 | 0.4657 µg/L | 1.76718 | 0.4657 ppb | 1.76718 | 379.43% |
| Sr 421.552† | 26.7 | 0.2766 µg/L | 0.12050 | 0.2766 ppb | 0.12050 | 43.57% |
| Ti 334.940† | 238.7 | 0.5751 µg/L | 0.09422 | 0.5751 ppb | 0.09422 | 16.38% |
| Tl 190.801† | 1.7 | 2.3345 µg/L | 6.11411 | 2.3345 ppb | 6.11411 | 261.90% |
| U 409.014† | -4.7 | -0.4282 µg/L | 2.14716 | -0.4282 ppb | 2.14716 | 501.43% |
| V 292.402† | 15.6 | 0.1695 µg/L | 0.37811 | 0.1695 ppb | 0.37811 | 223.01% |
| Zn 213.857† | 54.9 | 1.3727 µg/L | 0.21636 | 1.3727 ppb | 0.21636 | 15.76% |

Sequence No.: 44
Sample ID: 1202032560|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 2/11/2010 19:34:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032560|948737|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56464.8 | 56464.8 | 103 | % | | | 19:34:44 |
| 1 | Al 396.153Radial† | 6806.1 | 6588.3 | 4900.2 | µg/L | 4900.2 | ppb | 19:35:04 |
| 1 | Ca 317.933Radial† | 5506.4 | 5142.9 | 4842.4 | µg/L | 4842.4 | ppb | 19:35:04 |
| 1 | Fe 238.204 Radial† | 611.9 | 576.9 | 4899.7 | µg/L | 4899.7 | ppb | 19:35:04 |
| 1 | K 766.490 Radial† | 7333.3 | 6959.3 | 4946.6 | µg/L | 4946.6 | ppb | 19:34:44 |
| 1 | Mg 279.077 IEC† | 557.7 | 527.7 | 4914.4 | µg/L | 4914.4 | ppb | 19:35:04 |
| 1 | Na 589.592 Radial† | 16217.5 | 15132.6 | 4981.7 | µg/L | 4981.7 | ppb | 19:34:44 |
| 1 | Sr 421.552† | 47317.0 | 45693.3 | 473.66 | µg/L | 473.66 | ppb | 19:34:44 |
| 1 | Sc 361.383 | 1969504.1 | 1969504.1 | 103.12 | % | | | 19:36:08 |
| 1 | Y 371.029 | 1344490.8 | 1344490.8 | 102.64 | % | | | 19:36:08 |
| 1 | Ag 328.068† | 61777.8 | 60470.9 | 483.38 | µg/L | 483.38 | ppb | 19:36:14 |
| 1 | As 188.979† | 267.3 | 258.0 | 503.42 | µg/L | 503.42 | ppb | 19:36:34 |
| 1 | B 249.677† | 12031.5 | 11335.6 | 493.62 | µg/L | 493.62 | ppb | 19:36:14 |
| 1 | Ba 233.527† | 19428.6 | 18866.0 | 492.13 | µg/L | 492.13 | ppb | 19:36:14 |
| 1 | Be 313.107† | 757639.6 | 738128.1 | 481.85 | µg/L | 481.85 | ppb | 19:36:08 |
| 1 | Cd 226.502† | 17872.8 | 17473.5 | 482.01 | µg/L | 482.01 | ppb | 19:36:14 |
| 1 | Co 228.616† | 10159.6 | 9860.7 | 484.72 | µg/L | 484.72 | ppb | 19:36:14 |
| 1 | Cr 267.716† | 23006.4 | 22361.8 | 492.18 | µg/L | 492.18 | ppb | 19:36:14 |
| 1 | Cu 324.752† | 75411.0 | 70640.4 | 494.12 | µg/L | 494.12 | ppb | 19:36:14 |
| 1 | Mn 257.610† | 147190.3 | 142975.5 | 495.56 | µg/L | 495.56 | ppb | 19:36:08 |
| 1 | Mo 202.031† | 4839.3 | 4700.2 | 501.80 | µg/L | 501.80 | ppb | 19:36:34 |
| 1 | Ni 231.604† | 9637.5 | 9043.3 | 493.93 | µg/L | 493.93 | ppb | 19:36:14 |
| 1 | P 214.914† | 274.0 | 238.0 | 464.37 | µg/L | 464.37 | ppb | 19:36:34 |
| 1 | Pb 220.353† | 2045.5 | 1886.3 | 503.48 | µg/L | 503.48 | ppb | 19:36:34 |
| 1 | S 181.975 Axial† | 1203.8 | 1152.6 | 5049.8 | µg/L | 5049.8 | ppb | 19:36:34 |
| 1 | Sb 206.836† | 563.5 | 519.5 | 513.56 | µg/L | 513.56 | ppb | 19:36:34 |
| 1 | Se 196.026† | 338.7 | 312.6 | 484.26 | µg/L | 484.26 | ppb | 19:36:34 |
| 1 | SiO2† | 63253.8 | 60087.6 | 12940 | µg/L | 12940 | ppb | 19:36:14 |
| 1 | Si 251.611† | 75809.8 | 73200.4 | 6017.4 | µg/L | 6017.4 | ppb | 19:36:14 |
| 1 | Sn 189.927† | 1195.5 | 1160.1 | 533.61 | µg/L | 533.61 | ppb | 19:36:34 |
| 1 | Ti 334.940† | 208361.9 | 201933.7 | 485.43 | µg/L | 485.43 | ppb | 19:36:08 |
| 1 | Tl 190.801† | 343.5 | 357.4 | 504.78 | µg/L | 504.78 | ppb | 19:36:34 |
| 1 | U 409.014† | 5786.5 | 5664.8 | 511.90 | µg/L | 511.90 | ppb | 19:36:14 |
| 1 | V 292.402† | 47433.2 | 46040.5 | 496.78 | µg/L | 496.78 | ppb | 19:36:14 |
| 1 | Zn 213.857† | 20405.0 | 19311.3 | 478.73 | µg/L | 478.73 | ppb | 19:36:14 |
| 2 | Sc RADIAL | 56738.3 | 56738.3 | 104 | % | | | 19:35:10 |
| 2 | Al 396.153Radial† | 6857.8 | 6606.4 | 4913.7 | µg/L | 4913.7 | ppb | 19:35:30 |
| 2 | Ca 317.933Radial† | 5550.5 | 5159.7 | 4858.2 | µg/L | 4858.2 | ppb | 19:35:30 |
| 2 | Fe 238.204 Radial† | 618.4 | 580.3 | 4928.8 | µg/L | 4928.8 | ppb | 19:35:30 |
| 2 | K 766.490 Radial† | 7512.7 | 7097.8 | 5045.0 | µg/L | 5045.0 | ppb | 19:35:10 |
| 2 | Mg 279.077 IEC† | 561.6 | 528.9 | 4925.0 | µg/L | 4925.0 | ppb | 19:35:30 |
| 2 | Na 589.592 Radial† | 16499.1 | 15328.0 | 5046.0 | µg/L | 5046.0 | ppb | 19:35:10 |
| 2 | Sr 421.552† | 48452.7 | 46565.3 | 482.70 | µg/L | 482.70 | ppb | 19:35:10 |
| 2 | Sc 361.383 | 1963144.1 | 1963144.1 | 102.79 | % | | | 19:36:41 |
| 2 | Y 371.029 | 1340072.9 | 1340072.9 | 102.30 | % | | | 19:36:41 |
| 2 | Ag 328.068† | 61611.8 | 60503.4 | 483.66 | µg/L | 483.66 | ppb | 19:36:47 |
| 2 | As 188.979† | 260.2 | 252.0 | 491.59 | µg/L | 491.59 | ppb | 19:37:07 |
| 2 | B 249.677† | 12050.1 | 11391.4 | 496.05 | µg/L | 496.05 | ppb | 19:36:47 |
| 2 | Ba 233.527† | 19468.1 | 18965.5 | 494.72 | µg/L | 494.72 | ppb | 19:36:47 |
| 2 | Be 313.107† | 756552.9 | 739451.1 | 482.72 | µg/L | 482.72 | ppb | 19:36:41 |
| 2 | Cd 226.502† | 17837.5 | 17495.3 | 482.61 | µg/L | 482.61 | ppb | 19:36:47 |
| 2 | Co 228.616† | 10063.1 | 9798.7 | 481.66 | µg/L | 481.66 | ppb | 19:36:47 |
| 2 | Cr 267.716† | 23000.6 | 22428.5 | 493.65 | µg/L | 493.65 | ppb | 19:36:47 |
| 2 | Cu 324.752† | 75255.1 | 70725.6 | 494.72 | µg/L | 494.72 | ppb | 19:36:47 |
| 2 | Mn 257.610† | 146664.2 | 142926.0 | 495.39 | µg/L | 495.39 | ppb | 19:36:41 |
| 2 | Mo 202.031† | 4791.0 | 4668.4 | 498.41 | µg/L | 498.41 | ppb | 19:37:07 |
| 2 | Ni 231.604† | 9624.9 | 9061.3 | 494.92 | µg/L | 494.92 | ppb | 19:36:47 |
| 2 | P 214.914† | 259.0 | 224.3 | 434.79 | µg/L | 434.79 | ppb | 19:37:07 |
| 2 | Pb 220.353† | 2029.3 | 1877.0 | 500.98 | µg/L | 500.98 | ppb | 19:37:07 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 1194.9 | 1147.6 | 5028.2 µg/L | 5028.2 ppb | 19:37:07 |
| 2 | Sb 206.836† | 555.9 | 513.8 | 507.88 µg/L | 507.88 ppb | 19:37:07 |
| 2 | Se 196.026† | 334.4 | 309.5 | 479.52 µg/L | 479.52 ppb | 19:37:07 |
| 2 | SiO2† | 63264.3 | 60296.5 | 12985 µg/L | 12985 ppb | 19:36:47 |
| 2 | Si 251.611† | 75806.3 | 73435.1 | 6036.7 µg/L | 6036.7 ppb | 19:36:47 |
| 2 | Sn 189.927† | 1179.8 | 1148.7 | 528.34 µg/L | 528.34 ppb | 19:37:07 |
| 2 | Ti 334.940† | 208026.1 | 202261.6 | 486.21 µg/L | 486.21 ppb | 19:36:41 |
| 2 | Tl 190.801† | 339.5 | 354.5 | 500.78 µg/L | 500.78 ppb | 19:37:07 |
| 2 | U 409.014† | 5762.6 | 5659.8 | 511.44 µg/L | 511.44 ppb | 19:36:47 |
| 2 | V 292.402† | 47518.7 | 46272.7 | 499.23 µg/L | 499.23 ppb | 19:36:47 |
| 2 | Zn 213.857† | 20383.6 | 19354.6 | 479.81 µg/L | 479.81 ppb | 19:36:47 |
| 3 | Sc RADIAL | 56983.3 | 56983.3 | 104 % | | 19:35:36 |
| 3 | Al 396.153Radial† | 6778.1 | 6501.7 | 4836.4 µg/L | 4836.4 ppb | 19:35:56 |
| 3 | Ca 317.933Radial† | 5483.7 | 5072.7 | 4776.3 µg/L | 4776.3 ppb | 19:35:56 |
| 3 | Fe 238.204 Radial† | 610.2 | 569.9 | 4840.0 µg/L | 4840.0 ppb | 19:35:56 |
| 3 | K 766.490 Radial† | 7476.8 | 7032.3 | 4998.5 µg/L | 4998.5 ppb | 19:35:36 |
| 3 | Mg 279.077 IEC† | 558.6 | 523.7 | 4875.9 µg/L | 4875.9 ppb | 19:35:56 |
| 3 | Na 589.592 Radial† | 16463.0 | 15225.1 | 5012.2 µg/L | 5012.2 ppb | 19:35:36 |
| 3 | Sr 421.552† | 48028.2 | 45958.3 | 476.41 µg/L | 476.41 ppb | 19:35:36 |
| 3 | Sc 361.383 | 1953228.5 | 1953228.5 | 102.27 % | | 19:37:14 |
| 3 | Y 371.029 | 1334981.2 | 1334981.2 | 101.91 % | | 19:37:14 |
| 3 | Ag 328.068† | 60906.6 | 60118.1 | 480.49 µg/L | 480.49 ppb | 19:37:20 |
| 3 | As 188.979† | 246.6 | 240.0 | 468.20 µg/L | 468.20 ppb | 19:37:41 |
| 3 | B 249.677† | 11806.2 | 11212.5 | 488.25 µg/L | 488.25 ppb | 19:37:20 |
| 3 | Ba 233.527† | 18817.3 | 18425.3 | 480.63 µg/L | 480.63 ppb | 19:37:20 |
| 3 | Be 313.107† | 740878.0 | 727860.9 | 475.15 µg/L | 475.15 ppb | 19:37:14 |
| 3 | Cd 226.502† | 17362.9 | 17119.4 | 472.23 µg/L | 472.23 ppb | 19:37:20 |
| 3 | Co 228.616† | 9771.9 | 9563.6 | 470.08 µg/L | 470.08 ppb | 19:37:20 |
| 3 | Cr 267.716† | 22087.4 | 21649.1 | 476.50 µg/L | 476.50 ppb | 19:37:20 |
| 3 | Cu 324.752† | 72706.1 | 68604.9 | 479.89 µg/L | 479.89 ppb | 19:37:20 |
| 3 | Mn 257.610† | 143804.2 | 140853.9 | 488.21 µg/L | 488.21 ppb | 19:37:14 |
| 3 | Mo 202.031† | 4405.4 | 4315.1 | 460.70 µg/L | 460.70 ppb | 19:37:41 |
| 3 | Ni 231.604† | 9285.9 | 8777.4 | 479.41 µg/L | 479.41 ppb | 19:37:20 |
| 3 | P 214.914† | 254.1 | 220.8 | 428.19 µg/L | 428.19 ppb | 19:37:41 |
| 3 | Pb 220.353† | 1906.4 | 1766.9 | 471.52 µg/L | 471.52 ppb | 19:37:41 |
| 3 | S 181.975 Axial† | 1137.3 | 1097.2 | 4807.1 µg/L | 4807.1 ppb | 19:37:41 |
| 3 | Sb 206.836† | 512.2 | 473.8 | 468.13 µg/L | 468.13 ppb | 19:37:41 |
| 3 | Se 196.026† | 311.2 | 288.4 | 447.26 µg/L | 447.26 ppb | 19:37:41 |
| 3 | SiO2† | 61664.2 | 59044.4 | 12716 µg/L | 12716 ppb | 19:37:20 |
| 3 | Si 251.611† | 73998.6 | 72042.0 | 5922.2 µg/L | 5922.2 ppb | 19:37:20 |
| 3 | Sn 189.927† | 1081.7 | 1058.6 | 486.89 µg/L | 486.89 ppb | 19:37:41 |
| 3 | Ti 334.940† | 203268.0 | 198636.6 | 477.50 µg/L | 477.50 ppb | 19:37:14 |
| 3 | Tl 190.801† | 317.8 | 335.0 | 473.39 µg/L | 473.39 ppb | 19:37:41 |
| 3 | U 409.014† | 5643.9 | 5572.1 | 503.52 µg/L | 503.52 ppb | 19:37:20 |
| 3 | V 292.402† | 45704.3 | 44733.2 | 482.48 µg/L | 482.48 ppb | 19:37:20 |
| 3 | Zn 213.857† | 19736.3 | 18822.4 | 466.62 µg/L | 466.62 ppb | 19:37:20 |

**Mean Data: 1202032560|948737|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1961958.9 | 102.73 | % | 0.429 | | | | 0.42% |
| Sc RADIAL | 56728.8 | 104 | % | 0.5 | | | | 0.46% |
| Y 371.029 | 1339848.3 | 102.28 | % | 0.363 | | | | 0.36% |
| Ag 328.068† | 60364.1 | 482.51 | µg/L | 1.756 | 482.51 | ppb | 1.756 | 0.36% |
| Al 396.153Radial† | 6565.5 | 4883.4 | µg/L | 41.27 | 4883.4 | ppb | 41.27 | 0.85% |
| As 188.979† | 250.0 | 487.74 | µg/L | 17.922 | 487.74 | ppb | 17.922 | 3.67% |
| B 249.677† | 11313.1 | 492.64 | µg/L | 3.992 | 492.64 | ppb | 3.992 | 0.81% |
| Ba 233.527† | 18752.3 | 489.16 | µg/L | 7.501 | 489.16 | ppb | 7.501 | 1.53% |
| Be 313.107† | 735146.7 | 479.91 | µg/L | 4.141 | 479.91 | ppb | 4.141 | 0.86% |
| Ca 317.933Radial† | 5125.1 | 4825.6 | µg/L | 43.45 | 4825.6 | ppb | 43.45 | 0.90% |
| Cd 226.502† | 17362.7 | 478.95 | µg/L | 5.826 | 478.95 | ppb | 5.826 | 1.22% |
| Co 228.616† | 9741.0 | 478.82 | µg/L | 7.722 | 478.82 | ppb | 7.722 | 1.61% |
| Cr 267.716† | 22146.5 | 487.44 | µg/L | 9.508 | 487.44 | ppb | 9.508 | 1.95% |
| Cu 324.752† | 69990.3 | 489.58 | µg/L | 8.392 | 489.58 | ppb | 8.392 | 1.71% |
| Fe 238.204 Radial† | 575.7 | 4889.5 | µg/L | 45.26 | 4889.5 | ppb | 45.26 | 0.93% |
| K 766.490 Radial† | 7029.8 | 4996.7 | µg/L | 49.22 | 4996.7 | ppb | 49.22 | 0.98% |
| Mg 279.077 IEC† | 526.8 | 4905.1 | µg/L | 25.83 | 4905.1 | ppb | 25.83 | 0.53% |
| Mn 257.610† | 142251.8 | 493.05 | µg/L | 4.198 | 493.05 | ppb | 4.198 | 0.85% |
| Mo 202.031† | 4561.2 | 486.97 | µg/L | 22.812 | 486.97 | ppb | 22.812 | 4.68% |
| Na 589.592 Radial† | 15228.6 | 5013.3 | µg/L | 32.17 | 5013.3 | ppb | 32.17 | 0.64% |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ni 231.604† | 8960.7 | 489.42 µg/L | 8.683 | 489.42 ppb | 8.683 | 1.77% |
| P 214.914† | 227.7 | 442.45 µg/L | 19.267 | 442.45 ppb | 19.267 | 4.35% |
| Pb 220.353† | 1843.4 | 491.99 µg/L | 17.777 | 491.99 ppb | 17.777 | 3.61% |
| S 181.975 Axial† | 1132.5 | 4961.7 µg/L | 134.32 | 4961.7 ppb | 134.32 | 2.71% |
| Sb 206.836† | 502.4 | 496.52 µg/L | 24.756 | 496.52 ppb | 24.756 | 4.99% |
| Se 196.026† | 303.5 | 470.34 µg/L | 20.133 | 470.34 ppb | 20.133 | 4.28% |
| SiO2† | 59809.5 | 12880 µg/L | 144.5 | 12880 ppb | 144.5 | 1.12% |
| Si 251.611† | 72892.5 | 5992.1 µg/L | 61.31 | 5992.1 ppb | 61.31 | 1.02% |
| Sn 189.927† | 1122.5 | 516.28 µg/L | 25.587 | 516.28 ppb | 25.587 | 4.96% |
| Sr 421.552† | 46072.3 | 477.59 µg/L | 4.634 | 477.59 ppb | 4.634 | 0.97% |
| Ti 334.940† | 200944.0 | 483.04 µg/L | 4.822 | 483.04 ppb | 4.822 | 1.00% |
| Tl 190.801† | 349.0 | 492.98 µg/L | 17.083 | 492.98 ppb | 17.083 | 3.47% |
| U 409.014† | 5632.2 | 508.95 µg/L | 4.711 | 508.95 ppb | 4.711 | 0.93% |
| V 292.402† | 45682.1 | 492.83 µg/L | 9.049 | 492.83 ppb | 9.049 | 1.84% |
| Zn 213.857† | 19162.7 | 475.05 µg/L | 7.325 | 475.05 ppb | 7.325 | 1.54% |

Sequence No.: 45
Sample ID: 1202032561|948737|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 2/11/2010 19:37:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032561|948737|5

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 55556.9 | 55556.9 | 102 | % | | | 19:38:23 |
| 1 | Al 396.153Radial† | -14.4 | -4.0 | -3.0016 | µg/L | -3.0016 | ppb | 19:38:23 |
| 1 | Ca 317.933Radial† | 193.6 | 11.0 | 10.352 | µg/L | 10.352 | ppb | 19:38:43 |
| 1 | Fe 238.204 Radial† | 16.0 | 1.2 | 10.568 | µg/L | 10.568 | ppb | 19:38:43 |
| 1 | K 766.490 Radial† | 200.3 | 68.3 | 48.549 | µg/L | 48.549 | ppb | 19:38:23 |
| 1 | Mg 279.077 IEC† | 17.4 | 5.8 | 54.431 | µg/L | 54.431 | ppb | 19:38:43 |
| 1 | Na 589.592 Radial† | 748.0 | 192.9 | 63.499 | µg/L | 63.499 | ppb | 19:38:23 |
| 1 | Sr 421.552† | 52.3 | 11.8 | 0.1221 | µg/L | 0.1221 | ppb | 19:38:23 |
| 1 | Sc 361.383 | 1967786.0 | 1967786.0 | 103.03 | % | | | 19:39:45 |
| 1 | Y 371.029 | 1347427.9 | 1347427.9 | 102.86 | % | | | 19:39:45 |
| 1 | Ag 328.068† | -513.7 | 65.9 | 0.5269 | µg/L | 0.5269 | ppb | 19:39:51 |
| 1 | As 188.979† | 0.2 | -0.9 | -1.7879 | µg/L | -1.7879 | ppb | 19:40:11 |
| 1 | B 249.677† | 392.7 | 49.7 | 2.1660 | µg/L | 2.1660 | ppb | 19:40:11 |
| 1 | Ba 233.527† | -17.5 | 9.0 | 0.2357 | µg/L | 0.2357 | ppb | 19:40:11 |
| 1 | Be 313.107† | -3261.5 | 274.9 | 0.1795 | µg/L | 0.1795 | ppb | 19:39:51 |
| 1 | Cd 226.502† | -143.1 | 3.3 | 0.0883 | µg/L | 0.0883 | ppb | 19:40:11 |
| 1 | Co 228.616† | -14.2 | -4.9 | -0.2416 | µg/L | -0.2416 | ppb | 19:40:11 |
| 1 | Cr 267.716† | -7.4 | 45.2 | 0.9940 | µg/L | 0.9940 | ppb | 19:40:11 |
| 1 | Cu 324.752† | 2443.8 | -114.2 | -0.7963 | µg/L | -0.7963 | ppb | 19:39:51 |
| 1 | Mn 257.610† | -169.1 | 79.9 | 0.2761 | µg/L | 0.2761 | ppb | 19:40:11 |
| 1 | Mo 202.031† | -6.4 | 1.4 | 0.1476 | µg/L | 0.1476 | ppb | 19:40:11 |
| 1 | Ni 231.604† | 306.2 | -5.0 | -0.2754 | µg/L | -0.2754 | ppb | 19:40:11 |
| 1 | P 214.914† | 36.4 | 7.7 | 16.712 | µg/L | 16.712 | ppb | 19:40:11 |
| 1 | Pb 220.353† | 91.5 | -8.3 | -2.2188 | µg/L | -2.2188 | ppb | 19:40:11 |
| 1 | S 181.975 Axial† | 15.5 | 0.3 | 1.1200 | µg/L | 1.1200 | ppb | 19:40:11 |
| 1 | Sb 206.836† | 23.6 | -4.0 | -3.9935 | µg/L | -3.9935 | ppb | 19:40:11 |
| 1 | Se 196.026† | 10.4 | -5.8 | -8.8371 | µg/L | -8.8371 | ppb | 19:40:11 |
| 1 | SiO2† | 4053.3 | 2683.9 | 578.00 | µg/L | 578.00 | ppb | 19:39:51 |
| 1 | Si 251.611† | 3735.4 | 3312.5 | 272.31 | µg/L | 272.31 | ppb | 19:39:51 |
| 1 | Sn 189.927† | 1.4 | 2.2 | 1.0392 | µg/L | 1.0392 | ppb | 19:40:11 |
| 1 | Ti 334.940† | 209.0 | 86.7 | 0.2045 | µg/L | 0.2045 | ppb | 19:39:51 |
| 1 | Tl 190.801† | -28.8 | -3.6 | -5.0793 | µg/L | -5.0793 | ppb | 19:40:11 |
| 1 | U 409.014† | -114.0 | -57.1 | -5.1684 | µg/L | -5.1684 | ppb | 19:39:51 |
| 1 | V 292.402† | 0.4 | 44.6 | 0.4745 | µg/L | 0.4745 | ppb | 19:39:51 |
| 1 | Zn 213.857† | 490.8 | 0.8 | 0.0180 | µg/L | 0.0180 | ppb | 19:40:11 |
| 2 | Sc RADIAL | 55453.1 | 55453.1 | 102 | % | | | 19:38:49 |
| 2 | Al 396.153Radial† | -1.2 | 8.9 | 6.6613 | µg/L | 6.6613 | ppb | 19:38:49 |
| 2 | Ca 317.933Radial† | 195.9 | 13.6 | 12.817 | µg/L | 12.817 | ppb | 19:39:09 |
| 2 | Fe 238.204 Radial† | 14.7 | 0.0 | 0.0944 | µg/L | 0.0944 | ppb | 19:39:09 |
| 2 | K 766.490 Radial† | 238.4 | 106.2 | 75.456 | µg/L | 75.456 | ppb | 19:38:49 |
| 2 | Mg 279.077 IEC† | 15.6 | 4.1 | 37.981 | µg/L | 37.981 | ppb | 19:39:09 |
| 2 | Na 589.592 Radial† | 708.0 | 154.9 | 51.000 | µg/L | 51.000 | ppb | 19:38:49 |
| 2 | Sr 421.552† | 57.2 | 16.8 | 0.1737 | µg/L | 0.1737 | ppb | 19:38:49 |
| 2 | Sc 361.383 | 1975775.5 | 1975775.5 | 103.45 | % | | | 19:40:18 |
| 2 | Y 371.029 | 1355586.5 | 1355586.5 | 103.49 | % | | | 19:40:18 |
| 2 | Ag 328.068† | -512.8 | 68.9 | 0.5480 | µg/L | 0.5480 | ppb | 19:40:23 |
| 2 | As 188.979† | -0.8 | -1.9 | -3.7879 | µg/L | -3.7879 | ppb | 19:40:44 |
| 2 | B 249.677† | 398.7 | 53.9 | 2.3572 | µg/L | 2.3572 | ppb | 19:40:44 |
| 2 | Ba 233.527† | -16.5 | 10.0 | 0.2613 | µg/L | 0.2613 | ppb | 19:40:44 |
| 2 | Be 313.107† | -3291.3 | 258.9 | 0.1690 | µg/L | 0.1690 | ppb | 19:40:23 |
| 2 | Cd 226.502† | -132.6 | 13.9 | 0.3835 | µg/L | 0.3835 | ppb | 19:40:44 |
| 2 | Co 228.616† | -7.1 | 2.0 | 0.0984 | µg/L | 0.0984 | ppb | 19:40:44 |
| 2 | Cr 267.716† | -22.7 | 30.4 | 0.6696 | µg/L | 0.6696 | ppb | 19:40:44 |
| 2 | Cu 324.752† | 2469.7 | -98.8 | -0.6905 | µg/L | -0.6905 | ppb | 19:40:23 |
| 2 | Mn 257.610† | -143.9 | 105.0 | 0.3620 | µg/L | 0.3620 | ppb | 19:40:44 |
| 2 | Mo 202.031† | -4.2 | 3.5 | 0.3717 | µg/L | 0.3717 | ppb | 19:40:44 |
| 2 | Ni 231.604† | 302.9 | -9.4 | -0.5143 | µg/L | -0.5143 | ppb | 19:40:44 |
| 2 | P 214.914† | 29.9 | 1.3 | 2.7919 | µg/L | 2.7919 | ppb | 19:40:44 |
| 2 | Pb 220.353† | 97.3 | -3.1 | -0.8261 | µg/L | -0.8261 | ppb | 19:40:44 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 20.0 | 4.5 | 19.710 µg/L | 19.710 ppb | 19:40:44 |
| 2 | Sb 206.836† | 23.7 | -4.1 | -4.0300 µg/L | -4.0300 ppb | 19:40:44 |
| 2 | Se 196.026† | 9.3 | -6.9 | -10.492 µg/L | -10.492 ppb | 19:40:44 |
| 2 | SiO2† | 4038.7 | 2653.9 | 571.53 µg/L | 571.53 ppb | 19:40:23 |
| 2 | Si 251.611† | 3707.4 | 3270.8 | 268.87 µg/L | 268.87 ppb | 19:40:23 |
| 2 | Sn 189.927† | 2.0 | 2.8 | 1.2773 µg/L | 1.2773 ppb | 19:40:44 |
| 2 | Ti 334.940† | 221.6 | 98.1 | 0.2331 µg/L | 0.2331 ppb | 19:40:23 |
| 2 | Tl 190.801† | -21.6 | 3.4 | 4.7965 µg/L | 4.7965 ppb | 19:40:44 |
| 2 | U 409.014† | -59.9 | -4.3 | -0.3880 µg/L | -0.3880 ppb | 19:40:23 |
| 2 | V 292.402† | -21.0 | 23.9 | 0.2589 µg/L | 0.2589 ppb | 19:40:23 |
| 2 | Zn 213.857† | 511.8 | 19.2 | 0.4807 µg/L | 0.4807 ppb | 19:40:44 |
| 3 | Sc RADIAL | 54997.2 | 54997.2 | 101 % | | 19:39:15 |
| 3 | Al 396.153Radial† | -9.6 | 0.6 | 0.4496 µg/L | 0.4496 ppb | 19:39:15 |
| 3 | Ca 317.933Radial† | 197.1 | 16.5 | 15.498 µg/L | 15.498 ppb | 19:39:35 |
| 3 | Fe 238.204 Radial† | 17.3 | 2.6 | 22.415 µg/L | 22.415 ppb | 19:39:35 |
| 3 | K 766.490 Radial† | 180.6 | 50.8 | 36.115 µg/L | 36.115 ppb | 19:39:15 |
| 3 | Mg 279.077 IEC† | 14.5 | 3.2 | 29.331 µg/L | 29.331 ppb | 19:39:35 |
| 3 | Na 589.592 Radial† | 763.4 | 215.7 | 70.994 µg/L | 70.994 ppb | 19:39:15 |
| 3 | Sr 421.552† | 65.9 | 25.9 | 0.2681 µg/L | 0.2681 ppb | 19:39:15 |
| 3 | Sc 361.383 | 1964922.8 | 1964922.8 | 102.88 % | | 19:40:50 |
| 3 | Y 371.029 | 1347749.0 | 1347749.0 | 102.89 % | | 19:40:50 |
| 3 | Ag 328.068† | -485.9 | 92.3 | 0.7322 µg/L | 0.7322 ppb | 19:40:55 |
| 3 | As 188.979† | 0.6 | -0.6 | -1.1015 µg/L | -1.1015 ppb | 19:41:16 |
| 3 | B 249.677† | 385.4 | 43.2 | 1.8762 µg/L | 1.8762 ppb | 19:41:16 |
| 3 | Ba 233.527† | -20.3 | 6.2 | 0.1623 µg/L | 0.1623 ppb | 19:41:16 |
| 3 | Be 313.107† | -3155.8 | 373.1 | 0.2435 µg/L | 0.2435 ppb | 19:40:55 |
| 3 | Cd 226.502† | -137.1 | 8.9 | 0.2432 µg/L | 0.2432 ppb | 19:41:16 |
| 3 | Co 228.616† | -0.5 | 8.4 | 0.4121 µg/L | 0.4121 ppb | 19:41:16 |
| 3 | Cr 267.716† | -8.2 | 44.4 | 0.9768 µg/L | 0.9768 ppb | 19:41:16 |
| 3 | Cu 324.752† | 2483.7 | -72.0 | -0.4999 µg/L | -0.4999 ppb | 19:40:55 |
| 3 | Mn 257.610† | -138.7 | 109.3 | 0.3805 µg/L | 0.3805 ppb | 19:41:16 |
| 3 | Mo 202.031† | -5.4 | 2.3 | 0.2508 µg/L | 0.2508 ppb | 19:41:16 |
| 3 | Ni 231.604† | 316.9 | 5.9 | 0.3198 µg/L | 0.3198 ppb | 19:41:16 |
| 3 | P 214.914† | 26.0 | -2.4 | -5.0548 µg/L | -5.0548 ppb | 19:41:16 |
| 3 | Pb 220.353† | 90.0 | -9.7 | -2.5999 µg/L | -2.5999 ppb | 19:41:16 |
| 3 | S 181.975 Axial† | 20.6 | 5.2 | 22.743 µg/L | 22.743 ppb | 19:41:16 |
| 3 | Sb 206.836† | 23.9 | -3.7 | -3.6360 µg/L | -3.6360 ppb | 19:41:16 |
| 3 | Se 196.026† | 14.1 | -2.1 | -3.2432 µg/L | -3.2432 ppb | 19:41:16 |
| 3 | SiO2† | 3923.3 | 2563.3 | 552.03 µg/L | 552.03 ppb | 19:40:55 |
| 3 | Si 251.611† | 3574.4 | 3161.3 | 259.88 µg/L | 259.88 ppb | 19:40:55 |
| 3 | Sn 189.927† | 1.0 | 1.8 | 0.8318 µg/L | 0.8318 ppb | 19:41:16 |
| 3 | Ti 334.940† | 247.5 | 124.4 | 0.2972 µg/L | 0.2972 ppb | 19:40:55 |
| 3 | Tl 190.801† | -20.5 | 4.4 | 6.0916 µg/L | 6.0916 ppb | 19:41:16 |
| 3 | U 409.014† | -23.0 | 31.3 | 2.8278 µg/L | 2.8278 ppb | 19:40:55 |
| 3 | V 292.402† | -67.0 | -20.9 | -0.2134 µg/L | -0.2134 ppb | 19:40:55 |
| 3 | Zn 213.857† | 498.6 | 9.1 | 0.2239 µg/L | 0.2239 ppb | 19:41:16 |

**Mean Data: 1202032561|948737|5**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1969494.8 | 103.12 | % | 0.295 | | | | 0.29% |
| Sc RADIAL | 55335.7 | 101 | % | 0.5 | | | | 0.54% |
| Y 371.029 | 1350254.5 | 103.08 | % | 0.353 | | | | 0.34% |
| Ag 328.068† | 75.7 | 0.6024 | µg/L | 0.11293 | 0.6024 | ppb | 0.11293 | 18.75% |
| Al 396.153Radial† | 1.8 | 1.3697 | µg/L | 4.89673 | 1.3697 | ppb | 4.89673 | 357.50% |
| As 188.979† | -1.1 | -2.2258 | µg/L | 1.39574 | -2.2258 | ppb | 1.39574 | 62.71% |
| B 249.677† | 48.9 | 2.1331 | µg/L | 0.24218 | 2.1331 | ppb | 0.24218 | 11.35% |
| Ba 233.527† | 8.4 | 0.2198 | µg/L | 0.05138 | 0.2198 | ppb | 0.05138 | 23.38% |
| Be 313.107† | 302.3 | 0.1973 | µg/L | 0.04034 | 0.1973 | ppb | 0.04034 | 20.44% |
| Ca 317.933Radial† | 13.7 | 12.889 | µg/L | 2.5739 | 12.889 | ppb | 2.5739 | 19.97% |
| Cd 226.502† | 8.7 | 0.2383 | µg/L | 0.14769 | 0.2383 | ppb | 0.14769 | 61.96% |
| Co 228.616† | 1.8 | 0.0896 | µg/L | 0.32695 | 0.0896 | ppb | 0.32695 | 364.74% |
| Cr 267.716† | 40.0 | 0.8801 | µg/L | 0.18253 | 0.8801 | ppb | 0.18253 | 20.74% |
| Cu 324.752† | -95.0 | -0.6622 | µg/L | 0.15020 | -0.6622 | ppb | 0.15020 | 22.68% |
| Fe 238.204 Radial† | 1.3 | 11.026 | µg/L | 11.1673 | 11.026 | ppb | 11.1673 | 101.28% |
| K 766.490 Radial† | 75.1 | 53.373 | µg/L | 20.1092 | 53.373 | ppb | 20.1092 | 37.68% |
| Mg 279.077 IEC† | 4.4 | 40.581 | µg/L | 12.7501 | 40.581 | ppb | 12.7501 | 31.42% |
| Mn 257.610† | 98.1 | 0.3395 | µg/L | 0.05572 | 0.3395 | ppb | 0.05572 | 16.41% |
| Mo 202.031† | 2.4 | 0.2567 | µg/L | 0.11216 | 0.2567 | ppb | 0.11216 | 43.69% |
| Na 589.592 Radial† | 187.8 | 61.831 | µg/L | 10.1008 | 61.831 | ppb | 10.1008 | 16.34% |

| | | | | | | |
|---|---|---|---|---|---|---|
| Ni 231.604† | -2.9 | -0.1566 µg/L | 0.42953 | -0.1566 ppb | 0.42953 | 274.22% |
| P 214.914† | 2.2 | 4.8165 µg/L | 11.02392 | 4.8165 ppb | 11.02392 | 228.88% |
| Pb 220.353† | -7.1 | -1.8816 µg/L | 0.93377 | -1.8816 ppb | 0.93377 | 49.63% |
| S 181.975 Axial† | 3.3 | 14.524 µg/L | 11.7071 | 14.524 ppb | 11.7071 | 80.60% |
| Sb 206.836† | -3.9 | -3.8865 µg/L | 0.21773 | -3.8865 ppb | 0.21773 | 5.60% |
| Se 196.026† | -4.9 | -7.5242 µg/L | 3.79864 | -7.5242 ppb | 3.79864 | 50.49% |
| SiO2† | 2633.7 | 567.19 µg/L | 13.522 | 567.19 ppb | 13.522 | 2.38% |
| Si 251.611† | 3248.2 | 267.02 µg/L | 6.418 | 267.02 ppb | 6.418 | 2.40% |
| Sn 189.927† | 2.3 | 1.0494 µg/L | 0.22288 | 1.0494 ppb | 0.22288 | 21.24% |
| Sr 421.552† | 18.1 | 0.1880 µg/L | 0.07405 | 0.1880 ppb | 0.07405 | 39.39% |
| Ti 334.940† | 103.1 | 0.2449 µg/L | 0.04745 | 0.2449 ppb | 0.04745 | 19.37% |
| Tl 190.801† | 1.4 | 1.9362 µg/L | 6.11008 | 1.9362 ppb | 6.11008 | 315.56% |
| U 409.014† | -10.0 | -0.9095 µg/L | 4.02356 | -0.9095 ppb | 4.02356 | 442.37% |
| V 292.402† | 15.9 | 0.1733 µg/L | 0.35183 | 0.1733 ppb | 0.35183 | 203.00% |
| Zn 213.857† | 9.7 | 0.2409 µg/L | 0.23181 | 0.2409 ppb | 0.23181 | 96.23% |

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:41:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56419.4 | 56419.4 | 103 | % | | | 19:42:04 |
| 1 | Al 396.153Radial† | 6864.6 | 6650.3 | 4946.1 | µg/L | 4946.1 | ppb | 19:42:25 |
| 1 | Ca 317.933Radial† | 5559.4 | 5198.4 | 4894.6 | µg/L | 4894.6 | ppb | 19:42:25 |
| 1 | Fe 238.204 Radial† | 616.6 | 581.9 | 4942.5 | µg/L | 4942.5 | ppb | 19:42:25 |
| 1 | K 766.490 Radial† | 7352.0 | 6983.2 | 4963.6 | µg/L | 4963.6 | ppb | 19:42:04 |
| 1 | Mg 279.077 IEC† | 570.1 | 540.2 | 5030.2 | µg/L | 5030.2 | ppb | 19:42:25 |
| 1 | Na 589.592 Radial† | 31600.6 | 30025.3 | 9884.4 | µg/L | 9884.4 | ppb | 19:42:04 |
| 1 | Sr 421.552† | 48468.4 | 46843.8 | 485.59 | µg/L | 485.59 | ppb | 19:42:04 |
| 1 | Sc 361.383 | 2003108.1 | 2003108.1 | 104.88 | % | | | 19:43:28 |
| 1 | Y 371.029 | 1370730.2 | 1370730.2 | 104.64 | % | | | 19:43:28 |
| 1 | Ag 328.068† | 64726.1 | 62276.9 | 497.74 | µg/L | 497.74 | ppb | 19:43:34 |
| 1 | As 188.979† | 267.5 | 253.9 | 495.37 | µg/L | 495.37 | ppb | 19:43:54 |
| 1 | B 249.677† | 12041.2 | 11149.1 | 485.46 | µg/L | 485.46 | ppb | 19:43:34 |
| 1 | Ba 233.527† | 19842.7 | 18944.8 | 494.19 | µg/L | 494.19 | ppb | 19:43:34 |
| 1 | Be 313.107† | 766666.1 | 734409.3 | 479.43 | µg/L | 479.43 | ppb | 19:43:28 |
| 1 | Cd 226.502† | 18686.6 | 17958.6 | 495.39 | µg/L | 495.39 | ppb | 19:43:34 |
| 1 | Co 228.616† | 10595.4 | 10110.9 | 497.04 | µg/L | 497.04 | ppb | 19:43:34 |
| 1 | Cr 267.716† | 23720.3 | 22668.2 | 498.92 | µg/L | 498.92 | ppb | 19:43:34 |
| 1 | Cu 324.752† | 76984.9 | 70914.3 | 496.04 | µg/L | 496.04 | ppb | 19:43:34 |
| 1 | Mn 257.610† | 147751.2 | 141115.8 | 489.12 | µg/L | 489.12 | ppb | 19:43:28 |
| 1 | Mo 202.031† | 5026.0 | 4799.5 | 512.40 | µg/L | 512.40 | ppb | 19:43:54 |
| 1 | Ni 231.604† | 9826.5 | 9056.7 | 495.20 | µg/L | 495.20 | ppb | 19:43:34 |
| 1 | P 214.914† | 1254.6 | 1168.6 | 2461.8 | µg/L | 2461.8 | ppb | 19:43:54 |
| 1 | Pb 220.353† | 2050.1 | 1857.4 | 495.79 | µg/L | 495.79 | ppb | 19:43:54 |
| 1 | S 181.975 Axial† | 255.6 | 228.9 | 1003.0 | µg/L | 1003.0 | ppb | 19:43:54 |
| 1 | Sb 206.836† | 570.4 | 516.9 | 511.09 | µg/L | 511.09 | ppb | 19:43:54 |
| 1 | Se 196.026† | 360.0 | 327.4 | 506.74 | µg/L | 506.74 | ppb | 19:43:54 |
| 1 | SiO2† | 26928.3 | 24424.4 | 5259.9 | µg/L | 5259.9 | ppb | 19:43:34 |
| 1 | Si 251.611† | 31785.6 | 29992.7 | 2465.6 | µg/L | 2465.6 | ppb | 19:43:34 |
| 1 | Sn 189.927† | 1167.3 | 1113.9 | 512.34 | µg/L | 512.34 | ppb | 19:43:54 |
| 1 | Ti 334.940† | 210971.9 | 201032.6 | 483.25 | µg/L | 483.25 | ppb | 19:43:28 |
| 1 | Tl 190.801† | 351.0 | 358.9 | 506.83 | µg/L | 506.83 | ppb | 19:43:54 |
| 1 | U 409.014† | 5847.6 | 5628.9 | 508.64 | µg/L | 508.64 | ppb | 19:43:34 |
| 1 | V 292.402† | 48650.0 | 46429.0 | 501.02 | µg/L | 501.02 | ppb | 19:43:34 |
| 1 | Zn 213.857† | 21378.5 | 19907.5 | 493.60 | µg/L | 493.60 | ppb | 19:43:34 |
| 2 | Sc RADIAL | 57083.7 | 57083.7 | 105 | % | | | 19:42:30 |
| 2 | Al 396.153Radial† | 6804.1 | 6515.2 | 4845.3 | µg/L | 4845.3 | ppb | 19:42:51 |
| 2 | Ca 317.933Radial† | 5545.5 | 5122.6 | 4823.3 | µg/L | 4823.3 | ppb | 19:42:51 |
| 2 | Fe 238.204 Radial† | 613.4 | 571.9 | 4857.7 | µg/L | 4857.7 | ppb | 19:42:51 |
| 2 | K 766.490 Radial† | 7292.4 | 6843.5 | 4864.3 | µg/L | 4864.3 | ppb | 19:42:30 |
| 2 | Mg 279.077 IEC† | 572.7 | 536.3 | 4994.3 | µg/L | 4994.3 | ppb | 19:42:51 |
| 2 | Na 589.592 Radial† | 31703.2 | 29767.7 | 9799.6 | µg/L | 9799.6 | ppb | 19:42:30 |
| 2 | Sr 421.552† | 48760.9 | 46577.9 | 482.83 | µg/L | 482.83 | ppb | 19:42:30 |
| 2 | Sc 361.383 | 1956478.6 | 1956478.6 | 102.44 | % | | | 19:44:02 |
| 2 | Y 371.029 | 1338013.6 | 1338013.6 | 102.14 | % | | | 19:44:02 |
| 2 | Ag 328.068† | 63625.9 | 62673.7 | 500.90 | µg/L | 500.90 | ppb | 19:44:07 |
| 2 | As 188.979† | 268.7 | 261.1 | 509.35 | µg/L | 509.35 | ppb | 19:44:28 |
| 2 | B 249.677† | 11834.0 | 11220.4 | 488.63 | µg/L | 488.63 | ppb | 19:44:07 |
| 2 | Ba 233.527† | 19447.5 | 19009.9 | 495.89 | µg/L | 495.89 | ppb | 19:44:07 |
| 2 | Be 313.107† | 783080.7 | 767854.0 | 501.26 | µg/L | 501.26 | ppb | 19:44:02 |
| 2 | Cd 226.502† | 18262.0 | 17968.8 | 495.68 | µg/L | 495.68 | ppb | 19:44:07 |
| 2 | Co 228.616† | 10399.7 | 10160.6 | 499.45 | µg/L | 499.45 | ppb | 19:44:07 |
| 2 | Cr 267.716† | 23262.6 | 22760.4 | 500.95 | µg/L | 500.95 | ppb | 19:44:07 |
| 2 | Cu 324.752† | 75552.4 | 71265.3 | 498.48 | µg/L | 498.48 | ppb | 19:44:07 |
| 2 | Mn 257.610† | 151080.8 | 147723.5 | 511.99 | µg/L | 511.99 | ppb | 19:44:02 |
| 2 | Mo 202.031† | 4987.4 | 4876.0 | 520.56 | µg/L | 520.56 | ppb | 19:44:28 |
| 2 | Ni 231.604† | 9658.6 | 9126.2 | 498.44 | µg/L | 498.44 | ppb | 19:44:07 |
| 2 | P 214.914† | 1238.9 | 1181.7 | 2490.0 | µg/L | 2490.0 | ppb | 19:44:28 |
| 2 | Pb 220.353† | 2049.2 | 1903.2 | 508.02 | µg/L | 508.02 | ppb | 19:44:28 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 249.6 | 228.9 | 1002.7 µg/L | 1002.7 ppb | 19:44:28 |
| 2 | Sb 206.836† | 564.1 | 523.7 | 517.93 µg/L | 517.93 ppb | 19:44:28 |
| 2 | Se 196.026† | 358.2 | 333.9 | 516.45 µg/L | 516.45 ppb | 19:44:28 |
| 2 | SiO2† | 26483.3 | 24601.9 | 5298.2 µg/L | 5298.2 ppb | 19:44:07 |
| 2 | Si 251.611† | 31145.7 | 30090.4 | 2473.6 µg/L | 2473.6 ppb | 19:44:07 |
| 2 | Sn 189.927† | 1159.9 | 1133.1 | 521.19 µg/L | 521.19 ppb | 19:44:28 |
| 2 | Ti 334.940† | 215458.6 | 210206.4 | 505.32 µg/L | 505.32 ppb | 19:44:02 |
| 2 | Tl 190.801† | 341.6 | 357.7 | 505.37 µg/L | 505.37 ppb | 19:44:28 |
| 2 | U 409.014† | 5729.0 | 5646.0 | 510.20 µg/L | 510.20 ppb | 19:44:07 |
| 2 | V 292.402† | 47728.9 | 46635.3 | 503.28 µg/L | 503.28 ppb | 19:44:07 |
| 2 | Zn 213.857† | 20977.4 | 20001.8 | 495.95 µg/L | 495.95 ppb | 19:44:07 |
| 3 | Sc RADIAL | 57202.6 | 57202.6 | 105 % | | 19:42:56 |
| 3 | Al 396.153Radial† | 6841.2 | 6537.0 | 4863.4 µg/L | 4863.4 ppb | 19:43:17 |
| 3 | Ca 317.933Radial† | 5579.2 | 5143.7 | 4843.1 µg/L | 4843.1 ppb | 19:43:17 |
| 3 | Fe 238.204 Radial† | 619.6 | 576.6 | 4896.7 µg/L | 4896.7 ppb | 19:43:17 |
| 3 | K 766.490 Radial† | 7296.8 | 6833.1 | 4856.9 µg/L | 4856.9 ppb | 19:42:56 |
| 3 | Mg 279.077 IEC† | 570.0 | 532.5 | 4957.7 µg/L | 4957.7 ppb | 19:43:17 |
| 3 | Na 589.592 Radial† | 31651.4 | 29655.3 | 9762.6 µg/L | 9762.6 ppb | 19:42:56 |
| 3 | Sr 421.552† | 48633.6 | 46359.5 | 480.57 µg/L | 480.57 ppb | 19:42:56 |
| 3 | Sc 361.383 | 1968483.8 | 1968483.8 | 103.07 % | | 19:44:35 |
| 3 | Y 371.029 | 1347474.9 | 1347474.9 | 102.87 % | | 19:44:35 |
| 3 | Ag 328.068† | 60287.4 | 59055.9 | 471.87 µg/L | 471.87 ppb | 19:44:40 |
| 3 | As 188.979† | 225.2 | 217.3 | 423.99 µg/L | 423.99 ppb | 19:45:01 |
| 3 | B 249.677† | 11150.7 | 10487.1 | 456.47 µg/L | 456.47 ppb | 19:44:40 |
| 3 | Ba 233.527† | 17981.9 | 17472.2 | 455.76 µg/L | 455.76 ppb | 19:44:40 |
| 3 | Be 313.107† | 731612.9 | 713257.7 | 465.62 µg/L | 465.62 ppb | 19:44:35 |
| 3 | Cd 226.502† | 16841.2 | 16481.6 | 454.60 µg/L | 454.60 ppb | 19:44:40 |
| 3 | Co 228.616† | 9509.8 | 9235.4 | 453.92 µg/L | 453.92 ppb | 19:44:40 |
| 3 | Cr 267.716† | 20728.9 | 20163.7 | 443.80 µg/L | 443.80 ppb | 19:44:40 |
| 3 | Cu 324.752† | 69473.8 | 64918.0 | 454.15 µg/L | 454.15 ppb | 19:44:40 |
| 3 | Mn 257.610† | 141487.4 | 137516.4 | 476.65 µg/L | 476.65 ppb | 19:44:35 |
| 3 | Mo 202.031† | 4166.6 | 4050.0 | 432.41 µg/L | 432.41 ppb | 19:45:01 |
| 3 | Ni 231.604† | 8868.9 | 8302.5 | 453.46 µg/L | 453.46 ppb | 19:44:40 |
| 3 | P 214.914† | 1068.6 | 1009.2 | 2122.7 µg/L | 2122.7 ppb | 19:45:01 |
| 3 | Pb 220.353† | 1791.6 | 1641.0 | 437.94 µg/L | 437.94 ppb | 19:45:01 |
| 3 | S 181.975 Axial† | 225.5 | 204.0 | 893.82 µg/L | 893.82 ppb | 19:45:01 |
| 3 | Sb 206.836† | 488.9 | 447.4 | 442.01 µg/L | 442.01 ppb | 19:45:01 |
| 3 | Se 196.026† | 320.0 | 294.7 | 456.84 µg/L | 456.84 ppb | 19:45:01 |
| 3 | SiO2† | 24830.7 | 22841.0 | 4918.9 µg/L | 4918.9 ppb | 19:44:40 |
| 3 | Si 251.611† | 29062.2 | 27883.6 | 2292.2 µg/L | 2292.2 ppb | 19:44:40 |
| 3 | Sn 189.927† | 952.2 | 924.7 | 425.35 µg/L | 425.35 ppb | 19:45:01 |
| 3 | Ti 334.940† | 200541.4 | 194450.9 | 467.42 µg/L | 467.42 ppb | 19:44:35 |
| 3 | Tl 190.801† | 313.2 | 328.1 | 463.67 µg/L | 463.67 ppb | 19:45:01 |
| 3 | U 409.014† | 5147.7 | 5048.0 | 456.05 µg/L | 456.05 ppb | 19:44:40 |
| 3 | V 292.402† | 43287.8 | 42042.5 | 453.47 µg/L | 453.47 ppb | 19:44:40 |
| 3 | Zn 213.857† | 19269.8 | 18220.2 | 451.73 µg/L | 451.73 ppb | 19:44:40 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1976023.5 | 103.47 | % | 1.268 | | | | 1.23% |
| Sc RADIAL | 56901.9 | 104 | % | 0.8 | | | | 0.74% |
| Y 371.029 | 1352072.9 | 103.22 | % | 1.285 | | | | 1.25% |
| Ag 328.068† | 61335.5 | 490.17 | µg/L | 15.926 | 490.17 | ppb | 15.926 | 3.25% |
| QC value within limits for Ag 328.068 Recovery = 98.03% | | | | | | | | |
| Al 396.153Radial† | 6567.5 | 4884.9 | µg/L | 53.78 | 4884.9 | ppb | 53.78 | 1.10% |
| QC value within limits for Al 396.153Radial Recovery = 97.70% | | | | | | | | |
| As 188.979† | 244.1 | 476.24 | µg/L | 45.784 | 476.24 | ppb | 45.784 | 9.61% |
| QC value within limits for As 188.979 Recovery = 95.25% | | | | | | | | |
| B 249.677† | 10952.2 | 476.85 | µg/L | 17.725 | 476.85 | ppb | 17.725 | 3.72% |
| QC value within limits for B 249.677 Recovery = 95.37% | | | | | | | | |
| Ba 233.527† | 18475.6 | 481.94 | µg/L | 22.693 | 481.94 | ppb | 22.693 | 4.71% |
| QC value within limits for Ba 233.527 Recovery = 96.39% | | | | | | | | |
| Be 313.107† | 738507.0 | 482.10 | µg/L | 17.970 | 482.10 | ppb | 17.970 | 3.73% |
| QC value within limits for Be 313.107 Recovery = 96.42% | | | | | | | | |
| Ca 317.933Radial† | 5154.9 | 4853.7 | µg/L | 36.83 | 4853.7 | ppb | 36.83 | 0.76% |
| QC value within limits for Ca 317.933Radial Recovery = 97.07% | | | | | | | | |
| Cd 226.502† | 17469.7 | 481.89 | µg/L | 23.632 | 481.89 | ppb | 23.632 | 4.90% |
| QC value within limits for Cd 226.502 Recovery = 96.38% | | | | | | | | |
| Co 228.616† | 9835.6 | 483.47 | µg/L | 25.623 | 483.47 | ppb | 25.623 | 5.30% |

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   QC value within limits for Co 228.616  Recovery = 96.69%
Cr 267.716†            21864.1      481.23 µg/L        32.425      481.23 ppb        32.425   6.74%
   QC value within limits for Cr 267.716  Recovery = 96.25%
Cu 324.752†            69032.5      482.89 µg/L        24.920      482.89 ppb        24.920   5.16%
   QC value within limits for Cu 324.752  Recovery = 96.58%
Fe 238.204 Radial†       576.8      4899.0 µg/L         42.44      4899.0 ppb         42.44   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.98%
K 766.490 Radial†       6886.6      4894.9 µg/L         59.56      4894.9 ppb         59.56   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 97.90%
Mg 279.077 IEC†          536.3      4994.1 µg/L         36.28      4994.1 ppb         36.28   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           142118.5      492.59 µg/L        17.923      492.59 ppb        17.923   3.64%
   QC value within limits for Mn 257.610  Recovery = 98.52%
Mo 202.031†             4575.2      488.46 µg/L        48.709      488.46 ppb        48.709   9.97%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†     29816.1      9815.6 µg/L         62.45      9815.6 ppb         62.45   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 98.16%
Ni 231.604†             8831.8      482.37 µg/L        25.085      482.37 ppb        25.085   5.20%
   QC value within limits for Ni 231.604  Recovery = 96.47%
P 214.914†              1119.8      2358.2 µg/L        204.40      2358.2 ppb        204.40   8.67%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†             1800.5      480.58 µg/L        37.434      480.58 ppb        37.434   7.79%
   QC value within limits for Pb 220.353  Recovery = 96.12%
S 181.975 Axial†         220.6      966.52 µg/L        62.959      966.52 ppb        62.959   6.51%
   QC value within limits for S 181.975 Axial  Recovery = 96.65%
Sb 206.836†              496.0      490.35 µg/L        41.996      490.35 ppb        41.996   8.56%
   QC value within limits for Sb 206.836  Recovery = 98.07%
Se 196.026†              318.6      493.35 µg/L        31.983      493.35 ppb        31.983   6.48%
   QC value within limits for Se 196.026  Recovery = 98.67%
SiO2†                  23955.8      5159.0 µg/L        208.79      5159.0 ppb        208.79   4.05%
   QC value within limits for SiO2  Recovery = 96.48%
Si 251.611†            29322.2      2410.4 µg/L        102.50      2410.4 ppb        102.50   4.25%
   QC value within limits for Si 251.611  Recovery = 96.42%
Sn 189.927†             1057.2      486.29 µg/L        52.962      486.29 ppb        52.962  10.89%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†            46593.7      483.00 µg/L         2.514      483.00 ppb         2.514   0.52%
   QC value within limits for Sr 421.552  Recovery = 96.60%
Ti 334.940†           201896.6      485.33 µg/L        19.033      485.33 ppb        19.033   3.92%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†              348.3      491.96 µg/L        24.505      491.96 ppb        24.505   4.98%
   QC value within limits for Tl 190.801  Recovery = 98.39%
U 409.014†              5441.0      491.63 µg/L        30.821      491.63 ppb        30.821   6.27%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†             45035.6      485.92 µg/L        28.129      485.92 ppb        28.129   5.79%
   QC value within limits for V 292.402  Recovery = 97.18%
Zn 213.857†            19376.5      480.43 µg/L        24.881      480.43 ppb        24.881   5.18%
   QC value within limits for Zn 213.857  Recovery = 96.09%
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:45:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56376.8 | 56376.8 | 103 | % | | | 19:45:43 |
| 1 | Al 396.153Radial† | -19.0 | -8.3 | -6.1741 | µg/L | -6.1741 | ppb | 19:45:43 |
| 1 | Ca 317.933Radial† | 190.5 | 5.3 | 4.9933 | µg/L | 4.9933 | ppb | 19:46:03 |
| 1 | Fe 238.204 Radial† | 14.9 | -0.1 | -0.5495 | µg/L | -0.5495 | ppb | 19:46:03 |
| 1 | K 766.490 Radial† | 145.1 | 12.1 | 8.5950 | µg/L | 8.5950 | ppb | 19:45:43 |
| 1 | Mg 279.077 IEC† | 10.6 | -1.0 | -9.5449 | µg/L | -9.5449 | ppb | 19:46:03 |
| 1 | Na 589.592 Radial† | 582.4 | 21.9 | 7.2091 | µg/L | 7.2091 | ppb | 19:45:43 |
| 1 | Sr 421.552† | 18.5 | -21.6 | -0.2243 | µg/L | -0.2243 | ppb | 19:45:43 |
| 1 | Sc 361.383 | 1992362.0 | 1992362.0 | 104.32 | % | | | 19:47:05 |
| 1 | Y 371.029 | 1368353.4 | 1368353.4 | 104.46 | % | | | 19:47:05 |
| 1 | Ag 328.068† | -598.5 | -9.1 | -0.0730 | µg/L | -0.0730 | ppb | 19:47:10 |
| 1 | As 188.979† | -0.0 | -1.2 | -2.2711 | µg/L | -2.2711 | ppb | 19:47:31 |
| 1 | B 249.677† | 346.6 | 0.7 | 0.0326 | µg/L | 0.0326 | ppb | 19:47:31 |
| 1 | Ba 233.527† | -24.2 | 2.9 | 0.0744 | µg/L | 0.0744 | ppb | 19:47:31 |
| 1 | Be 313.107† | -3339.3 | 239.4 | 0.1563 | µg/L | 0.1563 | ppb | 19:47:10 |
| 1 | Cd 226.502† | -124.4 | 22.9 | 0.6311 | µg/L | 0.6311 | ppb | 19:47:31 |
| 1 | Co 228.616† | -16.5 | -7.0 | -0.3445 | µg/L | -0.3445 | ppb | 19:47:31 |
| 1 | Cr 267.716† | -47.2 | 7.2 | 0.1575 | µg/L | 0.1575 | ppb | 19:47:31 |
| 1 | Cu 324.752† | 2430.9 | -155.9 | -1.0892 | µg/L | -1.0892 | ppb | 19:47:10 |
| 1 | Mn 257.610† | -240.7 | 13.4 | 0.0467 | µg/L | 0.0467 | ppb | 19:47:31 |
| 1 | Mo 202.031† | -8.3 | -0.4 | -0.0415 | µg/L | -0.0415 | ppb | 19:47:31 |
| 1 | Ni 231.604† | 297.2 | -17.3 | -0.9473 | µg/L | -0.9473 | ppb | 19:47:31 |
| 1 | P 214.914† | 35.0 | 6.0 | 12.897 | µg/L | 12.897 | ppb | 19:47:31 |
| 1 | Pb 220.353† | 95.0 | -6.2 | -1.6460 | µg/L | -1.6460 | ppb | 19:47:31 |
| 1 | S 181.975 Axial† | 14.6 | -0.8 | -3.7140 | µg/L | -3.7140 | ppb | 19:47:31 |
| 1 | Sb 206.836† | 19.5 | -8.3 | -8.1804 | µg/L | -8.1804 | ppb | 19:47:31 |
| 1 | Se 196.026† | 15.6 | -0.9 | -1.2950 | µg/L | -1.2950 | ppb | 19:47:31 |
| 1 | SiO2† | 1248.6 | -53.2 | -11.446 | µg/L | -11.446 | ppb | 19:47:10 |
| 1 | Si 251.611† | 306.0 | -19.6 | -1.6096 | µg/L | -1.6096 | ppb | 19:47:31 |
| 1 | Sn 189.927† | -6.1 | -5.0 | -2.2944 | µg/L | -2.2944 | ppb | 19:47:31 |
| 1 | Ti 334.940† | 214.1 | 89.1 | 0.2152 | µg/L | 0.2152 | ppb | 19:47:10 |
| 1 | Tl 190.801† | -21.4 | 3.7 | 5.2299 | µg/L | 5.2299 | ppb | 19:47:31 |
| 1 | U 409.014† | 10.3 | 63.5 | 5.7486 | µg/L | 5.7486 | ppb | 19:47:10 |
| 1 | V 292.402† | -52.5 | -6.1 | -0.0596 | µg/L | -0.0596 | ppb | 19:47:10 |
| 1 | Zn 213.857† | 478.7 | -16.6 | -0.4092 | µg/L | -0.4092 | ppb | 19:47:31 |
| 2 | Sc RADIAL | 56044.6 | 56044.6 | 103 | % | | | 19:46:09 |
| 2 | Al 396.153Radial† | -6.3 | 4.0 | 2.9768 | µg/L | 2.9768 | ppb | 19:46:09 |
| 2 | Ca 317.933Radial† | 183.8 | -0.2 | -0.1847 | µg/L | -0.1847 | ppb | 19:46:29 |
| 2 | Fe 238.204 Radial† | 14.3 | -0.6 | -4.7213 | µg/L | -4.7213 | ppb | 19:46:29 |
| 2 | K 766.490 Radial† | 167.1 | 34.3 | 24.398 | µg/L | 24.398 | ppb | 19:46:09 |
| 2 | Mg 279.077 IEC† | 11.1 | -0.4 | -4.0659 | µg/L | -4.0659 | ppb | 19:46:29 |
| 2 | Na 589.592 Radial† | 618.2 | 60.1 | 19.792 | µg/L | 19.792 | ppb | 19:46:09 |
| 2 | Sr 421.552† | 69.0 | 27.6 | 0.2866 | µg/L | 0.2866 | ppb | 19:46:09 |
| 2 | Sc 361.383 | 1989518.4 | 1989518.4 | 104.17 | % | | | 19:47:37 |
| 2 | Y 371.029 | 1365606.7 | 1365606.7 | 104.25 | % | | | 19:47:37 |
| 2 | Ag 328.068† | -547.2 | 39.3 | 0.3111 | µg/L | 0.3111 | ppb | 19:47:43 |
| 2 | As 188.979† | -3.9 | -4.9 | -9.5988 | µg/L | -9.5988 | ppb | 19:48:03 |
| 2 | B 249.677† | 322.6 | -21.8 | -0.9478 | µg/L | -0.9478 | ppb | 19:48:03 |
| 2 | Ba 233.527† | -14.9 | 11.7 | 0.3048 | µg/L | 0.3048 | ppb | 19:48:03 |
| 2 | Be 313.107† | -3365.6 | 209.6 | 0.1369 | µg/L | 0.1369 | ppb | 19:47:43 |
| 2 | Cd 226.502† | -135.4 | 12.1 | 0.3352 | µg/L | 0.3352 | ppb | 19:48:03 |
| 2 | Co 228.616† | -12.8 | -3.4 | -0.1669 | µg/L | -0.1669 | ppb | 19:48:03 |
| 2 | Cr 267.716† | -34.1 | 19.6 | 0.4310 | µg/L | 0.4310 | ppb | 19:48:03 |
| 2 | Cu 324.752† | 2392.5 | -189.4 | -1.3239 | µg/L | -1.3239 | ppb | 19:47:43 |
| 2 | Mn 257.610† | -233.6 | 19.8 | 0.0682 | µg/L | 0.0682 | ppb | 19:48:03 |
| 2 | Mo 202.031† | 1.3 | 8.8 | 0.9388 | µg/L | 0.9388 | ppb | 19:48:03 |
| 2 | Ni 231.604† | 308.4 | -6.2 | -0.3371 | µg/L | -0.3371 | ppb | 19:48:03 |
| 2 | P 214.914† | 38.1 | 8.9 | 19.315 | µg/L | 19.315 | ppb | 19:48:03 |
| 2 | Pb 220.353† | 86.4 | -14.2 | -3.7968 | µg/L | -3.7968 | ppb | 19:48:03 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 18.4 | 2.9 | 12.528 | µg/L | 12.528 ppb | 19:48:03 |
| 2 | Sb 206.836† | 29.9 | 1.8 | 1.7421 | µg/L | 1.7421 ppb | 19:48:03 |
| 2 | Se 196.026† | 17.4 | 0.9 | 1.3573 | µg/L | 1.3573 ppb | 19:48:03 |
| 2 | SiO2† | 1243.9 | -56.0 | -12.052 | µg/L | -12.052 ppb | 19:47:43 |
| 2 | Si 251.611† | 297.9 | -26.9 | -2.2125 | µg/L | -2.2125 ppb | 19:48:03 |
| 2 | Sn 189.927† | -3.7 | -2.7 | -1.2451 | µg/L | -1.2451 ppb | 19:48:03 |
| 2 | Ti 334.940† | 113.7 | -7.0 | -0.0165 | µg/L | -0.0165 ppb | 19:47:43 |
| 2 | Tl 190.801† | -21.7 | 3.4 | 4.7734 | µg/L | 4.7734 ppb | 19:48:03 |
| 2 | U 409.014† | -37.3 | 17.8 | 1.6161 | µg/L | 1.6161 ppb | 19:47:43 |
| 2 | V 292.402† | -50.7 | -4.5 | -0.0381 | µg/L | -0.0381 ppb | 19:47:43 |
| 2 | Zn 213.857† | 476.3 | -18.3 | -0.4528 | µg/L | -0.4528 ppb | 19:48:03 |
| 3 | Sc RADIAL | 56131.1 | 56131.1 | 103 | % | | 19:46:34 |
| 3 | Al 396.153Radial† | 10.7 | 20.5 | 15.284 | µg/L | 15.284 ppb | 19:46:34 |
| 3 | Ca 317.933Radial† | 181.6 | -2.5 | -2.4004 | µg/L | -2.4004 ppb | 19:46:55 |
| 3 | Fe 238.204 Radial† | 13.6 | -1.3 | -10.669 | µg/L | -10.669 ppb | 19:46:55 |
| 3 | K 766.490 Radial† | 173.8 | 40.6 | 28.846 | µg/L | 28.846 ppb | 19:46:34 |
| 3 | Mg 279.077 IEC† | 10.5 | -1.0 | -9.5132 | µg/L | -9.5132 ppb | 19:46:55 |
| 3 | Na 589.592 Radial† | 587.6 | 29.4 | 9.6947 | µg/L | 9.6947 ppb | 19:46:34 |
| 3 | Sr 421.552† | 41.1 | 0.4 | 0.0044 | µg/L | 0.0044 ppb | 19:46:34 |
| 3 | Sc 361.383 | 1993278.2 | 1993278.2 | 104.37 | % | | 19:48:09 |
| 3 | Y 371.029 | 1367625.5 | 1367625.5 | 104.41 | % | | 19:48:09 |
| 3 | Ag 328.068† | -556.8 | 31.0 | 0.2472 | µg/L | 0.2472 ppb | 19:48:15 |
| 3 | As 188.979† | 0.5 | -0.7 | -1.3924 | µg/L | -1.3924 ppb | 19:48:35 |
| 3 | B 249.677† | 311.8 | -32.7 | -1.4217 | µg/L | -1.4217 ppb | 19:48:35 |
| 3 | Ba 233.527† | -24.9 | 2.1 | 0.0565 | µg/L | 0.0565 ppb | 19:48:35 |
| 3 | Be 313.107† | -3343.9 | 236.6 | 0.1544 | µg/L | 0.1544 ppb | 19:48:15 |
| 3 | Cd 226.502† | -139.6 | 8.3 | 0.2308 | µg/L | 0.2308 ppb | 19:48:35 |
| 3 | Co 228.616† | -13.5 | -4.1 | -0.2026 | µg/L | -0.2026 ppb | 19:48:35 |
| 3 | Cr 267.716† | -29.8 | 23.8 | 0.5241 | µg/L | 0.5241 ppb | 19:48:35 |
| 3 | Cu 324.752† | 2398.4 | -188.1 | -1.3155 | µg/L | -1.3155 ppb | 19:48:15 |
| 3 | Mn 257.610† | -235.9 | 18.1 | 0.0616 | µg/L | 0.0616 ppb | 19:48:35 |
| 3 | Mo 202.031† | -7.4 | 0.5 | 0.0513 | µg/L | 0.0513 ppb | 19:48:35 |
| 3 | Ni 231.604† | 308.0 | -7.0 | -0.3852 | µg/L | -0.3852 ppb | 19:48:35 |
| 3 | P 214.914† | 25.9 | -2.8 | -5.9057 | µg/L | -5.9057 ppb | 19:48:35 |
| 3 | Pb 220.353† | 95.4 | -5.8 | -1.5343 | µg/L | -1.5343 ppb | 19:48:35 |
| 3 | S 181.975 Axial† | 16.1 | 0.6 | 2.8080 | µg/L | 2.8080 ppb | 19:48:35 |
| 3 | Sb 206.836† | 23.7 | -4.2 | -4.1849 | µg/L | -4.1849 ppb | 19:48:35 |
| 3 | Se 196.026† | 19.8 | 3.2 | 4.8107 | µg/L | 4.8107 ppb | 19:48:35 |
| 3 | SiO2† | 1250.9 | -51.4 | -11.079 | µg/L | -11.079 ppb | 19:48:15 |
| 3 | Si 251.611† | 298.1 | -27.3 | -2.2426 | µg/L | -2.2426 ppb | 19:48:35 |
| 3 | Sn 189.927† | 2.3 | 3.1 | 1.4084 | µg/L | 1.4084 ppb | 19:48:35 |
| 3 | Ti 334.940† | 175.4 | 51.9 | 0.1256 | µg/L | 0.1256 ppb | 19:48:15 |
| 3 | Tl 190.801† | -26.8 | -1.4 | -1.9510 | µg/L | -1.9510 ppb | 19:48:35 |
| 3 | U 409.014† | -48.8 | 6.9 | 0.6237 | µg/L | 0.6237 ppb | 19:48:15 |
| 3 | V 292.402† | -16.2 | 28.7 | 0.3071 | µg/L | 0.3071 ppb | 19:48:15 |
| 3 | Zn 213.857† | 476.7 | -18.8 | -0.4644 | µg/L | -0.4644 ppb | 19:48:35 |

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**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1991719.6 | 104.29 | % | 0.103 | | | | 0.10% |
| Sc RADIAL | 56184.2 | 103 | % | 0.3 | | | | 0.31% |
| Y 371.029 | 1367195.2 | 104.37 | % | 0.109 | | | | 0.10% |
| Ag 328.068† | 20.4 | 0.1617 | µg/L | 0.20583 | 0.1617 | ppb | 0.20583 | 127.26% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | 5.4 | 4.0289 | µg/L | 10.76761 | 4.0289 | ppb | 10.76761 | 267.26% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -2.3 | -4.4208 | µg/L | 4.50578 | -4.4208 | ppb | 4.50578 | 101.92% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -17.9 | -0.7790 | µg/L | 0.74170 | -0.7790 | ppb | 0.74170 | 95.22% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 5.6 | 0.1452 | µg/L | 0.13851 | 0.1452 | ppb | 0.13851 | 95.38% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 228.6 | 0.1492 | µg/L | 0.01069 | 0.1492 | ppb | 0.01069 | 7.17% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 0.9 | 0.8027 | µg/L | 3.79444 | 0.8027 | ppb | 3.79444 | 472.69% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 14.5 | 0.3990 | µg/L | 0.20768 | 0.3990 | ppb | 0.20768 | 52.05% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -4.8 | -0.2380 | µg/L | 0.09392 | -0.2380 | ppb | 0.09392 | 39.46% |

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 16.9      0.3709 µg/L       0.19057      0.3709 ppb        0.19057  51.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -177.8     -1.2429 µg/L       0.13310     -1.2429 ppb        0.13310  10.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          -0.6     -5.3132 µg/L       5.08561     -5.3132 ppb        5.08561  95.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           29.0      20.613 µg/L       10.6427      20.613 ppb        10.6427  51.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             -0.8     -7.7080 µg/L       3.15418     -7.7080 ppb        3.15418  40.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 17.1      0.0589 µg/L       0.01100      0.0589 ppb        0.01100  18.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                  3.0      0.3162 µg/L       0.54117      0.3162 ppb        0.54117 171.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          37.2      12.232 µg/L        6.6641      12.232 ppb         6.6641  54.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -10.2     -0.5566 µg/L       0.33928     -0.5566 ppb        0.33928  60.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                   4.0      8.7689 µg/L      13.10740      8.7689 ppb       13.10740 149.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 -8.7     -2.3257 µg/L       1.27525     -2.3257 ppb        1.27525  54.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             0.9      3.8739 µg/L       8.17318      3.8739 ppb        8.17318 210.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 -3.6     -3.5411 µg/L       4.99248     -3.5411 ppb        4.99248 140.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                  1.1      1.6243 µg/L       3.06159      1.6243 ppb        3.06159 188.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -53.5     -11.526 µg/L        0.4912     -11.526 ppb         0.4912   4.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                -24.6     -2.0216 µg/L       0.35706     -2.0216 ppb        0.35706  17.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 -1.5     -0.7104 µg/L       1.90848     -0.7104 ppb        1.90848 268.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                  2.1      0.0222 µg/L       0.25591      0.0222 ppb        0.25591 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 44.7      0.1081 µg/L       0.11683      0.1081 ppb        0.11683 108.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  1.9      2.6841 µg/L       4.02062      2.6841 ppb        4.02062 149.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  29.4      2.6628 µg/L       2.71803      2.6628 ppb        2.71803 102.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                   6.0      0.0698 µg/L       0.20578      0.0698 ppb        0.20578 294.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -17.9     -0.4421 µg/L       0.02911     -0.4421 ppb        0.02911   6.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: 245975001|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 339
Date Collected: 2/11/2010 19:59:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245975001|948737|1

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56260.6 | 56260.6 | 103 | % | | | 20:00:06 |
| 1 | Al 396.153Radial† | 10.5 | 20.4 | 15.160 | µg/L | 15.160 | ppb | 20:00:06 |
| 1 | Ca 317.933Radial† | 223.9 | 38.1 | 35.859 | µg/L | 35.859 | ppb | 20:00:27 |
| 1 | Fe 238.204 Radial† | 19.2 | 4.1 | 35.020 | µg/L | 35.020 | ppb | 20:00:27 |
| 1 | K 766.490 Radial† | 372.8 | 233.2 | 165.76 | µg/L | 165.76 | ppb | 20:00:06 |
| 1 | Mg 279.077 IEC† | 15.7 | 3.9 | 36.371 | µg/L | 36.371 | ppb | 20:00:27 |
| 1 | Na 589.592 Radial† | 954.4 | 383.9 | 126.39 | µg/L | 126.39 | ppb | 20:00:06 |
| 1 | Sr 421.552† | 22.4 | -17.8 | -0.1847 | µg/L | -0.1847 | ppb | 20:00:06 |
| 1 | Sc 361.383 | 1981257.3 | 1981257.3 | 103.74 | % | | | 20:01:29 |
| 1 | Y 371.029 | 1356589.3 | 1356589.3 | 103.56 | % | | | 20:01:29 |
| 1 | Ag 328.068† | -509.3 | 73.6 | 0.5837 | µg/L | 0.5837 | ppb | 20:01:34 |
| 1 | As 188.979† | -1.5 | -2.6 | -5.0381 | µg/L | -5.0381 | ppb | 20:01:55 |
| 1 | B 249.677† | 678.3 | 322.3 | 14.070 | µg/L | 14.070 | ppb | 20:01:34 |
| 1 | Ba 233.527† | -14.4 | 12.1 | 0.3153 | µg/L | 0.3153 | ppb | 20:01:55 |
| 1 | Be 313.107† | -3436.7 | 127.7 | 0.0831 | µg/L | 0.0831 | ppb | 20:01:34 |
| 1 | Cd 226.502† | -142.9 | 4.4 | 0.1158 | µg/L | 0.1158 | ppb | 20:01:55 |
| 1 | Co 228.616† | -18.3 | -8.8 | -0.4334 | µg/L | -0.4334 | ppb | 20:01:55 |
| 1 | Cr 267.716† | -9.7 | 43.0 | 0.9464 | µg/L | 0.9464 | ppb | 20:01:55 |
| 1 | Cu 324.752† | 2564.4 | -14.1 | -0.0937 | µg/L | -0.0937 | ppb | 20:01:34 |
| 1 | Mn 257.610† | -83.6 | 163.5 | 0.5693 | µg/L | 0.5693 | ppb | 20:01:55 |
| 1 | Mo 202.031† | -0.6 | 7.0 | 0.7479 | µg/L | 0.7479 | ppb | 20:01:55 |
| 1 | Ni 231.604† | 307.4 | -5.8 | -0.3188 | µg/L | -0.3188 | ppb | 20:01:55 |
| 1 | P 214.914† | 32.4 | 3.6 | 7.7026 | µg/L | 7.7026 | ppb | 20:01:55 |
| 1 | Pb 220.353† | 96.4 | -4.3 | -1.1253 | µg/L | -1.1253 | ppb | 20:01:55 |
| 1 | S 181.975 Axial† | 30.3 | 14.3 | 62.840 | µg/L | 62.840 | ppb | 20:01:55 |
| 1 | Sb 206.836† | 24.3 | -3.5 | -3.4954 | µg/L | -3.4954 | ppb | 20:01:55 |
| 1 | Se 196.026† | 18.1 | 1.6 | 2.4454 | µg/L | 2.4454 | ppb | 20:01:55 |
| 1 | SiO2† | 14383.9 | 12615.4 | 2716.8 | µg/L | 2716.8 | ppb | 20:01:34 |
| 1 | Si 251.611† | 16245.6 | 15347.1 | 1261.6 | µg/L | 1261.6 | ppb | 20:01:34 |
| 1 | Sn 189.927† | -2.3 | -1.3 | -0.6197 | µg/L | -0.6197 | ppb | 20:01:55 |
| 1 | Ti 334.940† | 425.2 | 293.7 | 0.7042 | µg/L | 0.7042 | ppb | 20:01:34 |
| 1 | Tl 190.801† | -21.6 | 3.4 | 4.7943 | µg/L | 4.7943 | ppb | 20:01:55 |
| 1 | U 409.014† | -148.5 | -89.5 | -8.1090 | µg/L | -8.1090 | ppb | 20:01:34 |
| 1 | V 292.402† | -85.9 | -38.6 | -0.4073 | µg/L | -0.4073 | ppb | 20:01:34 |
| 1 | Zn 213.857† | 539.4 | 44.4 | 1.1070 | µg/L | 1.1070 | ppb | 20:01:55 |
| 2 | Sc RADIAL | 56702.3 | 56702.3 | 104 | % | | | 20:00:32 |
| 2 | Al 396.153Radial† | -7.2 | 3.2 | 2.3814 | µg/L | 2.3814 | ppb | 20:00:32 |
| 2 | Ca 317.933Radial† | 229.0 | 41.2 | 38.822 | µg/L | 38.822 | ppb | 20:00:53 |
| 2 | Fe 238.204 Radial† | 20.1 | 4.8 | 40.675 | µg/L | 40.675 | ppb | 20:00:53 |
| 2 | K 766.490 Radial† | 505.4 | 358.0 | 254.47 | µg/L | 254.47 | ppb | 20:00:32 |
| 2 | Mg 279.077 IEC† | 13.5 | 1.7 | 15.995 | µg/L | 15.995 | ppb | 20:00:53 |
| 2 | Na 589.592 Radial† | 942.0 | 364.7 | 120.07 | µg/L | 120.07 | ppb | 20:00:32 |
| 2 | Sr 421.552† | 39.1 | -1.9 | -0.0201 | µg/L | -0.0201 | ppb | 20:00:32 |
| 2 | Sc 361.383 | 1959645.0 | 1959645.0 | 102.61 | % | | | 20:02:01 |
| 2 | Y 371.029 | 1341389.3 | 1341389.3 | 102.40 | % | | | 20:02:01 |
| 2 | Ag 328.068† | -586.9 | -7.4 | -0.0566 | µg/L | -0.0566 | ppb | 20:02:06 |
| 2 | As 188.979† | -1.5 | -2.6 | -5.1172 | µg/L | -5.1172 | ppb | 20:02:27 |
| 2 | B 249.677† | 695.5 | 346.4 | 15.118 | µg/L | 15.118 | ppb | 20:02:06 |
| 2 | Ba 233.527† | -21.6 | 5.0 | 0.1290 | µg/L | 0.1290 | ppb | 20:02:27 |
| 2 | Be 313.107† | -3385.8 | 140.7 | 0.0916 | µg/L | 0.0916 | ppb | 20:02:06 |
| 2 | Cd 226.502† | -145.6 | 0.2 | 0.0021 | µg/L | 0.0021 | ppb | 20:02:27 |
| 2 | Co 228.616† | -11.2 | -2.0 | -0.1018 | µg/L | -0.1018 | ppb | 20:02:27 |
| 2 | Cr 267.716† | -14.8 | 38.0 | 0.8355 | µg/L | 0.8355 | ppb | 20:02:27 |
| 2 | Cu 324.752† | 2549.4 | -1.4 | -0.0044 | µg/L | -0.0044 | ppb | 20:02:06 |
| 2 | Mn 257.610† | -84.2 | 162.1 | 0.5660 | µg/L | 0.5660 | ppb | 20:02:27 |
| 2 | Mo 202.031† | -7.8 | -0.1 | -0.0063 | µg/L | -0.0063 | ppb | 20:02:27 |
| 2 | Ni 231.604† | 307.8 | -2.2 | -0.1207 | µg/L | -0.1207 | ppb | 20:02:27 |
| 2 | P 214.914† | 37.3 | 8.8 | 18.811 | µg/L | 18.811 | ppb | 20:02:27 |
| 2 | Pb 220.353† | 91.0 | -8.5 | -2.2733 | µg/L | -2.2733 | ppb | 20:02:27 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 30.1 | 14.5 | 63.429 µg/L | 63.429 ppb | 20:02:27 |
| 2 | Sb 206.836† | 22.1 | -5.4 | -5.3081 µg/L | -5.3081 ppb | 20:02:27 |
| 2 | Se 196.026† | 15.3 | -0.9 | -1.2598 µg/L | -1.2598 ppb | 20:02:27 |
| 2 | SiO2† | 14262.1 | 12649.6 | 2724.2 µg/L | 2724.2 ppb | 20:02:06 |
| 2 | Si 251.611† | 16141.1 | 15418.0 | 1267.4 µg/L | 1267.4 ppb | 20:02:06 |
| 2 | Sn 189.927† | 1.3 | 2.1 | 0.9777 µg/L | 0.9777 ppb | 20:02:27 |
| 2 | Ti 334.940† | 351.8 | 226.8 | 0.5448 µg/L | 0.5448 ppb | 20:02:06 |
| 2 | Tl 190.801† | -21.4 | 3.4 | 4.7409 µg/L | 4.7409 ppb | 20:02:27 |
| 2 | U 409.014† | -114.3 | -57.8 | -5.2394 µg/L | -5.2394 ppb | 20:02:06 |
| 2 | V 292.402† | -47.4 | -2.0 | -0.0196 µg/L | -0.0196 ppb | 20:02:06 |
| 2 | Zn 213.857† | 532.0 | 42.9 | 1.0693 µg/L | 1.0693 ppb | 20:02:27 |
| 3 | Sc RADIAL | 56831.3 | 56831.3 | 104 % | | 20:00:58 |
| 3 | Al 396.153Radial† | 11.5 | 21.2 | 15.804 µg/L | 15.804 ppb | 20:00:58 |
| 3 | Ca 317.933Radial† | 222.1 | 34.2 | 32.162 µg/L | 32.162 ppb | 20:01:18 |
| 3 | Fe 238.204 Radial† | 16.7 | 1.6 | 13.147 µg/L | 13.147 ppb | 20:01:18 |
| 3 | K 766.490 Radial† | 376.9 | 233.6 | 166.01 µg/L | 166.01 ppb | 20:00:58 |
| 3 | Mg 279.077 IEC† | 9.2 | -2.4 | -22.579 µg/L | -22.579 ppb | 20:01:18 |
| 3 | Na 589.592 Radial† | 897.3 | 319.7 | 105.26 µg/L | 105.26 ppb | 20:00:58 |
| 3 | Sr 421.552† | 57.7 | 15.8 | 0.1641 µg/L | 0.1641 ppb | 20:00:58 |
| 3 | Sc 361.383 | 2001624.8 | 2001624.8 | 104.81 % | | 20:02:33 |
| 3 | Y 371.029 | 1372538.5 | 1372538.5 | 104.78 % | | 20:02:33 |
| 3 | Ag 328.068† | -558.9 | 31.2 | 0.2479 µg/L | 0.2479 ppb | 20:02:39 |
| 3 | As 188.979† | -1.2 | -2.3 | -4.4280 µg/L | -4.4280 ppb | 20:02:59 |
| 3 | B 249.677† | 691.2 | 328.1 | 14.331 µg/L | 14.331 ppb | 20:02:39 |
| 3 | Ba 233.527† | -13.3 | 13.3 | 0.3462 µg/L | 0.3462 ppb | 20:02:59 |
| 3 | Be 313.107† | -3385.4 | 210.3 | 0.1371 µg/L | 0.1371 ppb | 20:02:39 |
| 3 | Cd 226.502† | -141.9 | 6.7 | 0.1828 µg/L | 0.1828 ppb | 20:02:59 |
| 3 | Co 228.616† | -11.3 | -2.0 | -0.0983 µg/L | -0.0983 ppb | 20:02:59 |
| 3 | Cr 267.716† | -9.4 | 43.4 | 0.9540 µg/L | 0.9540 ppb | 20:02:59 |
| 3 | Cu 324.752† | 2509.5 | -91.7 | -0.6386 µg/L | -0.6386 ppb | 20:02:39 |
| 3 | Mn 257.610† | -106.4 | 142.5 | 0.4963 µg/L | 0.4963 ppb | 20:02:59 |
| 3 | Mo 202.031† | -13.8 | -5.6 | -0.6002 µg/L | -0.6002 ppb | 20:02:59 |
| 3 | Ni 231.604† | 308.3 | -8.1 | -0.4401 µg/L | -0.4401 ppb | 20:02:59 |
| 3 | P 214.914† | 30.3 | 1.3 | 2.9137 µg/L | 2.9137 ppb | 20:02:59 |
| 3 | Pb 220.353† | 88.5 | -12.7 | -3.3960 µg/L | -3.3960 ppb | 20:02:59 |
| 3 | S 181.975 Axial† | 28.4 | 12.2 | 53.607 µg/L | 53.607 ppb | 20:02:59 |
| 3 | Sb 206.836† | 29.6 | 1.3 | 1.2383 µg/L | 1.2383 ppb | 20:02:59 |
| 3 | Se 196.026† | 11.2 | -5.2 | -7.8332 µg/L | -7.8332 ppb | 20:02:59 |
| 3 | SiO2† | 13831.3 | 11947.0 | 2572.9 µg/L | 2572.9 ppb | 20:02:39 |
| 3 | Si 251.611† | 15660.8 | 14629.8 | 1202.6 µg/L | 1202.6 ppb | 20:02:39 |
| 3 | Sn 189.927† | -0.9 | -0.0 | -0.0168 µg/L | -0.0168 ppb | 20:02:59 |
| 3 | Ti 334.940† | 373.6 | 240.4 | 0.5805 µg/L | 0.5805 ppb | 20:02:39 |
| 3 | Tl 190.801† | -24.9 | 0.5 | 0.6804 µg/L | 0.6804 ppb | 20:02:59 |
| 3 | U 409.014† | -58.2 | -1.9 | -0.1761 µg/L | -0.1761 ppb | 20:02:39 |
| 3 | V 292.402† | -56.9 | -10.1 | -0.1084 µg/L | -0.1084 ppb | 20:02:39 |
| 3 | Zn 213.857† | 528.4 | 28.6 | 0.7183 µg/L | 0.7183 ppb | 20:02:59 |

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**Mean Data: 245975001|948737|1**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1980842.4 | 103.72 | % | 1.099 | | | | 1.06% |
| Sc RADIAL | 56598.0 | 104 | % | 0.5 | | | | 0.53% |
| Y 371.029 | 1356839.0 | 103.58 | % | 1.189 | | | | 1.15% |
| Ag 328.068† | 32.5 | 0.2584 | µg/L | 0.32028 | 0.2584 | ppb | 0.32028 | 123.97% |
| Al 396.153Radial† | 14.9 | 11.115 | µg/L | 7.5705 | 11.115 | ppb | 7.5705 | 68.11% |
| As 188.979† | -2.5 | -4.8611 | µg/L | 0.37720 | -4.8611 | ppb | 0.37720 | 7.76% |
| B 249.677† | 332.3 | 14.507 | µg/L | 0.5456 | 14.507 | ppb | 0.5456 | 3.76% |
| Ba 233.527† | 10.1 | 0.2635 | µg/L | 0.11748 | 0.2635 | ppb | 0.11748 | 44.59% |
| Be 313.107† | 159.5 | 0.1039 | µg/L | 0.02903 | 0.1039 | ppb | 0.02903 | 27.92% |
| Ca 317.933Radial† | 37.8 | 35.614 | µg/L | 3.3368 | 35.614 | ppb | 3.3368 | 9.37% |
| Cd 226.502† | 3.8 | 0.1002 | µg/L | 0.09135 | 0.1002 | ppb | 0.09135 | 91.14% |
| Co 228.616† | -4.3 | -0.2112 | µg/L | 0.19247 | -0.2112 | ppb | 0.19247 | 91.15% |
| Cr 267.716† | 41.5 | 0.9120 | µg/L | 0.06630 | 0.9120 | ppb | 0.06630 | 7.27% |
| Cu 324.752† | -35.7 | -0.2456 | µg/L | 0.34328 | -0.2456 | ppb | 0.34328 | 139.78% |
| Fe 238.204 Radial† | 3.5 | 29.614 | µg/L | 14.5383 | 29.614 | ppb | 14.5383 | 49.09% |
| K 766.490 Radial† | 274.9 | 195.41 | µg/L | 51.146 | 195.41 | ppb | 51.146 | 26.17% |
| Mg 279.077 IEC† | 1.1 | 9.9292 | µg/L | 29.93961 | 9.9292 | ppb | 29.93961 | 301.53% |
| Mn 257.610† | 156.0 | 0.5438 | µg/L | 0.04125 | 0.5438 | ppb | 0.04125 | 7.58% |
| Mo 202.031† | 0.4 | 0.0472 | µg/L | 0.67566 | 0.0472 | ppb | 0.67566 | >999.9% |
| Na 589.592 Radial† | 356.1 | 117.24 | µg/L | 10.844 | 117.24 | ppb | 10.844 | 9.25% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ni 231.604† | -5.4 | -0.2932 | µg/L | 0.16122 | -0.2932 | ppb | 0.16122 54.98% |
| P 214.914† | 4.6 | 9.8090 | µg/L | 8.15510 | 9.8090 | ppb | 8.15510 83.14% |
| Pb 220.353† | -8.5 | -2.2649 | µg/L | 1.13537 | -2.2649 | ppb | 1.13537 50.13% |
| S 181.975 Axial† | 13.7 | 59.959 | µg/L | 5.5088 | 59.959 | ppb | 5.5088 9.19% |
| Sb 206.836† | -2.5 | -2.5217 | µg/L | 3.38010 | -2.5217 | ppb | 3.38010 134.04% |
| Se 196.026† | -1.5 | -2.2159 | µg/L | 5.20555 | -2.2159 | ppb | 5.20555 234.92% |
| SiO2† | 12404.0 | 2671.3 | µg/L | 85.31 | 2671.3 | ppb | 85.31 3.19% |
| Si 251.611† | 15131.6 | 1243.9 | µg/L | 35.85 | 1243.9 | ppb | 35.85 2.88% |
| Sn 189.927† | 0.3 | 0.1138 | µg/L | 0.80667 | 0.1138 | ppb | 0.80667 709.07% |
| Sr 421.552† | -1.3 | -0.0135 | µg/L | 0.17450 | -0.0135 | ppb | 0.17450 >999.9% |
| Ti 334.940† | 253.6 | 0.6099 | µg/L | 0.08365 | 0.6099 | ppb | 0.08365 13.72% |
| Tl 190.801† | 2.4 | 3.4052 | µg/L | 2.35993 | 3.4052 | ppb | 2.35993 69.30% |
| U 409.014† | -49.7 | -4.5082 | µg/L | 4.01669 | -4.5082 | ppb | 4.01669 89.10% |
| V 292.402† | -16.9 | -0.1784 | µg/L | 0.20314 | -0.1784 | ppb | 0.20314 113.86% |
| Zn 213.857† | 38.7 | 0.9649 | µg/L | 0.21435 | 0.9649 | ppb | 0.21435 22.22% |

Sequence No.: 53
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 20:06:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56942.5 | 56942.5 | 104 | % | | | 20:07:20 |
| 1 | Al 396.153Radial† | 6750.2 | 6479.6 | 4819.0 | µg/L | 4819.0 | ppb | 20:07:41 |
| 1 | Ca 317.933Radial† | 5453.5 | 5047.5 | 4752.6 | µg/L | 4752.6 | ppb | 20:07:41 |
| 1 | Fe 238.204 Radial† | 600.4 | 561.0 | 4764.9 | µg/L | 4764.9 | ppb | 20:07:41 |
| 1 | K 766.490 Radial† | 7140.8 | 6715.4 | 4773.3 | µg/L | 4773.3 | ppb | 20:07:20 |
| 1 | Mg 279.077 IEC† | 558.8 | 524.3 | 4882.8 | µg/L | 4882.8 | ppb | 20:07:41 |
| 1 | Na 589.592 Radial† | 31379.2 | 29532.3 | 9722.1 | µg/L | 9722.1 | ppb | 20:07:20 |
| 1 | Sr 421.552† | 47923.4 | 45890.8 | 475.71 | µg/L | 475.71 | ppb | 20:07:20 |
| 1 | Sc 361.383 | 1997110.3 | 1997110.3 | 104.57 | % | | | 20:08:44 |
| 1 | Y 371.029 | 1366245.8 | 1366245.8 | 104.30 | % | | | 20:08:44 |
| 1 | Ag 328.068† | 63028.6 | 60838.9 | 486.24 | µg/L | 486.24 | ppb | 20:08:50 |
| 1 | As 188.979† | 264.1 | 251.4 | 490.37 | µg/L | 490.37 | ppb | 20:09:10 |
| 1 | B 249.677† | 11700.4 | 10857.6 | 472.80 | µg/L | 472.80 | ppb | 20:08:50 |
| 1 | Ba 233.527† | 19297.5 | 18480.3 | 482.07 | µg/L | 482.07 | ppb | 20:08:50 |
| 1 | Be 313.107† | 767522.7 | 737423.7 | 481.39 | µg/L | 481.39 | ppb | 20:08:44 |
| 1 | Cd 226.502† | 18128.7 | 17478.6 | 482.15 | µg/L | 482.15 | ppb | 20:08:50 |
| 1 | Co 228.616† | 10328.3 | 9885.8 | 485.96 | µg/L | 485.96 | ppb | 20:08:50 |
| 1 | Cr 267.716† | 23066.4 | 22110.8 | 486.65 | µg/L | 486.65 | ppb | 20:08:50 |
| 1 | Cu 324.752† | 74922.7 | 69162.6 | 483.78 | µg/L | 483.78 | ppb | 20:08:50 |
| 1 | Mn 257.610† | 148210.1 | 141977.7 | 492.09 | µg/L | 492.09 | ppb | 20:08:44 |
| 1 | Mo 202.031† | 4970.4 | 4760.7 | 508.25 | µg/L | 508.25 | ppb | 20:09:10 |
| 1 | Ni 231.604† | 9599.0 | 8877.3 | 484.85 | µg/L | 484.85 | ppb | 20:08:50 |
| 1 | P 214.914† | 1239.8 | 1158.0 | 2440.4 | µg/L | 2440.4 | ppb | 20:09:10 |
| 1 | Pb 220.353† | 2032.4 | 1846.4 | 492.88 | µg/L | 492.88 | ppb | 20:09:10 |
| 1 | S 181.975 Axial† | 252.7 | 226.8 | 993.68 | µg/L | 993.68 | ppb | 20:09:10 |
| 1 | Sb 206.836† | 559.2 | 507.8 | 502.18 | µg/L | 502.18 | ppb | 20:09:10 |
| 1 | Se 196.026† | 353.9 | 322.6 | 499.11 | µg/L | 499.11 | ppb | 20:09:10 |
| 1 | SiO2† | 26266.3 | 23868.5 | 5140.2 | µg/L | 5140.2 | ppb | 20:08:50 |
| 1 | Si 251.611† | 30881.9 | 29219.5 | 2402.0 | µg/L | 2402.0 | ppb | 20:08:50 |
| 1 | Sn 189.927† | 1160.9 | 1111.0 | 511.04 | µg/L | 511.04 | ppb | 20:09:10 |
| 1 | Ti 334.940† | 211075.5 | 201735.7 | 484.95 | µg/L | 484.95 | ppb | 20:08:44 |
| 1 | Tl 190.801† | 335.9 | 345.5 | 488.04 | µg/L | 488.04 | ppb | 20:09:10 |
| 1 | U 409.014† | 5659.0 | 5465.3 | 493.86 | µg/L | 493.86 | ppb | 20:08:50 |
| 1 | V 292.402† | 47264.8 | 45243.6 | 488.29 | µg/L | 488.29 | ppb | 20:08:50 |
| 1 | Zn 213.857† | 20837.6 | 19451.4 | 482.30 | µg/L | 482.30 | ppb | 20:08:50 |
| 2 | Sc RADIAL | 56409.7 | 56409.7 | 103 | % | | | 20:07:46 |
| 2 | Al 396.153Radial† | 6758.8 | 6549.0 | 4870.9 | µg/L | 4870.9 | ppb | 20:08:07 |
| 2 | Ca 317.933Radial† | 5494.9 | 5136.9 | 4836.7 | µg/L | 4836.7 | ppb | 20:08:07 |
| 2 | Fe 238.204 Radial† | 605.0 | 570.8 | 4848.5 | µg/L | 4848.5 | ppb | 20:08:07 |
| 2 | K 766.490 Radial† | 7175.4 | 6813.5 | 4843.0 | µg/L | 4843.0 | ppb | 20:07:46 |
| 2 | Mg 279.077 IEC† | 565.5 | 535.8 | 4989.7 | µg/L | 4989.7 | ppb | 20:08:07 |
| 2 | Na 589.592 Radial† | 31167.2 | 29611.2 | 9748.1 | µg/L | 9748.1 | ppb | 20:07:46 |
| 2 | Sr 421.552† | 47693.8 | 46102.5 | 477.91 | µg/L | 477.91 | ppb | 20:07:46 |
| 2 | Sc 361.383 | 1996473.0 | 1996473.0 | 104.54 | % | | | 20:09:17 |
| 2 | Y 371.029 | 1365976.8 | 1365976.8 | 104.28 | % | | | 20:09:17 |
| 2 | Ag 328.068† | 63356.2 | 61171.5 | 488.90 | µg/L | 488.90 | ppb | 20:09:23 |
| 2 | As 188.979† | 265.4 | 252.7 | 492.96 | µg/L | 492.96 | ppb | 20:09:43 |
| 2 | B 249.677† | 11790.3 | 10947.2 | 476.67 | µg/L | 476.67 | ppb | 20:09:23 |
| 2 | Ba 233.527† | 19374.2 | 18559.5 | 484.14 | µg/L | 484.14 | ppb | 20:09:23 |
| 2 | Be 313.107† | 761432.1 | 731831.7 | 477.74 | µg/L | 477.74 | ppb | 20:09:17 |
| 2 | Cd 226.502† | 18272.2 | 17621.4 | 486.09 | µg/L | 486.09 | ppb | 20:09:23 |
| 2 | Co 228.616† | 10339.5 | 9899.7 | 486.64 | µg/L | 486.64 | ppb | 20:09:23 |
| 2 | Cr 267.716† | 23187.0 | 22233.3 | 489.35 | µg/L | 489.35 | ppb | 20:09:23 |
| 2 | Cu 324.752† | 75285.0 | 69532.0 | 486.37 | µg/L | 486.37 | ppb | 20:09:23 |
| 2 | Mn 257.610† | 147018.2 | 140882.8 | 488.30 | µg/L | 488.30 | ppb | 20:09:17 |
| 2 | Mo 202.031† | 4907.1 | 4701.7 | 501.95 | µg/L | 501.95 | ppb | 20:09:43 |
| 2 | Ni 231.604† | 9622.8 | 8903.0 | 486.25 | µg/L | 486.25 | ppb | 20:09:23 |
| 2 | P 214.914† | 1220.2 | 1139.7 | 2400.7 | µg/L | 2400.7 | ppb | 20:09:43 |
| 2 | Pb 220.353† | 2020.4 | 1835.5 | 489.96 | µg/L | 489.96 | ppb | 20:09:43 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 249.1 | 223.5 | 979.20 µg/L | 979.20 ppb | 20:09:43 |
| 2 | Sb 206.836† | 560.4 | 509.1 | 503.33 µg/L | 503.33 ppb | 20:09:43 |
| 2 | Se 196.026† | 351.0 | 319.9 | 495.14 µg/L | 495.14 ppb | 20:09:43 |
| 2 | SiO2† | 26327.8 | 23935.4 | 5154.6 µg/L | 5154.6 ppb | 20:09:23 |
| 2 | Si 251.611† | 31017.5 | 29358.7 | 2413.4 µg/L | 2413.4 ppb | 20:09:23 |
| 2 | Sn 189.927† | 1146.8 | 1097.9 | 505.00 µg/L | 505.00 ppb | 20:09:43 |
| 2 | Ti 334.940† | 209321.5 | 200122.3 | 481.06 µg/L | 481.06 ppb | 20:09:17 |
| 2 | Tl 190.801† | 343.4 | 352.8 | 498.21 µg/L | 498.21 ppb | 20:09:43 |
| 2 | U 409.014† | 5590.8 | 5401.8 | 488.10 µg/L | 488.10 ppb | 20:09:23 |
| 2 | V 292.402† | 47490.4 | 45473.8 | 490.70 µg/L | 490.70 ppb | 20:09:23 |
| 2 | Zn 213.857† | 20893.3 | 19511.1 | 483.77 µg/L | 483.77 ppb | 20:09:23 |
| 3 | Sc RADIAL | 57472.2 | 57472.2 | 105 % | | 20:08:12 |
| 3 | Al 396.153Radial† | 6740.6 | 6410.8 | 4769.5 µg/L | 4769.5 ppb | 20:08:33 |
| 3 | Ca 317.933Radial† | 5456.3 | 5002.0 | 4709.7 µg/L | 4709.7 ppb | 20:08:33 |
| 3 | Fe 238.204 Radial† | 608.4 | 563.2 | 4782.9 µg/L | 4782.9 ppb | 20:08:33 |
| 3 | K 766.490 Radial† | 7228.0 | 6735.1 | 4787.3 µg/L | 4787.3 ppb | 20:08:12 |
| 3 | Mg 279.077 IEC† | 560.3 | 520.7 | 4848.2 µg/L | 4848.2 ppb | 20:08:33 |
| 3 | Na 589.592 Radial† | 31427.6 | 29301.1 | 9646.0 µg/L | 9646.0 ppb | 20:08:12 |
| 3 | Sr 421.552† | 48320.2 | 45844.2 | 475.23 µg/L | 475.23 ppb | 20:08:12 |
| 3 | Sc 361.383 | 1990939.7 | 1990939.7 | 104.25 % | | 20:09:51 |
| 3 | Y 371.029 | 1362789.8 | 1362789.8 | 104.04 % | | 20:09:51 |
| 3 | Ag 328.068† | 59813.6 | 57941.7 | 462.97 µg/L | 462.97 ppb | 20:09:56 |
| 3 | As 188.979† | 228.8 | 218.3 | 425.89 µg/L | 425.89 ppb | 20:10:17 |
| 3 | B 249.677† | 11049.5 | 10268.0 | 446.94 µg/L | 446.94 ppb | 20:09:56 |
| 3 | Ba 233.527† | 17851.9 | 17150.7 | 447.37 µg/L | 447.37 ppb | 20:09:56 |
| 3 | Be 313.107† | 719449.8 | 693583.9 | 452.78 µg/L | 452.78 ppb | 20:09:51 |
| 3 | Cd 226.502† | 16778.6 | 16237.3 | 447.87 µg/L | 447.87 ppb | 20:09:56 |
| 3 | Co 228.616† | 9445.5 | 9069.5 | 445.78 µg/L | 445.78 ppb | 20:09:56 |
| 3 | Cr 267.716† | 20616.8 | 19829.4 | 436.45 µg/L | 436.45 ppb | 20:09:56 |
| 3 | Cu 324.752† | 68837.1 | 63547.0 | 444.55 µg/L | 444.55 ppb | 20:09:56 |
| 3 | Mn 257.610† | 138989.4 | 133571.8 | 462.98 µg/L | 462.98 ppb | 20:09:51 |
| 3 | Mo 202.031† | 4137.7 | 3976.7 | 424.58 µg/L | 424.58 ppb | 20:10:17 |
| 3 | Ni 231.604† | 8822.5 | 8161.0 | 445.73 µg/L | 445.73 ppb | 20:09:56 |
| 3 | P 214.914† | 1060.6 | 989.8 | 2082.0 µg/L | 2082.0 ppb | 20:10:17 |
| 3 | Pb 220.353† | 1778.7 | 1609.0 | 429.41 µg/L | 429.41 ppb | 20:10:17 |
| 3 | S 181.975 Axial† | 221.0 | 197.1 | 863.74 µg/L | 863.74 ppb | 20:10:17 |
| 3 | Sb 206.836† | 483.5 | 436.9 | 431.61 µg/L | 431.61 ppb | 20:10:17 |
| 3 | Se 196.026† | 316.1 | 287.4 | 445.59 µg/L | 445.59 ppb | 20:10:17 |
| 3 | SiO2† | 24611.0 | 22358.5 | 4815.0 µg/L | 4815.0 ppb | 20:09:56 |
| 3 | Si 251.611† | 28930.7 | 27439.4 | 2255.7 µg/L | 2255.7 ppb | 20:09:56 |
| 3 | Sn 189.927† | 943.6 | 906.1 | 416.76 µg/L | 416.76 ppb | 20:10:17 |
| 3 | Ti 334.940† | 196865.3 | 188730.0 | 453.67 µg/L | 453.67 ppb | 20:09:51 |
| 3 | Tl 190.801† | 309.3 | 321.0 | 453.52 µg/L | 453.52 ppb | 20:10:17 |
| 3 | U 409.014† | 5049.6 | 4897.5 | 442.45 µg/L | 442.45 ppb | 20:09:56 |
| 3 | V 292.402† | 42971.8 | 41265.5 | 445.08 µg/L | 445.08 ppb | 20:09:56 |
| 3 | Zn 213.857† | 19124.6 | 17870.0 | 443.04 µg/L | 443.04 ppb | 20:09:56 |

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**Mean Data: CCV**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1994841.0 | 104.45 | % | 0.178 | | | | 0.17% |
| Sc RADIAL | 56941.5 | 104 | % | 1.0 | | | | 0.93% |
| Y 371.029 | 1365004.1 | 104.21 | % | 0.147 | | | | 0.14% |
| Ag 328.068† | 59984.0 | 479.37 | µg/L | 14.264 | 479.37 | ppb | 14.264 | 2.98% |
| QC value within limits for Ag 328.068 Recovery = 95.87% | | | | | | | | |
| Al 396.153Radial† | 6479.8 | 4819.8 | µg/L | 50.70 | 4819.8 | ppb | 50.70 | 1.05% |
| QC value within limits for Al 396.153Radial Recovery = 96.40% | | | | | | | | |
| As 188.979† | 240.8 | 469.74 | µg/L | 37.997 | 469.74 | ppb | 37.997 | 8.09% |
| QC value within limits for As 188.979 Recovery = 93.95% | | | | | | | | |
| B 249.677† | 10690.9 | 465.47 | µg/L | 16.165 | 465.47 | ppb | 16.165 | 3.47% |
| QC value within limits for B 249.677 Recovery = 93.09% | | | | | | | | |
| Ba 233.527† | 18063.5 | 471.19 | µg/L | 20.654 | 471.19 | ppb | 20.654 | 4.38% |
| QC value within limits for Ba 233.527 Recovery = 94.24% | | | | | | | | |
| Be 313.107† | 720946.5 | 470.64 | µg/L | 15.576 | 470.64 | ppb | 15.576 | 3.31% |
| QC value within limits for Be 313.107 Recovery = 94.13% | | | | | | | | |
| Ca 317.933Radial† | 5062.2 | 4766.3 | µg/L | 64.62 | 4766.3 | ppb | 64.62 | 1.36% |
| QC value within limits for Ca 317.933Radial Recovery = 95.33% | | | | | | | | |
| Cd 226.502† | 17112.5 | 472.04 | µg/L | 21.023 | 472.04 | ppb | 21.023 | 4.45% |
| QC value within limits for Cd 226.502 Recovery = 94.41% | | | | | | | | |
| Co 228.616† | 9618.4 | 472.79 | µg/L | 23.399 | 472.79 | ppb | 23.399 | 4.95% |

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   QC value within limits for Co 228.616  Recovery = 94.56%
Cr 267.716†            21391.1      470.82 µg/L        29.796      470.82 ppb        29.796   6.33%
   QC value within limits for Cr 267.716  Recovery = 94.16%
Cu 324.752†            67413.9      471.57 µg/L        23.430      471.57 ppb        23.430   4.97%
   QC value within limits for Cu 324.752  Recovery = 94.31%
Fe 238.204 Radial†       565.0      4798.8 µg/L         43.99      4798.8 ppb         43.99   0.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.98%
K 766.490 Radial†       6754.7      4801.2 µg/L         36.89      4801.2 ppb         36.89   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.02%
Mg 279.077 IEC†          527.0      4906.9 µg/L         73.74      4906.9 ppb         73.74   1.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.14%
Mn 257.610†           138810.8      481.12 µg/L        15.825      481.12 ppb        15.825   3.29%
   QC value within limits for Mn 257.610  Recovery = 96.22%
Mo 202.031†            4479.7      478.26 µg/L        46.598      478.26 ppb        46.598   9.74%
   QC value within limits for Mo 202.031  Recovery = 95.65%
Na 589.592 Radial†     29481.5      9705.4 µg/L         53.07      9705.4 ppb         53.07   0.55%
   QC value within limits for Na 589.592 Radial  Recovery = 97.05%
Ni 231.604†            8647.1      472.28 µg/L        23.002      472.28 ppb        23.002   4.87%
   QC value within limits for Ni 231.604  Recovery = 94.46%
P 214.914†             1095.8      2307.7 µg/L        196.48      2307.7 ppb        196.48   8.51%
   QC value within limits for P 214.914  Recovery = 92.31%
Pb 220.353†            1763.7      470.75 µg/L        35.831      470.75 ppb        35.831   7.61%
   QC value within limits for Pb 220.353  Recovery = 94.15%
S 181.975 Axial†        215.8      945.54 µg/L        71.212      945.54 ppb        71.212   7.53%
   QC value within limits for S 181.975 Axial  Recovery = 94.55%
Sb 206.836†             484.6      479.04 µg/L        41.080      479.04 ppb        41.080   8.58%
   QC value within limits for Sb 206.836  Recovery = 95.81%
Se 196.026†             310.0      479.95 µg/L        29.823      479.95 ppb        29.823   6.21%
   QC value within limits for Se 196.026  Recovery = 95.99%
SiO2†                  23387.4      5036.6 µg/L        192.04      5036.6 ppb        192.04   3.81%
   QC value within limits for SiO2  Recovery = 94.19%
Si 251.611†            28672.5      2357.0 µg/L         87.98      2357.0 ppb         87.98   3.73%
   QC value within limits for Si 251.611  Recovery = 94.28%
Sn 189.927†             1038.3      477.60 µg/L        52.775      477.60 ppb        52.775  11.05%
   QC value within limits for Sn 189.927  Recovery = 95.52%
Sr 421.552†            45945.8      476.28 µg/L         1.427      476.28 ppb         1.427   0.30%
   QC value within limits for Sr 421.552  Recovery = 95.26%
Ti 334.940†           196862.7      473.23 µg/L        17.050      473.23 ppb        17.050   3.60%
   QC value within limits for Ti 334.940  Recovery = 94.65%
Tl 190.801†             339.7      479.92 µg/L        23.425      479.92 ppb        23.425   4.88%
   QC value within limits for Tl 190.801  Recovery = 95.98%
U 409.014†             5254.9      474.80 µg/L        28.164      474.80 ppb        28.164   5.93%
   QC value within limits for U 409.014  Recovery = 94.96%
V 292.402†            43994.3      474.69 µg/L        25.672      474.69 ppb        25.672   5.41%
   QC value within limits for V 292.402  Recovery = 94.94%
Zn 213.857†           18944.2      469.70 µg/L        23.098      469.70 ppb        23.098   4.92%
   QC value within limits for Zn 213.857  Recovery = 93.94%
All analyte(s) passed QC.
```

Sequence No.: 54
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 20:10:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

| Repl# | Analyte | Net Intensity | Corrected Intensity | Conc. | Calib. Units | Conc. | Sample Units | Analysis Time |
|---|---|---|---|---|---|---|---|---|
| 1 | Sc RADIAL | 56659.4 | 56659.4 | 104 | % | | | 20:10:59 |
| 1 | Al 396.153Radial† | -34.5 | -23.1 | -17.229 | µg/L | -17.229 | ppb | 20:10:59 |
| 1 | Ca 317.933Radial† | 185.2 | -0.8 | -0.7364 | µg/L | -0.7364 | ppb | 20:11:19 |
| 1 | Fe 238.204 Radial† | 15.5 | 0.4 | 3.7111 | µg/L | 3.7111 | ppb | 20:11:19 |
| 1 | K 766.490 Radial† | 206.6 | 70.6 | 50.163 | µg/L | 50.163 | ppb | 20:10:59 |
| 1 | Mg 279.077 IEC† | 8.1 | -3.5 | -32.649 | µg/L | -32.649 | ppb | 20:11:19 |
| 1 | Na 589.592 Radial† | 618.2 | 53.6 | 17.641 | µg/L | 17.641 | ppb | 20:10:59 |
| 1 | Sr 421.552† | 7.1 | -32.7 | -0.3390 | µg/L | -0.3390 | ppb | 20:10:59 |
| 1 | Sc 361.383 | 1969865.1 | 1969865.1 | 103.14 | % | | | 20:12:22 |
| 1 | Y 371.029 | 1352232.0 | 1352232.0 | 103.23 | % | | | 20:12:22 |
| 1 | Ag 328.068† | -590.3 | -7.8 | -0.0586 | µg/L | -0.0586 | ppb | 20:12:27 |
| 1 | As 188.979† | -2.7 | -3.7 | -7.3059 | µg/L | -7.3059 | ppb | 20:12:48 |
| 1 | B 249.677† | 327.3 | -14.1 | -0.6180 | µg/L | -0.6180 | ppb | 20:12:48 |
| 1 | Ba 233.527† | -20.7 | 5.9 | 0.1552 | µg/L | 0.1552 | ppb | 20:12:48 |
| 1 | Be 313.107† | -3325.3 | 216.5 | 0.1414 | µg/L | 0.1414 | ppb | 20:12:27 |
| 1 | Cd 226.502† | -131.0 | 15.1 | 0.4157 | µg/L | 0.4157 | ppb | 20:12:48 |
| 1 | Co 228.616† | -10.2 | -1.0 | -0.0509 | µg/L | -0.0509 | ppb | 20:12:48 |
| 1 | Cr 267.716† | -35.9 | 17.6 | 0.3870 | µg/L | 0.3870 | ppb | 20:12:48 |
| 1 | Cu 324.752† | 2456.0 | -104.9 | -0.7325 | µg/L | -0.7325 | ppb | 20:12:27 |
| 1 | Mn 257.610† | -254.6 | -2.7 | -0.0075 | µg/L | -0.0075 | ppb | 20:12:48 |
| 1 | Mo 202.031† | -3.1 | 4.5 | 0.4855 | µg/L | 0.4855 | ppb | 20:12:48 |
| 1 | Ni 231.604† | 302.7 | -8.8 | -0.4785 | µg/L | -0.4785 | ppb | 20:12:48 |
| 1 | P 214.914† | 28.8 | 0.3 | 0.6377 | µg/L | 0.6377 | ppb | 20:12:48 |
| 1 | Pb 220.353† | 100.4 | 0.1 | 0.0373 | µg/L | 0.0373 | ppb | 20:12:48 |
| 1 | S 181.975 Axial† | 15.9 | 0.6 | 2.7080 | µg/L | 2.7080 | ppb | 20:12:48 |
| 1 | Sb 206.836† | 20.6 | -7.0 | -6.8374 | µg/L | -6.8374 | ppb | 20:12:48 |
| 1 | Se 196.026† | 19.3 | 2.8 | 4.3630 | µg/L | 4.3630 | ppb | 20:12:48 |
| 1 | SiO2† | 1240.9 | -46.9 | -10.106 | µg/L | -10.106 | ppb | 20:12:27 |
| 1 | Si 251.611† | 312.6 | -9.8 | -0.8084 | µg/L | -0.8084 | ppb | 20:12:48 |
| 1 | Sn 189.927† | -1.6 | -0.7 | -0.3378 | µg/L | -0.3378 | ppb | 20:12:48 |
| 1 | Ti 334.940† | 146.3 | 25.8 | 0.0645 | µg/L | 0.0645 | ppb | 20:12:27 |
| 1 | Tl 190.801† | -19.3 | 5.6 | 7.7671 | µg/L | 7.7671 | ppb | 20:12:48 |
| 1 | U 409.014† | -42.1 | 12.8 | 1.1542 | µg/L | 1.1542 | ppb | 20:12:27 |
| 1 | V 292.402† | -0.1 | 44.1 | 0.4765 | µg/L | 0.4765 | ppb | 20:12:27 |
| 1 | Zn 213.857† | 476.2 | -13.8 | -0.3400 | µg/L | -0.3400 | ppb | 20:12:48 |
| 2 | Sc RADIAL | 56311.6 | 56311.6 | 103 | % | | | 20:11:25 |
| 2 | Al 396.153Radial† | -11.1 | -0.7 | -0.4964 | µg/L | -0.4964 | ppb | 20:11:25 |
| 2 | Ca 317.933Radial† | 182.9 | -1.9 | -1.7833 | µg/L | -1.7833 | ppb | 20:11:45 |
| 2 | Fe 238.204 Radial† | 16.1 | 1.1 | 8.9693 | µg/L | 8.9693 | ppb | 20:11:45 |
| 2 | K 766.490 Radial† | 135.0 | 2.4 | 1.7375 | µg/L | 1.7375 | ppb | 20:11:25 |
| 2 | Mg 279.077 IEC† | 9.0 | -2.6 | -24.083 | µg/L | -24.083 | ppb | 20:11:45 |
| 2 | Na 589.592 Radial† | 609.7 | 49.0 | 16.131 | µg/L | 16.131 | ppb | 20:11:25 |
| 2 | Sr 421.552† | 43.9 | 3.0 | 0.0309 | µg/L | 0.0309 | ppb | 20:11:25 |
| 2 | Sc 361.383 | 1993246.1 | 1993246.1 | 104.37 | % | | | 20:12:54 |
| 2 | Y 371.029 | 1369824.9 | 1369824.9 | 104.57 | % | | | 20:12:54 |
| 2 | Ag 328.068† | -496.4 | 88.9 | 0.7074 | µg/L | 0.7074 | ppb | 20:12:59 |
| 2 | As 188.979† | -2.4 | -3.4 | -6.6828 | µg/L | -6.6828 | ppb | 20:13:20 |
| 2 | B 249.677† | 317.7 | -27.1 | -1.1866 | µg/L | -1.1866 | ppb | 20:13:20 |
| 2 | Ba 233.527† | -24.2 | 2.8 | 0.0739 | µg/L | 0.0739 | ppb | 20:13:20 |
| 2 | Be 313.107† | -3271.8 | 305.5 | 0.1995 | µg/L | 0.1995 | ppb | 20:12:59 |
| 2 | Cd 226.502† | -139.8 | 8.1 | 0.2223 | µg/L | 0.2223 | ppb | 20:13:20 |
| 2 | Co 228.616† | -3.3 | 5.7 | 0.2808 | µg/L | 0.2808 | ppb | 20:13:20 |
| 2 | Cr 267.716† | -45.4 | 8.9 | 0.1956 | µg/L | 0.1956 | ppb | 20:13:20 |
| 2 | Cu 324.752† | 2435.6 | -152.4 | -1.0631 | µg/L | -1.0631 | ppb | 20:12:59 |
| 2 | Mn 257.610† | -234.4 | 19.5 | 0.0698 | µg/L | 0.0698 | ppb | 20:13:20 |
| 2 | Mo 202.031† | -9.1 | -1.2 | -0.1266 | µg/L | -0.1266 | ppb | 20:13:20 |
| 2 | Ni 231.604† | 294.8 | -19.7 | -1.0788 | µg/L | -1.0788 | ppb | 20:13:20 |
| 2 | P 214.914† | 30.0 | 1.1 | 2.4718 | µg/L | 2.4718 | ppb | 20:13:20 |
| 2 | Pb 220.353† | 93.1 | -8.0 | -2.1208 | µg/L | -2.1208 | ppb | 20:13:20 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | S 181.975 Axial† | 16.5 | 1.0 | 4.2685 µg/L | 4.2685 ppb | 20:13:20 |
| 2 | Sb 206.836† | 17.7 | -10.0 | -9.8534 µg/L | -9.8534 ppb | 20:13:20 |
| 2 | Se 196.026† | 12.6 | -3.8 | -5.7175 µg/L | -5.7175 ppb | 20:13:20 |
| 2 | SiO2† | 1249.7 | -52.6 | -11.333 µg/L | -11.333 ppb | 20:12:59 |
| 2 | Si 251.611† | 320.2 | -6.0 | -0.4973 µg/L | -0.4973 ppb | 20:13:20 |
| 2 | Sn 189.927† | 2.8 | 3.5 | 1.6248 µg/L | 1.6248 ppb | 20:13:20 |
| 2 | Ti 334.940† | 188.9 | 64.9 | 0.1579 µg/L | 0.1579 ppb | 20:12:59 |
| 2 | Tl 190.801† | -28.5 | -3.0 | -4.1956 µg/L | -4.1956 ppb | 20:13:20 |
| 2 | U 409.014† | -69.7 | -13.1 | -1.1905 µg/L | -1.1905 ppb | 20:12:59 |
| 2 | V 292.402† | -23.7 | 21.5 | 0.2285 µg/L | 0.2285 ppb | 20:12:59 |
| 2 | Zn 213.857† | 474.3 | -21.1 | -0.5199 µg/L | -0.5199 ppb | 20:13:20 |
| 3 | Sc RADIAL | 56279.9 | 56279.9 | 103 % | | 20:11:51 |
| 3 | Al 396.153Radial† | -12.9 | -2.4 | -1.8112 µg/L | -1.8112 ppb | 20:11:51 |
| 3 | Ca 317.933Radial† | 188.4 | 3.5 | 3.3406 µg/L | 3.3406 ppb | 20:12:11 |
| 3 | Fe 238.204 Radial† | 17.4 | 2.4 | 20.436 µg/L | 20.436 ppb | 20:12:11 |
| 3 | K 766.490 Radial† | 198.2 | 63.7 | 45.307 µg/L | 45.307 ppb | 20:11:51 |
| 3 | Mg 279.077 IEC† | 8.4 | -3.1 | -29.101 µg/L | -29.101 ppb | 20:12:11 |
| 3 | Na 589.592 Radial† | 580.8 | 21.4 | 7.0316 µg/L | 7.0316 ppb | 20:11:51 |
| 3 | Sr 421.552† | 36.6 | -4.1 | -0.0421 µg/L | -0.0421 ppb | 20:11:51 |
| 3 | Sc 361.383 | 2002874.1 | 2002874.1 | 104.87 % | | 20:13:26 |
| 3 | Y 371.029 | 1375774.7 | 1375774.7 | 105.03 % | | 20:13:26 |
| 3 | Ag 328.068† | -572.9 | 18.2 | 0.1450 µg/L | 0.1450 ppb | 20:13:32 |
| 3 | As 188.979† | -1.7 | -2.8 | -5.4427 µg/L | -5.4427 ppb | 20:13:52 |
| 3 | B 249.677† | 315.7 | -30.5 | -1.3417 µg/L | -1.3417 ppb | 20:13:52 |
| 3 | Ba 233.527† | -28.2 | -0.8 | -0.0221 µg/L | -0.0221 ppb | 20:13:52 |
| 3 | Be 313.107† | -3166.3 | 421.2 | 0.2751 µg/L | 0.2751 ppb | 20:13:32 |
| 3 | Cd 226.502† | -127.4 | 20.6 | 0.5649 µg/L | 0.5649 ppb | 20:13:52 |
| 3 | Co 228.616† | -19.4 | -9.7 | -0.4770 µg/L | -0.4770 ppb | 20:13:52 |
| 3 | Cr 267.716† | -37.3 | 16.8 | 0.3689 µg/L | 0.3689 ppb | 20:13:52 |
| 3 | Cu 324.752† | 2426.7 | -172.1 | -1.1996 µg/L | -1.1996 ppb | 20:13:32 |
| 3 | Mn 257.610† | -224.6 | 30.0 | 0.1076 µg/L | 0.1076 ppb | 20:13:52 |
| 3 | Mo 202.031† | -4.1 | 3.6 | 0.3852 µg/L | 0.3852 ppb | 20:13:52 |
| 3 | Ni 231.604† | 290.3 | -25.4 | -1.3870 µg/L | -1.3870 ppb | 20:13:52 |
| 3 | P 214.914† | 33.5 | 4.4 | 9.4816 µg/L | 9.4816 ppb | 20:13:52 |
| 3 | Pb 220.353† | 90.7 | -10.7 | -2.8672 µg/L | -2.8672 ppb | 20:13:52 |
| 3 | S 181.975 Axial† | 18.5 | 2.8 | 12.161 µg/L | 12.161 ppb | 20:13:52 |
| 3 | Sb 206.836† | 24.3 | -3.8 | -3.7594 µg/L | -3.7594 ppb | 20:13:52 |
| 3 | Se 196.026† | 15.9 | -0.7 | -0.9888 µg/L | -0.9888 ppb | 20:13:52 |
| 3 | SiO2† | 1207.7 | -98.4 | -21.190 µg/L | -21.190 ppb | 20:13:32 |
| 3 | Si 251.611† | 302.6 | -24.3 | -2.0003 µg/L | -2.0003 ppb | 20:13:52 |
| 3 | Sn 189.927† | 0.7 | 1.5 | 0.6894 µg/L | 0.6894 ppb | 20:13:52 |
| 3 | Ti 334.940† | 101.8 | -19.1 | -0.0435 µg/L | -0.0435 ppb | 20:13:32 |
| 3 | Tl 190.801† | -25.1 | 0.4 | 0.5052 µg/L | 0.5052 ppb | 20:13:52 |
| 3 | U 409.014† | -6.5 | 47.4 | 4.2901 µg/L | 4.2901 ppb | 20:13:32 |
| 3 | V 292.402† | -56.7 | -9.8 | -0.0938 µg/L | -0.0938 ppb | 20:13:32 |
| 3 | Zn 213.857† | 464.1 | -33.0 | -0.8147 µg/L | -0.8147 ppb | 20:13:52 |

---

**Mean Data: CCB**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Sc 361.383 | 1988661.8 | 104.13 | % | 0.889 | | | | 0.85% |
| Sc RADIAL | 56417.0 | 103 | % | 0.4 | | | | 0.37% |
| Y 371.029 | 1365943.9 | 104.28 | % | 0.935 | | | | 0.90% |
| Ag 328.068† | 33.1 | 0.2646 | µg/L | 0.39674 | 0.2646 | ppb | 0.39674 | 149.94% |
| QC value within limits for Ag 328.068 Recovery = Not calculated | | | | | | | | |
| Al 396.153Radial† | -8.7 | -6.5121 | µg/L | 9.30422 | -6.5121 | ppb | 9.30422 | 142.88% |
| QC value within limits for Al 396.153Radial Recovery = Not calculated | | | | | | | | |
| As 188.979† | -3.3 | -6.4771 | µg/L | 0.94849 | -6.4771 | ppb | 0.94849 | 14.64% |
| QC value within limits for As 188.979 Recovery = Not calculated | | | | | | | | |
| B 249.677† | -23.9 | -1.0488 | µg/L | 0.38103 | -1.0488 | ppb | 0.38103 | 36.33% |
| QC value within limits for B 249.677 Recovery = Not calculated | | | | | | | | |
| Ba 233.527† | 2.6 | 0.0690 | µg/L | 0.08875 | 0.0690 | ppb | 0.08875 | 128.64% |
| QC value within limits for Ba 233.527 Recovery = Not calculated | | | | | | | | |
| Be 313.107† | 314.4 | 0.2053 | µg/L | 0.06705 | 0.2053 | ppb | 0.06705 | 32.66% |
| QC value within limits for Be 313.107 Recovery = Not calculated | | | | | | | | |
| Ca 317.933Radial† | 0.3 | 0.2736 | µg/L | 2.70720 | 0.2736 | ppb | 2.70720 | 989.37% |
| QC value within limits for Ca 317.933Radial Recovery = Not calculated | | | | | | | | |
| Cd 226.502† | 14.6 | 0.4010 | µg/L | 0.17178 | 0.4010 | ppb | 0.17178 | 42.84% |
| QC value within limits for Cd 226.502 Recovery = Not calculated | | | | | | | | |
| Co 228.616† | -1.7 | -0.0824 | µg/L | 0.37989 | -0.0824 | ppb | 0.37989 | 461.28% |

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.4      0.3172 µg/L       0.10569      0.3172 ppb        0.10569  33.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -143.1     -0.9984 µg/L       0.24020     -0.9984 ppb        0.24020  24.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.3      11.039 µg/L        8.5525      11.039 ppb         8.5525  77.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          45.6      32.402 µg/L       26.6673      32.402 ppb        26.6673  82.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.1     -28.611 µg/L        4.3042     -28.611 ppb         4.3042  15.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.6      0.0566 µg/L       0.05870      0.0566 ppb        0.05870 103.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.3      0.2480 µg/L       0.32829      0.2480 ppb        0.32829 132.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         41.3      13.602 µg/L        5.7396      13.602 ppb         5.7396  42.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -18.0     -0.9814 µg/L       0.46200     -0.9814 ppb        0.46200  47.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.9      4.1970 µg/L       4.66758      4.1970 ppb        4.66758 111.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.2     -1.6502 µg/L       1.50832     -1.6502 ppb        1.50832  91.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      6.3791 µg/L       5.06750      6.3791 ppb        5.06750  79.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.9     -6.8167 µg/L       3.04704     -6.8167 ppb        3.04704  44.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.5     -0.7811 µg/L       5.04348     -0.7811 ppb        5.04348 645.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -66.0     -14.210 µg/L        6.0766     -14.210 ppb         6.0766  42.76%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -13.4     -1.1020 µg/L       0.79337     -1.1020 ppb        0.79337  71.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.4      0.6588 µg/L       0.98163      0.6588 ppb        0.98163 149.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.3     -0.1167 µg/L       0.19593     -0.1167 ppb        0.19593 167.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                23.9      0.0596 µg/L       0.10080      0.0596 ppb        0.10080 168.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.3589 µg/L       6.02688      1.3589 ppb        6.02688 443.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 15.7      1.4179 µg/L       2.74983      1.4179 ppb        2.74983 193.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.6      0.2037 µg/L       0.28596      0.2037 ppb        0.28596 140.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -22.6     -0.5582 µg/L       0.23967     -0.5582 ppb        0.23967  42.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

# ICPMS #5 Daily Performance Report

**Sample ID: Sample**
Sample Date/Time: Wednesday, February 24, 2010 13:58:21
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.583
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD |
|---|---|---|---|---|---|---|
| | Be | 9.0 | 8010.6 | 8010.646 | 132.493 | 1.7 |
| | Mg | 24.0 | 80464.0 | 80463.987 | 802.940 | 1.0 |
| | Co | 58.9 | 170262.1 | 170262.103 | 1828.524 | 1.1 |
| | Rh | 102.9 | 306904.0 | 306903.996 | 3738.938 | 1.2 |
| | In | 114.9 | 394981.4 | 394981.376 | 4192.916 | 1.1 |
| | Pb | 208.0 | 384651.8 | 384651.804 | 1928.620 | 0.5 |
| > | Ba | 137.9 | 372209.0 | 372209.012 | 2646.026 | 0.7 |
| | Ba++ | 69.0 | 6742.3 | 0.018 | 0.000 | 0.8 |
| > | Ce | 139.9 | 454620.9 | 454620.904 | 3860.277 | 0.8 |
| | CeO | 155.9 | 12716.3 | 0.028 | 0.000 | 1.2 |
| | Bkgd | 220.0 | 18.7 | 18.700 | 3.546 | 19.0 |

### Current Optimization File Data

| Current Value | Description |
|---|---|
| 0.87 | Nebulizer Gas Flow |
| 5.75 | Lens Voltage |
| 1450.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1250.00 | Pulse Stage Voltage |
| 275.00 | Discriminator Threshold |
| -6.00 | AC Rod Offset |

### Current Autolens Data

| Analyte | Mass | Num of Pts | DAC Value | Maximum Intensity |
|---|---|---|---|---|
| Be | 9 | 13 | 5.8 | 8280.1 |
| Co | 59 | 13 | 6.3 | 167068.6 |
| In | 115 | 13 | 7.0 | 394570.1 |

# ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Pk. Width |
|---|---|---|---|---|---|
| He | 3.0 | 3.0 | 586 | 2072 | 0.636 |
| Be | 9.0 | 9.0 | 2050 | 2088 | 0.616 |
| Mg | 24.0 | 24.0 | 5687 | 2100 | 0.608 |
| Mg | 25.0 | 25.0 | 5927 | 2100 | 0.597 |
| Mg | 26.0 | 26.0 | 6169 | 2100 | 0.611 |
| Co | 58.9 | 58.9 | 14169 | 2125 | 0.599 |
| Rh | 102.9 | 102.9 | 24868 | 2180 | 0.588 |
| In | 114.9 | 114.9 | 27782 | 2200 | 0.587 |
| Ce | 139.9 | 139.9 | 33866 | 2220 | 0.600 |
| Pb | 206.0 | 206.0 | 49948 | 2305 | 0.610 |
| Pb | 207.0 | 207.0 | 50159 | 2240 | 0.654 |
| Pb | 208.0 | 208.0 | 50451 | 2265 | 0.722 |
| U | 238.1 | 238.0 | 57720 | 2275 | 0.768 |

# ICPMS#5 - Summary Report

**Sample ID: Blank**
**Sample Date/Time: Thursday, February 25, 2010 00:45:06**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\Blank.189**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | ug/L | | 116 | |
| | Be | 9 | | ug/L | | 27 | |
| | B | 11 | | ug/L | | 596 | |
| | Na | 23 | | ug/L | | 18679 | |
| | Mg | 24 | | ug/L | | 4334 | |
| | Al | 27 | | ug/L | | 7669 | |
| | P | 31 | | ug/L | | 5857 | |
| | K | 39 | | ug/L | | 561175 | |
| | Ca | 43 | | ug/L | | 363 | |
| > | Sc | 45 | | ug/L | | 466836 | |
| | Ti | 47 | | ug/L | | 402 | |
| | V | 51 | | ug/L | | 9348 | |
| | Cr | 52 | | ug/L | | 4541 | |
| | Cr | 53 | | ug/L | | 129660 | |
| | Mn | 55 | | ug/L | | 1656 | |
| | Fe | 57 | | ug/L | | 6902 | |
| | Co | 59 | | ug/L | | 147 | |
| | Ni | 60 | | ug/L | | 140 | |
| | Cu | 63 | | ug/L | | 473 | |
| | Cu | 65 | | ug/L | | 257 | |
| | Zn | 66 | | ug/L | | 698 | |
| | Zn | 67 | | ug/L | | 15316 | |
| | Zn | 68 | | ug/L | | 1656 | |
| > | Ge | 74 | | ug/L | | 572003 | |
| | As | 75 | | ug/L | | -744 | |
| | Se | 77 | | ug/L | | 8264 | |
| | Se | 82 | | ug/L | | 0 | |
| | Kr | 83 | | ug/L | | 173 | |
| | Sr | 88 | | ug/L | | 291 | |
| | Y | 89 | | ug/L | | 76 | |
| | Mo | 98 | | ug/L | | 141 | |
| | Ag | 107 | | ug/L | | 88 | |
| | Cd | 111 | | ug/L | | 33 | |
| | Cd | 114 | | ug/L | | 69 | |
| > | In | 115 | | ug/L | | 379864 | |
| | Sn | 120 | | ug/L | | 422 | |
| | Sb | 121 | | ug/L | | 582 | |
| | Sb | 123 | | ug/L | | 457 | |
| | Ba | 135 | | ug/L | | 54 | |
| | Ba | 137 | | ug/L | | 91 | |
| | Ho | 165 | | ug/L | | 21 | |
| > | Lu | 175 | | ug/L | | 708476 | |
| | Tl | 205 | | ug/L | | 2105 | |
| | Pb | 208 | | ug/L | | 998 | |
| | Bi | 209 | | ug/L | | 589 | |
| | Th | 232 | | ug/L | | 830 | |
| | U | 238 | | ug/L | | 643 | |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 1.0000 |
| Mg | 24Linear Thru Zero | 0.9999 |
| Al | 27Linear Thru Zero | 1.0000 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 0.9999 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 0.9999 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 0.9999 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9998 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9998 |
| U | 238Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: Standard 1**
**Sample Date/Time: Thursday, February 25, 2010 00:51:13**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\Standard 1.190**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 10.000 | ug/L | 1.105 | 26890 | 0.057 |
| | Be | 9 | 10.000 | ug/L | 4.739 | 5729 | 0.012 |
| | B | 11 | 20.000 | ug/L | 0.321 | 12031 | 0.024 |
| | Na | 23 | 1000.000 | ug/L | 2.963 | 4393258 | 9.347 |
| | Mg | 24 | 1000.000 | ug/L | 10.705 | 3479543 | 7.430 |
| | Al | 27 | 1000.000 | ug/L | 4.107 | 5204106 | 11.105 |
| | P | 31 | 1000.000 | ug/L | 1.944 | 293596 | 0.615 |
| | K | 39 | 1000.000 | ug/L | 4.538 | 6809758 | 13.354 |
| | Ca | 43 | 1000.000 | ug/L | 3.254 | 17644 | 0.037 |
| > | Sc | 45 | | ug/L | | 468066 | 468065.824 |
| | Ti | 47 | 10.000 | ug/L | 0.987 | 9225 | 0.019 |
| | V | 51 | 10.000 | ug/L | 7.478 | 106749 | 0.208 |
| | Cr | 52 | 10.000 | ug/L | 3.903 | 84753 | 0.171 |
| | Cr | 53 | | ug/L | | 176266 | 0.099 |
| | Mn | 55 | 10.000 | ug/L | 2.802 | 130192 | 0.275 |
| | Fe | 57 | 1000.000 | ug/L | 3.218 | 274624 | 0.572 |
| | Co | 59 | 10.000 | ug/L | 0.895 | 105959 | 0.226 |
| | Ni | 60 | 10.000 | ug/L | 0.801 | 23096 | 0.049 |
| | Cu | 63 | | ug/L | | 56074 | 0.119 |
| | Cu | 65 | 10.000 | ug/L | 1.060 | 27358 | 0.058 |
| | Zn | 66 | 10.000 | ug/L | 2.012 | 16798 | 0.028 |
| | Zn | 67 | | ug/L | | 24399 | 0.016 |
| | Zn | 68 | | ug/L | | 13648 | 0.021 |
| > | Ge | 74 | | ug/L | | 567866 | 567865.985 |
| | As | 75 | 10.000 | ug/L | 1.836 | 16324 | 0.030 |
| | Se | 77 | | ug/L | | 12599 | 0.008 |
| | Se | 82 | 10.000 | ug/L | 1.240 | 1805 | 0.003 |
| | Kr | 83 | | ug/L | | 149 | -0.000 |
| | Sr | 88 | 10.000 | ug/L | 1.351 | 227001 | 0.612 |
| | Y | 89 | | ug/L | | 106 | 0.000 |
| | Mo | 98 | 10.000 | ug/L | 1.107 | 53630 | 0.144 |
| | Ag | 107 | 10.000 | ug/L | 2.532 | 96282 | 0.259 |
| | Cd | 111 | 10.000 | ug/L | 1.876 | 22621 | 0.061 |
| | Cd | 114 | | ug/L | | 53302 | 0.144 |
| > | In | 115 | | ug/L | | 370762 | 370762.000 |
| | Sn | 120 | 10.000 | ug/L | 1.295 | 97007 | 0.261 |
| | Sb | 121 | 10.000 | ug/L | 1.532 | 76721 | 0.205 |
| | Sb | 123 | | ug/L | | 59935 | 0.160 |
| | Ba | 135 | | ug/L | | 24863 | 0.035 |
| | Ba | 137 | 10.000 | ug/L | 1.030 | 44448 | 0.063 |
| | Ho | 165 | | ug/L | | 31 | 0.000 |
| > | Lu | 175 | | ug/L | | 703071 | 703070.874 |
| | Tl | 205 | 10.000 | ug/L | 1.004 | 339248 | 0.480 |
| | Pb | 208 | 10.000 | ug/L | 1.089 | 600186 | 0.852 |
| | Bi | 209 | | ug/L | | 399 | -0.000 |
| | Th | 232 | 10.000 | ug/L | 1.736 | 730929 | 1.038 |
| | U | 238 | 10.000 | ug/L | 0.633 | 764002 | 1.086 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 1.0000 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 1.0000 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 1.0000 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 1.0000 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 1.0000 |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: Standard 2**
**Sample Date/Time: Thursday, February 25, 2010 00:57:16**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\Standard 2.191**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **100.000** | **ug/L** | 2.449 | 264489 | 0.572 |
| | Be | 9 | **100.013** | **ug/L** | 2.463 | 57085 | 0.123 |
| | B | 11 | **200.038** | **ug/L** | 4.593 | 115722 | 0.249 |
| | Na | 23 | **10012.267** | **ug/L** | 1.503 | 49330670 | 106.666 |
| | Mg | 24 | **9994.280** | **ug/L** | 2.912 | 32487077 | 70.242 |
| | Al | 27 | **9977.507** | **ug/L** | 5.822 | 41846838 | 90.451 |
| | P | 31 | **9996.741** | **ug/L** | 2.033 | 2758099 | 5.952 |
| | K | 39 | **10004.212** | **ug/L** | 7.305 | 65060133 | 139.467 |
| | Ca | 43 | **9997.043** | **ug/L** | 1.635 | 166192 | 0.359 |
| > | Sc | 45 | | **ug/L** | | 462373 | 462373.423 |
| | Ti | 47 | **99.998** | **ug/L** | 0.744 | 87343 | 0.188 |
| | V | 51 | **99.954** | **ug/L** | 3.260 | 929215 | 1.990 |
| | Cr | 52 | **99.922** | **ug/L** | 0.634 | 739071 | 1.589 |
| | Cr | 53 | | **ug/L** | | 234272 | 0.229 |
| | Mn | 55 | **99.921** | **ug/L** | 1.467 | 1177738 | 2.544 |
| | Fe | 57 | **9998.285** | **ug/L** | 1.799 | 2606334 | 5.623 |
| | Co | 59 | **99.889** | **ug/L** | 1.148 | 940185 | 2.033 |
| | Ni | 60 | **99.956** | **ug/L** | 1.897 | 217299 | 0.470 |
| | Cu | 63 | | **ug/L** | | 516746 | 1.117 |
| | Cu | 65 | **99.972** | **ug/L** | 2.114 | 260459 | 0.563 |
| | Zn | 66 | **100.028** | **ug/L** | 2.779 | 162696 | 0.292 |
| | Zn | 67 | | **ug/L** | | 45738 | 0.056 |
| | Zn | 68 | | **ug/L** | | 118988 | 0.211 |
| > | Ge | 74 | | **ug/L** | | 555091 | 555090.637 |
| | As | 75 | **100.021** | **ug/L** | 0.615 | 169753 | 0.307 |
| | Se | 77 | | **ug/L** | | 22553 | 0.026 |
| | Se | 82 | **100.000** | **ug/L** | 2.418 | 17642 | 0.032 |
| | Kr | 83 | | **ug/L** | | 176 | 0.000 |
| | Sr | 88 | **99.847** | **ug/L** | 2.397 | 1924500 | 5.295 |
| | Y | 89 | | **ug/L** | | 300 | 0.001 |
| | Mo | 98 | **99.989** | **ug/L** | 2.112 | 518934 | 1.427 |
| | Ag | 107 | **99.918** | **ug/L** | 1.456 | 871308 | 2.397 |
| | Cd | 111 | **99.998** | **ug/L** | 1.800 | 221055 | 0.608 |
| | Cd | 114 | | **ug/L** | | 511858 | 1.408 |
| > | In | 115 | | **ug/L** | | 363514 | 363514.297 |
| | Sn | 120 | **99.927** | **ug/L** | 2.597 | 881818 | 2.426 |
| | Sb | 121 | **99.981** | **ug/L** | 1.760 | 733263 | 2.016 |
| | Sb | 123 | | **ug/L** | | 577455 | 1.588 |
| | Ba | 135 | | **ug/L** | | 238428 | 0.344 |
| | Ba | 137 | **99.967** | **ug/L** | 2.692 | 423069 | 0.610 |
| | Ho | 165 | | **ug/L** | | 44 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 693126 | 693125.998 |
| | Tl | 205 | **99.819** | **ug/L** | 1.206 | 2810893 | 4.052 |
| | Pb | 208 | **99.830** | **ug/L** | 3.632 | 5037257 | 7.270 |
| | Bi | 209 | | **ug/L** | | 848 | 0.000 |
| | Th | 232 | **99.839** | **ug/L** | 1.412 | 6188011 | 8.928 |
| | U | 238 | **99.841** | **ug/L** | 2.806 | 6479656 | 9.351 |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 0.9999 |
| Mg | 24Linear Thru Zero | 1.0000 |
| Al | 27Linear Thru Zero | 0.9997 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 1.0000 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 1.0000 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 1.0000 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9999 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9999 |
| U | 238Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 1**
**Sample Date/Time: Thursday, February 25, 2010 01:03:20**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 1.192**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **51.254** | ug/L | 1.528 | 138357 | 0.293 |
| | Be | 9 | **51.212** | ug/L | 3.907 | 29827 | 0.063 |
| | B | 11 | **103.919** | ug/L | 2.684 | 61625 | 0.129 |
| | Na | 23 | **4509.685** | ug/L | 8.125 | 22670943 | 48.044 |
| | Mg | 24 | **5347.344** | ug/L | 7.877 | 17720997 | 37.582 |
| | Al | 27 | **5620.619** | ug/L | 10.095 | 24041127 | 50.954 |
| | P | 31 | **4774.087** | ug/L | 1.484 | 1346497 | 2.843 |
| | K | 39 | **5130.417** | ug/L | 9.736 | 34293745 | 71.522 |
| | Ca | 43 | **4924.759** | ug/L | 1.318 | 83672 | 0.177 |
| > | Sc | 45 | | ug/L | | 471629 | 471628.507 |
| | Ti | 47 | **50.265** | ug/L | 0.852 | 44987 | 0.095 |
| | V | 51 | **51.480** | ug/L | 3.069 | 492659 | 1.025 |
| | Cr | 52 | **52.523** | ug/L | 2.178 | 398384 | 0.835 |
| | Cr | 53 | | ug/L | | 196456 | 0.139 |
| | Mn | 55 | **53.204** | ug/L | 1.701 | 640426 | 1.355 |
| | Fe | 57 | **4590.215** | ug/L | 0.475 | 1224465 | 2.582 |
| | Co | 59 | **51.968** | ug/L | 2.609 | 498978 | 1.058 |
| | Ni | 60 | **51.394** | ug/L | 1.632 | 114032 | 0.241 |
| | Cu | 63 | | ug/L | | 269542 | 0.571 |
| | Cu | 65 | **51.228** | ug/L | 2.806 | 136262 | 0.288 |
| | Zn | 66 | **53.041** | ug/L | 2.954 | 87537 | 0.155 |
| | Zn | 67 | | ug/L | | 33730 | 0.033 |
| | Zn | 68 | | ug/L | | 63866 | 0.111 |
| > | Ge | 74 | | ug/L | | 561190 | 561190.119 |
| | As | 75 | **48.840** | ug/L | 3.695 | 83406 | 0.150 |
| | Se | 77 | | ug/L | | 16616 | 0.015 |
| | Se | 82 | **51.104** | ug/L | 2.320 | 9114 | 0.016 |
| | Kr | 83 | | ug/L | | 151 | -0.000 |
| | Sr | 88 | **54.911** | ug/L | 2.149 | 1076141 | 2.912 |
| | Y | 89 | | ug/L | | 145 | 0.000 |
| | Mo | 98 | **49.596** | ug/L | 0.309 | 261705 | 0.708 |
| | Ag | 107 | **51.305** | ug/L | 0.925 | 454836 | 1.231 |
| | Cd | 111 | **50.703** | ug/L | 1.377 | 113953 | 0.308 |
| | Cd | 114 | | ug/L | | 265227 | 0.718 |
| > | In | 115 | | ug/L | | 369463 | 369462.806 |
| | Sn | 120 | **51.875** | ug/L | 1.341 | 465621 | 1.259 |
| | Sb | 121 | **51.410** | ug/L | 1.168 | 383561 | 1.037 |
| | Sb | 123 | | ug/L | | 300315 | 0.812 |
| | Ba | 135 | | ug/L | | 122938 | 0.178 |
| | Ba | 137 | **51.554** | ug/L | 2.548 | 217508 | 0.315 |
| | Ho | 165 | | ug/L | | 64 | 0.000 |
| > | Lu | 175 | | ug/L | | 690737 | 690736.635 |
| | Tl | 205 | **50.995** | ug/L | 2.545 | 1431651 | 2.070 |
| | Pb | 208 | **54.050** | ug/L | 1.463 | 2719376 | 3.936 |
| | Bi | 209 | | ug/L | | 944 | 0.001 |
| | Th | 232 | **52.084** | ug/L | 1.833 | 3217656 | 4.658 |
| | U | 238 | **53.616** | ug/L | 0.733 | 3469103 | 5.022 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 102.508 | | | | |
| | Be | 9 | 102.424 | | | | |
| | B | 11 | 103.919 | | | | |
| | Na | 23 | 90.194 | | | | |
| | Mg | 24 | 106.947 | | | | |
| | Al | 27 | 111.299 | | | | |
| | P | 31 | 95.482 | | | | |
| | K | 39 | 102.608 | | | | |
| | Ca | 43 | 98.495 | | | | |
| > | Sc | 45 | | 101.0 | | | |
| | Ti | 47 | 100.531 | | | | |
| | V | 51 | 102.959 | | | | |
| | Cr | 52 | 105.046 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 106.409 | | | | |
| | Fe | 57 | 91.804 | | | | |
| | Co | 59 | 103.937 | | | | |
| | Ni | 60 | 102.788 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 102.456 | | | | |
| | Zn | 66 | 106.082 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 98.1 | | | |
| | As | 75 | 97.681 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 102.207 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 109.822 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 99.192 | | | | |
| | Ag | 107 | 102.610 | | | | |
| | Cd | 111 | 101.405 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 97.3 | | | |
| | Sn | 120 | 103.750 | | | | |
| | Sb | 121 | 102.819 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 103.108 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 97.5 | | | |
| | Tl | 205 | 101.990 | | | | |
| | Pb | 208 | 108.100 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 104.169 | | | | |
| | U | 238 | 107.231 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 1 | Al | 27 | ICV is out of limits (+/- 10%) |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 2**
**Sample Date/Time: Thursday, February 25, 2010 01:09:27**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 2.193**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 0.021 | ug/L | 19.019 | 172 | 0.000 |
| | Be | 9 | 0.008 | ug/L | 121.338 | 32 | 0.000 |
| | B | 11 | 4.097 | ug/L | 16.405 | 2984 | 0.005 |
| | Na | 23 | 0.870 | ug/L | 129.311 | 23019 | 0.009 |
| | Mg | 24 | -0.105 | ug/L | 1050.249 | 4001 | -0.001 |
| | Al | 27 | -0.861 | ug/L | 96.914 | 4001 | -0.008 |
| | P | 31 | 0.980 | ug/L | 180.971 | 6126 | 0.001 |
| | K | 39 | 1.158 | ug/L | 397.345 | 569148 | 0.016 |
| | Ca | 43 | -0.503 | ug/L | 329.039 | 354 | -0.000 |
| > | Sc | 45 | | ug/L | | 467005 | 467005.242 |
| | Ti | 47 | -0.009 | ug/L | 325.615 | 395 | -0.000 |
| | V | 51 | -0.308 | ug/L | 153.633 | 6437 | -0.006 |
| | Cr | 52 | -0.165 | ug/L | 44.444 | 3309 | -0.003 |
| | Cr | 53 | | ug/L | | 125809 | -0.008 |
| | Mn | 55 | -0.010 | ug/L | 32.542 | 1539 | -0.000 |
| | Fe | 57 | 0.291 | ug/L | 190.434 | 6980 | 0.000 |
| | Co | 59 | 0.004 | ug/L | 70.690 | 182 | 0.000 |
| | Ni | 60 | 0.004 | ug/L | 50.335 | 150 | 0.000 |
| | Cu | 63 | | ug/L | | 487 | 0.000 |
| | Cu | 65 | -0.004 | ug/L | 95.984 | 246 | -0.000 |
| | Zn | 66 | 0.001 | ug/L | 1593.283 | 698 | 0.000 |
| | Zn | 67 | | ug/L | | 14449 | -0.001 |
| | Zn | 68 | | ug/L | | 1604 | -0.000 |
| > | Ge | 74 | | ug/L | | 569988 | 569987.791 |
| | As | 75 | -0.179 | ug/L | 145.005 | -1056 | -0.001 |
| | Se | 77 | | ug/L | | 8396 | 0.000 |
| | Se | 82 | 0.091 | ug/L | 153.517 | 17 | 0.000 |
| | Kr | 83 | | ug/L | | 156 | -0.000 |
| | Sr | 88 | 0.006 | ug/L | 12.878 | 419 | 0.000 |
| | Y | 89 | | ug/L | | 79 | 0.000 |
| | Mo | 98 | 0.027 | ug/L | 3.432 | 289 | 0.000 |
| | Ag | 107 | 0.006 | ug/L | 31.976 | 141 | 0.000 |
| | Cd | 111 | 0.002 | ug/L | 466.095 | 37 | 0.000 |
| | Cd | 114 | | ug/L | | 108 | 0.000 |
| > | In | 115 | | ug/L | | 378529 | 378529.037 |
| | Sn | 120 | 0.012 | ug/L | 32.804 | 534 | 0.000 |
| | Sb | 121 | 0.437 | ug/L | 10.437 | 3917 | 0.009 |
| | Sb | 123 | | ug/L | | 3199 | 0.007 |
| | Ba | 135 | | ug/L | | 72 | 0.000 |
| | Ba | 137 | 0.004 | ug/L | 36.133 | 109 | 0.000 |
| | Ho | 165 | | ug/L | | 30 | 0.000 |
| > | Lu | 175 | | ug/L | | 707983 | 707982.913 |
| | Tl | 205 | 0.158 | ug/L | 22.647 | 6640 | 0.006 |
| | Pb | 208 | 0.007 | ug/L | 21.254 | 1362 | 0.001 |
| | Bi | 209 | | ug/L | | 584 | -0.000 |
| | Th | 232 | 0.024 | ug/L | 5.204 | 2323 | 0.002 |
| | U | 238 | 0.008 | ug/L | 26.689 | 1170 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 100.0 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 99.6 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 99.6 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 99.9 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 3**
**Sample Date/Time: Thursday, February 25, 2010 01:15:34**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 3.194**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **11.006** | **ug/L** | 2.281 | 29478 | 0.063 |
| | Be | 9 | **0.537** | **ug/L** | 5.699 | 336 | 0.001 |
| | B | 11 | **17.326** | **ug/L** | 3.791 | 10659 | 0.022 |
| | Na | 23 | **239.283** | **ug/L** | 8.349 | 1207054 | 2.549 |
| | Mg | 24 | **15.408** | **ug/L** | 14.004 | 54772 | 0.108 |
| | Al | 27 | **41.259** | **ug/L** | 6.550 | 182157 | 0.374 |
| | P | 31 | **65.019** | **ug/L** | 7.889 | 23901 | 0.039 |
| | K | 39 | **308.141** | **ug/L** | 13.361 | 2562845 | 4.296 |
| | Ca | 43 | **218.114** | **ug/L** | 5.808 | 4012 | 0.008 |
| > | Sc | 45 | | **ug/L** | | 466658 | 466658.134 |
| | Ti | 47 | **8.651** | **ug/L** | 2.543 | 7993 | 0.016 |
| | V | 51 | **10.208** | **ug/L** | 9.674 | 104042 | 0.203 |
| | Cr | 52 | **11.238** | **ug/L** | 4.848 | 87857 | 0.179 |
| | Cr | 53 | | **ug/L** | | 157299 | 0.060 |
| | Mn | 55 | **5.897** | **ug/L** | 2.990 | 71691 | 0.150 |
| | Fe | 57 | **105.485** | **ug/L** | 2.669 | 34574 | 0.059 |
| | Co | 59 | **1.130** | **ug/L** | 3.872 | 10879 | 0.023 |
| | Ni | 60 | **2.182** | **ug/L** | 2.802 | 4924 | 0.010 |
| | Cu | 63 | | **ug/L** | | 6465 | 0.013 |
| | Cu | 65 | **1.120** | **ug/L** | 3.630 | 3199 | 0.006 |
| | Zn | 66 | **11.321** | **ug/L** | 1.546 | 18871 | 0.033 |
| | Zn | 67 | | **ug/L** | | 20464 | 0.010 |
| | Zn | 68 | | **ug/L** | | 14797 | 0.024 |
| > | Ge | 74 | | **ug/L** | | 550773 | 550772.701 |
| | As | 75 | **5.563** | **ug/L** | 3.738 | 8690 | 0.017 |
| | Se | 77 | | **ug/L** | | 10811 | 0.005 |
| | Se | 82 | **5.873** | **ug/L** | 3.974 | 1028 | 0.002 |
| | Kr | 83 | | **ug/L** | | 145 | -0.000 |
| | Sr | 88 | **12.294** | **ug/L** | 0.262 | 241551 | 0.652 |
| | Y | 89 | | **ug/L** | | 69 | -0.000 |
| | Mo | 98 | **0.527** | **ug/L** | 4.885 | 2922 | 0.008 |
| | Ag | 107 | **1.067** | **ug/L** | 2.030 | 9561 | 0.026 |
| | Cd | 111 | **1.111** | **ug/L** | 1.215 | 2532 | 0.007 |
| | Cd | 114 | | **ug/L** | | 5724 | 0.015 |
| > | In | 115 | | **ug/L** | | 370061 | 370060.601 |
| | Sn | 120 | **5.583** | **ug/L** | 1.724 | 50556 | 0.136 |
| | Sb | 121 | **3.368** | **ug/L** | 1.093 | 25697 | 0.068 |
| | Sb | 123 | | **ug/L** | | 20218 | 0.053 |
| | Ba | 135 | | **ug/L** | | 5288 | 0.007 |
| | Ba | 137 | **2.158** | **ug/L** | 2.765 | 9314 | 0.013 |
| | Ho | 165 | | **ug/L** | | 27 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 700109 | 700108.585 |
| | Tl | 205 | **1.260** | **ug/L** | 1.742 | 37884 | 0.051 |
| | Pb | 208 | **2.501** | **ug/L** | 1.391 | 128493 | 0.182 |
| | Bi | 209 | | **ug/L** | | 429 | -0.000 |
| | Th | 232 | **1.296** | **ug/L** | 2.070 | 81953 | 0.116 |
| | U | 238 | **0.284** | **ug/L** | 0.865 | 19262 | 0.027 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 110.055 | | | | |
| | Be | 9 | 107.409 | | | | |
| | B | 11 | 115.509 | | | | |
| | Na | 23 | 95.713 | | | | |
| | Mg | 24 | 102.717 | | | | |
| | Al | 27 | 137.530 | | | | |
| | P | 31 | 130.038 | | | | |
| | K | 39 | 102.714 | | | | |
| | Ca | 43 | 109.057 | | | | |
| > | Sc | 45 | | 100.0 | | | |
| | Ti | 47 | 86.512 | | | | |
| | V | 51 | 102.076 | | | | |
| | Cr | 52 | 112.379 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 117.941 | | | | |
| | Fe | 57 | 105.485 | | | | |
| | Co | 59 | 113.043 | | | | |
| | Ni | 60 | 109.121 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 112.029 | | | | |
| | Zn | 66 | 113.212 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 96.3 | | | |
| | As | 75 | 111.254 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 117.453 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 122.942 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 105.486 | | | | |
| | Ag | 107 | 106.734 | | | | |
| | Cd | 111 | 111.062 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 97.4 | | | |
| | Sn | 120 | 111.664 | | | | |
| | Sb | 121 | 112.266 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 107.890 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 98.8 | | | |
| | Tl | 205 | 125.991 | | | | |
| | Pb | 208 | 125.060 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 129.605 | | | | |
| | U | 238 | 142.033 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 3 | Al | 27 | CRDL is out of limits |
| QC Std 3 | P | 31 | CRDL is out of limits |
| QC Std 3 | U | 238 | CRDL is out of limits |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 4**
**Sample Date/Time: Thursday, February 25, 2010 01:21:40**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 4.195**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **0.081** | ug/L | 10.445 | 293 | 0.000 |
| | Be | 9 | **0.069** | ug/L | 19.825 | 59 | 0.000 |
| | B | 11 | **1.597** | ug/L | 19.431 | 1342 | 0.002 |
| | Na | 23 | **76847.089** | ug/L | 3.522 | 336523083 | 818.695 |
| | Mg | 24 | **85091.727** | ug/L | 8.994 | 245740237 | 598.043 |
| | Al | 27 | **103851.194** | ug/L | 11.407 | 387083249 | 941.464 |
| | P | 31 | **82063.023** | ug/L | 0.909 | 20088465 | 48.862 |
| | K | 39 | **91466.419** | ug/L | 0.853 | 524596315 | 1275.113 |
| | Ca | 43 | **86955.724** | ug/L | 1.654 | 1282259 | 3.119 |
| > | Sc | 45 | | ug/L | | 411013 | 411012.564 |
| | Ti | 47 | **1517.851** | ug/L | 0.321 | 1173570 | 2.854 |
| | V | 51 | **-0.573** | ug/L | 51.787 | 3536 | -0.011 |
| | Cr | 52 | **1.914** | ug/L | 0.983 | 16506 | 0.030 |
| | Cr | 53 | | ug/L | | 118979 | 0.012 |
| | Mn | 55 | **6.009** | ug/L | 1.140 | 64334 | 0.153 |
| | Fe | 57 | **94815.587** | ug/L | 1.958 | 21921908 | 53.325 |
| | Co | 59 | **0.371** | ug/L | 5.093 | 3231 | 0.008 |
| | Ni | 60 | **3.499** | ug/L | 2.633 | 6881 | 0.016 |
| | Cu | 63 | | ug/L | | 11210 | 0.026 |
| | Cu | 65 | **3.194** | ug/L | 0.963 | 7617 | 0.018 |
| | Zn | 66 | **4.370** | ug/L | 5.913 | 6859 | 0.013 |
| | Zn | 67 | | ug/L | | 18056 | 0.010 |
| | Zn | 68 | | ug/L | | 2656 | 0.003 |
| > | Ge | 74 | | ug/L | | 490891 | 490890.577 |
| | As | 75 | **0.176** | ug/L | 570.093 | -374 | 0.001 |
| | Se | 77 | | ug/L | | 11647 | 0.009 |
| | Se | 82 | **-1.193** | ug/L | 6.261 | -186 | -0.000 |
| | Kr | 83 | | ug/L | | 452 | 0.001 |
| | Sr | 88 | **3.263** | ug/L | 1.596 | 57326 | 0.173 |
| | Y | 89 | | ug/L | | 801 | 0.002 |
| | Mo | 98 | **1814.342** | ug/L | 1.582 | 8542173 | 25.899 |
| | Ag | 107 | **0.140** | ug/L | 4.308 | 1188 | 0.003 |
| | Cd | 111 | **0.506** | ug/L | 47.944 | 1046 | 0.003 |
| | Cd | 114 | | ug/L | | 14916 | 0.045 |
| > | In | 115 | | ug/L | | 329854 | 329854.132 |
| | Sn | 120 | **0.262** | ug/L | 2.872 | 2462 | 0.006 |
| | Sb | 121 | **0.383** | ug/L | 21.682 | 3049 | 0.008 |
| | Sb | 123 | | ug/L | | 2369 | 0.006 |
| | Ba | 135 | | ug/L | | 1601 | 0.002 |
| | Ba | 137 | **0.714** | ug/L | 1.305 | 2815 | 0.004 |
| | Ho | 165 | | ug/L | | 13545 | 0.022 |
| > | Lu | 175 | | ug/L | | 626869 | 626869.274 |
| | Tl | 205 | **0.005** | ug/L | 69.273 | 1989 | 0.000 |
| | Pb | 208 | **0.229** | ug/L | 0.450 | 11334 | 0.017 |
| | Bi | 209 | | ug/L | | 8402 | 0.013 |
| | Th | 232 | **0.049** | ug/L | 38.303 | 3510 | 0.004 |
| | U | 238 | **-0.006** | ug/L | 5.247 | 219 | -0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | 76.847 | | | | |
| | Mg | 24 | 85.092 | | | | |
| | Al | 27 | 103.851 | | | | |
| | P | 31 | 82.063 | | | | |
| | K | 39 | 91.466 | | | | |
| | Ca | 43 | 86.956 | | | | |
| > | Sc | 45 | | 88.0 | | | |
| | Ti | 47 | 75.893 | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | 58.005 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 103.602 | | | | |
| | Fe | 57 | 94.816 | | | | |
| | Co | 59 | 157.727 | | | | |
| | Ni | 60 | 105.723 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 95.623 | | | | |
| | Zn | 66 | 116.221 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 85.8 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 110.235 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 90.717 | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | 114.002 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 86.8 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 89.518 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 88.5 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | 121.132 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 4 | Na | 23 | ICSA is out of limits |
| QC Std 4 | Ti | 47 | ICSA is out of limits |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 5**
**Sample Date/Time: Thursday, February 25, 2010 01:27:47**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 5.196**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **18.541** | ug/L | 1.142 | 41347 | 0.106 |
| | Be | 9 | **17.910** | ug/L | 2.065 | 8621 | 0.022 |
| | B | 11 | **17.544** | ug/L | 2.456 | 8996 | 0.022 |
| | Na | 23 | **79986.935** | ug/L | 2.610 | 331638859 | 852.145 |
| | Mg | 24 | **87477.193** | ug/L | 2.329 | 239206523 | 614.808 |
| | Al | 27 | **104014.873** | ug/L | 4.416 | 366730469 | 942.948 |
| | P | 31 | **86226.228** | ug/L | 1.257 | 19977908 | 51.341 |
| | K | 39 | **89267.225** | ug/L | 4.445 | 484619607 | 1244.455 |
| | Ca | 43 | **89016.291** | ug/L | 1.517 | 1242724 | 3.193 |
| > | Sc | 45 | | ug/L | | 389069 | 389069.436 |
| | Ti | 47 | **1547.426** | ug/L | 0.509 | 1132579 | 2.910 |
| | V | 51 | **21.352** | ug/L | 2.752 | 173144 | 0.425 |
| | Cr | 52 | **23.295** | ug/L | 2.523 | 147846 | 0.370 |
| | Cr | 53 | | ug/L | | 113519 | 0.014 |
| | Mn | 55 | **28.422** | ug/L | 0.512 | 282925 | 0.724 |
| | Fe | 57 | **99769.769** | ug/L | 2.675 | 21831986 | 56.111 |
| | Co | 59 | **21.406** | ug/L | 2.926 | 169597 | 0.436 |
| | Ni | 60 | **22.852** | ug/L | 1.826 | 41883 | 0.107 |
| | Cu | 63 | | ug/L | | 96563 | 0.247 |
| | Cu | 65 | **22.637** | ug/L | 2.014 | 49801 | 0.127 |
| | Zn | 66 | **22.923** | ug/L | 2.431 | 33260 | 0.067 |
| | Zn | 67 | | ug/L | | 18838 | 0.012 |
| | Zn | 68 | | ug/L | | 21732 | 0.042 |
| > | Ge | 74 | | ug/L | | 488347 | 488346.958 |
| | As | 75 | **20.501** | ug/L | 3.271 | 30109 | 0.063 |
| | Se | 77 | | ug/L | | 11207 | 0.009 |
| | Se | 82 | **19.340** | ug/L | 2.416 | 3002 | 0.006 |
| | Kr | 83 | | ug/L | | 429 | 0.001 |
| | Sr | 88 | **25.956** | ug/L | 2.112 | 455843 | 1.376 |
| | Y | 89 | | ug/L | | 717 | 0.002 |
| | Mo | 98 | **1795.815** | ug/L | 0.228 | 8485446 | 25.635 |
| | Ag | 107 | **19.454** | ug/L | 2.322 | 154561 | 0.467 |
| | Cd | 111 | **19.913** | ug/L | 1.616 | 40113 | 0.121 |
| | Cd | 114 | | ug/L | | 104916 | 0.317 |
| > | In | 115 | | ug/L | | 331007 | 331007.181 |
| | Sn | 120 | **21.124** | ug/L | 1.565 | 170090 | 0.513 |
| | Sb | 121 | **21.156** | ug/L | 0.969 | 141717 | 0.427 |
| | Sb | 123 | | ug/L | | 110137 | 0.332 |
| | Ba | 135 | | ug/L | | 44251 | 0.071 |
| | Ba | 137 | **20.377** | ug/L | 1.178 | 77727 | 0.124 |
| | Ho | 165 | | ug/L | | 13358 | 0.021 |
| > | Lu | 175 | | ug/L | | 624039 | 624039.312 |
| | Tl | 205 | **20.864** | ug/L | 1.138 | 530352 | 0.847 |
| | Pb | 208 | **21.830** | ug/L | 0.626 | 992892 | 1.590 |
| | Bi | 209 | | ug/L | | 9139 | 0.014 |
| | Th | 232 | **22.315** | ug/L | 1.168 | 1245990 | 1.996 |
| | U | 238 | **22.980** | ug/L | 0.724 | 1343671 | 2.152 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 92.705 | | | | |
| | Be | 9 | 89.548 | | | | |
| | B | 11 | 87.719 | | | | |
| | Na | 23 | 79.987 | | | | |
| | Mg | 24 | 87.477 | | | | |
| | Al | 27 | 104.015 | | | | |
| | P | 31 | 86.226 | | | | |
| | K | 39 | 89.267 | | | | |
| | Ca | 43 | 89.016 | | | | |
| > | Sc | 45 | | 83.3 | | | |
| | Ti | 47 | 77.371 | | | | |
| | V | 51 | 106.760 | | | | |
| | Cr | 52 | 99.977 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 110.163 | | | | |
| | Fe | 57 | 99.770 | | | | |
| | Co | 59 | 105.787 | | | | |
| | Ni | 60 | 98.036 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 96.989 | | | | |
| | Zn | 66 | 96.476 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 85.4 | | | |
| | As | 75 | 102.506 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 96.699 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 113.049 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 89.791 | | | | |
| | Ag | 107 | 97.271 | | | | |
| | Cd | 111 | 97.402 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 87.1 | | | |
| | Sn | 120 | 105.621 | | | | |
| | Sb | 121 | 105.778 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 97.974 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 88.1 | | | |
| | Tl | 205 | 104.321 | | | | |
| | Pb | 208 | 108.130 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 111.574 | | | | |
| | U | 238 | 114.899 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 5 | Na | 23 | ICSAB is out of limits |
| QC Std 5 | Ti | 47 | ICSAB is out of limits |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 01:33:53**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 6.197**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 50.856 | ug/L | 2.578 | 121226 | 0.291 |
| | Be | 9 | 51.752 | ug/L | 3.240 | 26620 | 0.064 |
| | B | 11 | 98.342 | ug/L | 3.613 | 51527 | 0.122 |
| | Na | 23 | 4552.550 | ug/L | 15.725 | 20195760 | 48.501 |
| | Mg | 24 | 5042.300 | ug/L | 2.663 | 14768916 | 35.438 |
| | Al | 27 | 5207.421 | ug/L | 7.037 | 19690007 | 47.208 |
| | P | 31 | 4703.749 | ug/L | 3.584 | 1171450 | 2.801 |
| | K | 39 | 4332.637 | ug/L | 4.484 | 25671318 | 60.400 |
| | Ca | 43 | 4771.309 | ug/L | 3.390 | 71592 | 0.171 |
| > | Sc | 45 | | ug/L | | 416580 | 416580.161 |
| | Ti | 47 | 49.205 | ug/L | 3.521 | 38889 | 0.093 |
| | V | 51 | 52.394 | ug/L | 4.403 | 442610 | 1.043 |
| | Cr | 52 | 52.723 | ug/L | 2.378 | 353165 | 0.838 |
| | Cr | 53 | | ug/L | | 173110 | 0.138 |
| | Mn | 55 | 53.516 | ug/L | 2.938 | 568853 | 1.362 |
| | Fe | 57 | 4645.346 | ug/L | 3.429 | 1094022 | 2.613 |
| | Co | 59 | 52.672 | ug/L | 3.053 | 446599 | 1.072 |
| | Ni | 60 | 52.519 | ug/L | 1.808 | 102895 | 0.247 |
| | Cu | 63 | | ug/L | | 246344 | 0.590 |
| | Cu | 65 | 50.727 | ug/L | 1.756 | 119188 | 0.286 |
| | Zn | 66 | 51.222 | ug/L | 2.930 | 77548 | 0.150 |
| | Zn | 67 | | ug/L | | 29593 | 0.031 |
| | Zn | 68 | | ug/L | | 56556 | 0.107 |
| > | Ge | 74 | | ug/L | | 514672 | 514672.218 |
| | As | 75 | 48.752 | ug/L | 2.768 | 76358 | 0.150 |
| | Se | 77 | | ug/L | | 14469 | 0.014 |
| | Se | 82 | 50.062 | ug/L | 2.082 | 8188 | 0.016 |
| | Kr | 83 | | ug/L | | 141 | -0.000 |
| | Sr | 88 | 53.781 | ug/L | 1.710 | 984550 | 2.852 |
| | Y | 89 | | ug/L | | 168 | 0.000 |
| | Mo | 98 | 49.077 | ug/L | 0.791 | 241922 | 0.701 |
| | Ag | 107 | 51.743 | ug/L | 1.540 | 428488 | 1.241 |
| | Cd | 111 | 50.768 | ug/L | 0.996 | 106604 | 0.309 |
| | Cd | 114 | | ug/L | | 248527 | 0.720 |
| > | In | 115 | | ug/L | | 345156 | 345156.356 |
| | Sn | 120 | 51.493 | ug/L | 1.373 | 431744 | 1.250 |
| | Sb | 121 | 51.330 | ug/L | 1.027 | 357761 | 1.035 |
| | Sb | 123 | | ug/L | | 282382 | 0.817 |
| | Ba | 135 | | ug/L | | 115385 | 0.169 |
| | Ba | 137 | 49.242 | ug/L | 1.246 | 205400 | 0.301 |
| | Ho | 165 | | ug/L | | 67 | 0.000 |
| > | Lu | 175 | | ug/L | | 682807 | 682807.409 |
| | Tl | 205 | 49.827 | ug/L | 1.117 | 1383033 | 2.023 |
| | Pb | 208 | 53.468 | ug/L | 1.497 | 2659287 | 3.894 |
| | Bi | 209 | | ug/L | | 957 | 0.001 |
| | Th | 232 | 51.536 | ug/L | 1.197 | 3147381 | 4.609 |
| | U | 238 | 51.542 | ug/L | 1.737 | 3296507 | 4.828 |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 0.9999 |
| Mg | 24Linear Thru Zero | 1.0000 |
| Al | 27Linear Thru Zero | 0.9997 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 1.0000 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 1.0000 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 1.0000 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9999 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9999 |
| U | 238Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Di | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 101.711 | | | | |
| | Be | 9 | 103.504 | | | | |
| | B | 11 | 98.342 | | | | |
| | Na | 23 | 91.051 | | | | |
| | Mg | 24 | 100.846 | | | | |
| | Al | 27 | 103.117 | | | | |
| | P | 31 | 94.075 | | | | |
| | K | 39 | 86.653 | | | | |
| | Ca | 43 | 95.426 | | | | |
| > | Sc | 45 | | 89.2 | | | |
| | Ti | 47 | 98.410 | | | | |
| | V | 51 | 104.788 | | | | |
| | Cr | 52 | 105.446 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 107.032 | | | | |
| | Fe | 57 | 92.907 | | | | |
| | Co | 59 | 105.344 | | | | |
| | Ni | 60 | 105.038 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 101.454 | | | | |
| | Zn | 66 | 102.443 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 90.0 | | | |
| | As | 75 | 97.504 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 100.123 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 107.563 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 98.154 | | | | |
| | Ag | 107 | 103.486 | | | | |
| | Cd | 111 | 101.536 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 90.9 | | | |
| | Sn | 120 | 102.986 | | | | |
| | Sb | 121 | 102.661 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 98.484 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 96.4 | | | |
| | Tl | 205 | 99.655 | | | | |
| | Pb | 208 | 106.936 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 103.073 | | | | |
| | U | 238 | 103.085 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 6 | K | 39 | CCV is out of limits (+/- 10%) |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 01:40:01**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 7.198**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 0.019 | ug/L | 19.141 | 149 | 0.000 |
| | Be | 9 | 0.002 | ug/L | 728.636 | 25 | 0.000 |
| | B | 11 | 2.533 | ug/L | 22.205 | 1848 | 0.003 |
| | Na | 23 | 2.396 | ug/L | 51.756 | 27360 | 0.026 |
| | Mg | 24 | 0.956 | ug/L | 114.511 | 6668 | 0.007 |
| | Al | 27 | 2.695 | ug/L | 31.242 | 17010 | 0.024 |
| | P | 31 | 1.126 | ug/L | 68.843 | 5507 | 0.001 |
| | K | 39 | 5.504 | ug/L | 74.073 | 532758 | 0.077 |
| | Ca | 43 | 1.125 | ug/L | 68.383 | 341 | 0.000 |
| > | Sc | 45 | | ug/L | | 416774 | 416774.349 |
| | Ti | 47 | 0.051 | ug/L | 49.426 | 400 | 0.000 |
| | V | 51 | -0.473 | ug/L | 18.561 | 4423 | -0.009 |
| | Cr | 52 | -0.473 | ug/L | 9.957 | 914 | -0.008 |
| | Cr | 53 | | ug/L | | 108799 | -0.017 |
| | Mn | 55 | -0.012 | ug/L | 34.432 | 1356 | -0.000 |
| | Fe | 57 | -0.949 | ug/L | 26.247 | 5940 | -0.001 |
| | Co | 59 | 0.004 | ug/L | 38.201 | 167 | 0.000 |
| | Ni | 60 | 0.010 | ug/L | 18.742 | 146 | 0.000 |
| | Cu | 63 | | ug/L | | 387 | -0.000 |
| | Cu | 65 | 0.001 | ug/L | 229.755 | 233 | 0.000 |
| | Zn | 66 | -0.024 | ug/L | 53.198 | 599 | -0.000 |
| | Zn | 67 | | ug/L | | 12866 | -0.002 |
| | Zn | 68 | | ug/L | | 1437 | -0.000 |
| > | Ge | 74 | | ug/L | | 521240 | 521240.111 |
| | As | 75 | 0.221 | ug/L | 53.128 | -323 | 0.001 |
| | Se | 77 | | ug/L | | 6939 | -0.001 |
| | Se | 82 | 0.016 | ug/L | 370.605 | 3 | 0.000 |
| | Kr | 83 | | ug/L | | 144 | -0.000 |
| | Sr | 88 | 0.005 | ug/L | 47.801 | 374 | 0.000 |
| | Y | 89 | | ug/L | | 70 | -0.000 |
| | Mo | 98 | 0.063 | ug/L | 5.593 | 450 | 0.001 |
| | Ag | 107 | 0.006 | ug/L | 14.955 | 132 | 0.000 |
| | Cd | 111 | 0.005 | ug/L | 128.110 | 43 | 0.000 |
| | Cd | 114 | | ug/L | | 91 | 0.000 |
| > | In | 115 | | ug/L | | 355440 | 355440.489 |
| | Sn | 120 | 0.011 | ug/L | 35.866 | 490 | 0.000 |
| | Sb | 121 | 0.155 | ug/L | 8.034 | 1659 | 0.003 |
| | Sb | 123 | | ug/L | | 1327 | 0.003 |
| | Ba | 135 | | ug/L | | 62 | 0.000 |
| | Ba | 137 | 0.004 | ug/L | 49.014 | 105 | 0.000 |
| | Ho | 165 | | ug/L | | 27 | 0.000 |
| > | Lu | 175 | | ug/L | | 691627 | 691626.720 |
| | Tl | 205 | 0.224 | ug/L | 18.598 | 8345 | 0.009 |
| | Pb | 208 | 0.006 | ug/L | 37.321 | 1281 | 0.000 |
| | Bi | 209 | | ug/L | | 617 | 0.000 |
| | Th | 232 | 0.021 | ug/L | 5.469 | 2137 | 0.002 |
| | U | 238 | 0.007 | ug/L | 32.882 | 1054 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 89.3 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 91.1 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 93.6 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 97.6 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 10**
**Sample Date/Time: Thursday, February 25, 2010 01:46:08**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 10.199**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈ | Li | 7 | **908.148** | **ug/L** | 2.424 | 1874486 | 5.194 |
| \| | Be | 9 | **951.375** | **ug/L** | 1.719 | 423800 | 1.174 |
| \| | B | 11 | **1.566** | **ug/L** | 15.177 | 1165 | 0.002 |
| \| | Na | 23 | **48963.331** | **ug/L** | 5.462 | 188368267 | 521.633 |
| \| | Mg | 24 | **52502.636** | **ug/L** | 11.268 | 133033673 | 369.000 |
| \| | Al | 27 | **54937.246** | **ug/L** | 2.656 | 179751189 | 498.034 |
| \| | P | 31 | **21975.073** | **ug/L** | 2.357 | 4726633 | 13.085 |
| \| | K | 39 | **47751.459** | **ug/L** | 3.116 | 240644107 | 665.693 |
| \| | Ca | 43 | **47390.870** | **ug/L** | 1.958 | 613793 | 1.700 |
| \|> | Sc | 45 | | **ug/L** | | 361004 | 361003.669 |
| \| | Ti | 47 | **43.749** | **ug/L** | 1.635 | 30006 | 0.082 |
| \| | V | 51 | **904.479** | **ug/L** | 2.586 | 6505041 | 18.006 |
| \| | Cr | 52 | **894.043** | **ug/L** | 3.388 | 5132659 | 14.214 |
| \| | Cr | 53 | | **ug/L** | | 774563 | 1.869 |
| \| | Mn | 55 | **965.413** | **ug/L** | 1.448 | 8874170 | 24.579 |
| \| | Fe | 57 | **49460.687** | **ug/L** | 0.018 | 10047325 | 27.817 |
| \| | Co | 59 | **879.775** | **ug/L** | 2.549 | 6462298 | 17.907 |
| \| | Ni | 60 | **855.509** | **ug/L** | 3.761 | 1450545 | 4.019 |
| \| | Cu | 63 | | **ug/L** | | 3370054 | 9.337 |
| ⌊ | Cu | 65 | **809.449** | **ug/L** | 1.865 | 1645282 | 4.558 |
| ⌈ | Zn | 66 | **2256.169** | **ug/L** | 0.467 | 2956197 | 6.585 |
| \| | Zn | 67 | | **ug/L** | | 473424 | 1.028 |
| \| | Zn | 68 | | **ug/L** | | 1846360 | 4.111 |
| \|> | Ge | 74 | | **ug/L** | | 448846 | 448845.629 |
| \| | As | 75 | **816.633** | **ug/L** | 0.627 | 1125003 | 2.508 |
| \| | Se | 77 | | **ug/L** | | 55858 | 0.110 |
| \| | Se | 82 | **459.331** | **ug/L** | 2.018 | 65518 | 0.146 |
| ⌊ | Kr | 83 | | **ug/L** | | 270 | 0.000 |
| ⌈ | Sr | 88 | **991.112** | **ug/L** | 0.957 | 16759897 | 52.560 |
| \| | Y | 89 | | **ug/L** | | 613 | 0.002 |
| \| | Mo | 98 | **915.334** | **ug/L** | 1.384 | 4166215 | 13.066 |
| \| | Ag | 107 | **211.925** | **ug/L** | 0.351 | 1621230 | 5.084 |
| \| | Cd | 111 | **830.235** | **ug/L** | 0.459 | 1609938 | 5.049 |
| \| | Cd | 114 | | **ug/L** | | 3840458 | 12.044 |
| \|> | In | 115 | | **ug/L** | | 318855 | 318855.037 |
| \| | Sn | 120 | **888.428** | **ug/L** | 0.778 | 6876169 | 21.565 |
| \| | Sb | 121 | **222.617** | **ug/L** | 1.988 | 1431814 | 4.489 |
| ⌊ | Sb | 123 | | **ug/L** | | 1131261 | 3.547 |
| ⌈ | Ba | 135 | | **ug/L** | | 1734671 | 2.749 |
| \| | Ba | 137 | **844.735** | **ug/L** | 0.281 | 3255477 | 5.159 |
| \| | Ho | 165 | | **ug/L** | | 194 | 0.000 |
| \|> | Lu | 175 | | **ug/L** | | 631074 | 631073.614 |
| \| | Tl | 205 | **466.428** | **ug/L** | 3.113 | 11948443 | 18.934 |
| \| | Pb | 208 | **4781.042** | **ug/L** | 1.641 | 219700515 | 348.163 |
| \| | Bi | 209 | | **ug/L** | | 6701 | 0.010 |
| \| | Th | 232 | **2537.017** | **ug/L** | 2.540 | 143156342 | 226.877 |
| ⌊ | U | 238 | **5256.734** | **ug/L** | 0.889 | 310701302 | 492.353 |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 0.9999 |
| Mg | 24Linear Thru Zero | 1.0000 |
| Al | 27Linear Thru Zero | 0.9997 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 1.0000 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 1.0000 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 1.0000 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9999 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9999 |
| U | 238Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 90.815 | | | | |
| | Be | 9 | 95.138 | | | | |
| | B | 11 | | | | | |
| | Na | 23 | 97.927 | | | | |
| | Mg | 24 | 105.005 | | | | |
| | Al | 27 | 109.874 | | | | |
| | P | 31 | 87.900 | | | | |
| | K | 39 | 95.503 | | | | |
| | Ca | 43 | 94.782 | | | | |
| > | Sc | 45 | | 77.3 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | 90.448 | | | | |
| | Cr | 52 | 89.404 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 96.541 | | | | |
| | Fe | 57 | 98.921 | | | | |
| | Co | 59 | 87.977 | | | | |
| | Ni | 60 | 85.551 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 80.945 | | | | |
| | Zn | 66 | 90.247 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 78.5 | | | |
| | As | 75 | 81.663 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 91.866 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 99.111 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 91.533 | | | | |
| | Ag | 107 | 84.770 | | | | |
| | Cd | 111 | 83.024 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 83.9 | | | |
| | Sn | 120 | 88.843 | | | | |
| | Sb | 121 | 89.047 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 84.474 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 89.1 | | | |
| | Tl | 205 | 93.286 | | | | |
| | Pb | 208 | 95.621 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 101.481 | | | | |
| | U | 238 | 105.135 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 10 | P | 31 | LRS is out of limits (+/- 10%) |
| Sc 45 Int Std for QC | Sc | 45 | |
| QC Std 10 | Cr | 52 | LRS is out of limits (+/- 10%) |
| QC Std 10 | Co | 59 | LRS is out of limits (+/- 10%) |
| QC Std 10 | Ni | 60 | LRS is out of limits (+/- 10%) |
| QC Std 10 | Cu | 65 | LRS is out of limits (+/- 10%) |
| Ge 74 Int Std for QC | Ge | 74 | |

| | | |
|---|---|---|
| QC Std 10 | As | 75LRS is out of limits (+/- 10%) |
| QC Std 10 | Ag | 107LRS is out of limits (+/- 10%) |
| QC Std 10 | Cd | 111LRS is out of limits (+/- 10%) |
| QC Std 10 | Sn | 120LRS is out of limits (+/- 10%) |
| QC Std 10 | Sb | 121LRS is out of limits (+/- 10%) |
| QC Std 10 | Ba | 137LRS is out of limits (+/- 10%) |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 11**
**Sample Date/Time: Thursday, February 25, 2010 01:52:13**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 11.200**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **54.196** | **ug/L** | 0.675 | 124156 | 0.310 |
| | Be | 9 | **54.193** | **ug/L** | 1.593 | 26794 | 0.067 |
| | B | 11 | **102.665** | **ug/L** | 4.172 | 51685 | 0.128 |
| | Na | 23 | **4788.488** | **ug/L** | 4.856 | 20434884 | 51.014 |
| | Mg | 24 | **5400.192** | **ug/L** | 4.677 | 15194288 | 37.954 |
| | Al | 27 | **5449.235** | **ug/L** | 5.070 | 19779169 | 49.400 |
| | P | 31 | **4764.081** | **ug/L** | 0.169 | 1140414 | 2.837 |
| | K | 39 | **5151.257** | **ug/L** | 13.117 | 29223170 | 71.813 |
| | Ca | 43 | **4933.715** | **ug/L** | 1.733 | 71145 | 0.177 |
| > | Sc | 45 | | **ug/L** | | 400258 | 400258.051 |
| | Ti | 47 | **50.075** | **ug/L** | 2.048 | 38038 | 0.094 |
| | V | 51 | **52.375** | **ug/L** | 2.015 | 425346 | 1.043 |
| | Cr | 52 | **52.430** | **ug/L** | 1.642 | 337549 | 0.834 |
| | Cr | 53 | | **ug/L** | | 165024 | 0.135 |
| | Mn | 55 | **54.510** | **ug/L** | 0.980 | 556900 | 1.388 |
| | Fe | 57 | **4766.520** | **ug/L** | 1.578 | 1078880 | 2.681 |
| | Co | 59 | **53.611** | **ug/L** | 1.011 | 436890 | 1.091 |
| | Ni | 60 | **53.600** | **ug/L** | 1.754 | 100915 | 0.252 |
| | Cu | 63 | | **ug/L** | | 236140 | 0.589 |
| | Cu | 65 | **52.077** | **ug/L** | 1.536 | 117580 | 0.293 |
| | Zn | 66 | **52.112** | **ug/L** | 1.547 | 76044 | 0.152 |
| | Zn | 67 | | **ug/L** | | 29932 | 0.034 |
| | Zn | 68 | | **ug/L** | | 55232 | 0.108 |
| > | Ge | 74 | | **ug/L** | | 496057 | 496057.360 |
| | As | 75 | **48.906** | **ug/L** | 0.967 | 73856 | 0.150 |
| | Se | 77 | | **ug/L** | | 12992 | 0.012 |
| | Se | 82 | **49.965** | **ug/L** | 2.870 | 7876 | 0.016 |
| | Kr | 83 | | **ug/L** | | 137 | -0.000 |
| | Sr | 88 | **54.271** | **ug/L** | 2.485 | 961158 | 2.878 |
| | Y | 89 | | **ug/L** | | 119 | 0.000 |
| | Mo | 98 | **49.006** | **ug/L** | 3.544 | 233635 | 0.700 |
| | Ag | 107 | **52.610** | **ug/L** | 2.993 | 421432 | 1.262 |
| | Cd | 111 | **51.427** | **ug/L** | 2.143 | 104455 | 0.313 |
| | Cd | 114 | | **ug/L** | | 244311 | 0.732 |
| > | In | 115 | | **ug/L** | | 334023 | 334023.113 |
| | Sn | 120 | **52.691** | **ug/L** | 3.573 | 427313 | 1.279 |
| | Sb | 121 | **54.043** | **ug/L** | 3.070 | 364319 | 1.090 |
| | Sb | 123 | | **ug/L** | | 286486 | 0.857 |
| | Ba | 135 | | **ug/L** | | 115314 | 0.174 |
| | Ba | 137 | **49.566** | **ug/L** | 2.291 | 200991 | 0.303 |
| | Ho | 165 | | **ug/L** | | 59 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 663851 | 663850.793 |
| | Tl | 205 | **52.389** | **ug/L** | 2.109 | 1413544 | 2.127 |
| | Pb | 208 | **55.266** | **ug/L** | 1.770 | 2672392 | 4.025 |
| | Bi | 209 | | **ug/L** | | 902 | 0.001 |
| | Th | 232 | **53.892** | **ug/L** | 1.577 | 3199837 | 4.819 |
| | U | 238 | **55.370** | **ug/L** | 0.825 | 3443184 | 5.186 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 108.391 | | | | |
| | Be | 9 | 108.386 | | | | |
| | B | 11 | 102.665 | | | | |
| | Na | 23 | 95.770 | | | | |
| | Mg | 24 | 108.004 | | | | |
| | Al | 27 | 107.906 | | | | |
| | P | 31 | 95.282 | | | | |
| | K | 39 | 103.025 | | | | |
| | Ca | 43 | 98.674 | | | | |
| > | Sc | 45 | | 85.7 | | | |
| | Ti | 47 | 100.150 | | | | |
| | V | 51 | 104.750 | | | | |
| | Cr | 52 | 104.861 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 109.021 | | | | |
| | Fe | 57 | 95.330 | | | | |
| | Co | 59 | 107.223 | | | | |
| | Ni | 60 | 107.200 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 104.154 | | | | |
| | Zn | 66 | 104.223 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 86.7 | | | |
| | As | 75 | 97.812 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 99.930 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 108.542 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 98.011 | | | | |
| | Ag | 107 | 105.220 | | | | |
| | Cd | 111 | 102.854 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 87.9 | | | |
| | Sn | 120 | 105.383 | | | | |
| | Sb | 121 | 108.087 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 99.132 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 93.7 | | | |
| | Tl | 205 | 104.778 | | | | |
| | Pb | 208 | 110.532 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 107.784 | | | | |
| | U | 238 | 110.740 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 11 | Pb | 208 | CCV is out of limits (+/- 10%) |
| QC Std 11 | U | 238 | CCV is out of limits (+/- 10%) |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 12**
**Sample Date/Time: Thursday, February 25, 2010 01:58:20**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 12.201**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **0.081** | ug/L | 10.197 | 299 | 0.000 |
| | Be | 9 | **0.018** | ug/L | 51.844 | 33 | 0.000 |
| | B | 11 | **2.579** | ug/L | 15.125 | 1884 | 0.003 |
| | Na | 23 | **1.316** | ug/L | 84.987 | 22685 | 0.014 |
| | Mg | 24 | **0.489** | ug/L | 108.302 | 5334 | 0.003 |
| | Al | 27 | **1.173** | ug/L | 112.531 | 11338 | 0.011 |
| | P | 31 | **1.722** | ug/L | 86.879 | 5697 | 0.001 |
| | K | 39 | **3.328** | ug/L | 55.503 | 524112 | 0.046 |
| | Ca | 43 | **0.968** | ug/L | 59.645 | 341 | 0.000 |
| > | Sc | 45 | | ug/L | | 419767 | 419767.140 |
| | Ti | 47 | **0.004** | ug/L | 877.318 | 365 | 0.000 |
| | V | 51 | **-1.017** | ug/L | 82.790 | -111 | -0.020 |
| | Cr | 52 | **-0.487** | ug/L | 21.332 | 828 | -0.008 |
| | Cr | 53 | | ug/L | | 109105 | -0.018 |
| | Mn | 55 | **-0.010** | ug/L | 62.129 | 1378 | -0.000 |
| | Fe | 57 | **-2.374** | ug/L | 42.893 | 5645 | -0.001 |
| | Co | 59 | **0.017** | ug/L | 11.866 | 281 | 0.000 |
| | Ni | 60 | **0.018** | ug/L | 17.750 | 162 | 0.000 |
| | Cu | 63 | | ug/L | | 554 | 0.000 |
| | Cu | 65 | **0.028** | ug/L | 53.165 | 297 | 0.000 |
| | Zn | 66 | **0.008** | ug/L | 100.614 | 644 | 0.000 |
| | Zn | 67 | | ug/L | | 13924 | 0.000 |
| | Zn | 68 | | ug/L | | 1632 | 0.000 |
| > | Ge | 74 | | ug/L | | 518179 | 518178.770 |
| | As | 75 | **0.331** | ug/L | 97.478 | -143 | 0.001 |
| | Se | 77 | | ug/L | | 6369 | -0.002 |
| | Se | 82 | **0.194** | ug/L | 18.296 | 32 | 0.000 |
| | Kr | 83 | | ug/L | | 147 | -0.000 |
| | Sr | 88 | **0.016** | ug/L | 25.521 | 573 | 0.001 |
| | Y | 89 | | ug/L | | 59 | -0.000 |
| | Mo | 98 | **0.086** | ug/L | 12.447 | 565 | 0.001 |
| | Ag | 107 | **0.009** | ug/L | 7.425 | 155 | 0.000 |
| | Cd | 111 | **0.019** | ug/L | 49.545 | 72 | 0.000 |
| | Cd | 114 | | ug/L | | 158 | 0.000 |
| > | In | 115 | | ug/L | | 354160 | 354159.678 |
| | Sn | 120 | **0.048** | ug/L | 27.503 | 801 | 0.001 |
| | Sb | 121 | **0.877** | ug/L | 10.887 | 6799 | 0.018 |
| | Sb | 123 | | ug/L | | 5313 | 0.014 |
| | Ba | 135 | | ug/L | | 88 | 0.000 |
| | Ba | 137 | **0.015** | ug/L | 32.187 | 150 | 0.000 |
| | Ho | 165 | | ug/L | | 30 | 0.000 |
| > | Lu | 175 | | ug/L | | 692811 | 692811.033 |
| | Tl | 205 | **0.297** | ug/L | 15.828 | 10425 | 0.012 |
| | Pb | 208 | **0.072** | ug/L | 19.153 | 4624 | 0.005 |
| | Bi | 209 | | ug/L | | 573 | -0.000 |
| | Th | 232 | **0.062** | ug/L | 6.357 | 4669 | 0.006 |
| | U | 238 | **0.087** | ug/L | 17.296 | 6259 | 0.008 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 89.9 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 90.6 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 93.2 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 97.8 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Thursday, February 25, 2010 03:06:24**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 8.212**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **53.465** | **ug/L** | 1.954 | 118632 | 0.306 |
| | Be | 9 | **53.925** | **ug/L** | 1.997 | 25821 | 0.067 |
| | B | 11 | **99.750** | **ug/L** | 1.592 | 48652 | 0.124 |
| | Na | 23 | **4455.631** | **ug/L** | 3.102 | 18422685 | 47.468 |
| | Mg | 24 | **4776.217** | **ug/L** | 5.396 | 13019219 | 33.568 |
| | Al | 27 | **5033.646** | **ug/L** | 3.899 | 17701688 | 45.633 |
| | P | 31 | **4544.170** | **ug/L** | 0.649 | 1053826 | 2.706 |
| | K | 39 | **4592.157** | **ug/L** | 5.447 | 25279389 | 64.018 |
| | Ca | 43 | **4816.015** | **ug/L** | 1.923 | 67269 | 0.173 |
| > | Sc | 45 | | **ug/L** | | 387700 | 387700.329 |
| | Ti | 47 | **49.528** | **ug/L** | 3.202 | 36438 | 0.093 |
| | V | 51 | **49.899** | **ug/L** | 3.841 | 392794 | 0.993 |
| | Cr | 52 | **51.839** | **ug/L** | 1.935 | 323304 | 0.824 |
| | Cr | 53 | | **ug/L** | | 170480 | 0.162 |
| | Mn | 55 | **54.104** | **ug/L** | 2.127 | 535329 | 1.377 |
| | Fe | 57 | **4692.131** | **ug/L** | 2.583 | 1028649 | 2.639 |
| | Co | 59 | **52.684** | **ug/L** | 1.709 | 415824 | 1.072 |
| | Ni | 60 | **52.046** | **ug/L** | 2.538 | 94908 | 0.245 |
| | Cu | 63 | | **ug/L** | | 227636 | 0.586 |
| | Cu | 65 | **51.237** | **ug/L** | 1.995 | 112052 | 0.288 |
| | Zn | 66 | **50.843** | **ug/L** | 0.318 | 71998 | 0.148 |
| | Zn | 67 | | **ug/L** | | 29748 | 0.035 |
| | Zn | 68 | | **ug/L** | | 51891 | 0.105 |
| > | Ge | 74 | | **ug/L** | | 481221 | 481220.561 |
| | As | 75 | **47.765** | **ug/L** | 1.495 | 69952 | 0.147 |
| | Se | 77 | | **ug/L** | | 13474 | 0.014 |
| | Se | 82 | **49.353** | **ug/L** | 3.993 | 7546 | 0.016 |
| | Kr | 83 | | **ug/L** | | 134 | -0.000 |
| | Sr | 88 | **52.285** | **ug/L** | 2.686 | 918989 | 2.773 |
| | Y | 89 | | **ug/L** | | 155 | 0.000 |
| | Mo | 98 | **47.993** | **ug/L** | 2.726 | 227104 | 0.685 |
| | Ag | 107 | **51.141** | **ug/L** | 2.709 | 406585 | 1.227 |
| | Cd | 111 | **49.932** | **ug/L** | 3.069 | 100630 | 0.304 |
| | Cd | 114 | | **ug/L** | | 235139 | 0.709 |
| > | In | 115 | | **ug/L** | | 331469 | 331469.489 |
| | Sn | 120 | **52.088** | **ug/L** | 3.245 | 419230 | 1.264 |
| | Sb | 121 | **51.190** | **ug/L** | 3.297 | 342473 | 1.032 |
| | Sb | 123 | | **ug/L** | | 271371 | 0.818 |
| | Ba | 135 | | **ug/L** | | 110871 | 0.165 |
| | Ba | 137 | **48.101** | **ug/L** | 0.597 | 197420 | 0.294 |
| | Ho | 165 | | **ug/L** | | 62 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 671772 | 671772.270 |
| | Tl | 205 | **50.110** | **ug/L** | 2.090 | 1368390 | 2.034 |
| | Pb | 208 | **53.590** | **ug/L** | 2.298 | 2621957 | 3.902 |
| | Bi | 209 | | **ug/L** | | 848 | 0.000 |
| | Th | 232 | **50.971** | **ug/L** | 1.947 | 3062468 | 4.558 |
| | U | 238 | **51.964** | **ug/L** | 0.543 | 3270061 | 4.867 |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 0.9999 |
| Mg | 24Linear Thru Zero | 1.0000 |
| Al | 27Linear Thru Zero | 0.9997 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 1.0000 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 1.0000 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 1.0000 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9999 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9999 |
| U | 238Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 106.929 | | | | |
| | Be | 9 | 107.850 | | | | |
| | B | 11 | 99.750 | | | | |
| | Na | 23 | 89.113 | | | | |
| | Mg | 24 | 95.524 | | | | |
| | Al | 27 | 99.676 | | | | |
| | P | 31 | 90.883 | | | | |
| | K | 39 | 91.843 | | | | |
| | Ca | 43 | 96.320 | | | | |
| > | Sc | 45 | | 83.0 | | | |
| | Ti | 47 | 99.055 | | | | |
| | V | 51 | 99.799 | | | | |
| | Cr | 52 | 103.679 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 108.207 | | | | |
| | Fe | 57 | 93.843 | | | | |
| | Co | 59 | 105.369 | | | | |
| | Ni | 60 | 104.092 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 102.474 | | | | |
| | Zn | 66 | 101.686 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 84.1 | | | |
| | As | 75 | 95.529 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 98.706 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 104.570 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 95.986 | | | | |
| | Ag | 107 | 102.281 | | | | |
| | Cd | 111 | 99.864 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 87.3 | | | |
| | Sn | 120 | 104.176 | | | | |
| | Sb | 121 | 102.380 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 96.202 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 94.8 | | | |
| | Tl | 205 | 100.221 | | | | |
| | Pb | 208 | 107.179 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 101.942 | | | | |
| | U | 238 | 103.927 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 8 | Na | 23 | CCV is out of limits (+/- 10%) |

## QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Thursday, February 25, 2010 03:12:32**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 9.213**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | -0.002 | ug/L | 181.797 | 93 | -0.000 |
| | Be | 9 | 0.013 | ug/L | 92.819 | 29 | 0.000 |
| | B | 11 | 2.538 | ug/L | 12.464 | 1751 | 0.003 |
| | Na | 23 | 0.699 | ug/L | 252.559 | 18680 | 0.007 |
| | Mg | 24 | -0.119 | ug/L | 174.163 | 3334 | -0.001 |
| | Al | 27 | 0.522 | ug/L | 164.908 | 8336 | 0.005 |
| | P | 31 | 1.329 | ug/L | 32.453 | 5261 | 0.001 |
| | K | 39 | 7.771 | ug/L | 109.355 | 516903 | 0.108 |
| | Ca | 43 | 2.269 | ug/L | 113.069 | 339 | 0.000 |
| > | Sc | 45 | | ug/L | | 394424 | 394423.568 |
| | Ti | 47 | 0.008 | ug/L | 876.599 | 346 | 0.000 |
| | V | 51 | -1.188 | ug/L | 23.281 | -1433 | -0.024 |
| | Cr | 52 | -0.577 | ug/L | 10.875 | 218 | -0.009 |
| | Cr | 53 | | ug/L | | 112822 | 0.008 |
| | Mn | 55 | -0.016 | ug/L | 16.502 | 1237 | -0.000 |
| | Fe | 57 | -2.116 | ug/L | 7.287 | 5362 | -0.001 |
| | Co | 59 | 0.004 | ug/L | 23.457 | 153 | 0.000 |
| | Ni | 60 | 0.003 | ug/L | 344.680 | 124 | 0.000 |
| | Cu | 63 | | ug/L | | 385 | -0.000 |
| | Cu | 65 | -0.003 | ug/L | 129.972 | 211 | -0.000 |
| | Zn | 66 | -0.014 | ug/L | 215.355 | 588 | -0.000 |
| | Zn | 67 | | ug/L | | 13821 | 0.001 |
| | Zn | 68 | | ug/L | | 1600 | 0.000 |
| > | Ge | 74 | | ug/L | | 497771 | 497770.977 |
| | As | 75 | 0.140 | ug/L | 10.133 | -434 | 0.000 |
| | Se | 77 | | ug/L | | 6583 | -0.001 |
| | Se | 82 | -0.002 | ug/L | 3289.256 | -0 | -0.000 |
| | Kr | 83 | | ug/L | | 151 | 0.000 |
| | Sr | 88 | 0.003 | ug/L | 27.952 | 314 | 0.000 |
| | Y | 89 | | ug/L | | 62 | -0.000 |
| | Mo | 98 | 0.020 | ug/L | 18.977 | 229 | 0.000 |
| | Ag | 107 | 0.003 | ug/L | 65.382 | 102 | 0.000 |
| | Cd | 111 | 0.007 | ug/L | 30.382 | 44 | 0.000 |
| | Cd | 114 | | ug/L | | 74 | 0.000 |
| > | In | 115 | | ug/L | | 347292 | 347291.835 |
| | Sn | 120 | 0.009 | ug/L | 15.923 | 465 | 0.000 |
| | Sb | 121 | 0.142 | ug/L | 15.937 | 1529 | 0.003 |
| | Sb | 123 | | ug/L | | 1169 | 0.002 |
| | Ba | 135 | | ug/L | | 65 | 0.000 |
| | Ba | 137 | -0.000 | ug/L | 430.105 | 87 | -0.000 |
| | Ho | 165 | | ug/L | | 28 | 0.000 |
| > | Lu | 175 | | ug/L | | 688217 | 688216.705 |
| | Tl | 205 | 0.228 | ug/L | 22.575 | 8414 | 0.009 |
| | Pb | 208 | 0.005 | ug/L | 6.134 | 1229 | 0.000 |
| | Bi | 209 | | ug/L | | 507 | -0.000 |
| | Th | 232 | 0.025 | ug/L | 11.434 | 2360 | 0.002 |
| | U | 238 | 0.006 | ug/L | 7.177 | 1001 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 84.5 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 87.0 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 91.4 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 97.1 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Thursday, February 25, 2010 04:01:50**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 8.221**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **53.297** | **ug/L** | 0.876 | 110710 | 0.305 |
| | Be | 9 | **54.146** | **ug/L** | 3.019 | 24265 | 0.067 |
| | B | 11 | **100.480** | **ug/L** | 3.587 | 45859 | 0.125 |
| | Na | 23 | **4171.471** | **ug/L** | 2.958 | 16138293 | 44.441 |
| | Mg | 24 | **4586.782** | **ug/L** | 5.716 | 11694894 | 32.237 |
| | Al | 27 | **5055.741** | **ug/L** | 4.486 | 16631740 | 45.833 |
| | P | 31 | **4577.718** | **ug/L** | 2.256 | 993543 | 2.726 |
| | K | 39 | **4802.389** | **ug/L** | 2.715 | 24743549 | 66.949 |
| | Ca | 43 | **4846.935** | **ug/L** | 0.926 | 63379 | 0.174 |
| > | Sc | 45 | | **ug/L** | | 362947 | 362947.495 |
| | Ti | 47 | **49.047** | **ug/L** | 3.723 | 33775 | 0.092 |
| | V | 51 | **50.336** | **ug/L** | 6.076 | 370668 | 1.002 |
| | Cr | 52 | **51.846** | **ug/L** | 1.989 | 302704 | 0.824 |
| | Cr | 53 | | **ug/L** | | 167069 | 0.183 |
| | Mn | 55 | **53.537** | **ug/L** | 2.899 | 495800 | 1.363 |
| | Fe | 57 | **4713.288** | **ug/L** | 3.470 | 967035 | 2.651 |
| | Co | 59 | **53.158** | **ug/L** | 2.348 | 392706 | 1.082 |
| | Ni | 60 | **52.434** | **ug/L** | 1.328 | 89505 | 0.246 |
| | Cu | 63 | | **ug/L** | | 213057 | 0.586 |
| | Cu | 65 | **51.062** | **ug/L** | 1.162 | 104532 | 0.287 |
| | Zn | 66 | **50.557** | **ug/L** | 2.303 | 67110 | 0.148 |
| | Zn | 67 | | **ug/L** | | 27645 | 0.035 |
| | Zn | 68 | | **ug/L** | | 49177 | 0.106 |
| > | Ge | 74 | | **ug/L** | | 451139 | 451139.409 |
| | As | 75 | **48.399** | **ug/L** | 2.181 | 66454 | 0.149 |
| | Se | 77 | | **ug/L** | | 13618 | 0.016 |
| | Se | 82 | **50.015** | **ug/L** | 0.660 | 7172 | 0.016 |
| | Kr | 83 | | **ug/L** | | 136 | -0.000 |
| | Sr | 88 | **53.795** | **ug/L** | 2.400 | 874162 | 2.853 |
| | Y | 89 | | **ug/L** | | 146 | 0.000 |
| | Mo | 98 | **48.885** | **ug/L** | 0.506 | 213906 | 0.698 |
| | Ag | 107 | **51.628** | **ug/L** | 1.230 | 379525 | 1.239 |
| | Cd | 111 | **50.511** | **ug/L** | 0.583 | 94137 | 0.307 |
| | Cd | 114 | | **ug/L** | | 218241 | 0.712 |
| > | In | 115 | | **ug/L** | | 306374 | 306373.728 |
| | Sn | 120 | **52.632** | **ug/L** | 1.336 | 391718 | 1.278 |
| | Sb | 121 | **52.095** | **ug/L** | 0.572 | 322301 | 1.050 |
| | Sb | 123 | | **ug/L** | | 255324 | 0.832 |
| | Ba | 135 | | **ug/L** | | 104261 | 0.162 |
| | Ba | 137 | **47.032** | **ug/L** | 1.624 | 184518 | 0.287 |
| | Ho | 165 | | **ug/L** | | 64 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 642286 | 642285.524 |
| | Tl | 205 | **47.409** | **ug/L** | 2.192 | 1238198 | 1.924 |
| | Pb | 208 | **53.506** | **ug/L** | 1.974 | 2502884 | 3.896 |
| | Bi | 209 | | **ug/L** | | 767 | 0.000 |
| | Th | 232 | **50.854** | **ug/L** | 1.982 | 2920992 | 4.548 |
| | U | 238 | **52.228** | **ug/L** | 2.841 | 3141856 | 4.892 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 106.593 | | | | |
| | Be | 9 | 108.292 | | | | |
| | B | 11 | 100.480 | | | | |
| | Na | 23 | 83.429 | | | | |
| | Mg | 24 | 91.736 | | | | |
| | Al | 27 | 100.114 | | | | |
| | P | 31 | 91.554 | | | | |
| | K | 39 | 96.048 | | | | |
| | Ca | 43 | 96.939 | | | | |
| > | Sc | 45 | | 77.7 | | | |
| | Ti | 47 | 98.095 | | | | |
| | V | 51 | 100.671 | | | | |
| | Cr | 52 | 103.692 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 107.074 | | | | |
| | Fe | 57 | 94.266 | | | | |
| | Co | 59 | 106.317 | | | | |
| | Ni | 60 | 104.868 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 102.124 | | | | |
| | Zn | 66 | 101.114 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 78.9 | | | |
| | As | 75 | 96.798 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 100.031 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 107.591 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 97.769 | | | | |
| | Ag | 107 | 103.257 | | | | |
| | Cd | 111 | 101.022 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 80.7 | | | |
| | Sn | 120 | 105.263 | | | | |
| | Sb | 121 | 104.191 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 94.064 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 90.7 | | | |
| | Tl | 205 | 94.818 | | | | |
| | Pb | 208 | 107.012 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 101.709 | | | | |
| | U | 238 | 104.456 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 8 | Na | 23 | CCV is out of limits (+/- 10%) |
| Sc 45 Int Std for QC | Sc | 45 | |
| Ge 74 Int Std for QC | Ge | 74 | |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Thursday, February 25, 2010 04:07:58**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 9.222**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | -0.007 | ug/L | 70.600 | 75 | -0.000 |
| | Be | 9 | 0.001 | ug/L | 427.705 | 21 | 0.000 |
| | B | 11 | 2.858 | ug/L | 13.649 | 1735 | 0.004 |
| | Na | 23 | 2.439 | ug/L | 61.149 | 23687 | 0.026 |
| | Mg | 24 | -0.394 | ug/L | 209.953 | 2334 | -0.003 |
| | Al | 27 | 0.134 | ug/L | 261.103 | 6335 | 0.001 |
| | P | 31 | 1.182 | ug/L | 136.933 | 4755 | 0.001 |
| | K | 39 | 5.490 | ug/L | 106.207 | 458943 | 0.077 |
| | Ca | 43 | 3.046 | ug/L | 45.207 | 318 | 0.000 |
| > | Sc | 45 | | ug/L | | 358890 | 358890.056 |
| | Ti | 47 | 0.028 | ug/L | 71.080 | 328 | 0.000 |
| | V | 51 | -1.351 | ug/L | 6.580 | -2470 | -0.027 |
| | Cr | 52 | -0.516 | ug/L | 15.492 | 547 | -0.008 |
| | Cr | 53 | | ug/L | | 104474 | 0.013 |
| | Mn | 55 | -0.015 | ug/L | 1.320 | 1138 | -0.000 |
| | Fe | 57 | -3.066 | ug/L | 9.844 | 4687 | -0.002 |
| | Co | 59 | 0.004 | ug/L | 29.358 | 141 | 0.000 |
| | Ni | 60 | 0.018 | ug/L | 28.015 | 139 | 0.000 |
| | Cu | 63 | | ug/L | | 370 | 0.000 |
| | Cu | 65 | -0.003 | ug/L | 222.559 | 192 | -0.000 |
| | Zn | 66 | -0.088 | ug/L | 17.806 | 449 | -0.000 |
| | Zn | 67 | | ug/L | | 12172 | -0.001 |
| | Zn | 68 | | ug/L | | 1411 | 0.000 |
| > | Ge | 74 | | ug/L | | 466737 | 466736.805 |
| | As | 75 | 0.324 | ug/L | 144.041 | -140 | 0.001 |
| | Se | 77 | | ug/L | | 6273 | -0.001 |
| | Se | 82 | 0.082 | ug/L | 142.286 | 12 | 0.000 |
| | Kr | 83 | | ug/L | | 123 | -0.000 |
| | Sr | 88 | 0.003 | ug/L | 29.478 | 298 | 0.000 |
| | Y | 89 | | ug/L | | 55 | -0.000 |
| | Mo | 98 | 0.024 | ug/L | 22.589 | 233 | 0.000 |
| | Ag | 107 | 0.003 | ug/L | 88.056 | 98 | 0.000 |
| | Cd | 111 | 0.002 | ug/L | 268.427 | 32 | 0.000 |
| | Cd | 114 | | ug/L | | 77 | 0.000 |
| > | In | 115 | | ug/L | | 324681 | 324681.252 |
| | Sn | 120 | 0.012 | ug/L | 31.440 | 456 | 0.000 |
| | Sb | 121 | 0.144 | ug/L | 16.700 | 1443 | 0.003 |
| | Sb | 123 | | ug/L | | 1182 | 0.002 |
| | Ba | 135 | | ug/L | | 58 | 0.000 |
| | Ba | 137 | -0.000 | ug/L | 774.420 | 84 | -0.000 |
| | Ho | 165 | | ug/L | | 23 | 0.000 |
| > | Lu | 175 | | ug/L | | 664658 | 664658.160 |
| | Tl | 205 | 1.290 | ug/L | 8.742 | 36744 | 0.052 |
| | Pb | 208 | 0.004 | ug/L | 43.036 | 1148 | 0.000 |
| | Bi | 209 | | ug/L | | 514 | -0.000 |
| | Th | 232 | 0.027 | ug/L | 8.660 | 2372 | 0.002 |
| | U | 238 | 0.006 | ug/L | 26.064 | 963 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 76.9 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 81.6 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 85.5 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 93.8 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| Sc 45 Int Std for QC | Sc | 45 | |
| QC Std 9 | Tl | 205 | CCB is out of limits (+/- PQL) |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: 1202032562**
**Sample Date/Time: Thursday, February 25, 2010 04:14:08**
**Sample Type:**
**Sample Description: LANL 6020 MB**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032562.223**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 0.016 | ug/L | 22.151 | 128 | 0.000 |
| | Be | 9 | -0.009 | ug/L | 29.117 | 17 | -0.000 |
| | B | 11 | 1.401 | ug/L | 17.463 | 1134 | 0.002 |
| | Na | 23 | 4.350 | ug/L | 35.523 | 32371 | 0.046 |
| | Mg | 24 | -0.560 | ug/L | 68.232 | 2000 | -0.004 |
| | Al | 27 | 7.783 | ug/L | 4.956 | 32704 | 0.071 |
| | P | 31 | 6.164 | ug/L | 43.133 | 6087 | 0.004 |
| | K | 39 | 21.005 | ug/L | 11.696 | 561489 | 0.293 |
| | Ca | 43 | 30.231 | ug/L | 3.138 | 699 | 0.001 |
| > | Sc | 45 | | ug/L | | 375746 | 375745.796 |
| | Ti | 47 | 0.449 | ug/L | 5.663 | 641 | 0.001 |
| | V | 51 | -7.066 | ug/L | 16.943 | -45278 | -0.141 |
| | Cr | 52 | -0.014 | ug/L | 288.062 | 3574 | -0.000 |
| | Cr | 53 | | ug/L | | 299123 | 0.519 |
| | Mn | 55 | 0.270 | ug/L | 5.227 | 3919 | 0.007 |
| | Fe | 57 | 19.815 | ug/L | 3.550 | 9741 | 0.011 |
| | Co | 59 | -0.002 | ug/L | 64.075 | 105 | -0.000 |
| | Ni | 60 | 0.059 | ug/L | 20.296 | 218 | 0.000 |
| | Cu | 63 | | ug/L | | 660 | 0.001 |
| | Cu | 65 | 0.067 | ug/L | 16.819 | 348 | 0.000 |
| | Zn | 66 | 1.501 | ug/L | 2.297 | 2515 | 0.004 |
| | Zn | 67 | | ug/L | | 55765 | 0.097 |
| | Zn | 68 | | ug/L | | 4784 | 0.008 |
| > | Ge | 74 | | ug/L | | 449040 | 449040.038 |
| | As | 75 | -1.259 | ug/L | 75.403 | -2320 | -0.004 |
| | Se | 77 | | ug/L | | 21464 | 0.033 |
| | Se | 82 | 0.095 | ug/L | 50.908 | 14 | 0.000 |
| | Kr | 83 | | ug/L | | 116 | -0.000 |
| | Sr | 88 | 0.103 | ug/L | 3.988 | 1818 | 0.005 |
| | Y | 89 | | ug/L | | 82 | 0.000 |
| | Mo | 98 | 0.030 | ug/L | 15.255 | 234 | 0.000 |
| | Ag | 107 | -0.001 | ug/L | 75.904 | 61 | -0.000 |
| | Cd | 111 | -0.003 | ug/L | 179.448 | 20 | -0.000 |
| | Cd | 114 | | ug/L | | 35 | -0.000 |
| > | In | 115 | | ug/L | | 291215 | 291215.233 |
| | Sn | 120 | 0.147 | ug/L | 3.602 | 1361 | 0.004 |
| | Sb | 121 | 0.093 | ug/L | 28.490 | 990 | 0.002 |
| | Sb | 123 | | ug/L | | 800 | 0.002 |
| | Ba | 135 | | ug/L | | 131 | 0.000 |
| | Ba | 137 | 0.040 | ug/L | 11.205 | 230 | 0.000 |
| | Ho | 165 | | ug/L | | 28 | 0.000 |
| > | Lu | 175 | | ug/L | | 620339 | 620338.726 |
| | Tl | 205 | 0.831 | ug/L | 3.621 | 22760 | 0.034 |
| | Pb | 208 | 0.012 | ug/L | 8.330 | 1401 | 0.001 |
| | Bi | 209 | | ug/L | | 329 | -0.000 |
| | Th | 232 | 0.032 | ug/L | 27.318 | 2528 | 0.003 |
| | U | 238 | -0.006 | ug/L | 5.233 | 219 | -0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 80.5 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 78.5 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 76.7 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 87.6 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032563**
**Sample Date/Time: Thursday, February 25, 2010 04:20:19**
**Sample Type:**
**Sample Description: LANL 6020 LCS**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032563.224**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **49.569** | **ug/L** | 1.851 | 104603 | 0.283 |
| | Be | 9 | **53.487** | **ug/L** | 0.551 | 24361 | 0.066 |
| | B | 11 | **98.988** | **ug/L** | 1.738 | 45918 | 0.123 |
| | Na | 23 | **1723.869** | **ug/L** | 3.011 | 6784493 | 18.365 |
| | Mg | 24 | **1958.303** | **ug/L** | 5.903 | 5078942 | 13.763 |
| | Al | 27 | **2003.800** | **ug/L** | 6.081 | 6705005 | 18.165 |
| | P | 31 | **1877.731** | **ug/L** | 2.492 | 416782 | 1.118 |
| | K | 39 | **1949.349** | **ug/L** | 7.980 | 10459592 | 27.175 |
| | Ca | 43 | **1885.290** | **ug/L** | 1.577 | 25220 | 0.068 |
| > | Sc | 45 | | **ug/L** | | 368745 | 368744.994 |
| | Ti | 47 | **42.497** | **ug/L** | 2.978 | 29779 | 0.080 |
| | V | 51 | **38.420** | **ug/L** | 4.356 | 289276 | 0.765 |
| | Cr | 52 | **47.878** | **ug/L** | 3.131 | 284186 | 0.761 |
| | Cr | 53 | | **ug/L** | | 324168 | 0.602 |
| | Mn | 55 | **50.570** | **ug/L** | 2.495 | 475927 | 1.287 |
| | Fe | 57 | **1870.062** | **ug/L** | 1.803 | 393191 | 1.052 |
| | Co | 59 | **49.544** | **ug/L** | 3.461 | 371830 | 1.008 |
| | Ni | 60 | **48.465** | **ug/L** | 2.757 | 84051 | 0.228 |
| | Cu | 63 | | **ug/L** | | 202473 | 0.548 |
| | Cu | 65 | **47.455** | **ug/L** | 2.259 | 98703 | 0.267 |
| | Zn | 66 | **49.371** | **ug/L** | 2.096 | 64352 | 0.144 |
| | Zn | 67 | | **ug/L** | | 66996 | 0.125 |
| | Zn | 68 | | **ug/L** | | 49465 | 0.109 |
| > | Ge | 74 | | **ug/L** | | 442864 | 442864.089 |
| | As | 75 | **45.802** | **ug/L** | 0.542 | 61708 | 0.141 |
| | Se | 77 | | **ug/L** | | 25591 | 0.043 |
| | Se | 82 | **49.700** | **ug/L** | 0.975 | 6997 | 0.016 |
| | Kr | 83 | | **ug/L** | | 127 | -0.000 |
| | Sr | 88 | **52.381** | **ug/L** | 1.355 | 801820 | 2.778 |
| | Y | 89 | | **ug/L** | | 124 | 0.000 |
| | Mo | 98 | **48.629** | **ug/L** | 2.407 | 200393 | 0.694 |
| | Ag | 107 | **51.470** | **ug/L** | 2.157 | 356353 | 1.235 |
| | Cd | 111 | **48.569** | **ug/L** | 2.043 | 85251 | 0.295 |
| | Cd | 114 | | **ug/L** | | 197890 | 0.685 |
| > | In | 115 | | **ug/L** | | 288597 | 288597.458 |
| | Sn | 120 | **50.304** | **ug/L** | 2.798 | 352607 | 1.221 |
| | Sb | 121 | **52.327** | **ug/L** | 2.756 | 304870 | 1.055 |
| | Sb | 123 | | **ug/L** | | 240133 | 0.831 |
| | Ba | 135 | | **ug/L** | | 92888 | 0.152 |
| | Ba | 137 | **44.194** | **ug/L** | 2.352 | 165053 | 0.270 |
| | Ho | 165 | | **ug/L** | | 52 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 611402 | 611401.608 |
| | Tl | 205 | **43.929** | **ug/L** | 5.775 | 1091482 | 1.783 |
| | Pb | 208 | **52.668** | **ug/L** | 1.824 | 2345327 | 3.835 |
| | Bi | 209 | | **ug/L** | | 1852324 | 3.029 |
| | Th | 232 | **47.940** | **ug/L** | 2.144 | 2621285 | 4.287 |
| | U | 238 | **49.516** | **ug/L** | 2.470 | 2835286 | 4.638 |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 0.9999 |
| Mg | 24Linear Thru Zero | 1.0000 |
| Al | 27Linear Thru Zero | 0.9997 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 1.0000 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 1.0000 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 1.0000 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9999 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9999 |
| U | 238Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 79.0 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 77.4 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 76.0 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 86.3 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 245975001**
**Sample Date/Time: Thursday, February 25, 2010 04:45:03**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\245975001.228**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **0.118** | **ug/L** | 5.650 | 337 | 0.001 |
| | Be | 9 | **-0.001** | **ug/L** | 433.766 | 21 | -0.000 |
| | B | 11 | **18.289** | **ug/L** | 1.798 | 8758 | 0.023 |
| | Na | 23 | **108.784** | **ug/L** | 13.611 | 436293 | 1.159 |
| | Mg | 24 | **3.498** | **ug/L** | 72.197 | 12340 | 0.025 |
| | Al | 27 | **16.391** | **ug/L** | 13.211 | 60128 | 0.149 |
| | P | 31 | **5.853** | **ug/L** | 8.492 | 5838 | 0.003 |
| | K | 39 | **195.080** | **ug/L** | 11.539 | 1428286 | 2.720 |
| | Ca | 43 | **53.357** | **ug/L** | 6.945 | 980 | 0.002 |
| > | Sc | 45 | | **ug/L** | | 364155 | 364155.041 |
| | Ti | 47 | **0.731** | **ug/L** | 5.305 | 814 | 0.001 |
| | V | 51 | **-7.265** | **ug/L** | 25.518 | -45383 | -0.145 |
| | Cr | 52 | **0.583** | **ug/L** | 38.562 | 6917 | 0.009 |
| | Cr | 53 | | **ug/L** | | 314866 | 0.587 |
| | Mn | 55 | **0.672** | **ug/L** | 2.550 | 7520 | 0.017 |
| | Fe | 57 | **10.244** | **ug/L** | 8.624 | 7481 | 0.006 |
| | Co | 59 | **0.005** | **ug/L** | 5.991 | 151 | 0.000 |
| | Ni | 60 | **0.166** | **ug/L** | 4.827 | 393 | 0.001 |
| | Cu | 63 | | **ug/L** | | 2581 | 0.006 |
| | Cu | 65 | **0.494** | **ug/L** | 4.492 | 1213 | 0.003 |
| | Zn | 66 | **1.418** | **ug/L** | 2.190 | 2317 | 0.004 |
| | Zn | 67 | | **ug/L** | | 56939 | 0.105 |
| | Zn | 68 | | **ug/L** | | 4700 | 0.008 |
| > | Ge | 74 | | **ug/L** | | 432368 | 432367.936 |
| | As | 75 | **-1.019** | **ug/L** | 59.215 | -1916 | -0.003 |
| | Se | 77 | | **ug/L** | | 23816 | 0.041 |
| | Se | 82 | **0.145** | **ug/L** | 132.308 | 20 | 0.000 |
| | Kr | 83 | | **ug/L** | | 113 | -0.000 |
| | Sr | 88 | **0.206** | **ug/L** | 0.736 | 3230 | 0.011 |
| | Y | 89 | | **ug/L** | | 319 | 0.001 |
| | Mo | 98 | **0.016** | **ug/L** | 12.992 | 165 | 0.000 |
| | Ag | 107 | **-0.000** | **ug/L** | 574.455 | 64 | -0.000 |
| | Cd | 111 | **0.000** | **ug/L** | 7657.790 | 24 | 0.000 |
| | Cd | 114 | | **ug/L** | | 54 | 0.000 |
| > | In | 115 | | **ug/L** | | 276856 | 276856.133 |
| | Sn | 120 | **0.282** | **ug/L** | 3.303 | 2200 | 0.007 |
| | Sb | 121 | **-0.026** | **ug/L** | 11.830 | 278 | -0.001 |
| | Sb | 123 | | **ug/L** | | 225 | -0.000 |
| | Ba | 135 | | **ug/L** | | 595 | 0.001 |
| | Ba | 137 | **0.254** | **ug/L** | 4.685 | 1007 | 0.002 |
| | Ho | 165 | | **ug/L** | | 47 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 599434 | 599433.759 |
| | Tl | 205 | **0.305** | **ug/L** | 1.960 | 9213 | 0.012 |
| | Pb | 208 | **0.182** | **ug/L** | 1.244 | 8810 | 0.013 |
| | Bi | 209 | | **ug/L** | | 292 | -0.000 |
| | Th | 232 | **0.003** | **ug/L** | 4.942 | 884 | 0.000 |
| | U | 238 | **0.029** | **ug/L** | 2.288 | 2191 | 0.003 |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 0.9999 |
| Mg | 24Linear Thru Zero | 1.0000 |
| Al | 27Linear Thru Zero | 0.9997 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 1.0000 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 1.0000 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 1.0000 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9999 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9999 |
| U | 238Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 78.0 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 75.6 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 72.9 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 84.6 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Thursday, February 25, 2010 04:57:22**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 8.230**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **53.506** | **ug/L** | 0.339 | 109582 | 0.306 |
| | Be | 9 | **54.515** | **ug/L** | 0.898 | 24094 | 0.067 |
| | B | 11 | **99.038** | **ug/L** | 1.385 | 44587 | 0.123 |
| | Na | 23 | **4616.235** | **ug/L** | 9.139 | 17595928 | 49.179 |
| | Mg | 24 | **5036.190** | **ug/L** | 4.456 | 12664742 | 35.395 |
| | Al | 27 | **5078.636** | **ug/L** | 3.934 | 16474220 | 46.040 |
| | P | 31 | **4592.433** | **ug/L** | 3.138 | 982657 | 2.734 |
| | K | 39 | **4762.234** | **ug/L** | 3.561 | 24180152 | 66.389 |
| | Ca | 43 | **4847.075** | **ug/L** | 1.802 | 62484 | 0.174 |
| > | Sc | 45 | | **ug/L** | | 357833 | 357833.029 |
| | Ti | 47 | **49.687** | **ug/L** | 0.710 | 33742 | 0.093 |
| | V | 51 | **50.563** | **ug/L** | 4.728 | 367223 | 1.007 |
| | Cr | 52 | **51.936** | **ug/L** | 2.975 | 298873 | 0.826 |
| | Cr | 53 | | **ug/L** | | 170179 | 0.198 |
| | Mn | 55 | **54.215** | **ug/L** | 1.908 | 495131 | 1.380 |
| | Fe | 57 | **4774.446** | **ug/L** | 3.694 | 965925 | 2.685 |
| | Co | 59 | **53.053** | **ug/L** | 2.866 | 386422 | 1.080 |
| | Ni | 60 | **53.199** | **ug/L** | 1.625 | 89530 | 0.250 |
| | Cu | 63 | | **ug/L** | | 210242 | 0.587 |
| | Cu | 65 | **51.309** | **ug/L** | 2.290 | 103546 | 0.289 |
| | Zn | 66 | **49.773** | **ug/L** | 1.522 | 66136 | 0.145 |
| | Zn | 67 | | **ug/L** | | 28288 | 0.036 |
| | Zn | 68 | | **ug/L** | | 48867 | 0.105 |
| > | Ge | 74 | | **ug/L** | | 451461 | 451460.838 |
| | As | 75 | **48.008** | **ug/L** | 0.832 | 65967 | 0.147 |
| | Se | 77 | | **ug/L** | | 13698 | 0.016 |
| | Se | 82 | **49.592** | **ug/L** | 2.864 | 7117 | 0.016 |
| | Kr | 83 | | **ug/L** | | 128 | -0.000 |
| | Sr | 88 | **52.768** | **ug/L** | 1.425 | 855952 | 2.798 |
| | Y | 89 | | **ug/L** | | 149 | 0.000 |
| | Mo | 98 | **48.988** | **ug/L** | 3.210 | 213900 | 0.699 |
| | Ag | 107 | **51.362** | **ug/L** | 2.086 | 376828 | 1.232 |
| | Cd | 111 | **50.212** | **ug/L** | 2.678 | 93390 | 0.305 |
| | Cd | 114 | | **ug/L** | | 216323 | 0.707 |
| > | In | 115 | | **ug/L** | | 305832 | 305831.645 |
| | Sn | 120 | **51.900** | **ug/L** | 2.512 | 385500 | 1.260 |
| | Sb | 121 | **52.095** | **ug/L** | 1.504 | 321698 | 1.050 |
| | Sb | 123 | | **ug/L** | | 251575 | 0.821 |
| | Ba | 135 | | **ug/L** | | 102932 | 0.163 |
| | Ba | 137 | **47.701** | **ug/L** | 2.112 | 184012 | 0.291 |
| | Ho | 165 | | **ug/L** | | 65 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 631515 | 631515.344 |
| | Tl | 205 | **46.443** | **ug/L** | 1.654 | 1192587 | 1.885 |
| | Pb | 208 | **54.462** | **ug/L** | 2.067 | 2505112 | 3.966 |
| | Bi | 209 | | **ug/L** | | 753 | 0.000 |
| | Th | 232 | **51.448** | **ug/L** | 0.273 | 2906226 | 4.601 |
| | U | 238 | **52.522** | **ug/L** | 1.676 | 3106822 | 4.919 |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 0.9999 |
| Mg | 24Linear Thru Zero | 1.0000 |
| Al | 27Linear Thru Zero | 0.9997 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 1.0000 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 1.0000 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 1.0000 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9999 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9999 |
| U | 238Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 107.011 | | | | |
| | Be | 9 | 109.029 | | | | |
| | B | 11 | 99.038 | | | | |
| | Na | 23 | 92.325 | | | | |
| | Mg | 24 | 100.724 | | | | |
| | Al | 27 | 100.567 | | | | |
| | P | 31 | 91.849 | | | | |
| | K | 39 | 95.245 | | | | |
| | Ca | 43 | 96.942 | | | | |
| > | Sc | 45 | | 76.7 | | | |
| | Ti | 47 | 99.375 | | | | |
| | V | 51 | 101.126 | | | | |
| | Cr | 52 | 103.872 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 108.431 | | | | |
| | Fe | 57 | 95.489 | | | | |
| | Co | 59 | 106.105 | | | | |
| | Ni | 60 | 106.397 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 102.617 | | | | |
| | Zn | 66 | 99.546 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 78.9 | | | |
| | As | 75 | 96.016 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 99.183 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 105.535 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 97.976 | | | | |
| | Ag | 107 | 102.723 | | | | |
| | Cd | 111 | 100.424 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 80.5 | | | |
| | Sn | 120 | 103.799 | | | | |
| | Sb | 121 | 104.191 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 95.401 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 89.1 | | | |
| | Tl | 205 | 92.886 | | | | |
| | Pb | 208 | 108.923 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 102.896 | | | | |
| | U | 238 | 105.044 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| Sc 45 Int Std for QC | Sc | 45 | |
| Ge 74 Int Std for QC | Ge | 74 | |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Thursday, February 25, 2010 05:03:31**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 9.231**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **-0.012** | **ug/L** | 7.011 | 65 | -0.000 |
| | Be | 9 | **0.018** | **ug/L** | 81.045 | 29 | 0.000 |
| | B | 11 | **2.520** | **ug/L** | 20.602 | 1581 | 0.003 |
| | Na | 23 | **1.317** | **ug/L** | 109.316 | 19347 | 0.014 |
| | Mg | 24 | **-0.261** | **ug/L** | 317.906 | 2667 | -0.002 |
| | Al | 27 | **-0.580** | **ug/L** | 91.800 | 4001 | -0.005 |
| | P | 31 | **0.653** | **ug/L** | 186.201 | 4630 | 0.000 |
| | K | 39 | **4.170** | **ug/L** | 428.340 | 451196 | 0.058 |
| | Ca | 43 | **1.918** | **ug/L** | 39.840 | 303 | 0.000 |
| > | Sc | 45 | | **ug/L** | | 357906 | 357906.486 |
| | Ti | 47 | **-0.014** | **ug/L** | 177.898 | 299 | -0.000 |
| | V | 51 | **-1.313** | **ug/L** | 9.952 | -2185 | -0.026 |
| | Cr | 52 | **-0.637** | **ug/L** | 9.607 | -145 | -0.010 |
| | Cr | 53 | | **ug/L** | | 103662 | 0.012 |
| | Mn | 55 | **-0.012** | **ug/L** | 60.588 | 1158 | -0.000 |
| | Fe | 57 | **-2.516** | **ug/L** | 16.303 | 4785 | -0.001 |
| | Co | 59 | **0.005** | **ug/L** | 11.714 | 149 | 0.000 |
| | Ni | 60 | **0.003** | **ug/L** | 57.184 | 112 | 0.000 |
| | Cu | 63 | | **ug/L** | | 346 | -0.000 |
| | Cu | 65 | **0.006** | **ug/L** | 92.591 | 210 | 0.000 |
| | Zn | 66 | **-0.091** | **ug/L** | 4.032 | 435 | -0.000 |
| | Zn | 67 | | **ug/L** | | 12332 | 0.000 |
| | Zn | 68 | | **ug/L** | | 1377 | 0.000 |
| > | Ge | 74 | | **ug/L** | | 455989 | 455989.224 |
| | As | 75 | **0.415** | **ug/L** | 33.315 | -11 | 0.001 |
| | Se | 77 | | **ug/L** | | 6238 | -0.001 |
| | Se | 82 | **0.102** | **ug/L** | 102.734 | 15 | 0.000 |
| | Kr | 83 | | **ug/L** | | 125 | -0.000 |
| | Sr | 88 | **0.004** | **ug/L** | 21.231 | 308 | 0.000 |
| | Y | 89 | | **ug/L** | | 59 | -0.000 |
| | Mo | 98 | **0.022** | **ug/L** | 28.215 | 216 | 0.000 |
| | Ag | 107 | **0.004** | **ug/L** | 88.816 | 106 | 0.000 |
| | Cd | 111 | **0.006** | **ug/L** | 78.285 | 39 | 0.000 |
| | Cd | 114 | | **ug/L** | | 85 | 0.000 |
| > | In | 115 | | **ug/L** | | 318667 | 318667.410 |
| | Sn | 120 | **0.016** | **ug/L** | 16.376 | 477 | 0.000 |
| | Sb | 121 | **0.142** | **ug/L** | 18.622 | 1397 | 0.003 |
| | Sb | 123 | | **ug/L** | | 1102 | 0.002 |
| | Ba | 135 | | **ug/L** | | 65 | 0.000 |
| | Ba | 137 | **-0.000** | **ug/L** | 3212.883 | 83 | -0.000 |
| | Ho | 165 | | **ug/L** | | 22 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 652645 | 652644.906 |
| | Tl | 205 | **1.016** | **ug/L** | 10.806 | 28833 | 0.041 |
| | Pb | 208 | **0.005** | **ug/L** | 2.478 | 1156 | 0.000 |
| | Bi | 209 | | **ug/L** | | 551 | 0.000 |
| | Th | 232 | **0.027** | **ug/L** | 8.748 | 2327 | 0.002 |
| | U | 238 | **0.006** | **ug/L** | 19.481 | 960 | 0.001 |

# Calibration

| Analyte | MassCurve Type | Correlation Coefficient |
|---|---|---|
| Li | 7Linear Thru Zero | 1.0000 |
| Be | 9Linear Thru Zero | 1.0000 |
| B | 11Linear Thru Zero | 1.0000 |
| Na | 23Linear Thru Zero | 0.9999 |
| Mg | 24Linear Thru Zero | 1.0000 |
| Al | 27Linear Thru Zero | 0.9997 |
| P | 31Linear Thru Zero | 1.0000 |
| K | 39Linear Thru Zero | 1.0000 |
| Ca | 43Linear Thru Zero | 1.0000 |
| Sc | 45Linear Thru Zero | |
| Ti | 47Linear Thru Zero | 1.0000 |
| V | 51Linear Thru Zero | 1.0000 |
| Cr | 52Linear Thru Zero | 1.0000 |
| Cr | 53Linear Thru Zero | |
| Mn | 55Linear Thru Zero | 1.0000 |
| Fe | 57Linear Thru Zero | 1.0000 |
| Co | 59Linear Thru Zero | 0.9999 |
| Ni | 60Linear Thru Zero | 1.0000 |
| Cu | 63Linear Thru Zero | |
| Cu | 65Linear Thru Zero | 1.0000 |
| Zn | 66Linear Thru Zero | 1.0000 |
| Zn | 67Linear Thru Zero | |
| Zn | 68Linear Thru Zero | |
| Ge | 74Linear Thru Zero | |
| As | 75Linear Thru Zero | 1.0000 |
| Se | 77Linear Thru Zero | |
| Se | 82Linear Thru Zero | 1.0000 |
| Kr | 83Linear Thru Zero | |
| Sr | 88Linear Thru Zero | 0.9999 |
| Y | 89Linear Thru Zero | |
| Mo | 98Linear Thru Zero | 1.0000 |
| Ag | 107Linear Thru Zero | 1.0000 |
| Cd | 111Linear Thru Zero | 1.0000 |
| Cd | 114Linear Thru Zero | |
| In | 115Linear Thru Zero | |
| Sn | 120Linear Thru Zero | 1.0000 |
| Sb | 121Linear Thru Zero | 1.0000 |
| Sb | 123Linear Thru Zero | |
| Ba | 135Linear Thru Zero | |
| Ba | 137Linear Thru Zero | 1.0000 |
| Ho | 165Linear Thru Zero | |
| Lu | 175Linear Thru Zero | |
| Tl | 205Linear Thru Zero | 0.9998 |
| Pb | 208Linear Thru Zero | 0.9999 |
| Bi | 209Linear Thru Zero | |
| Th | 232Linear Thru Zero | 0.9999 |
| U | 238Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 76.7 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 79.7 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 83.9 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 92.1 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| Sc 45 Int Std for QC | Sc | 45 | |
| Ge 74 Int Std for QC | Ge | 74 | |
| QC Std 9 | Tl | 205 | CCB is out of limits (+/- PQL) |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: 1202032564**
**Sample Date/Time: Thursday, February 25, 2010 05:15:52**
**Sample Type:**
**Sample Description: LANL 6020 DUP**
**Number of Replicates: 3**
**Batch ID: 948740|1|ba|**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032564.233**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | **0.124** | **ug/L** | 3.159 | 347 | 0.001 |
| | Be | 9 | **-0.001** | **ug/L** | 1434.911 | 21 | -0.000 |
| | B | 11 | **18.592** | **ug/L** | 1.446 | 8852 | 0.023 |
| | Na | 23 | **251.160** | **ug/L** | 6.598 | 984201 | 2.676 |
| | Mg | 24 | **9.424** | **ug/L** | 27.192 | 27360 | 0.066 |
| | Al | 27 | **41.416** | **ug/L** | 11.427 | 142042 | 0.375 |
| | P | 31 | **8.631** | **ug/L** | 15.302 | 6409 | 0.005 |
| | K | 39 | **182.608** | **ug/L** | 5.241 | 1357995 | 2.546 |
| | Ca | 43 | **57.893** | **ug/L** | 8.766 | 1034 | 0.002 |
| > | Sc | 45 | | **ug/L** | | 362357 | 362357.332 |
| | Ti | 47 | **1.030** | **ug/L** | 0.840 | 1014 | 0.002 |
| | V | 51 | **-6.936** | **ug/L** | 16.071 | -42796 | -0.138 |
| | Cr | 52 | **0.861** | **ug/L** | 29.754 | 8488 | 0.014 |
| | Cr | 53 | | **ug/L** | | 307959 | 0.572 |
| | Mn | 55 | **0.615** | **ug/L** | 0.837 | 6960 | 0.016 |
| | Fe | 57 | **18.038** | **ug/L** | 7.781 | 9033 | 0.010 |
| | Co | 59 | **0.004** | **ug/L** | 3.140 | 146 | 0.000 |
| | Ni | 60 | **0.110** | **ug/L** | 11.094 | 296 | 0.001 |
| | Cu | 63 | | **ug/L** | | 2657 | 0.006 |
| | Cu | 65 | **0.543** | **ug/L** | 1.168 | 1308 | 0.003 |
| | Zn | 66 | **1.349** | **ug/L** | 0.752 | 2194 | 0.004 |
| | Zn | 67 | | **ug/L** | | 53014 | 0.098 |
| | Zn | 68 | | **ug/L** | | 4405 | 0.007 |
| > | Ge | 74 | | **ug/L** | | 425364 | 425364.422 |
| | As | 75 | **-1.587** | **ug/L** | 30.338 | -2626 | -0.005 |
| | Se | 77 | | **ug/L** | | 24785 | 0.044 |
| | Se | 82 | **0.113** | **ug/L** | 126.016 | 15 | 0.000 |
| | Kr | 83 | | **ug/L** | | 114 | -0.000 |
| | Sr | 88 | **0.222** | **ug/L** | 1.047 | 3507 | 0.012 |
| | Y | 89 | | **ug/L** | | 359 | 0.001 |
| | Mo | 98 | **0.012** | **ug/L** | 14.229 | 151 | 0.000 |
| | Ag | 107 | **0.011** | **ug/L** | 24.348 | 139 | 0.000 |
| | Cd | 111 | **0.001** | **ug/L** | 1063.766 | 26 | 0.000 |
| | Cd | 114 | | **ug/L** | | 47 | -0.000 |
| > | In | 115 | | **ug/L** | | 280041 | 280040.501 |
| | Sn | 120 | **0.276** | **ug/L** | 0.637 | 2189 | 0.007 |
| | Sb | 121 | **0.011** | **ug/L** | 90.073 | 488 | 0.000 |
| | Sb | 123 | | **ug/L** | | 386 | 0.000 |
| | Ba | 135 | | **ug/L** | | 796 | 0.001 |
| | Ba | 137 | **0.345** | **ug/L** | 4.685 | 1343 | 0.002 |
| | Ho | 165 | | **ug/L** | | 45 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 600179 | 600178.698 |
| | Tl | 205 | **0.274** | **ug/L** | 4.149 | 8469 | 0.011 |
| | Pb | 208 | **0.137** | **ug/L** | 3.445 | 6828 | 0.010 |
| | Bi | 209 | | **ug/L** | | 768 | 0.000 |
| | Th | 232 | **0.014** | **ug/L** | 11.562 | 1439 | 0.001 |
| | U | 238 | **0.007** | **ug/L** | 10.552 | 920 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 77.6 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 74.4 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 73.7 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 84.7 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032565**
**Sample Date/Time: Thursday, February 25, 2010 05:22:04**
**Sample Type:**
**Sample Description: LANL 6020 MS**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032565.234**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 46.348 | ug/L | 0.616 | 100386 | 0.265 |
| | Be | 9 | 51.058 | ug/L | 1.288 | 23862 | 0.063 |
| | B | 11 | 112.113 | ug/L | 3.218 | 53293 | 0.140 |
| | Na | 23 | 2102.246 | ug/L | 1.918 | 8491428 | 22.396 |
| | Mg | 24 | 2025.051 | ug/L | 9.582 | 5393717 | 14.232 |
| | Al | 27 | 2096.404 | ug/L | 8.492 | 7192425 | 19.005 |
| | P | 31 | 1776.591 | ug/L | 2.501 | 404903 | 1.058 |
| | K | 39 | 1918.428 | ug/L | 2.266 | 10575946 | 26.744 |
| | Ca | 43 | 1903.254 | ug/L | 3.144 | 26117 | 0.068 |
| > | Sc | 45 | | ug/L | | 378395 | 378394.950 |
| | Ti | 47 | 41.965 | ug/L | 2.097 | 30182 | 0.079 |
| | V | 51 | 35.766 | ug/L | 2.849 | 276914 | 0.712 |
| | Cr | 52 | 48.741 | ug/L | 1.558 | 296849 | 0.775 |
| | Cr | 53 | | ug/L | | 334865 | 0.607 |
| | Mn | 55 | 47.573 | ug/L | 2.893 | 459466 | 1.211 |
| | Fe | 57 | 1784.687 | ug/L | 3.326 | 385228 | 1.004 |
| | Co | 59 | 46.837 | ug/L | 3.092 | 360716 | 0.953 |
| | Ni | 60 | 45.989 | ug/L | 2.969 | 81841 | 0.216 |
| | Cu | 63 | | ug/L | | 194638 | 0.514 |
| | Cu | 65 | 44.187 | ug/L | 1.800 | 94328 | 0.249 |
| | Zn | 66 | 48.302 | ug/L | 2.556 | 61956 | 0.141 |
| | Zn | 67 | | ug/L | | 65350 | 0.123 |
| | Zn | 68 | | ug/L | | 47075 | 0.105 |
| > | Ge | 74 | | ug/L | | 435812 | 435811.885 |
| | As | 75 | 69.840 | ug/L | 2.673 | 92868 | 0.214 |
| | Se | 77 | | ug/L | | 25509 | 0.044 |
| | Se | 82 | 19.025 | ug/L | 4.187 | 2635 | 0.006 |
| | Kr | 83 | | ug/L | | 139 | 0.000 |
| | Sr | 88 | 51.998 | ug/L | 1.358 | 767904 | 2.758 |
| | Y | 89 | | ug/L | | 361 | 0.001 |
| | Mo | 98 | 49.210 | ug/L | 2.112 | 195647 | 0.702 |
| | Ag | 107 | 52.208 | ug/L | 1.463 | 348760 | 1.253 |
| | Cd | 111 | 10.250 | ug/L | 2.148 | 17377 | 0.062 |
| | Cd | 114 | | ug/L | | 38530 | 0.138 |
| > | In | 115 | | ug/L | | 278448 | 278447.753 |
| | Sn | 120 | 50.999 | ug/L | 1.680 | 344926 | 1.238 |
| | Sb | 121 | 196.030 | ug/L | 2.833 | 1100667 | 3.953 |
| | Sb | 123 | | ug/L | | 889988 | 3.196 |
| | Ba | 135 | | ug/L | | 90502 | 0.147 |
| | Ba | 137 | 42.890 | ug/L | 1.118 | 161441 | 0.262 |
| | Ho | 165 | | ug/L | | 363 | 0.001 |
| > | Lu | 175 | | ug/L | | 616160 | 616160.306 |
| | Tl | 205 | 58.182 | ug/L | 9.183 | 1455510 | 2.362 |
| | Pb | 208 | 41.180 | ug/L | 0.863 | 1848411 | 2.999 |
| | Bi | 209 | | ug/L | | 1068 | 0.001 |
| | Th | 232 | 46.865 | ug/L | 2.967 | 2582182 | 4.191 |
| | U | 238 | 47.673 | ug/L | 3.116 | 2750697 | 4.465 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 81.1 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 76.2 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 73.3 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 87.0 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032566**
**Sample Date/Time: Thursday, February 25, 2010 05:28:16**
**Sample Type:**
**Sample Description: LANL 6020 SDILT**
**Number of Replicates: 3**
**Batch ID: 948740|5|baj**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\1202032566.235**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 0.006 | ug/L | 54.667 | 104 | 0.000 |
| | Be | 9 | 0.006 | ug/L | 35.881 | 24 | 0.000 |
| | B | 11 | 5.792 | ug/L | 13.589 | 3137 | 0.007 |
| | Na | 23 | 24.488 | ug/L | 2.682 | 111434 | 0.261 |
| | Mg | 24 | 0.719 | ug/L | 72.606 | 5334 | 0.005 |
| | Al | 27 | 6.155 | ug/L | 11.270 | 26692 | 0.056 |
| | P | 31 | 0.485 | ug/L | 351.904 | 4746 | 0.000 |
| | K | 39 | 38.380 | ug/L | 33.080 | 641813 | 0.535 |
| | Ca | 43 | 15.310 | ug/L | 11.022 | 491 | 0.001 |
| > | Sc | 45 | | ug/L | | 370232 | 370232.331 |
| | Ti | 47 | 0.207 | ug/L | 11.588 | 463 | 0.000 |
| | V | 51 | -2.110 | ug/L | 32.082 | -8236 | -0.042 |
| | Cr | 52 | 0.149 | ug/L | 116.356 | 4463 | 0.002 |
| | Cr | 53 | | ug/L | | 162376 | 0.161 |
| | Mn | 55 | 0.103 | ug/L | 10.337 | 2279 | 0.003 |
| | Fe | 57 | -0.969 | ug/L | 127.725 | 5267 | -0.001 |
| | Co | 59 | 0.000 | ug/L | 2365.380 | 117 | 0.000 |
| | Ni | 60 | 0.023 | ug/L | 10.007 | 152 | 0.000 |
| | Cu | 63 | | ug/L | | 665 | 0.001 |
| | Cu | 65 | 0.071 | ug/L | 8.532 | 351 | 0.000 |
| | Zn | 66 | 0.311 | ug/L | 4.184 | 961 | 0.001 |
| | Zn | 67 | | ug/L | | 17816 | 0.013 |
| | Zn | 68 | | ug/L | | 2050 | 0.002 |
| > | Ge | 74 | | ug/L | | 451489 | 451488.745 |
| | As | 75 | -0.393 | ug/L | 65.339 | -1130 | -0.001 |
| | Se | 77 | | ug/L | | 12404 | 0.013 |
| | Se | 82 | 0.092 | ug/L | 176.230 | 13 | 0.000 |
| | Kr | 83 | | ug/L | | 114 | -0.000 |
| | Sr | 88 | 0.043 | ug/L | 7.643 | 920 | 0.002 |
| | Y | 89 | | ug/L | | 105 | 0.000 |
| | Mo | 98 | 0.011 | ug/L | 20.574 | 161 | 0.000 |
| | Ag | 107 | 0.000 | ug/L | 504.683 | 73 | 0.000 |
| | Cd | 111 | -0.002 | ug/L | 40.906 | 22 | -0.000 |
| | Cd | 114 | | ug/L | | 40 | -0.000 |
| > | In | 115 | | ug/L | | 303525 | 303525.381 |
| | Sn | 120 | 0.059 | ug/L | 8.927 | 775 | 0.001 |
| | Sb | 121 | 0.003 | ug/L | 180.420 | 486 | 0.000 |
| | Sb | 123 | | ug/L | | 379 | 0.000 |
| | Ba | 135 | | ug/L | | 167 | 0.000 |
| | Ba | 137 | 0.056 | ug/L | 7.739 | 299 | 0.000 |
| | Ho | 165 | | ug/L | | 32 | 0.000 |
| > | Lu | 175 | | ug/L | | 636269 | 636269.192 |
| | Tl | 205 | 3.215 | ug/L | 9.914 | 84931 | 0.130 |
| | Pb | 208 | 0.015 | ug/L | 2.741 | 1592 | 0.001 |
| | Bi | 209 | | ug/L | | 410 | -0.000 |
| | Th | 232 | 0.013 | ug/L | 9.472 | 1473 | 0.001 |
| | U | 238 | -0.000 | ug/L | 1010.928 | 572 | -0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 79.3 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 78.9 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 79.9 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 89.8 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 05:34:27**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 6.236**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 52.917 | ug/L | 1.868 | 108597 | 0.303 |
| | Be | 9 | 54.344 | ug/L | 3.265 | 24062 | 0.067 |
| | B | 11 | 98.597 | ug/L | 4.825 | 44462 | 0.123 |
| | Na | 23 | 4364.899 | ug/L | 10.122 | 16677592 | 46.502 |
| | Mg | 24 | 5166.651 | ug/L | 5.836 | 13022055 | 36.312 |
| | Al | 27 | 5309.819 | ug/L | 5.270 | 17255876 | 48.136 |
| | P | 31 | 4490.103 | ug/L | 3.876 | 962807 | 2.674 |
| | K | 39 | 4761.044 | ug/L | 2.718 | 24229143 | 66.373 |
| | Ca | 43 | 4781.332 | ug/L | 1.206 | 61786 | 0.172 |
| > | Sc | 45 | | ug/L | | 358648 | 358648.450 |
| | Ti | 47 | 49.162 | ug/L | 3.254 | 33457 | 0.092 |
| | V | 51 | 48.521 | ug/L | 5.223 | 353326 | 0.966 |
| | Cr | 52 | 51.502 | ug/L | 4.424 | 296952 | 0.819 |
| | Cr | 53 | | ug/L | | 159249 | 0.166 |
| | Mn | 55 | 53.828 | ug/L | 3.683 | 492501 | 1.370 |
| | Fe | 57 | 4662.444 | ug/L | 3.954 | 945190 | 2.622 |
| | Co | 59 | 52.524 | ug/L | 2.604 | 383384 | 1.069 |
| | Ni | 60 | 51.967 | ug/L | 2.640 | 87643 | 0.244 |
| | Cu | 63 | | ug/L | | 208193 | 0.580 |
| | Cu | 65 | 51.065 | ug/L | 2.197 | 103281 | 0.288 |
| | Zn | 66 | 50.165 | ug/L | 2.388 | 65743 | 0.146 |
| | Zn | 67 | | ug/L | | 26546 | 0.033 |
| | Zn | 68 | | ug/L | | 48197 | 0.105 |
| > | Ge | 74 | | ug/L | | 445320 | 445319.542 |
| | As | 75 | 47.833 | ug/L | 2.613 | 64826 | 0.147 |
| | Se | 77 | | ug/L | | 13497 | 0.016 |
| | Se | 82 | 50.120 | ug/L | 1.860 | 7094 | 0.016 |
| | Kr | 83 | | ug/L | | 138 | 0.000 |
| | Sr | 88 | 52.759 | ug/L | 3.617 | 862826 | 2.798 |
| | Y | 89 | | ug/L | | 136 | 0.000 |
| | Mo | 98 | 47.856 | ug/L | 2.730 | 210771 | 0.683 |
| | Ag | 107 | 50.495 | ug/L | 4.061 | 373528 | 1.211 |
| | Cd | 111 | 49.369 | ug/L | 3.327 | 92594 | 0.300 |
| | Cd | 114 | | ug/L | | 215515 | 0.699 |
| > | In | 115 | | ug/L | | 308474 | 308473.645 |
| | Sn | 120 | 50.731 | ug/L | 1.832 | 380087 | 1.231 |
| | Sb | 121 | 50.710 | ug/L | 3.139 | 315747 | 1.023 |
| | Sb | 123 | | ug/L | | 248882 | 0.806 |
| | Ba | 135 | | ug/L | | 103265 | 0.162 |
| | Ba | 137 | 46.919 | ug/L | 2.371 | 183074 | 0.287 |
| | Ho | 165 | | ug/L | | 62 | 0.000 |
| > | Lu | 175 | | ug/L | | 638898 | 638898.483 |
| | Tl | 205 | 46.584 | ug/L | 5.676 | 1208963 | 1.891 |
| | Pb | 208 | 54.008 | ug/L | 2.258 | 2512712 | 3.933 |
| | Bi | 209 | | ug/L | | 723 | 0.000 |
| | Th | 232 | 50.785 | ug/L | 5.054 | 2899879 | 4.542 |
| | U | 238 | 52.456 | ug/L | 4.393 | 3137205 | 4.913 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | 105.835 | | | | |
| | Be | 9 | 108.687 | | | | |
| | B | 11 | 98.597 | | | | |
| | Na | 23 | 87.298 | | | | |
| | Mg | 24 | 103.333 | | | | |
| | Al | 27 | 105.145 | | | | |
| | P | 31 | 89.802 | | | | |
| | K | 39 | 95.221 | | | | |
| | Ca | 43 | 95.627 | | | | |
| > | Sc | 45 | | 76.8 | | | |
| | Ti | 47 | 98.324 | | | | |
| | V | 51 | 97.043 | | | | |
| | Cr | 52 | 103.003 | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | 107.655 | | | | |
| | Fe | 57 | 93.249 | | | | |
| | Co | 59 | 105.048 | | | | |
| | Ni | 60 | 103.935 | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | 102.130 | | | | |
| | Zn | 66 | 100.329 | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 77.9 | | | |
| | As | 75 | 95.665 | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | 100.239 | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | 105.518 | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | 95.711 | | | | |
| | Ag | 107 | 100.990 | | | | |
| | Cd | 111 | 98.739 | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 81.2 | | | |
| | Sn | 120 | 101.463 | | | | |
| | Sb | 121 | 101.420 | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | 93.838 | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 90.2 | | | |
| | Tl | 205 | 93.168 | | | | |
| | Pb | 208 | 108.016 | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | 101.570 | | | | |
| | U | 238 | 104.911 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 6 | Na | 23 | CCV is out of limits (+/- 10%) |
| QC Std 6 | P | 31 | CCV is out of limits (+/- 10%) |
| Sc 45 Int Std for QC | Sc | 45 | |
| Ge 74 Int Std for QC | Ge | 74 | |

## QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 05:40:35**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\6020 2.mth**
**Dataset File: C:\elandata\Dataset\100224\QC Std 7.237**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Li | 7 | -0.008 | ug/L | 35.434 | 71 | -0.000 |
| | Be | 9 | 0.012 | ug/L | 44.342 | 26 | 0.000 |
| | B | 11 | 2.894 | ug/L | 15.369 | 1738 | 0.004 |
| | Na | 23 | 1.175 | ug/L | 54.758 | 18679 | 0.013 |
| | Mg | 24 | -0.791 | ug/L | 27.434 | 1333 | -0.006 |
| | Al | 27 | 1.002 | ug/L | 131.615 | 9003 | 0.009 |
| | P | 31 | -0.273 | ug/L | 450.430 | 4404 | -0.000 |
| | K | 39 | 5.024 | ug/L | 159.839 | 452058 | 0.070 |
| | Ca | 43 | 1.755 | ug/L | 118.621 | 299 | 0.000 |
| > | Sc | 45 | | ug/L | | 355897 | 355897.204 |
| | Ti | 47 | 0.024 | ug/L | 59.762 | 323 | 0.000 |
| | V | 51 | -1.430 | ug/L | 43.242 | -3078 | -0.028 |
| | Cr | 52 | -0.546 | ug/L | 13.221 | 364 | -0.009 |
| | Cr | 53 | | ug/L | | 100757 | 0.005 |
| | Mn | 55 | -0.012 | ug/L | 22.218 | 1151 | -0.000 |
| | Fe | 57 | -2.595 | ug/L | 49.371 | 4738 | -0.001 |
| | Co | 59 | 0.003 | ug/L | 75.329 | 136 | 0.000 |
| | Ni | 60 | 0.006 | ug/L | 57.367 | 117 | 0.000 |
| | Cu | 63 | | ug/L | | 374 | 0.000 |
| | Cu | 65 | 0.001 | ug/L | 1267.111 | 198 | 0.000 |
| | Zn | 66 | -0.105 | ug/L | 6.230 | 414 | -0.000 |
| | Zn | 67 | | ug/L | | 11868 | -0.001 |
| | Zn | 68 | | ug/L | | 1291 | -0.000 |
| > | Ge | 74 | | ug/L | | 453770 | 453770.256 |
| | As | 75 | 0.178 | ug/L | 92.795 | -343 | 0.001 |
| | Se | 77 | | ug/L | | 6176 | -0.001 |
| | Se | 82 | -0.039 | ug/L | 402.610 | -5 | -0.000 |
| | Kr | 83 | | ug/L | | 130 | -0.000 |
| | Sr | 88 | 0.002 | ug/L | 136.865 | 273 | 0.000 |
| | Y | 89 | | ug/L | | 58 | -0.000 |
| | Mo | 98 | 0.027 | ug/L | 29.378 | 238 | 0.000 |
| | Ag | 107 | 0.004 | ug/L | 72.977 | 103 | 0.000 |
| | Cd | 111 | 0.006 | ug/L | 24.325 | 40 | 0.000 |
| | Cd | 114 | | ug/L | | 74 | 0.000 |
| > | In | 115 | | ug/L | | 316780 | 316780.065 |
| | Sn | 120 | 0.009 | ug/L | 42.527 | 422 | 0.000 |
| | Sb | 121 | 0.141 | ug/L | 22.448 | 1380 | 0.003 |
| | Sb | 123 | | ug/L | | 1128 | 0.002 |
| | Ba | 135 | | ug/L | | 52 | 0.000 |
| | Ba | 137 | -0.002 | ug/L | 173.345 | 75 | -0.000 |
| | Ho | 165 | | ug/L | | 32 | 0.000 |
| > | Lu | 175 | | ug/L | | 652981 | 652980.698 |
| | Tl | 205 | 2.263 | ug/L | 3.135 | 61943 | 0.092 |
| | Pb | 208 | 0.005 | ug/L | 17.380 | 1143 | 0.000 |
| | Bi | 209 | | ug/L | | 536 | -0.000 |
| | Th | 232 | 0.025 | ug/L | 6.004 | 2231 | 0.002 |
| | U | 238 | 0.005 | ug/L | 19.730 | 901 | 0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Li | 7 | Linear Thru Zero | 1.0000 |
| Be | 9 | Linear Thru Zero | 1.0000 |
| B | 11 | Linear Thru Zero | 1.0000 |
| Na | 23 | Linear Thru Zero | 0.9999 |
| Mg | 24 | Linear Thru Zero | 1.0000 |
| Al | 27 | Linear Thru Zero | 0.9997 |
| P | 31 | Linear Thru Zero | 1.0000 |
| K | 39 | Linear Thru Zero | 1.0000 |
| Ca | 43 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Ti | 47 | Linear Thru Zero | 1.0000 |
| V | 51 | Linear Thru Zero | 1.0000 |
| Cr | 52 | Linear Thru Zero | 1.0000 |
| Cr | 53 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Fe | 57 | Linear Thru Zero | 1.0000 |
| Co | 59 | Linear Thru Zero | 0.9999 |
| Ni | 60 | Linear Thru Zero | 1.0000 |
| Cu | 63 | Linear Thru Zero | |
| Cu | 65 | Linear Thru Zero | 1.0000 |
| Zn | 66 | Linear Thru Zero | 1.0000 |
| Zn | 67 | Linear Thru Zero | |
| Zn | 68 | Linear Thru Zero | |
| Ge | 74 | Linear Thru Zero | |
| As | 75 | Linear Thru Zero | 1.0000 |
| Se | 77 | Linear Thru Zero | |
| Se | 82 | Linear Thru Zero | 1.0000 |
| Kr | 83 | Linear Thru Zero | |
| Sr | 88 | Linear Thru Zero | 0.9999 |
| Y | 89 | Linear Thru Zero | |
| Mo | 98 | Linear Thru Zero | 1.0000 |
| Ag | 107 | Linear Thru Zero | 1.0000 |
| Cd | 111 | Linear Thru Zero | 1.0000 |
| Cd | 114 | Linear Thru Zero | |
| In | 115 | Linear Thru Zero | |
| Sn | 120 | Linear Thru Zero | 1.0000 |
| Sb | 121 | Linear Thru Zero | 1.0000 |
| Sb | 123 | Linear Thru Zero | |
| Ba | 135 | Linear Thru Zero | |
| Ba | 137 | Linear Thru Zero | 1.0000 |
| Ho | 165 | Linear Thru Zero | |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| Bi | 209 | Linear Thru Zero | |
| Th | 232 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Li | 7 | | | | | |
| | Be | 9 | | | | | |
| | B | 11 | | | | | |
| | Na | 23 | | | | | |
| | Mg | 24 | | | | | |
| | Al | 27 | | | | | |
| | P | 31 | | | | | |
| | K | 39 | | | | | |
| | Ca | 43 | | | | | |
| > | Sc | 45 | | 76.2 | | | |
| | Ti | 47 | | | | | |
| | V | 51 | | | | | |
| | Cr | 52 | | | | | |
| | Cr | 53 | | | | | |
| | Mn | 55 | | | | | |
| | Fe | 57 | | | | | |
| | Co | 59 | | | | | |
| | Ni | 60 | | | | | |
| | Cu | 63 | | | | | |
| | Cu | 65 | | | | | |
| | Zn | 66 | | | | | |
| | Zn | 67 | | | | | |
| | Zn | 68 | | | | | |
| > | Ge | 74 | | 79.3 | | | |
| | As | 75 | | | | | |
| | Se | 77 | | | | | |
| | Se | 82 | | | | | |
| | Kr | 83 | | | | | |
| | Sr | 88 | | | | | |
| | Y | 89 | | | | | |
| | Mo | 98 | | | | | |
| | Ag | 107 | | | | | |
| | Cd | 111 | | | | | |
| | Cd | 114 | | | | | |
| > | In | 115 | | 83.4 | | | |
| | Sn | 120 | | | | | |
| | Sb | 121 | | | | | |
| | Sb | 123 | | | | | |
| | Ba | 135 | | | | | |
| | Ba | 137 | | | | | |
| | Ho | 165 | | | | | |
| > | Lu | 175 | | 92.2 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | Bi | 209 | | | | | |
| | Th | 232 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| Sc 45 Int Std for QC | Sc | 45 | |
| Ge 74 Int Std for QC | Ge | 74 | |
| QC Std 7 | Tl | 205 | CCB is out of limits (+-/ PQL) |

# QC Action

Sample ID: QC Std 7
Report Date/Time: Thursday, February 25, 2010 05:43:19
Page 3

QC Action Line: Continue

# ICPMS #5 Daily Performance Report

**Sample ID: Sample**
Sample Date/Time: Thursday, February 25, 2010 10:21:12
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.587
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD |
|---|---|---|---|---|---|---|
| | Be | 9.0 | 7667.7 | 7667.657 | 92.696 | 1.2 |
| | Mg | 24.0 | 65438.4 | 65438.352 | 810.719 | 1.2 |
| | Co | 58.9 | 148768.2 | 148768.250 | 1242.721 | 0.8 |
| | Rh | 102.9 | 281248.6 | 281248.630 | 3259.965 | 1.2 |
| | In | 114.9 | 364299.1 | 364299.123 | 3937.746 | 1.1 |
| | Pb | 208.0 | 327198.7 | 327198.660 | 900.422 | 0.3 |
| ⌈> | Ba | 137.9 | 337284.3 | 337284.262 | 1053.536 | 0.3 |
| ⌊ | Ba++ | 69.0 | 6381.2 | 0.019 | 0.000 | 1.2 |
| ⌈> | Ce | 139.9 | 411857.7 | 411857.650 | 5034.814 | 1.2 |
| ⌊ | CeO | 155.9 | 10883.8 | 0.026 | 0.000 | 1.5 |
| | Bkgd | 220.0 | 24.6 | 24.600 | 6.358 | 25.8 |

### Current Optimization File Data

| Current Value | Description |
|---|---|
| 0.87 | Nebulizer Gas Flow |
| 5.75 | Lens Voltage |
| 1450.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1250.00 | Pulse Stage Voltage |
| 275.00 | Discriminator Threshold |
| -6.00 | AC Rod Offset |

### Current Autolens Data

| Analyte | Mass | Num of Pts | DAC Value | Maximum Intensity |
|---|---|---|---|---|
| Be | 9 | 13 | 5.8 | 7423.9 |
| Co | 59 | 13 | 6.3 | 140852.6 |
| In | 115 | 13 | 6.8 | 347281.8 |

# ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Pk. Width |
|---|---|---|---|---|---|
| He | 3.0 | 3.0 | 589 | 2072 | 0.604 |
| Be | 9.0 | 9.0 | 2056 | 2088 | 0.598 |
| Mg | 24.0 | 24.0 | 5695 | 2100 | 0.591 |
| Mg | 25.0 | 25.0 | 5935 | 2100 | 0.577 |
| Mg | 26.0 | 26.0 | 6177 | 2100 | 0.596 |
| Co | 58.9 | 59.0 | 14189 | 2125 | 0.594 |
| Rh | 102.9 | 102.9 | 24878 | 2180 | 0.579 |
| In | 114.9 | 114.9 | 27792 | 2200 | 0.585 |
| Ce | 139.9 | 139.9 | 33864 | 2220 | 0.581 |
| Pb | 206.0 | 206.0 | 49948 | 2305 | 0.587 |
| Pb | 207.0 | 207.0 | 50159 | 2240 | 0.631 |
| Pb | 208.0 | 208.0 | 50451 | 2265 | 0.710 |
| U | 238.1 | 238.1 | 57732 | 2275 | 0.744 |

# ICPMS#5 - Summary Report

**Sample ID: Blank**
**Sample Date/Time: Thursday, February 25, 2010 14:12:18**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\Blank.347**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | ug/L | | 25 | |
| > | Sc | 45 | | ug/L | | 668888 | |
| | Mn | 55 | | ug/L | | 2291 | |
| > | Lu | 175 | | ug/L | | 595837 | |
| | Tl | 205 | | ug/L | | 883 | |
| | Pb | 208 | | ug/L | | 475 | |
| | U | 238 | | ug/L | | 204 | |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Simple Linear | |
| Lu | 175 | Simple Linear | |
| Tl | 205 | Simple Linear | |
| Pb | 208 | Simple Linear | |
| U | 238 | Simple Linear | |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: Standard 1**
**Sample Date/Time: Thursday, February 25, 2010 14:14:49**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\Standard 1.348**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 10.000 | ug/L | 0.828 | 6540 | 0.010 |
| > | Sc | 45 | | ug/L | | 676851 | 676850.534 |
| | Mn | 55 | 10.000 | ug/L | 1.904 | 177072 | 0.258 |
| > | Lu | 175 | | ug/L | | 589758 | 589757.524 |
| | Tl | 205 | 10.000 | ug/L | 0.453 | 263884 | 0.446 |
| | Pb | 208 | 10.000 | ug/L | 2.877 | 474859 | 0.805 |
| | U | 238 | 10.000 | ug/L | 0.241 | 601643 | 1.020 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 1.0000 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |
| Pb | 208 | Linear Thru Zero | 1.0000 |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: Standard 2**
**Sample Date/Time: Thursday, February 25, 2010 14:17:17**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lani 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\Standard 2.349**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **100.022** | **ug/L** | 1.049 | 63615 | 0.098 |
| > | Sc | 45 | | **ug/L** | | 645973 | 645972.524 |
| | Mn | 55 | **99.878** | **ug/L** | 2.401 | 1486823 | 2.298 |
| > | Lu | 175 | | **ug/L** | | 584303 | 584303.328 |
| | Tl | 205 | **99.812** | **ug/L** | 2.029 | 2189635 | 3.747 |
| | Pb | 208 | **99.844** | **ug/L** | 1.355 | 4061519 | 6.951 |
| | U | 238 | **99.831** | **ug/L** | 0.936 | 5089463 | 8.710 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 1**
**Sample Date/Time: Thursday, February 25, 2010 14:19:47**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 1.350**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **51.337** | **ug/L** | 0.831 | 31823 | 0.051 |
| > | Sc | 45 | | **ug/L** | | 629483 | 629482.623 |
| | Mn | 55 | **54.535** | **ug/L** | 2.129 | 791888 | 1.255 |
| > | Lu | 175 | | **ug/L** | | 589274 | 589274.225 |
| | Tl | 205 | **52.420** | **ug/L** | 0.813 | 1160354 | 1.968 |
| | Pb | 208 | **53.310** | **ug/L** | 1.745 | 2187052 | 3.711 |
| | U | 238 | **52.301** | **ug/L** | 0.705 | 2689274 | 4.563 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 102.674 | | | | |
| > | Sc | 45 | | 94.1 | | | |
| | Mn | 55 | 109.069 | | | | |
| > | Lu | 175 | | 98.9 | | | |
| | Tl | 205 | 104.839 | | | | |
| | Pb | 208 | 106.620 | | | | |
| | U | 238 | 104.602 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 2**
**Sample Date/Time: Thursday, February 25, 2010 14:22:18**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\anl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 2.351**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | -0.002 | ug/L | 214.675 | 24 | -0.000 |
| > | Sc | 45 | | ug/L | | 654529 | 654529.493 |
| | Mn | 55 | -0.004 | ug/L | 100.755 | 2183 | -0.000 |
| > | Lu | 175 | | ug/L | | 595331 | 595330.522 |
| | Tl | 205 | 0.102 | ug/L | 6.118 | 3167 | 0.004 |
| | Pb | 208 | 0.003 | ug/L | 26.105 | 579 | 0.000 |
| | U | 238 | 0.008 | ug/L | 1.572 | 602 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 97.9 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 99.9 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 3**
**Sample Date/Time: Thursday, February 25, 2010 14:24:50**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 3.352**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **0.557** | **ug/L** | 9.676 | 385 | 0.001 |
| > | Sc | 45 | | **ug/L** | | 658791 | 658790.794 |
| | Mn | 55 | **6.275** | **ug/L** | 4.301 | 97305 | 0.144 |
| > | Lu | 175 | | **ug/L** | | 592978 | 592978.327 |
| | Tl | 205 | **1.277** | **ug/L** | 1.263 | 29298 | 0.048 |
| | Pb | 208 | **2.551** | **ug/L** | 2.809 | 105733 | 0.178 |
| | U | 238 | **0.290** | **ug/L** | 0.556 | 15199 | 0.025 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 111.411 | | | | |
| > | Sc | 45 | | 98.5 | | | |
| | Mn | 55 | 125.508 | | | | |
| > | Lu | 175 | | 99.5 | | | |
| | Tl | 205 | 127.675 | | | | |
| | Pb | 208 | 127.538 | | | | |
| | U | 238 | 144.913 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 3 | U | 238 | CRDL is out of limits |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 4**
**Sample Date/Time: Thursday, February 25, 2010 14:27:20**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 4.353**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **0.089** | **ug/L** | 12.417 | 70 | 0.000 |
| > | Sc | 45 | | **ug/L** | | 556722 | 556721.917 |
| | Mn | 55 | **6.374** | **ug/L** | 2.843 | 83520 | 0.147 |
| > | Lu | 175 | | **ug/L** | | 546173 | 546173.398 |
| | Tl | 205 | **0.027** | **ug/L** | 7.143 | 1352 | 0.001 |
| | Pb | 208 | **0.239** | **ug/L** | 1.772 | 9511 | 0.017 |
| | U | 238 | **-0.001** | **ug/L** | 7.538 | 150 | -0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 83.2 | | | |
| | Mn | 55 | 109.892 | | | | |
| > | Lu | 175 | | 91.7 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | 126.313 | | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 5**
**Sample Date/Time: Thursday, February 25, 2010 14:29:51**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 5.354**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **19.782** | **ug/L** | 1.989 | 10470 | 0.019 |
| > | Sc | 45 | | **ug/L** | | 536856 | 536856.079 |
| | Mn | 55 | **28.447** | **ug/L** | 1.663 | 353252 | 0.655 |
| > | Lu | 175 | | **ug/L** | | 544762 | 544762.461 |
| | Tl | 205 | **21.404** | **ug/L** | 1.003 | 438467 | 0.803 |
| | Pb | 208 | **21.975** | **ug/L** | 2.109 | 833709 | 1.530 |
| | U | 238 | **23.745** | **ug/L** | 0.446 | 1128817 | 2.072 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 98.910 | | | | |
| > | Sc | 45 | | 80.3 | | | |
| | Mn | 55 | 110.258 | | | | |
| > | Lu | 175 | | 91.4 | | | |
| | Tl | 205 | 107.019 | | | | |
| | Pb | 208 | 108.847 | | | | |
| | U | 238 | 118.723 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 14:32:23**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\Nanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 6.355**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **53.548** | **ug/L** | 3.801 | 31989 | 0.053 |
| > | Sc | 45 | | **ug/L** | | 606838 | 606838.403 |
| | Mn | 55 | **54.439** | **ug/L** | 2.137 | 762096 | 1.253 |
| > | Lu | 175 | | **ug/L** | | 601484 | 601484.197 |
| | Tl | 205 | **51.997** | **ug/L** | 0.762 | 1174882 | 1.952 |
| | Pb | 208 | **54.077** | **ug/L** | 2.248 | 2264396 | 3.765 |
| | U | 238 | **53.307** | **ug/L** | 0.482 | 2797685 | 4.651 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 107.095 | | | | |
| > | Sc | 45 | | 90.7 | | | |
| | Mn | 55 | 108.878 | | | | |
| > | Lu | 175 | | 100.9 | | | |
| | Tl | 205 | 103.993 | | | | |
| | Pb | 208 | 108.154 | | | | |
| | U | 238 | 106.613 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 14:34:55**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 7.356**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | -0.001 | ug/L | 739.982 | 24 | -0.000 |
| > | Sc | 45 | | ug/L | | 649200 | 649199.690 |
| | Mn | 55 | -0.021 | ug/L | 1.269 | 1911 | -0.000 |
| > | Lu | 175 | | ug/L | | 625070 | 625069.607 |
| | Tl | 205 | 0.087 | ug/L | 3.030 | 2978 | 0.003 |
| | Pb | 208 | 0.000 | ug/L | 61.802 | 513 | 0.000 |
| | U | 238 | 0.005 | ug/L | 17.144 | 503 | 0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 97.1 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 104.9 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Thursday, February 25, 2010 14:56:54**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 8.364**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **52.970** | **ug/L** | 1.302 | 31179 | 0.052 |
| > | Sc | 45 | | **ug/L** | | 597786 | 597786.220 |
| | Mn | 55 | **55.100** | **ug/L** | 1.866 | 759807 | 1.268 |
| > | Lu | 175 | | **ug/L** | | 595134 | 595133.877 |
| | Tl | 205 | **52.325** | **ug/L** | 0.329 | 1169829 | 1.964 |
| | Pb | 208 | **53.592** | **ug/L** | 1.336 | 2220837 | 3.731 |
| | U | 238 | **52.623** | **ug/L** | 2.770 | 2733100 | 4.591 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 105.941 | | | | |
| > | Sc | 45 | | 89.4 | | | |
| | Mn | 55 | 110.199 | | | | |
| > | Lu | 175 | | 99.9 | | | |
| | Tl | 205 | 104.651 | | | | |
| | Pb | 208 | 107.184 | | | | |
| | U | 238 | 105.247 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 8 | Mn | 55 | CCV is out of limits (+/- 10%) |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Thursday, February 25, 2010 14:59:27**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 9.365**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 0.001 | ug/L | 1466.131 | 23 | 0.000 |
| > | Sc | 45 | | ug/L | | 607338 | 607337.892 |
| | Mn | 55 | 0.001 | ug/L | 693.699 | 2089 | 0.000 |
| > | Lu | 175 | | ug/L | | 599774 | 599774.272 |
| | Tl | 205 | 0.874 | ug/L | 1.983 | 20554 | 0.033 |
| | Pb | 208 | 0.003 | ug/L | 4.189 | 607 | 0.000 |
| | U | 238 | 0.008 | ug/L | 2.310 | 641 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 90.8 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 100.7 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032562**
**Sample Date/Time: Thursday, February 25, 2010 15:13:21**
**Sample Type:**
**Sample Description: LANL 6020 MB**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032562.370**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | -0.005 | ug/L | 99.825 | 21 | -0.000 |
| > | Sc | 45 | | ug/L | | 643470 | 643470.488 |
| | Mn | 55 | 0.283 | ug/L | 5.774 | 6389 | 0.007 |
| > | Lu | 175 | | ug/L | | 585134 | 585134.328 |
| | Tl | 205 | 0.483 | ug/L | 1.138 | 11475 | 0.018 |
| | Pb | 208 | 0.021 | ug/L | 5.320 | 1327 | 0.001 |
| | U | 238 | -0.000 | ug/L | 198.800 | 193 | -0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 96.2 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 98.2 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032563**
**Sample Date/Time: Thursday, February 25, 2010 15:15:56**
**Sample Type:**
**Sample Description: LANL 6020 LCS**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032563.371**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **49.625** | **ug/L** | 4.308 | 32048 | 0.049 |
| > | Sc | 45 | | **ug/L** | | 656083 | 656083.082 |
| | Mn | 55 | **50.137** | **ug/L** | 2.054 | 758987 | 1.154 |
| > | Lu | 175 | | **ug/L** | | 589037 | 589037.009 |
| | Tl | 205 | **42.034** | **ug/L** | 2.037 | 930318 | 1.578 |
| | Pb | 208 | **52.764** | **ug/L** | 2.619 | 2163992 | 3.673 |
| | U | 238 | **51.774** | **ug/L** | 0.516 | 2660967 | 4.517 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 98.1 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 98.9 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 15:23:43**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 6.374**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **54.183** | **ug/L** | 1.937 | 31055 | 0.053 |
| > | Sc | 45 | | **ug/L** | | 582090 | 582090.176 |
| | Mn | 55 | **54.374** | **ug/L** | 3.736 | 730010 | 1.251 |
| > | Lu | 175 | | **ug/L** | | 593497 | 593496.547 |
| | Tl | 205 | **52.300** | **ug/L** | 3.630 | 1165289 | 1.963 |
| | Pb | 208 | **54.421** | **ug/L** | 2.513 | 2248095 | 3.789 |
| | U | 238 | **53.119** | **ug/L** | 0.451 | 2750767 | 4.635 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 108.365 | | | | |
| > | Sc | 45 | | 87.0 | | | |
| | Mn | 55 | 108.748 | | | | |
| > | Lu | 175 | | 99.6 | | | |
| | Tl | 205 | 104.601 | | | | |
| | Pb | 208 | 108.842 | | | | |
| | U | 238 | 106.238 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 15:26:15**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 7.375**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 0.005 | ug/L | 23.854 | 26 | 0.000 |
| > | Sc | 45 | | ug/L | | 602746 | 602745.952 |
| | Mn | 55 | 0.003 | ug/L | 113.169 | 2105 | 0.000 |
| > | Lu | 175 | | ug/L | | 615579 | 615578.706 |
| | Tl | 205 | 0.490 | ug/L | 4.079 | 12233 | 0.018 |
| | Pb | 208 | 0.001 | ug/L | 113.914 | 533 | 0.000 |
| | U | 238 | 0.006 | ug/L | 6.248 | 549 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 90.1 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 103.3 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 245975001**
**Sample Date/Time: Thursday, February 25, 2010 15:31:23**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\245975001.377**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | -0.006 | ug/L | 101.110 | 21 | -0.000 |
| > | Sc | 45 | | ug/L | | 638596 | 638595.628 |
| | Mn | 55 | 0.690 | ug/L | 1.639 | 12322 | 0.016 |
| > | Lu | 175 | | ug/L | | 589778 | 589777.970 |
| | Tl | 205 | 0.227 | ug/L | 4.966 | 5904 | 0.009 |
| | Pb | 208 | 0.199 | ug/L | 1.441 | 8623 | 0.014 |
| | U | 238 | 0.039 | ug/L | 2.965 | 2222 | 0.003 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 95.5 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 99.0 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032564**
**Sample Date/Time: Thursday, February 25, 2010 15:39:45**
**Sample Type:**
**Sample Description: LANL 6020 DUP**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032564.380**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | -0.003 | ug/L | 216.799 | 22 | -0.000 |
| > | Sc | 45 | | ug/L | | 643322 | 643321.984 |
| | Mn | 55 | 0.626 | ug/L | 2.225 | 11465 | 0.014 |
| > | Lu | 175 | | ug/L | | 594600 | 594599.800 |
| | Tl | 205 | 0.097 | ug/L | 3.017 | 3045 | 0.004 |
| | Pb | 208 | 0.145 | ug/L | 1.845 | 6466 | 0.010 |
| | U | 238 | 0.013 | ug/L | 4.690 | 878 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 96.2 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 99.8 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032565**
**Sample Date/Time: Thursday, February 25, 2010 15:42:21**
**Sample Type:**
**Sample Description: LANL 6020 MS**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032565.381**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 47.665 | ug/L | 3.328 | 29818 | 0.047 |
| > | Sc | 45 | | ug/L | | 635371 | 635371.076 |
| | Mn | 55 | 48.892 | ug/L | 0.732 | 717113 | 1.125 |
| > | Lu | 175 | | ug/L | | 588240 | 588240.219 |
| | Tl | 205 | 57.057 | ug/L | 5.253 | 1260682 | 2.142 |
| | Pb | 208 | 42.232 | ug/L | 0.828 | 1729953 | 2.940 |
| | U | 238 | 51.407 | ug/L | 1.109 | 2638697 | 4.485 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 95.0 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 98.7 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032566**
**Sample Date/Time: Thursday, February 25, 2010 15:44:58**
**Sample Type:**
**Sample Description: LANL 6020 SDILT**
**Number of Replicates: 3**
**Batch ID: 948740|5|ba|**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032566.382**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **0.000** | **ug/L** | 11232.568 | 23 | 0.000 |
| > | Sc | 45 | | **ug/L** | | 614367 | 614367.315 |
| | Mn | 55 | **0.101** | **ug/L** | 4.725 | 3533 | 0.002 |
| > | Lu | 175 | | **ug/L** | | 627621 | 627620.913 |
| | Tl | 205 | **2.853** | **ug/L** | 3.675 | 68114 | 0.107 |
| | Pb | 208 | **0.023** | **ug/L** | 6.465 | 1516 | 0.002 |
| | U | 238 | **0.004** | **ug/L** | 2.553 | 424 | 0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 91.8 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 105.3 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 15:50:25**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 6.384**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **51.732** | **ug/L** | 4.848 | 29509 | 0.051 |
| > | Sc | 45 | | **ug/L** | | 579534 | 579534.140 |
| | Mn | 55 | **53.551** | **ug/L** | 1.178 | 716125 | 1.232 |
| > | Lu | 175 | | **ug/L** | | 613922 | 613922.104 |
| | Tl | 205 | **50.004** | **ug/L** | 1.850 | 1153173 | 1.877 |
| | Pb | 208 | **52.325** | **ug/L** | 1.116 | 2236872 | 3.643 |
| | U | 238 | **51.422** | **ug/L** | 0.906 | 2754482 | 4.487 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | 103.463 | | | | |
| > | Sc | 45 | | 86.6 | | | |
| | Mn | 55 | 107.101 | | | | |
| > | Lu | 175 | | 103.0 | | | |
| | Tl | 205 | 100.009 | | | | |
| | Pb | 208 | 104.651 | | | | |
| | U | 238 | 102.844 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 15:52:57**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\lanl 0225.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 7.385**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| | Be | 9 | **0.002** | **ug/L** | 176.091 | 23 | 0.000 |
| > | Sc | 45 | | **ug/L** | | 580751 | 580751.122 |
| | Mn | 55 | **0.006** | **ug/L** | 93.107 | 2066 | 0.000 |
| > | Lu | 175 | | **ug/L** | | 608046 | 608045.886 |
| | Tl | 205 | **1.444** | **ug/L** | 1.703 | 33844 | 0.054 |
| | Pb | 208 | **0.002** | **ug/L** | 22.146 | 571 | 0.000 |
| | U | 238 | **0.007** | **ug/L** | 7.541 | 605 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Be | 9 | Linear Thru Zero | 1.0000 |
| Sc | 45 | Linear Thru Zero | |
| Mn | 55 | Linear Thru Zero | 0.9999 |
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |
| Pb | 208 | Linear Thru Zero | 0.9999 |
| U | 238 | Linear Thru Zero | 0.9999 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| | Be | 9 | | | | | |
| > | Sc | 45 | | 86.8 | | | |
| | Mn | 55 | | | | | |
| > | Lu | 175 | | 102.0 | | | |
| | Tl | 205 | | | | | |
| | Pb | 208 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|
| QC Std 7 | Tl | 205 | CCB is out of limits (+-/ PQL) |

# QC Action

QC Action Line: Continue

# ICPMS#5 - Summary Report

**Sample ID: Blank**
**Sample Date/Time: Thursday, February 25, 2010 15:57:01**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\Blank.386**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 599602 | |
| | U | 238 | | ug/L | | 354 | |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: Standard 1**
**Sample Date/Time: Thursday, February 25, 2010 15:58:40**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\Standard 1.387**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 598286 | 598285.760 |
| ⌊ | U | 238 | 10.000 | ug/L | 1.095 | 639626 | 1.069 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | | | | |
| ⌊ | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: Standard 2**
**Sample Date/Time: Thursday, February 25, 2010 16:00:17**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\Standard 2.388**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 591647 | 591647.028 |
| | U | 238 | 99.816 | ug/L | 0.480 | 5330455 | 9.009 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 1**
**Sample Date/Time: Thursday, February 25, 2010 16:01:54**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 1.389**

## Concentration Results

| | Analyte | Mass | **Conc. Mean** | **Report Unit** | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | **ug/L** | | 594744 | 594744.465 |
| | U | 238 | **52.109** | **ug/L** | 1.185 | 2797259 | 4.703 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 99.2 | | | |
| | U | 238 | 104.217 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 2**
**Sample Date/Time: Thursday, February 25, 2010 16:03:34**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 2.390**

## Concentration Results

| | Analyte | Mass | **Conc. Mean** | **Report Unit** | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | **ug/L** | | 616563 | 616563.277 |
| ⌊ | U | 238 | **0.017** | **ug/L** | 6.946 | 1307 | 0.002 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 102.8 | | | |
| ⌊ | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 3**
**Sample Date/Time: Thursday, February 25, 2010 16:05:18**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 3.391**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 600065 | 600064.857 |
| | U | 238 | 0.244 | ug/L | 1.225 | 13546 | 0.022 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 100.1 | | | |
| | U | 238 | 121.797 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 4**
**Sample Date/Time: Thursday, February 25, 2010 16:07:01**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 4.392**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 544306 | 544305.822 |
| | U | 238 | -0.001 | ug/L | 6.362 | 248 | -0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 90.8 | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 5**
**Sample Date/Time: Thursday, February 25, 2010 16:08:40**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 5.393**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 539792 | 539791.708 |
| | U | 238 | 23.423 | ug/L | 0.126 | 1141451 | 2.114 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 90.0 | | | |
| | U | 238 | 117.115 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 16:10:20**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 6.394**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 596598 | 596598.137 |
| ⌊ | U | 238 | 51.765 | ug/L | 0.946 | 2787532 | 4.672 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 99.5 | | | |
| ⌊ | U | 238 | 103.530 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 16:12:01**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 7.395**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | ug/L | | 594162 | 594161.567 |
| [ | U | 238 | 0.010 | ug/L | 6.225 | 887 | 0.001 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| [> | Lu | 175 | | 99.1 | | | |
| [ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032562**
**Sample Date/Time: Thursday, February 25, 2010 16:13:44**
**Sample Type:**
**Sample Description: LANL 6020 MB**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032562.396**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 561602 | 561602.446 |
| ⌊ | U | 238 | -0.000 | ug/L | 231.891 | 321 | -0.000 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 93.7 | | | |
| ⌊ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032563**
**Sample Date/Time: Thursday, February 25, 2010 16:15:27**
**Sample Type:**
**Sample Description: LANL 6020 LCS**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032563.397**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 570802 | 570802.292 |
| | U | 238 | 50.564 | ug/L | 1.023 | 2605073 | 4.564 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 95.2 | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 245975001**
**Sample Date/Time: Thursday, February 25, 2010 16:22:22**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\245975001.401**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 584285 | 584285.371 |
| | U | 238 | 0.034 | ug/L | 3.126 | 2124 | 0.003 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 97.4 | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 16:24:04**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 6.402**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 619346 | 619345.966 |
| | U | 238 | 49.089 | ug/L | 0.403 | 2744254 | 4.430 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 103.3 | | | |
| | U | 238 | 98.177 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 16:25:45**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 7.403**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 622016 | 622015.783 |
| | U | 238 | 0.010 | ug/L | 6.333 | 921 | 0.001 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 103.7 | | | |
| | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032564**
**Sample Date/Time: Thursday, February 25, 2010 16:30:55**
**Sample Type:**
**Sample Description: LANL 6020 DUP**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032564.406**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 587644 | 587643.561 |
| ⌊ | U | 238 | 0.010 | ug/L | 6.425 | 883 | 0.001 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 98.0 | | | |
| ⌊ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032565**
**Sample Date/Time: Thursday, February 25, 2010 16:32:39**
**Sample Type:**
**Sample Description: LANL 6020 MS**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032565.407**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 587968 | 587967.926 |
| ⌊ | U | 238 | 49.454 | ug/L | 1.450 | 2624658 | 4.463 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 98.1 | | | |
| ⌊ | U | 238 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032566**
**Sample Date/Time: Thursday, February 25, 2010 16:34:25**
**Sample Type:**
**Sample Description: LANL 6020 SDILT**
**Number of Replicates: 3**
**Batch ID: 948740|5|baj**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\1202032566.408**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 624063 | 624063.010 |
| | U | 238 | 0.006 | ug/L | 8.896 | 693 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 104.1 | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Thursday, February 25, 2010 16:36:08**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 6.409**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 604405 | 604404.935 |
| | U | 238 | 50.306 | ug/L | 0.810 | 2744319 | 4.540 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 100.8 | | | |
| | U | 238 | 100.612 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Thursday, February 25, 2010 16:37:49**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\u only.mth**
**Dataset File: c:\elandata\Dataset\100224\QC Std 7.410**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 601216 | 601215.925 |
| | U | 238 | 0.010 | ug/L | 9.203 | 908 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| U | 238 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 100.3 | | | |
| | U | 238 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS #5 Daily Performance Report

**Sample ID: Sample**
Sample Date/Time: Sunday, February 28, 2010 11:19:11
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.612
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

## Summary

| | Analyte | Mass | Meas. Intens. Mean | Net Intens. Mean | Net Intens. SD | Net Intens. RSD |
|---|---|---|---|---|---|---|
| | Be | 9.0 | 6196.3 | 6196.344 | 143.347 | 2.3 |
| | Mg | 24.0 | 67234.2 | 67234.247 | 309.860 | 0.5 |
| | Co | 58.9 | 132558.2 | 132558.202 | 1103.361 | 0.8 |
| | Rh | 102.9 | 258781.3 | 258781.341 | 1982.494 | 0.8 |
| | In | 114.9 | 336320.1 | 336320.050 | 2837.596 | 0.8 |
| | Pb | 208.0 | 320426.5 | 320426.537 | 1072.771 | 0.3 |
| ⌈> | Ba | 137.9 | 331832.6 | 331832.612 | 2204.656 | 0.7 |
| ⌊ | Ba++ | 69.0 | 5415.4 | 0.016 | 0.000 | 1.6 |
| ⌈> | Ce | 139.9 | 412164.8 | 412164.835 | 3829.750 | 0.9 |
| ⌊ | CeO | 155.9 | 10667.4 | 0.026 | 0.001 | 3.8 |
| | Bkgd | 220.0 | 21.3 | 21.300 | 4.604 | 21.6 |

## Current Optimization File Data

| Current Value | Description |
|---|---|
| 0.87 | Nebulizer Gas Flow |
| 6.00 | Lens Voltage |
| 1450.00 | ICP RF Power |
| -1750.00 | Analog Stage Voltage |
| 1250.00 | Pulse Stage Voltage |
| 275.00 | Discriminator Threshold |
| -6.00 | AC Rod Offset |

## Current Autolens Data

| Analyte | Mass | Num of Pts | DAC Value | Maximum Intensity |
|---|---|---|---|---|
| Be | 9 | 13 | 6.0 | 6925.3 |
| Co | 59 | 13 | 6.5 | 130705.5 |
| In | 115 | 13 | 7.3 | 340695.4 |

# ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

| Analyte | Exact Mass | Meas. Mass | Mass DAC | Res. DAC | Meas. Pk. Width |
|---|---|---|---|---|---|
| He | 3.0 | 3.0 | 595 | 2050 | 0.661 |
| Be | 9.0 | 9.0 | 2061 | 2075 | 0.622 |
| Mg | 24.0 | 24.0 | 5689 | 2080 | 0.610 |
| Mg | 25.0 | 25.0 | 5941 | 2080 | 0.625 |
| Mg | 26.0 | 26.0 | 6167 | 2080 | 0.630 |
| Co | 58.9 | 58.9 | 14183 | 2110 | 0.614 |
| Rh | 102.9 | 102.9 | 24875 | 2160 | 0.629 |
| In | 114.9 | 114.9 | 27789 | 2180 | 0.626 |
| Ce | 139.9 | 139.9 | 33873 | 2200 | 0.627 |
| Pb | 206.0 | 206.0 | 49948 | 2295 | 0.581 |
| Pb | 207.0 | 207.0 | 50171 | 2240 | 0.628 |
| Pb | 208.0 | 208.0 | 50451 | 2265 | 0.688 |
| U | 238.1 | 238.1 | 57734 | 2275 | 0.722 |

# ICPMS#5 - Summary Report

**Sample ID: Blank**
**Sample Date/Time: Sunday, February 28, 2010 11:32:41**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\Blank.001**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 677057 | |
| ⌊ | Tl | 205 | | ug/L | | 808 | |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Simple Linear | |
| Tl | 205 | Simple Linear | |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | | | | |
| ⌊ | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: Standard 1**
**Sample Date/Time: Sunday, February 28, 2010 11:35:51**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\Standard 1.002**

## Concentration Results

| | Analyte | Mass | **Conc. Mean** | **Report Unit** | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | **ug/L** | | 667556 | 667556.025 |
| ⌊ | Tl | 205 | **10.000** | **ug/L** | 0.862 | 294295 | 0.440 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 1.0000 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | | | | |
| ⌊ | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: Standard 2**
**Sample Date/Time: Sunday, February 28, 2010 11:38:57**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\Standard 2.003**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 659367 | 659366.978 |
| | Tl | 205 | 99.812 | ug/L | 1.331 | 2437008 | 3.695 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | | | | |
| | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 1**
**Sample Date/Time: Sunday, February 28, 2010 11:42:05**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 1.004**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 673365 | 673364.882 |
| | Tl | 205 | 53.184 | ug/L | 1.645 | 1326362 | 1.969 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 99.5 | | | |
| | Tl | 205 | 106.368 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 2**
**Sample Date/Time: Sunday, February 28, 2010 11:45:15**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 2.005**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 681777 | 681776.982 |
| | Tl | 205 | 0.030 | ug/L | 1.811 | 1560 | 0.001 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 100.7 | | | |
| | Tl | 205 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 3**
**Sample Date/Time: Sunday, February 28, 2010 11:48:25**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 3.006**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 672467 | 672467.132 |
| | Tl | 205 | 1.266 | ug/L | 0.670 | 32318 | 0.047 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 99.3 | | | |
| | Tl | 205 | 126.599 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 4**
**Sample Date/Time: Sunday, February 28, 2010 11:51:33**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 4.007**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 588832 | 588831.842 |
| | Tl | 205 | 0.013 | ug/L | 10.715 | 984 | 0.000 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 87.0 | | | |
| | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 5**
**Sample Date/Time: Sunday, February 28, 2010 11:54:43**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 5.008**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 590656 | 590656.176 |
| ⌊ | Tl | 205 | 22.733 | ug/L | 1.043 | 497747 | 0.842 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 87.2 | | | |
| ⌊ | Tl | 205 | 113.667 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Sunday, February 28, 2010 11:57:52**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 6.009**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 670145 | 670145.439 |
| ⌊ | Tl | 205 | 53.996 | ug/L | 0.427 | 1340274 | 1.999 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 99.0 | | | |
| ⌊ | Tl | 205 | 107.992 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Sunday, February 28, 2010 12:01:03**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 7.010**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 686615 | 686614.820 |
| | Tl | 205 | 0.021 | ug/L | 4.777 | 1342 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 101.4 | | | |
| | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Sunday, February 28, 2010 12:20:09**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 8.016**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 686305 | 686304.568 |
| | Tl | 205 | 52.972 | ug/L | 1.323 | 1346565 | 1.961 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Di | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 101.4 | | | |
| | Tl | 205 | 105.943 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Sunday, February 28, 2010 12:23:20**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 9.017**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 688824 | 688824.054 |
| | Tl | 205 | 0.058 | ug/L | 1.241 | 2291 | 0.002 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 101.7 | | | |
| | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Sunday, February 28, 2010 12:42:31**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 8.023**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 668337 | 668336.676 |
| | Tl | 205 | 53.656 | ug/L | 1.715 | 1328080 | 1.986 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 98.7 | | | |
| | Tl | 205 | 107.312 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Sunday, February 28, 2010 12:45:42**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 9.024**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 670679 | 670678.529 |
| | Tl | 205 | 0.170 | ug/L | 2.585 | 5015 | 0.006 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 99.1 | | | |
| | Tl | 205 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Sunday, February 28, 2010 13:06:37**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 8.030**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 668176 | 668175.537 |
| ⌊ | Tl | 205 | 52.327 | ug/L | 0.462 | 1295066 | 1.937 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 98.7 | | | |
| ⌊ | Tl | 205 | 104.655 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Sunday, February 28, 2010 13:09:48**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 9.031**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 649044 | 649044.468 |
| | Tl | 205 | 0.080 | ug/L | 1.399 | 2707 | 0.003 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Di | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 95.9 | | | |
| | Tl | 205 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Sunday, February 28, 2010 13:29:00**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 8.037**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 635047 | 635047.332 |
| | Tl | 205 | 53.266 | ug/L | 1.058 | 1252817 | 1.972 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 93.8 | | | |
| | Tl | 205 | 106.531 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Sunday, February 28, 2010 13:32:11**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 9.038**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 653533 | 653533.489 |
| ⌊ | Tl | 205 | 0.138 | ug/L | 1.085 | 4121 | 0.005 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 96.5 | | | |
| ⌊ | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Sunday, February 28, 2010 13:51:27**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 8.044**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 630598 | 630597.877 |
| | Tl | 205 | 53.890 | ug/L | 0.285 | 1258712 | 1.995 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 93.1 | | | |
| | Tl | 205 | 107.780 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Sunday, February 28, 2010 13:54:38**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 9.045**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 655368 | 655368.483 |
| ⌊ | Tl | 205 | 0.124 | ug/L | 1.141 | 3781 | 0.005 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 96.8 | | | |
| ⌊ | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Sunday, February 28, 2010 14:10:43**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 8.050**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 656527 | 656526.813 |
| ⌊ | Tl | 205 | 52.015 | ug/L | 0.912 | 1264760 | 1.925 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 97.0 | | | |
| ⌊ | Tl | 205 | 104.030 | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Sunday, February 28, 2010 14:13:54**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 9.051**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 633750 | 633749.781 |
| ⌊ | Tl | 205 | 0.304 | ug/L | 2.392 | 7889 | 0.011 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 93.6 | | | |
| ⌊ | Tl | 205 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032562**
**Sample Date/Time: Sunday, February 28, 2010 14:17:07**
**Sample Type:**
**Sample Description: LANL 6020 MB**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\1202032562.052**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 637279 | 637278.987 |
| | Tl | 205 | 0.165 | ug/L | 0.459 | 4652 | 0.006 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 94.1 | | | |
| | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032563**
**Sample Date/Time: Sunday, February 28, 2010 14:20:21**
**Sample Type:**
**Sample Description: LANL 6020 LCS**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\1202032563.053**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 618802 | 618801.549 |
| ⌊ | Tl | 205 | 52.260 | ug/L | 0.827 | 1197858 | 1.935 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 91.4 | | | |
| ⌊ | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 245975001**
**Sample Date/Time: Sunday, February 28, 2010 14:33:24**
**Sample Type:**
**Sample Description: LANL 6020**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\245975001.057**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 597343 | 597343.474 |
| | Tl | 205 | 0.119 | ug/L | 3.304 | 3348 | 0.004 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 88.2 | | | |
| | Tl | 205 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 8**
**Sample Date/Time: Sunday, February 28, 2010 14:39:45**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 8.059**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 636661 | 636661.313 |
| ⌊ | Tl | 205 | 51.753 | ug/L | 1.268 | 1220367 | 1.916 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 94.0 | | | |
| ⌊ | Tl | 205 | 103.507 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 9**
**Sample Date/Time: Sunday, February 28, 2010 14:42:56**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 9.060**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 646420 | 646420.439 |
| | Tl | 205 | 0.124 | ug/L | 3.474 | 3745 | 0.005 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 95.5 | | | |
| | Tl | 205 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032564**
**Sample Date/Time: Sunday, February 28, 2010 14:49:15**
**Sample Type:**
**Sample Description: LANL 6020 DUP**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\1202032564.062**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 606403 | 606402.736 |
| ⌊ | Tl | 205 | 0.035 | ug/L | 8.276 | 1508 | 0.001 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 89.6 | | | |
| ⌊ | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032565**
**Sample Date/Time: Sunday, February 28, 2010 14:52:24**
**Sample Type:**
**Sample Description: LANL 6020 MS**
**Number of Replicates: 3**
**Batch ID: 948740|1|baj**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\1202032565.063**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | ug/L | | 604264 | 604263.531 |
| | Tl | 205 | 74.988 | ug/L | 1.789 | 1678038 | 2.776 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dif | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| > | Lu | 175 | | 89.2 | | | |
| | Tl | 205 | | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: 1202032566**
**Sample Date/Time: Sunday, February 28, 2010 14:55:34**
**Sample Type:**
**Sample Description: LANL 6020 SDILT**
**Number of Replicates: 3**
**Batch ID: 948740|5|baj**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\1202032566.064**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 622697 | 622697.219 |
| ⌊ | Tl | 205 | 1.665 | ug/L | 1.459 | 39115 | 0.062 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 92.0 | | | |
| ⌊ | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 6**
**Sample Date/Time: Sunday, February 28, 2010 14:58:44**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 6.065**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 639572 | 639571.983 |
| ⌊ | Tl | 205 | 52.103 | ug/L | 0.346 | 1234316 | 1.929 |

## Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 94.5 | | | |
| ⌊ | Tl | 205 | 104.206 | | | | |

## QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

## QC Action

QC Action Line: No QC out of limits detected

# ICPMS#5 - Summary Report

**Sample ID: QC Std 7**
**Sample Date/Time: Sunday, February 28, 2010 15:01:55**
**Sample Type:**
**Sample Description:**
**Number of Replicates: 3**
**Batch ID:**
**Method File: c:\elandata\Method\tl only.mth**
**Dataset File: C:\elandata\Dataset\100228\QC Std 7.066**

## Concentration Results

| | Analyte | Mass | Conc. Mean | Report Unit | Conc. RSD | Meas. Intens. Mean | Net Intens. Mean |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | ug/L | | 627865 | 627864.641 |
| ⌊ | Tl | 205 | 0.778 | ug/L | 1.776 | 18837 | 0.029 |

# Calibration

| Analyte | Mass | Curve Type | Correlation Coefficient |
|---|---|---|---|
| Lu | 175 | Linear Thru Zero | |
| Tl | 205 | Linear Thru Zero | 0.9998 |

## QC Calculated Values

| | Analyte | Mass | QC Std % Recovery | Int Std % Recovery | Spike % Recov | Dilution % Dil | Duplicate Rel. % Difference |
|---|---|---|---|---|---|---|---|
| ⌈> | Lu | 175 | | 92.7 | | | |
| ⌊ | Tl | 205 | | | | | |

# QC Out Of Limits

| Measurement Type | Analyte | Mass | Out of Limits Message |
|---|---|---|---|

# QC Action

QC Action Line: No QC out of limits detected

==========

**Analysis Begun**

**Logged In Analyst: Administrator** **Technique: AA FIMS-MHS**
**Spectrometer Model: FIMS-100, S/N B050-9550** **Autosampler Model: S10**

**Sample Information File: C:\data-AA\Administrator\Sample Information\020510W1.SIF**
**Batch ID:**
**Results Data Set: 020510W1**
**Results Library: C:\data-AA\Administrator\Results\Results.mdb**

==========

**Method Loaded**
**Method Name: WATER** **Method Last Saved: 12/28/2009 15:47:50**
**Method Description: 7470A, 245.2, ILM04 ANALYST JXL**

==========

**Sequence No.: 1** **Autosampler Location: 1**
**Sample ID: Calib Blank** **Date Collected: 2/5/2010 09:03:54**
**Analyst:** **Data Type: Original**

---

**Replicate Data: Calib Blank**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | [0.00] | 0.0003 | 0.0006 | 0.0003 | 09:04:56 | Yes |
| 2 | | [0.00] | 0.0002 | -0.0003 | 0.0002 | 09:05:30 | Yes |
| Mean: | | [0.00] | 0.0002 | | | | |
| SD: | | 0.00 | 0.0000 | | | | |
| %RSD: | | 0.00 | 20.18 | | | | |

Auto-zero performed.

==========

**Sequence No.: 2** **Autosampler Location: 2**
**Sample ID: S0.2** **Date Collected: 2/5/2010 09:05:49**
**Analyst:** **Data Type: Original**

---

**Replicate Data: S0.2**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | [0.2] | 0.0019 | 0.0085 | 0.0021 | 09:06:50 | Yes |
| 2 | | [0.2] | 0.0019 | 0.0079 | 0.0021 | 09:07:24 | Yes |
| Mean: | | [0.2] | 0.0019 | | | | |
| SD: | | 0.0 | 0.0000 | | | | |
| %RSD: | | 0.0 | 0.42 | | | | |

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00933 Intercept: 0.00000

==========

**Sequence No.: 3** **Autosampler Location: 3**
**Sample ID: S0.5** **Date Collected: 2/5/2010 09:07:43**
**Analyst:** **Data Type: Original**

---

**Replicate Data: S0.5**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | [0.5] | 0.0047 | 0.0201 | 0.0049 | 09:08:45 | Yes |
| 2 | | [0.5] | 0.0048 | 0.0214 | 0.0050 | 09:09:19 | Yes |
| Mean: | | [0.5] | 0.0047 | | | | |
| SD: | | 0.0 | 0.0001 | | | | |
| %RSD: | | 0.0 | 1.87 | | | | |

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999967 Slope: 0.00950 Intercept: -0.00001

==========

**Sequence No.: 4** **Autosampler Location: 4**
**Sample ID: S2.0** **Date Collected: 2/5/2010 09:09:39**
**Analyst:** **Data Type: Original**

**Replicate Data: S2.0**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | [2.0] | 0.0191 | 0.0825 | 0.0194 | 09:10:40 | Yes |
| 2 | | [2.0] | 0.0190 | 0.0814 | 0.0192 | 09:11:15 | Yes |
| Mean: | | [2.0] | 0.0190 | | | | |
| SD: | | 0.0 | 0.0001 | | | | |
| %RSD: | | 0.0 | 0.73 | | | | |

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.00953 Intercept: -0.00002

**Sequence No.: 5** **Autosampler Location: 5**
**Sample ID: S5.0** **Date Collected: 2/5/2010 09:11:35**
**Analyst:** **Data Type: Original**

**Replicate Data: S5.0**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | [5.0] | 0.0473 | 0.2057 | 0.0476 | 09:12:37 | Yes |
| 2 | | [5.0] | 0.0469 | 0.2028 | 0.0471 | 09:13:12 | Yes |
| Mean: | | [5.0] | 0.0471 | | | | |
| SD: | | 0.0 | 0.0003 | | | | |
| %RSD: | | 0.0 | 0.72 | | | | |

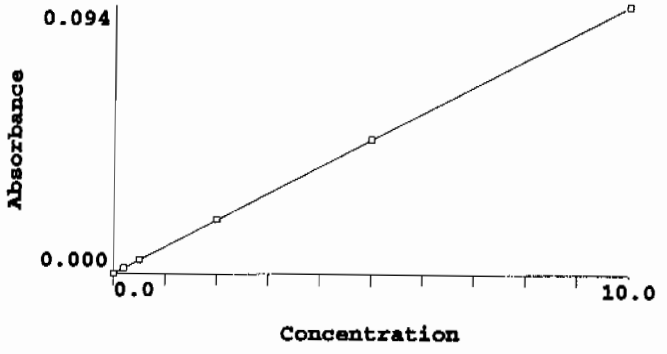
Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00942 Intercept: 0.00004

**Sequence No.: 6** **Autosampler Location: 6**
**Sample ID: S10.0** **Date Collected: 2/5/2010 09:13:32**
**Analyst:** **Data Type: Original**

**Replicate Data: S10.0**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | | [10.0] | 0.0944 | 0.4143 | 0.0947 | 09:14:32 | Yes |
| 2 | | [10.0] | 0.0937 | 0.4076 | 0.0940 | 09:15:07 | Yes |
| Mean: | | [10.0] | 0.0941 | | | | |
| SD: | | 0.0 | 0.0005 | | | | |
| %RSD: | | 0.0 | 0.53 | | | | |

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006




**Calibration data for Hg 253.7** **Equation: Linear, Calculated Intercept**

| ID | Mean Signal (Abs) | Entered Conc. ug/L | Calculated Conc. ug/L | Standard Deviation | %RSD |
|---|---|---|---|---|---|
| Calib Blank | 0.0000 | 0 | -0.006 | 0.00 | 20.2 |
| S0.2 | 0.0019 | 0.2 | 0.192 | 0.00 | 0.4 |
| S0.5 | 0.0047 | 0.5 | 0.498 | 0.00 | 1.9 |
| S2.0 | 0.0190 | 2.0 | 2.019 | 0.00 | 0.7 |

| | | | | | |
|---|---|---|---|---|---|
| S5.0 | 0.0471 | 5.0 | 5.001 | 0.00 | 0.7 |
| S10.0 | 0.0941 | 10.0 | 9.996 | 0.00 | 0.5 |

Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

---

**Sequence No.: 7**
**Sample ID: ICV**
**Analyst:**

**Autosampler Location: 9**
**Date Collected: 2/5/2010 09:15:26**
**Data Type: Original**

**Replicate Data: ICV**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 4.965 | 4.965 | 0.0468 | 0.2021 | 0.0470 | 09:16:27 | Yes |
| 2 | 4.945 | 4.945 | 0.0466 | 0.2010 | 0.0468 | 09:17:02 | Yes |
| Mean: | 4.955 | 4.955 | 0.0467 | | | | |
| SD: | 0.014 | 0.014 | 0.0001 | | | | |
| %RSD: | 0.281 | 0.281 | 0.28 | | | | |

QC value within limits for Hg 253.7 Recovery = 99.10%
All analyte(s) passed QC.

---

**Sequence No.: 8**
**Sample ID: ICB**
**Analyst:**

**Autosampler Location: 10**
**Date Collected: 2/5/2010 09:17:22**
**Data Type: Original**

**Replicate Data: ICB**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.014 | -0.014 | -0.0001 | -0.0008 | 0.0002 | 09:18:23 | Yes |
| 2 | -0.012 | -0.012 | -0.0000 | -0.0006 | 0.0002 | 09:18:58 | Yes |
| Mean: | -0.013 | -0.013 | -0.0001 | | | | |
| SD: | 0.002 | 0.002 | 0.0000 | | | | |
| %RSD: | 11.89 | 11.89 | 23.69 | | | | |

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

---

**Sequence No.: 9**
**Sample ID: CRDL**
**Analyst:**

**Autosampler Location: 11**
**Date Collected: 2/5/2010 09:19:18**
**Data Type: Original**

**Replicate Data: CRDL**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.191 | 0.191 | 0.0019 | 0.0082 | 0.0021 | 09:20:19 | Yes |
| 2 | 0.191 | 0.191 | 0.0019 | 0.0082 | 0.0021 | 09:20:54 | Yes |
| Mean: | 0.191 | 0.191 | 0.0019 | | | | |
| SD: | 0.000 | 0.000 | 0.0000 | | | | |
| %RSD: | 0.034 | 0.034 | 0.03 | | | | |

QC value within limits for Hg 253.7 Recovery = 95.30%
All analyte(s) passed QC.

---

**Sequence No.: 10**
**Sample ID: CCV**
**Analyst:**

**Autosampler Location: 7**
**Date Collected: 2/5/2010 09:21:14**
**Data Type: Original**

**Replicate Data: CCV**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 5.014 | 5.014 | 0.0472 | 0.2051 | 0.0475 | 09:22:14 | Yes |
| 2 | 4.974 | 4.974 | 0.0468 | 0.2038 | 0.0471 | 09:22:50 | Yes |
| Mean: | 4.994 | 4.994 | 0.0470 | | | | |
| SD: | 0.029 | 0.029 | 0.0003 | | | | |
| %RSD: | 0.577 | 0.577 | 0.58 | | | | |

QC value within limits for Hg 253.7 Recovery = 99.88%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/5/2010 09:23:09
Data Type: Original

Replicate Data: CCB

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.011 | -0.011 | -0.0000 | -0.0002 | 0.0002 | 09:24:10 | Yes |
| 2 | -0.006 | -0.006 | 0.0000 | 0.0002 | 0.0002 | 09:24:45 | Yes |
| Mean: | -0.009 | -0.009 | -0.0000 | | | | |
| SD: | 0.004 | 0.004 | 0.0000 | | | | |
| %RSD: | 42.32 | 42.32 | 156.50 | | | | |

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202029931|947628|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 2/5/2010 09:25:04
Data Type: Original

Replicate Data: 1202029931|947628|1

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.010 | -0.010 | -0.0000 | -0.0005 | 0.0002 | 09:26:06 | Yes |
| 2 | -0.005 | -0.005 | 0.0000 | -0.0001 | 0.0002 | 09:26:40 | Yes |
| Mean: | -0.008 | -0.008 | -0.0000 | | | | |
| SD: | 0.003 | 0.003 | 0.0000 | | | | |
| %RSD: | 44.19 | 44.19 | 224.20 | | | | |

Sequence No.: 13
Sample ID: 1202029932|947628|1
Analyst: JXL
Autosampler Location: 13
Date Collected: 2/5/2010 09:27:01
Data Type: Original

Replicate Data: 1202029932|947628|1

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 2.022 | 2.022 | 0.0191 | 0.0835 | 0.0193 | 09:28:02 | Yes |
| 2 | 2.026 | 2.026 | 0.0191 | 0.0827 | 0.0193 | 09:28:37 | Yes |
| Mean: | 2.024 | 2.024 | 0.0191 | | | | |
| SD: | 0.003 | 0.003 | 0.0000 | | | | |
| %RSD: | 0.144 | 0.144 | 0.14 | | | | |

Sequence No.: 14
Sample ID: 245601001|947628|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 2/5/2010 09:28:58
Data Type: Original

Replicate Data: 245601001|947628|1

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.004 | -0.004 | 0.0000 | 0.0002 | 0.0002 | 09:29:58 | Yes |
| 2 | 0.002 | 0.002 | 0.0001 | 0.0008 | 0.0003 | 09:30:33 | Yes |
| Mean: | -0.001 | -0.001 | 0.0000 | | | | |
| SD: | 0.004 | 0.004 | 0.0000 | | | | |
| %RSD: | 299.4 | 299.4 | 87.21 | | | | |

Sequence No.: 15
Sample ID: 245614001|947628|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 2/5/2010 09:30:52
Data Type: Original

Replicate Data: 245614001|947628|1

| Repl | SampleConc | StndConc | BlnkCorr | Peak | Peak | Time | Peak |
|---|---|---|---|---|---|---|---|

Replicate Data: 1202029937|947628|5

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.008 | -0.008 | -0.0000 | 0.0002 | 0.0002 | 09:41:26 | Yes |
| 2 | -0.008 | -0.008 | -0.0000 | -0.0004 | 0.0002 | 09:42:01 | Yes |
| Mean: | -0.008 | -0.008 | -0.0000 | | | | |
| SD: | 0.000 | 0.000 | 0.0000 | | | | |
| %RSD: | 1.270 | 1.270 | 5.82 | | | | |

Sequence No.: 21
Sample ID: 1202033203|949020|1
Analyst: JXL
Autosampler Location: 21
Date Collected: 2/5/2010 09:42:20
Data Type: Original

Replicate Data: 1202033203|949020|1

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.002 | 0.002 | 0.0001 | 0.0006 | 0.0003 | 09:43:21 | Yes |
| 2 | 0.003 | 0.003 | 0.0001 | 0.0014 | 0.0003 | 09:43:56 | Yes |
| Mean: | 0.002 | 0.002 | 0.0001 | | | | |
| SD: | 0.001 | 0.001 | 0.0000 | | | | |
| %RSD: | 53.61 | 53.61 | 15.02 | | | | |

Sequence No.: 22
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 2/5/2010 09:44:15
Data Type: Original

Replicate Data: CCV

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 4.947 | 4.947 | 0.0466 | 0.2056 | 0.0468 | 09:45:17 | Yes |
| 2 | 4.906 | 4.906 | 0.0462 | 0.2030 | 0.0464 | 09:45:52 | Yes |
| Mean: | 4.927 | 4.927 | 0.0464 | | | | |
| SD: | 0.029 | 0.029 | 0.0003 | | | | |
| %RSD: | 0.589 | 0.589 | 0.59 | | | | |

QC value within limits for Hg 253.7 Recovery = 98.53%
All analyte(s) passed QC.

Sequence No.: 23
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/5/2010 09:46:11
Data Type: Original

Replicate Data: CCB

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.007 | -0.007 | -0.0000 | 0.0003 | 0.0002 | 09:47:12 | Yes |
| 2 | 0.006 | 0.006 | 0.0001 | 0.0006 | 0.0003 | 09:47:46 | Yes |
| Mean: | 0.000 | 0.000 | 0.0001 | | | | |
| SD: | 0.009 | 0.009 | 0.0001 | | | | |
| %RSD: | >999.9% | >999.9% | 153.08 | | | | |

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24
Sample ID: 1202033204|949020|1
Analyst: JXL
Autosampler Location: 22
Date Collected: 2/5/2010 09:48:06
Data Type: Original

Replicate Data: 1202033204|949020|1

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 2.013 | 2.013 | 0.0190 | 0.0852 | 0.0192 | 09:49:07 | Yes |
| 2 | 2.004 | 2.004 | 0.0189 | 0.0839 | 0.0191 | 09:49:42 | Yes |

| | | | |
|---|---|---|---|
| Mean: | 2.009 | 2.009 | 0.0190 |
| SD: | 0.006 | 0.006 | 0.0001 |
| %RSD: | 0.312 | 0.312 | 0.31 |

==========

**Sequence No.: 25** **Autosampler Location: 23**
**Sample ID: 245911001|949020|1** **Date Collected: 2/5/2010 09:50:02**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 245911001|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.015 | 0.015 | 0.0002 | 0.0022 | 0.0004 | 09:51:03 | Yes |
| 2 | 0.017 | 0.017 | 0.0002 | 0.0028 | 0.0005 | 09:51:38 | Yes |
| Mean: | 0.016 | 0.016 | 0.0002 | | | | |
| SD: | 0.001 | 0.001 | 0.0000 | | | | |
| %RSD: | 7.972 | 7.972 | 5.75 | | | | |

==========

**Sequence No.: 26** **Autosampler Location: 24**
**Sample ID: 245922001|949020|1** **Date Collected: 2/5/2010 09:51:58**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 245922001|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.004 | 0.004 | 0.0001 | 0.0012 | 0.0003 | 09:53:00 | Yes |
| 2 | 0.007 | 0.007 | 0.0001 | 0.0009 | 0.0004 | 09:53:35 | Yes |
| Mean: | 0.006 | 0.006 | 0.0001 | | | | |
| SD: | 0.002 | 0.002 | 0.0000 | | | | |
| %RSD: | 44.12 | 44.12 | 20.60 | | | | |

==========

**Sequence No.: 27** **Autosampler Location: 25**
**Sample ID: 245939001|949020|1** **Date Collected: 2/5/2010 09:53:55**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 245939001|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.018 | 0.018 | 0.0002 | 0.0030 | 0.0005 | 09:54:57 | Yes |
| 2 | 0.022 | 0.022 | 0.0003 | 0.0034 | 0.0005 | 09:55:32 | Yes |
| Mean: | 0.020 | 0.020 | 0.0002 | | | | |
| SD: | 0.003 | 0.003 | 0.0000 | | | | |
| %RSD: | 14.54 | 14.54 | 11.04 | | | | |

==========

**Sequence No.: 28** **Autosampler Location: 26**
**Sample ID: 245939002|949020|1** **Date Collected: 2/5/2010 09:55:52**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 245939002|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.002 | 0.002 | 0.0001 | 0.0010 | 0.0003 | 09:56:53 | Yes |
| 2 | 0.006 | 0.006 | 0.0001 | 0.0011 | 0.0003 | 09:57:28 | Yes |
| Mean: | 0.004 | 0.004 | 0.0001 | | | | |
| SD: | 0.003 | 0.003 | 0.0000 | | | | |
| %RSD: | 80.46 | 80.46 | 31.18 | | | | |

==========

**Sequence No.: 29** **Autosampler Location: 27**
**Sample ID: 245953001|949020|1** **Date Collected: 2/5/2010 09:57:47**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 245953001|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.002 | -0.002 | 0.0000 | -0.0001 | 0.0003 | 09:58:48 | Yes |
| 2 | 0.005 | 0.005 | 0.0001 | 0.0008 | 0.0003 | 09:59:23 | Yes |
| Mean: | 0.002 | 0.002 | 0.0001 | | | | |
| SD: | 0.005 | 0.005 | 0.0000 | | | | |
| %RSD: | 292.1 | 292.1 | 59.58 | | | | |

==========

**Sequence No.: 30** **Autosampler Location: 28**
**Sample ID: 245965001|949020|1** **Date Collected: 2/5/2010 09:59:42**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 245965001|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.007 | 0.007 | 0.0001 | 0.0007 | 0.0003 | 10:00:43 | Yes |
| 2 | 0.004 | 0.004 | 0.0001 | 0.0002 | 0.0003 | 10:01:18 | Yes |
| Mean: | 0.005 | 0.005 | 0.0001 | | | | |
| SD: | 0.002 | 0.002 | 0.0000 | | | | |
| %RSD: | 33.02 | 33.02 | 15.09 | | | | |

==========

**Sequence No.: 31** **Autosampler Location: 29**
**Sample ID: 245975001|949020|1** **Date Collected: 2/5/2010 10:01:37**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 245975001|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.000 | 0.000 | 0.0001 | 0.0010 | 0.0003 | 10:02:38 | Yes |
| 2 | 0.004 | 0.004 | 0.0001 | 0.0015 | 0.0003 | 10:03:12 | Yes |
| Mean: | 0.002 | 0.002 | 0.0001 | | | | |
| SD: | 0.003 | 0.003 | 0.0000 | | | | |
| %RSD: | 165.2 | 165.2 | 34.46 | | | | |

==========

**Sequence No.: 32** **Autosampler Location: 30**
**Sample ID: 245981001|949020|1** **Date Collected: 2/5/2010 10:03:32**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 245981001|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.010 | 0.010 | 0.0002 | 0.0021 | 0.0004 | 10:04:32 | Yes |
| 2 | 0.019 | 0.019 | 0.0002 | 0.0034 | 0.0005 | 10:05:07 | Yes |
| Mean: | 0.015 | 0.015 | 0.0002 | | | | |
| SD: | 0.006 | 0.006 | 0.0001 | | | | |
| %RSD: | 43.49 | 43.49 | 30.52 | | | | |

==========

**Sequence No.: 33** **Autosampler Location: 31**
**Sample ID: 246000001|949020|1** **Date Collected: 2/5/2010 10:05:26**
**Analyst: JXL** **Data Type: Original**

---

**Replicate Data: 246000001|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.006 | 0.006 | 0.0001 | 0.0018 | 0.0003 | 10:06:27 | Yes |
| 2 | 0.012 | 0.012 | 0.0002 | 0.0024 | 0.0004 | 10:07:02 | Yes |
| Mean: | 0.009 | 0.009 | 0.0001 | | | | |
| SD: | 0.004 | 0.004 | 0.0000 | | | | |
| %RSD: | 42.51 | 42.51 | 25.13 | | | | |

==========

**Sequence No.: 34** **Autosampler Location: 7**
**Sample ID: CCV** **Date Collected: 2/5/2010 10:07:22**

Analyst: Data Type: Original

Replicate Data: CCV

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 5.069 | 5.069 | 0.0477 | 0.2135 | 0.0480 | 10:08:22 | Yes |
| 2 | 5.033 | 5.033 | 0.0474 | 0.2110 | 0.0476 | 10:08:58 | Yes |
| Mean: | 5.051 | 5.051 | 0.0476 | | | | |
| SD: | 0.025 | 0.025 | 0.0002 | | | | |
| %RSD: | 0.502 | 0.502 | 0.50 | | | | |

QC value within limits for Hg 253.7 Recovery = 101.01%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 10:09:16
Analyst: Data Type: Original

Replicate Data: CCB

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.004 | -0.004 | 0.0000 | 0.0004 | 0.0003 | 10:10:17 | Yes |
| 2 | 0.005 | 0.005 | 0.0001 | 0.0009 | 0.0003 | 10:10:52 | Yes |
| Mean: | 0.001 | 0.001 | 0.0001 | | | | |
| SD: | 0.007 | 0.007 | 0.0001 | | | | |
| %RSD: | >999.9% | >999.9% | 94.99 | | | | |

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246010001|949020|1 Date Collected: 2/5/2010 10:11:11
Analyst: JXL Data Type: Original

Replicate Data: 246010001|949020|1

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.005 | -0.005 | 0.0000 | 0.0003 | 0.0002 | 10:12:12 | Yes |
| 2 | -0.004 | -0.004 | 0.0000 | 0.0007 | 0.0002 | 10:12:47 | Yes |
| Mean: | -0.005 | -0.005 | 0.0000 | | | | |
| SD: | 0.001 | 0.001 | 0.0000 | | | | |
| %RSD: | 17.81 | 17.81 | 51.51 | | | | |

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246056001|949020|1 Date Collected: 2/5/2010 10:13:07
Analyst: JXL Data Type: Original

Replicate Data: 246056001|949020|1

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.003 | -0.003 | 0.0000 | 0.0004 | 0.0003 | 10:14:08 | Yes |
| 2 | 0.002 | 0.002 | 0.0001 | 0.0012 | 0.0003 | 10:14:43 | Yes |
| Mean: | 0.000 | 0.000 | 0.0001 | | | | |
| SD: | 0.004 | 0.004 | 0.0000 | | | | |
| %RSD: | >999.9% | >999.9% | 65.75 | | | | |

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202033205|949020|1 Date Collected: 2/5/2010 10:15:03
Analyst: JXL Data Type: Original

Replicate Data: 1202033205|949020|1

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.004 | -0.004 | 0.0000 | 0.0008 | 0.0002 | 10:16:04 | Yes |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | 0.005 | 0.005 | 0.0001 | 0.0017 | 0.0003 | 10:16:39 | Yes |
| Mean: | 0.000 | 0.000 | 0.0001 | | | | |
| SD: | 0.006 | 0.006 | 0.0001 | | | | |
| %RSD: | >999.9% | >999.9% | 95.21 | | | | |

**Sequence No.: 39**
**Sample ID: 1202033206|949020|1**
**Analyst: JXL**
**Autosampler Location: 35**
**Date Collected: 2/5/2010 10:16:59**
**Data Type: Original**

**Replicate Data: 1202033206|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 1.503 | 1.503 | 0.0142 | 0.0680 | 0.0144 | 10:18:00 | Yes |
| 2 | 1.495 | 1.495 | 0.0141 | 0.0670 | 0.0143 | 10:18:35 | Yes |
| Mean: | 1.499 | 1.499 | 0.0142 | | | | |
| SD: | 0.006 | 0.006 | 0.0001 | | | | |
| %RSD: | 0.393 | 0.393 | 0.39 | | | | |

**Sequence No.: 40**
**Sample ID: 1202033207|949020|5**
**Analyst: JXL**
**Autosampler Location: 36**
**Date Collected: 2/5/2010 10:18:55**
**Data Type: Original**

**Replicate Data: 1202033207|949020|5**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.008 | -0.008 | -0.0000 | 0.0002 | 0.0002 | 10:19:57 | Yes |
| 2 | -0.002 | -0.002 | 0.0000 | 0.0011 | 0.0003 | 10:20:32 | Yes |
| Mean: | -0.005 | -0.005 | 0.0000 | | | | |
| SD: | 0.004 | 0.004 | 0.0000 | | | | |
| %RSD: | 84.26 | 84.26 | 326.78 | | | | |

**Sequence No.: 41**
**Sample ID: 246056002|949020|1**
**Analyst: JXL**
**Autosampler Location: 37**
**Date Collected: 2/5/2010 10:20:52**
**Data Type: Original**

**Replicate Data: 246056002|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.002 | -0.002 | 0.0000 | 0.0010 | 0.0003 | 10:21:54 | Yes |
| 2 | -0.003 | -0.003 | 0.0000 | 0.0008 | 0.0003 | 10:22:29 | Yes |
| Mean: | -0.002 | -0.002 | 0.0000 | | | | |
| SD: | 0.000 | 0.000 | 0.0000 | | | | |
| %RSD: | 8.003 | 8.003 | 5.22 | | | | |

**Sequence No.: 42**
**Sample ID: 246056003|949020|1**
**Analyst: JXL**
**Autosampler Location: 38**
**Date Collected: 2/5/2010 10:22:49**
**Data Type: Original**

**Replicate Data: 246056003|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.019 | 0.019 | 0.0002 | 0.0024 | 0.0005 | 10:23:50 | Yes |
| 2 | 0.023 | 0.023 | 0.0003 | 0.0022 | 0.0005 | 10:24:25 | Yes |
| Mean: | 0.021 | 0.021 | 0.0003 | | | | |
| SD: | 0.002 | 0.002 | 0.0000 | | | | |
| %RSD: | 10.47 | 10.47 | 8.06 | | | | |

**Sequence No.: 43**
**Sample ID: 246056004|949020|1**
**Analyst: JXL**
**Autosampler Location: 39**
**Date Collected: 2/5/2010 10:24:44**
**Data Type: Original**

**Replicate Data: 246056004|949020|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.037 | 0.037 | 0.0004 | 0.0044 | 0.0006 | 10:25:45 | Yes |
| 2 | 0.016 | 0.016 | 0.0002 | 0.0017 | 0.0004 | 10:26:21 | Yes |
| Mean: | 0.026 | 0.026 | 0.0003 | | | | |
| SD: | 0.015 | 0.015 | 0.0001 | | | | |
| %RSD: | 56.65 | 56.65 | 45.73 | | | | |

---

**Sequence No.: 44** **Autosampler Location: 40**
**Sample ID: 1202033224|949028|1** **Date Collected: 2/5/2010 10:26:40**
**Analyst: JXL** **Data Type: Original**

**Replicate Data: 1202033224|949028|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 0.021 | 0.021 | 0.0003 | 0.0022 | 0.0005 | 10:27:41 | Yes |
| 2 | 0.017 | 0.017 | 0.0002 | 0.0020 | 0.0005 | 10:28:17 | Yes |
| Mean: | 0.019 | 0.019 | 0.0002 | | | | |
| SD: | 0.002 | 0.002 | 0.0000 | | | | |
| %RSD: | 11.82 | 11.82 | 8.89 | | | | |

---

**Sequence No.: 45** **Autosampler Location: 41**
**Sample ID: 1202033226|949028|1** **Date Collected: 2/5/2010 10:28:36**
**Analyst: JXL** **Data Type: Original**

**Replicate Data: 1202033226|949028|1**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 2.106 | 2.106 | 0.0199 | 0.0883 | 0.0201 | 10:29:37 | Yes |
| 2 | 2.076 | 2.076 | 0.0196 | 0.0876 | 0.0198 | 10:30:12 | Yes |
| Mean: | 2.091 | 2.091 | 0.0197 | | | | |
| SD: | 0.022 | 0.022 | 0.0002 | | | | |
| %RSD: | 1.033 | 1.033 | 1.03 | | | | |

---

**Sequence No.: 46** **Autosampler Location: 7**
**Sample ID: CCV** **Date Collected: 2/5/2010 10:30:32**
**Analyst:** **Data Type: Original**

**Replicate Data: CCV**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | 5.111 | 5.111 | 0.0481 | 0.2129 | 0.0484 | 10:31:32 | Yes |
| 2 | 5.088 | 5.088 | 0.0479 | 0.2132 | 0.0481 | 10:32:08 | Yes |
| Mean: | 5.099 | 5.099 | 0.0480 | | | | |
| SD: | 0.016 | 0.016 | 0.0001 | | | | |
| %RSD: | 0.309 | 0.309 | 0.31 | | | | |

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

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**Sequence No.: 47** **Autosampler Location: 8**
**Sample ID: CCB** **Date Collected: 2/5/2010 10:32:26**
**Analyst:** **Data Type: Original**

**Replicate Data: CCB**

| Repl # | SampleConc ug/L | StndConc ug/L | BlnkCorr Signal | Peak Area | Peak Height | Time | Peak Stored |
|---|---|---|---|---|---|---|---|
| 1 | -0.004 | -0.004 | 0.0000 | 0.0010 | 0.0002 | 10:33:27 | Yes |
| 2 | -0.005 | -0.005 | 0.0000 | 0.0011 | 0.0002 | 10:34:02 | Yes |
| Mean: | -0.004 | -0.004 | 0.0000 | | | | |
| SD: | 0.000 | 0.000 | 0.0000 | | | | |
| %RSD: | 7.051 | 7.051 | 16.61 | | | | |

QC value within limits for Hg 253.7 Recovery = Not calculated

# Miscellaneous

# Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948730

Lab SOP: GL-MA-E-006 REV# 9

| Type | Sample Id | Lot. Id | Spike Amount | Spike Units |
|---|---|---|---|---|
| LCS | 1202032558 | UI100120-01 | .25 | mL |
| LCS | 1202032558 | UI100120-06 | .25 | mL |
| MS | 1202032560 | UI100120-01 | .25 | mL |
| MS | 1202032560 | UI100120-06 | .25 | mL |

| Sample Type | Sample ID | Parent Sample ID | Method | Prep Date | Ph | Initial Wt. | Final Volume | Prep Factor | Matrix |
|---|---|---|---|---|---|---|---|---|---|
| MB | 1202032557 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| LCS | 1202032558 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245939001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245939002 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245965001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245975001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245981001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 246000001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| DUP | 1202032559 | 246000001 | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| MS | 1202032560 | 246000001 | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SDILT | 1202032561 | 246000001 | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |

| Reagent/Solvent Lot ID | Amount | Description |
|---|---|---|
| 1265209 | 2.5 mL | HYDROCHLORIC ACID |
| 1264396 | 1 mL | Nitric Acid CONC. |

Comments

# Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948739

Lab SOP: GL-MA-E-006 REV# 9

| Type | Sample Id | Lot. Id | Spike Amount | Spike Units |
|---|---|---|---|---|
| LCS | 1202032563 | UI100120-A | .5 | mL |
| LCS | 1202032563 | UI100120-B | .5 | mL |
| MS | 1202032565 | UI090930-A | .5 | mL |
| MS | 1202032565 | UI090930-B | .5 | mL |

| Sample Type | Sample ID | Parent Sample ID | Method | Prep Date | Ph | Initial Wt. | Final Volume | Prep Factor | Matrix |
|---|---|---|---|---|---|---|---|---|---|
| MB | 1202032562 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| LCS | 1202032563 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245939001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245939002 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245965001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245975001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 245981001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SAMPLE | 246000001 | | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| DUP | 1202032564 | 246000001 | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| MS | 1202032565 | 246000001 | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |
| SDILT | 1202032566 | 246000001 | SW846 3005A | 10-FEB-2010 13:30 | <2 | 50 mL | 50 mL | 1 | WATER |

| Reagent/Solvent Lot ID | Amount | Description |
|---|---|---|
| 1265209 | 2.5 mL | HYDROCHLORIC ACID |
| 1264396 | 1 mL | Nitric Acid CONC. |

Comments.

# Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 949018

Lab SOP: GL-MA-E-010 REV# 23

| Type | Sample Id | Lot. Id | Spike Amount | Spike Units |
|---|---|---|---|---|
| LCS | 1202033204 | WHG100204-13 | .2 | mL |
| MS | 1202033206 | WHG100204-13 | .2 | mL |

| Sample Type | Sample ID | Parent Sample ID | Method | Prep Date | Ph | Initial Wt. | Final Volume | Prep Factor | Matrix |
|---|---|---|---|---|---|---|---|---|---|
| MB | 1202033203 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| LCS | 1202033204 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 245911001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 245922001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 245939001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 245939002 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 245953001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 245965001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 245975001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 245981001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 246000001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 246010001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 246056001 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| DUP | 1202033205 | 246056001 | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| MS | 1202033206 | 246056001 | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SDILT | 1202033207 | 246056001 | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 246056002 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 246056003 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |
| SAMPLE | 246056004 | | SW846 7470A Prep | 04-FEB-2010 12:15 | <2 | 20 mL | 20 mL | 1 | WATER |

| Reagent/Solvent Lot ID | Amount | Description |
|---|---|---|
| 1176183 | 1 mL | Sulfuric Acid, Concentrated |
| 1257474-1 | .5 mL | NITRIC ACID |
| 1261483-C | 1.5 mL | 5% Potassium Persulfate |
| 1264984-C | 3 mL | 5% KMnO4 solution |
| 1255532-C | 1 mL | Hg reducing agent |
| WHG100204-06 | 500 uL | Mercury Working 2nd Source 5.0/ICV |
| WHG100204-01a | 20 uL | Mercury Working 1st Source CAL 0.2/CRA |
| WHG100204-02 | 50 uL | Mercury Working 1st Source CAL 0.5 |
| WHG100204-05 | 1 mL | Mercury Working 1st Source CAL 10.0 |
| WHG100204-03 | 200 uL | Mercury Working 1st Source CAL 2.0 |
| WHG100204-04 | 500 uL | Mercury Working 1st Source CAL 5.0/CCV |

Comments: Digestion Start Date: 04-FEB-10 12:15
Digestion End Date: 04-FEB-10 14:15

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 797043
Revision No.: 1

# DATA EXCEPTION REPORT

| Mo.Day Yr. | Division: | Quality Criteria: | Type: |
|---|---|---|---|
| 01-MAR-10 | Industrial | Specifications | Process |
| **Instrument Type:** | **Test / Method:** | **Matrix Type:** | **Client Code:** |
| ICP/MS | SW846 3005/6020 | Liquid | LANL |
| **Batch ID:** | **Sample Numbers:** | | |
| 948740 | See Below | | |

**Potentially affected work order(s)(SDG): 245939(10-1506-1),245965(10-1511-1),245975(10-1512-1),245981(10-1514-1),246000(10-1517-1)**

**Application Issues:**

Failed Recovery for MS/PS

| Specification and Requirements Exception Description: | DER Disposition: |
|---|---|
| 1. Failed Recovery for MS/PS:<br><br>QC 1202032565MS | The matrix spike recovery failed outside of the control limits for Tl due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. |

**Originator's Name:**

Elizabeth Janssen 01-MAR-10

**Data Validator/Group Leader:**

Samantha Jacobs 01-MAR-10

# Standard Logbook

**Serial ID:** UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
**Name:** MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
**Type:** Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
**Employee:** Bryan Davis **Solvent :** 10% HNO3
**Supplier:** Spex
**Description:** Mercury Source Standard #1 1,000 mg/L
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Mercury | 1000 mg/L | | |

**Serial ID:** UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
**Name:** MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
**Type:** Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
**Employee:** Bryan Davis **Solvent :** 3% HNO3
**Supplier:** Ricca Chemical Company
**Description:** Mercury Source Standard #2 1,000 mg/L
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Mercury | 999.7 mg/L | | |

**Serial ID:** UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
**Name:** TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
**Type:** Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
**Employee:** Helen Camello **Solvent :** 5%HNO3
**Supplier:** o2si
**Description:** TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 5000 mg/L | Calcium | 5000 mg/L |
| Iron | 2000 mg/L | Magnesium | 5000 mg/L |

**Serial ID:** UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
**Name:** ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
**Type:** Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
**Employee:** Paul Boyd
**Supplier:** O2SI
**Description:** ICPMS Tungsten standard SPIKE - 10mg/L
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Tungsten | 10 mg/L | | |

# Standard Logbook

| | | | | | |
|---|---|---|---|---|---|
| **Serial ID:** | UI090701-09 | **Opened:** | 01-JUL-09 | **Amount :** | 250 mL |
| **Name:** | ICP-MS CRDL Master #1 | **Received:** | 01-JUL-09 | **Catalog Number :** | 160044-09-02 |
| **Type:** | Source Material | **Expires:** | 01-JUL-10 | **Lot Number :** | 1016477 |
| **Employee:** | Paul Boyd | | | **Solvent :** | +/- 0.5% IN 2% HNO3 |
| **Supplier:** | 02SI | | | | |
| **Description:** | ICPMS CRDL Master Soln #1 | | | | |
| **Comments:** | None | | | | |

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 15 mg/L | Arsenic | 5 mg/L |
| Barium | 2 mg/L | Beryllium | .5 mg/L |
| Boron | 15 mg/L | Cadmium | 1 mg/L |
| Calcium | 100 mg/L | Chromium | 3 mg/L |
| Cobalt | 1 mg/L | Copper | 1 mg/L |
| Iron | 25 mg/L | Lead | 2 mg/L |
| Lithium | 10 mg/L | Magnesium | 15 mg/L |
| Manganese | 5 mg/L | Nickel | 2 mg/L |
| Phosphorous | 50 mg/L | Potassium | 300 mg/L |
| Selenium | 5 mg/L | Sodium | 250 mg/L |
| Strontium | 10 mg/L | Thallium | 1 mg/L |
| Thorium | 1 mg/L | Uranium | .2 mg/L |
| Vanadium | 10 mg/L | Zinc | 10 mg/L |

| | | | | | |
|---|---|---|---|---|---|
| **Serial ID:** | UI090701-10 | **Opened:** | 01-JUL-09 | **Amount :** | 250 mL |
| **Name:** | ICP-MS CRDL Master #2 | **Received:** | 01-JUL-09 | **Catalog Number :** | 160044-08-02 |
| **Type:** | Source Material | **Expires:** | 01-JUL-10 | **Lot Number :** | 1016476 |
| **Employee:** | Paul Boyd | | | **Solvent :** | +/- 0.5% IN 2% HNO3 |
| **Supplier:** | 02SI | | | | |
| **Description:** | ICPMS CRDL Soln #2 | | | | |
| **Comments:** | None | | | | |

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 2 mg/L | Molybdenum | .5 mg/L |
| Silver | 1 mg/L | Tin | 2 mg/L |
| Titanium | 10 mg/L | Tungsten | 5 mg/L |
| Zirconium | 2 mg/L | | |

| | | | | | |
|---|---|---|---|---|---|
| **Serial ID:** | UI090701-40 | **Opened:** | 01-JUL-09 | **Amount :** | 500 mL |
| **Name:** | TRACE ICP Stock PQL Sta | **Received:** | 30-JUN-09 | **Catalog Number :** | 160543-01-03 |
| **Type:** | Source Material | **Expires:** | 01-JUL-10 | **Lot Number :** | 1016475 |
| **Employee:** | Helen Camello | | | **Solvent :** | +/-0.5%in2%HNO3+TrHF |
| **Supplier:** | 02si | | | | |
| **Description:** | TRACE ICP Stock PQL Standard | | | | |
| **Comments:** | None | | | | |

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 100 mg/L | Antimony | 5 mg/L |
| Arsenic | 15 mg/L | Barium | 2.5 mg/L |
| Beryllium | 2.5 mg/L | Boron | 25 mg/L |
| Cadmium | 2.5 mg/L | Calcium | 100 mg/L |
| Chromium | 2.5 mg/L | Cobalt | 2.5 mg/L |
| Copper | 5 mg/L | Iron | 50 mg/L |
| Lead | 5 mg/L | Magnesium | 150 mg/L |
| Manganese | 5 mg/L | Molybdenum | 5 mg/L |
| Nickel | 2.5 mg/L | Phosphorous | 75 mg/L |
| Potassium | 75 mg/L | Selenium | 15 mg/L |
| Silicon | 50 mg/L | Silver | 2.5 mg/L |
| Sodium | 150 mg/L | Strontium | 2.5 mg/L |
| Sulfur | 50 mg/L | Thallium | 10 mg/L |
| Tin | 5 mg/L | Titanium | 2.5 mg/L |
| Uranium | 25 mg/L | Vanadium | 2.5 mg/L |
| Zinc | 5 mg/L | | |

**Serial ID:** UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
**Name:** TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
**Type:** Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
**Employee:** Helen Camello **Solvent :** 1%HNO3
**Supplier:** 02SI
**Description:** Sodium 1000 +/- 3 ug/mL in 1% HNO3
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Sodium | 1000 ug/mL | | |

**Serial ID:** UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
**Name:** SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
**Type:** Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
**Employee:** Helen Camello **Solvent :** 5%HNO3
**Supplier:** SPECTRO PURE
**Description:** SECOND SOURCE STD #1A 5%HNO3
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 1000 mg/L | Arsenic | 100 mg/L |
| Barium | 100 mg/L | Boron | 100 mg/L |
| Cadmium | 100 mg/L | Calcium | 1000 mg/L |
| Chromium | 100 mg/L | Cobalt | 100 mg/L |
| Copper | 100 mg/L | Iron | 1000 mg/L |
| Lead | 100 mg/L | Phosphorous | 500 mg/L |
| Potassium | 500 mg/L | Selenium | 500 mg/L |
| Sodium | 500 mg/L | Strontium | 100 mg/L |

# Standard Logbook

**Serial ID:** UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
**Name:** SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
**Type:** Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
**Employee:** Helen Camello **Solvent :** 5%HNO3,TR.HF
**Supplier:** SPECTRO PURE
**Description:** SECOND SOURCE STD #1B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 100 mg/L | Beryllium | 50 mg/L |
| Magnesium | 1000 mg/L | Manganese | 100 mg/L |
| Molybdenum | 100 mg/L | Nickel | 100 mg/L |
| Silver | 50 mg/L | Sulfur | 500 mg/L |
| Thallium | 100 mg/L | Tin | 100 mg/L |
| Titanium | 100 mg/L | Uranium | 100 mg/L |
| Vanadium | 100 mg/L | Zinc | 100 mg/L |

**Serial ID:** UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
**Name:** ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
**Type:** Source Material **Expires:** 30-SEP-10
**Employee:** Francena Armstrong **Verified:** 21-NOV-08
**Supplier:** O2Si
**Description:** ICP-MS DOE liquid Spike Solution A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 200 mg/L | Arsenic | 8 mg/L |
| Barium | 5 mg/L | Beryllium | 5 mg/L |
| Boron | 10 mg/L | Cadmium | 1 mg/L |
| Calcium | 200 mg/L | Chromium | 5 mg/L |
| Cobalt | 5 mg/L | Copper | 5 mg/L |
| Iron | 200 mg/L | Lead | 4 mg/L |
| Lithium | 5 mg/L | Magnesium | 200 mg/L |
| Manganese | 5 mg/L | Nickel | 5 mg/L |
| Phosphorus, Total as P | 200 mg/L | Potassium | 200 mg/L |
| Selenium | 2 mg/L | Silicon | 200 mg/L |
| Sodium | 200 mg/L | Strontium | 5 mg/L |
| Thallium | 10 mg/L | Thorium | 5 mg/L |
| Total Uranium | 5 mg/L | Uranium | 5 mg/L |
| Uranium-235 | .0364 mg/L | Uranium-238 | 4.96 mg/L |
| Vanadium | 5 mg/L | Zinc | 5 mg/L |

# Standard Logbook

**Serial ID:** UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
**Name:** ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
**Type:** Source Material **Expires:** 30-SEP-10
**Employee:** Francena Armstrong **Verified:** 21-NOV-08
**Supplier:** O2Si
**Description:** ICP-MS DOE Liquid Spike Solution B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 20 mg/L | Molybdenum | 5 mg/L |
| Silver | 5 mg/L | Tin | 5 mg/L |
| Titanium | 5 mg/L | Zirconium | 5 mg/L |

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**Serial ID:** UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
**Name:** SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
**Type:** Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
**Employee:** Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
**Supplier:** o2si
**Description:** Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Silica | 2139 mg/L | Silicon | 1000 mg/L |

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**Serial ID:** UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
**Name:** TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
**Type:** Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
**Employee:** Helen Camello **Solvent :** HNO3
**Supplier:** Environmental Express
**Description:** Trace Calibration Std #1A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 2000 mg/L | Arsenic | 200 mg/L |
| Barium | 200 mg/L | Beryllium | 200 mg/L |
| Boron | 200 mg/L | Cadmium | 200 mg/L |
| Calcium | 2000 mg/L | Chromium | 200 mg/L |
| Cobalt | 200 mg/L | Copper | 200 mg/L |
| Iron | 2000 mg/L | Lead | 200 mg/L |
| Magnesium | 2000 mg/L | Manganese | 200 mg/L |
| Nickel | 200 mg/L | Phosphorous | 1000 mg/L |
| Potassium | 2000 mg/L | Selenium | 200 mg/L |
| Sodium | 2000 mg/L | Strontium | 200 mg/L |
| Thallium | 200 mg/L | Uranium | 200 mg/L |
| Vanadium | 200 mg/L | Zinc | 200 mg/L |

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# Standard Logbook

**Serial ID:** UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
**Name:** TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
**Type:** Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
**Employee:** Helen Camello **Solvent :** HNO3
**Supplier:** Environmental Express
**Description:** Trace Calibration Standard #1B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 200 mg/L | Molybdenum | 200 mg/L |
| Silver | 200 mg/L | Sulfur | 400 mg/L |
| Tin | 200 mg/L | Titanium | 200 mg/L |

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**Serial ID:** UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
**Name:** SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
**Type:** Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
**Employee:** Helen Camello **Solvent :** H20/tr HF
**Supplier:** ENVIRNMENTAL EXPRESS
**Description:** SILICON 1000mg/L H20/tr HF
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Silica | 2139 mg/L | Silicon | 1000 mg/L |

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**Serial ID:** UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
**Supplier:** 02SI
**Description:** ICPMS ICV/CCV SOLN A - 10ppm
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 2020 mg/L | Calcium | 2000 mg/L |
| Iron | 2000 mg/L | Magnesium | 2000 mg/L |
| Phosphorous | 2000 mg/L | Potassium | 2000 mg/L |
| Sodium | 2000 mg/L | | |

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**Serial ID:** UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
**Supplier:** 02SI
**Description:** ICPMS ICV/CCV Soln B - 10ppm
**Comments:** None

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Arsenic | 20 mg/L | Barium | 20 mg/L |
| Beryllium | 20 mg/L | Boron | 40 mg/L |
| Cadmium | 20 mg/L | Chromium | 20 mg/L |
| Cobalt | 20 mg/L | Copper | 20 mg/L |
| Lead | 20 mg/L | Lithium | 20 mg/L |
| Manganese | 20 mg/L | Nickel | 20 mg/L |
| Selenium | 20 mg/L | Strontium | 20 mg/L |
| Thallium | 20 mg/L | Thorium | 20 mg/L |
| Uranium | 20 mg/L | Vanadium | 20 mg/L |
| Zinc | 20 mg/L | | |

**Serial ID:** UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
**Supplier:** 02SI
**Description:** ICPMS ICV/CCV Soln C - 10ppm
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 20 mg/L | Molybdenum | 20 mg/L |
| Silver | 20 mg/L | Tin | 20 mg/L |
| Titanium | 20 mg/L | Tungsten | 20 mg/L |
| Zirconium | 20 mg/L | | |

**Serial ID:** UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
**Name:** ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
**Type:** Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
**Employee:** Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
**Supplier:** 02SI
**Description:** ICPMS ICSAB Master B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Arsenic | 2 mg/L | Barium | 2 mg/L |
| Beryllium | 2 mg/L | Boron | 2 mg/L |
| Cadmium | 2 mg/L | Chromium | 2 mg/L |
| Cobalt | 2 mg/L | Copper | 2 mg/L |
| Lead | 2 mg/L | Lithium | 2 mg/L |
| Manganese | 2 mg/L | Nickel | 2 mg/L |
| Selenium | 2 mg/L | Strontium | 2 mg/L |
| Thallium | 2 mg/L | Thorium | 2 mg/L |
| Uranium | 2 mg/L | Vanadium | 2 mg/L |
| Zinc | 2 mg/L | | |

# Standard Logbook

| | | | | | |
|---|---|---|---|---|---|
| **Serial ID:** | UI091217-13 | **Opened:** | 17-DEC-09 | **Amount :** | 250 mL |
| **Name:** | ICP-MS ICSAB Master C | **Received:** | 17-DEC-09 | **Catalog Number :** | 160033-03 |
| **Type:** | Source Material | **Expires:** | 17-DEC-10 | **Lot Number :** | 1016926 |
| **Employee:** | Paul Boyd | | | **Solvent :** | +/- 0.5% in 2% HNO3 |
| **Supplier:** | 02SI | | | | |
| **Description:** | ICPMS ICSAB Master C | | | | |
| **Comments:** | None | | | | |

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 2 mg/L | Silver | 2 mg/L |
| Tin | 2 mg/L | Tungsten | 2 mg/L |
| Zirconium | 2 mg/L | | |

| | | | | | |
|---|---|---|---|---|---|
| **Serial ID:** | UI100114-48 | **Opened:** | 22-JAN-10 | **Amount :** | 1000 mL |
| **Name:** | Trace ICP ICSA | **Received:** | 18-JAN-10 | **Catalog Number :** | 160005-02 |
| **Type:** | Source Material | **Expires:** | 22-JAN-11 | **Lot Number :** | 1018466 |
| **Employee:** | Helen Camello | | | **Solvent :** | 3% HCl + 1% HNO3 |
| **Supplier:** | o2si | | | | |
| **Description:** | Trace ICP Interferent Check Standard A | | | | |
| **Comments:** | None | | | | |

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 500000 UG/L | Calcium | 500000 UG/L |
| Iron | 200000 UG/L | Magnesium | 500000 UG/L |

| | | | | | |
|---|---|---|---|---|---|
| **Serial ID:** | UI100114-49.16 | **Opened:** | 11-FEB-10 | **Amount :** | 100 ml |
| **Name:** | Trace ICP ICSAB | **Received:** | 18-JAN-10 | **Catalog Number :** | 160066-04 |
| **Type:** | Source Material | **Expires:** | 12-FEB-10 | **Lot Number :** | 1018458 |
| **Employee:** | Helen Camello | | | **Solvent :** | 3% HCl + 1% HNO3 |
| **Supplier:** | o2si | | | | |
| **Description:** | Trace ICP Inteferent Check Standard AB | | | | |
| **Comments:** | None | | | | |

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 500000 ug/L | Antimony | 500 ug/L |
| Arsenic | 500 ug/L | Barium | 500 ug/L |
| Beryllium | 250 ug/L | Boron | 500 ug/L |
| Cadmium | 500 ug/L | Calcium | 500000 ug/L |
| Chromium | 500 ug/L | Cobalt | 500 ug/L |
| Copper | 500 ug/L | Iron | 200000 ug/L |
| Lead | 500 ug/L | Magnesium | 500000 ug/L |
| Manganese | 500 ug/L | Molybdenum | 500 ug/L |
| Nickel | 500 ug/L | Phosphorous | 2500 ug/L |
| Potassium | 5000 ug/L | Selenium | 2500 ug/L |
| Silica | 10696.5 ug/L | Silicon | 5000 ug/L |
| Silver | 250 ug/L | Sodium | 5000 ug/L |

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Strontium | 500 ug/L | Sulfur | 2500 ug/L |
| Thallium | 500 ug/L | Tin | 500 ug/L |
| Titanium | 500 ug/L | Uranium | 500 ug/L |
| Vanadium | 500 ug/L | Zinc | 500 ug/L |

**Serial ID:** UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
**Name:** METALSPIKE-1 **Received:** 20-JAN-10
**Type:** Source Material **Expires:** 20-JAN-11
**Employee:** Bryan Davis
**Supplier:** OS2I
**Description:** Metals Spike Mix I
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 1000 ug/mL | Arsenic | 100 ug/mL |
| Barium | 100 ug/mL | Beryllium | 100 ug/mL |
| Boron | 100 ug/mL | Cadmium | 100 ug/mL |
| Calcium | 1000 ug/mL | Cobalt | 100 ug/mL |
| Iron | 1000 ug/mL | Lead | 100 ug/mL |
| Magnesium | 1000 ug/mL | Phosphorous | 100 ug/mL |
| Potassium | 1000 ug/mL | Silver | 100 ug/mL |
| Sodium | 1000 ug/mL | Strontium | 100 ug/mL |

**Serial ID:** UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
**Name:** METALSPIKE-2 **Received:** 20-JAN-10
**Type:** Source Material **Expires:** 20-JAN-11
**Employee:** Bryan Davis
**Supplier:** OS2I
**Description:** Metals Spike Mix II
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 100 ug/mL | Chromium | 100 ug/mL |
| Copper | 100 ug/mL | Manganese | 100 ug/mL |
| Molybdenum | 100 ug/mL | Nickel | 100 ug/mL |
| Selenium | 100 ug/mL | Silica | 2141 ug/mL |
| Silicon | 1000 ug/mL | Sulfur | 1000 ug/mL |
| Thallium | 100 ug/mL | Tin | 100 ug/mL |
| Titanium | 100 ug/mL | Uranium | 100 ug/mL |
| Vanadium | 100 ug/mL | Zinc | 100 ug/mL |

# Standard Logbook

**Serial ID:** UI100120-A **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
**Name:** ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1018097
**Type:** Source Material **Expires:** 20-JAN-11
**Employee:** Bryan Davis
**Supplier:** O2si
**Description:** ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 200 mg/L | Arsenic | 5 mg/L |
| Barium | 5 mg/L | Beryllium | 5 mg/L |
| Bismuth | 5 mg/L | Boron | 10 mg/L |
| Cadmium | 5 mg/L | Calcium | 200 mg/L |
| Cesium | 5 mg/L | Chromium | 5 mg/L |
| Cobalt | 5 mg/L | Copper | 5 mg/L |
| Iron | 200 mg/L | Lead | 5 mg/L |
| Lithium | 5 mg/L | Magnesium | 200 mg/L |
| Manganese | 5 mg/L | Nickel | 5 mg/L |
| Phosphorous | 200 mg/L | Potassium | 200 mg/L |
| Selenium | 5 mg/L | Sodium | 200 mg/L |
| Strontium | 5 mg/L | Thallium | 5 mg/L |
| Thorium | 5 mg/L | Uranium | 5 mg/L |
| Uranium-235 | .036 mg/L | Uranium-238 | 4.964 mg/L |
| Vanadium | 5 mg/L | Zinc | 5 mg/L |

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**Serial ID:** UI100120-B **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
**Name:** ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1017644
**Type:** Source Material **Expires:** 20-JAN-11
**Employee:** Bryan Davis
**Supplier:** O2si
**Description:** MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 5 mg/L | Molybdenum | 5 mg/L |
| Silver | 5 mg/L | Tin | 5 mg/L |
| Titanium | 5 mg/L | Zirconium | 5 mg/L |

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**Serial ID:** UI100128-40 **Opened:** 28-JAN-10 **Amount :** 500 mL
**Name:** ICP HIGH RANGE STD-A **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
**Type:** Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
**Employee:** Helen Camello **Solvent :** +/-0.5%in2%HNO3
**Supplier:** 02SI
**Description:** ICP HIGH RANGE STD SOLUTION A
**Comments:** None

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 10000 ug/L | Arsenic | 10000 ug/L |
| Barium | 15000 ug/L | Beryllium | 3000 ug/L |
| Boron | 5000 ug/L | Cadmium | 10000 ug/L |
| Chromium | 25000 ug/L | Cobalt | 10000 ug/L |
| Copper | 20000 ug/L | Lead | 25000 ug/L |
| Manganese | 10000 ug/L | Molybdenum | 10000 ug/L |
| Nickel | 10000 ug/L | Phosphorous | 15000 ug/L |
| Potassium | 300000 ug/L | Selenium | 10000 ug/L |
| Silica | 107000 ug/L | Silicon | 50000 ug/L |
| Silver | 1000 ug/L | Strontium | 10000 ug/L |
| Sulfur | 50000 ug/L | Thallium | 10000 ug/L |
| Tin | 10000 ug/L | Titanium | 10000 ug/L |
| Vanadium | 10000 ug/L | Zinc | 15000 ug/L |

**Serial ID:** UI100128-41 **Opened:** 28-JAN-10 **Amount :** 500 mL
**Name:** ICP HIGH RANGE STD B **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
**Type:** Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
**Employee:** Helen Camello **Solvent :** +/-0.5%in2%HNO3
**Supplier:** 02SI
**Description:** ICP HIGH RANGE STD SOLUTION B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 500000 ug/L | Calcium | 500000 ug/L |
| Iron | 500000 ug/L | Magnesium | 500000 ug/L |
| Sodium | 500000 ug/L | Uranium | 15000 ug/L |

**Serial ID:** UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
**Name:** Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
**Type:** Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
**Employee:** Helen Camello **Solvent :** 3% HCl + 1% HNO3
**Supplier:** o2si
**Description:** Trace ICP Interferent Check Standard A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 500000 UG/L | Calcium | 500000 UG/L |
| Iron | 200000 UG/L | Magnesium | 500000 UG/L |

**Serial ID:** UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
**Name:** ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
**Type:** Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
**Employee:** Helen Camello **Solvent :** +/-0.5%in2%HNO3
**Supplier:** 02SI

# Standard Logbook

**Description:** ICP HIGH RANGE STD SOLUTION A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 10000 ug/L | Arsenic | 10000 ug/L |
| Barium | 15000 ug/L | Beryllium | 3000 ug/L |
| Boron | 5000 ug/L | Cadmium | 10000 ug/L |
| Chromium | 25000 ug/L | Cobalt | 10000 ug/L |
| Copper | 20000 ug/L | Lead | 25000 ug/L |
| Manganese | 10000 ug/L | Molybdenum | 10000 ug/L |
| Nickel | 10000 ug/L | Phosphorous | 15000 ug/L |
| Potassium | 300000 ug/L | Selenium | 10000 ug/L |
| Silica | 107000 ug/L | Silicon | 50000 ug/L |
| Silver | 1000 ug/L | Strontium | 10000 ug/L |
| Sulfur | 50000 ug/L | Thallium | 10000 ug/L |
| Tin | 10000 ug/L | Titanium | 10000 ug/L |
| Vanadium | 10000 ug/L | Zinc | 15000 ug/L |

**Serial ID:** UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
**Name:** ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
**Type:** Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
**Employee:** Helen Camello **Solvent :** +/-0.5%in2%HNO3
**Supplier:** 02SI
**Description:** ICP HIGH RANGE STD SOLUTION B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 500000 ug/L | Calcium | 500000 ug/L |
| Iron | 500000 ug/L | Magnesium | 500000 ug/L |
| Sodium | 500000 ug/L | Uranium | 15000 ug/L |

**Serial ID:** UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
**Name:** ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
**Type:** Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
**Employee:** Paul Boyd **Solvent :** 2% HNO3
**Supplier:** 02SI
**Description:** ICP-MS ICSA Master A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 1000 mg/L | Calcium | 1000 mg/L |
| Carbon | 2000 mg/L | Chloride | 10000 mg/L |
| Iron | 1000 mg/L | Magnesium | 1000 mg/L |
| Molybdenum | 20 mg/L | Phosphorous | 1000 mg/L |
| Potassium | 1000 mg/L | Sodium | 1000 mg/L |
| Sulfur | 1000 mg/L | Titanium | 20 mg/L |

# Standard Logbook

**Serial ID:** UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
**Name:** ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
**Type:** Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
**Employee:** Paul Boyd **Solvent :** 2%HNO3 + Tr HF
**Supplier:** O2SI
**Description:** Linear Range Standard A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 5000 mg/L | Arsenic | 100 mg/L |
| Barium | 250 mg/L | Beryllium | 100 mg/L |
| Cadmium | 100 mg/L | Calcium | 5000 mg/L |
| Chromium | 100 mg/L | Cobalt | 100 mg/L |
| Copper | 100 mg/L | Iron | 5000 mg/L |
| Lead | 500 mg/L | Lithium | 100 mg/L |
| Magnesium | 5000 mg/L | Manganese | 100 mg/L |
| Nickel | 100 mg/L | Phosphorous | 2500 mg/L |
| Potassium | 5000 mg/L | Selenium | 50 mg/L |
| Sodium | 5000 mg/L | Strontium | 100 mg/L |
| Thallium | 50 mg/L | Thorium | 250 mg/L |
| Uranium | 500 mg/L | Vanadium | 100 mg/L |
| Zinc | 250 mg/L | | |

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**Serial ID:** UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
**Name:** ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
**Type:** Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
**Employee:** Paul Boyd **Solvent :** 2%HNO3 + Tr HF
**Supplier:** O2SI
**Description:** Linear Range Standard B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 25 mg/L | Molybdenum | 100 mg/L |
| Silver | 25 mg/L | Tin | 100 mg/L |
| Tungsten | 100 mg/L | Zirconium | 50 mg/L |

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**Serial ID:** UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
**Name:** ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
**Type:** Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
**Employee:** Paul Boyd
**Supplier:** SPEX
**Description:** ICPMS Calibration Standard Solution B
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Arsenic | 10 mg/L | Barium | 10 mg/L |

# Standard Logbook

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Beryllium | 10 mg/L | Boron | 20 mg/L |
| Cadmium | 10 mg/L | Chromium | 10 mg/L |
| Cobalt | 10 mg/L | Copper | 10 mg/L |
| Lead | 10 mg/L | Lithium | 10 mg/L |
| Manganese | 10 mg/L | Nickel | 10 mg/L |
| Selenium | 10 mg/L | Silver | 10 mg/L |
| Strontium | 10 mg/L | Thallium | 10 mg/L |
| Thorium | 10 mg/L | Uranium | 10 mg/L |
| Vanadium | 10 mg/L | Zinc | 10 mg/L |

**Serial ID:** UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
**Name:** ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
**Type:** Source Material **Expires:** 28-FEB-10
**Employee:** Paul Boyd
**Supplier:** SPEX
**Description:** ICPMS Calibration Standard Solution A
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Aluminum | 1000 mg/L | Calcium | 1000 mg/L |
| Iron | 1000 mg/L | Magnesium | 1000 mg/L |
| Phosphorous | 1000 mg/L | Potassium | 1000 mg/L |
| Sodium | 1000 mg/L | | |

**Serial ID:** UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
**Name:** ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
**Type:** Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
**Employee:** Paul Boyd
**Supplier:** SPEX
**Description:** ICPMS Calibration Standard Solution C
**Comments:** None

| Analyte | Concentration | Analyte | Concentration |
|---|---|---|---|
| Antimony | 10 mg/L | Molybdenum | 10 mg/L |
| Tin | 10 mg/L | Titanium | 10 mg/L |
| Zirconium | 10 mg/L | | |

**Serial ID:** IHG100204-01 **Opened:** 04-FEB-10 **Instrument Id :** Mercury
**Name:** MHGINTER1 **Received:** 04-FEB-10 **Pipet Id :** Minou1
**Type:** Intermediate **Expires:** 05-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Intermediate 1st Source 200 ug/L
**Comments:** Prepare fresh daily

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UHG1167639-01 | Mercury | 1000 mg/L | .05 mL | 250 mL | 200 ug/L |

**Serial ID:** IHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Minou1
**Name:** MHGINTER2 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Intermediate **Expires:** 05-FEB-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Intermediate 2nd Source 200 ug/L
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UHG1167641-02 | Mercury | 999.7 mg/L | .05 mL | 250 mL | 200 ug/L |

**Serial ID:** WHG100204-01a **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCAL0.2CRA **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 11-FEB-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Working 1st Source CAL 0.2/CRA
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100204-01 | Mercury | 200 ug/L | 20 uL | 20 mL | .2 ug/L |

**Serial ID:** WHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCAL0.5 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 11-FEB-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Working 1st Source CAL 0.5
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100204-01 | Mercury | 200 ug/L | 50 uL | 20 mL | .5 ug/L |

**Serial ID:** WHG100204-03 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCAL2.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 11-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury Working 1st Source CAL 2.0
**Comments:** None

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100204-01 | Mercury | 200 ug/L | 200 uL | 20 mL | 2 ug/L |

**Serial ID:** WHG100204-04 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCAL5.0CCV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 11-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury Working 1st Source CAL 5.0/CCV
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100204-01 | Mercury | 200 ug/L | 500 uL | 20 mL | 5 ug/L |

**Serial ID:** WHG100204-05 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORKCAL10.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 11-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury Working 1st Source CAL 10.0
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100204-01 | Mercury | 200 ug/L | 1 mL | 20 mL | 10 ug/L |

**Serial ID:** WHG100204-06 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGWORK5.0ICV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 11-FEB-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Mercury Working 2nd Source 5.0/ICV
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| IHG100204-02 | Mercury | 200 ug/L | 500 uL | 20 mL | 5 ug/L |

**Serial ID:** WHG100204-13 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
**Name:** MHGLIQLCSMSSPIKE **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
**Type:** Working **Expires:** 11-FEB-10
**Employee:** Tara Griffin **Verified:** 20-JUL-07
**Supplier:** GEL
**Description:** Mercury working intermediate standard for LCS/MS
**Comments:** None

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UHG1167639-01 | Mercury | 1000 mg/L | .05 mL | 250 mL | 200 ug/L |

**Serial ID:** WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
**Name:** TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WI100211-44 | Aluminum | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100211-44 | Antimony | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Arsenic | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Barium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Beryllium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Boron | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Cadmium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Calcium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100211-44 | Chromium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Cobalt | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Copper | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Iron | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100211-44 | Lead | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Magnesium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100211-44 | Manganese | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Molybdenum | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Nickel | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Phosphorous | 5000 ug/L | 10 mL | 100 mL | 500 ug/L |
| WI100211-44 | Potassium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100211-44 | Selenium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Silica | 10698 ug/L | 10 mL | 100 mL | 1069 ug/L |
| WI100211-44 | Silicon | 5000 ug/L | 10 mL | 100 mL | 500 ug/L |
| WI100211-44 | Silver | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Sodium | 10000 ug/L | 10 mL | 100 mL | 1000 ug/L |
| WI100211-44 | Strontium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Sulfur | 2000 ug/L | 10 mL | 100 mL | 200 ug/L |
| WI100211-44 | Thallium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Tin | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Titanium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Uranium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Vanadium | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |
| WI100211-44 | Zinc | 1000 ug/L | 10 mL | 100 mL | 100 ug/L |

# Standard Logbook

**Serial ID:** WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
**Name:** TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP 0.5/CCV CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090828-42 | Sodium | 1000 ug/mL | 5 mL | 1000 mL | 5000 UG/L |
| UI091015-42 | Silica | 2139 mg/L | 2.5 mL | 1000 mL | 5348.25 UG/L |
| UI091015-42 | Silicon | 1000 mg/L | 2.5 mL | 1000 mL | 2500 UG/L |
| UI091102-40 | Aluminum | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Arsenic | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Barium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Beryllium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Boron | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Cadmium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Calcium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Chromium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Cobalt | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Copper | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Iron | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Lead | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Magnesium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Manganese | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Nickel | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Phosphorous | 1000 mg/L | 2.5 mL | 1000 mL | 2500 UG/L |
| UI091102-40 | Potassium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Selenium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Sodium | 2000 mg/L | 2.5 mL | 1000 mL | 5000 UG/L |
| UI091102-40 | Strontium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Thallium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Uranium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Vanadium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-40 | Zinc | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Antimony | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Molybdenum | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Silver | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Sulfur | 400 mg/L | 2.5 mL | 1000 mL | 1000 UG/L |
| UI091102-41 | Tin | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |
| UI091102-41 | Titanium | 200 mg/L | 2.5 mL | 1000 mL | 500 UG/L |

# Standard Logbook

**Serial ID:** WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216
**Name:** TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
**Employee:** Helen Camello
**Supplier:** o2si
**Description:** Trace ICP Calibration Standard 1.0ppm
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091015-42 | Silica | 2139 mg/L | 2.5 mL | 500 mL | 10698 ug/L |
| UI091015-42 | Silicon | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI091102-40 | Aluminum | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Arsenic | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Barium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Beryllium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Boron | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Cadmium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Calcium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Chromium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Cobalt | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Copper | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Iron | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Lead | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Magnesium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Manganese | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Nickel | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Phosphorous | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI091102-40 | Potassium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Selenium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Sodium | 2000 mg/L | 2.5 mL | 500 mL | 10000 ug/L |
| UI091102-40 | Strontium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Thallium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Uranium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Vanadium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-40 | Zinc | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Antimony | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Molybdenum | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Silver | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Sulfur | 400 mg/L | 2.5 mL | 500 mL | 2000 ug/L |
| UI091102-41 | Tin | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |
| UI091102-41 | Titanium | 200 mg/L | 2.5 mL | 500 mL | 1000 ug/L |

# Standard Logbook

**Serial ID:** WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
**Name:** TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** TRACE ICP S-10 CALIBRATION STD.
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090422-40 | Aluminum | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090422-40 | Calcium | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090422-40 | Iron | 2000 mg/L | 5 mL | 500 mL | 20000 UG/L |
| UI090422-40 | Magnesium | 5000 mg/L | 5 mL | 500 mL | 50000 UG/L |
| UI090828-42 | Sodium | 1000 ug/mL | 10 mL | 500 mL | 20000 UG/L |

**Serial ID:** WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
**Name:** ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** Initial Calibration Verification ICP Trace Metals
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090925-40 | Aluminum | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Arsenic | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Barium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Boron | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Cadmium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Calcium | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Chromium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Cobalt | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Copper | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Iron | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-40 | Lead | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-40 | Phosphorous | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Potassium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Selenium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Sodium | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-40 | Strontium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Antimony | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Beryllium | 50 mg/L | 2.5 mL | 500 mL | 250 ug/L |
| UI090925-41 | Magnesium | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |
| UI090925-41 | Manganese | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Molybdenum | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Nickel | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Silver | 50 mg/L | 2.5 mL | 500 mL | 250 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090925-41 | Sulfur | 500 mg/L | 2.5 mL | 500 mL | 2500 ug/L |
| UI090925-41 | Thallium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Tin | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Titanium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Uranium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Vanadium | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI090925-41 | Zinc | 100 mg/L | 2.5 mL | 500 mL | 500 ug/L |
| UI091102-42 | Silica | 2139 mg/L | 2.5 mL | 500 mL | 10695 ug/L |
| UI091102-42 | Silicon | 1000 mg/L | 2.5 mL | 500 mL | 5000 ug/L |

**Serial ID:** WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
**Name:** PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
**Type:** Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
**Employee:** Helen Camello
**Supplier:** 02si
**Description:** PQL Working Standard
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-40 | Aluminum | 100 mg/L | 2 mL | 1000 mL | 200 ug/L |
| UI090701-40 | Antimony | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Arsenic | 15 mg/L | 2 mL | 1000 mL | 15 ug/L |
| UI090701-40 | Barium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Beryllium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Boron | 25 mg/L | 2 mL | 1000 mL | 50 ug/L |
| UI090701-40 | Cadmium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Calcium | 100 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Chromium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Cobalt | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Copper | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Iron | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Lead | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Magnesium | 150 mg/L | 2 mL | 1000 mL | 300 ug/L |
| UI090701-40 | Manganese | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Molybdenum | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Nickel | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Phosphorous | 75 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Potassium | 75 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Selenium | 15 mg/L | 2 mL | 1000 mL | 15 ug/L |
| UI090701-40 | Silicon | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Silver | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Sodium | 150 mg/L | 2 mL | 1000 mL | 150 ug/L |
| UI090701-40 | Strontium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Sulfur | 50 mg/L | 2 mL | 1000 mL | 100 ug/L |
| UI090701-40 | Thallium | 10 mg/L | 2 mL | 1000 mL | 20 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-40 | Tin | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |
| UI090701-40 | Titanium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Uranium | 25 mg/L | 2 mL | 1000 mL | 50 ug/L |
| UI090701-40 | Vanadium | 2.5 mg/L | 2 mL | 1000 mL | 5 ug/L |
| UI090701-40 | Zinc | 5 mg/L | 2 mL | 1000 mL | 10 ug/L |

**Serial ID:** WMS100224-04 **Opened:** 24-FEB-10 **Amount :** 50 mL
**Name:** ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 4025216
**Type:** Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
**Employee:** Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (100 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090610-03 | Tungsten | 10 mg/L | .5 mL | 50 mL | 100 ug/L |
| UMS090303-01 | Arsenic | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Barium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Beryllium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Boron | 20 mg/L | .5 mL | 50 mL | 200 ug/l |
| UMS090303-01 | Cadmium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Chromium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Cobalt | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Copper | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Lead | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Lithium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Manganese | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Nickel | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Selenium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Silver | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Strontium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Thallium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Thorium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Uranium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Vanadium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Zinc | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-02 | Aluminum | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Calcium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Iron | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Magnesium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Phosphorous | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Potassium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Sodium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-03 | Antimony | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Molybdenum | 10 mg/L | .5 mL | 50 mL | 100 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UMS090303-03 | Tin | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Titanium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Zirconium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |

**Serial ID:** WMS100224-04A **Opened:** 24-FEB-10 **Balance Id :** 4025216
**Name:** ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (10 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100224-04 | Aluminum | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04 | Antimony | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Arsenic | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Barium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Beryllium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Boron | 200 ug/l | 5 mL | 50 mL | 20 ug/l |
| WMS100224-04 | Cadmium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Calcium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04 | Chromium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Cobalt | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Copper | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Iron | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04 | Lead | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Lithium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Magnesium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04 | Manganese | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Molybdenum | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Nickel | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Phosphorous | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04 | Potassium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04 | Selenium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Silver | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Sodium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04 | Strontium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Thallium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Thorium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Tin | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Titanium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Tungsten | 100 ug/L | 5 mL | 50 mL | 10 ug/L |
| WMS100224-04 | Uranium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Vanadium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04 | Zinc | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100224-04 | Zirconium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

**Serial ID:** WMS100224-04B
**Name:** ICPMS Cal Standard 100
**Type:** Working
**Employee:** Rose Jenkins
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (100 ppb)
**Comments:** None

**Opened:** 24-FEB-10
**Received:** 24-FEB-10
**Expires:** 25-FEB-10

**Amount :** 50 mL
**Balance Id :** 40245216
**Pipet Id :** 1758088
**Solvent :** 2%HNO3/1%HCl- 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090610-03 | Tungsten | 10 mg/L | .5 mL | 50 mL | 100 ug/L |
| UMS090303-01 | Arsenic | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Barium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Beryllium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Boron | 20 mg/L | .5 | 50 mL | 200 ug/l |
| UMS090303-01 | Cadmium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Chromium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Cobalt | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Copper | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Lead | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Lithium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Manganese | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Nickel | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Selenium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Silver | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Strontium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Thallium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Thorium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Uranium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Vanadium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-01 | Zinc | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-02 | Aluminum | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Calcium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Iron | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Magnesium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Phosphorous | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Potassium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-02 | Sodium | 1000 mg/L | .5 | 50 mL | 10000 ug/l |
| UMS090303-03 | Antimony | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Molybdenum | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Tin | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Titanium | 10 mg/L | .5 | 50 mL | 100 ug/l |
| UMS090303-03 | Zirconium | 10 mg/L | .5 | 50 mL | 100 ug/l |

# Standard Logbook

**Serial ID:** WMS100224-05
**Name:** ICPMS ICV
**Type:** Working
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS ICV
**Comments:** None

**Opened:** 24-FEB-10
**Received:** 24-FEB-10
**Expires:** 25-FEB-10

**Balance Id :** 40245216
**Pipet Id :** 3541598
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-06 | Aluminum | 2020 mg/L | .125 mL | 50 mL | 5050 ug/L |
| UI091217-06 | Calcium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Iron | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Magnesium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Phosphorous | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Potassium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Sodium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-07 | Arsenic | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Barium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Beryllium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Boron | 40 mg/L | .125 mL | 50 mL | 100 ug/L |
| UI091217-07 | Cadmium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Chromium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Cobalt | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Copper | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lead | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lithium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Manganese | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Nickel | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Selenium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Strontium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thallium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thorium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Uranium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Vanadium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Zinc | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Antimony | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Molybdenum | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Silver | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tin | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Titanium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tungsten | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Zirconium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

# Standard Logbook

**Serial ID:** WMS100224-06
**Name:** ICPMS CRDL
**Type:** Working
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS CRDL
**Comments:** None

**Opened:** 24-FEB-10
**Received:** 24-FEB-10
**Expires:** 25-FEB-10

**Balance Id :** 40245216
**Pipet Id :** 3820544
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Aluminum | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Arsenic | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Barium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Beryllium | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-09 | Boron | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Cadmium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Calcium | 100 mg/L | .05 mL | 50 mL | 100 ug/L |
| UI090701-09 | Chromium | 3 mg/L | .05 mL | 50 mL | 3 ug/L |
| UI090701-09 | Cobalt | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Copper | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Iron | 25 mg/L | .05 mL | 50 mL | 25 ug/L |
| UI090701-09 | Lead | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Lithium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Magnesium | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Manganese | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Nickel | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Phosphorous | 50 mg/L | .05 mL | 50 mL | 50 ug/L |
| UI090701-09 | Potassium | 300 mg/L | .05 mL | 50 mL | 300 ug/L |
| UI090701-09 | Selenium | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Sodium | 250 mg/L | .05 mL | 50 mL | 250 ug/L |
| UI090701-09 | Strontium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Thallium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Thorium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Uranium | .2 mg/L | .05 mL | 50 mL | .2 ug/L |
| UI090701-09 | Vanadium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Zinc | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Antimony | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-10 | Molybdenum | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-10 | Silver | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-10 | Tin | 2 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Titanium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Tungsten | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Zirconium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |

# Standard Logbook

**Serial ID:** WMS100224-07
**Name:** ICPMS ICSA
**Type:** Working
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS ICSA
**Comments:** None

**Opened:** 24-FEB-10
**Received:** 24-FEB-10
**Expires:** 25-FEB-10

**Balance Id :** 40245216
**Lot Number :** 1010773
**Pipet Id :** 3541598
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100224-08
**Name:** ICPMS ICSAB
**Type:** Working
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS ICSAB
**Comments:** None

**Opened:** 24-FEB-10
**Received:** 24-FEB-10
**Expires:** 25-FEB-10

**Balance Id :** 40245216
**Pipet Id :** 1758088
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Arsenic | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Barium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Beryllium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Boron | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Cadmium | 2 mg/L | .5 mL | 50 mL | 20.2 ug/L |
| UI091217-12 | Chromium | 2 mg/L | .5 mL | 50 mL | 22.2 ug/L |
| UI091217-12 | Cobalt | 2 mg/L | .5 mL | 50 mL | 20.4 ug/L |
| UI091217-12 | Copper | 2 mg/L | .5 mL | 50 mL | 23.4 ug/L |
| UI091217-12 | Lead | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Lithium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Manganese | 2 mg/L | .5 mL | 50 mL | 22.7 ug/L |
| UI091217-12 | Nickel | 2 mg/L | .5 mL | 50 mL | 22.4 ug/L |
| UI091217-12 | Selenium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Strontium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thallium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thorium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Uranium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Vanadium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Zinc | 2 mg/L | .5 mL | 50 mL | 27 ug/L |
| UI091217-13 | Antimony | 2 mg/L | .5 mL | 50 mL | 20.5 ug/L |
| UI091217-13 | Silver | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tin | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tungsten | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Zirconium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100224-70 **Opened:** 24-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS LINEAR RANGE ST **Received:** 24-FEB-10 **Pipet Id :** 1758088
**Type:** Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Paul Boyd
**Supplier:** 02SI
**Description:** ICPMS LINEAR RANGE STANDARD
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-60 | Aluminum | 5000 mg/L | .5 mL | 50 mL | 50000 ug/L |
| UI100219-60 | Arsenic | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Barium | 250 mg/L | .5 mL | 50 mL | 2500 ug/L |
| UI100219-60 | Beryllium | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Cadmium | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Calcium | 5000 mg/L | .5 mL | 50 mL | 50000 ug/L |
| UI100219-60 | Chromium | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Cobalt | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Copper | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Iron | 5000 mg/L | .5 mL | 50 mL | 50000 ug/L |
| UI100219-60 | Lead | 500 mg/L | .5 mL | 50 mL | 5000 ug/L |
| UI100219-60 | Lithium | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Magnesium | 5000 mg/L | .5 mL | 50 mL | 50000 ug/L |
| UI100219-60 | Manganese | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Nickel | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Phosphorous | 2500 mg/L | .5 mL | 50 mL | 25000 ug/L |
| UI100219-60 | Potassium | 5000 mg/L | .5 mL | 50 mL | 50000 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-60 | Selenium | 50 mg/L | .5 mL | 50 mL | 500 ug/L |
| UI100219-60 | Sodium | 5000 mg/L | .5 mL | 50 mL | 50000 ug/L |
| UI100219-60 | Strontium | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Thallium | 50 mg/L | .5 mL | 50 mL | 500 ug/L |
| UI100219-60 | Thorium | 250 mg/L | .5 mL | 50 mL | 2500 ug/L |
| UI100219-60 | Uranium | 500 mg/L | .5 mL | 50 mL | 5000 ug/L |
| UI100219-60 | Vanadium | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-60 | Zinc | 250 mg/L | .5 mL | 50 mL | 2500 ug/L |
| UI100219-61 | Antimony | 25 mg/L | .5 mL | 50 mL | 250 ug/L |
| UI100219-61 | Molybdenum | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-61 | Silver | 25 mg/L | .5 mL | 50 mL | 250 ug/L |
| UI100219-61 | Tin | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-61 | Tungsten | 100 mg/L | .5 mL | 50 mL | 1000 ug/L |
| UI100219-61 | Zirconium | 50 mg/L | .5 mL | 50 mL | 500 ug/L |

**Serial ID:** WMS100225-04 **Opened:** 25-FEB-10 **Amount :** 50 mL
**Name:** ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 4025216
**Type:** Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
**Employee:** Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (100 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090610-03 | Tungsten | 10 mg/L | .5 mL | 50 mL | 100 ug/L |
| UMS090303-01 | Arsenic | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Barium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Beryllium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Boron | 20 mg/L | .5 mL | 50 mL | 200 ug/l |
| UMS090303-01 | Cadmium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Chromium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Cobalt | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Copper | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Lead | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Lithium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Manganese | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Nickel | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Selenium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Silver | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Strontium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Thallium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Thorium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Uranium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Vanadium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Zinc | 10 mg/L | .5 mL | 50 mL | 100 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UMS090303-02 | Aluminum | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Calcium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Iron | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Magnesium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Phosphorous | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Potassium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Sodium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-03 | Antimony | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Molybdenum | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Tin | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Titanium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Zirconium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |

**Serial ID:** WMS100225-04A **Opened:** 25-FEB-10 **Balance Id :** 4025216
**Name:** ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
**Type:** Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (10 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100224-04B | Aluminum | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Antimony | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Arsenic | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Barium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Beryllium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Boron | 200 ug/l | 5 mL | 50 mL | 20 ug/l |
| WMS100224-04B | Cadmium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Calcium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Chromium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Cobalt | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Copper | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Iron | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Lead | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Lithium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Magnesium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Manganese | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Molybdenum | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Nickel | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Phosphorous | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Potassium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100224-04B | Selenium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Silver | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Sodium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100224-04B | Strontium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Thallium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Thorium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Tin | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Titanium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Tungsten | 100 ug/L | 5 mL | 50 mL | 10 ug/L |
| WMS100224-04B | Uranium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Vanadium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Zinc | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100224-04B | Zirconium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

**Serial ID:** WMS100225-05 **Opened:** 25-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 3541598
**Type:** Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS ICV
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-06 | Aluminum | 2020 mg/L | .125 mL | 50 mL | 5050 ug/L |
| UI091217-06 | Calcium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Iron | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Magnesium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Phosphorous | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Potassium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Sodium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-07 | Arsenic | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Barium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Beryllium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Boron | 40 mg/L | .125 mL | 50 mL | 100 ug/L |
| UI091217-07 | Cadmium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Chromium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Cobalt | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Copper | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lead | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lithium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Manganese | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Nickel | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Selenium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Strontium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thallium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thorium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Uranium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Vanadium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-07 | Zinc | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Antimony | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Molybdenum | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Silver | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tin | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Titanium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tungsten | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Zirconium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

**Serial ID:** WMS100225-06 **Opened:** 25-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
**Type:** Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS CRDL
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Aluminum | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Arsenic | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Barium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Beryllium | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-09 | Boron | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Cadmium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Calcium | 100 mg/L | .05 mL | 50 mL | 100 ug/L |
| UI090701-09 | Chromium | 3 mg/L | .05 mL | 50 mL | 3 ug/L |
| UI090701-09 | Cobalt | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Copper | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Iron | 25 mg/L | .05 mL | 50 mL | 25 ug/L |
| UI090701-09 | Lead | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Lithium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Magnesium | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Manganese | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Nickel | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Phosphorous | 50 mg/L | .05 mL | 50 mL | 50 ug/L |
| UI090701-09 | Potassium | 300 mg/L | .05 mL | 50 mL | 300 ug/L |
| UI090701-09 | Selenium | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Sodium | 250 mg/L | .05 mL | 50 mL | 250 ug/L |
| UI090701-09 | Strontium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Thallium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Thorium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Uranium | .2 mg/L | .05 mL | 50 mL | .2 ug/L |
| UI090701-09 | Vanadium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Zinc | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Antimony | 2 mg/L | .05 mL | 50 mL | 2 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-10 | Molybdenum | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-10 | Silver | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-10 | Tin | 2 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Titanium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Tungsten | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Zirconium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |

**Serial ID:** WMS100225-07 **Opened:** 25-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
**Type:** Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
**Employee:** Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
**Supplier:** GEL
**Description:** ICPMS ICSA
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100225-08 **Opened:** 25-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 1758088
**Type:** Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** ICPMS ICSAB
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Arsenic | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Barium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Beryllium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Boron | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Cadmium | 2 mg/L | .5 mL | 50 mL | 20.2 ug/L |
| UI091217-12 | Chromium | 2 mg/L | .5 mL | 50 mL | 22.2 ug/L |
| UI091217-12 | Cobalt | 2 mg/L | .5 mL | 50 mL | 20.4 ug/L |
| UI091217-12 | Copper | 2 mg/L | .5 mL | 50 mL | 23.4 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Lead | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Lithium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Manganese | 2 mg/L | .5 mL | 50 mL | 22.7 ug/L |
| UI091217-12 | Nickel | 2 mg/L | .5 mL | 50 mL | 22.4 ug/L |
| UI091217-12 | Selenium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Strontium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thallium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thorium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Uranium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Vanadium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Zinc | 2 mg/L | .5 mL | 50 mL | 27 ug/L |
| UI091217-13 | Antimony | 2 mg/L | .5 mL | 50 mL | 20.5 ug/L |
| UI091217-13 | Silver | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tin | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tungsten | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Zirconium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

**Serial ID:** WMS100228-04 **Opened:** 28-FEB-10 **Amount :** 50 mL
**Name:** ICPMS Cal Standard 100 **Received:** 28-FEB-10 **Balance Id :** 4025216
**Type:** Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
**Employee:** Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1272768
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (100 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090610-03 | Tungsten | 10 mg/L | .5 mL | 50 mL | 100 ug/L |
| UMS090303-01 | Arsenic | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Barium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Beryllium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Boron | 20 mg/L | .5 mL | 50 mL | 200 ug/l |
| UMS090303-01 | Cadmium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Chromium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Cobalt | 10 mg/L | .5 mL | 50 mL | 100 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UMS090303-01 | Copper | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Lead | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Lithium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Manganese | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Nickel | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Selenium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Silver | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Strontium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Thallium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Thorium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Uranium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Vanadium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-01 | Zinc | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-02 | Aluminum | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Calcium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Iron | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Magnesium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Phosphorous | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Potassium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-02 | Sodium | 1000 mg/L | .5 mL | 50 mL | 10000 ug/l |
| UMS090303-03 | Antimony | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Molybdenum | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Tin | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Titanium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |
| UMS090303-03 | Zirconium | 10 mg/L | .5 mL | 50 mL | 100 ug/l |

**Serial ID:** WMS100228-04A **Opened:** 28-FEB-10 **Balance Id :** 4025216
**Name:** ICPMS Cal Standard 10 **Received:** 28-FEB-10 **Pipet Id :** 3541598
**Type:** Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Elizabeth Janssen
**Supplier:** GEL
**Description:** ICPMS Calibration Standard (10 ppb)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100228-04 | Aluminum | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100228-04 | Antimony | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Arsenic | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Barium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Beryllium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Boron | 200 ug/l | 5 mL | 50 mL | 20 ug/l |
| WMS100228-04 | Cadmium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Calcium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100228-04 | Chromium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Cobalt | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| WMS100228-04 | Copper | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Iron | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100228-04 | Lead | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Lithium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Magnesium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100228-04 | Manganese | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Molybdenum | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Nickel | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Phosphorous | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100228-04 | Potassium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100228-04 | Selenium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Silver | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Sodium | 10000 ug/l | 5 mL | 50 mL | 1000 ug/l |
| WMS100228-04 | Strontium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Thallium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Thorium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Tin | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Titanium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Tungsten | 100 ug/L | 5 mL | 50 mL | 10 ug/L |
| WMS100228-04 | Uranium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Vanadium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Zinc | 100 ug/l | 5 mL | 50 mL | 10 ug/l |
| WMS100228-04 | Zirconium | 100 ug/l | 5 mL | 50 mL | 10 ug/l |

**Serial ID:** WMS100228-05 **Opened:** 28-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS ICV **Received:** 28-FEB-10 **Pipet Id :** 3541598
**Type:** Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Elizabeth Janssen
**Supplier:** GEL
**Description:** ICPMS ICV
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-06 | Aluminum | 2020 mg/L | .125 mL | 50 mL | 5050 ug/L |
| UI091217-06 | Calcium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Iron | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Magnesium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Phosphorous | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Potassium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-06 | Sodium | 2000 mg/L | .125 mL | 50 mL | 5000 ug/L |
| UI091217-07 | Arsenic | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Barium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Beryllium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Boron | 40 mg/L | .125 mL | 50 mL | 100 ug/L |
| UI091217-07 | Cadmium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-07 | Chromium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Cobalt | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Copper | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lead | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Lithium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Manganese | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Nickel | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Selenium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Strontium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thallium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Thorium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Uranium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Vanadium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-07 | Zinc | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Antimony | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Molybdenum | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Silver | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tin | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Titanium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Tungsten | 20 mg/L | .125 mL | 50 mL | 50 ug/L |
| UI091217-08 | Zirconium | 20 mg/L | .125 mL | 50 mL | 50 ug/L |

**Serial ID:** WMS100228-06 **Opened:** 28-FEB-10 **Balance Id :** 40245216
**Name:** ICPMS CRDL **Received:** 28-FEB-10 **Pipet Id :** 3820544
**Type:** Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
**Employee:** Elizabeth Janssen
**Supplier:** GEL
**Description:** ICPMS CRDL
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Aluminum | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Arsenic | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Barium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Beryllium | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-09 | Boron | 15 mg/L | .05 mL | 50 mL | 15 ug/L |
| UI090701-09 | Cadmium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Calcium | 100 mg/L | .05 mL | 50 mL | 100 ug/L |
| UI090701-09 | Chromium | 3 mg/L | .05 mL | 50 mL | 3 ug/L |
| UI090701-09 | Cobalt | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Copper | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Iron | 25 mg/L | .05 mL | 50 mL | 25 ug/L |
| UI090701-09 | Lead | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Lithium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Magnesium | 15 mg/L | .05 mL | 50 mL | 15 ug/L |

# Standard Logbook

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI090701-09 | Manganese | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Nickel | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-09 | Phosphorous | 50 mg/L | .05 mL | 50 mL | 50 ug/L |
| UI090701-09 | Potassium | 300 mg/L | .05 mL | 50 mL | 300 ug/L |
| UI090701-09 | Selenium | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-09 | Sodium | 250 mg/L | .05 mL | 50 mL | 250 ug/L |
| UI090701-09 | Strontium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Thallium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Thorium | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-09 | Uranium | .2 mg/L | .05 mL | 50 mL | .2 ug/L |
| UI090701-09 | Vanadium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-09 | Zinc | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Antimony | 2 mg/L | .05 mL | 50 mL | 2 ug/L |
| UI090701-10 | Molybdenum | .5 mg/L | .05 mL | 50 mL | .5 ug/L |
| UI090701-10 | Silver | 1 mg/L | .05 mL | 50 mL | 1 ug/L |
| UI090701-10 | Tin | 2 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Titanium | 10 mg/L | .05 mL | 50 mL | 10 ug/L |
| UI090701-10 | Tungsten | 5 mg/L | .05 mL | 50 mL | 5 ug/L |
| UI090701-10 | Zirconium | 2 mg/L | .05 mL | 50 mL | 2 ug/L |

**Serial ID:** WMS100228-07
**Name:** ICPMS ICSA
**Type:** Working
**Employee:** Elizabeth Janssen
**Supplier:** GEL
**Description:** ICPMS ICSA
**Comments:** None

**Opened:** 28-FEB-10
**Received:** 28-FEB-10
**Expires:** 01-MAR-10

**Balance Id :** 40245216
**Lot Number :** 1010773
**Pipet Id :** 3541598
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

# Standard Logbook

**Serial ID:** WMS100228-08
**Name:** ICPMS ICSAB
**Type:** Working
**Employee:** Elizabeth Janssen
**Supplier:** GEL
**Description:** ICPMS ICSAB
**Comments:** None

**Opened:** 28-FEB-10
**Received:** 28-FEB-10
**Expires:** 01-MAR-10

**Balance Id :** 40245216
**Pipet Id :** 1758088
**Solvent :** 2%HNO3/1%HCl - 1272768

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| UI091217-12 | Arsenic | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Barium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Beryllium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Boron | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Cadmium | 2 mg/L | .5 mL | 50 mL | 20.2 ug/L |
| UI091217-12 | Chromium | 2 mg/L | .5 mL | 50 mL | 22.2 ug/L |
| UI091217-12 | Cobalt | 2 mg/L | .5 mL | 50 mL | 20.4 ug/L |
| UI091217-12 | Copper | 2 mg/L | .5 mL | 50 mL | 23.4 ug/L |
| UI091217-12 | Lead | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Lithium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Manganese | 2 mg/L | .5 mL | 50 mL | 22.7 ug/L |
| UI091217-12 | Nickel | 2 mg/L | .5 mL | 50 mL | 22.4 ug/L |
| UI091217-12 | Selenium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Strontium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thallium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Thorium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Uranium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Vanadium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-12 | Zinc | 2 mg/L | .5 mL | 50 mL | 27 ug/L |
| UI091217-13 | Antimony | 2 mg/L | .5 mL | 50 mL | 20.5 ug/L |
| UI091217-13 | Silver | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tin | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Tungsten | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI091217-13 | Zirconium | 2 mg/L | .5 mL | 50 mL | 20 ug/L |
| UI100219-11 | Aluminum | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Calcium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Chloride | 10000 mg/L | 5 mL | 50 mL | 1000000 ug/L |
| UI100219-11 | Iron | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Magnesium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Molybdenum | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |
| UI100219-11 | Phosphorous | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Potassium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sodium | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Sulfur | 1000 mg/L | 5 mL | 50 mL | 100000 ug/L |
| UI100219-11 | Titanium | 20 mg/L | 5 mL | 50 mL | 2000 ug/L |

# Standard Logbook

**Serial ID:** 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
**Name:** I-HCL **Received:** 02-FEB-10
**Type:** Reagent/Solvent **Expires:** 02-FEB-11
**Employee:** Francena Armstrong
**Supplier:** J.T. BAKER
**Description:** HYDROCHLORIC ACID
**Comments:** None

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**Serial ID:** 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
**Name:** I-HNO3 **Received:** 02-APR-09
**Type:** Reagent/Solvent **Expires:** 02-APR-10
**Employee:** Clifford Postell
**Supplier:** BAKER
**Description:** Nitric Acid CONC.
**Comments:** None

---

**Serial ID:** 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
**Name:** B-KMnO4(VWR)-MER **Received:** 20-JUL-09
**Type:** Reagent/Solvent **Expires:** 20-JUL-10
**Employee:** Tara Griffin **Verified:** 07-AUG-07
**Supplier:** VWR
**Description:** Potassium Permanganate
**Comments:** None

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**Serial ID:** 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
**Name:** B-H2SO4-MER **Received:** 24-AUG-09
**Type:** Reagent/Solvent **Expires:** 24-AUG-10
**Employee:** Tara Griffin
**Supplier:** Mallinckrodt
**Description:** Sulfuric Acid, Concentrated
**Comments:** None

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**Serial ID:** 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
**Name:** B-K2S2O8S-MER **Received:** 06-NOV-09
**Type:** Reagent/Solvent **Expires:** 06-NOV-10
**Employee:** Tara Griffin
**Supplier:** J.T BAKER
**Description:** Potassium Persulfate Concentrate.
**Comments:** None

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# Standard Logbook

**Serial ID:** 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
**Name:** B-NH2OH.HCl-MER **Received:** 12-NOV-09
**Type:** Reagent/Solvent **Expires:** 12-NOV-10
**Employee:** Tara Griffin
**Supplier:** Fisher Scientific
**Description:** Hydroxlyamine Hydrochloride
**Comments:** None

---

**Serial ID:** 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
**Name:** B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
**Type:** Reagent/Solvent **Expires:** 15-JUL-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** Hg reducing agent
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| 1228372-A | B-NH2OH.HCl-MER | N/A | 120 g | 1000 mL | N/A |

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**Serial ID:** 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
**Name:** B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
**Type:** Reagent/Solvent **Expires:** 20-JAN-11
**Employee:** Tara Griffin
**Supplier:** Mallinckrodt Chemicals
**Description:** NITRIC ACID
**Comments:** None

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**Serial ID:** 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
**Name:** B-K2S2O8-MER **Received:** 28-JAN-10
**Type:** Reagent/Solvent **Expires:** 28-JUL-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** 5% Potassium Persulfate
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| 1215906 | B-K2S2O8S-MER | N/A | 50 g | 1000 mL | N/A |

---

**Serial ID:** 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
**Name:** I-HNO3 **Received:** 02-FEB-10
**Type:** Reagent/Solvent **Expires:** 03-FEB-11
**Employee:** Bryan Davis
**Supplier:** BAKER
**Description:** Nitric Acid CONC.

# Standard Logbook

**Comments:** None

---

**Serial ID:** 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
**Name:** B-KMnO4-MER **Received:** 04-FEB-10
**Type:** Reagent/Solvent **Expires:** 20-JUL-10
**Employee:** Tara Griffin
**Supplier:** GEL
**Description:** 5% KMnO4 solution
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| 1156689-A | B-KMnO4(VWR)-MER | Crystals | 50 g | 1000 mL | 3% |

---

**Serial ID:** 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
**Name:** I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
**Type:** Reagent/Solvent **Expires:** 04-FEB-11
**Employee:** Bryan Davis
**Supplier:** J.T. BAKER
**Description:** HYDROCHLORIC ACID
**Comments:** None

---

**Serial ID:** 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
**Name:** B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
**Type:** Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
**Employee:** Helen Camello
**Supplier:** GEL
**Description:** 3%HCL+1%HNO3 RINSE SOLN.
**Comments:** None

---

**Serial ID:** 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
**Name:** B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
**Type:** Reagent/Solvent **Expires:** 28-FEB-10
**Employee:** Paul Boyd
**Supplier:** GEL
**Description:** 2%HNO3/1%HCl Solution (Type I Water)
**Comments:** None

| Parent Material | Analyte | Parent Conc. | Aliquot | Final Vol. | Final Conc. |
|---|---|---|---|---|---|
| 100202 | I-HCL | 36.5-38.0 | 90 mL | 9 l | N/A |
| 1100721TCLP | I-HNO3 | 69.0-70.0 | 180 mL | 9 l | N/A |

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# General Chemistry Analysis

# Case Narrative

**General Chemistry Narrative**
**Los Alamos National Laboratory (LANL)**
**SDG 10-1512**

## Method/Analysis Information

| | | | |
|---|---|---|---|
| **Product:** | **Cyanide, Total** | | |
| **Analytical Batch:** | 948607 | **Method:** | SW9012A Cyanide and Total |
| **Prep Batch :** | 948605 | **Method:** | SSW846 9010B Prep |

## Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

| Sample ID | Client ID |
|---|---|
| 245969001 | RE15-10-7880 |
| 245969002 | RE15-10-7891 |
| 245969003 | RE15-10-7892 |
| 245969004 | RE15-10-7967 |
| 245969005 | RE15-10-7976 |
| 245969006 | RE15-10-7968 |
| 245969007 | RE15-10-7965 |
| 245969008 | RE15-10-7975 |
| 245969009 | RE15-10-7978 |
| 245969010 | RE15-10-7970 |
| 245969011 | RE15-10-7964 |
| 245969012 | RE15-10-7973 |
| 245969013 | RE15-10-7962 |
| 245969014 | RE15-10-7963 |
| 245969015 | RE15-10-7977 |
| 1202032205 | Method Blank (MB) |
| 1202032206 | 246006005(RE16-10-2891) Sample Duplicate (DUP) |
| 1202032207 | 246006006(RE16-10-2897) Sample Duplicate (DUP) |
| 1202032208 | 246006005(RE16-10-2891) Matrix Spike (MS) |
| 1202032209 | 246006006(RE16-10-2897) Matrix Spike (MS) |
| 1202032210 | 246006005(RE16-10-2891) Matrix Spike Duplicate (MSD) |
| 1202032211 | 246006006(RE16-10-2897) Matrix Spike Duplicate (MSD) |
| 1202032212 | Laboratory Control Sample (LCS) |

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

**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-GC-E-095 REV# 12.

**Preparation/Analytical Method Verification**

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

**Calibration Information**

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

**Initial Calibration**

All initial calibration requirements have been met for this SDG.

**Continuing Calibration Blanks**

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

**Calibration Verification Information (CCV)**

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

**Y Intercept Rule**

The absolute value of the intercept is less than 3 times the MDL.

**Quality Control (QC) Information**

**Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recovery met the acceptance limits.

**Quality Control (QC) Designation**

The following samples were selected for QC analysis: 246006005 (RE16-10-2891) and 246006006 (RE16-10-2897).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The MS/PS recoveries for this sample set were within the required acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD recoveries for this sample set were within the required acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPDs between the spike and spike duplicate met the acceptance limits.

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

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202032206 (RE16-10-2891) and 1202032207 (RE16-10-2897).

**Technical Information**

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

**Holding Times**

All samples in this SDG met the specified holding time.

**Sample Preservation/Integrity**
All the samples from this sample group met the preservation and integrity requirements of the method.

**Sample Dilutions**
The following sample in this sample group was diluted due to high concentration: 1202032212 (LCS).

**Sample Re-analysis**
The samples in this SDG did not require re-analysis.

**Miscellaneous Information**

**Data Exception (DER) Documentation**
A DER was not required for this SDG.

**Additional Comments**
Additional comments were not required for this SDG.

**Electronic Packaging 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. 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.

**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:** Tom Lewis, Jr. **Date:** 27Feb10

# Sample Data Summary

# 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: 10-1512 GEL Work Order: 245969

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

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## Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7880 | Project: | LANL01004 |
| Sample ID: | 245969001 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 7.5% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 73.5 | 270 | ug/kg | 1 | AXC2 02/10/10 | 1457 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7891 | Project: | LANL01004 |
| Sample ID: | 245969002 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 26% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 90.1 | 331 | ug/kg | 1 | AXC2 02/10/10 | 1458 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID: RE15-10-7892
Sample ID: 245969003
Matrix: R
Collect Date: 27-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client
Moisture: 6.96%

Project: LANL01004
Client ID: LANL010

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 70.3 | 258 | ug/kg | 1 | AXC2 02/10/10 | 1459 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7967 | Project: | LANL01004 |
| Sample ID: | 245969004 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 24.2% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 80.1 | 294 | ug/kg | 1 | AXC2 02/10/10 | 1500 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7976 | Project: | LANL01004 |
| Sample ID: | 245969005 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 3.7% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 66.6 | 245 | ug/kg | 1 | AXC2 02/10/10 | 1501 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7968 | Project: | LANL01004 |
| Sample ID: | 245969006 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 10.8% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 73.3 | 269 | ug/kg | 1 | AXC2 02/10/10 | 1502 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7965 | Project: | LANL01004 |
| Sample ID: | 245969007 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 22.2% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | | |
| Cyanide, Total | J | 112 | 78.0 | 287 | ug/kg | 1 | AXC2 | 02/10/10 | 1503 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7975 | Project: | LANL01004 |
| Sample ID: | 245969008 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 25.5% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 89.5 | 329 | ug/kg | 1 | AXC2 02/10/10 | 1504 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7978 | Project: | LANL01004 |
| Sample ID: | 245969009 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 16.9% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | J | 88.6 | 77.2 | 284 | ug/kg | 1 | AXC2 02/10/10 | 1504 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7970 | Project: | LANL01004 |
| Sample ID: | 245969010 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 8.19% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 69.9 | 257 | ug/kg | 1 | AXC2 02/10/10 | 1505 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7964 | Proiect: | LANL01004 |
| Sample ID: | 245969011 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 10.7% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 73.2 | 269 | ug/kg | 1 | AXC2 02/10/10 | 1510 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7973 | Project: | LANL01004 |
| Sample ID: | 245969012 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 18.5% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 77.2 | 284 | ug/kg | 1 | AXC2 02/10/10 | 1511 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7962 | Project: | LANL01004 |
| Sample ID: | 245969013 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 5.31% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 66.5 | 244 | ug/kg | 1 | AXC2 02/10/10 | 1512 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7963 | Project: | LANL01004 |
| Sample ID: | 245969014 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 20.8% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 81.0 | 298 | ug/kg | 1 | AXC2 02/10/10 | 1512 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-7977 | Project: | LANL01004 |
| Sample ID: | 245969015 | Client ID: | LANL010 |
| Matrix: | R | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |
| Moisture: | 36.2% | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "Dry Weight Corrected"* | | | | | | | | | | |
| Cyanide, Total | J | 133 | 96.9 | 356 | ug/kg | 1 | AXC2 02/10/10 | 1513 | 948607 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/09/10 | 1426 | 948605 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

# Quality Control Summary

# GEL LABORATORIES LLC

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## QC Summary

Report Date: February 18, 2010
Page 1 of 2

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

**Contact:** Ms. Joylene Valdez

**Workorder:** 245969

| Parmname | NOM | | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | | |
| Batch 948607 | | | | | | | | | | | |
| QC1202032206 246006005 DUP | | | | | | | | | | | |
| Cyanide, Total | | U | ND | U | ND | ug/kg | N/A | | | AXC2 | 02/10/10 15:15 |
| QC1202032207 246006006 DUP | | | | | | | | | | | |
| Cyanide, Total | | U | ND | U | ND | ug/kg | N/A | | | | 02/10/10 15:22 |
| QC1202032212 LCS | | | | | | | | | | | |
| Cyanide, Total | 67900 | | | | 72500 | ug/kg | | 107 | (32%-157%) | | 02/10/10 14:53 |
| QC1202032205 MB | | | | | | | | | | | |
| Cyanide, Total | | | | U | 250 | ug/kg | | | | | 02/10/10 14:52 |
| QC1202032208 246006005 MS | | | | | | | | | | | |
| Cyanide, Total | 5100 | U | ND | | 4840 | ug/kg | | 94.9 | (26%-158%) | | 02/10/10 15:16 |
| QC1202032209 246006006 MS | | | | | | | | | | | |
| Cyanide, Total | 5480 | U | ND | | 5260 | ug/kg | | 95.6 | (26%-158%) | | 02/10/10 15:23 |
| QC1202032210 246006005 MSD | | | | | | | | | | | |
| Cyanide, Total | 5010 | U | ND | | 4990 | ug/kg | 3.06 | 99.6 | (0%-30%) | | 02/10/10 15:17 |
| QC1202032211 246006006 MSD | | | | | | | | | | | |
| Cyanide, Total | 5700 | U | ND | | 5290 | ug/kg | 0.640 | 92.5 | (0%-30%) | | 02/10/10 15:24 |

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- 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
- E General Chemistry--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
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

## QC Summary

**Workorder:** 245969



| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|

on nearest internal standard response factor

| | |
|---|---|
| N/A | RPD or %Recovery limits do not apply. |
| ND | Analyte concentration is not detected above the detection limit |
| NJ | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier |
| P | Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70% |
| R | Sample results are rejected |
| U | Analyte was analyzed for, but not detected above the MDL, MDA, or LOD. |
| 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. |
| ^ | RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry. |
| d | 5-day BOD--The 2:1 depletion requirement was not met for this sample |
| h | Preparation or preservation holding time was exceeded |

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# Instrument QC Data Summary

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-FEB-2010 16:31

**GEL Laboratories LLC**

**Contract:** **LANL01004**

**SDG #:** **10-1512**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

| Sample Type | Run Date | Data File | Result | Nominal | Recovery | Limits | Within Limits |
|---|---|---|---|---|---|---|---|
| **ICV** | **10-FEB-2010 14:15:06** | **OM_2-10-2010_14-04-36** | **156** | **150** | **104** | **(90%-110%)** | **Yes** |
| CCV | 10-FEB-2010 14:41:49 | OM_2-10-2010_14-04-36 | 101 | 100 | 101 | (90%-110%) | Yes |
| CCV | 10-FEB-2010 14:54:11 | OM_2-10-2010_14-04-36 | 101 | 100 | 101 | (90%-110%) | Yes |
| CCV | 10-FEB-2010 15:06:42 | OM_2-10-2010_14-04-36 | 101 | 100 | 101 | (90%-110%) | Yes |
| CCV | 10-FEB-2010 15:19:11 | OM_2-10-2010_14-04-36 | 108 | 100 | 108 | (90%-110%) | Yes |
| CCV | 10-FEB-2010 15:31:37 | OM_2-10-2010_14-04-36 | 108 | 100 | 108 | (90%-110%) | Yes |

| Sample Type | Run Date | Data File | Result | Limits | Within Limits |
|---|---|---|---|---|---|
| **ICB** | **10-FEB-2010 14:16:57** | **OM_2-10-2010_14-04-36** | **-0.169** | **10** | **Yes** |
| CCB | 10-FEB-2010 14:43:39 | OM_2-10-2010_14-04-36 | -0.371 | 10 | Yes |
| CCB | 10-FEB-2010 14:56:01 | OM_2-10-2010_14-04-36 | -1.09 | 10 | Yes |
| CCB | 10-FEB-2010 15:08:32 | OM_2-10-2010_14-04-36 | -2.06 | 10 | Yes |
| CCB | 10-FEB-2010 15:21:01 | OM_2-10-2010_14-04-36 | -0.159 | 10 | Yes |
| CCB | 10-FEB-2010 15:33:27 | OM_2-10-2010_14-04-36 | -0.351 | 10 | Yes |

# Cyanide, Total

# Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948605

Lab SOP: GL-GC-E-067 REV# 13

| Type | Sample Id | Lot. Id | Spike Amount | Spike Units |
|---|---|---|---|---|
| LCS | 1202032212 | URF1200957-01 | .25 | g |
| MS | 1202032208 | URF1184831-02 | .025 | mL |
| MS | 1202032209 | URF1184831-02 | .025 | mL |
| MSD | 1202032210 | URF1184831-02 | .025 | mL |
| MSD | 1202032211 | URF1184831-02 | .025 | mL |

| Sample Type | Sample ID | Parent Sample ID | Method | Prep Date | Ph | Initial Wt. | Final Volume | Prep Factor | Matrix |
|---|---|---|---|---|---|---|---|---|---|
| MB | 1202032205 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.5 g | 25 mL | 50 | SOIL |
| LCS | 1202032212 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.25 g | 25 mL | 100 | SOIL |
| SAMPLE | 245969001 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.5 g | 25 mL | 50 | SOIL |
| SAMPLE | 245969002 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.51 g | 25 mL | 49.01961 | SOIL |
| SAMPLE | 245969003 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.52 g | 25 mL | 48.07692 | SOIL |
| SAMPLE | 245969004 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.56 g | 25 mL | 44.64286 | SOIL |
| SAMPLE | 245969005 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.53 g | 25 mL | 47.16981 | SOIL |
| SAMPLE | 245969006 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.52 g | 25 mL | 48.07692 | SOIL |
| SAMPLE | 245969007 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.56 g | 25 mL | 44.64286 | SOIL |
| SAMPLE | 245969008 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.51 g | 25 mL | 49.01961 | SOIL |
| SAMPLE | 245969009 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.53 g | 25 mL | 47.16981 | SOIL |
| SAMPLE | 245969010 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.53 g | 25 mL | 47.16981 | SOIL |
| SAMPLE | 245969011 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.52 g | 25 mL | 48.07692 | SOIL |
| SAMPLE | 245969012 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.54 g | 25 mL | 46.2963 | SOIL |
| SAMPLE | 245969013 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.54 g | 25 mL | 46.2963 | SOIL |
| SAMPLE | 245969014 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.53 g | 25 mL | 47.16981 | SOIL |
| SAMPLE | 245969015 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.55 g | 25 mL | 45.45455 | SOIL |
| SAMPLE | 246006005 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.5 g | 25 mL | 50 | SOIL |
| DUP | 1202032206 | 246006005 | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.57 g | 25 mL | 43.85965 | SOIL |
| MS | 1202032208 | 246006005 | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.56 g | 25 mL | 44.64286 | SOIL |
| MSD | 1202032210 | 246006005 | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.57 g | 25 mL | 43.85965 | SOIL |
| SAMPLE | 246006006 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.52 g | 25 mL | 48.07692 | SOIL |
| DUP | 1202032207 | 246006006 | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.53 g | 25 mL | 47.16981 | SOIL |
| MS | 1202032209 | 246006006 | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.52 g | 25 mL | 48.07692 | SOIL |
| MSD | 1202032211 | 246006006 | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.5 g | 25 mL | 50 | SOIL |
| SAMPLE | 246006007 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.55 g | 25 mL | 45.45455 | SOIL |
| SAMPLE | 246006008 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.54 g | 25 mL | 46.2963 | SOIL |
| SAMPLE | 246006009 | | SW846 9010B Prep | 09-FEB-2010 14:26 | >12 | 0.55 g | 25 mL | 45.45455 | SOIL |

# Prep LogBook

| Reagent/Solvent Lot ID | Amount | Description |
|---|---|---|
| 091211-C | 25 mL | 0.25N Sodium Hydroxide Solution |
| WCN100209-07 | .0375 mL | 150 ppb CN Distilled ICV Standard |
| 1176724-C | 1.25 mL | 0.8N H3NO3S |
| 1260189-C | 2.5 mL | 50% H2SO4 CN Prep |
| 1176778-C | 1 mL | 51% MgCl2 Soln |
| 1238142-C | 1.25 mL | Bismuth Nitrate Solution |

Comments:

This is runlog Lachat1

| Sample ID | Batch | Dilution | Analyst | Runtime | Dataset |
|---|---|---|---|---|---|
| 200 ppb | | 1 | axc2 | 2/10/2010 14:07:58 | OM_2-10-2010_14-04-36 |
| 150 ppb | | 1 | axc2 | 2/10/2010 14:08:49 | OM_2-10-2010_14-04-36 |
| 100 ppb | | 1 | axc2 | 2/10/2010 14:09:42 | OM_2-10-2010_14-04-36 |
| 50 ppb | | 1 | axc2 | 2/10/2010 14:10:35 | OM_2-10-2010_14-04-36 |
| 10 ppb | | 1 | axc2 | 2/10/2010 14:11:28 | OM_2-10-2010_14-04-36 |
| CRDL 5.0 ppb | | 1 | axc2 | 2/10/2010 14:12:22 | OM_2-10-2010_14-04-36 |
| ICAL-00 | | 1 | axc2 | 2/10/2010 14:13:16 | OM_2-10-2010_14-04-36 |
| ICV | | 1 | axc2 | 2/10/2010 14:15:06 | OM_2-10-2010_14-04-36 |
| ICB | | 1 | axc2 | 2/10/2010 14:16:57 | OM_2-10-2010_14-04-36 |
| | | 1 | axc2 | 2/10/2010 14:18:46 | OM_2-10-2010_14-04-36 |
| 1202032189 | 948603 | 1 | axc2 | 2/10/2010 14:20:36 | OM_2-10-2010_14-04-36 |
| 1202032196 | 948603 | 25 | axc2 | 2/10/2010 14:21:30 | OM_2-10-2010_14-04-36 |
| 246002001 | 948603 | 1 | axc2 | 2/10/2010 14:22:23 | OM_2-10-2010_14-04-36 |
| 1202032190 | 948603 | 1 | axc2 | 2/10/2010 14:23:16 | OM_2-10-2010_14-04-36 |
| 1202032192 | 948603 | 1 | axc2 | 2/10/2010 14:24:09 | OM_2-10-2010_14-04-36 |
| 1202032194 | 948603 | 1 | axc2 | 2/10/2010 14:25:02 | OM_2-10-2010_14-04-36 |
| 246002002 | 948603 | 1 | axc2 | 2/10/2010 14:25:54 | OM_2-10-2010_14-04-36 |
| 1202032191 | 948603 | 1 | axc2 | 2/10/2010 14:26:47 | OM_2-10-2010_14-04-36 |
| 1202032193 | 948603 | 1 | axc2 | 2/10/2010 14:27:39 | OM_2-10-2010_14-04-36 |
| 1202032195 | 948603 | 1 | axc2 | 2/10/2010 14:28:31 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 14:29:24 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 14:31:14 | OM_2-10-2010_14-04-36 |
| 246003001 | 948603 | 1 | axc2 | 2/10/2010 14:33:02 | OM_2-10-2010_14-04-36 |
| 246003002 | 948603 | 1 | axc2 | 2/10/2010 14:33:55 | OM_2-10-2010_14-04-36 |
| 246003003 | 948603 | 1 | axc2 | 2/10/2010 14:34:46 | OM_2-10-2010_14-04-36 |
| 246003004 | 948603 | 1 | axc2 | 2/10/2010 14:35:38 | OM_2-10-2010_14-04-36 |
| 246003005 | 948603 | 1 | axc2 | 2/10/2010 14:36:29 | OM_2-10-2010_14-04-36 |
| 246003006 | 948603 | 1 | axc2 | 2/10/2010 14:37:23 | OM_2-10-2010_14-04-36 |
| 246003007 | 948603 | 1 | axc2 | 2/10/2010 14:38:17 | OM_2-10-2010_14-04-36 |
| 246003008 | 948603 | 1 | axc2 | 2/10/2010 14:39:10 | OM_2-10-2010_14-04-36 |
| 246003009 | 948603 | 1 | axc2 | 2/10/2010 14:40:03 | OM_2-10-2010_14-04-36 |
| 246003010 | 948603 | 1 | axc2 | 2/10/2010 14:40:57 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 14:41:49 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 14:43:39 | OM_2-10-2010_14-04-36 |
| 246003011 | 948603 | 1 | axc2 | 2/10/2010 14:45:28 | OM_2-10-2010_14-04-36 |
| 246003012 | 948603 | 1 | axc2 | 2/10/2010 14:46:21 | OM_2-10-2010_14-04-36 |
| 246003013 | 948603 | 1 | axc2 | 2/10/2010 14:47:14 | OM_2-10-2010_14-04-36 |
| 246003014 | 948603 | 1 | axc2 | 2/10/2010 14:48:06 | OM_2-10-2010_14-04-36 |
| 246006001 | 948603 | 1 | axc2 | 2/10/2010 14:48:58 | OM_2-10-2010_14-04-36 |
| 246006002 | 948603 | 1 | axc2 | 2/10/2010 14:49:51 | OM_2-10-2010_14-04-36 |
| 246006003 | 948603 | 1 | axc2 | 2/10/2010 14:50:43 | OM_2-10-2010_14-04-36 |
| 246006004 | 948603 | 1 | axc2 | 2/10/2010 14:51:35 | OM_2-10-2010_14-04-36 |
| 1202032205 | 948607 | 1 | axc2 | 2/10/2010 14:52:27 | OM_2-10-2010_14-04-36 |
| 1202032212 | 948607 | 25 | axc2 | 2/10/2010 14:53:20 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 14:54:11 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 14:56:01 | OM_2-10-2010_14-04-36 |
| 245969001 | 948607 | 1 | axc2 | 2/10/2010 14:57:51 | OM_2-10-2010_14-04-36 |
| 245969002 | 948607 | 1 | axc2 | 2/10/2010 14:58:45 | OM_2-10-2010_14-04-36 |
| 245969003 | 948607 | 1 | axc2 | 2/10/2010 14:59:39 | OM_2-10-2010_14-04-36 |
| 245969004 | 948607 | 1 | axc2 | 2/10/2010 15:00:32 | OM_2-10-2010_14-04-36 |
| 245969005 | 948607 | 1 | axc2 | 2/10/2010 15:01:25 | OM_2-10-2010_14-04-36 |
| 245969006 | 948607 | 1 | axc2 | 2/10/2010 15:02:18 | OM_2-10-2010_14-04-36 |
| 245969007 | 948607 | 1 | axc2 | 2/10/2010 15:03:11 | OM_2-10-2010_14-04-36 |
| 245969008 | 948607 | 1 | axc2 | 2/10/2010 15:04:05 | OM_2-10-2010_14-04-36 |
| 245969009 | 948607 | 1 | axc2 | 2/10/2010 15:04:57 | OM_2-10-2010_14-04-36 |
| 245969010 | 948607 | 1 | axc2 | 2/10/2010 15:05:49 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 15:06:42 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 15:08:32 | OM_2-10-2010_14-04-36 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 245969011 | 948607 | 1 | axc2 | 2/10/2010 | 15:10:21 | OM_2-10-2010_14-04-36 |
| 245969012 | 948607 | 1 | axc2 | 2/10/2010 | 15:11:13 | OM_2-10-2010_14-04-36 |
| 245969013 | 948607 | 1 | axc2 | 2/10/2010 | 15:12:05 | OM_2-10-2010_14-04-36 |
| 245969014 | 948607 | 1 | axc2 | 2/10/2010 | 15:12:57 | OM_2-10-2010_14-04-36 |
| 245969015 | 948607 | 1 | axc2 | 2/10/2010 | 15:13:49 | OM_2-10-2010_14-04-36 |
| 246006005 | 948607 | 1 | axc2 | 2/10/2010 | 15:14:43 | OM_2-10-2010_14-04-36 |
| 1202032206 | 948607 | 1 | axc2 | 2/10/2010 | 15:15:37 | OM_2-10-2010_14-04-36 |
| 1202032208 | 948607 | 1 | axc2 | 2/10/2010 | 15:16:32 | OM_2-10-2010_14-04-36 |
| 1202032210 | 948607 | 1 | axc2 | 2/10/2010 | 15:17:25 | OM_2-10-2010_14-04-36 |
| 246006006 | 948607 | 1 | axc2 | 2/10/2010 | 15:18:19 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 | 15:19:11 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 | 15:21:01 | OM_2-10-2010_14-04-36 |
| 1202032207 | 948607 | 1 | axc2 | 2/10/2010 | 15:22:50 | OM_2-10-2010_14-04-36 |
| 1202032209 | 948607 | 1 | axc2 | 2/10/2010 | 15:23:43 | OM_2-10-2010_14-04-36 |
| 1202032211 | 948607 | 1 | axc2 | 2/10/2010 | 15:24:36 | OM_2-10-2010_14-04-36 |
| 246006007 | 948607 | 1 | axc2 | 2/10/2010 | 15:25:29 | OM_2-10-2010_14-04-36 |
| 246006008 | 948607 | 1 | axc2 | 2/10/2010 | 15:26:22 | OM_2-10-2010_14-04-36 |
| 246006009 | 948607 | 1 | axc2 | 2/10/2010 | 15:27:14 | OM_2-10-2010_14-04-36 |
| 1202032221 | 948610 | 1 | axc2 | 2/10/2010 | 15:28:07 | OM_2-10-2010_14-04-36 |
| 1202032228 | 948610 | 25 | axc2 | 2/10/2010 | 15:28:59 | OM_2-10-2010_14-04-36 |
| 245950001 | 948610 | 1 | axc2 | 2/10/2010 | 15:29:52 | OM_2-10-2010_14-04-36 |
| 245950002 | 948610 | 1 | axc2 | 2/10/2010 | 15:30:43 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 | 15:31:37 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 | 15:33:27 | OM_2-10-2010_14-04-36 |
| 245950003 | 948610 | 1 | axc2 | 2/10/2010 | 15:35:17 | OM_2-10-2010_14-04-36 |
| 245950004 | 948610 | 1 | axc2 | 2/10/2010 | 15:36:11 | OM_2-10-2010_14-04-36 |
| 245950005 | 948610 | 1 | axc2 | 2/10/2010 | 15:37:05 | OM_2-10-2010_14-04-36 |
| 245979001 | 948610 | 1 | axc2 | 2/10/2010 | 15:37:59 | OM_2-10-2010_14-04-36 |
| 1202032222 | 948610 | 1 | axc2 | 2/10/2010 | 15:38:53 | OM_2-10-2010_14-04-36 |
| 1202032224 | 948610 | 1 | axc2 | 2/10/2010 | 15:39:46 | OM_2-10-2010_14-04-36 |
| 1202032226 | 948610 | 1 | axc2 | 2/10/2010 | 15:40:39 | OM_2-10-2010_14-04-36 |
| 245979002* | 948610 | 1 | axc2 | 2/10/2010 | 15:41:33 | OM_2-10-2010_14-04-36 |
| 1202032223* | 948610 | 1 | axc2 | 2/10/2010 | 15:42:26 | OM_2-10-2010_14-04-36 |
| 1202032225* | 948610 | 1 | axc2 | 2/10/2010 | 15:43:18 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 | 15:44:11 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 | 15:46:02 | OM_2-10-2010_14-04-36 |
| 1202032227* | 948610 | 1 | axc2 | 2/10/2010 | 15:47:52 | OM_2-10-2010_14-04-36 |
| 245979003 | 948610 | 1 | axc2 | 2/10/2010 | 15:48:44 | OM_2-10-2010_14-04-36 |
| 245979004 | 948610 | 1 | axc2 | 2/10/2010 | 15:49:36 | OM_2-10-2010_14-04-36 |
| 245979005 | 948610 | 1 | axc2 | 2/10/2010 | 15:50:28 | OM_2-10-2010_14-04-36 |
| 245979006 | 948610 | 1 | axc2 | 2/10/2010 | 15:51:21 | OM_2-10-2010_14-04-36 |
| 245979007 | 948610 | 1 | axc2 | 2/10/2010 | 15:52:16 | OM_2-10-2010_14-04-36 |
| 245979008 | 948610 | 1 | axc2 | 2/10/2010 | 15:53:10 | OM_2-10-2010_14-04-36 |
| 245979009 | 948610 | 1 | axc2 | 2/10/2010 | 15:54:03 | OM_2-10-2010_14-04-36 |
| 245979010 | 948610 | 1 | axc2 | 2/10/2010 | 15:54:58 | OM_2-10-2010_14-04-36 |
| 245979011 | 948610 | 1 | axc2 | 2/10/2010 | 15:55:52 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 | 15:56:44 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 | 15:58:34 | OM_2-10-2010_14-04-36 |
| 245979012 | 948610 | 1 | axc2 | 2/10/2010 | 16:00:24 | OM_2-10-2010_14-04-36 |
| 245979013 | 948610 | 1 | axc2 | 2/10/2010 | 16:01:17 | OM_2-10-2010_14-04-36 |
| 245979014 | 948610 | 1 | axc2 | 2/10/2010 | 16:02:11 | OM_2-10-2010_14-04-36 |
| 245979015 | 948610 | 1 | axc2 | 2/10/2010 | 16:03:04 | OM_2-10-2010_14-04-36 |
| CCV | | 1 | axc2 | 2/10/2010 | 16:03:56 | OM_2-10-2010_14-04-36 |
| CCB | | 1 | axc2 | 2/10/2010 | 16:05:47 | OM_2-10-2010_14-04-36 |

Author: axc2 Date : 2/16/2010

Original Run Filename: OM_2-10-2010_14-04-36.OMN created 2/10/2010 14:04:36
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-10-2010_14-04-36.OMN last modified 2/10/2010 16:06:51
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

| Sample | Rep. | Cup No. | Channel 1 TCYANIDE Conc. (ug/L) | Area (Vs) | Detection Time | ADF | MDF | Description |
|---|---|---|---|---|---|---|---|---|
| WCN100210-01 | 1 | S1 | 200 | 8.11 | 2/10/2010@14:07:58 | | | 200 ppb |
| WCN100210-02 | 1 | S2 | 150 | 6.18 | 2/10/2010@14:08:49 | | | 150 ppb |
| WCN100210-03 | 1 | S3 | 100 | 3.79 | 2/10/2010@14:09:42 | | | 100 ppb |
| WCN100210-04 | 1 | S4 | 50.0 | 2.07 | 2/10/2010@14:10:35 | | | 50 ppb |
| WCN100210-05 | 1 | S5 | 10.0 | 0.503 | 2/10/2010@14:11:28 | | | 10 ppb |
| WCN100210-06 | 1 | S6 | 5.00 | 0.320 | 2/10/2010@14:12:22 | | | CRDL 5.0 ppb |
| WCN100210-08 | 1 | S7 | 0.00 | 0.0294 | 2/10/2010@14:13:16 | | | 0.0 ppb |
| DQM Test: Minimum Correlation Coefficient | | | | | | | | |
| | | Result: | 0.99924 > 0.99500 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN100210-07 | 1 | S8 | 156 | 6.34 | 2/10/2010@14:15:06 | | | ICV |
| | | Known Conc: | 150 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 4.2 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 4.2 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| | | Calibration: | Table/Fig. 1 | | | | | |
| WCN102010-08 | 1 | S7 | -0.194 | 0.0361 | 2/10/2010@14:16:57 | | | ICB/CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -0.194 < 5.01 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -0.194 > -5.01 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN102010-06 | 1 | S6 | 7.28 | 0.337 | 2/10/2010@14:18:46 | | | |
| | | Known Conc: | 5.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | 7.28 < 7.50 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | 7.28 > 2.50 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| 1202032189\|948603\|MB | 1 | 1 | -1.09 | 0.00 | 2/10/2010@14:20:36 | | | |
| 1202032196\|\|LCS | 1 | 2 | 33.0 | 1.37 | 2/10/2010@14:21:30 | | 25.00 | |
| 246002001 | 1 | 3 | 1.62 | 0.109 | 2/10/2010@14:22:23 | | | |
| 1202032190\|\|DUP | 1 | 4 | 1.99 | 0.124 | 2/10/2010@14:23:16 | | | |
| 1202032192\|\|MS | 1 | 5 | 97.5 | 3.97 | 2/10/2010@14:24:09 | | | |
| 1202032194\|\|MSD | 1 | 6 | 99.7 | 4.06 | 2/10/2010@14:25:02 | | | |
| 246002002 | 1 | 7 | 1.70 | 0.112 | 2/10/2010@14:25:54 | | | |
| 1202032191\|\|DUP | 1 | 8 | 2.22 | 0.133 | 2/10/2010@14:26:47 | | | |
| 1202032193\|\|MS | 1 | 9 | 102 | 4.13 | 2/10/2010@14:27:39 | | | |
| 1202032195\|\|MSD | 1 | 10 | 102 | 4.13 | 2/10/2010@14:28:31 | | | |
| WCN100210-03 | 1 | S3 | 100 | 4.08 | 2/10/2010@14:29:24 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 0.2 < 10.0 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| | | | DQM Test: < - Percent Relative Difference | | | | | |
| | | Result: | 0.2 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN100210-08 | 1 | S7 | -0.269 | 0.0331 | 2/10/2010@14:31:14 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| | | | DQM Test: > + Concentration Limit | | | | | |
| | | Result: | -0.269 < 5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| | | | DQM Test: < - Concentration Limit | | | | | |
| | | Result: | -0.269 > -5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| 246003001 | 1 | 11 | -0.111 | 0.0395 | 2/10/2010@14:33:02 | | | |
| 246003002 | 1 | 12 | -1.09 | -1.28e-4 | 2/10/2010@14:33:55 | | | |
| 246003003 | 1 | 13 | 1.32 | 0.0970 | 2/10/2010@14:34:46 | | | |
| 246003004 | 1 | 14 | 0.318 | 0.0567 | 2/10/2010@14:35:38 | | | |
| 246003005 | 1 | 15 | -0.445 | 0.0260 | 2/10/2010@14:36:29 | | | |
| 246003006 | 1 | 16 | -0.165 | 0.0373 | 2/10/2010@14:37:23 | | | |
| 246003007 | 1 | 17 | 0.339 | 0.0576 | 2/10/2010@14:38:17 | | | |
| 246003008 | 1 | 18 | 0.353 | 0.0581 | 2/10/2010@14:39:10 | | | |
| 246003009 | 1 | 19 | 3.94 | 0.203 | 2/10/2010@14:40:03 | | | |
| 246003010 | 1 | 20 | 1.48 | 0.104 | 2/10/2010@14:40:57 | | | |
| WCN100210-03 | 1 | S3 | 101 | 4.11 | 2/10/2010@14:41:49 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| | | | DQM Test: > + Percent Relative Difference | | | | | |
| | | Result: | 1.1 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| | | | DQM Test: < - Percent Relative Difference | | | | | |
| | | Result: | 1.1 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN100210-08 | 1 | S7 | -0.371 | 0.0290 | 2/10/2010@14:43:39 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| | | | DQM Test: > + Concentration Limit | | | | | |
| | | Result: | -0.371 < 5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| | | | DQM Test: < - Concentration Limit | | | | | |
| | | Result: | -0.371 > -5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| 246003011 | 1 | 21 | 0.586 | 0.0675 | 2/10/2010@14:45:28 | | | |
| 246003012 | 1 | 22 | 1.60 | 0.108 | 2/10/2010@14:46:21 | | | |
| 246003013 | 1 | 23 | 0.847 | 0.0781 | 2/10/2010@14:47:14 | | | |
| 246003014 | 1 | 24 | 0.720 | 0.0729 | 2/10/2010@14:48:06 | | | |
| 246006001 | 1 | 25 | 0.215 | 0.0526 | 2/10/2010@14:48:58 | | | |
| 246006002 | 1 | 26 | -0.0642 | 0.0414 | 2/10/2010@14:49:51 | | | |
| 246006003 | 1 | 27 | -0.371 | 0.0290 | 2/10/2010@14:50:43 | | | |
| 246006004 | 1 | 28 | 0.506 | 0.0643 | 2/10/2010@14:51:35 | | | |
| 1202032205\|948607\|MB | 1 | 29 | -0.179 | 0.0367 | 2/10/2010@14:52:27 | | | |
| 1202032212\|\|LCS | 1 | 30 | 29.1 | 1.22 | 2/10/2010@14:53:20 | | 25.00 | |
| WCN100210-03 | 1 | S3 | 101 | 4.13 | 2/10/2010@14:54:11 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| | | | DQM Test: > + Percent Relative Difference | | | | | |
| | | Result: | 1.5 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| | | | DQM Test: < - Percent Relative Difference | | | | | |
| | | Result: | 1.5 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN10210-08 | 1 | S7 | -1.09 | 0.00 | 2/10/2010@14:56:01 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.09 < 5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.09 > -5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| 245969001 | 1 | 31 | -0.344 | 0.0301 | 2/10/2010@14:57:51 | | | |
| 245969002 | 1 | 32 | 0.181 | 0.0512 | 2/10/2010@14:58:45 | | | |
| 245969003 | 1 | 33 | 0.0454 | 0.0458 | 2/10/2010@14:59:39 | | | |
| 245969004 | 1 | 34 | 0.326 | 0.0571 | 2/10/2010@15:00:32 | | | |
| 245969005 | 1 | 35 | 1.10 | 0.0883 | 2/10/2010@15:01:25 | | | |
| 245969006 | 1 | 36 | -0.466 | 0.0252 | 2/10/2010@15:02:18 | | | |
| 245969007 | 1 | 37 | 1.86 | 0.119 | 2/10/2010@15:03:11 | | | |
| 245969008 | 1 | 38 | 0.328 | 0.0572 | 2/10/2010@15:04:05 | | | |
| 245969009 | 1 | 39 | 1.57 | 0.107 | 2/10/2010@15:04:57 | | | |
| 245969010 | 1 | 40 | -0.378 | 0.0287 | 2/10/2010@15:05:49 | | | |
| WCN100210-03 | 1 | S3 | 101 | 4.12 | 2/10/2010@15:06:42 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 1.4 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 1.4 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN100210-08 | 1 | S7 | -1.80 | -0.0286 | 2/10/2010@15:08:32 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.80 < 5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.80 > -5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| 245969011 | 1 | 41 | -0.00516 | 0.0437 | 2/10/2010@15:10:21 | | | |
| 245969012 | 1 | 42 | 0.323 | 0.0569 | 2/10/2010@15:11:13 | | | |
| 245969013 | 1 | 43 | 0.257 | 0.0543 | 2/10/2010@15:12:05 | | | |
| 245969014 | 1 | 44 | 0.0155 | 0.0446 | 2/10/2010@15:12:57 | | | |
| 245969015 | 1 | 45 | 1.87 | 0.119 | 2/10/2010@15:13:49 | | | |
| 246006005 | 1 | 46 | -0.221 | 0.0350 | 2/10/2010@15:14:43 | | | |
| 1202032206\|\|DUP | 1 | 47 | -0.0437 | 0.0422 | 2/10/2010@15:15:37 | | | |
| 1202032208\|\|MS | 1 | 48 | 94.9 | 3.86 | 2/10/2010@15:16:32 | | | |
| 1202032210\|\|MSD | 1 | 49 | 99.5 | 4.05 | 2/10/2010@15:17:25 | | | |
| 246006006 | 1 | 50 | 0.451 | 0.0621 | 2/10/2010@15:18:19 | | | |
| WCN100210-03 | 1 | S3 | 108 | 4.40 | 2/10/2010@15:19:11 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 8.3 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 8.3 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN100210-08 | 1 | S7 | -0.159 | 0.0375 | 2/10/2010@15:21:01 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -0.159 < 5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -0.159 > -5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1202032207\|\|DUP | 1 | 51 | 0.263 | 0.0545 | 2/10/2010@15:22:50 | | | |
| 1202032209\|\|MS | 1 | 52 | 96.0 | 3.91 | 2/10/2010@15:23:43 | | | |
| 1202032211\|\|MSD | 1 | 53 | 93.5 | 3.81 | 2/10/2010@15:24:36 | | | |
| 246006007 | 1 | 54 | -0.123 | 0.0390 | 2/10/2010@15:25:29 | | | |
| 246006008 | 1 | 55 | 0.00499 | 0.0441 | 2/10/2010@15:26:22 | | | |
| 246006009 | 1 | 56 | 0.464 | 0.0626 | 2/10/2010@15:27:14 | | | |
| 1202032221\|948610\|MB | 1 | 57 | -1.09 | -1.37e-4 | 2/10/2010@15:28:07 | | | |
| 1202032228\|\|LCS | 1 | 58 | 26.5 | 1.11 | 2/10/2010@15:28:59 | | 25.00 | |
| 245950001 | 1 | 59 | 0.981 | 0.0834 | 2/10/2010@15:29:52 | | | |
| 245950002 | 1 | 60 | 17.8 | 0.761 | 2/10/2010@15:30:43 | | | |
| WCN100210-03 | 1 | S3 | 108 | 4.40 | 2/10/2010@15:31:37 | | | CCV |
| | Known Conc: | | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | Result: | | 8.3 < 10.0 | | | | | |
| | Message | | Passed due to... | | | | | |
| | Action | | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | Result: | | 8.3 < 10.0 | | | | | |
| | Message | | Passed due to... | | | | | |
| | Action | | ...Rerun Peak Detection | | | | | |
| WCN100210-08 | 1 | S7 | -0.351 | 0.0298 | 2/10/2010@15:33:27 | | | CCB |
| | Known Conc: | | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | Result: | | -0.351 < 5.00 | | | | | |
| | Message | | Passed due to... | | | | | |
| | Action | | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | Result: | | -0.351 > -5.00 | | | | | |
| | Message | | Passed due to... | | | | | |
| | Action | | ...Rerun Peak Detection | | | | | |
| 245950003 | 1 | 61 | 4.26 | 0.216 | 2/10/2010@15:35:17 | | | |
| 245950004 | 1 | 62 | 73.8 | 3.01 | 2/10/2010@15:36:11 | | | |
| 245950005 | 1 | 63 | 7.40 | 0.342 | 2/10/2010@15:37:05 | | | |
| 245979001 | 1 | 64 | 0.0300 | 0.0452 | 2/10/2010@15:37:59 | | | |
| 1202032222\|\|DUP | 1 | 65 | -0.391 | 0.0282 | 2/10/2010@15:38:53 | | | |
| 1202032224\|\|MS | 1 | 66 | 100 | 4.07 | 2/10/2010@15:39:46 | | | |
| 1202032226\|\|MSD | 1 | 67 | 86.1 | 3.51 | 2/10/2010@15:40:39 | | | |
| 245979002 | 1 | 68 | 4.38 | 0.220 | 2/10/2010@15:41:33 | | | |
| 1202032223\|\|DUP | 1 | 69 | 1.14 | 0.0899 | 2/10/2010@15:42:26 | | | |
| 1202032225\|\|MS | 1 | 70 | 2.19 | 0.132 | 2/10/2010@15:43:18 | | | |
| WCN100210-03 | 1 | S3 | 109 | 4.44 | 2/10/2010@15:44:11 | | | CCV |
| | Known Conc: | | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | Result: | | 9.2 < 10.0 | | | | | |
| | Message | | Passed due to... | | | | | |
| | Action | | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | Result: | | 9.2 < 10.0 | | | | | |
| | Message | | Passed due to... | | | | | |
| | Action | | ...Rerun Peak Detection | | | | | |
| WCN100210-08 | 1 | S7 | 2.37 | 0.139 | 2/10/2010@15:46:02 | | | CCB |
| | Known Conc: | | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | Result: | | 2.37 < 5.00 | | | | | |
| | Message | | Passed due to... | | | | | |
| | Action | | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | Result: | | 2.37 > -5.00 | | | | | |
| | Message | | Passed due to... | | | | | |
| | Action | | ...Rerun Peak Detection | | | | | |
| 1202032227\|\|MSD | 1 | 71 | 3.43 | 0.182 | 2/10/2010@15:47:52 | | | |
| 245979003 | 1 | 72 | 1.19 | 0.0920 | 2/10/2010@15:48:44 | | | |
| 245979004 | 1 | 73 | 0.791 | 0.0758 | 2/10/2010@15:49:36 | | | |
| 245979005 | 1 | 74 | 0.465 | 0.0627 | 2/10/2010@15:50:28 | | | |
| 245979006 | 1 | 75 | 2.23 | 0.134 | 2/10/2010@15:51:21 | | | |
| 245979007 | 1 | 76 | 0.0544 | 0.0461 | 2/10/2010@15:52:16 | | | |
| 245979008 | 1 | 77 | 0.979 | 0.0834 | 2/10/2010@15:53:10 | | | |
| 245979009 | 1 | 78 | -0.116 | 0.0393 | 2/10/2010@15:54:03 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 245979010 | 1 | 79 | 0.190 | 0.0516 | 2/10/2010@15:54:58 | | | |
| 245979011 | 1 | 80 | 0.279 | 0.0552 | 2/10/2010@15:55:52 | | | |
| WCN100210-03 | 1 | S3 | 108 | 4.41 | 2/10/2010@15:56:44 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 8.4 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 8.4 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN100210-08 | 1 | S7 | 2.42 | 0.141 | 2/10/2010@15:58:34 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | 2.42 < 5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | 2.42 > -5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| 245979012 | 1 | 81 | 0.0293 | 0.0451 | 2/10/2010@16:00:24 | | | |
| 245979013 | 1 | 82 | 1.77 | 0.115 | 2/10/2010@16:01:17 | | | |
| 245979014 | 1 | 83 | 0.378 | 0.0592 | 2/10/2010@16:02:11 | | | |
| 245979015 | 1 | 84 | 0.159 | 0.0503 | 2/10/2010@16:03:04 | | | |
| WCN100210-03 | 1 | S3 | 109 | 4.43 | 2/10/2010@16:03:56 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 8.9 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 8.9 < 10.0 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| WCN100210-08 | 1 | S7 | 2.52 | 0.145 | 2/10/2010@16:05:47 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | 2.52 < 5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | 2.52 > -5.00 | | | | | |
| | | Message | Passed due to... | | | | | |
| | | Action | ...Rerun Peak Detection | | | | | |

Analyte Properties Table for OM_2-10-2010_14-04-36.OMN

| Property | Channel 1 TCYANIDE |
|---|---|
| Concentration Units | ug/L |
| Callibration Fit Type | First Order |
| Clear Calibration | True |
| Force Through Zero | False |
| Calibration Weighting | None |
| Auto Dilution Trigger | True |
| % of High Standard | 100 |
| Quik Chem Method | 10-204-00-1-A |
| Chemistry | Direct/Bipolar |
| Calibration by Height | False |
| Inject to Peak Start | 22 |
| Peak Base Width | 39 |

Author: axc2

Date : 2/16/2010

Channel 1: Current View

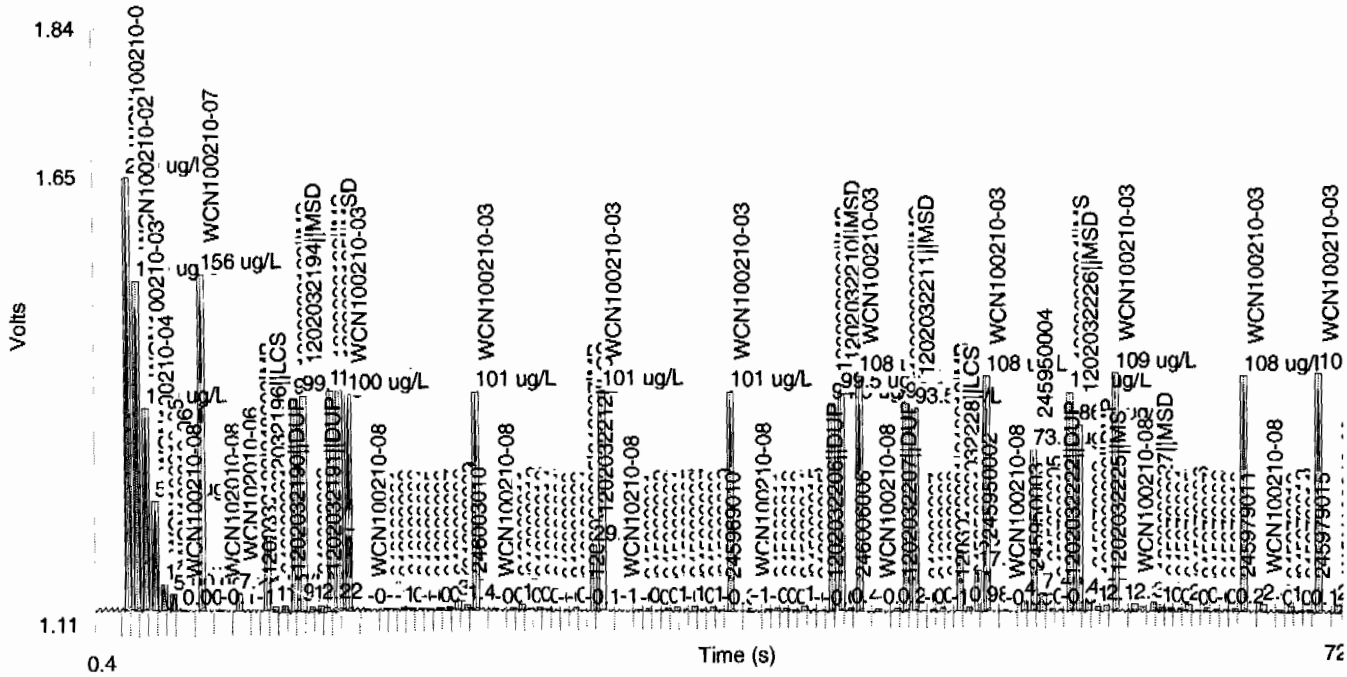
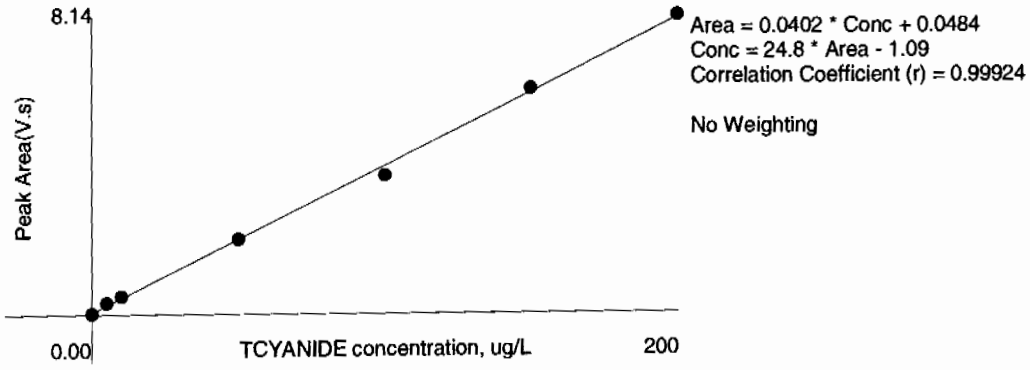



Table 1: TCYANIDE

| | Conc. (ug/L) | Rep | Peak Area (Volt-s) | Peak Height (Volts) | % Residual | Detection Date | Detection Time |
|---|---|---|---|---|---|---|---|
| 1 | 200 | 1 | 8.14 | 0.526 | -0.6 | 2/10/2010 | 14:09:00 |
| 2 | 150 | 1 | 6.18 | 0.400 | -1.7 | 2/10/2010 | 14:09:52 |
| 3 | 100 | 1 | 3.80 | 0.247 | 6.5 | 2/10/2010 | 14:10:45 |
| 4 | 50.0 | 1 | 2.06 | 0.133 | -0.1 | 2/10/2010 | 14:11:38 |
| 5 | 10.0 | 1 | 0.506 | 0.0315 | -12.4 | 2/10/2010 | 14:12:31 |
| 6 | 5.00 | 1 | 0.322 | 0.0192 | -29.2 | 2/10/2010 | 14:13:25 |
| 7 | 0.00 | 1 | 0.0294 | 0.00117 | | 2/10/2010 | 14:14:19 |

Figure 1: TCYANIDE



# General Chemistry Analysis

# Case Narrative

**General Chemistry Narrative**
**Los Alamos National Laboratory (LANL)**
**SDG 10-1512-1**

## Method/Analysis Information

| | | | |
|---|---|---|---|
| **Product:** | **Cyanide, Total** | | |
| **Analytical Batch:** | 948940 | **Method:** | SW9012A Cyanide and Total |
| **Prep Batch :** | 948939 | **Method:** | SSW846 9010B Prep |

## Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

| Sample ID | Client ID |
|---|---|
| 245975001 | RE15-10-8084 |
| 1202033006 | Method Blank (MB) |
| 1202033007 | 246004001(RE16-10-11766) Sample Duplicate (DUP) |
| 1202033008 | 245926003(CAMO-10-9289) Sample Duplicate (DUP) |
| 1202033009 | 246004001(RE16-10-11766) Matrix Spike (MS) |
| 1202033010 | 245926003(CAMO-10-9289) Matrix Spike (MS) |
| 1202033011 | 246004001(RE16-10-11766) Matrix Spike Duplicate (MSD) |
| 1202033012 | 245926003(CAMO-10-9289) Matrix Spike Duplicate (MSD) |
| 1202033013 | Laboratory Control Sample (LCS) |

The samples in this SDG were analyzed on an "as received" basis.

### 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-GC-E-095 REV# 12.

### Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

## Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

### Initial Calibration

All initial calibration requirements have been met for this SDG.

### Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

**Calibration Verification Information (CCV)**
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

**Y Intercept Rule**
The absolute value of the intercept is less than 3 times the MDL.

**Quality Control (QC) Information**

**Method Blank (MB) Statement**
The MB analyzed with this SDG met the acceptance criteria.

**Laboratory Control Sample (LCS) Recovery**
The LCS spike recovery met the acceptance limits.

**Quality Control (QC) Designation**
The following samples were selected for QC analysis: 245926003 (CAMO-10-9289) and 246004001 (RE16-10-11766).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**
The MS/PS recoveries for this sample set were within the required acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**
The MSD recoveries for this sample set were within the required acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**
The RPDs between the spike and spike duplicate met the acceptance limits.

**Duplicate Relative Percent Difference (RPD) Statement**
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033008 (CAMO-10-9289).

**Technical Information**

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

**Holding Times**
All samples in this SDG met the specified holding time.

**Sample Preservation/Integrity**
All the samples from this sample group met the preservation and integrity requirements of the method.

**Sample Dilutions**
The samples in this SDG did not require dilutions.

**Sample Re-analysis**
The samples in this SDG did not require re-analysis.

## Miscellaneous Information

**Data Exception (DER) Documentation**
A DER was not required for this SDG.

**Additional Comments**
Additional comments were not required for this SDG.

**Electronic Packaging 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. 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.

**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:** Tom Lewis, Jr. **Date:** 26Feb10

# Sample Data Summary

# 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: 10-1512-1 GEL Work Order: 245975

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1512-1

| | | | |
|---|---|---|---|
| Client Sample ID: | RE15-10-8084 | Project: | LANL01004 |
| Sample ID: | 245975001 | Client ID: | LANL010 |
| Matrix: | W | | |
| Collect Date: | 27-JAN-10 12:00 | | |
| Receive Date: | 02-FEB-10 | | |
| Collector: | Client | | |

| Parameter | Qualifier | Result | DL | RL | Units | DF | AnalystDate | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| *SW9012A Cyanide, Total "As Received"* | | | | | | | | | | |
| Cyanide, Total | U | ND | 1.66 | 5.00 | ug/L | 1 | AXC2 02/08/10 | 1458 | 948940 | 1 |

**The following Prep Methods were performed**

| Method | Description | Analyst | Date | Time | Prep Batch |
|---|---|---|---|---|---|
| SW846 9010B Prep | SW846 9010B Prep | AXS5 | 02/05/10 | 1408 | 948939 |

**The following Analytical Methods were performed**

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | SW846 9012A | |

# Quality Control Summary

# GEL LABORATORIES LLC

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

## QC Summary

Report Date: February 12, 2010


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

**Contact:** Ms. Joylene Valdez

**Workorder:** 245975

| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date Time |
|---|---|---|---|---|---|---|---|---|---|---|
| **Flow Injection Analysis** | | | | | | | | | | |
| Batch 948940 | | | | | | | | | | |
| QC1202033007 246004001 DUP | | | | | | | | | | |
| Cyanide, Total | U | ND | U | ND | ug/L | N/A | | | AXC2 | 02/08/10 15:01 |
| QC1202033008 245926003 DUP | | | | | | | | | | |
| Cyanide, Total | U | ND | U | ND | ug/L | N/A | | | | 02/08/10 14:44 |
| QC1202033013 LCS | | | | | | | | | | |
| Cyanide, Total | 50.0 | | | 51.4 | ug/L | | 103 | (90%-110%) | | 02/08/10 14:37 |
| QC1202033006 MB | | | | | | | | | | |
| Cyanide, Total | | | U | 5.00 | ug/L | | | | | 02/08/10 14:36 |
| QC1202033009 246004001 MS | | | | | | | | | | |
| Cyanide, Total | 100 U | ND | | 96.2 | ug/L | | 96.2 | (60%-144%) | | 02/08/10 15:02 |
| QC1202033010 245926003 MS | | | | | | | | | | |
| Cyanide, Total | 100 U | ND | | 93.6 | ug/L | | 92.2 | (60%-144%) | | 02/08/10 14:45 |
| QC1202033011 246004001 MSD | | | | | | | | | | |
| Cyanide, Total | 100 U | ND | | 94.3 | ug/L | 1.99 | 94.3 | (0%-20%) | | 02/08/10 15:03 |
| QC1202033012 245926003 MSD | | | | | | | | | | |
| Cyanide, Total | 100 U | ND | | 94.0 | ug/L | 0.426 | 92.6 | (0%-20%) | | 02/08/10 14:46 |

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--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
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- 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 RPD or %Recovery limits do not apply.

# QC Summary

**Workorder:** 245975



| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---|---|
| ND | Analyte concentration is not detected above the detection limit |
| NJ | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier |
| P | Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70% |
| R | Sample results are rejected |
| U | Analyte was analyzed for, but not detected above the MDL, MDA, or LOD. |
| 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. |
| ^ | RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry. |
| d | 5-day BOD--The 2:1 depletion requirement was not met for this sample |
| h | Preparation or preservation holding time was exceeded |

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# Instrument QC Data Summary

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-FEB-2010 13:09

**GEL Laboratories LLC**

**Contract:** **LANL01004**

**SDG #:** **10-1512-1**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

| Sample Type | Run Date | Data File | Result | Nominal | Recovery | Limits | Within Limits |
|---|---|---|---|---|---|---|---|
| **ICV** | **08-FEB-2010 13:22:34** | **OM_2-8-2010_13-14-40** | **151** | **150** | **101** | **(90%-110%)** | **Yes** |
| CCV | 08-FEB-2010 14:26:41 | OM_2-8-2010_13-14-40 | 105 | 100 | 105 | (90%-110%) | Yes |
| CCV | 08-FEB-2010 14:39:11 | OM_2-8-2010_13-14-40 | 105 | 100 | 105 | (90%-110%) | Yes |
| CCV | 08-FEB-2010 14:51:47 | OM_2-8-2010_13-14-40 | 105 | 100 | 105 | (90%-110%) | Yes |
| CCV | 08-FEB-2010 15:04:19 | OM_2-8-2010_13-14-40 | 104 | 100 | 104 | (90%-110%) | Yes |

| Sample Type | Run Date | Data File | Result | Limits | Within Limits |
|---|---|---|---|---|---|
| **ICB** | **08-FEB-2010 13:24:24** | **OM_2-8-2010_13-14-40** | **-1.45** | **10** | **Yes** |
| CCB | 08-FEB-2010 14:28:32 | OM_2-8-2010_13-14-40 | -1.47 | 10 | Yes |
| CCB | 08-FEB-2010 14:41:01 | OM_2-8-2010_13-14-40 | -1.57 | 10 | Yes |
| CCB | 08-FEB-2010 14:53:37 | OM_2-8-2010_13-14-40 | -1.83 | 10 | Yes |
| CCB | 08-FEB-2010 15:06:09 | OM_2-8-2010_13-14-40 | -1.82 | 10 | Yes |

# Cyanide, Total

# Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948939

Lab SOP: GL-GC-E-067 REV# 13

| Type | Sample Id | Lot. Id | Spike Amount | Spike Units |
|---|---|---|---|---|
| LCS | 1202033013 | URF1184831-02 | .0125 | mL |
| MS | 1202033009 | URF1184831-02 | .025 | mL |
| MS | 1202033010 | URF1184831-02 | .025 | mL |
| MSD | 1202033011 | URF1184831-02 | .025 | mL |
| MSD | 1202033012 | URF1184831-02 | .025 | mL |

| Sample Type | Sample ID | Parent Sample ID | Method | Prep Date | Ph | Initial Wt. | Final Volume | Prep Factor | Matrix |
|---|---|---|---|---|---|---|---|---|---|
| MB | 1202033006 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| LCS | 1202033013 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 245926001 | | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| SAMPLE | 245926002 | | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| SAMPLE | 245926003 | | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| DUP | 1202033008 | 245926003 | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| MS | 1202033010 | 245926003 | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| MSD | 1202033012 | 245926003 | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| SAMPLE | 245926004 | | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| SAMPLE | 245926005 | | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| SAMPLE | 245926006 | | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| SAMPLE | 245926007 | | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | GROUND WATER |
| SAMPLE | 245939001 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 245939002 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 245953001 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 245965001 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 245975001 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 245981001 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 246000001 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 246004001 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| DUP | 1202033007 | 246004001 | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| MS | 1202033009 | 246004001 | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| MSD | 1202033011 | 246004001 | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 246056001 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 246056002 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 246056003 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 246056004 | | SW846 9010B Prep | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |
| SAMPLE | 246080001 | | EPA 335.4 | 05-FEB-2010 14:08 | >12 | 25 mL | 25 mL | 1 | WATER |

# Prep LogBook

| Reagent/Solvent Lot ID | Amount | Description | Comments |
|---|---|---|---|
| 091211-C | 25 mL | 0.25N Sodium Hydroxide Solution | |
| WCN100205-07 | .0375 mL | 150 ppb CN Distilled ICV Standard | |
| 1176724-C | 1.25 mL | 0.8N H3NO3S | |
| 1260189-C | 2.5 mL | 50% H2SO4 CN Prep | |
| 1176778-C | 1 mL | 51% MgCl2 Soln | |
| 1238142-C | 1.25 mL | Bismuth Nitrate Solution | |

This is runlog Lachat1

| Sample ID | Batch | Dilution | Analyst | Runtime | Dataset |
|---|---|---|---|---|---|
| 200 ppb | | 1 | axc2 | 2/8/2010 13:15:25 | OM_2-8-2010_13-14-40 |
| 150 ppb | | 1 | axc2 | 2/8/2010 13:16:17 | OM_2-8-2010_13-14-40 |
| 100 ppb | | 1 | axc2 | 2/8/2010 13:17:10 | OM_2-8-2010_13-14-40 |
| 50 ppb | | 1 | axc2 | 2/8/2010 13:18:03 | OM_2-8-2010_13-14-40 |
| 10 ppb | | 1 | axc2 | 2/8/2010 13:18:56 | OM_2-8-2010_13-14-40 |
| CRDL 5.0 ppb | | 1 | axc2 | 2/8/2010 13:19:50 | OM_2-8-2010_13-14-40 |
| ICAL-00 | | 1 | axc2 | 2/8/2010 13:20:43 | OM_2-8-2010_13-14-40 |
| ICV | | 1 | axc2 | 2/8/2010 13:22:34 | OM_2-8-2010_13-14-40 |
| ICB | | 1 | axc2 | 2/8/2010 13:24:24 | OM_2-8-2010_13-14-40 |
| CRDL | | 1 | axc2 | 2/8/2010 13:26:14 | OM_2-8-2010_13-14-40 |
| 1202029242* | 947315 | 1 | axc2 | 2/8/2010 13:28:03 | OM_2-8-2010_13-14-40 |
| 1202029249 | 947315 | 25 | axc2 | 2/8/2010 13:28:57 | OM_2-8-2010_13-14-40 |
| 245682001 | 947315 | 1 | axc2 | 2/8/2010 13:29:50 | OM_2-8-2010_13-14-40 |
| 245682002 | 947315 | 1 | axc2 | 2/8/2010 13:30:43 | OM_2-8-2010_13-14-40 |
| 245682003 | 947315 | 1 | axc2 | 2/8/2010 13:31:36 | OM_2-8-2010_13-14-40 |
| 245682004 | 947315 | 1 | axc2 | 2/8/2010 13:32:29 | OM_2-8-2010_13-14-40 |
| 245682005 | 947315 | 1 | axc2 | 2/8/2010 13:33:21 | OM_2-8-2010_13-14-40 |
| 245682006 | 947315 | 1 | axc2 | 2/8/2010 13:34:14 | OM_2-8-2010_13-14-40 |
| 245682007 | 947315 | 1 | axc2 | 2/8/2010 13:35:07 | OM_2-8-2010_13-14-40 |
| 245682008 | 947315 | 1 | axc2 | 2/8/2010 13:35:58 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 13:36:51 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 13:38:42 | OM_2-8-2010_13-14-40 |
| 1202029242 | 947315 | 1 | axc2 | 2/8/2010 13:40:30 | OM_2-8-2010_13-14-40 |
| 245682009 | 947315 | 1 | axc2 | 2/8/2010 13:41:23 | OM_2-8-2010_13-14-40 |
| 245682010 | 947315 | 1 | axc2 | 2/8/2010 13:42:15 | OM_2-8-2010_13-14-40 |
| 245688011 | 947315 | 1 | axc2 | 2/8/2010 13:43:06 | OM_2-8-2010_13-14-40 |
| 1202029243 | 947315 | 1 | axc2 | 2/8/2010 13:43:58 | OM_2-8-2010_13-14-40 |
| 1202029245 | 947315 | 1 | axc2 | 2/8/2010 13:44:50 | OM_2-8-2010_13-14-40 |
| 1202029247 | 947315 | 1 | axc2 | 2/8/2010 13:45:44 | OM_2-8-2010_13-14-40 |
| 245688012 | 947315 | 1 | axc2 | 2/8/2010 13:46:37 | OM_2-8-2010_13-14-40 |
| 1202029244 | 947315 | 1 | axc2 | 2/8/2010 13:47:31 | OM_2-8-2010_13-14-40 |
| 1202029246 | 947315 | 1 | axc2 | 2/8/2010 13:48:24 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 13:49:17 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 13:51:07 | OM_2-8-2010_13-14-40 |
| 1202029248 | 947315 | 1 | axc2 | 2/8/2010 13:52:56 | OM_2-8-2010_13-14-40 |
| 245688013 | 947315 | 1 | axc2 | 2/8/2010 13:53:50 | OM_2-8-2010_13-14-40 |
| 245688014 | 947315 | 1 | axc2 | 2/8/2010 13:54:42 | OM_2-8-2010_13-14-40 |
| 245797001 | 947315 | 1 | axc2 | 2/8/2010 13:55:35 | OM_2-8-2010_13-14-40 |
| 245797002 | 947315 | 1 | axc2 | 2/8/2010 13:56:27 | OM_2-8-2010_13-14-40 |
| 245797003 | 947315 | 1 | axc2 | 2/8/2010 13:57:20 | OM_2-8-2010_13-14-40 |
| 245797004 | 947315 | 1 | axc2 | 2/8/2010 13:58:12 | OM_2-8-2010_13-14-40 |
| 245797005 | 947315 | 1 | axc2 | 2/8/2010 13:59:04 | OM_2-8-2010_13-14-40 |
| 245797006 | 947315 | 1 | axc2 | 2/8/2010 13:59:57 | OM_2-8-2010_13-14-40 |
| 1202029230 | 947312 | 1 | axc2 | 2/8/2010 14:00:48 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 14:01:41 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 14:03:31 | OM_2-8-2010_13-14-40 |
| 1202029237 | 947312 | 25 | axc2 | 2/8/2010 14:05:20 | OM_2-8-2010_13-14-40 |
| 245612007 | 947312 | 1 | axc2 | 2/8/2010 14:06:13 | OM_2-8-2010_13-14-40 |
| 1202029231 | 947312 | 1 | axc2 | 2/8/2010 14:07:07 | OM_2-8-2010_13-14-40 |
| 1202029233 | 947312 | 1 | axc2 | 2/8/2010 14:08:01 | OM_2-8-2010_13-14-40 |
| 1202029235 | 947312 | 1 | axc2 | 2/8/2010 14:08:54 | OM_2-8-2010_13-14-40 |
| 245612008 | 947312 | 1 | axc2 | 2/8/2010 14:09:48 | OM_2-8-2010_13-14-40 |
| 1202029232 | 947312 | 1 | axc2 | 2/8/2010 14:10:41 | OM_2-8-2010_13-14-40 |
| 1202029234 | 947312 | 1 | axc2 | 2/8/2010 14:11:33 | OM_2-8-2010_13-14-40 |
| 1202029236 | 947312 | 1 | axc2 | 2/8/2010 14:12:26 | OM_2-8-2010_13-14-40 |
| 245612009 | 947312 | 1 | axc2 | 2/8/2010 14:13:19 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 14:14:12 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 14:16:04 | OM_2-8-2010_13-14-40 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 245612010 | 947312 | 1 | axc2 | 2/8/2010 | 14:17:52 | OM_2-8-2010_13-14-40 |
| 245612011 | 947312 | 1 | axc2 | 2/8/2010 | 14:18:45 | OM_2-8-2010_13-14-40 |
| 245612012 | 947312 | 1 | axc2 | 2/8/2010 | 14:19:37 | OM_2-8-2010_13-14-40 |
| 245612013 | 947312 | 1 | axc2 | 2/8/2010 | 14:20:29 | OM_2-8-2010_13-14-40 |
| 245612014 | 947312 | 1 | axc2 | 2/8/2010 | 14:21:22 | OM_2-8-2010_13-14-40 |
| 245612015 | 947312 | 1 | axc2 | 2/8/2010 | 14:22:13 | OM_2-8-2010_13-14-40 |
| 245612016 | 947312 | 1 | axc2 | 2/8/2010 | 14:23:07 | OM_2-8-2010_13-14-40 |
| 245688001 | 947312 | 1 | axc2 | 2/8/2010 | 14:24:02 | OM_2-8-2010_13-14-40 |
| 245688002 | 947312 | 1 | axc2 | 2/8/2010 | 14:24:55 | OM_2-8-2010_13-14-40 |
| 245688003 | 947312 | 1 | axc2 | 2/8/2010 | 14:25:50 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 14:26:41 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 14:28:32 | OM_2-8-2010_13-14-40 |
| 245688004 | 947312 | 1 | axc2 | 2/8/2010 | 14:30:23 | OM_2-8-2010_13-14-40 |
| 245688005 | 947312 | 1 | axc2 | 2/8/2010 | 14:31:15 | OM_2-8-2010_13-14-40 |
| 245688006 | 947312 | 1 | axc2 | 2/8/2010 | 14:32:08 | OM_2-8-2010_13-14-40 |
| 245688007 | 947312 | 1 | axc2 | 2/8/2010 | 14:33:01 | OM_2-8-2010_13-14-40 |
| 245688008 | 947312 | 1 | axc2 | 2/8/2010 | 14:33:55 | OM_2-8-2010_13-14-40 |
| 245688009 | 947312 | 1 | axc2 | 2/8/2010 | 14:34:47 | OM_2-8-2010_13-14-40 |
| 245688010 | 947312 | 1 | axc2 | 2/8/2010 | 14:35:40 | OM_2-8-2010_13-14-40 |
| 1202033006 | 948940 | 1 | axc2 | 2/8/2010 | 14:36:34 | OM_2-8-2010_13-14-40 |
| 1202033013 | 948940 | 1 | axc2 | 2/8/2010 | 14:37:26 | OM_2-8-2010_13-14-40 |
| 245926001 | 948940 | 1 | axc2 | 2/8/2010 | 14:38:19 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 14:39:11 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 14:41:01 | OM_2-8-2010_13-14-40 |
| 245926002 | 948940 | 1 | axc2 | 2/8/2010 | 14:42:50 | OM_2-8-2010_13-14-40 |
| 245926003 | 948940 | 1 | axc2 | 2/8/2010 | 14:43:43 | OM_2-8-2010_13-14-40 |
| 1202033008 | 948940 | 1 | axc2 | 2/8/2010 | 14:44:35 | OM_2-8-2010_13-14-40 |
| 1202033010 | 948940 | 1 | axc2 | 2/8/2010 | 14:45:29 | OM_2-8-2010_13-14-40 |
| 1202033012 | 948940 | 1 | axc2 | 2/8/2010 | 14:46:24 | OM_2-8-2010_13-14-40 |
| 245926004 | 948940 | 1 | axc2 | 2/8/2010 | 14:47:19 | OM_2-8-2010_13-14-40 |
| 245926005 | 948940 | 1 | axc2 | 2/8/2010 | 14:48:12 | OM_2-8-2010_13-14-40 |
| 245926006 | 948940 | 1 | axc2 | 2/8/2010 | 14:49:06 | OM_2-8-2010_13-14-40 |
| 245926007 | 948940 | 1 | axc2 | 2/8/2010 | 14:50:01 | OM_2-8-2010_13-14-40 |
| 245939001 | 948940 | 1 | axc2 | 2/8/2010 | 14:50:54 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 14:51:47 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 14:53:37 | OM_2-8-2010_13-14-40 |
| 245939002* | 948940 | 1 | axc2 | 2/8/2010 | 14:55:27 | OM_2-8-2010_13-14-40 |
| 245953001* | 948940 | 1 | axc2 | 2/8/2010 | 14:56:21 | OM_2-8-2010_13-14-40 |
| 245965001* | 948940 | 1 | axc2 | 2/8/2010 | 14:57:14 | OM_2-8-2010_13-14-40 |
| 245975001 | 948940 | 1 | axc2 | 2/8/2010 | 14:58:06 | OM_2-8-2010_13-14-40 |
| 245981001 | 948940 | 1 | axc2 | 2/8/2010 | 14:59:00 | OM_2-8-2010_13-14-40 |
| 246000001 | 948940 | 1 | axc2 | 2/8/2010 | 14:59:52 | OM_2-8-2010_13-14-40 |
| 246004001 | 948940 | 1 | axc2 | 2/8/2010 | 15:00:45 | OM_2-8-2010_13-14-40 |
| 1202033007 | 948940 | 1 | axc2 | 2/8/2010 | 15:01:38 | OM_2-8-2010_13-14-40 |
| 1202033009 | 948940 | 1 | axc2 | 2/8/2010 | 15:02:32 | OM_2-8-2010_13-14-40 |
| 1202033011 | 948940 | 1 | axc2 | 2/8/2010 | 15:03:27 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 15:04:19 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 15:06:09 | OM_2-8-2010_13-14-40 |
| 245939002 | 948940 | 1 | axc2 | 2/8/2010 | 15:07:59 | OM_2-8-2010_13-14-40 |
| 245953001 | 948940 | 1 | axc2 | 2/8/2010 | 15:08:53 | OM_2-8-2010_13-14-40 |
| 245965001 | 948940 | 1 | axc2 | 2/8/2010 | 15:09:46 | OM_2-8-2010_13-14-40 |
| 246056001 | 948940 | 1 | axc2 | 2/8/2010 | 15:10:41 | OM_2-8-2010_13-14-40 |
| 246056002 | 948940 | 1 | axc2 | 2/8/2010 | 15:11:35 | OM_2-8-2010_13-14-40 |
| 246056003 | 948940 | 1 | axc2 | 2/8/2010 | 15:12:29 | OM_2-8-2010_13-14-40 |
| 246056004 | 948940 | 1 | axc2 | 2/8/2010 | 15:13:23 | OM_2-8-2010_13-14-40 |
| 246080001 | 948940 | 1 | axc2 | 2/8/2010 | 15:14:17 | OM_2-8-2010_13-14-40 |
| 1202029252 | 947318 | 1 | axc2 | 2/8/2010 | 15:15:10 | OM_2-8-2010_13-14-40 |
| 1202029259 | 947318 | 25 | axc2 | 2/8/2010 | 15:16:03 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 15:16:55 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 15:18:45 | OM_2-8-2010_13-14-40 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 245797007 | 947318 | 1 | axc2 | 2/8/2010 | 15:20:34 | OM_2-8-2010_13-14-40 |
| 1202029253 | 947318 | 1 | axc2 | 2/8/2010 | 15:21:26 | OM_2-8-2010_13-14-40 |
| 1202029255 | 947318 | 1 | axc2 | 2/8/2010 | 15:22:20 | OM_2-8-2010_13-14-40 |
| 1202029257 | 947318 | 1 | axc2 | 2/8/2010 | 15:23:14 | OM_2-8-2010_13-14-40 |
| 245797008 | 947318 | 1 | axc2 | 2/8/2010 | 15:24:08 | OM_2-8-2010_13-14-40 |
| 1202029254 | 947318 | 1 | axc2 | 2/8/2010 | 15:25:02 | OM_2-8-2010_13-14-40 |
| 1202029256 | 947318 | 1 | axc2 | 2/8/2010 | 15:25:56 | OM_2-8-2010_13-14-40 |
| 1202029258 | 947318 | 1 | axc2 | 2/8/2010 | 15:26:50 | OM_2-8-2010_13-14-40 |
| 245797009 | 947318 | 1 | axc2 | 2/8/2010 | 15:27:43 | OM_2-8-2010_13-14-40 |
| 245797010 | 947318 | 1 | axc2 | 2/8/2010 | 15:28:36 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 15:29:29 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 15:31:18 | OM_2-8-2010_13-14-40 |
| 245797011 | 947318 | 1 | axc2 | 2/8/2010 | 15:33:08 | OM_2-8-2010_13-14-40 |
| 245797012 | 947318 | 1 | axc2 | 2/8/2010 | 15:34:00 | OM_2-8-2010_13-14-40 |
| 245797013 | 947318 | 1 | axc2 | 2/8/2010 | 15:34:53 | OM_2-8-2010_13-14-40 |
| 245797014 | 947318 | 1 | axc2 | 2/8/2010 | 15:35:46 | OM_2-8-2010_13-14-40 |
| 245797015 | 947318 | 1 | axc2 | 2/8/2010 | 15:36:38 | OM_2-8-2010_13-14-40 |
| 245797016 | 947318 | 1 | axc2 | 2/8/2010 | 15:37:31 | OM_2-8-2010_13-14-40 |
| 245797017 | 947318 | 1 | axc2 | 2/8/2010 | 15:38:23 | OM_2-8-2010_13-14-40 |
| 245797018 | 947318 | 1 | axc2 | 2/8/2010 | 15:39:17 | OM_2-8-2010_13-14-40 |
| 245797019 | 947318 | 1 | axc2 | 2/8/2010 | 15:40:11 | OM_2-8-2010_13-14-40 |
| 245806001 | 947318 | 1 | axc2 | 2/8/2010 | 15:41:06 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 15:41:58 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 15:43:48 | OM_2-8-2010_13-14-40 |
| 245806002 | 947318 | 1 | axc2 | 2/8/2010 | 15:45:38 | OM_2-8-2010_13-14-40 |
| 245806003 | 947318 | 1 | axc2 | 2/8/2010 | 15:46:33 | OM_2-8-2010_13-14-40 |
| 245806004 | 947318 | 1 | axc2 | 2/8/2010 | 15:47:26 | OM_2-8-2010_13-14-40 |
| 245806005 | 947318 | 1 | axc2 | 2/8/2010 | 15:48:19 | OM_2-8-2010_13-14-40 |
| 245806006 | 947318 | 1 | axc2 | 2/8/2010 | 15:49:13 | OM_2-8-2010_13-14-40 |
| 245806007 | 947318 | 1 | axc2 | 2/8/2010 | 15:50:06 | OM_2-8-2010_13-14-40 |
| 1202034313 | 949504 | 1 | axc2 | 2/8/2010 | 15:51:00 | OM_2-8-2010_13-14-40 |
| 1202034315 | 949504 | 250 | axc2 | 2/8/2010 | 15:51:53 | OM_2-8-2010_13-14-40 |
| 246078001 | 949504 | 1 | axc2 | 2/8/2010 | 15:52:47 | OM_2-8-2010_13-14-40 |
| 1202034314 | 949504 | 1 | axc2 | 2/8/2010 | 15:53:40 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 15:54:33 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 15:56:23 | OM_2-8-2010_13-14-40 |
| 246078002 | 949504 | 1 | axc2 | 2/8/2010 | 15:58:12 | OM_2-8-2010_13-14-40 |
| 246078003 | 949504 | 1 | axc2 | 2/8/2010 | 15:59:05 | OM_2-8-2010_13-14-40 |
| 246078004 | 949504 | 1 | axc2 | 2/8/2010 | 15:59:58 | OM_2-8-2010_13-14-40 |
| CCV | | 1 | axc2 | 2/8/2010 | 16:00:51 | OM_2-8-2010_13-14-40 |
| CCB | | 1 | axc2 | 2/8/2010 | 16:02:41 | OM_2-8-2010_13-14-40 |

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

| Sample | Rep. | Cup No. | Channel 1 TCYANIDE Conc. (ug/L) | Area (Vs) | Detection Time | ADF | MDF | Description |
|---|---|---|---|---|---|---|---|---|
| WCN100208-01 | 1 | S1 | 200 | 8.74 | 2/8/2010@13:15:25 | | | 200 ppb |
| WCN100208-02 | 1 | S2 | 150 | 6.63 | 2/8/2010@13:16:17 | | | 150 ppb |
| WCN100208-03 | 1 | S3 | 100 | 4.52 | 2/8/2010@13:17:10 | | | 100 ppb |
| WCN100208-04 | 1 | S4 | 50.0 | 2.28 | 2/8/2010@13:18:03 | | | 50 ppb |
| WCN100208-05 | 1 | S5 | 10.0 | 0.511 | 2/8/2010@13:18:56 | | | 10 ppb |
| WCN100208-06 | 1 | S6 | 5.00 | 0.321 | 2/8/2010@13:19:50 | | | CRDL 5.0 ppb |
| WCN100208-08 | 1 | S7 | 0.00 | 0.00906 | 2/8/2010@13:20:43 | | | 0.0 ppb |
| DQM Test: Minimum Correlation Coefficient | | | | | | | | |
| | | Result: | 0.99989 > 0.99500 | | | | | |
| | | Message | Pass | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-07 | 1 | S8 | 151 | 6.65 | 2/8/2010@13:22:34 | | | ICV |
| | | Known Conc: | 150 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 0.6 < 10.0 | | | | | |
| | | Message | ICV Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 0.6 < 10.0 | | | | | |
| | | Message | ICV Passed | | | | | |
| | | Action | Continue | | | | | |
| | | Calibration: | Table/Fig. 1 | | | | | |
| WCN100208-08 | 1 | S7 | -1.45 | 0.0181 | 2/8/2010@13:24:24 | | | ICB/CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.45 < 5.01 | | | | | |
| | | Message | ICB/CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.45 > -5.01 | | | | | |
| | | Message | ICB/CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-06 | 1 | S6 | 5.53 | 0.322 | 2/8/2010@13:26:14 | | | CRDL |
| | | Known Conc: | 5.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | 5.53 < 7.50 | | | | | |
| | | Message | CRDL Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | 5.53 > 2.50 | | | | | |
| | | Message | CRDL Passed | | | | | |
| | | Action | Continue | | | | | |
| 1202029242\|947315\|MB | 1 | 1 | 441 | 19.3 | 2/8/2010@13:28:03 | | | |
| 1202029249\|\|LCS | 1 | 2 | 26.6 | 1.24 | 2/8/2010@13:28:57 | | 25.00 | |
| 245682001 | 1 | 3 | -0.713 | 0.0500 | 2/8/2010@13:29:50 | | | |
| 245682002 | 1 | 4 | -0.651 | 0.0528 | 2/8/2010@13:30:43 | | | |
| 245682003 | 1 | 5 | 0.833 | 0.117 | 2/8/2010@13:31:36 | | | |
| 245682004 | 1 | 6 | -1.86 | -1.22e-4 | 2/8/2010@13:32:29 | | | |
| 245682005 | 1 | 7 | -0.452 | 0.0614 | 2/8/2010@13:33:21 | | | |
| 245682006 | 1 | 8 | -0.944 | 0.0400 | 2/8/2010@13:34:14 | | | |
| 245682007 | 1 | 9 | -1.19 | 0.0293 | 2/8/2010@13:35:07 | | | |
| 245682008 | 1 | 10 | 6.00 | 0.343 | 2/8/2010@13:35:58 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.68 | 2/8/2010@13:36:51 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 5.4 < 10.0 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| | | DQM Test: < - Percent Relative Difference | | | | | | |
| | | Result: | 5.4 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.40 | 0.0203 | 2/8/2010@13:38:42 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| | | DQM Test: > + Concentration Limit | | | | | | |
| | | Result: | -1.40 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| | | DQM Test: < - Concentration Limit | | | | | | |
| | | Result: | -1.40 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 1202029242\|947315\|MB | 1 | 1 | -1.06 | 0.0348 | 2/8/2010@13:40:30 | | | |
| 245682009 | 1 | 11 | -0.822 | 0.0453 | 2/8/2010@13:41:23 | | | |
| 245682010 | 1 | 12 | 1.86 | 0.162 | 2/8/2010@13:42:15 | | | |
| 245688011 | 1 | 13 | -0.777 | 0.0473 | 2/8/2010@13:43:06 | | | |
| 1202029243\|\|DUP | 1 | 14 | -2.01 | -0.00640 | 2/8/2010@13:43:58 | | | |
| 1202029245\|\|MS | 1 | 15 | 86.6 | 3.85 | 2/8/2010@13:44:50 | | | |
| 1202029247\|\|MSD | 1 | 16 | 78.4 | 3.50 | 2/8/2010@13:45:44 | | | |
| 245688012 | 1 | 17 | 0.261 | 0.0925 | 2/8/2010@13:46:37 | | | |
| 1202029244\|\|DUP | 1 | 18 | 0.738 | 0.113 | 2/8/2010@13:47:31 | | | |
| 1202029246\|\|MS | 1 | 19 | 69.2 | 3.10 | 2/8/2010@13:48:24 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.67 | 2/8/2010@13:49:17 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| | | DQM Test: > + Percent Relative Difference | | | | | | |
| | | Result: | 5.2 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| | | DQM Test: < - Percent Relative Difference | | | | | | |
| | | Result: | 5.2 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.92 | -0.00263 | 2/8/2010@13:51:07 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| | | DQM Test: > + Concentration Limit | | | | | | |
| | | Result: | -1.92 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| | | DQM Test: < - Concentration Limit | | | | | | |
| | | Result: | -1.92 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 1202029248\|\|MSD | 1 | 20 | 71.4 | 3.19 | 2/8/2010@13:52:56 | | | |
| 245688013 | 1 | 21 | -1.01 | 0.0373 | 2/8/2010@13:53:50 | | | |
| 245688014 | 1 | 22 | 0.338 | 0.0958 | 2/8/2010@13:54:42 | | | |
| 245797001 | 1 | 23 | -0.979 | 0.0385 | 2/8/2010@13:55:35 | | | |
| 245797002 | 1 | 24 | -0.863 | 0.0435 | 2/8/2010@13:56:27 | | | |
| 245797003 | 1 | 25 | -0.309 | 0.0676 | 2/8/2010@13:57:20 | | | |
| 245797004 | 1 | 26 | 0.938 | 0.122 | 2/8/2010@13:58:12 | | | |
| 245797005 | 1 | 27 | 2.23 | 0.178 | 2/8/2010@13:59:04 | | | |
| 245797006 | 1 | 28 | -0.105 | 0.0766 | 2/8/2010@13:59:57 | | | |
| 1202029230\|947312\|MB | 1 | 29 | -1.23 | 0.0277 | 2/8/2010@14:00:48 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.66 | 2/8/2010@14:01:41 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| | | DQM Test: > + Percent Relative Difference | | | | | | |
| | | Result: | 5.1 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| | | DQM Test: < - Percent Relative Difference | | | | | | |
| | | Result: | 5.1 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.86 | 0.00 | 2/8/2010@14:03:31 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.86 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.86 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 1202029237\|\|LCS | 1 | 30 | 28.0 | 1.30 | 2/8/2010@14:05:20 | | 25.00 | |
| 245612007 | 1 | 31 | -0.913 | 0.0414 | 2/8/2010@14:06:13 | | | |
| 1202029231\|\|DUP | 1 | 32 | -1.27 | 0.0256 | 2/8/2010@14:07:07 | | | |
| 1202029233\|\|MS | 1 | 33 | 89.8 | 3.99 | 2/8/2010@14:08:01 | | | |
| 1202029235\|\|MSD | 1 | 34 | 85.3 | 3.80 | 2/8/2010@14:08:54 | | | |
| 245612008 | 1 | 35 | -0.535 | 0.0578 | 2/8/2010@14:09:48 | | | |
| 1202029232\|\|DUP | 1 | 36 | -1.07 | 0.0347 | 2/8/2010@14:10:41 | | | |
| 1202029234\|\|MS | 1 | 37 | 86.4 | 3.85 | 2/8/2010@14:11:33 | | | |
| 1202029236\|\|MSD | 1 | 38 | 84.8 | 3.78 | 2/8/2010@14:12:26 | | | |
| 245612009 | 1 | 39 | -0.656 | 0.0526 | 2/8/2010@14:13:19 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.65 | 2/8/2010@14:14:12 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 4.9 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 4.9 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.95 | -0.00373 | 2/8/2010@14:16:04 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.95 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.95 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 245612010 | 1 | 40 | -0.280 | 0.0689 | 2/8/2010@14:17:52 | | | |
| 245612011 | 1 | 41 | -1.09 | 0.0336 | 2/8/2010@14:18:45 | | | |
| 245612012 | 1 | 42 | -1.19 | 0.0295 | 2/8/2010@14:19:37 | | | |
| 245612013 | 1 | 43 | 1.77 | 0.158 | 2/8/2010@14:20:29 | | | |
| 245612014 | 1 | 44 | -0.868 | 0.0433 | 2/8/2010@14:21:22 | | | |
| 245612015 | 1 | 45 | -0.814 | 0.0457 | 2/8/2010@14:22:13 | | | |
| 245612016 | 1 | 46 | -1.07 | 0.0344 | 2/8/2010@14:23:07 | | | |
| 245688001 | 1 | 47 | 0.570 | 0.106 | 2/8/2010@14:24:02 | | | |
| 245688002 | 1 | 48 | -0.480 | 0.0602 | 2/8/2010@14:24:55 | | | |
| 245688003 | 1 | 49 | -0.404 | 0.0635 | 2/8/2010@14:25:50 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.64 | 2/8/2010@14:26:41 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 4.6 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 4.6 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.47 | 0.0172 | 2/8/2010@14:28:32 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.47 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.47 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |

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|---|---|---|---|---|---|---|---|---|
| 245688004 | 1 | 50 | -0.636 | 0.0534 | 2/8/2010@14:30:23 | | | |
| 245688005 | 1 | 51 | -0.336 | 0.0665 | 2/8/2010@14:31:15 | | | |
| 245688006 | 1 | 52 | 1.16 | 0.131 | 2/8/2010@14:32:08 | | | |
| 245688007 | 1 | 53 | -0.543 | 0.0575 | 2/8/2010@14:33:01 | | | |
| 245688008 | 1 | 54 | -1.27 | 0.0259 | 2/8/2010@14:33:55 | | | |
| 245688009 | 1 | 55 | -0.570 | 0.0563 | 2/8/2010@14:34:47 | | | |
| 245688010 | 1 | 56 | -0.384 | 0.0644 | 2/8/2010@14:35:40 | | | |
| 1202033006\|948940\|MB | 1 | 85 | -1.45 | 0.0179 | 2/8/2010@14:36:34 | | | |
| 1202033013\|\|LCS | 1 | 86 | 51.4 | 2.32 | 2/8/2010@14:37:26 | | | |
| 245926001 | 1 | 87 | 14.3 | 0.704 | 2/8/2010@14:38:19 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.67 | 2/8/2010@14:39:11 | | | CCV |
| | Known Conc: | | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| Result: | | | 5.4 < 10.0 | | | | | |
| Message | | | CCV Passed | | | | | |
| Action | | | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| Result: | | | 5.4 < 10.0 | | | | | |
| Message | | | CCV Passed | | | | | |
| Action | | | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.57 | 0.0127 | 2/8/2010@14:41:01 | | | CCB |
| | Known Conc: | | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| Result: | | | -1.57 < 5.00 | | | | | |
| Message | | | CCB Passed | | | | | |
| Action | | | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| Result: | | | -1.57 > -5.00 | | | | | |
| Message | | | CCB Passed | | | | | |
| Action | | | Continue | | | | | |
| 245926002 | 1 | 88 | 13.4 | 0.665 | 2/8/2010@14:42:50 | | | |
| 245926003 | 1 | 89 | 1.37 | 0.141 | 2/8/2010@14:43:43 | | | |
| 1202033008\|\|DUP | 1 | 90 | -1.19 | 0.0293 | 2/8/2010@14:44:35 | | | |
| 1202033010\|\|MS | 1 | 91 | 93.6 | 4.16 | 2/8/2010@14:45:29 | | | |
| 1202033012\|\|MSD | 1 | 92 | 94.0 | 4.18 | 2/8/2010@14:46:24 | | | |
| 245926004 | 1 | 93 | -1.04 | 0.0356 | 2/8/2010@14:47:19 | | | |
| 245926005 | 1 | 94 | -1.86 | -1.28e-4 | 2/8/2010@14:48:12 | | | |
| 245926006 | 1 | 95 | -1.99 | -0.00557 | 2/8/2010@14:49:06 | | | |
| 245926007 | 1 | 96 | -1.18 | 0.0298 | 2/8/2010@14:50:01 | | | |
| 245939001 | 1 | 97 | -1.20 | 0.0290 | 2/8/2010@14:50:54 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.66 | 2/8/2010@14:51:47 | | | CCV |
| | Known Conc: | | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| Result: | | | 5.0 < 10.0 | | | | | |
| Message | | | CCV Passed | | | | | |
| Action | | | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| Result: | | | 5.0 < 10.0 | | | | | |
| Message | | | CCV Passed | | | | | |
| Action | | | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.83 | 0.00132 | 2/8/2010@14:53:37 | | | CCB |
| | Known Conc: | | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| Result: | | | -1.83 < 5.00 | | | | | |
| Message | | | CCB Passed | | | | | |
| Action | | | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| Result: | | | -1.83 > -5.00 | | | | | |
| Message | | | CCB Passed | | | | | |
| Action | | | Continue | | | | | |
| 245939002 | 1 | 98 | 81.1 | 3.62 | 2/8/2010@14:55:27 | | | |
| 245953001 | 1 | 99 | -11.0 | -0.399 | 2/8/2010@14:56:21 | | | |
| 245965001 | 1 | 100 | 257 | 11.3 | 2/8/2010@14:57:14 | | | |
| 245975001 | 1 | 101 | -1.84 | 9.46e-4 | 2/8/2010@14:58:06 | | | |
| 245981001 | 1 | 102 | -1.72 | 0.00598 | 2/8/2010@14:59:00 | | | |
| 246000001 | 1 | 103 | -1.86 | 2.83e-4 | 2/8/2010@14:59:52 | | | |
| 246004001 | 1 | 104 | -2.03 | -0.00731 | 2/8/2010@15:00:45 | | | |
| 1202033007\|\|DUP | 1 | 105 | -1.87 | -2.30e-4 | 2/8/2010@15:01:38 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1202033009\|\|MS | 1 | 106 | 96.2 | 4.27 | 2/8/2010@15:02:32 | | | |
| 1202033011\|\|MSD | 1 | 107 | 94.3 | 4.19 | 2/8/2010@15:03:27 | | | |
| WCN100208-03 | 1 | S3 | 104 | 4.63 | 2/8/2010@15:04:19 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 4.5 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 4.5 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.82 | 0.00202 | 2/8/2010@15:06:09 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.82 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.82 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 245939002 | 1 | 98 | -1.86 | 1.33e-4 | 2/8/2010@15:07:59 | | | |
| 245953001 | 1 | 99 | -1.90 | -0.00162 | 2/8/2010@15:08:53 | | | |
| 245965001 | 1 | 100 | -1.86 | -1.03e-4 | 2/8/2010@15:09:46 | | | |
| 246056001 | 1 | 108 | -1.29 | 0.0251 | 2/8/2010@15:10:41 | | | |
| 246056002 | 1 | 109 | -2.00 | -0.00595 | 2/8/2010@15:11:35 | | | |
| 246056003 | 1 | 110 | -1.42 | 0.0194 | 2/8/2010@15:12:29 | | | |
| 246056004 | 1 | 111 | -2.00 | -0.00588 | 2/8/2010@15:13:23 | | | |
| 246080001 | 1 | 112 | -1.45 | 0.0179 | 2/8/2010@15:14:17 | | | |
| 1202029252\|947318\|MB | 1 | 57 | -1.86 | -1.18e-4 | 2/8/2010@15:15:10 | | | |
| 1202029259\|\|LCS | 1 | 58 | 29.0 | 1.35 | 2/8/2010@15:16:03 | | 25.00 | |
| WCN100208-03 | 1 | S3 | 104 | 4.62 | 2/8/2010@15:16:55 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 4.1 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 4.1 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.49 | 0.0161 | 2/8/2010@15:18:45 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.49 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.49 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 245797007 | 1 | 59 | -0.787 | 0.0468 | 2/8/2010@15:20:34 | | | |
| 1202029253\|\|DUP | 1 | 60 | -0.616 | 0.0543 | 2/8/2010@15:21:26 | | | |
| 1202029255\|\|MS | 1 | 61 | 83.5 | 3.72 | 2/8/2010@15:22:20 | | | |
| 1202029257\|\|MSD | 1 | 62 | 84.4 | 3.76 | 2/8/2010@15:23:14 | | | |
| 245797008 | 1 | 63 | 3.82 | 0.248 | 2/8/2010@15:24:08 | | | |
| 1202029254\|\|DUP | 1 | 64 | 1.23 | 0.135 | 2/8/2010@15:25:02 | | | |
| 1202029256\|\|MS | 1 | 65 | 89.1 | 3.96 | 2/8/2010@15:25:56 | | | |
| 1202029258\|\|MSD | 1 | 66 | 78.7 | 3.51 | 2/8/2010@15:26:50 | | | |
| 245797009 | 1 | 67 | -0.647 | 0.0529 | 2/8/2010@15:27:43 | | | |
| 245797010 | 1 | 68 | -0.409 | 0.0633 | 2/8/2010@15:28:36 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.66 | 2/8/2010@15:29:29 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 5.1 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 5.1 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.86 | 2.47e-4 | 2/8/2010@15:31:18 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.86 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.86 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 245797011 | 1 | 69 | 1.59 | 0.150 | 2/8/2010@15:33:08 | | | |
| 245797012 | 1 | 70 | -0.296 | 0.0682 | 2/8/2010@15:34:00 | | | |
| 245797013 | 1 | 71 | -0.166 | 0.0739 | 2/8/2010@15:34:53 | | | |
| 245797014 | 1 | 72 | 5.34 | 0.314 | 2/8/2010@15:35:46 | | | |
| 245797015 | 1 | 73 | 0.400 | 0.0985 | 2/8/2010@15:36:38 | | | |
| 245797016 | 1 | 74 | 0.789 | 0.115 | 2/8/2010@15:37:31 | | | |
| 245797017 | 1 | 75 | 0.157 | 0.0880 | 2/8/2010@15:38:23 | | | |
| 245797018 | 1 | 76 | 3.07 | 0.215 | 2/8/2010@15:39:17 | | | |
| 245797019 | 1 | 77 | -0.779 | 0.0472 | 2/8/2010@15:40:11 | | | |
| 245806001 | 1 | 78 | -1.11 | 0.0326 | 2/8/2010@15:41:06 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.65 | 2/8/2010@15:41:58 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 4.9 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 4.9 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.82 | 0.00186 | 2/8/2010@15:43:48 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.82 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Concentration Limit | | | | | | | | |
| | | Result: | -1.82 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 245806002 | 1 | 79 | 0.0705 | 0.0842 | 2/8/2010@15:45:38 | | | |
| 245806003 | 1 | 80 | -0.264 | 0.0696 | 2/8/2010@15:46:33 | | | |
| 245806004 | 1 | 81 | -0.767 | 0.0477 | 2/8/2010@15:47:26 | | | |
| 245806005 | 1 | 82 | -0.805 | 0.0461 | 2/8/2010@15:48:19 | | | |
| 245806006 | 1 | 83 | -0.580 | 0.0559 | 2/8/2010@15:49:13 | | | |
| 245806007 | 1 | 84 | 0.973 | 0.124 | 2/8/2010@15:50:06 | | | |
| 1202034313\|949504\|MB | 1 | 113 | -1.24 | 0.0270 | 2/8/2010@15:51:00 | | | |
| 1202034315\|\|LCS | 1 | 114 | 107 | 4.74 | 2/8/2010@15:51:53 | | 250.00 | |
| 246078001 | 1 | 115 | -1.01 | 0.0370 | 2/8/2010@15:52:47 | | | |
| 1202034314\|\|DUP | 1 | 116 | -1.86 | 1.40e-4 | 2/8/2010@15:53:40 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.67 | 2/8/2010@15:54:33 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| DQM Test: > + Percent Relative Difference | | | | | | | | |
| | | Result: | 5.3 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| DQM Test: < - Percent Relative Difference | | | | | | | | |
| | | Result: | 5.3 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.93 | -0.00287 | 2/8/2010@15:56:23 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| DQM Test: > + Concentration Limit | | | | | | | | |
| | | Result: | -1.93 < 5.00 | | | | | |

Author: axc2

Date : 2/8/2010

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| | | DQM Test: < - Concentration Limit | | | | | | |
| | | Result: | -1.93 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| 246078002 | 1 | 117 | -0.783 | 0.0470 | 2/8/2010@15:58:12 | | | |
| 246078003 | 1 | 118 | -1.88 | -6.47e-4 | 2/8/2010@15:59:05 | | | |
| 246078004 | 1 | 119 | 17.8 | 0.856 | 2/8/2010@15:59:58 | | | |
| WCN100208-03 | 1 | S3 | 105 | 4.64 | 2/8/2010@16:00:51 | | | CCV |
| | | Known Conc: | 100 | | | | | |
| | | DQM Test: > + Percent Relative Difference | | | | | | |
| | | Result: | 4.6 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| | | DQM Test: < - Percent Relative Difference | | | | | | |
| | | Result: | 4.6 < 10.0 | | | | | |
| | | Message | CCV Passed | | | | | |
| | | Action | Continue | | | | | |
| WCN100208-08 | 1 | S7 | -1.52 | 0.0147 | 2/8/2010@16:02:41 | | | CCB |
| | | Known Conc: | 0.00 | | | | | |
| | | DQM Test: > + Concentration Limit | | | | | | |
| | | Result: | -1.52 < 5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |
| | | DQM Test: < - Concentration Limit | | | | | | |
| | | Result: | -1.52 > -5.00 | | | | | |
| | | Message | CCB Passed | | | | | |
| | | Action | Continue | | | | | |

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

| Property | Channel 1<br>TCYANIDE |
|---|---|
| Concentration Units | ug/L |
| Callibration Fit Type | First Order |
| Clear Calibration | True |
| Force Through Zero | False |
| Calibration Weighting | None |
| Auto Dilution Trigger | True |
| % of High Standard | 100 |
| Quik Chem Method | 10-204-00-1-A |
| Chemistry | Direct/Bipolar |
| Calibration by Height | False |
| Inject to Peak Start | 22 |
| Peak Base Width | 39 |

Author: axc2 Date : 2/8/2010

Channel 1: Current View

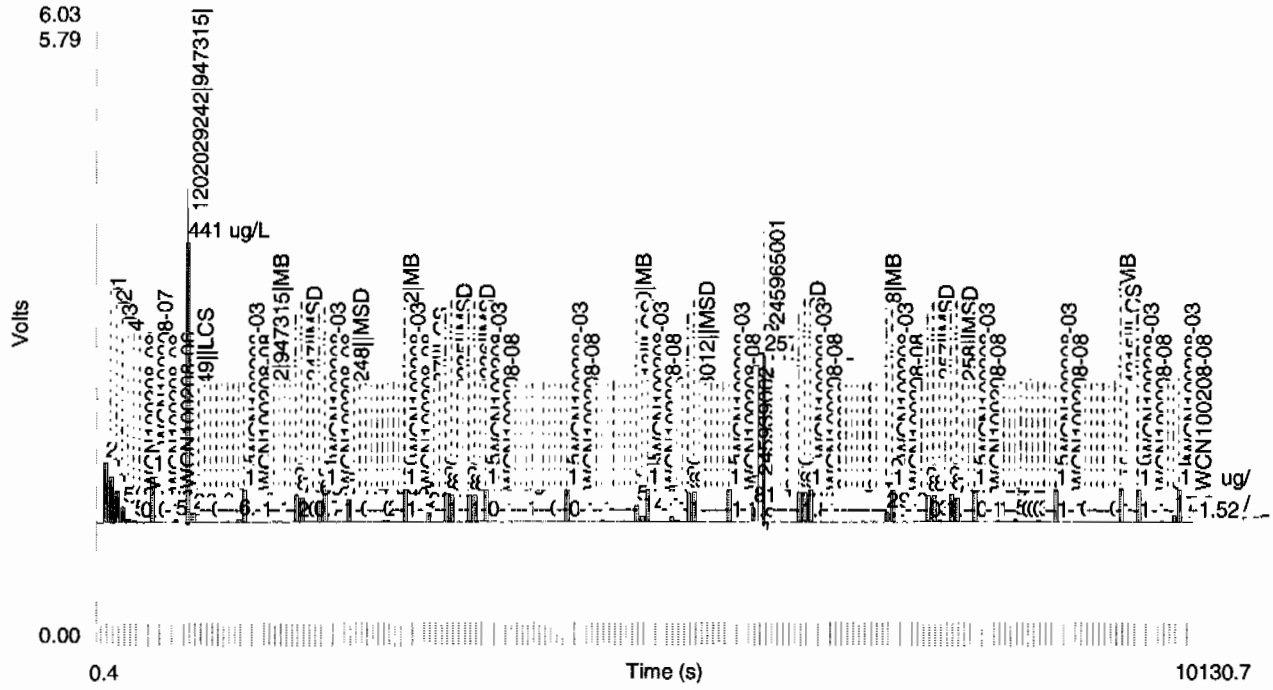


Table 1: TCYANIDE

| | Conc. (ug/L) | Rep | Peak Area (Volt-s) | Peak Height (Volts) | % Residual | Detection Date | Detection Time |
|---|---|---|---|---|---|---|---|
| 1 | 200 | 1 | 8.74 | 0.574 | 0.7 | 2/8/2010 | 13:16:28 |
| 2 | 150 | 1 | 6.63 | 0.438 | -0.3 | 2/8/2010 | 13:17:20 |
| 3 | 100 | 1 | 4.52 | 0.298 | -1.8 | 2/8/2010 | 13:18:12 |
| 4 | 50.0 | 1 | 2.28 | 0.149 | -0.9 | 2/8/2010 | 13:19:05 |
| 5 | 10.0 | 1 | 0.511 | 0.0326 | 1.3 | 2/8/2010 | 13:19:59 |
| 6 | 5.00 | 1 | 0.321 | 0.0198 | -7.0 | 2/8/2010 | 13:20:52 |
| 7 | 0.00 | 1 | 0.00906 | 0.00212 | | 2/8/2010 | 13:21:47 |
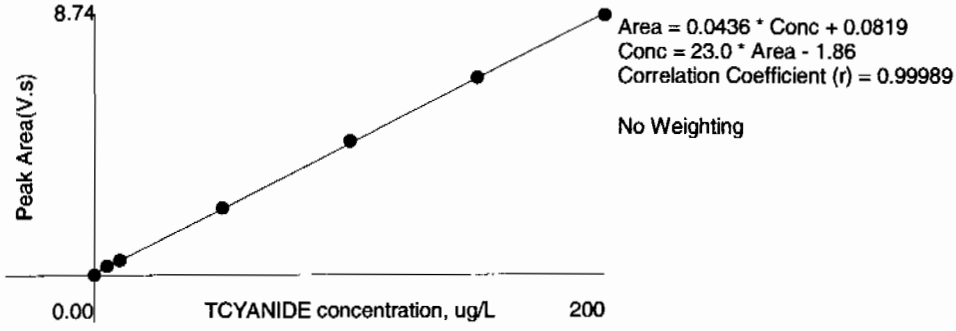
Figure 1: TCYANIDE